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COMPILATION OF PHOTOPRODUCTION DATA
ABOVE 1.2 GEV

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Abstract

A compilation is presented of 3477 existing data from 243 references on experimental photoproduction above 1.2 GeV.

CONTENTS

<u>Introduction</u>	2	$\gamma+d \rightarrow p+n+\rho^0$	107
<u>DATA Compilation</u>		$\gamma+n \rightarrow p+\rho^-$	109
$\sigma_{tot}(\gamma+p \rightarrow \text{Hadrons})$	5	$\gamma+d \rightarrow d+\rho^0$	110
$\sigma_{tot}(\gamma+n \rightarrow \text{Hadrons})$	6	$\gamma+d \rightarrow d+\omega$	
$\sigma_{tot}(\gamma+d \rightarrow \text{Hadrons})$	7	$\gamma+d \rightarrow d+\phi$	112
$\gamma+p \rightarrow \gamma+p$	8	<u>References</u>	
$\gamma+p \rightarrow n+\pi^+$	12	Index of references	
$\gamma+p \rightarrow p+\pi^0$	29	by reaction	113
$\gamma+p \rightarrow \Delta^0+\pi^+$	42	List of references	115
$\gamma+p \rightarrow \Delta^++\pi^0$		List of accelerators	123
$\gamma+p \rightarrow \Delta^{++}+\pi^-$	44	<u>Diagrams</u>	124
$\gamma+p \rightarrow p+\eta$	57		
$\gamma+p \rightarrow p+\chi^0$	64		
$\gamma+n \rightarrow n+\pi^0$	65		
$\gamma+n \rightarrow p+\pi^-$	66		
$\gamma+n \rightarrow \Delta^-+\pi^+$	74		
$\gamma+n \rightarrow \Delta^0+\pi^0$			
$\gamma+n \rightarrow \Delta^++\pi^-$	75		
$\gamma+d \rightarrow n+n+\pi^+$	70,72		
$\gamma+p \rightarrow \Sigma^++K^0$	76		
$\gamma+p \rightarrow \Sigma^0+K^-$	76		
$\gamma+p \rightarrow \Lambda^0+K^+$	80		
$\gamma+p \rightarrow n+\rho^+$			
$\gamma+p \rightarrow p+\rho^0$	87		
$\gamma+p \rightarrow p+\omega$	98		
$\gamma+p \rightarrow p+\phi$	103		
$\gamma+p \rightarrow \Delta^0+\rho^+$	106		
$\gamma+p \rightarrow \Delta^++\rho^0$	106		
$\gamma+p \rightarrow \Delta^{++}+\rho^-$	106		

For each reaction

σ_{tot}

$\frac{d\sigma}{dt}, \frac{d\sigma}{d\Omega}$ listed in order of k

$\frac{d\sigma}{dt}$ listed in order of t

$\frac{d\sigma}{du}$ for backward angles

Polarization measurements

Introduction

The increasing number of measurements in high-energy physics makes it desirable to have on hand compilations of the published experimental results. By the initiative of D.R.O. Morrison at CERN, the HERA group was formed for organizing and issuing data compilations of high-energy reactions.

This compilation includes those measurements on photoproduction which were available to us before September 1, 1970. For single pion photoproduction a lower limit was set at 1.2 GeV. This limit was chosen in order to have an overlap with other compilations, which go up to 1.5 GeV.

Section I lists the data points of cross section measurements, grouped according to reaction type. The code number of the reaction reappears in the list of references. Within each reaction type the cross sections are given in the following order:

- total cross section,
- differential cross section, listed in order of energy k ,
- differential cross sections in order of momentum transfer t ,
- differential cross sections for backward production,
- ratios of cross sections, and
- polarization measurements.

Differential cross sections are listed twice. In the first list the measurements are in order of increasing gamma energy. The forward cross sections are again listed by increasing momentum transfer ($-t$) in separate lists for measurements above and below 2 GeV. This division was made because above 2 GeV one is approaching the high energy limit, while below this limit the influence of the resonances is noticeable. For backward measurements the momentum transfer to the baryon ($-u$) is given in the third list. Cross sections below .1 μb are written in the floating point version; the Fortran conventions were generally adopted.

The laboratory and center-of-mass angles together with the center-of-mass differential cross section $d\sigma/d\Omega$ are given for estimates of counting rates. Where these quantities were given in the publications, they are marked; otherwise t and $d\sigma/dt$ are marked. When only diagrams were available, values were read off those diagrams. Comparison of

those values with numerical values later received showed that errors are not only due to reading uncertainties but also to errors in the diagrams. References from which the measurements were taken are numbered according to the publication list in section II.

Only the latest publication was taken in the case of measurements where it is clear that the latest publication includes the data given in earlier publications. Where a set of data seemed to be independent of earlier data sets, both data sets have been listed.

Values given in published conference proceedings are listed as preliminary, as full publications are to be expected.

Errors quoted are the errors given in the reference. These are mostly statistical errors. Systematic errors are not stated because of their different treatment by different authors. In vector meson photoproduction the fit to the mass distribution is a special problem. Where two fits are given in the reference, the average value is cited. This treatment increases the error bars of a data point, while the significance of this point increases.

For reactions which are not compiled, a literature survey is given. The references are given behind the cross section data.

Section II contains a list of references giving full titles of the publications, their authors, where they are published, as well as an index of the references by the reactions treated. The accelerator where the experiment was performed is stated; these accelerators are listed separately.

There is no system in the ordering of the references. The reason is that additional reactions were later added to the original compilation, and that new publications replaced old preprints or abstracts. Where the same measurements and results were published several times, reference is made to the latest publication only.

Section III consists of diagrams demonstrating the experimental situation. Where it seemed appropriate, the $(S-M^2)^2 = 4 k^2 \cdot M_p^2$ scaling, with M_p = proton mass and k = photon energy, was used. Measurements which differed violently from the rest of data points were excluded.

Because of insufficient data, more experiments are desirable for the following reactions:

all reactions with two or more π^0 , especially the reaction $\gamma + p \rightarrow p + 2\pi^0$, $\gamma + p \rightarrow K + \Lambda(\Sigma^0)$ at small t , $\gamma + p \rightarrow p + n$ at small u and medium energies, and in general $\gamma + p \rightarrow p + \chi^0$, $\gamma + p \rightarrow \Delta^0 + \pi^+$, $\gamma + p \rightarrow \Delta^+ + \pi^0$, $\gamma + n \rightarrow n + \pi^0$, $\gamma + n \rightarrow n + \eta$, $\gamma + n \rightarrow n + \chi^0$, $\gamma + n \rightarrow \Sigma^- + K^+$, $\gamma + n \rightarrow \Lambda^0(\Sigma^0) + K^0$ and large statistics for $\frac{d\sigma}{dt d\Omega}$ in the reaction $\gamma + p \rightarrow p + \pi^+ + \pi^-$ with angular distribution for the decay products and polarization measurements for all reactions.

Helpful discussions with Dr. Söding and Dr. Wolf, and the drafting work by Herr Knaut are gratefully acknowledged.

G110: GAMMA + PROTON - TOTAL HADRONIC CROSS SECTION

K GEV	E* GEV	E*-M GEV	STG MU BARN	REF
0.186	1.109	0.171	# 109.00	115
0.188	1.110	0.172	# 78.80+-41.00	133
0.205	1.125	0.186	# 118.90+-38.00	133
0.216	1.134	0.196	# 154.00	115
0.223	1.140	0.201	# 168.20+-34.00	133
0.242	1.155	0.217	# 202.40+-31.00	133
0.260	1.170	0.231	# 344.00	115
0.260	1.170	0.231	# 323.40+-32.00	133
0.279	1.185	0.247	# 387.10+-34.00	133
0.280	1.186	0.247	# 400.00	115
0.298	1.200	0.262	# 504.20+-37.00	133
0.300	1.201	0.263	# 496.00	115
0.318	1.215	0.277	# 532.60+-37.00	133
0.337	1.230	0.292	# 542.30+-37.00	133
0.357	1.245	0.307	# 480.80+-30.00	133
0.377	1.260	0.322	# 411.00+-31.00	133
0.397	1.275	0.337	# 311.90+-33.00	133
0.418	1.290	0.352	# 249.60+-31.00	133
0.438	1.305	0.366	# 210.90+-26.00	133
0.459	1.320	0.381	# 174.20+-27.00	133
0.481	1.335	0.397	# 158.80+-26.00	133
0.502	1.350	0.412	# 176.40+-25.00	133
0.524	1.365	0.427	# 167.10+-17.00	133
0.546	1.380	0.442	# 191.20+-17.00	133
0.568	1.395	0.457	# 218.50+-17.00	133
0.590	1.410	0.472	# 209.10+-18.00	133
0.613	1.425	0.487	# 233.50+-16.00	133
0.636	1.440	0.502	# 238.50+-16.00	133
{ 0.644 }				
0.554 - 0.768	1.386 -1.524	0.447 -0.585	# 211.00+-22.00	72
0.659	1.455	0.517	# 245.60+-18.00	133
0.682	1.470	0.531	# 251.40+-18.00	133
0.706	1.485	0.547	# 273.90+-19.00	133
0.730	1.500	0.562	# 289.10+-20.00	133
{ 0.750 }				
0.600 - 1.000	1.416 -1.660	0.478 -0.722	# 201.00+-20.00	209
0.754	1.515	0.577	# 286.60+-19.00	133
0.778	1.530	0.592	# 275.10+-18.00	133
0.803	1.545	0.607	# 258.70+-16.00	133
0.828	1.560	0.622	# 231.60+-17.00	133
0.850+- 0.150	1.573+-0.089	0.635+-0.089	# 210.58+-14.35	112
0.853	1.575	0.637	# 229.90+-17.00	133
0.878	1.590	0.652	# 226.60+-16.00	133
{ 0.898 }				
0.768 - 1.080	1.524 -1.705	0.585 -0.767	# 193.00+-19.00	72
0.904	1.605	0.667	# 199.80+-17.00	133
0.929	1.620	0.681	# 233.60+-18.00	133
0.956	1.635	0.697	# 211.70+-16.00	133
0.982	1.650	0.712	# 221.00+-15.00	133
1.008	1.665	0.727	# 232.40+-15.00	133
1.035	1.680	0.742	# 223.40+-16.00	133
1.062	1.695	0.757	# 241.60+-17.00	133
1.089	1.710	0.772	# 232.40+-18.00	133
1.117	1.725	0.787	# 223.80+-16.00	133
1.144	1.740	0.802	# 207.90+-15.00	133
1.150+- 0.150	1.743+-0.081	0.805+-0.081	# 182.10+- 7.80	112
1.172	1.755	0.817	# 159.30+-17.00	133
1.200	1.770	0.832	# 184.10+-18.00	133
1.229	1.785	0.847	# 175.30+-15.00	133
1.258	1.800	0.862	# 152.60+-15.00	133
{ 1.273 }				
1.080 - 1.550	1.705 -1.947	0.767 -1.008	# 150.00+-14.00	72
1.286	1.815	0.877	# 155.60+-16.00	133
1.316	1.830	0.892	# 180.60+-16.00	133
{ 1.333 }				
1.000 - 2.000	1.660 -2.153	0.722 -1.214	# 151.00+- 9.00	209
1.345	1.845	0.907	# 159.90+-16.00	133
1.375	1.860	0.922	# 164.30+-17.00	133
1.404	1.875	0.937	# 116.00+-17.00	133
1.435	1.890	0.952	# 196.80+-16.00	133
1.443+- 0.050	1.894+-0.025	0.956+-0.025	# 145.10+- 5.70	101
1.450+- 0.150	1.898+-0.074	0.959+-0.074	# 153.70+- 6.30	112
1.465	1.905	0.967	# 170.80+-14.00	133
1.495	1.920	0.982	# 158.10+-14.00	133
1.526	1.935	0.997	# 175.40+-16.00	133
1.557	1.950	1.012	# 165.00+-16.00	133
1.589	1.965	1.027	# 163.70+-15.00	133
1.620	1.980	1.042	# 164.00+-15.00	133
1.652	1.995	1.057	# 141.70+-14.00	133
1.684	2.010	1.072	# 142.30+-14.00	133
1.750+- 0.150	2.041+-0.069	1.102+-0.069	# 146.00+- 6.40	112
{ 1.849 }				
1.550 - 2.290	1.947 -2.275	1.008 -1.337	# 115.00+-12.00	72
2.050+- 0.150	2.174+-0.065	1.236+-0.065	# 148.50+- 6.70	112
2.253	2.260	1.322	# 146.30+- 8.00	133
2.350+- 0.150	2.300+-0.061	1.362+-0.061	# 144.20+- 8.00	112
{ 2.400 }				
2.000 - 3.000	2.153 -2.551	1.214 -1.613	# 134.00+- 8.00	209
2.650+- 0.150	2.419+-0.058	1.481+-0.058	# 142.00+- 9.50	112
{ 2.769 }				
2.290 - 3.500	2.275 -2.729	1.337 -1.791	# 111.00+-12.00	72
2.840+- 0.150	2.492+-0.056	1.554+-0.056	# 131.30+- 4.30	101
2.888	2.510	1.572	# 148.20+- 5.00	133
2.950+- 0.150	2.533+-0.056	1.595+-0.056	# 129.80+- 6.90	112
3.250+- 0.150	2.642+-0.053	1.704+-0.053	# 132.70+- 6.00	112
3.550+- 0.150	2.746+-0.051	1.808+-0.051	# 127.20+- 6.20	112
3.590	2.760	1.822	# 141.70+- 5.00	133
{ 3.750 }				
3.000 - 5.000	2.551 -3.204	1.613 -2.265	# 127.00+- 8.00	209

= NUMERICAL VALUE FROM TABLE \$ = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA
 K = GAMMA ENERGY E* = CENTER OF MASS ENERGY \$ = FOR DETAIL SEE REFERENCE

C110: GAMMA + PROTON - TOTAL HADRONIC CROSS SECTION

(CONTINUED)

K GEV	E* GEV	E*-M GEV	SIG MU BARN	REF
3.850+- 0.150	2.847+-0.049	1.909+-0.049	# 134.60+- 6.40	112
4.070+- 0.490	2.919+-0.158	1.980+-0.158	# 135.00+- 2.90	134
4.150+- 0.150	2.944+-0.048	2.006+-0.048	# 131.50+- 6.60	112
[4.241]				
3.500 - 5.380	2.729 -3.313	1.791 -2.375	# 116.00+-12.00	72
4.359	3.010	2.072	# 136.80+- 5.00	133
4.450+- 0.150	3.038+-0.046	2.100+-0.046	# 124.70+- 5.80	112
4.660+- 0.300	3.102+-0.091	2.164+-0.091	# 124.20+- 3.90	101
4.750+- 0.150	3.129+-0.045	2.191+-0.045	# 124.20+- 5.40	112
5.050+- 0.150	3.218+-0.044	2.280+-0.044	# 121.80+- 4.50	112
5.170+- 0.600	3.253+-0.173	2.315+-0.173	# 128.30+- 2.60	134
5.195	3.260	2.322	# 134.20+- 5.00	133
5.350+- 0.150	3.304+-0.043	2.366+-0.043	# 122.10+- 6.00	112
5.650+- 0.150	3.389+-0.042	2.450+-0.042	# 118.40+- 5.00	112
[5.652]				
5.000 - 6.500	3.204 -3.616	2.265 -2.678	# 125.00+-11.00	209
5.950+- 0.150	3.471+-0.041	2.532+-0.041	# 123.60+- 5.50	112
6.097	3.510	2.572	# 133.20+- 5.00	133
6.250+- 0.150	3.551+-0.040	2.613+-0.040	# 122.10+- 5.60	112
6.570+- 0.780	3.634+-0.201	2.696+-0.201	# 122.40+- 3.90	134
7.065	3.760	2.822	# 134.00+- 6.00	133
[7.467]				
7.000 - 8.000	3.744 -3.987	2.806 -3.048	# 126.00+-17.00	79
8.100	4.010	3.072	# 125.20+- 6.00	133
8.430+- 1.010	4.086+-0.232	3.148+-0.232	# 120.10+- 2.30	134
9.202	4.260	3.322	# 133.60+- 8.00	133
9.830+- 1.180	4.396+-0.252	3.458+-0.252	# 119.80+- 2.70	134
10.371	4.510	3.572	# 130.40+- 7.00	133
10.710+- 1.280	4.580+-0.262	3.642+-0.262	# 123.20+- 2.30	134
11.606	4.760	3.822	# 128.30+- 9.00	133
12.490+- 1.480	4.931+-0.282	3.993+-0.282	# 117.00+- 2.20	134
12.907	5.010	4.072	# 119.30+-12.00	133
13.610+- 1.620	5.140+-0.296	4.202+-0.296	# 113.60+- 2.40	134
14.276	5.260	4.322	# 112.10+-18.00	133
15.700	5.508	4.570	# 139.90+-25.00	133
16.130+- 1.980	5.581+-0.333	4.643+-0.333	# 112.70+- 2.20	134

C120: GAMMA + NEUTRON - TOTAL HADRONIC CROSS SECTION

K GEV	E* GEV	E*-M GEV	SIG MU BARN	REF
1.450+- 0.150	1.899+-0.074	0.960+-0.074	# 141.30+-11.90	112
1.750+- 0.150	2.042+-0.069	1.103+-0.069	# 141.30+-11.50	112
2.050+- 0.150	2.176+-0.065	1.236+-0.065	# 122.10+-10.80	112
2.350+- 0.150	2.302+-0.061	1.362+-0.061	# 125.50+-12.70	112
2.650+- 0.150	2.421+-0.058	1.482+-0.058	# 129.50+-13.60	112
2.950+- 0.150	2.535+-0.056	1.595+-0.056	# 140.50+-11.10	112
3.250+- 0.150	2.644+-0.053	1.704+-0.053	# 123.70+-10.40	112
3.550+- 0.150	2.748+-0.051	1.809+-0.051	# 120.20+-11.20	112
3.850+- 0.150	2.849+-0.049	1.910+-0.049	# 117.30+-11.90	112
4.070+- 0.490	2.921+-0.158	1.981+-0.158	# 115.70+- 6.00	134
4.150+- 0.150	2.946+-0.048	2.007+-0.048	# 117.90+-10.40	112
4.450+- 0.150	3.041+-0.046	2.101+-0.046	# 115.70+-10.10	112
4.750+- 0.150	3.132+-0.045	2.192+-0.045	# 117.70+- 9.80	112
5.050+- 0.150	3.221+-0.044	2.281+-0.044	# 130.70+- 8.90	112
5.170+- 0.600	3.255+-0.173	2.316+-0.173	# 114.80+- 5.40	134
5.350+- 0.150	3.307+-0.043	2.367+-0.043	# 116.30+-10.30	112
5.650+- 0.150	3.391+-0.042	2.452+-0.042	# 117.70+- 9.20	112
5.950+- 0.150	3.473+-0.041	2.534+-0.041	# 105.30+- 9.70	112
6.250+- 0.150	3.553+-0.040	2.614+-0.040	# 109.40+- 9.50	112
6.570+- 0.780	3.637+-0.201	2.698+-0.201	# 120.60+- 7.10	134
8.430+- 1.010	4.089+-0.232	3.150+-0.232	# 120.10+- 5.60	134
9.830+- 1.180	4.399+-0.252	3.460+-0.252	# 111.40+- 4.40	134
10.710+- 1.280	4.583+-0.262	3.644+-0.262	# 105.60+- 4.60	134
12.490+- 1.480	4.935+-0.282	3.995+-0.282	# 110.40+- 4.50	134
13.610+- 1.620	5.144+-0.296	4.204+-0.296	# 108.60+- 3.60	134
16.130+- 1.980	5.585+-0.333	4.645+-0.333	# 106.10+- 4.40	134

= NUMERICAL VALUE FROM TABLE @ = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA
 K = GAMMA ENERGY E* = CENTER OF MASS ENERGY \$ = FOR DETAIL SEE REFERENCE

C130: GAMMA + DEUTERON - TOTAL HADRONIC CROSS SECTION

K GEV	E* GEV	E* FOR SINGLE NUCLEON (GEV)	STG MU BARN	REF
1.450+- 0.150	2.992+-0.094	1.899+-0.074	# 294.30+-10.00	112
1.750+- 0.150	3.175+-0.089	2.041+-0.069	# 285.70+- 9.50	112
2.050+- 0.150	3.347+-0.084	2.175+-0.065	# 268.10+- 8.50	112
2.350+- 0.150	3.511+-0.080	2.301+-0.061	# 266.70+- 9.90	112
2.650+- 0.150	3.668+-0.077	2.420+-0.058	# 266.20+- 9.70	112
2.950+- 0.150	3.818+-0.074	2.534+-0.056	# 266.80+- 8.70	112
3.250+- 0.150	3.963+-0.071	2.643+-0.053	# 252.90+- 8.50	112
3.550+- 0.150	4.102+-0.069	2.747+-0.051	# 243.90+- 9.30	112
3.850+- 0.150	4.237+-0.066	2.848+-0.049	# 248.20+-10.00	112
4.070+- 0.490	4.333+-0.212	2.920+-0.158	# 246.20+- 5.10	134
4.150+- 0.150	4.368+-0.064	2.945+-0.048	# 245.70+- 8.00	112
4.450+- 0.150	4.495+-0.063	3.039+-0.046	# 236.70+- 8.30	112
4.750+- 0.150	4.618+-0.061	3.131+-0.045	# 238.10+- 8.20	112
5.050+- 0.150	4.739+-0.059	3.219+-0.044	# 248.40+- 7.70	112
5.170+- 0.600	4.786+-0.235	3.254+-0.173	# 238.70+- 4.70	134
5.350+- 0.150	4.856+-0.058	3.306+-0.043	# 234.50+- 8.30	112
5.650+- 0.150	4.970+-0.057	3.390+-0.042	# 232.10+- 7.70	112
5.950+- 0.150	5.082+-0.055	3.472+-0.041	# 225.10+- 8.00	112
6.250+- 0.150	5.192+-0.054	3.552+-0.040	# 227.60+- 7.60	112
6.570+- 0.780	5.306+-0.276	3.636+-0.201	# 238.70+- 5.90	134
8.430+- 1.010	5.927+-0.320	4.088+-0.232	# 236.00+- 5.00	134
9.380+- 1.180	6.220+-0.356	4.301+-0.258	# 227.00+- 3.70	134
10.710+- 1.280	6.609+-0.363	4.582+-0.262	# 224.60+- 3.90	134
12.490+- 1.480	7.096+-0.391	4.933+-0.282	# 223.30+- 3.80	134
13.610+- 1.620	7.386+-0.411	5.142+-0.296	# 218.10+- 2.60	134
16.130+- 1.980	8.000+-0.464	5.583+-0.333	# 214.80+- 3.80	134

CO11: PROTON COMPTON EFFECT (K > 5.50 GEV)

M2: 0.9383 GEV
M3: 0.9383 GEV
M4: 0.0 GEV

CONSTANTS AND TOTAL CROSS SECTION
D SIGMA/D T = A*EXP(B*T) A=(D SIGMA/D T)T=0
IF A VALUE FOR 'C' IS GIVEN D SIGMA/D T = A*EXP(B*T+C*T**2)

K GEV	E* GEV	S GEV**2	A MU BARN/GEV**2		B 1/GEV**2		C 1/GEV**4		SIG TOT MU BARN	REF
5.50	3.35	11.20	#	0.88+- 0.15	#	6.90+- 1.30	#	1.30+- 1.90	-----	276
5.00 - 7.00	3.20 - 3.74	10.26 - 14.02	#	0.93+- 0.08	#	8.40+- 0.70	#	3.80+- 1.10	-----	227
8.50	4.10	16.83	#	0.60+- 0.10	#	6.20+- 0.80	#	0.70+- 0.90	-----	226
11.50	4.74	22.46	#	0.63+- 0.06	#	6.50+- 0.60	#	0.80+- 0.70	-----	226
17.00	5.73	32.78	#	0.55+- 0.05	#	6.60+- 0.40	#	1.10+- 0.40	-----	226

CO11: PROTON COMPTON EFFECT (K > 0.13 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 0.9383 GEV
M4: 0.0 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB		D SIG/D T MU BARN/GEV**2		D SIG/D OMEGA (CM) MU BARN/STERAD		REF
0.13 - 0.14	1.06	0.0454- 0.0546	#135.80- 144.00	#130.34- 139.4	5.08	+-.512	# .228E-01+- .230E-02	166	
0.16 - 0.17	1.09	0.0655- 0.0766	#135.70- 143.70	#129.17- 138.1	3.38	+-.360	# .216E-01+- .230E-02	166	
0.18 - 0.19	1.11	0.0803- 0.0927	#135.60- 143.60	#128.37- 137.4	3.82	+-.295	# .298E-01+- .230E-02	166	
0.18 - 0.21	1.12	0.0436- 0.0695	# 86.10- 98.10	# 75.65- 87.53	2.28	+-.273	# .192E-01+- .230E-02	166	
0.19 - 0.21	1.12	0.0812- 0.1029	#125.50- 133.50	#116.43- 125.3	4.10	+-.1.06	# .364E-01+- .940E-02	166	
		0.0880- 0.1099	#135.50- 143.50	#127.58- 136.7	5.97	+-.800	# .530E-01+- .710E-02	166	
0.21+- 0.01	1.13	0.0628 +- 0.0015	# 91.90 +- 1.40	81.36 +-1.384	1.92	+-.207	# .186E-01+- .260E-02	169	
		0.1120 +- 0.0007	#147.40 +- 1.30	141.2 +-1.511	6.80	+-.424	# .658E-01+- .410E-02	169	
		0.1010 +- 0.0013	#131.40 +- 1.60	123.0 +-1.789	4.39	+-.362	# .425E-01+- .350E-02	169	
0.20 - 0.23	1.13	0.0541- 0.0784	# 88.00- 96.00	# 76.69- 84.59	3.39	+-.712	# .338E-01+- .710E-02	166	
0.19 - 0.24	1.13	0.1108	#142.00	134.9	4.46	+-.811	# .440E-01+- .800E-02	172	
0.22+- 0.01	1.14	0.0420 +- 0.0014	# 68.80 +- 1.30	58.95 +-1.194	3.13	+-.325	# .328E-01+- .340E-02	169	
		0.0852 +- 0.0014	#107.20 +- 1.30	96.45 +-1.352	2.38	+-.248	# .249E-01+- .260E-02	169	
0.22 - 0.23	1.14	0.1129- 0.1279	#135.50- 143.30	#126.92- 135.9	7.05	+-.884	# .767E-01+- .940E-02	166	
0.21 - 0.25	1.14	0.0353- 0.0576	# 65.10- 72.90	# 54.55- 61.64	4.81	+-.360	# .534E-01+- .400E-02	166	
0.24+- 0.01	1.15	0.0329 +- 0.0015	# 55.40 +- 1.40	46.27 +-1.229	3.50	+-.471	# .424E-01+- .570E-02	167	
		0.0494 +- 0.0016	# 69.50 +- 1.30	58.89 +-1.188	5.02	+-.629	# .608E-01+- .760E-02	167	
0.23 - 0.25	1.15	0.0681- 0.0898	# 87.70- 95.80	# 75.62- 83.59	5.63	+-.588	# .680E-01+- .710E-02	166	
		0.0657- 0.0926	# 85.70- 97.80	# 73.68- 85.59	6.83	+-.778	# .825E-01+- .940E-02	166	
		0.1117- 0.1373	#125.00- 133.10	#114.40- 123.5	10.2	+-.977	# .124 +- .118E-01	166	
0.25+- 0.01	1.16	0.0536 +- 0.0016	# 70.00 +- 1.20	59.00 +-1.094	5.50	+-.656	# .713E-01+- .850E-02	169	
		0.0857 +- 0.0017	# 93.00 +- 1.20	80.82 +-1.186	5.14	+-.424	# .666E-01+- .550E-02	169	
		0.0851 +- 0.0016	# 92.60 +- 1.10	80.43 +-1.086	4.67	+-.540	# .605E-01+- .700E-02	167	
		0.1071 +- 0.0015	#108.40 +- 1.10	96.49 +-1.152	7.38	+-.787	# .956E-01+- .102E-01	167	
		0.1071 +- 0.0016	#108.40 +- 1.20	96.49 +-1.256	6.59	+-.502	# .854E-01+- .650E-02	169	
		0.1357 +- 0.0013	#131.80 +- 1.20	122.0 +-1.364	7.05	+-.602	# .913E-01+- .780E-02	167	
		0.1358 +- 0.0016	#131.90 +- 1.50	122.2 +-1.706	7.40	+-.486	# .959E-01+- .630E-02	169	
		0.1501 +- 0.0008	#147.50 +- 1.10	140.3 +-1.307	9.87	+-.826	# .128 +- .107E-01	167	
		0.1502 +- 0.0010	#147.70 +- 1.30	140.6 +-1.546	10.0	+-.540	# .130 +- .700E-02	169	
0.25 - 0.27	1.17	0.0781- 0.1016	# 87.60- 95.60	# 74.76- 82.61	9.70	+-.1.02	# .134 +- .141E-01	166	
0.26 - 0.27	1.17	0.0833- 0.1016	# 87.60- 95.60	# 74.76- 82.61	12.1	+-.2.96	# .173 +- .423E-01	166	

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UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

COLL: PROTON COMPTON EFFECT 1K > 0.13 GEV

(CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.0 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
0.24 - 0.29	1.17	0.1542	#138.00	128.8	10.8	+1.14	#.152 +-1.60E-01 172
0.27 - 0.28	1.18	0.0885-	# 87.50-	# 74.29-			
		0.1076	95.50	82.13	8.65	+1.09	#.131 +-1.65E-01 166
0.27 - 0.29	1.19	0.0883-	# 87.40-	# 73.83-			
		0.1137	95.40	81.65	11.6	+3.02	#.180 +-4.70E-01 166
		0.1014	# 92.00	78.68	9.94	+1.99	#.155 +-3.10E-01 172
0.28 - 0.30	1.19	0.1037	# 90.00	76.36	9.57	+1.66	#.158 +-1.10E-01 170
0.31+- 0.01	1.21	0.1162	# 90.30	75.93			
		+0.0089	+4.40	+4.267	6.74	+1.63	#.124 +-3.00E-01 171
0.30 - 0.32	1.21	0.1733	#120.00	106.7	11.2	+1.14	#.206 +-2.10E-01 170
0.30 - 0.33	1.21	0.0877	# 75.00	61.40	9.56	+1.850	#.180 +-1.60E-01 170
0.29 - 0.34	1.21	0.1175	# 90.00	75.51	7.75	+1.855	#.145 +-1.60E-01 172
		0.2021	#136.00	124.9	11.4	+1.962	#.213 +-1.80E-01 172
0.30 - 0.33	1.21	0.1183	# 90.00	75.47	7.60	+1.478	#.143 +-1.90E-02 170
0.30 - 0.35	1.22	0.0916	# 75.00	61.12	9.91	+1.32	#.195 +-2.60E-01 170
0.35+- 0.02	1.24	0.1399	# 90.00	74.28			
		+0.0112	+4.60	+4.425	6.83	+1.984	#.152 +-2.20E-01 171
0.35 - 0.38	1.25	0.1495	# 90.00	73.76	5.59	+1.547	#.133 +-1.30E-01 170
0.40 - 0.43	1.29	0.1824	# 90.00	72.16	4.13	+1.586	#.120 +-1.70E-01 170
0.42+- 0.01	1.29	0.1841	# 89.40	71.43			
		+0.0149	+4.60	+4.360	3.75	+1.844	#.111 +-2.50E-01 171
0.44+- 0.01	1.31	0.1969	# 89.20	70.64			
		+0.0160	+4.60	+4.340	3.02	+1.01	#.960E-01+-3.20E-01 171
0.46+- 0.01	1.32	0.2095	# 88.90	69.77			
		+0.0175	+4.70	+4.410	1.50	+1.559	#.510E-01+-1.90E-01 171
0.48	1.33	0.1921	@ 81.00	61.57	2.79	+1.221	@.101 +-8.00E-02 15
0.51+- 0.02	1.36	0.2419	@ 88.40	67.92			
		+0.0204	+4.70	+4.356	1.57	+1.505	#.620E-01+-2.00E-01 171
0.52	1.36	0.2208	@ 82.00	61.81	1.98	+1.171	@.810E-01+-7.00E-02 15
0.54+- 0.01	1.38	0.2620	# 88.10	66.82			
		+0.0227	+4.80	+4.415	2.02	+1.719	#.870E-01+-3.10E-01 171
0.54	1.38	0.2711	@ 90.00	68.57	1.48	+1.157	@.638E-01+-6.79E-02 173
0.57	1.40	0.2576	@ 83.00	61.46	1.63	+1.150	@.760E-01+-7.00E-02 15
		0.2934	@ 90.00	67.80	1.50	+1.145	@.700E-01+-6.79E-02 173
0.60	1.42	0.3159	@ 90.00	67.04	1.63	+1.135	@.817E-01+-6.79E-02 173
0.61	1.42	0.2897	@ 84.00	61.39	1.59	+1.136	@.820E-01+-7.00E-02 15
0.62+- 0.02	1.43	0.3152	# 87.30	64.12			
		+0.0277	+4.80	+4.322	1.41	+1.462	#.740E-01+-2.43E-01 171
0.63	1.44	0.3388	@ 90.00	66.31	1.73	+1.130	@.934E-01+-7.00E-02 173
0.66	1.46	0.3304	@ 85.00	61.14	1.37	+1.139	@.790E-01+-8.00E-02 15
		0.3304	@ 85.00	61.14	1.58	+1.191	@.910E-01+-1.10E-01 15
		0.3620	@ 90.00	65.61	1.57	+1.160	@.905E-01+-9.19E-02 173
0.69+- 0.03	1.47	0.3612	# 86.50	61.84			
		+0.0322	+4.80	+4.238	.980	+1.261	#.600E-01+-1.60E-01 171
0.69	1.47	0.3854	@ 90.00	64.93	1.80	+1.150	@.110 +-9.19E-02 173
0.70	1.48	0.3658	@ 86.00	61.14	1.41	+1.160	@.880E-01+-1.00E-01 15
0.72	1.49	0.3805	@ 86.00	60.72	1.29	+1.138	@.840E-01+-9.00E-02 15
		0.4090	@ 90.00	64.27	1.55	+1.141	@.101 +-9.19E-02 173
0.73 - 0.78	1.52	0.2181	# 60.00	39.35	.432	+1.432	#.300E-01+-3.00E-01 170
0.74	1.51	0.3953	@ 86.00	60.30	1.26	+1.192	@.850E-01+-1.30E-01 15
0.75	1.51	0.4329	@ 90.00	63.62	1.42	+1.133	@.978E-01+-9.19E-02 173
0.77	1.52	0.4254	@ 87.00	60.56	1.22	+1.140	@.870E-01+-1.00E-01 15
0.78	1.53	0.4331	@ 87.00	60.36	1.18	+1.137	@.860E-01+-1.00E-01 15
		0.4570	@ 90.00	63.00	1.24	+1.126	@.905E-01+-9.19E-02 173
0.81	1.55	0.4813	@ 90.00	62.40	1.24	+1.131	@.950E-01+-1.00E-01 173
0.82	1.56	0.4723	@ 88.00	60.45	.937	+1.116	@.730E-01+-9.00E-02 15
0.83	1.56	0.4802	@ 88.00	60.25	.947	+1.101	@.750E-01+-8.00E-02 15
0.84	1.57	0.5057	@ 90.00	61.81	.748	+1.970E-01	@.602E-01+-7.81E-02 173
0.86	1.58	0.5130	@ 89.00	60.55	.770	+1.108	@.640E-01+-9.00E-02 15
0.89	1.60	0.5468	@ 90.00	60.87	.793	+1.103	@.690E-01+-9.00E-02 15
0.90	1.60	0.5551	@ 90.00	60.69	.713	+1.102	@.630E-01+-9.00E-02 15
0.94	1.63	0.5986	@ 91.00	60.84	.577	+1.854E-01	@.540E-01+-8.00E-02 15
0.95	1.63	0.6071	@ 91.00	60.66	.632	+1.948E-01	@.600E-01+-9.00E-02 15
0.98	1.65	0.6435	@ 92.00	61.01	.606	+1.909E-01	@.600E-01+-9.00E-02 15
1.02	1.67	0.6898	@ 93.00	61.21	.518	+1.105	@.540E-01+-1.10E-01 15
1.06	1.69	0.7375	@ 94.00	61.42	.592	+1.911E-01	@.650E-01+-1.00E-01 15
1.10	1.72	0.7740	@ 94.00	60.77	.443	+1.782E-01	@.510E-01+-9.00E-02 15
1.14	1.74	0.8238	@ 95.00	61.02	.232	+1.448E-01	@.280E-01+-5.40E-02 15
1.18	1.76	0.8750	@ 96.00	61.28	.127	+1.555E-01	@.160E-01+-7.00E-02 15
1.22	1.78	0.9275	@ 97.00	61.56	.137	+1.608E-01	@.180E-01+-8.00E-02 15
1.26	1.80	0.9813	@ 98.00	61.86	.160	+1.656E-01	@.220E-01+-9.00E-02 15
1.35	1.85	1.1032	@100.00	62.36	.261	+1.120	@.390E-01+-1.80E-01 15
1.41	1.88	1.1821	@101.00	62.44	.266	+1.152	@.420E-01+-2.40E-01 15
5.50	3.35	# 0.1000	11.77	3.311	#.424	+1.440E-01	.321 +-3.33E-01 226
		# 0.1500	14.43	4.065	#.355	+1.300E-01	.269 +-2.27E-01 226
		# 0.2000	16.68	4.706	#.225	+1.170E-01	.170 +-1.29E-01 226
		# 0.3000	20.46	5.793	#.141	+1.150E-01	.107 +-1.14E-01 226
		# 0.4000	23.67	6.724	#.648E-01+-5.60E-02		.490E-01+-4.24E-02 226
		# 0.5000	26.51	7.557	#.410E-01+-3.30E-02		.310E-01+-2.50E-02 226
		# 0.6000	29.10	8.322	#.230E-01+-4.10E-02		.174E-01+-3.10E-02 226
5.00 - 7.00	3.44	# 0.0800	10.20	2.789			
		+0.0200	+1.28	+1.3512	#.446	+1.300E-01	.360 +-2.42E-01 227
		# 0.1250	12.75	3.493			
		+0.0250	+1.28	+1.3535	#.399	+1.230E-01	.322 +-1.85E-01 227
		# 0.1750	15.10	4.143			
		+0.0250	+1.09	+1.3009	#.244	+1.120E-01	.197 +-9.67E-02 227
		# 0.2250	17.14	4.709			
		+0.0250	+0.96	+1.2673	#.173	+1.800E-02	.139 +-6.45E-02 227

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 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

COLL: PROTON COMPTON EFFECT (K > 0.13 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 0.9383 GEV
M4: 0.0 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF			
5.00 - 7.00	3.44	# 0.2750	18.97	5.219						
		+ 0.0250	+ 0.87	+ .2435	# .120	+ .600E-02	.967E-01+ .484E-02	227		
		# 0.3250	20.64	5.687						
		+ 0.0250	+ 0.80	+ .2256	# .930E-01+ .500E-02	.750E-01+ .403E-02	227			
		# 0.3750	22.18	6.123						
		+ 0.0250	+ 0.75	+ .2116	# .690E-01+ .500E-02	.556E-01+ .403E-02	227			
		# 0.4250	23.64	6.535						
		+ 0.0250	+ 0.71	+ .2002	# .550E-01+ .400E-02	.443E-01+ .322E-02	227			
		# 0.4750	25.01	6.925						
		+ 0.0250	+ 0.67	+ .1907	# .420E-01+ .400E-02	.339E-01+ .322E-02	227			
		# 0.5250	26.32	7.295						
		+ 0.0250	+ 0.64	+ .1828	# .330E-01+ .400E-02	.266E-01+ .322E-02	227			
		# 0.5750	27.56	7.657						
		+ 0.0250	+ 0.61	+ .1760	# .270E-01+ .400E-02	.218E-01+ .322E-02	227			
		8.50	4.10	# 0.1000	9.33	2.138	# .309	+ .390E-01	.372 + .469E-01	226
				# 0.2000	13.21	3.034	# .179	+ .150E-01	.215 + .180E-01	226
# 0.3000	16.20			3.728	# .114	+ .110E-01	.137 + .132E-01	226		
# 0.4000	18.72			4.319	# .538E-01+ .460E-02	.647E-01+ .553E-02	226			
# 0.5000	20.96			4.844	# .343E-01+ .270E-02	.413E-01+ .325E-02	226			
# 0.6000	22.98			5.324	# .191E-01+ .180E-02	.230E-01+ .217E-02	226			
# 0.7000	24.85			5.770	# .105E-01+ .110E-02	.126E-01+ .132E-02	226			
# 0.8000	26.60			6.189	# .853E-02+ .150E-02	.103E-01+ .180E-02	226			
# 0.9000	28.17			6.572	# .441	+ .630E-01	.728 + .104	226		
# 0.1000	7.96			1.579	# .334	+ .280E-01	.551 + .462E-01	226		
# 0.2000	11.27			2.239	# .171	+ .110E-01	.282 + .181E-01	226		
# 0.3000	13.82			2.748	# .952E-01+ .900E-02	.157 + .148E-01	226			
# 0.4000	15.97			3.181	# .499E-01+ .410E-02	.823E-01+ .676E-02	226			
# 0.5000	17.87			3.565	# .312E-01+ .260E-02	.515E-01+ .429E-02	226			
# 0.6000	19.59			3.915	# .165E-01+ .150E-02	.272E-01+ .247E-02	226			
11.50	4.74			# 0.7000	21.18	4.239	# .900E-02+ .980E-03	.148E-01+ .162E-02	226	
		# 0.8000	22.66	4.542	# .550E-02+ .700E-03	.907E-02+ .115E-02	226			
		# 0.1000	6.51	1.067	# .302	+ .230E-01	.746 + .568E-01	226		
		# 0.2000	9.21	1.512	# .143	+ .880E-02	.353 + .217E-01	226		
		# 0.3000	11.28	1.855	# .850E-01+ .700E-02	.210 + .173E-01	226			
		# 0.4000	13.04	2.145	# .480E-01+ .460E-02	.119 + .114E-01	226			
		# 0.5000	14.58	2.402	# .266E-01+ .240E-02	.657E-01+ .593E-02	226			
		# 0.6000	15.98	2.636	# .153E-01+ .130E-02	.378E-01+ .321E-02	226			
		# 0.7000	17.27	2.852	# .760E-02+ .160E-02	.188E-01+ .395E-02	226			
		# 0.8000	18.48	3.053	# .570E-02+ .630E-03	.141E-01+ .156E-02	226			
		# 0.9000	19.61	3.244	# .326E-02+ .370E-03	.805E-02+ .914E-03	226			
		# 1.0000	20.68	3.425	# .138E-02+ .220E-03	.341E-02+ .543E-03	226			
		17.00	5.73							

COLL: PROTON COMPTON EFFECT (K > 0.13 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 0.9383 GEV
M4: 0.0 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 17.00

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	REF
# 0.0600	11.50	4.74	22.46	# 0.441	+ .630E-01 226
# 0.0800+ 0.0200	5.00 - 7.00	3.20 - 3.74	10.26 - 14.02	# 0.446	+ .300E-01 227
# 0.1000	5.50	3.35	11.20	# 0.424	+ .440E-01 226
# 0.1000	8.50	4.10	16.83	# 0.309	+ .390E-01 226
# 0.1000	11.50	4.74	22.46	# 0.334	+ .280E-01 226
# 0.1000	17.00	5.73	32.78	# 0.302	+ .230E-01 226
# 0.1250+ 0.0250	5.00 - 7.00	3.20 - 3.74	10.26 - 14.02	# 0.399	+ .230E-01 227
# 0.1500	5.50	3.35	11.20	# 0.355	+ .300E-01 226
# 0.1750+ 0.0250	5.00 - 7.00	3.20 - 3.74	10.26 - 14.02	# 0.244	+ .120E-01 227
# 0.2000	5.50	3.35	11.20	# 0.225	+ .170E-01 226
# 0.2000	8.50	4.10	16.83	# 0.179	+ .150E-01 226
# 0.2000	11.50	4.74	22.46	# 0.171	+ .110E-01 226
# 0.2000	17.00	5.73	32.78	# 0.143	+ .880E-02 226
# 0.2250+ 0.0250	5.00 - 7.00	3.20 - 3.74	10.26 - 14.02	# 0.173	+ .800E-02 227
# 0.2750+ 0.0250	5.00 - 7.00	3.20 - 3.74	10.26 - 14.02	# 0.120	+ .600E-02 227
# 0.3000	5.50	3.35	11.20	# 0.141	+ .150E-01 226
# 0.3000	8.50	4.10	16.83	# 0.114	+ .110E-01 226
# 0.3000	11.50	4.74	22.46	# 0.952E-01+ .900E-02	.226
# 0.3000	17.00	5.73	32.78	# 0.850E-01+ .700E-02	.226
# 0.3250+ 0.0250	5.00 - 7.00	3.20 - 3.74	10.26 - 14.02	# 0.930E-01+ .500E-02	.227
# 0.3750+ 0.0250	5.00 - 7.00	3.20 - 3.74	10.26 - 14.02	# 0.690E-01+ .500E-02	.227
# 0.4000	5.50	3.35	11.20	# 0.648E-01+ .560E-02	.226
# 0.4000	8.50	4.10	16.83	# 0.538E-01+ .460E-02	.226
# 0.4000	11.50	4.74	22.46	# 0.499E-01+ .410E-02	.226

= NUMERICAL VALUE FROM TABLE & = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA
UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

CO11: PROTON COMPTON EFFECT {K > 0.13 GEV} (CONTINUED)

#2: 0.9383 GEV
#3: 0.9383 GEV
#4: 0.0 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 17.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	REF
#	0.4000	17.00	5.73	32.78	#0.480E-01+-460E-02	226
#	0.4250+- 0.0250	5.00 - 7.00	3.20 - 3.74	10.26 -14.02	#0.550E-01+-400E-02	227
#	0.4750+- 0.0250	5.00 - 7.00	3.20 - 3.74	10.26 -14.02	#0.420E-01+-400E-02	227
#	0.5000	5.50	3.35	11.20	#0.410E-01+-330E-02	226
#	0.5000	8.50	4.10	16.83	#0.343E-01+-270E-02	226
#	0.5000	11.50	4.74	22.46	#0.312E-01+-260E-02	226
#	0.5000	17.00	5.73	32.78	#0.266E-01+-240E-02	226
#	0.5250+- 0.0250	5.00 - 7.00	3.20 - 3.74	10.26 -14.02	#0.330E-01+-400E-02	227
#	0.5750+- 0.0250	5.00 - 7.00	3.20 - 3.74	10.26 -14.02	#0.270E-01+-400E-02	227
#	0.6000	5.50	3.35	11.20	#0.230E-01+-410E-02	226
#	0.6000	8.50	4.10	16.83	#0.191E-01+-180E-02	226
#	0.6000	11.50	4.74	22.46	#0.165E-01+-150E-02	226
#	0.6000	17.00	5.73	32.78	#0.153E-01+-130E-02	226
#	0.7000	8.50	4.10	16.83	#0.105E-01+-110E-02	226
#	0.7000	11.50	4.74	22.46	#0.900E-02+-980E-03	226
#	0.7000	17.00	5.73	32.78	#0.760E-02+-160E-02	226
#	0.8000	8.50	4.10	16.83	#0.853E-02+-150E-02	226
#	0.8000	11.50	4.74	22.46	#0.550E-02+-700E-03	226
#	0.8000	17.00	5.73	32.78	#0.570E-02+-630E-03	226
#	0.9000	17.00	5.73	32.78	#0.326E-02+-370E-03	226
#	1.0000	17.00	5.73	32.78	#0.138E-02+-220E-03	226

0.75 GEV < K < GEV 2.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	REF
	0.2181	0.73 - 0.78	1.50 - 1.53	2.25 - 2.34	0.432 +-0.432	170

CO11: PROTON COMPTON EFFECT {K > 0.13 GEV} (CONTINUED)

#2: 0.9383 GEV
#3: 0.9383 GEV
#4: 0.0 GEV

RATIO OF CROSS SECTIONS FOR TRANSVERSE AND PARALLEL (TO THE PRODUCTION PLANE) POLARIZED GAMMAS

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	A=SIG TRANSVERSE {A-B}/{A+B}	B=SIG PARALLEL B/{A+B}	REF
0.30 - 0.34	1.22	0.1210	# 90.00 75.31	4-.354 +-0.930E-01	0.323 +-0.465E-01	174

CO11: PROTON COMPTON EFFECT {K > 0.13 GEV} (CONTINUED)

#2: 0.9383 GEV
#3: 0.9383 GEV
#4: 0.0 GEV

P = BARYON POLARIZATION ALONG K(GAMMA) X P(MESON)

K GEV	E* GEV	THETA MESON CM LAB	THETA BARYON CM LAB	P	REF
0.700	1.481	P2 88.0+- 3.0 62.9+- 5.3	92.0+- 3.0 43.1+- 3.0	P2-0.34+-0.26	147
0.800	1.543	P2 89.0+- 3.0 61.7+- 5.3	91.0+- 3.0 42.1+- 3.0	P2-0.23+-0.26	147

= NUMERICAL VALUE FROM TABLE a = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA
UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C111: GAMMA + PROTON -> NEUTRON + PI+ (K > 1.20 GEV)

#2: 0.9383 GEV
 #3: 0.9395 GEV
 #4: 0.1396 GEV

TOTAL CROSS SECTION : NO DATA TO BE LISTED

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF						
1.20	1.77	0.0046	# 6.13	3.224	39.5	+2.05	201.	+10.4	# 5.01	+260	176		
		0.0080	# 8.10	4.262	32.8	+1.50	166.	+7.60	# 4.15	+190	176		
		0.0129	# 10.31	5.428	32.8	+1.26	167.	+6.40	# 4.16	+160	176		
		0.0182	# 12.26	6.460	32.3	+1.97	164.	+10.0	# 4.09	+250	176		
		0.0245	# 14.22	7.500	32.4	+1.89	164.	+9.61	# 4.10	+240	176		
		0.0272	# 15.00	7.914	28.7	+1.868	146.	+4.40	# 3.64	+110	24		
		0.0317	# 16.21	8.559	30.9	+1.34	157.	+6.80	# 3.92	+170	176		
		0.0481	# 20.00	10.59	31.8	+1.03	161.	+5.20	# 4.03	+130	24		
		0.0490	# 20.18	10.68	32.6	+1.89	165.	+9.61	# 4.13	+240	176		
		0.0747	# 25.00	13.29	34.5	+1.868	175.	+4.40	# 4.37	+110	24		
		0.0756	# 25.15	13.37	35.7	+2.13	181.	+10.8	# 4.52	+270	176		
		0.1067	# 30.06	16.02	34.4	+1.11	175.	+5.60	# 4.36	+140	24		
		0.1076	# 30.12	16.09	41.1	+3.00	209.	+15.2	# 5.21	+380	176		
		0.1440	# 35.00	18.80	34.8	+1.868	177.	+4.40	# 4.41	+110	24		
		0.1449	# 35.11	18.87	37.7	+2.92	191.	+14.8	# 4.77	+370	176		
		0.1863	# 40.00	21.64	32.0	+1.58	162.	+8.00	# 4.06	+200	24		
		0.1874	# 40.12	21.71	31.3	+1.947	158.	+4.80	# 3.96	+120	176		
		0.2332	# 45.00	24.54	37.1	+1.97	188.	+10.0	# 4.70	+250	182		
		0.2854	# 50.09	27.56	25.6	+1.58	130.	+8.00	# 3.24	+200	176		
		0.3992	# 60.09	33.75	15.6	+1.50	79.2	+7.60	# 1.98	+190	176		
		0.5250	# 70.09	40.36	12.8	+1.34	64.8	+6.80	# 1.62	+170	176		
		0.6590	# 80.08	47.49	7.50	+1.11	38.0	+5.60	# 0.950	+140	176		
		0.7974	# 90.09	55.28	5.60	+1.53	28.4	+2.80	# 0.710	+700E-01	176		
		1.5921	# 180.00	180.0	3.16	+1.316	16.0	+1.60	# 0.400	+400E-01	229		
		1.3057	# 128.50	# 94.00	4.61	+1.547	23.8	+2.82	# 0.590	+700E-01	156		
		1.21	1.78	\$ 1.5843	# 165.50	# 152.0							
		1.21+- 0.02	1.78	+ 0.0228	+ 6.45	+12.02	# 5.74	+1.670	29.6	+3.45	# 0.735	+858E-01	230
		1.22	1.78	1.2226	# 120.20	# 84.00	3.17	+1.464	16.6	+2.43	# 0.410	+600E-01	156
				1.6144	# 170.00	# 160.56							
		1.23	1.79	1.6268	# 180.00	180.0	5.43	+1.386	28.5	+2.02	# 0.703	+500E-01	242
				0.0009	# 2.50	1.303	46.5	+3.13	248.	+16.7	# 6.09	+410	34
				0.0032	# 5.00	2.606	41.7	+1.91	222.	+10.2	# 5.45	+250	34
0.0077	# 7.80			4.068	30.9	+1.66	165.	+8.96	# 4.04	+220	34		
0.0166	# 11.50			6.005	24.5	+1.53	131.	+8.14	# 3.21	+200	34		
1.4301	# 137.70			# 106.0	7.87	+1.688	41.9	+3.66	# 1.03	+900E-01	156		
1.5701	# 155.50			# 134.0	8.33	+1.535	44.4	+2.85	# 1.09	+700E-01	156		
1.6240	# 167.30			# 155.4	2.75	+1.611	14.7	+3.26	# 0.360	+800E-01	156		
1.6189	# 165.60			# 152.0									
+ 0.0230	+ 6.41			+12.01	# 4.60	+1.590	24.5	+3.14	# 0.602	+772E-01	230		
1.24	1.79	0.0049	# 6.19	3.218	36.0	+1.90	195.	+10.2	# 4.76	+250	176		
		0.0085	# 8.17	4.249	28.4	+1.29	154.	+6.96	# 3.76	+170	176		
		0.0137	# 10.40	5.413	28.2	+1.06	153.	+5.73	# 3.73	+140	176		
		0.0194	# 12.37	6.444	26.3	+1.82	143.	+9.83	# 3.48	+240	176		
		0.0260	# 14.36	7.488	29.0	+1.74	157.	+9.42	# 3.84	+230	176		
		0.0337	# 16.36	8.540	28.8	+1.29	156.	+6.96	# 3.81	+170	176		
		0.0520	# 20.36	10.66	30.2	+1.74	163.	+9.42	# 3.99	+230	176		
		0.0802	# 25.37	13.33	34.6	+2.04	188.	+11.1	# 4.58	+270	176		
		0.1141	# 30.38	16.05	30.3	+2.50	164.	+13.5	# 4.01	+330	176		
		0.1537	# 35.41	18.82	30.3	+2.57	164.	+13.9	# 4.00	+340	176		
		0.1986	# 40.45	21.65	28.6	+1.908	155.	+4.91	# 3.78	+120	176		
		0.2434	# 45.00	24.26	26.5	+2.57	143.	+13.9	# 3.50	+140	182		
		0.3024	# 50.50	27.50	20.7	+1.29	112.	+6.96	# 2.74	+170	176		
		0.4221	# 60.53	33.67	15.0	+1.36	81.1	+7.37	# 1.98	+180	176		
		0.5545	# 70.57	40.27	8.09	+1.983	43.8	+5.32	# 1.07	+130	176		
		0.6950	# 80.59	47.39	4.92	+1.832	26.6	+4.50	# 0.650	+110	176		
		0.8395	# 90.60	55.16	4.24	+1.454	22.9	+2.46	# 0.560	+600E-01	176		
		1.4696	# 140.60	# 109.5									
		1.24+- 0.04	1.79	\$ 1.4696	# 140.60	# 109.5							
				+ 0.0826	+ 8.91	+12.98	# 7.68	+1.750	41.6	+4.06	# 1.01	+991E-01	230
		\$ 1.5626	# 151.60	# 127.5									
		+ 0.0617	+ 9.01	+14.98	# 8.30	+1.630	44.9	+3.41	# 1.10	+832E-01	230		
1.25	1.80	1.3677	# 129.00	# 94.00	4.27	+1.524	23.5	+2.88	# 0.570	+700E-01	156		
		1.5451	# 147.20	# 120.0	5.46	+1.749	30.1	+4.12	# 0.730	+100E 00	156		
1.25+- 0.02	1.80	\$ 1.6534	# 165.70	# 152.0									
		+ 0.0232	+ 6.37	+12.01	# 4.05	+1.410	22.3	+2.26	# 0.541	+548E-01	230		
1.25	1.80	1.6789	# 180.00	180.0	3.14	+1.449	17.3	+2.47	# 0.420	+600E-01	229		
1.26	1.80	0.7595	# 84.00	49.71	2.82	+1.445	15.7	+2.48	# 0.380	+600E-01	156		
		1.2825	# 120.80	# 84.00	2.82	+1.445	15.7	+2.48	# 0.380	+600E-01	156		
1.27	1.81	0.0052	# 6.25	3.222	32.1	+1.76	182.	+10.0	# 4.38	+240	176		
		0.0089	# 8.25	4.255	24.1	+1.17	137.	+6.66	# 3.29	+160	176		
		0.0144	# 10.50	5.419	24.1	+1.03	137.	+5.83	# 3.29	+140	176		
		0.0204	# 12.49	6.452	24.3	+1.61	138.	+9.16	# 3.31	+220	176		
		0.0273	# 14.49	7.492	25.4	+1.61	144.	+9.16	# 3.46	+220	176		
		0.0354	# 16.52	8.552	24.7	+1.17	140.	+6.66	# 3.37	+160	176		
		0.0546	# 20.55	10.67	30.4	+1.76	173.	+10.0	# 4.15	+240	176		
		0.0843	# 25.61	13.35	34.0	+1.91	193.	+10.8	# 4.63	+260	176		
		0.1199	# 30.66	16.07	28.6	+2.42	162.	+13.7	# 3.90	+330	176		
		0.1614	# 35.73	18.84	32.7	+2.64	186.	+15.0	# 4.46	+360	176		
		0.2084	# 40.81	21.68	26.9	+1.807	153.	+4.58	# 3.67	+110	176		
		0.3168	# 50.92	27.52	18.5	+1.25	105.	+7.08	# 2.52	+170	176		
		0.4418	# 61.02	33.71	11.5	+1.17	65.4	+6.66	# 1.57	+160	176		
		0.5792	# 71.09	40.31	7.99	+1.03	45.4	+5.83	# 1.09	+140	176		
		0.7249	# 81.14	47.44	4.55	+1.880	25.8	+5.00	# 0.620	+120	176		
		0.8741	# 91.15	55.21	4.18	+1.440	23.7	+2.50	# 0.570	+600E-01	176		
		1.28	1.81	0.2536	# 45.00	24.00	23.2	+1.60	134.	+9.21	# 3.20	+220	182

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 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C111: GAMMA + PROTON --> NEUTRON + PI+ (K > 1.20 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9395 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
1.28	1.81	1.5119	#138.30 #106.0	5.52 +-0.653	31.8 +-3.77	#.760 +-0.900E-01	156
1.28+- 0.04	1.81	\$ 1.5347	#141.00 #109.5				
		+- 0.0846	+- 8.84 +-12.99	# 6.70 +-0.720	38.7 +-4.15	.922 +-0.991E-01	230
		\$ 1.6307	#152.00 #127.5				
		+- 0.0631	+- 8.92 +-14.99	# 6.86 +-0.560	39.6 +-3.23	.944 +-0.771F-01	230
		\$ 1.7057	#165.80 #152.0				
		+- 0.0235	+- 6.32 +-12.01	# 3.51 +-0.330	20.3 +-1.90	.483 +-0.454E-01	230
1.29	1.82	1.6724	#155.90 #134.0	5.97 +-0.503	35.0 +-2.95	#.830 +-0.700E-01	156
		1.7486	@180.00 180.0	1.51 +-0.431	8.64 +-2.53	@.210 +-0.600E-01	229
1.30	1.82	1.3418	#121.30 #84.00	2.63 +-0.427	15.7 +-2.54	#.370 +-0.600E-01	156
		1.4459	#129.60 #94.00	3.63 +-0.569	21.6 +-3.39	#.510 +-0.800E-01	156
		1.6294	#147.70 #120.0	5.98 +-0.854	35.6 +-5.08	#.840 +-0.120	156
1.32+- 0.04	1.83	\$ 1.8348	#141.40 #109.5				
		+- 0.0865	+- 8.76 +-17.65	# 7.30 +-0.760	44.8 +-4.66	1.05 +-0.109	230
		\$ 1.6588	#152.40 #127.5				
		+- 0.0643	+- 8.84 +-15.00	# 6.22 +-0.530	38.2 +-3.25	.891 +-0.759E-01	230
		\$ 1.7748	#165.90 #152.0				
		+- 0.0240	+- 6.26 +-12.01	# 3.28 +-0.280	20.1 +-1.72	.470 +-0.401E-01	230
1.32	1.83	1.7874-	@170.00- @160.02-				
		1.8010	180.00 180.0	3.31 +-0.209	20.3 +-1.28	@.474 +-0.300E-01	242
1.33	1.84	1.5934	#138.80 #106.0	5.04 +-0.760	31.4 +-4.73	#.730 +-0.110	156
1.34	1.84	\$ 0.0314	#15.00 7.610	20.1 +-0.684	127. +-4.33	# 2.93 +-0.100E 00	24
		0.0554	# 20.00 10.18	24.5 +-0.753	155. +-4.76	# 3.58 +-0.110	24
		0.0861	# 25.00 12.78	25.8 +-0.616	163. +-3.89	# 3.77 +-0.900E-01	24
		0.1231	# 30.00 15.41	25.7 +-0.821	162. +-5.19	# 3.75 +-0.120	24
		0.1661	# 35.00 18.05	24.3 +-0.616	154. +-3.89	# 3.55 +-0.900F-01	24
		0.2148	# 40.00 20.82	23.1 +-0.890	146. +-5.63	# 3.37 +-0.130	24
1.36+- 0.04	1.85	\$ 1.6668	#141.80 #109.5				
		+- 0.0893	+- 8.69 +-12.99	# 5.74 +-0.660	37.4 +-4.30	.854 +-0.982E-01	230
1.36	1.85	1.7307	#148.20 #120.0	4.70 +-0.940	30.6 +-6.12	#.700 +-0.140	156
1.36+- 0.04	1.85	\$ 1.7668	#152.60 #127.5				
		+- 0.0656	+- 8.75 +-14.99	# 5.75 +-0.510	37.4 +-3.32	.855 +-0.759E-01	230
		\$ 1.8438	#166.10 #152.0				
		+- 0.0244	+- 6.19 +-11.99	# 2.85 +-0.260	18.6 +-1.69	.424 +-0.387E-01	230
1.37	1.86	0.0010	# 2.50 1.253	24.3 +-2.93	194. +-19.3	# 4.41 +-0.440	34
		0.0037	# 5.00 2.507	26.7 +-1.20	176. +-7.92	# 4.01 +-0.180	34
		0.0144	# 10.00 5.021	18.0 +-1.66	119. +-7.04	# 2.71 +-0.160	34
1.40+- 0.04	1.87	\$ 1.7339	#142.20 #109.5				
		+- 0.0902	+- 8.62 +-13.00	# 6.16 +-0.680	42.5 +-4.69	.951 +-0.105	230
		\$ 1.8349	#152.50 #127.5				
		+- 0.0668	+- 8.67 +-14.98	# 5.71 +-0.510	39.4 +-3.52	.881 +-0.787E-01	230
		\$ 1.9129	#166.20 #152.0				
		+- 0.0248	+- 6.13 +-11.98	# 2.64 +-0.250	18.2 +-1.73	.408 +-0.386E-01	230
1.43	1.89	1.9792-	@170.00- @159.45-				
		1.9944	180.00 180.0	1.97 +-0.189	14.2 +-1.36	@.313 +-0.300E-01	242
1.44+- 0.04	1.89	\$ 1.8005	#142.50 #109.5				
		+- 0.0919	+- 8.54 +-12.99	# 5.86 +-0.670	42.8 +-4.89	.937 +-0.107	230
		\$ 1.9039	#153.20 #127.5				
		+- 0.0679	+- 8.59 +-14.99	# 5.62 +-0.510	41.0 +-3.72	.899 +-0.816E-01	230
		\$ 1.9829	#166.30 #152.0				
		+- 0.0252	+- 6.07 +-11.99	# 2.06 +-0.220	15.0 +-1.61	.330 +-0.352E-01	230
1.48	1.91	0.0355	# 15.00 7.338	19.3 +-0.724	149. +-5.58	# 3.20 +-0.120	24
		0.0629	# 20.00 9.817	18.9 +-0.543	146. +-4.19	# 3.13 +-0.900E-01	24
		0.0976	# 25.00 12.32	20.0 +-1.03	155. +-7.91	# 3.32 +-0.170	24
		0.1396	# 30.00 14.87	17.3 +-0.483	134. +-3.72	# 2.87 +-0.800E-01	24
		0.1884	# 35.00 17.45	16.3 +-0.422	126. +-3.26	# 2.70 +-0.700E-01	24
		0.2437	# 40.00 20.05	14.7 +-0.422	114. +-3.26	# 2.44 +-0.700E-01	24
1.48+- 0.04	1.91	\$ 1.8750	#142.90 #110.5				
		+- 0.0914	+- 8.40 +-12.98	# 3.85 +-0.320	29.7 +-2.47	.638 +-0.530E-01	230
		\$ 1.9730	#153.50 #127.5				
		+- 0.0691	+- 8.51 +-14.99	# 3.86 +-0.250	29.8 +-1.93	.639 +-0.414E-01	230
		\$ 2.0530	#166.40 #152.0				
		+- 0.0256	+- 6.01 +-11.98	# 1.69 +-0.140	13.0 +-1.08	.280 +-0.232F-01	230
1.52	1.93	0.0011	# 2.50 1.206	37.0 +-2.51	301. +-20.4	# 6.34 +-0.430	34
		0.0042	# 5.00 2.413	28.1 +-1.69	228. +-13.8	# 4.81 +-0.290	34
		0.0093	# 7.50 3.621	23.9 +-1.23	194. +-9.97	# 4.09 +-0.210	34
		0.0164	# 10.00 4.832	17.2 +-0.817	140. +-6.65	# 2.94 +-0.140	34
		0.0252	# 12.40 5.998	15.8 +-1.11	129. +-9.02	# 2.71 +-0.190	34
1.52+- 0.04	1.93	\$ 1.9431	#144.20 #110.5				
		+- 0.0931	+- 8.34 +-13.00	# 3.92 +-0.330	31.9 +-2.68	.671 +-0.565E-01	230
		\$ 2.0421	#153.80 #127.5				
		+- 0.0702	+- 8.44 +-14.99	# 3.55 +-0.240	28.9 +-1.95	.608 +-0.411E-01	230
		\$ 2.1241	#166.60 #152.0				
		+- 0.0259	+- 5.95 +-11.99	# 1.14 +-0.110	9.27 +-0.895	.195 +-0.168E-01	230
1.56+- 0.04	1.95	\$ 2.0151	#144.20 #111.0				
		+- 0.0863	+- 7.60 +-12.00	# 3.84 +-0.400	32.9 +-3.43	.679 +-0.708E-01	230
		\$ 2.1111	#154.00 #127.5				
		+- 0.0712	+- 8.36 +-14.97	# 2.84 +-0.220	24.3 +-1.89	.502 +-0.389E-01	230
		\$ 2.1951	#166.70 #152.0				
		+- 0.0263	+- 5.89 +-11.99	# 1.32 +-0.140	11.3 +-1.20	.234 +-0.248E-01	230
1.56	1.95	2.2077-	@170.00- @158.78-				
		2.2246	180.00 180.0	.599 +-0.565F-01	5.13 +-0.484	@.106 +-0.100E-01	242
1.60+- 0.04	1.97	\$ 2.0822	#144.50 #111.0				
		+- 0.0877	+- 7.54 +-11.99	# 4.10 +-0.420	37.0 +-3.79	.749 +-0.767E-01	230
		\$ 2.1812	#154.20 #127.5				
		+- 0.0722	+- 8.29 +-14.98	# 2.22 +-0.260	20.0 +-2.34	.405 +-0.475E-01	230
		\$ 2.2662	#166.80 #152.0				
		+- 0.0266	+- 5.84 +-12.00	# 1.00 +-0.120	9.01 +-1.08	.183 +-0.219E-01	230

= NUMERICAL VALUE FROM TABLE @ = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA \$ = FOR DETAILS SEE REFERENCE
 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C111: GAMMA + PROTON --> NEUTRON + PI+ (K > 1.20 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 0.9395 GEV
M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
1.62	1.98	0.0398 # 15.00 7.093	18.3 +- .755	169. +-6.97	# 3.40 +- .140	24		
		0.0704 # 20.00 9.490	14.6 +- .485	135. +-4.48	# 2.71 +- .900E-01	24		
		0.1093 # 25.00 11.91	15.5 +- .755	143. +-6.97	# 2.87 +- .140	24		
		0.1562 # 30.00 14.38	13.1 +- .377	121. +-3.49	# 2.43 +- .700E-01	24		
		0.2109 # 35.00 16.88	10.9 +- .323	101. +-2.99	# 2.03 +- .600E-01	24		
		0.2728 # 40.00 19.44	8.68 +- .216	80.2 +-1.99	# 1.61 +- .400E-01	24		
		0.3415 # 45.00 22.05	5.66 +- .593	52.3 +-5.48	# 1.05 +- .110	24		
1.64+- 0.04	1.99	\$ 2.1512 #144.80 #111.0						
		+ 0.0890 +- 7.48 +-11.99	# 2.44 +- .330	23.1 +-3.13	.459 +- .621E-01	230		
		\$ 2.2512 #154.40 #127.5						
		+ 0.0732 +- 8.22 +-14.99	# 2.33 +- .240	22.1 +-2.27	.439 +- .452E-01	230		
		\$ 2.3362 #167.00 #152.0						
		+ 0.0270 +- 5.79 +-11.99	# .960 +- .120	9.09 +-1.14	.181 +- .226E-01	230		
1.65	1.99	2.3669- #170.00- #158.34-						
		2.3851 #180.00 180.0	.317 +- .435E-01	3.04 +- .417	.602E-01 +- .825E-02	242		
1.66	2.00	0.0012 # 2.50 1.166	33.5 +-2.61	325. +-25.4	# 6.40 +- .500	34		
		0.0046 # 5.00 2.333	27.2 +-1.20	264. +-11.7	# 5.21 +- .230	34		
		0.0103 # 7.50 3.502	22.4 +-1.15	217. +-11.2	# 4.28 +- .220	34		
		0.0183 # 10.00 4.674	17.8 +- .889	173. +-8.63	# 3.41 +- .170	34		
1.68+- 0.04	2.01	\$ 2.2193 #145.10 #111.5						
		+ 0.0967 +- 8.01 +-12.93	# 2.39 +- .500	23.8 +-4.97	.464 +- .970E-01	230		
		\$ 2.3213 #154.70 #127.5						
		+ 0.0742 +- 8.15 +-14.99	# 1.57 +- .190	15.6 +-1.89	.305 +- .369E-01	230		
		\$ 2.4073 #167.10 #152.0						
		+ 0.0273 +- 5.73 +-11.98	# .680 +- .110	6.76 +-1.09	.132 +- .213E-01	230		
1.72+- 0.04	2.03	\$ 2.2884 #145.40 #111.5						
		+ 0.0981 +- 7.95 +-12.93	# 1.92 +- .230	20.0 +-2.40	.383 +- .459E-01	230		
		\$ 2.3914 #154.60 #127.5						
		+ 0.0751 +- 8.08 +-14.98	# 1.87 +- .220	19.5 +-2.29	.373 +- .439E-01	230		
		\$ 2.4794 #167.20 #152.0						
		+ 0.0276 +- 5.68 +-11.99	# .552 +- .690E-01	5.75 +- .708	.110 +- .136E-01	230		
1.75	2.04	2.5446- #170.00- #157.86-						
		2.5641 #180.00 180.0	.321 +- .404E-01	3.46 +- .436	.655E-01 +- .825E-02	242		
1.76+- 0.04	2.05	\$ 2.3584 #145.70 #111.5						
		+ 0.0994 +- 7.89 +-12.95	# 1.16 +- .180	12.7 +-1.96	.238 +- .370E-01	230		
		\$ 2.4614 #155.10 #127.5						
		+ 0.0760 +- 8.02 +-14.98	# 1.09 +- .100E 00	11.9 +-1.09	.224 +- .205E-01	230		
		\$ 2.5504 #167.30 #152.0						
		+ 0.0279 +- 5.63 +-11.98	# .449 +- .600E-01	4.90 +- .654	.922E-01 +- .123E-01	230		
1.77	2.05	0.0443 # 15.00 6.856	15.9 +- .677	175. +-7.46	# 3.28 +- .140	24		
		0.0784 # 20.00 9.173	14.0 +- .387	155. +-4.27	# 2.90 +- .800E-01	24		
		0.1218 # 25.00 11.52	13.1 +- .338	145. +-3.73	# 2.72 +- .700E-01	24		
		0.1742 # 30.00 13.90	11.4 +- .290	126. +-3.20	# 2.36 +- .600E-01	24		
		0.2351 # 35.00 16.32	8.60 +- .290	94.9 +-3.20	# 1.78 +- .600E-01	24		
		0.3042 # 40.00 18.80	6.72 +- .193	74.1 +-2.13	# 1.39 +- .400E-01	24		
		0.3808 # 45.00 21.33	5.65 +- .290	62.4 +-3.20	# 1.17 +- .600E-01	24		
1.80	2.06	0.0013 # 2.50 1.130	26.4 +-1.33	301. +-15.1	# 5.58 +- .280	34		
		0.0051 # 5.00 2.261	26.4 +-1.33	301. +-15.1	# 5.58 +- .280	34		
		0.0114 # 7.50 3.394	20.1 +- .900	230. +-10.3	# 4.25 +- .190	34		
		0.0202 # 10.00 4.530	17.1 +- .900	196. +-10.3	# 3.62 +- .190	34		
		0.0351 # 13.20 5.988	15.8 +- .758	180. +-8.64	# 3.34 +- .160	34		
1.80+- 0.04	2.06	\$ 2.4305 #146.00 #111.5						
		+ 0.1007 +- 7.83 +-12.98	# 1.23 +- .180	14.0 +-2.05	.260 +- .380E-01	230		
		\$ 2.5315 #155.30 #127.5						
		+ 0.0769 +- 7.96 +-14.98	# 1.05 +- .100E 00	12.0 +-1.14	.222 +- .211E-01	230		
1.80+- 0.08	2.06	\$ 2.6215 #167.40 #152.0						
		+ 0.0281 +- 5.59 +-11.97	# .471 +- .620E-01	5.37 +- .707	.993E-01 +- .131E-01	230		
1.84+- 0.04	2.08	\$ 2.5005 #146.30 #111.5						
		+ 0.1019 +- 7.78 +-13.00	# .534 +- .190	6.37 +-2.27	.116 +- .412E-01	230		
		\$ 2.6015 #155.50 #127.5						
		+ 0.0778 +- 7.89 +-14.95	# .810 +- .110	9.66 +-1.31	.176 +- .238E-01	230		
		\$ 2.6925 #167.50 #152.0						
		+ 0.0285 +- 5.54 +-11.97	# .467 +- .780E-01	5.57 +- .930	.101 +- .169E-01	230		
1.85	2.09	2.7230- #170.00- #157.38-						
		2.7439 #180.00 180.0	.450 +- .378E-01	5.43 +- .455	.983E-01 +- .825E-02	242		
1.90+- 0.08	2.11	\$ 2.6051 #146.70 #111.5						
		+ 0.1037 +- 7.70 +-12.98	# .815 +- .990E-01	10.4 +-1.26	.183 +- .223E-01	230		
		\$ 2.7081 #155.90 #127.5						
		+ 0.0790 +- 7.81 +-14.55	# .610 +- .700E-01	7.75 +- .890	.137 +- .158E-01	230		
		\$ 2.8011 #167.70 #152.0						
		+ 0.0288 +- 5.47 +-11.97	# .273 +- .440E-01	3.47 +- .559	.615E-01 +- .991E-02	230		
1.93	2.12	2.8663- #170.00- #157.01-						
		2.8882 #180.00 180.0	.318 +- .359E-01	4.17 +- .471	.730E-01 +- .825E-02	242		
1.97	2.14	\$ 0.1370 # 24.84 10.97	12.6 +-2.09	172. +-28.6	2.97 +- .492	21		
		\$ 0.1770 # 28.30 12.55	9.10 +-1.71	124. +-23.4	2.14 +- .403	21		
1.98	2.14	0.0508 # 15.00 6.560	12.6 +- .633	174. +-8.74	# 2.98 +- .150	24		
		0.0899 # 20.00 8.778	12.1 +- .295	167. +-4.08	# 2.87 +- .700E-01	24		
		0.1396 # 25.00 11.02	10.4 +- .253	144. +-3.49	# 2.47 +- .600E-01	24		
		0.1996 # 30.00 13.30	8.61 +- .211	119. +-2.91	# 2.04 +- .500E-01	24		
		0.2694 # 35.00 15.63	6.92 +- .253	95.5 +-3.49	# 1.64 +- .600E-01	24		
		0.3485 # 40.00 18.00	5.02 +- .127	69.3 +-1.75	# 1.19 +- .300E-01	24		
		0.4362 # 45.00 20.43	4.22 +- .127	58.2 +-1.75	# 1.00 +- .300E-01	24		
1.98+- 0.08	2.14	\$ 2.7453 #147.20 #111.5						
		+ 0.1061 +- 7.60 +-12.99	# .354 +- .650E-01	4.89 +- .897	.838E-01 +- .154E-01	230		
		\$ 2.8503 #156.30 #127.5						
		+ 0.0806 +- 7.69 +-14.94	# .420 +- .500E-01	5.80 +- .690	.994E-01 +- .118E-01	230		
		\$ 2.9453 #167.80 #152.0						
		+ 0.0294 +- 5.39 +-11.99	# .254 +- .430E-01	3.51 +- .594	.601E-01 +- .102E-01	230		

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ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

G111: GAMMA + PROTON --> NEUTRON + PI+ {K > 1.20 GEV} {CONTINUED}

M2: 0.9383 GEV
M3: 0.9395 GEV
M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D T MU BARN/GEV**2	D SIG/D T MU BARN/GEV**2	D SIG/D T MU BARN/GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF	
1.99	2.15	0.0015 0.0057 0.0228 0.0433	# 2.50 # 5.00 # 10.00 # 13.80	1.086 2.174 4.354 6.019	20.7 20.0 15.1 13.8	+1.51 +1.797 +1.671 +1.629	289. 279. 211. 193.	+21.1 +11.1 +9.36 +8.77	# 4.94 # 4.77 # 3.61 # 3.30	+1.360 +1.190 +1.160 +1.150	34 34 34 34
2.04	2.17	3.0638- 3.0872	2170.00- 180.00	2156.52- 180.00	.286	+1.336E-01	4.19	+1.492	2.703E-01	+1.825E-02	242
2.06+- 0.08	2.18	\$ 2.8854 + 0.1083 \$ 2.9924 + 0.0821 \$ 3.0904 + 0.0299	# 147.70 + 7.50 # 156.70 + 7.58 # 168.00 + 5.30	# 111.5 +12.99 # 127.5 +14.93 # 152.0 +11.99	# .429 # .270 # .266	+1.880E-01 +1.300E-01 +1.290E-01	6.41 4.03 3.97	+1.31 +1.448 +1.433	.106 +1.218E-01 +1.670E-01 +1.745E-02	230 230 230	
2.14+- 0.08	2.21	\$ 3.0350 + 0.1242 \$ 3.1355 + 0.0835 \$ 3.2345 + 0.0303	# 149.10 + 8.46 # 157.10 + 7.47 # 168.20 + 5.22	# 112.5 +14.99 # 127.5 +14.93 # 152.0 +11.98	# .305 # .250 # .259	+1.430E-01 +1.300E-01 +1.290E-01	4.92 4.03 4.18	+1.693 +1.484 +1.468	.792E-01 +1.112E-01 +1.649E-01 +1.779E-02	230 230 230	
2.15	2.22	3.2619- 3.2869	2170.00- 180.00	2156.03- 180.00	.317	+1.315E-01	5.16	+1.513	2.829E-01	+1.825E-02	242
2.18	2.23	0.0016 0.0064 0.0254 0.0570 0.0570 0.1008 0.1566 0.2239 0.3022 0.3909 0.4894 0.5968	# 2.50 # 5.00 # 10.00 # 15.00 # 15.00 # 20.00 # 25.00 # 30.00 # 35.00 # 40.00 # 45.00 # 50.00	1.047 2.095 4.197 6.311 6.311 8.446 10.61 12.80 15.04 17.33 19.67 22.08	19.6 15.8 12.0 9.78 9.78 9.18 8.84 7.00 5.34 3.91 2.59 1.43	+1.109 +1.865 +1.602 +1.489 +1.639 +1.226 +1.226 +1.263 +1.188 +1.113 +1.752E-01 +1.263	327. 264. 200. 164. 164. 154. 148. 117. 89.4 65.5 43.4 23.9	+18.3 +14.5 +10.1 +8.18 +10.7 +3.78 +3.78 +4.41 +3.15 +1.89 +1.26 +4.41	# 5.20 # 4.20 # 3.18 # 2.60 # 2.60 # 2.44 # 2.35 # 1.86 # 1.42 # 1.04 # .690 # .380	+1.290 +1.230 +1.160 +1.130 +1.170 +1.600E-01 +1.600E-01 +1.700E-01 +1.500E-01 +1.300E-01 +1.200E-01 +1.700E-01	34 34 34 34 24 24 24 24 24 24 24 24
2.22+- 0.08	2.25	\$ 3.1816 + 0.0598 \$ 3.2806 + 0.0849 \$ 3.3796 + 0.0308	# 145.80 + 6.65 # 157.40 + 7.37 # 168.40 + 5.15	# 113.0 +12.00 # 127.5 +14.96 # 152.0 +11.99	# .356 # .260 # .275	+1.570E-01 +1.400E-01 +1.380E-01	6.18 4.51 4.77	+1.989 +1.694 +1.659	.966E-01 +1.155E-01 +1.705E-01 +1.103E-01	230 230 230	
2.24	2.25	3.4244- 3.4506	2170.00- 180.00	2156.64- 180.00	.356	+1.300E-01	6.29	+1.531	2.977E-01	+1.825E-02	242
2.30+- 0.08	2.28	\$ 3.3227 + 0.1015 \$ 3.4227 + 0.0862 \$ 3.5247 + 0.0312 0.0018 0.0071 0.0282 0.0632 0.0632 0.1118 0.1736 0.2483 0.3351 0.4335 0.5428 0.6619	# 150.10 + 6.56 # 157.70 + 7.27 # 168.60 + 5.07 # 2.50 # 5.00 # 10.00 # 15.00 # 15.00 # 20.00 # 25.00 # 30.00 # 35.00 # 40.00 # 45.00 # 50.00	# 113.0 +11.97 # 127.5 +14.93 # 152.0 +11.97 1.010 2.021 4.049 6.089 6.089 8.148 10.23 12.35 14.51 16.72 18.99 21.32	# .310 # .312 # .244 14.9 10.7 8.44 7.73 7.22 6.48 5.80 5.12 3.53 2.75 1.97 1.39	+1.540E-01 +1.430E-01 +1.280E-01 +1.19 +1.543 +1.441 +1.339 +1.780 +1.203 +1.170 +1.102 +1.102 +1.678E-01 +1.102	5.77 5.81 4.55 297. 214. 168. 154. 144. 129. 116. 102. 70.3 54.8 39.2 27.7	+1.01 +1.801 +1.522 +23.7 +10.8 +8.79 +6.76 +15.6 +4.06 +3.38 +3.38 +2.03 +2.03 +1.35 +2.03	.877E-01 +1.122E-01 +1.690E-01 +1.350 +1.160 +1.130 +1.100E-01 +1.230 +1.600E-01 +1.500E-01 +1.500E-01 +1.300E-01 +1.300E-01 +1.200E-01 +1.300E-01	230 230 230 34 34 34 34 24 24 24 24 24 24 24 24	
2.38+- 0.08	2.31	\$ 3.4665 + 0.1031 \$ 3.5675 + 0.0874 \$ 3.6699 + 0.0316	# 150.40 + 6.48 # 158.00 + 7.18 # 168.80 + 5.01	# 113.0 +11.99 # 127.5 +14.96 # 152.0 +11.99	# .232 # .277 # .262	+1.490E-01 +1.270E-01 +1.270E-01	4.63 5.53 5.23	+1.977 +1.539 +1.539	.683E-01 +1.144E-01 +1.816E-01 +1.795E-02 +1.772E-01 +1.795E-02	230 230 230	
2.41	2.32	3.7322- 3.7608	2170.00- 180.00	2154.92- 180.00	.307	+1.276E-01	6.28	+1.564	2.919E-01	+1.825E-02	242
2.46+- 0.08	2.34	\$ 3.6540 + 0.1033 \$ 3.7120 + 0.0886 \$ 3.8150 + 0.0320 + 0.1260 + 0.1710 + 0.2220 + 0.2750 + 0.3230	# 151.00 + 6.38 # 158.20 + 7.09 # 168.90 + 4.94 20.59 24.04 27.45 30.62 33.26	# 113.5 +12.55 # 127.5 +14.95 # 152.0 +11.97 8.211 9.616 11.02 12.35 13.46	# .232 # .279 # .231 5.78 4.14 2.99 3.85 3.68	+1.330E-01 +1.280E-01 +1.260E-01 +1.104 +1.900 +1.960 +1.32 +1.04	4.94 5.95 4.92 128. 91.8 66.3 85.4 81.6	+1.703 +1.597 +1.554 +23.1 +20.0 +21.3 +29.3 +23.1	.710E-01 +1.857E-02 +1.707E-01 +1.796E-02 1.81 1.30 1.30 1.21 1.15	+1.101E-01 +1.857E-02 +1.796E-02 +1.326 +1.282 +1.301 +1.414 +1.326	230 230 230 21 21 21 21 21
2.51	2.36	2.9501- 3.9803	2170.00- 180.00	2154.42- 180.00	.276	+1.260E-01	6.21	+1.587	2.873E-01	+1.825E-02	242
2.54+- 0.08	2.38	\$ 3.7571 + 0.1048 \$ 3.8571 + 0.0897 \$ 3.9611 + 0.0323	# 151.40 + 6.30 # 158.50 + 7.00 # 169.10 + 4.87	# 113.5 +11.99 # 127.5 +14.95 # 152.0 +11.96	# .260 # .258 # .191	+1.370E-01 +1.350E-01 +1.230E-01	5.91 5.86 4.34	+1.841 +1.795 +1.523	.827E-01 +1.118E-01 +1.607E-01 +1.731E-02	230 230 230	
2.60	2.40	0.0020 0.0078 0.0312	# 2.50 # 5.00 # 10.00	.9736 1.948 3.902	13.4 9.05 7.16	+1.785 +1.306 +1.367	319. 216. 170.	+18.2 +7.28 +8.74	# 4.38 # 2.96 # 2.34	+1.250 +1.100E-01 +1.120	34 34 34

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 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C111: GAMMA + PROTON --> NEUTRON + PI+ (K > 1.20 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9395 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA CM	IMESON LAB	D SIG/D T MU BARN/GEV**2	(C SIG/D T)*IS-M**2**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF			
2.60	2.40	0.0700	# 15.00	5.869	6.85	+-.275	163.	+-.6.55	# 2.24	+-.900E-01	34
2.62+- 0.08	2.41	\$ 3.9002	#151.80	#113.5							
		+ 0.0973	+ 5.71	+10.98	# .235	+-.470E-01	5.68	+-.1.14	.774E-01+-1.155E-01	230	
		\$ 4.0022	#158.80	#127.5							
		+ 0.0908	+ 6.92	+14.96	# .321	+-.400E-01	7.76	+-.967	.106	+-.132E-01	230
		\$ 4.1082	#169.30	#152.0							
		+ 0.0327	+ 4.81	+11.98	# .166	+-.230E-01	4.50	+-.556	.613E-01+-1.758E-02	230	
2.63	2.41	0.0710	# 15.00	5.841	6.46	+-.272	157.	+-.6.62	# 2.14	+-.900E-01	24
		0.1256	# 20.00	7.817	4.95	+-.181	121.	+-.4.41	# 1.64	+-.600E-01	24
		C.1951	# 25.00	9.819	4.17	+-.121	101.	+-.2.94	# 1.38	+-.400E-01	24
		0.2789	# 30.00	11.85	3.59	+-.121	87.5	+-.2.94	# 1.19	+-.400E-01	24
		0.3765	# 35.00	13.93	2.51	+-.905E-01	61.0	+-.2.21	# .830	+-.300E-01	24
		0.4871	# 40.00	16.05	2.02	+-.905E-01	49.3	+-.2.21	# .670	+-.300E-01	24
		0.6098	# 45.00	18.23	1.27	+-.604E-01	30.9	+-.1.47	# .420	+-.200E-01	24
		0.7437	# 50.00	20.47	.996	+-.604E-01	24.3	+-.1.47	# .330	+-.200E-01	24
2.66	2.42	4.1866	#170.00	#153.90							
		4.2187	180.00	180.0	.163	+-.246E-01	4.07	+-.6.12	.548E-01+-1.825E-02	242	
2.67	2.43	0.0001	0.52	.1588							
		+ 0.0600	+ 0.09	+-.3467E-01	@ 14.5	+-.2.10	364.	+-.52.7	4.89	+-.708	46
		0.0004	1.66	.4101							
		+ 0.0001	+ 0.16	+-.6164E-01	@ 13.6	+-.2.10	341.	+-.52.7	4.59	+-.708	46
		0.0020	2.47	.9531							
		+ 0.0004	+ 0.26	+-.9892E-01	@ 13.0	+-.1.50	326.	+-.37.7	4.38	+-.506	46
2.70+- 0.08	2.44	\$ 4.0453	#152.20	#113.5							
		+ 0.0985	+ 5.65	+11.00	# .129	+-.360E-01	3.31	+-.924	.440E-01+-1.123E-01	230	
		\$ 4.1483	#159.10	#127.5							
		+ 0.0918	+ 6.84	+14.98	# .269	+-.360E-01	6.91	+-.924	.918E-01+-1.173E-01	230	
		\$ 4.2563	#169.50	#152.0							
		+ 0.0330	+ 4.75	+12.01	# .136	+-.270E-01	3.49	+-.693	.464E-01+-1.921E-02	230	
2.71	2.44	4.2777	#170.00	#153.70							
		4.3105	180.00	180.0	.133	+-.160E-01	3.44	+-.4.15	.456E-01+-1.550E-02	242	
2.78+- 0.08	2.47	\$ 4.1895	#152.50	#113.5							
		+ 0.0997	+ 5.59	+11.00	# .171	+-.430E-01	4.65	+-.1.17	.604E-01+-1.152E-01	230	
		\$ 4.2955	#159.40	#127.5							
		+ 0.0928	+ 6.76	+15.01	# .179	+-.300E-01	4.87	+-.816	.632E-01+-1.106E-01	230	
		\$ 4.4025	#169.70	#152.0							
		+ 0.0333	+ 4.70	+12.02	# .110	+-.260E-01	2.99	+-.708	.388E-01+-1.918E-02	230	
2.80	2.48	\$ 3.9270	135.00	89.90	@ .860E-01	+-.128E-01	2.37	+-.353	.306E-01+-1.456E-02	63	
		\$ 4.1520	148.79	106.2	@ .140	+-.242E-01	3.86	+-.668	.499E-01+-1.862E-02	63	
		\$ 4.2670	155.05	118.4	@ .198	+-.166E-01	5.47	+-.458	.705E-01+-1.591E-02	63	
		\$ 4.3670	162.06	133.8	@ .228	+-.204E-01	6.29	+-.563	.812E-01+-1.727E-02	63	
		\$ 4.4220	167.40	146.8	@ .192	+-.172E-01	5.30	+-.475	.684E-01+-1.613E-02	63	
2.82+- 0.16	2.48	\$ 4.3645	#159.70	#127.5							
		+ 0.0932	+ 6.73	+14.90	# .112	+-.340E-01	3.14	+-.952	.401E-01+-1.122E-01	230	
2.86	2.50	0.0087	# 5.00	1.871	8.11	+-.329	234.	+-.9.47	# 2.96	+-.120	34
		0.0349	# 10.00	3.748	6.00	+-.247	173.	+-.7.10	# 2.19	+-.900E-01	34
		0.0782	# 15.00	5.638	5.95	+-.301	171.	+-.8.68	# 2.17	+-.110	34
2.86+- 0.08	2.50	\$ 4.3336	#152.90	#113.5							
		+ 0.1008	+ 5.53	+11.00	# .134	+-.380E-01	3.86	+-.1.09	.489E-01+-1.139E-01	230	
		\$ 4.4426	#159.70	#127.5							
		+ 0.0937	+ 6.68	+15.02	# .156	+-.280E-01	4.49	+-.806	.569E-01+-1.102E-01	230	
		\$ 4.5496	#169.90	#152.0							
		+ 0.0336	+ 4.64	+12.01	# .680E-01	+-.200E-01	1.96	+-.576	.248E-01+-1.729E-02	230	
2.88	2.51	0.1394	# 20.00	7.523	3.97	+-.163	116.	+-.4.76	# 1.46	+-.600E-01	24
		0.2166	# 25.00	9.451	3.10	+-.136	90.5	+-.3.97	# 1.14	+-.500E-01	24
		C.3097	# 30.00	11.41	2.91	+-.217	84.9	+-.6.35	# 1.07	+-.800E-01	24
		0.4180	# 35.00	13.41	2.17	+-.109	63.5	+-.3.18	# .800	+-.400E-01	24
		0.5408	# 40.00	15.45	1.44	+-.815E-01	42.1	+-.2.38	# .530	+-.300E-01	24
		0.6770	# 45.00	17.55	1.01	+-.544E-01	29.4	+-.1.59	# .370	+-.200E-01	24
		0.8257	# 50.00	19.72	.707	+-.272E-01	20.6	+-.794	# .260	+-.100E-01	24
2.98+- 0.16	2.54	\$ 4.6588	#160.10	#127.5							
		+ 0.0950	+ 6.58	+14.95	# .110	+-.330E-01	3.44	+-.1.03	.420E-01+-1.126E-01	230	
3.03	2.56	4.8621	#170.00	#152.47							
		4.8993	180.00	180.0	.870E-01	+-.141E-01	2.81	+-.456	.339E-01+-1.550E-02	242	
3.14+- 0.16	2.60	\$ 4.6530	#160.60	#127.5							
		+ 0.0966	+ 6.44	+14.97	# .500E-01	+-.260E-01	1.74	+-.903	.202E-01+-1.105E-01	230	
3.16	2.61	0.7526	# 45.00	16.88	6.11	+-.734E-01	21.5	+-.2.58	# .250	+-.300E-01	24
		0.9179	# 50.00	18.96	.538	+-.734E-01	18.9	+-.2.58	# .220	+-.300E-01	24
3.17	2.61	0.7553	@ 45.00	16.86	.529	+-.609E-01	18.7	+-.2.16	@ .217	+-.250E-01	44
3.25	2.64	@ 0.1240	17.59	6.265	@ 1.39	+-.520	51.7	+-.19.3	.587	+-.220	21
		@ 0.1740	20.87	7.459	@ 2.93	+-.700	109.	+-.26.0	1.24	+-.296	21
		@ 0.2470	24.92	8.945	@ 1.97	+-.550	73.3	+-.20.5	.832	+-.232	21
		@ 0.3500	29.77	10.75	@ 1.43	+-.450	53.2	+-.16.7	.604	+-.190	21
		@ 0.4500	33.86	12.30	@ 1.30	+-.600	48.4	+-.22.3	.549	+-.253	21
3.27	2.65	5.3017	#170.00	#151.59							
		5.3422	180.00	180.0	.548E-01	+-.706E-02	2.06	+-.266	@ .233E-01	+-.300E-02	242
3.28	2.65	0.4848	# 35.00	12.68	2.04	+-.117	77.3	+-.4.44	# .870	+-.500E-01	16
3.29	2.66	0.7878	# 45.00	16.59	.584	+-.467E-01	22.3	+-.1.78	# .250	+-.200E-01	24
		0.9608	# 50.00	18.64	.397	+-.234E-01	15.1	+-.890	# .170	+-.100E-01	24
3.30	2.66	0.7905	@ 45.00	16.57	.768	+-.861E-01	29.5	+-.3.30	@ .330	+-.370E-01	44
3.30+- 0.16	2.66	\$ 5.2452	#161.10	#127.5							
		+ 0.0982	+ 6.31	+14.56	# .390E-01	+-.200E-01	1.50	+-.767	.167E-01+-1.857E-02	230	
3.40	2.69	# 0.0030	2.65	.9198							
		+ 0.0010	+ 0.44	+-.1542	# 6.91	+-.430	281.	+-.17.5	3.07	+-.191	66
		# 0.0060	3.75	1.303							
		+ 0.0015	+ 0.47	+-.1635	# 5.23	+-.390	213.	+-.15.9	2.32	+-.173	66
		# 0.0120	5.31	1.845	# 5.03	+-.330	205.	+-.13.4	2.23	+-.147	66
		# 0.0220	7.20	2.501	# 4.21	+-.220	171.	+-.8.96	1.87	+-.977E-01	66

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C111: GAMMA + PROTON --> NEUTRON + PI+ (K > 1.20 GEV) (CONTINUED)

#2: 0.9383 GEV
#3: 0.9395 GEV
#4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA CM	IMESON) LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF			
3.40	2.69	# 0.0480	10.64	3.703	# 3.92	+-.210	160.	+-.8.55	1.74	+-.933E-01	66
		# 0.0900	14.59	#5.100	# 3.82	+-.460	155.	+-.18.7	1.70	+-.204	39
		# 0.0960	15.07	5.258	# 3.41	+-.190	139.	+-.7.73	1.51	+-.844E-01	66
		# 0.1900	21.26	7.455	# 2.63	+-.140	107.	+-.5.70	1.17	+-.622E-01	66
		# 0.3300	28.14	#9.900	# 1.94	+-.160	79.0	+-.6.51	.862	+-.711E-01	39
		@ 0.3740	@ 30.00	10.63	@ 2.17	+-.690	88.3	+-.28.1	.964	+-.307	44
		# 0.3900	30.65	10.87	# 1.40	+-.700E-01	57.0	+-.2.85	.622	+-.311E-01	66
		@ 0.6530	@ 40.00	14.40	@ .799	+-.880E-01	32.5	+-.3.58	.355	+-.391E-01	44
		@ 0.8176	@ 45.00	16.36	@ .457	+-.890E-01	18.6	+-.3.62	.203	+-.395E-01	44
		@ 0.8176	@ 45.00	16.36	@ .450	+-.743E-01	18.3	+-.3.02	@ .200	+-.330E-01	44
		@ 0.9971	@ 50.00	18.38	@ .235	+-.440E-01	9.57	+-.1.79	.104	+-.195E-01	44
		@ 1.3956	@ 60.00	22.65	@ .123	+-.310E-01	5.01	+-.1.26	.546E-01	+-.138E-01	44
3.46	2.72	@ 0.5148	# 35.00	12.40	@ .163	+-.110	68.9	+-.4.65	# .740	+-.500E-01	16
3.53	2.74	@ 0.8528	@ 45.00	16.10	.388	+-.712E-01	17.0	+-.3.12	@ .180	+-.330E-01	44
3.55	2.75	5.8156-	@170.00-	@150.60-	.354E-01	+-.536E-02	1.57	+-.238	@ .165E-01	+-.250E-02	242
		5.8601	180.00	180.0	1.13	+-.106	50.8	+-.4.79	# .530	+-.500E-01	16
3.58	2.76	@ 0.5349	# 35.00	12.21	1.06	+-.102	51.3	+-.4.93	# .520	+-.500E-01	16
3.70	2.80	@ 0.5550	# 35.00	12.04	.560	+-.600E-01	25.1	+-.3.02	# .250	+-.300E-01	16
3.78	2.82	@ 0.9206	# 45.00	15.62							
3.81	2.83	6.2937-	@170.00-	@149.72-	.275E-01	+-.594E-02	1.41	+-.304	@ .139E-01	+-.300E-02	242
		6.3419	180.00	180.0	1.01	+-.790E-01	51.8	+-.4.06	# .510	+-.400E-01	16
3.82	2.84	@ 0.5751	# 35.00	11.87	.611	+-.764E-01	33.4	+-.4.17	# .320	+-.400E-01	16
3.94	2.88	@ 0.5953	# 35.00	11.71	@ 6.30	+-.700	355.	+-.39.4	3.36	+-.373	46
4.00	2.90	@ 0.0020	1.97	.6380	@ 1.02	+-.510	62.5	+-.31.2	.569	+-.285	21
4.17	2.95	@ 0.0900	13.01	4.143	@ 1.50	+-.460	91.8	+-.28.2	.837	+-.257	21
		@ 0.1270	15.47	4.934	@ 1.15	+-.360	70.4	+-.22.0	.642	+-.201	21
		@ 0.1750	18.18	5.811	@ .890	+-.310	54.5	+-.19.0	.496	+-.173	21
		@ 0.2510	21.81	6.995	@ .810	+-.250	49.6	+-.15.3	.452	+-.139	21
		@ 0.3510	25.86	8.329	@ .690	+-.250	42.2	+-.15.3	.385	+-.139	21
		@ 0.4510	29.39	9.508	@ .390	+-.200	23.9	+-.12.2	.218	+-.112	21
		@ 0.5510	32.56	10.58							
4.22	2.97	7.0490-	@170.00-	@148.38-	.290E-01	+-.663E-02	1.82	+-.416	@ .164E-01	+-.375E-02	242
		7.1030	180.00	180.0	.129E-01	+-.170E-02	0.840	+-.111	.744E-02	+-.981E-03	63
4.30	2.99	\$ 6.6168	145.58	89.93	@ .242E-01	+-.240E-02	1.57	+-.155	.139E-01	+-.138E-02	105
10 - 4.50	2.99	\$ 6.7723	150.72	99.60	@ .244E-01	+-.430E-02	1.59	+-.280	.141E-01	+-.248E-02	63
4.30	2.99	\$ 6.8638	153.25	104.8	@ .373E-01	+-.380E-02	2.43	+-.247	.215E-01	+-.219E-02	63
		\$ 6.9268	155.56	109.8	@ .335E-01	+-.330E-02	2.18	+-.215	.193E-01	+-.190E-02	63
		\$ 6.9768	157.55	114.4	@ .335E-01	+-.300E-02	2.18	+-.195	.193E-01	+-.173E-02	63
		\$ 6.9768	157.55	114.4	@ .322E-01	+-.410E-02	2.08	+-.265	.185E-01	+-.236E-02	105
10 - 4.50	2.99	\$ 7.0003	159.27	118.6	@ .394E-01	+-.410E-02	2.55	+-.265	.227E-01	+-.236E-02	105
		\$ 7.0803	163.22	128.7	@ .445E-01	+-.590E-02	2.90	+-.384	.257E-01	+-.340E-02	63
4.30	2.99	\$ 7.1018	163.47	129.4	@ .322E-01	+-.490E-02	2.10	+-.319	.186E-01	+-.283E-02	63
		\$ 7.1588	167.00	139.2	@ .335E-01	+-.980E-02	2.18	+-.638	.193E-01	+-.566E-02	63
		\$ 7.1968	170.02	148.2	@ .377E-01	+-.540E-02	2.45	+-.352	.218E-01	+-.312E-02	63
		\$ 7.2168	172.04	154.4							
4.73	3.12	7.9904-	@170.00-	@146.81-	.236E-01	+-.468E-02	1.86	+-.369	@ .151E-01	+-.300E-02	242
		8.0515	180.00	180.0	.1237						
4.87	3.17	@ 0.0001	0.42	.1237	@ 4.50	+-.700	376.	+-.58.5	2.98	+-.463	46
		+ 0.0001	+ 0.11	+-.3352E-01	@ 4.10	+-.700	342.	+-.58.5	2.71	+-.463	46
		@ 0.0003	0.70	.2072	@ 3.65	+-.500	305.	+-.41.8	2.41	+-.331	46
		+ 0.0001	+ 0.11	+-.3168E-01							
		@ 0.0020	1.77	.5246							
		+ 0.0005	+ 0.20	+-.6062E-01	@ 3.65	+-.500	305.	+-.41.8	2.41	+-.331	46
5.00	3.20	P# 0.0000-	0.0 -	0.0 -							
		@ 0.0007	1.03	.3006	P# 3.20	+-.270	282.	+-.23.8	@ 2.18	+-.184	210
		@ 0.0002	0.48	.1402							
		+ 0.0001	+ 0.24	+-.7012E-01	# 3.73	+-.460	328.	+-.40.5	2.54	+-.313	51
		P# 0.0038	2.41	P# 7.000	P# 2.44	+-.130	215.	+-.11.4	P 1.66	+-.885E-01	210
		# 0.0038	2.41	# 7.200	# 2.96	+-.150	261.	+-.13.2	2.01	+-.102	51
		# 0.0076	3.41	# 1.020	# 2.37	+-.100E 00	209.	+-.8.80	1.61	+-.681E-01	51
		# 0.0090	3.72	1.086	# 2.51	+-.170	221.	+-.15.0	1.71	+-.116	66
		P# 0.0100	3.92	P# 1.140	P# 2.05	+-.120	180.	+-.10.6	P 1.40	+-.817E-01	210
		# 0.0140	4.64	1.355	# 2.01	+-.110	177.	+-.9.68	1.37	+-.749E-01	66
		# 0.0191	5.42	# 1.620	# 1.87	+-.900E-01	165.	+-.7.92	1.27	+-.613E-01	51
		P# 0.0200	5.54	P# 1.620	P# 1.85	+-.100E 00	163.	+-.8.80	# 1.26	+-.681E-01	210
		# 0.0382	7.66	# 2.290	# 1.76	+-.800E-01	155.	+-.7.04	1.20	+-.545E-01	51
		P# 0.0401	7.85	P# 2.290	P# 1.68	+-.900E-01	148.	+-.7.92	P 1.14	+-.613E-01	210
		# 0.0550	9.20	2.693	# 1.58	+-.110	139.	+-.9.68	1.08	+-.749E-01	66
		# 0.0768	10.87	# 3.250	# 1.61	+-.800E-01	142.	+-.7.04	1.10	+-.545E-01	51
		P# 0.0799	11.09	P# 3.250	P# 1.50	+-.900E-01	132.	+-.7.92	P 1.02	+-.613E-01	210
		# 0.1000	12.41	3.641	# 1.45	+-.800E-01	128.	+-.7.04	.987	+-.545E-01	66
		P# 0.1601	15.73	P# 4.620	P# 1.24	+-.700E-01	109.	+-.6.16	P .844	+-.477E-01	210
		# 0.1640	15.92	# 4.770	# 1.25	+-.600E-01	110.	+-.5.28	.851	+-.408E-01	51
		# 0.1900	17.14	# 5.100	# 1.30	+-.120	114.	+-.10.6	.885	+-.817E-01	39
		# 0.2000	17.59	5.178	# 1.12	+-.700E-01	98.6	+-.6.16	.767	+-.477E-01	66
		# 0.3000	21.59	6.378	# .860	+-.500E-01	75.7	+-.4.40	.585	+-.340E-01	66
		# 0.3070	21.84	# 6.590	# .850	+-.400E-01	74.8	+-.3.52	.579	+-.272E-01	51
		# 0.3700	24.01	# 7.100	# .890	+-.900E-01	78.3	+-.7.92	.606	+-.613E-01	39
		# 0.4420	26.28	# 7.570	# .590	+-.300E-01	51.9	+-.2.64	.402	+-.204E-01	51
		# 0.5970	30.64	# 9.340	# .375	+-.270E-01	33.0	+-.2.38	.255	+-.184E-01	51
		# 0.6000	30.71	9.177	# .444	+-.350E-01	39.1	+-.3.08	.302	+-.238E-01	66
		# 0.6900	33.00	# 9.900	# .430	+-.500E-01	37.9	+-.4.40	.293	+-.340E-01	39
		# 0.7690	34.89	# 10.72	# .226	+-.160E-01	19.9	+-.1.41	.154	+-.109E-01	51
		# 0.9640	39.23	# 12.14	# .172	+-.160E-01	15.1	+-.1.41	.117	+-.109E-01	51
		# 1.1510	43.04	# 13.42	# .106	+-.100E-01	9.33	+-.880	.722E-01	+-.681E-02	51
		# 1.4500	48.62	# 15.10	# .600E-01	+-.140E-01	5.28	+-.1.23	.408E-01	+-.953E-02	39
		\$ 6.8003	126.15	59.57	@ .420E-02	+-.600E-03	0.370	+-.528E-01	.286E-02	+-.408E-03	105
		\$ 7.0633	130.65	64.59	@ .480E-02	+-.600E-03	0.423	+-.528E-01	.327E-02	+-.408E-03	105

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ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C111: GAMMA + PROTON --> NEUTRON + P1+ [K > 1.20 GEV] (CONTINUED)

M2: 0.9383 GEV
M3: 0.9395 GEV
M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D T 1*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
5.00	3.20	\$ 7.2803	134.60	69.49	\$.500E-02+- .500E-03	0.440 +- .440E-01	.340E-02+- .340E-03	105
		\$ 7.4803	138.49	74.83	\$.630E-02+- .100E-02	0.555 +- .880E-01	.429E-02+- .681E-03	105
		\$ 7.6303	141.62	79.53	\$.740E-02+- .600E-03	0.651 +- .528E-01	.504E-02+- .408E-03	105
		\$ 7.7803	144.99	85.05	\$.850E-02+- .900E-03	0.748 +- .792E-01	.579E-02+- .613E-03	105
		\$ 7.8303	146.17	87.12	\$.930E-02+- .100E-02	0.819 +- .880E-01	.633E-02+- .681E-03	105
		\$ 7.8953	147.77	90.02	\$.105E-01+- .120E-02	0.924 +- .106	.715E-02+- .817E-03	105
		\$ 7.9473	149.10	92.53	\$.112E-01+- .130E-02	0.986 +- .114	.762E-02+- .885E-03	105
		\$ 7.9803	149.57	94.23	\$.117E-01+- .900E-03	1.03 +- .792E-01	.796E-02+- .613E-03	105
		\$ 8.0803	152.77	99.96	\$.142E-01+- .100E-02	1.25 +- .880E-01	.967E-02+- .681E-03	105
		\$ 8.1573	155.12	105.1	\$.198E-01+- .170E-02	1.74 +- .150	.135E-01+- .116E-02	105
		\$ 8.2233	157.31	110.2	\$.166E-01+- .160E-02	1.46 +- .141	.113E-01+- .109E-02	105
		\$ 8.2773	159.27	115.1	\$.196E-01+- .140E-02	1.73 +- .123	.133E-01+- .953E-03	105
		\$ 8.3303	161.37	120.6	\$.203E-01+- .190E-02	1.79 +- .167	.138E-01+- .129E-02	105
		\$ 8.3703	163.13	125.4	\$.254E-01+- .200E-02	2.24 +- .176	.173E-01+- .136E-02	105
		\$ 8.4413	166.80	136.0	\$.275E-01+- .220E-02	2.42 +- .194	.187E-01+- .150E-02	105
		\$ 8.4723	168.76	142.1	\$.230E-01+- .380E-02	2.02 +- .335	.157E-01+- .259E-02	105
		\$ 8.5083	171.59	151.2	\$.229E-01+- .210E-02	2.02 +- .185	.156E-01+- .143E-02	105
		\$ 8.5303	173.92	159.0	\$.206E-01+- .180E-02	1.81 +- .158	.140E-01+- .123E-02	105
5.04	3.22	\$ 8.5633-	\$ 170.00-	\$ 145.50-	.213E-01+- .655E-02	1.90 +- .586	.146E-01+- .450E-02	242
		\$ 8.6289	180.00	180.0				
5.66	3.39	\$ 9.7105-	\$ 170.00-	\$ 144.16-	.250E-01+- .514E-02	2.83 +- .579	.195E-01+- .400E-02	242
		\$ 9.7849	180.00	180.0				
6.00	3.48	\$ 0.0020	1.58	.4261	\$ 2.35 +- .250	298. +- .31.7	1.95 +- .207	46
		\$ 0.0960	11.02	2.970	\$ 1.00 +- .600E-01	127. +- .7.61	.829 +- .497E-01	66
		\$ 0.2000	15.93	4.307	\$.710 +- .500E-01	90.0 +- .6.34	.589 +- .415E-01	66
		\$ 0.3800	22.02	5.987	\$.537 +- .300E-01	68.1 +- .3.80	.445 +- .249E-01	66
6.41	3.59	\$ 11.001-	\$ 170.00-	\$ 142.20-	.937E-02+- .753E-02	1.36 +- .1.09	.834E-02+- .670E-02	242
		\$ 11.1851	180.00	180.0				
6.70	3.67	\$ 11.3704	159.92	109.7	\$.910E-02+- .800E-03	1.44 +- .126	.849E-02+- .747E-03	63
		\$ 11.4854	163.50	120.0	\$.870E-02+- .160E-02	1.38 +- .253	.812E-02+- .149E-02	63
		\$ 11.6704	172.04	148.5	\$.800E-02+- .170E-02	1.26 +- .269	.747E-02+- .159E-02	63
		\$ 11.6824	172.94	152.3	\$.127E-01+- .390E-02	2.01 +- .616	.119E-01+- .364E-02	63
7.22	3.80	\$ 12.6024-	\$ 170.00-	\$ 140.22-	.660E-02+- .643E-02	1.21 +- .1.18	.667E-02+- .650E-02	242
		\$ 12.6588	180.00	180.0				
8.00	3.95	\$ 0.0004	0.64	.1505	\$ 1.29 +- .100E 00	291. +- .22.5	1.45 +- .113	210
		\$ 0.0005	0.68	.1601				
		\$ 0.0005	0.34	.8004E-01	\$ 1.46 +- .180	329. +- .40.6	1.64 +- .203	51
		\$ 0.0018	1.30	.3056	\$ 1.23 +- .700E-01	277. +- .15.8	1.39 +- .789E-01	210
		\$ 0.0017	1.27	.2500	\$ 1.36 +- .140	293. +- .31.6	1.46 +- .158	210
		\$ 0.0019	1.32	.2500				
		\$ 0.0007	0.25	.5761E-01	\$ 1.35 +- .150	304. +- .33.8	1.52 +- .169	51
		\$ 0.0026	1.54	.2500	\$.940 +- .600E-01	212. +- .13.5	1.06 +- .676E-01	210
		\$ 0.0035	1.80	.2500				
		\$ 0.0010	0.26	.6059E-01	\$ 1.08 +- .100E 00	243. +- .22.5	1.22 +- .113	51
		\$ 0.0035	1.81	.2500	\$.920 +- .700E-01	207. +- .15.8	1.04 +- .789E-01	210
		\$ 0.0047	2.08	.2500	\$ 1.04 +- .700E-01	234. +- .15.8	1.17 +- .789E-01	210
		\$ 0.0057	2.30	.2500				
		\$ 0.0012	0.24	.5656E-01	\$.980 +- .110	221. +- .24.8	1.10 +- .124	51
		\$ 0.0094	2.95	.7000	\$.830 +- .400E-01	187. +- .9.01	.935 +- .451E-01	51
		\$ 0.0101	3.06	.7200	\$.770 +- .400E-01	174. +- .9.01	.868 +- .451E-01	210
		\$ 0.0190	4.20	.1.000	\$.680 +- .300E-01	153. +- .6.76	.766 +- .338E-01	51
		\$ 0.0198	4.29	.1.010	\$.667 +- .360E-01	150. +- .8.11	.751 +- .406E-01	210
		\$ 0.0390	6.02	.1.420	\$.582 +- .280E-01	131. +- .6.31	.656 +- .315E-01	51
		\$ 0.0400	6.09	.1.430	\$.626 +- .330E-01	141. +- .7.44	.705 +- .372E-01	210
		\$ 0.0790	8.57	.2.040	\$.548 +- .250E-01	123. +- .5.63	.617 +- .282E-01	51
		\$ 0.0804	8.64	.2.030	\$.554 +- .310E-01	125. +- .6.99	.624 +- .349E-01	210
		\$ 0.1660	12.43	.2.960	\$.463 +- .220E-01	104. +- .4.96	.522 +- .248E-01	51
		\$ 0.2560	15.46	.3.650	\$.373 +- .210E-01	84.1 +- .4.73	.420 +- .237E-01	210
		\$ 0.3120	17.07	.4.080	\$.350 +- .150E-01	78.9 +- .3.38	.394 +- .169E-01	51
		\$ 0.4450	20.42	.4.900	\$.248 +- .110E-01	55.9 +- .2.48	.279 +- .124E-01	51
		\$ 0.6010	23.78	.5.720	\$.185 +- .900E-02	41.7 +- .2.03	.208 +- .101E-01	51
		\$ 0.7760	27.08	.6.550	\$.118 +- .600E-02	26.6 +- .1.35	.133 +- .676E-02	51
		\$ 0.8010	27.52	.6.580	\$.106 +- .700E-02	23.9 +- .1.58	.119 +- .789E-02	210
		\$ 0.9720	30.38	.7.380	\$.700E-01+- .400E-02	15.8 +- .901	.789E-01+- .451E-02	51
		\$ 1.2900	35.14	.8.600	\$.288E-01+- .240E-02	6.49 +- .541	.324E-01+- .270E-02	51
		\$ 1.3040	35.33	.8.550	\$.320E-01+- .250E-02	7.21 +- .563	.361E-01+- .282E-02	210
		\$ 1.6600	40.05	.9.900	\$.820E-02+- .800E-03	1.85 +- .180	.924E-02+- .901E-03	51
		\$ 2.0040	44.20	.10.89	\$.182E-02+- .320E-03	0.410 +- .721E-01	.205E-02+- .361E-03	210
		\$ 2.1300	45.64	.11.40	\$.150E-02+- .300E-03	0.338 +- .676E-01	.169E-02+- .338E-03	51
9.50	4.33	\$ 15.2146	142.53	64.81	\$.520E-03+- .700E-03	0.165 +- .222	.702E-03+- .945E-03	105
		\$ 15.4946	145.75	65.85	\$.610E-03+- .160E-03	0.194 +- .508E-01	.824E-03+- .216E-03	105
		\$ 15.7446	148.88	75.32	\$.730E-03+- .100E-03	0.232 +- .318E-01	.986E-03+- .135E-03	105
		\$ 15.9246	151.32	80.05	\$.880E-03+- .100E-03	0.280 +- .318E-01	.119E-02+- .135E-03	105
		\$ 16.0746	153.51	84.68	\$.110E-02+- .150E-03	0.350 +- .477E-01	.149E-02+- .203E-03	105
		\$ 16.2246	155.88	90.16	\$.120E-02+- .170E-03	0.381 +- .540E-01	.162E-02+- .230E-03	105
		\$ 16.3416	157.89	95.23	\$.120E-02+- .210E-03	0.381 +- .667E-01	.162E-02+- .284E-03	105
		\$ 16.4246	159.43	99.39	\$.200E-02+- .240E-03	0.636 +- .763E-01	.270E-02+- .324E-03	105
		\$ 16.5246	161.45	105.2	\$.150E-02+- .280E-03	0.477 +- .890E-01	.203E-02+- .378E-03	105
		\$ 16.6606	164.60	115.2	\$.270E-02+- .300E-03	0.858 +- .953E-01	.365E-02+- .405E-03	105
		\$ 16.7116	165.95	119.5	\$.340E-02+- .400E-03	1.08 +- .127	.459E-02+- .540E-03	105
		\$ 16.7996	168.66	130.0	\$.360E-02+- .400E-03	1.14 +- .127	.486E-02+- .540E-03	105
		\$ 16.8706	171.43	141.2	\$.380E-02+- .500E-03	1.21 +- .159	.513E-02+- .675E-03	105
		\$ 16.9096	173.44	149.8	\$.360E-02+- .150E-03	1.14 +- .477E-01	.486E-02+- .203E-03	105
9.80	4.39	\$ 17.0825	161.67	105.1	\$.220E-02+- .600E-03	0.744 +- .203	.307E-02+- .837E-03	63
		\$ 17.1575	163.30	110.2	\$.270E-02+- .400E-03	0.913 +- .135	.377E-02+- .558E-03	63
		\$ 17.2755	166.24	120.2	\$.320E-02+- .600E-03	1.08 +- .203	.446E-02+- .837E-03	63

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C111: GAMMA + PROTON --> NEUTRON + PI+ (K > 1.20 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9395 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF	
9.80	4.39	\$17.3625	168.88	130.2	a .470E-02+-700E-03	1.59 +-237	.656E-02+-976E-03	63	
		\$17.4225	171.15	139.4	a .320E-02+-120E-02	1.08 +-406	.446E-02+-167E-02	63	
		\$17.4675	173.32	148.8	a .270E-02+-170E-02	0.913 +-575	.377E-02+-237E-02	63	
11.00	4.64	P# 0.0 -	0.0 -	0.0 -					
		# 0.0008	0.73	.1479	P# .750	+-900E-01	320. +-38.3	P 1.18 +-142	210
		# 0.0008	0.73	.1473					
		+- 0.0008	+- 0.36	+-7364E-01	# .520	+-700E-01	222. +-29.8	.818 +-110	51
		P# 0.0 -	0.0 -	0.0 -					
		# 0.0034	1.50	.3035	P# .730	+-500E-01	311. +-21.3	P 1.15 +-787E-01	210
		P# 0.0033	1.47	P# .3000	P# .550	+-500E-01	234. +-21.3	P .865 +-787E-01	210
		# 0.0037	1.57	# .2500					
		+- 0.0013	+- 0.28	+-5568E-01	# .570	+-500E-01	243. +-21.3	.897 +-787E-01	51
		P# 0.0054	1.89	P# .3000	P# .630	+-600E-01	268. +-25.6	P .991 +-944E-01	210
		# 0.0068	2.12	# .2500					
		+- 0.0018	+- 0.28	+-5687E-01	# .450	+-400E-01	192. +-17.0	.708 +-629E-01	51
		P# 0.0080	2.30	P# .3000	P# .470	+-400E-01	200. +-17.0	P .740 +-629E-01	210
		# 0.0110	2.70	# .2500					
		+- 0.0020	+- 0.25	+-4969E-01	# .376	+-350E-01	160. +-14.9	.592 +-551E-01	51
		P# 0.0111	2.72	P# .3000	P# .380	+-500E-01	162. +-21.3	P .598 +-787E-01	210
		# 0.0190	3.55	# .7200	# .339	+-150E-01	144. +-6.39	.533 +-236E-01	51
		P# 0.0202	3.66	P# .7400	P# .324	+-170E-01	138. +-7.24	P .510 +-268E-01	210
		# 0.0390	5.09	# 1.030	# .296	+-130E-01	126. +-5.54	.466 +-205E-01	51
		P# 0.0398	5.14	P# 1.040	P# .292	+-160E-01	124. +-6.82	P .459 +-252E-01	210
		# 0.0790	7.25	# 1.480	# .269	+-110E-01	115. +-4.69	.423 +-173E-01	51
		P# 0.0806	7.32	P# 1.480	P# .288	+-150E-01	123. +-6.39	P .453 +-236E-01	210
		P# 0.8000	23.21	P# 4.750	P# .617E-01	+-400E-02	26.3 +-1.70	P .971E-01+-629E-02	210
		P# 1.3010	29.72	P# 6.140	P# .124E-01	+-110E-02	5.28 +-4.69	P .195E-01+-173E-02	210
		# 0.1670	10.55	# 2.150	# .230	+-110E-01	98.0 +-4.69	.362 +-173E-01	51
		P# 1.9960	37.05	P# 7.740	P# .124E-02	+-130E-03	0.528 +-554E-01	P .195E-02+-205E-03	210
		# 0.3180	14.57	# 2.980	# .179	+-900E-02	76.3 +-3.83	.282 +-142E-01	51
		# 0.4530	17.41	# 3.570	# .136	+-700E-02	57.9 +-2.98	.214 +-110E-01	51
		# 0.7810	22.93	# 4.730	# .660E-01	+-400E-02	28.1 +-1.70	.104 +-629E-02	51
		# 0.9840	25.78	# 5.330	# .361E-01	+-230E-02	15.4 +-9.80	.568E-01+-362E-02	51
		# 1.2760	29.43	# 6.120	# .143E-01	+-100E-02	6.09 +-4.26	.225E-01+-157E-02	51
		# 1.6850	33.94	# 7.050	# .370E-02	+-500E-03	1.58 +-2.13	.582E-02+-787E-03	51
		# 2.0630	37.69	# 7.950	# .100E-02	+-300E-03	0.426 +-1.28	.157E-02+-472E-03	51
14.80	5.35	\$26.5341	166.67	111.8	a .960E-03+-930E-04	0.740 +-717E-01	.205E-02+-199E-03	105	
		\$26.7161	170.60	128.9	a .990E-03+-150E-03	0.764 +-116	.212E-02+-321E-03	105	
		\$26.8701	176.40	159.2	a .690E-03+-130E-03	0.532 +-100	.148E-02+-278E-03	105	
16.00	5.56	P# 0.0 -	0.0 -	0.0 -					
		# 0.0018	0.90	.1517	P# .313	+-240E-01	282. +-21.6	P .726 +-557E-01	210
		# 0.0012	0.74	.1240					
		+- 0.0012	+- 0.37	+-6201E-01	# .240	+-500E-01	216. +-45.1	.557 +-116	51
		# 0.0033	1.22	# .2500					
		+- 0.0017	+- 0.31	+-5301E-01	# .250	+-300E-01	225. +-27.0	.580 +-696E-01	51
		P# 0.0 -	0.0 -	0.0 -					
		# 0.0071	1.79	.3016	P# .265	+-120E-01	239. +-10.8	P .615 +-278E-01	210
		P# 0.0048	1.48	P# .3000	P# .252	+-900E-02	227. +-8.11	P .584 +-209E-01	210
		# 0.0080	1.90	# .2500					
		+- 0.0030	+- 0.36	+-6008E-01	# .187	+-250E-01	169. +-22.5	.434 +-580E-01	51
		P# 0.0097	2.09	P# .3000	P# .235	+-160E-01	212. +-14.4	P .545 +-371E-01	210
		# 0.0150	2.60	# .2500					
		+- 0.0040	+- 0.35	+-5851E-01	# .148	+-190E-01	133. +-17.1	.343 +-441E-01	51
		P# 0.0162	2.70	P# .3000	P# .198	+-120E-01	178. +-10.8	P .459 +-278E-01	210
		# 0.0230	3.22	# .2500					
		+- 0.0050	+- 0.35	+-5909E-01	# .113	+-180E-01	102. +-16.2	.262 +-417E-01	51
		P# 0.0245	3.32	P# .3000	P# .169	+-140E-01	152. +-12.6	P .392 +-325E-01	210
		# 0.0380	4.14	# .7000	# .143	+-100E-01	129. +-9.01	.332 +-232E-01	51
		P# 0.0405	4.27	P# .7200	P# .140	+-700E-02	126. +-6.31	P .325 +-162E-01	210
		# 0.0770	5.89	# 1.000	# .124	+-800E-02	112. +-7.21	.288 +-186E-01	51
		P# 0.0795	5.99	P# 1.010	P# .121	+-700E-02	109. +-6.31	P .281 +-162E-01	210
		# 0.1620	8.55	# 1.450	# .105	+-700E-02	94.7 +-6.31	.244 +-162E-01	51
		P# 0.2530	10.69	P# 1.810	P# .102	+-600E-02	91.9 +-5.41	P .237 +-139E-01	210
		# 0.3060	11.76	# 2.000	# .850E-01	+-500E-02	76.6 +-4.51	.197 +-116E-01	51
		# 0.4380	14.08	# 2.400	# .660E-01	+-500E-02	59.5 +-4.51	.153 +-116E-01	51
		# 0.5940	16.41	# 2.800	# .480E-01	+-300E-02	43.3 +-2.70	.111 +-696E-02	51
		# 0.7700	18.71	# 3.200	# .284E-01	+-230E-02	25.6 +-2.07	.659E-01+-533E-02	51
		P# 0.8020	19.10	P# 3.250	P# .286E-01	+-170E-02	25.8 +-1.53	P .663E-01+-394E-02	210
		# 0.9700	21.02	# 3.600	# .142E-01	+-110E-02	12.8 +-9.92	.329E-01+-255E-02	51
		P# 1.2980	24.37	P# 4.170	P# .468E-02	+-300E-03	4.22 +-2.70	P .109E-01+-696E-03	210
		# 1.3000	24.38	# 4.200	# .410E-02	+-400E-03	3.70 +-3.61	.951E-02+-928E-03	51
		# 1.4900	26.14	# 4.500	# .220E-02	+-400E-03	1.98 +-3.61	.510E-02+-928E-03	51
		# 1.6800	27.78	# 4.800	# .140E-02	+-200E-03	1.26 +-1.80	.325E-02+-464E-03	51
		# 1.9500	29.98	# 5.200	# .460E-03	+-200E-03	0.415 +-1.80	.107E-02+-464E-03	51
		P# 2.0000	30.37	P# 5.240	P# .450E-03	+-500E-04	0.406 +-4.51E-01	P .104E-02+-116E-03	210
		P# 2.4970	34.04	P# 5.910	P# .500E-04	+-100E-04	0.451E-01+-901E-02	P .116E-03+-232E-04	210
		P# 3.0000	37.43	P# 6.540	P# .100E-04	+-100E-04	0.901E-02+-901E-02	P .232E-04+-232E-04	210
18.00	5.89	P# 0.0 -	0.0 -	0.0 -					
		# 0.0022	0.94	.1492	P# .360	+-700E-01	411. +-79.9	P .942 +-183	210
		P# 0.0 -	0.0 -	0.0 -					
		# 0.0089	1.88	.3002	P# .270	+-300E-01	308. +-34.2	P .707 +-785E-01	210
		P# 0.0068	1.65	P# .3000	P# .225	+-200E-01	257. +-22.8	P .589 +-524E-01	210
		P# 0.0129	2.27	P# .3000	P# .177	+-210E-01	202. +-24.0	P .463 +-550E-01	210
		P# 0.0211	2.90	P# .3000	P# .129	+-160E-01	147. +-18.3	P .338 +-419E-01	210
		P# 0.0316	3.55	P# .3000	P# .119	+-150E-01	136. +-17.1	P .312 +-393E-01	210
		P# 0.0497	4.46	P# .7100	P# .109	+-600E-02	124. +-6.85	P .285 +-157E-01	210
		P# 0.0803	5.66	P# .9000	P# .106	+-600E-02	121. +-6.85	P .277 +-157E-01	210
		P# 0.1605	8.01	P# 1.280	P# .900E-01	+-500E-02	103. +-5.70	P .236 +-131E-01	210

FOR RATIO OF CROSS SECTION ON DEUTERIUM AND HYDROGEN, SEE LIST 'RATIO PI-/PI+'.

= NUMERICAL VALUE FROM TABLE a = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA \$ = FOR DETAILS SEE REFERENCE
 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

G11: GAMMA + PROTON --> NEUTRON + PI+ (K > 1.20 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9395 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 18.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF		
#	0.0001+- 0.0000	2.67	2.43	5.89	# 14.5	+2.10	364.	+52.7	46
#	0.0001+- 0.0001	4.87	3.17	10.02	# 4.50	+7.00	376.	+58.5	46
#	0.0002+- 0.0001	5.00	3.20	10.26	# 3.73	+4.60	328.	+40.5	51
P#	0.0 - 0.0004	8.00	3.55	15.89	P# 1.29	+1.00E 00	291.	+22.5	210
#	0.0003+- 0.0001	4.87	3.17	10.02	# 4.10	+7.00	342.	+58.5	46
P#	0.0000 - 0.0007	5.00	3.20	10.26	P# 3.20	+2.70	282.	+23.8	210
#	0.0004+- 0.0001	2.67	2.43	5.89	# 13.6	+2.10	341.	+52.7	46
P#	0.0 - 0.0008	11.00	4.64	21.52	P# .750	+9.00E-01	320.	+38.3	210
#	0.0005+- 0.0005	8.00	3.55	15.89	# 1.46	+1.80	329.	+40.6	51
#	0.0008+- 0.0008	11.00	4.64	21.52	# .520	+7.00E-01	222.	+29.8	51
P#	0.0 - 0.0018	16.00	5.56	30.90	P# .313	+2.40E-01	282.	+21.6	210
P#	0.0 - 0.0018	8.00	3.55	15.89	P# 1.23	+7.00E-01	277.	+15.8	210
P#	0.0 - 0.0022	18.00	5.89	34.66	P# .360	+7.00E-01	411.	+79.9	210
#	0.0012+- 0.0012	16.00	5.56	30.90	# .240	+5.00E-01	216.	+45.1	51
	0.0016	2.18	2.23	4.97		+1.09	327.	+18.3	34
P#	0.0 - 0.0034	11.00	4.64	21.52	P# .730	+5.00E-01	311.	+21.3	210
P#	0.0017	8.00	3.55	15.89	P# 1.30	+1.40	293.	+31.6	210
	0.0018	2.38	2.31	5.35		+1.19	297.	+23.7	34
#	0.0019+- 0.0007	8.00	3.55	15.89	# 1.35	+1.50	304.	+33.8	51
	0.0020	2.60	2.40	5.76		+1.765	319.	+18.2	34
#	0.0020+- 0.0004	2.67	2.43	5.89	# 13.0	+1.50	326.	+37.7	46
#	0.0020	4.00	2.90	8.39	# 6.30	+7.00	355.	+39.4	46
#	0.0020+- 0.0005	4.87	3.17	10.02	# 3.65	+5.00	305.	+41.8	46
#	0.0020	6.00	3.48	12.14	# 2.35	+2.50	298.	+31.7	46
P#	0.0026	8.00	3.55	15.89	P# .940	+6.00E-01	212.	+13.5	210
#	0.0030+- 0.0010	3.40	2.65	7.26	# 6.91	+4.30	281.	+17.5	66
P#	0.0033	11.00	4.64	21.52	P# .550	+5.00E-01	234.	+21.3	210
#	0.0033+- 0.0017	16.00	5.56	30.90	# .250	+3.00E-01	225.	+27.0	51
#	0.0035+- 0.0010	8.00	3.55	15.89	# 1.08	+1.00E 00	243.	+22.5	51
P#	0.0035	8.00	3.55	15.89	P# .920	+7.00E-01	207.	+15.8	210
P#	0.0 - 0.0071	16.00	5.56	30.90	P# .265	+1.20E-01	239.	+10.8	210
#	0.0037+- 0.0013	11.00	4.64	21.52	# .570	+5.00E-01	243.	+21.3	51
P#	0.0038	5.00	3.20	10.26	P# 2.44	+1.30	215.	+11.4	210
#	0.0038	5.00	3.20	10.26	# 2.96	+1.50	261.	+13.2	51
P#	0.0 - 0.0089	18.00	5.89	34.66	P# .270	+3.00E-01	308.	+34.2	210
P#	0.0047	8.00	3.55	15.89	P# 1.04	+7.00E-01	234.	+15.8	210
P#	0.0048	16.00	5.56	30.90	P# .252	+9.00E-02	227.	+8.11	210
P#	0.0054	11.00	4.64	21.52	P# .630	+6.00E-01	268.	+25.6	210
#	0.0057+- 0.0012	8.00	3.55	15.89	# .980	+1.10	221.	+24.8	51
#	0.0060+- 0.0015	3.40	2.65	7.26	# 5.23	+3.90	213.	+15.9	66
	0.0064	2.18	2.23	4.97		+1.865	264.	+14.5	34
#	0.0068+- 0.0018	11.00	4.64	21.52	# .450	+4.00E-01	192.	+17.0	51
P#	0.0068	18.00	5.89	34.66	P# .225	+2.00E-01	257.	+22.8	210
	0.0071	2.38	2.31	5.35		+1.543	214.	+10.8	34
#	0.0076	5.00	3.20	10.26	# 2.37	+1.00E 00	209.	+8.80	51
	0.0078	2.60	2.40	5.76		+1.306	216.	+7.28	34
P#	0.0080	11.00	4.64	21.52	P# .470	+4.00E-01	200.	+17.0	210
#	0.0080+- 0.0030	16.00	5.56	30.90	# .187	+2.50E-01	169.	+22.5	51
	0.0087	2.86	2.50	6.25		+1.329	234.	+9.47	34
#	0.0090	5.00	3.20	10.26	# 2.51	+1.70	221.	+15.0	66
#	0.0094	8.00	3.55	15.89	# .830	+4.00E-01	187.	+9.01	51
P#	0.0097	16.00	5.56	30.90	P# .235	+1.60E-01	212.	+14.4	210
P#	0.0100	5.00	3.20	10.26	P# 2.05	+1.20	180.	+10.6	210
P#	0.0101	8.00	3.55	15.89	P# .770	+4.00E-01	174.	+9.01	210
#	0.0110+- 0.0020	11.00	4.64	21.52	# .376	+3.50E-01	160.	+14.9	51
P#	0.0111	11.00	4.64	21.52	P# .380	+5.00E-01	162.	+21.3	210
#	0.0120	3.40	2.65	7.26	# 5.03	+3.30	205.	+13.4	66
P#	0.0129	18.00	5.89	34.66	P# .177	+2.10E-01	202.	+24.0	210
#	0.0140	5.00	3.20	10.26	# 2.01	+1.10	177.	+9.68	66
#	0.0150+- 0.0040	16.00	5.56	30.90	# .148	+1.90E-01	133.	+17.1	51
P#	0.0162	16.00	5.56	30.90	P# .198	+1.20E-01	178.	+10.8	210
#	0.0190	8.00	3.55	15.89	# .680	+3.00E-01	153.	+6.76	51
#	0.0190	11.00	4.64	21.52	# .339	+1.50E-01	144.	+6.39	51
#	0.0191	5.00	3.20	10.26	# 1.87	+9.00E-01	165.	+7.92	51
P#	0.0198	8.00	3.55	15.89	P# .667	+3.60E-01	150.	+8.11	210
P#	0.0200	5.00	3.20	10.26	P# 1.85	+1.00E 00	163.	+8.80	210
P#	0.0202	11.00	4.64	21.52	P# .324	+1.70E-01	138.	+7.24	210
P#	0.0211	18.00	5.89	34.66	P# .129	+1.60E-01	147.	+18.3	210
#	0.0220	3.40	2.65	7.26	# 4.21	+2.20	171.	+8.96	66
#	0.0230+- 0.0050	16.00	5.56	30.90	# .113	+1.80E-01	102.	+16.2	51
P#	0.0245	16.00	5.56	30.90	P# .169	+1.40E-01	152.	+12.6	210
	0.0254	2.18	2.23	4.97		+1.602	200.	+10.1	34
	0.0282	2.38	2.31	5.35		+1.441	168.	+8.79	34
	0.0312	2.60	2.40	5.76		+1.367	170.	+8.74	34
P#	0.0316	18.00	5.89	34.66	P# .119	+1.50E-01	136.	+17.1	210
#	0.0349	2.86	2.50	6.25		+1.247	173.	+7.10	34
#	0.0380	16.00	5.56	30.90	# .143	+1.00E-01	129.	+9.01	51
#	0.0382	5.00	3.20	10.26	# 1.76	+8.00E-01	155.	+7.04	51
#	0.0390	8.00	3.55	15.89	# .582	+2.80E-01	131.	+6.31	51
#	0.0390	11.00	4.64	21.52	# .296	+1.30E-01	126.	+5.54	51
P#	0.0398	11.00	4.64	21.52	P# .292	+1.60E-01	124.	+6.82	210
P#	0.0400	8.00	3.55	15.89	P# .626	+3.30E-01	141.	+7.44	210
P#	0.0401	5.00	3.20	10.26	P# 1.68	+9.00E-01	148.	+7.92	210
P#	0.0405	16.00	5.56	30.90	P# .140	+7.00E-02	126.	+6.31	210
#	0.0480	3.40	2.65	7.26	# 3.92	+2.10	160.	+8.55	66
P#	0.0497	18.00	5.89	34.66	P# .109	+6.00E-02	124.	+6.85	210

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G111: GAMMA + PROTON --> NEUTRON + PI+ (K > 1.20 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 0.9395 GEV
M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 18.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-H**2)**2 MU BARN*GEV**2	REF
#	0.0550	5.00	3.20	10.26	# 1.58 +- .110	139. +-9.68	66
	0.0570	2.18	2.23	4.97	# 9.78 +- .489	164. +-8.18	34
	0.0570	2.18	2.23	4.97	# 9.78 +- .639	164. +-10.7	24
	0.0632	2.38	2.31	5.35	# 7.73 +- .339	154. +-6.76	34
	0.0632	2.38	2.31	5.35	# 7.22 +- .780	144. +-15.6	24
	0.0700	2.60	2.40	5.76	# 6.85 +- .275	163. +-6.55	34
	0.0710	2.63	2.41	5.82	# 6.46 +- .272	157. +-6.62	24
#	0.0768	5.00	3.20	10.26	# 1.61 +- .800E-01	142. +-7.04	51
#	0.0770	16.00	5.56	30.90	# .124 +- .800E-02	112. +-7.21	51
	0.0782	2.86	2.50	6.25	# .301 +- .301	171. +-8.68	34
#	0.0790	8.00	3.99	15.89	# .548 +- .250E-01	123. +-5.63	51
#	0.0790	11.00	4.64	21.52	# .269 +- .110E-01	115. +-4.89	51
P#	0.0795	16.00	5.56	30.90	P# .121 +- .700E-02	109. +-6.31	210
P#	0.0799	5.00	3.20	10.26	P# 1.50 +- .900E-01	132. +-7.92	210
P#	0.0803	18.00	5.89	34.66	P# .106 +- .600E-02	121. +-6.85	210
P#	0.0804	8.00	3.99	15.89	P# .554 +- .310E-01	125. +-6.99	210
P#	0.0806	11.00	4.64	21.52	P# .288 +- .150E-01	123. +-6.39	210
#	0.0900	3.40	2.69	7.26	# 3.82 +- .460	155. +-18.7	39
@	0.0900	4.17	2.95	8.71	@ 1.02 +- .510	62.5 +-31.2	21
#	0.0960	3.40	2.69	7.26	# 3.41 +- .190	139. +-7.73	66
#	0.0960	6.00	3.48	12.14	# 1.00 +- .600E-01	127. +-7.61	66
#	0.1000	5.00	3.20	10.26	# 1.45 +- .800E-01	128. +-7.04	66
#	0.1008	2.18	2.23	4.97	# 9.18 +- .226	154. +-3.78	24
	0.1118	2.38	2.31	5.35	# 6.48 +- .203	129. +-4.06	24
@	0.1240	3.25	2.64	6.98	@ 1.39 +- .520	51.7 +-19.3	21
	0.1256	2.63	2.41	5.82	@ 4.95 +- .181	121. +-4.41	24
@	0.1260	2.51	2.36	5.59	@ 5.78 +-1.04	128. +-23.1	21
@	0.1270	4.17	2.95	8.71	@ 1.50 +- .460	91.8 +-28.2	21
	0.1394	2.88	2.51	6.28	# 3.97 +- .163	116. +-4.76	24
	0.1566	2.18	2.23	4.97	# 8.84 +- .226	148. +-3.78	24
P#	0.1601	5.00	3.20	10.26	P# 1.24 +- .700E-01	109. +-6.16	210
P#	0.1605	18.00	5.89	34.66	P# .900E-01 +- .500E-02	103. +-5.70	210
#	0.1620	16.00	5.56	30.90	# .105 +- .700E-02	94.7 +-6.31	51
#	0.1640	5.00	3.20	10.26	# 1.25 +- .600E-01	110. +-5.28	51
#	0.1660	8.00	3.99	15.89	# .463 +- .220E-01	104. +-4.96	51
#	0.1670	11.00	4.64	21.52	# .230 +- .110E-01	98.0 +-4.69	51
@	0.1710	2.51	2.36	5.59	@ 4.14 +- .900	91.8 +-20.0	21
@	0.1736	2.38	2.31	5.35	@ 5.80 +- .170	116. +-3.38	24
@	0.1740	3.25	2.64	6.98	@ 2.93 +- .700	109. +-26.0	21
@	0.1750	4.17	2.95	8.71	@ 1.15 +- .360	70.4 +-22.0	21
#	0.1900	3.40	2.69	7.26	# 2.63 +- .140	107. +-5.70	66
#	0.1900	5.00	3.20	10.26	# 1.30 +- .120	114. +-10.6	39
#	0.1951	2.63	2.41	5.82	# 4.17 +- .121	101. +-2.94	24
#	0.2000	5.00	3.20	10.26	# 1.12 +- .700E-01	98.6 +-6.16	66
#	0.2000	6.00	3.48	12.14	# .710 +- .500E-01	90.0 +-6.34	66
	0.2166	2.88	2.51	6.28	# 3.10 +- .136	90.5 +-3.97	24
@	0.2220	2.51	2.36	5.59	@ 2.99 +- .960	66.3 +-21.3	21
@	0.2239	2.18	2.23	4.97	@ 7.00 +- .263	117. +-4.61	24
@	0.2470	3.25	2.64	6.98	@ 1.97 +- .550	73.3 +-20.5	21
@	0.2483	2.38	2.31	5.35	@ 5.12 +- .170	102. +-3.38	24
@	0.2510	4.17	2.95	8.71	@ .890 +- .310	54.5 +-19.0	21
P#	0.2530	16.00	5.56	30.90	P# .102 +- .600E-02	91.9 +-5.41	210
P#	0.2560	8.00	3.99	15.89	P# .373 +- .210E-01	84.1 +-4.73	210
@	0.2750	2.51	2.36	5.59	@ 3.85 +-1.32	85.4 +-29.3	21
	0.2789	2.63	2.41	5.82	# 3.59 +- .121	87.5 +-2.94	24
#	0.3000	5.00	3.20	10.26	# .860 +- .500E-01	75.7 +-4.40	66
	0.3022	2.18	2.23	4.97	# 5.34 +- .188	89.4 +-3.15	24
#	0.3060	16.00	5.56	30.90	# .850E-01 +- .500E-02	76.6 +-4.51	51
#	0.3070	5.00	3.20	10.26	# .850 +- .400E-01	74.8 +-3.52	51
#	0.3097	2.88	2.51	6.28	# 2.91 +- .217	84.9 +-6.35	24
#	0.3120	8.00	3.99	15.89	# .350 +- .150E-01	78.9 +-3.38	51
#	0.3180	11.00	4.64	21.52	# .179 +- .900E-02	76.3 +-3.83	51
@	0.3230	2.51	2.36	5.59	@ 3.68 +-1.04	81.6 +-23.1	21
#	0.3300	3.40	2.69	7.26	# 1.94 +- .160	79.0 +-6.51	39
#	0.3351	2.38	2.31	5.35	# 3.53 +- .102	70.3 +-2.03	24
@	0.3500	3.25	2.64	6.98	@ 1.43 +- .450	53.2 +-16.7	21
@	0.3510	4.17	2.95	8.71	@ .810 +- .250	49.6 +-15.3	21
#	0.3700	5.00	3.20	10.26	# .890 +- .900E-01	78.3 +-7.92	39
@	0.3740	3.40	2.69	7.26	@ 2.17 +- .690	88.3 +-28.1	44
	0.3765	2.63	2.41	5.82	# 2.51 +- .905E-01	61.0 +-2.21	24
#	0.3800	6.00	3.48	12.14	# .537 +- .300E-01	68.1 +-3.80	66
#	0.3900	3.40	2.69	7.26	# 1.40 +- .700E-01	57.0 +-2.85	66
	0.3909	2.18	2.23	4.97	# 3.91 +- .113	65.5 +-1.89	24
	0.4180	2.88	2.51	6.28	# 2.17 +- .109	63.5 +-3.18	24
	0.4335	2.38	2.31	5.35	# 2.75 +- .102	54.8 +-2.03	24
#	0.4380	16.00	5.56	30.90	# .660E-01 +- .500E-02	59.5 +-4.51	51
#	0.4420	5.00	3.20	10.26	# .590 +- .300E-01	51.9 +-2.64	51
#	0.4450	8.00	3.99	15.89	# .248 +- .110E-01	55.9 +-2.48	51
@	0.4500	3.25	2.64	6.98	@ 1.30 +- .600	48.4 +-22.3	21
@	0.4510	4.17	2.95	8.71	@ .690 +- .250	42.2 +-15.3	21
#	0.4530	11.00	4.64	21.52	# .136 +- .700E-02	57.9 +-2.98	51
	0.4848	3.28	2.65	7.04	# 2.04 +- .117	77.3 +-4.44	16
	0.4871	2.63	2.41	5.82	# 2.02 +- .905E-01	49.3 +-2.21	24
	0.4894	2.18	2.23	4.97	# 2.59 +- .752E-01	43.4 +-1.26	24
	0.5148	3.46	2.72	7.37	# 1.63 +- .110	68.9 +-4.65	16
	0.5349	3.58	2.76	7.60	# 1.13 +- .105	50.8 +-4.79	16

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UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C111: GAMMA + PROTON --> NEUTRON + PI+ (K > 1.20 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9395 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 18.00

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	D SIG/D T1*(S-M**2)**2 MU BARN*GEV**2	REF
0.5408	2.88	2.51	6.28	1.44 +-015E-01	42.1 +-2.38	24
0.5428	2.38	2.31	5.35	1.97 +-078E-01	39.2 +-1.35	24
0.5510	4.17	2.95	8.71	0.390 +-0200	23.9 +-12.2	21
0.5550	3.76	2.80	7.82	1.06 +-0102	51.3 +-4.93	16
0.5751	3.82	2.84	8.05	1.01 +-0790E-01	51.8 +-4.06	16
0.5940	16.00	5.56	30.90	0.480E-01+-0300E-02	43.3 +-2.70	51
0.5953	3.94	2.88	8.27	0.611 +-0764E-01	33.4 +-4.17	16
0.5968	2.18	2.23	4.97	1.43 +-0263	23.9 +-4.41	24
0.5970	5.00	3.20	10.26	0.375 +-0270E-01	33.0 +-2.38	51
0.6000	5.00	3.20	10.26	0.444 +-0350E-01	39.1 +-3.08	66
0.6010	8.00	3.99	15.89	0.185 +-0900E-02	41.7 +-2.03	51
0.6098	2.63	2.41	5.82	1.27 +-0604E-01	30.9 +-1.47	24
0.6530	3.40	2.69	7.26	0.799 +-0880E-01	32.5 +-3.58	44
0.6619	2.38	2.31	5.35	1.39 +-0102	27.7 +-2.03	24
0.6770	2.88	2.51	6.28	1.01 +-0544E-01	29.4 +-1.59	24
0.6900	5.00	3.20	10.26	0.430 +-0500E-01	37.9 +-4.40	39
0.7437	2.63	2.41	5.82	0.996 +-0604E-01	24.3 +-1.47	24
0.7526	3.16	2.61	6.81	0.611 +-0734E-01	21.5 +-2.58	24
0.7553	3.17	2.61	6.83	0.529 +-0609E-01	18.7 +-2.16	44
0.7690	5.00	3.20	10.26	0.226 +-0160E-01	19.9 +-1.41	51
0.7700	16.00	5.56	30.90	0.284E-01+-0230E-02	25.6 +-2.07	51
0.7760	8.00	3.99	15.89	0.118 +-0600E-02	26.6 +-1.35	51
0.7810	11.00	4.64	21.52	0.660E-01+-0400E-02	28.1 +-1.70	51
0.7878	3.29	2.66	7.05	0.584 +-0467E-01	22.3 +-1.78	24
0.7905	3.30	2.66	7.07	0.768 +-0861E-01	29.5 +-3.30	44
0.8000	11.00	4.64	21.52	0.617E-01+-0400E-02	26.3 +-1.70	210
0.8010	8.00	3.99	15.89	0.106 +-0700E-02	23.9 +-1.58	210
0.8020	16.00	5.56	30.90	0.286E-01+-0170E-02	25.8 +-1.53	210
0.8176	3.40	2.69	7.26	0.450 +-0743E-01	18.3 +-3.02	44
0.8176	3.40	2.69	7.26	0.457 +-0890E-01	18.6 +-3.62	44
0.8257	2.88	2.51	6.28	0.707 +-0272E-01	20.6 +-0.794	24
0.8528	3.53	2.74	7.50	0.388 +-0712E-01	17.0 +-3.12	44
0.9179	3.16	2.61	6.81	0.538 +-0734E-01	18.9 +-2.58	24
0.9206	3.78	2.82	7.97	0.500 +-0600E-01	25.1 +-3.02	16
0.9608	3.29	2.66	7.05	0.397 +-0234E-01	15.1 +-0.890	24
0.9640	5.00	3.20	10.26	0.172 +-0160E-01	15.1 +-1.41	51
0.9700	16.00	5.56	30.90	0.142E-01+-0110E-02	12.8 +-0.992	51
0.9720	8.00	3.99	15.89	0.700E-01+-0400E-02	15.8 +-0.901	51
0.9840	11.00	4.64	21.52	0.361E-01+-0230E-02	15.4 +-0.980	51
0.9971	3.40	2.69	7.26	0.235 +-0440E-01	9.57 +-1.79	44
1.1510	5.00	3.20	10.26	0.106 +-0100E-01	9.33 +-0.880	51
1.2760	11.00	4.64	21.52	0.143E-01+-0100E-02	6.09 +-0.426	51
1.2900	8.00	3.99	15.89	0.288E-01+-0240E-02	6.49 +-0.541	51
1.2980	16.00	5.56	30.90	0.468E-02+-0300E-03	4.22 +-0.270	210
1.3000	16.00	5.56	30.90	0.410E-02+-0400E-03	3.70 +-0.361	51
1.3010	11.00	4.64	21.52	0.124E-01+-0110E-02	5.28 +-0.469	210
1.3040	8.00	3.99	15.89	0.320E-01+-0250E-02	7.21 +-0.563	210
1.3956	3.40	2.69	7.26	0.123 +-0310E-01	5.01 +-1.26	44
1.4500	5.00	3.20	10.26	0.600E-01+-0140E-01	5.28 +-1.23	39
1.4900	16.00	5.56	30.90	0.220E-02+-0400E-03	1.98 +-0.361	51
1.6600	8.00	3.99	15.89	0.820E-02+-0800E-03	1.85 +-0.180	51
1.6800	16.00	5.56	30.90	0.140E-02+-0200E-03	1.26 +-0.180	51
1.6850	11.00	4.64	21.52	0.370E-02+-0500E-03	1.58 +-0.213	51
1.9500	16.00	5.56	30.90	0.460E-03+-0200E-03	0.415 +-0.180	51
1.9960	11.00	4.64	21.52	0.124E-02+-0130E-03	0.528 +-0.554E-01	210
2.0000	16.00	5.56	30.90	0.450E-03+-0500E-04	0.406 +-0.451E-01	210
2.0040	8.00	3.99	15.89	0.182E-02+-0320E-03	0.410 +-0.721E-01	210
2.0630	11.00	4.64	21.52	0.100E-02+-0300E-03	0.426 +-0.128	51
2.1300	8.00	3.99	15.89	0.150E-02+-0300E-03	0.338 +-0.676E-01	51
2.4970	16.00	5.56	30.90	0.500E-04+-0100E-04	0.451E-01+-0.901E-02	210
3.0000	16.00	5.56	30.90	0.100E-04+-0100E-04	0.901E-02+-0.901E-02	210

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 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C111: GAMMA + PROTON --> NEUTRON + PI+ [K > 1.20 GEV] (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9395 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

1.20 GEV < K < GEV 2.00

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	{D SIG/D T}*(S-M**2)**2 MU BARN*GEV**2	REF
0.0009	1.23	1.79	3.19	46.5	+3.13	34
0.0010	1.37	1.86	3.45	29.3	+2.93	34
0.0011	1.52	1.93	3.73	37.0	+2.51	34
0.0012	1.66	2.00	4.00	33.5	+2.61	34
0.0013	1.80	2.06	4.26	26.4	+1.33	34
0.0015	1.99	2.15	4.61	20.7	+1.51	34
0.0032	1.23	1.79	3.19	41.7	+1.91	34
0.0037	1.37	1.86	3.45	26.7	+1.20	34
0.0042	1.52	1.93	3.73	28.1	+1.69	34
0.0046	1.66	2.00	4.00	27.2	+1.20	34
0.0046	1.20	1.77	3.13	39.5	+2.05	176
0.0049	1.24	1.79	3.21	36.0	+1.89	176
0.0051	1.80	2.06	4.26	26.4	+1.33	34
0.0052	1.27	1.81	3.26	32.1	+1.76	176
0.0057	1.99	2.15	4.61	20.0	+1.797	34
0.0077	1.23	1.79	3.19	30.9	+1.68	34
0.0080	1.20	1.77	3.13	32.8	+1.50	176
0.0085	1.24	1.79	3.21	28.4	+1.29	176
0.0089	1.27	1.81	3.26	24.1	+1.17	176
0.0093	1.52	1.93	3.73	23.9	+1.23	34
0.0103	1.66	2.00	4.00	22.4	+1.15	34
0.0114	1.80	2.06	4.26	20.1	+1.900	34
0.0129	1.20	1.77	3.13	32.8	+1.26	176
0.0137	1.24	1.79	3.21	28.2	+1.06	176
0.0144	1.37	1.86	3.45	18.0	+1.06	34
0.0144	1.27	1.81	3.26	24.1	+1.03	176
0.0164	1.52	1.93	3.73	17.2	+1.817	34
0.0166	1.23	1.79	3.19	24.5	+1.53	34
0.0182	1.20	1.77	3.13	32.3	+1.97	176
0.0183	1.66	2.00	4.00	17.8	+1.889	34
0.0194	1.24	1.79	3.21	26.3	+1.82	176
0.0202	1.80	2.06	4.26	17.1	+1.900	34
0.0204	1.27	1.81	3.26	24.3	+1.61	176
0.0228	1.99	2.15	4.61	15.1	+1.671	34
0.0245	1.20	1.77	3.13	32.4	+1.89	176
0.0252	1.52	1.93	3.73	15.8	+1.11	34
0.0260	1.24	1.79	3.21	29.0	+1.74	176
0.0272	1.20	1.77	3.13	28.7	+1.868	24
0.0273	1.27	1.81	3.26	25.4	+1.61	176
0.0314	1.34	1.84	3.39	20.1	+1.684	24
0.0317	1.20	1.77	3.13	30.9	+1.34	176
0.0337	1.24	1.79	3.21	28.8	+1.29	176
0.0351	1.80	2.06	4.26	15.8	+1.758	34
0.0354	1.27	1.81	3.26	24.7	+1.17	176
0.0355	1.48	1.91	3.66	19.3	+1.724	24
0.0398	1.62	1.98	3.92	18.3	+1.755	24
0.0433	1.99	2.15	4.61	13.8	+1.629	34
0.0443	1.77	2.05	4.20	15.9	+1.677	24
0.0481	1.20	1.77	3.13	31.8	+1.03	24
0.0490	1.20	1.77	3.13	32.6	+1.89	176
0.0508	1.98	2.14	4.60	12.6	+1.633	24
0.0520	1.24	1.79	3.21	30.2	+1.74	176
0.0546	1.27	1.81	3.26	30.4	+1.76	176
0.0554	1.34	1.84	3.39	24.5	+1.753	24
0.0629	1.48	1.91	3.66	18.9	+1.543	24
0.0704	1.62	1.98	3.92	14.6	+1.485	24
0.0747	1.20	1.77	3.13	34.5	+1.868	24
0.0756	1.20	1.77	3.13	35.7	+2.13	176
0.0784	1.77	2.05	4.20	14.0	+1.387	24
0.0802	1.24	1.79	3.21	34.6	+2.04	176
0.0843	1.27	1.81	3.26	34.0	+1.91	176
0.0861	1.34	1.84	3.39	25.8	+1.616	24
0.0899	1.98	2.14	4.60	12.1	+1.295	24
0.0976	1.48	1.91	3.66	20.0	+1.03	24
0.1067	1.20	1.77	3.13	34.4	+1.11	24
0.1076	1.20	1.77	3.13	41.1	+3.00	176
0.1093	1.62	1.98	3.92	15.5	+1.755	24
0.1141	1.24	1.79	3.21	30.3	+2.50	176
0.1199	1.27	1.81	3.26	28.6	+2.42	176
0.1218	1.77	2.05	4.20	13.1	+1.338	24
0.1231	1.34	1.84	3.39	25.7	+1.821	24
0.1370	1.97	2.14	4.58	12.6	+2.09	21
0.1396	1.98	2.14	4.60	10.4	+2.253	24
0.1396	1.48	1.91	3.66	17.3	+1.483	24
0.1440	1.20	1.77	3.13	34.8	+1.868	24
0.1449	1.20	1.77	3.13	37.7	+2.92	176
0.1537	1.24	1.79	3.21	30.3	+2.57	176
0.1562	1.62	1.98	3.92	13.1	+2.377	24
0.1614	1.27	1.81	3.26	32.7	+2.64	176
0.1661	1.34	1.84	3.39	24.3	+1.616	24
0.1742	1.77	2.05	4.20	11.4	+2.290	24
0.1770	1.97	2.14	4.58	9.10	+1.71	21
0.1863	1.20	1.77	3.13	32.0	+1.58	24
0.1874	1.20	1.77	3.13	31.3	+1.947	176
0.1884	1.48	1.91	3.66	16.3	+1.422	24
0.1986	1.24	1.79	3.21	28.6	+1.908	176

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C111: GAMMA + PROTON --> NEUTRON + PI+ (K > 1.20 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9395 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

1.20 GEV < K < GEV 2.00

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
0.1996	1.98	2.14	4.60	8.61	+2.211	24
0.2084	1.27	1.81	3.26	26.9	+4.807	176
0.2109	1.62	1.98	3.92	10.9	+3.323	24
0.2148	1.34	1.84	3.39	23.1	+8.890	24
0.2332	1.20	1.77	3.13	37.1	+1.97	182
0.2351	1.77	2.05	4.20	8.60	+2.290	24
0.2434	1.24	1.79	3.21	26.5	+2.57	182
0.2437	1.48	1.91	3.66	14.7	+4.422	24
0.2536	1.28	1.81	3.28	23.2	+1.60	182
0.2694	1.98	2.14	4.60	6.92	+2.253	24
0.2728	1.62	1.98	3.92	8.68	+2.216	24
0.2854	1.20	1.77	3.13	25.6	+1.58	176
0.3024	1.24	1.79	3.21	20.7	+1.29	176
0.3042	1.77	2.05	4.20	6.72	+1.193	24
0.3168	1.27	1.81	3.26	18.5	+1.25	176
0.3415	1.62	1.98	3.92	5.66	+5.593	24
0.3485	1.98	2.14	4.60	5.02	+1.127	24
0.3808	1.77	2.05	4.20	5.65	+2.290	24
0.3992	1.20	1.77	3.13	15.6	+1.50	176
0.4221	1.24	1.79	3.21	15.0	+1.36	176
0.4362	1.98	2.14	4.60	4.22	+1.127	24
0.4418	1.27	1.81	3.26	11.5	+1.17	176
0.5250	1.20	1.77	3.13	12.8	+1.34	176
0.5545	1.24	1.79	3.21	8.09	+9.83	176
0.5792	1.27	1.81	3.26	7.99	+1.03	176
0.6590	1.20	1.77	3.13	7.50	+1.11	176
0.6950	1.24	1.79	3.21	4.92	+8.32	176
0.7249	1.27	1.81	3.26	4.55	+8.80	176

C111: GAMMA + PROTON --> NEUTRON + PI+ (K > 1.20 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9395 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 1.20 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM LAB	D SIG/D OMEGA (CM) MU BARN/ STERAD	REF
1.20	1.77	3.13	-0.243	3.16	+3.16	2.400	229
			0.552	5.60	+5.53	7.10	176
1.21+- 0.02	1.78+- 0.01	3.15+- 0.04	-0.216+- 0.023	5.74	14.5+- 6.4	5.9+- 2.7	230
1.21	1.78	3.15	0.063	4.61	51.5	21.6	156
1.22	1.78	3.17	-0.240 --0.227	5.43	0.0 - 10.0	0.0 - 4.1	242
			0.165	3.17	59.8	25.2	156
1.23+- 0.02	1.79+- 0.01	3.19+- 0.04	-0.213+- 0.023	4.60	14.4+- 6.4	5.9+- 2.6	230
1.23	1.79	3.19	-0.218	2.75	12.7	5.2	156
			-0.164	8.33	24.5	10.1	156
			-0.024	7.87	42.3	17.6	156
1.24+- 0.04	1.79+- 0.02	3.21+- 0.08	-0.138+- 0.062	8.30	28.4+- 9.0	11.7+- 3.8	230
			-0.045+- 0.083	7.68	39.4+- 8.9	16.5+- 3.8	230
1.24	1.79	3.21	0.585	4.24	89.4	38.8	176
1.25	1.80	3.23	-0.235	3.14	0.0	0.0	229
1.25+- 0.02	1.80+- 0.01	3.23+- 0.04	-0.210+- 0.023	4.05	14.3+- 6.4	5.8+- 2.6	230
1.25	1.80	3.23	-0.102	5.46	32.8	13.5	156
			0.076	4.27	51.0	21.2	156
1.26	1.80	3.24	0.180	2.82	59.2	24.8	156
			0.703	2.82	96.0	41.9	156
1.27	1.81	3.26	0.607	4.18	88.9	38.4	176
1.28+- 0.04	1.81+- 0.02	3.28+- 0.08	-0.206+- 0.024	3.51	14.2+- 6.3	5.7+- 2.6	230
			-0.131+- 0.063	6.86	28.0+- 8.9	11.4+- 3.7	230
			-0.035+- 0.085	6.70	39.0+- 8.8	16.2+- 3.7	230
1.28	1.81	3.28	-0.012	5.52	41.7	17.2	156
1.29	1.82	3.30	-0.230	1.51	0.0	0.0	229
			-0.154	5.97	24.1	9.8	156
1.30	1.82	3.32	-0.092	5.98	32.3	13.2	156
			0.091	3.63	50.4	20.8	156
			0.195	2.63	58.7	24.4	156
1.32	1.83	3.36	-0.226 --0.213	3.31	0.0 - 10.0	0.0 - 4.0	242
1.32+- 0.04	1.83+- 0.02	3.36+- 0.08	-0.200+- 0.024	3.28	14.1+- 6.3	5.7+- 2.5	230
			-0.124+- 0.064	6.22	27.6+- 8.8	11.2+- 3.6	230
			-0.260+- 0.086	7.30	38.6+- 8.8	0.0+- 3.5	230
1.33	1.84	3.38	0.000	5.04	41.2	16.8	156
1.36+- 0.04	1.85+- 0.02	3.43+- 0.08	-0.194+- 0.024	2.85	13.9+- 6.2	5.6+- 2.5	230
			-0.117+- 0.066	5.75	27.4+- 8.8	11.1+- 3.6	230
1.36	1.85	3.43	-0.081	4.70	31.8	12.9	156

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DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 1.20 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM LAB	D SIG/D OMEGA (CM) MU BARN/ STERAD	REF
1.36+- 0.04	1.85+- 0.02	3.43+- 0.08	#-0.017+- 0.088 #5.74	+-.660	38.2+- 8.7	15.7+- 3.6	.854 +- .982E-01 230
1.40+- 0.04	1.87+- 0.02	3.51+- 0.08	#-0.188+- 0.025 #2.64	+-.250	13.8+- 6.1	5.6+- 2.5	.408 +- .386E-01 230
			#-0.110+- 0.067 #5.71	+-.510	27.1+- 8.7	10.9+- 3.5	.881 +- .787E-01 230
			#-0.009+- 0.090 #6.16	+-.680	37.8+- 8.6	15.4+- 3.6	.951 +- .105E-01 230
1.43	1.89	3.56	-0.213 --0.198 1.97	+-.189	0 0 - 10.0	0 0 - 4.0	.313 +- .300E-01 242
1.44+- 0.04	1.89+- 0.02	3.58+- 0.08	#-0.183+- 0.025 #2.06	+-.220	13.7+- 6.1	5.5+- 2.4	.330 +- .352E-01 230
			#-0.104+- 0.068 #5.62	+-.510	26.8+- 8.6	10.7+- 3.5	.899 +- .816E-01 230
			#-0.001+- 0.092 #5.86	+-.670	37.5+- 8.5	15.2+- 3.5	.937 +- .107E-01 230
1.48+- 0.04	1.91+- 0.02	3.66+- 0.08	#-0.178+- 0.026 #1.69	+-.140	13.6+- 6.0	5.5+- 2.4	.280 +- .232E-01 230
			#-0.098+- 0.069 #3.86	+-.250	26.5+- 8.5	10.6+- 3.4	.639 +- .414E-01 230
			# 0 0 +- 0.091 #3.85	+-.320	37.1+- 8.4	14.7+- 3.4	.638 +- .530E-01 230
1.52+- 0.04	1.93+- 0.02	3.73+- 0.08	#-0.174+- 0.026 #1.14	+-.110	13.4+- 5.9	5.3+- 2.3	.195 +- .188E-01 230
			#-0.092+- 0.070 #3.55	+-.240	26.2+- 8.4	10.4+- 3.4	.608 +- .411E-01 230
			# 0.007+- 0.093 #3.92	+-.330	35.8+- 8.3	14.5+- 3.4	.671 +- .565E-01 230
1.56	1.95	3.81	-0.200 --0.183 .599	+-.565E-01	0 0 - 10.0	0 0 - 3.9	.106 +- .100E-01 242
1.56+- 0.04	1.95+- 0.02	3.81+- 0.08	#-0.170+- 0.026 #1.32	+-.140	13.3+- 5.9	5.2+- 2.3	.234 +- .248E-01 230
			#-0.086+- 0.071 #2.84	+-.220	26.0+- 8.4	10.3+- 3.3	.502 +- .389E-01 230
			# 0.010+- 0.086 #3.84	+-.400	35.8+- 7.6	14.1+- 3.1	.679 +- .708E-01 230
1.60+- 0.04	1.97+- 0.02	3.88+- 0.08	#-0.166+- 0.027 #1.00	+-.120	13.2+- 5.8	5.1+- 2.3	.183 +- .219E-01 230
			#-0.081+- 0.072 #2.22	+-.260	25.8+- 8.3	10.1+- 3.3	.405 +- .475E-01 230
			# 0.018+- 0.088 #4.10	+-.420	35.5+- 7.5	13.9+- 3.0	.749 +- .767E-01 230
1.64+- 0.04	1.99+- 0.02	3.96+- 0.08	#-0.161+- 0.027 #0.960	+-.120	13.0+- 5.8	5.1+- 2.2	.181 +- .226E-01 230
			#-0.076+- 0.070 #2.33	+-.240	25.6+- 8.2	9.9+- 3.2	.439 +- .452E-01 230
			# 0.024+- 0.089 #2.44	+-.330	35.2+- 7.5	13.7+- 3.0	.459 +- .621E-01 230
1.65	1.99	3.98	-0.191 --0.173 .317	+-.435E-01	0 0 - 10.0	0 0 - 3.8	.602E-01 +- .825E-02 242
1.68+- 0.04	2.01+- 0.02	4.03+- 0.08	#-0.157+- 0.027 #0.680	+-.110	12.9+- 5.7	5.0+- 2.2	.132 +- .213E-01 230
			#-0.071+- 0.074 #1.57	+-.190	25.3+- 8.1	9.8+- 3.2	.305 +- .369E-01 230
			# 0.031+- 0.097 #2.39	+-.500	34.9+- 8.0	13.5+- 3.2	.464 +- .970E-01 230
1.72+- 0.04	2.03+- 0.02	4.11+- 0.08	#-0.154+- 0.028 #0.552	+-.680E-01	12.8+- 5.7	4.9+- 2.2	.110 +- .136E-01 230
			#-0.066+- 0.075 #1.87	+-.220	25.1+- 8.1	9.6+- 3.1	.373 +- .439E-01 230
			# 0.037+- 0.098 #1.92	+-.230	34.6+- 7.9	13.3+- 3.1	.383 +- .459E-01 230
1.75	2.04	4.16	-0.182 --0.163 .321	+-.404E-01	0 0 - 10.0	0 0 - 3.8	.655E-01 +- .825E-02 242
1.76+- 0.04	2.05+- 0.02	4.18+- 0.08	#-0.150+- 0.028 #0.449	+-.600E-01	12.7+- 5.6	4.8+- 2.1	.922E-01 +- .123E-01 230
			#-0.061+- 0.076 #1.09	+-.100E 00	24.9+- 8.0	9.5+- 3.1	.224 +- .205E-01 230
			# 0.042+- 0.099 #1.16	+-.180	34.3+- 7.9	13.1+- 3.1	.238 +- .370E-01 230
1.80+- 0.08	2.06+- 0.04	4.26+- 0.15	#-0.146+- 0.028 #0.471	+-.620E-01	12.6+- 5.6	4.9+- 2.1	.993E-01 +- .131E-01 230
1.80+- 0.04	2.06+- 0.02	4.26+- 0.08	#-0.056+- 0.077 #1.05	+-.100E 00	24.7+- 8.0	9.4+- 3.1	.222 +- .211E-01 230
			# 0.045+- 0.101 #1.23	+-.180	34.0+- 7.8	12.8+- 3.1	.260 +- .380E-01 230
1.84+- 0.04	2.08+- 0.02	4.33+- 0.08	#-0.142+- 0.028 #0.467	+-.780E-01	12.5+- 5.5	4.8+- 2.1	.101 +- .169E-01 230
			#-0.051+- 0.078 #0.810	+-.110	24.5+- 7.9	9.3+- 3.0	.176 +- .238E-01 230
			# 0.050+- 0.102 #0.534	+-.190	33.7+- 7.8	12.7+- 3.0	.116 +- .412E-01 230
1.85	2.09	4.35	-0.175 --0.154 .450	+-.378E-01	0 0 - 10.0	0 0 - 3.7	.983E-01 +- .825E-02 242
1.90+- 0.08	2.11+- 0.04	4.45+- 0.15	#-0.138+- 0.029 #0.273	+-.440E-01	12.3+- 5.5	4.7+- 2.0	.615E-01 +- .991E-02 230
			#-0.045+- 0.079 #0.610	+-.700E-01	24.1+- 7.8	9.1+- 3.0	.137 +- .158E-01 230
			# 0.058+- 0.104 #0.815	+-.990E-01	33.3+- 7.7	12.4+- 3.0	.183 +- .223E-01 230
1.93	2.12	4.50	-0.169 --0.147 .318	+-.359E-01	0 0 - 10.0	0 0 - 3.7	.730E-01 +- .825E-02 242
1.98+- 0.08	2.14+- 0.04	4.60+- 0.15	#-0.132+- 0.029 #0.254	+-.430E-01	12.2+- 5.4	4.5+- 2.0	.601E-01 +- .102E-01 230
			#-0.037+- 0.081 #0.420	+-.500E-01	23.7+- 7.7	8.9+- 2.9	.994E-01 +- .118E-01 230
			# 0.068+- 0.106 #0.354	+-.650E-01	32.8+- 7.6	12.1+- 2.9	.838E-01 +- .154E-01 230
2.04	2.17	4.71	-0.161 --0.138 .286	+-.336E-01	0 0 - 10.0	0 0 - 3.6	.703E-01 +- .825E-02 242
2.06+- 0.08	2.18+- 0.03	4.75+- 0.15	#-0.127+- 0.030 #0.266	+-.290E-01	12.0+- 5.3	4.4+- 1.9	.660E-01 +- .720E-02 230
			#-0.029+- 0.082 #0.270	+-.300E-01	23.3+- 7.6	8.7+- 2.8	.670E-01 +- .745E-02 230
			# 0.078+- 0.108 #0.429	+-.880E-01	32.3+- 7.5	11.8+- 2.8	.106 +- .218E-01 230
2.14+- 0.08	2.21+- 0.03	4.90+- 0.15	#-0.121+- 0.030 #0.259	+-.290E-01	11.8+- 5.2	4.3+- 1.9	.673E-01 +- .753E-02 230
			#-0.022+- 0.084 #0.250	+-.300E-01	22.9+- 7.5	8.5+- 2.7	.649E-01 +- .779E-02 230
			# 0.079+- 0.124 #0.305	+-.430E-01	30.9+- 8.5	11.3+- 3.1	.792E-01 +- .112E-01 230
2.15	2.22	4.91	-0.155 --0.130 .317	+-.315E-01	0 0 - 10.0	0 0 - 3.6	.829E-01 +- .825E-02 242
2.22+- 0.08	2.25+- 0.03	5.05+- 0.15	#-0.116+- 0.031 #0.275	+-.380E-01	11.6+- 5.1	4.2+- 1.8	.746E-01 +- .103E-01 230
			#-0.017+- 0.085 #0.260	+-.400E-01	22.6+- 7.4	8.2+- 2.7	.705E-01 +- .109E-01 230
			# 0.082+- 0.100 #0.356	+-.570E-01	30.2+- 6.6	10.9+- 2.4	.966E-01 +- .155E-01 230
2.24	2.25	5.08	-0.149 --0.123 .356	+-.300E-01	0 0 - 10.0	0 0 - 3.5	.977E-01 +- .825E-02 242
2.30+- 0.08	2.28+- 0.03	5.20+- 0.15	#-0.111+- 0.031 #0.244	+-.280E-01	11.4+- 5.1	4.1+- 1.8	.690E-01 +- .792E-02 230
			#-0.009+- 0.086 #0.312	+-.430E-01	22.3+- 7.3	8.0+- 2.6	.883E-01 +- .122E-01 230
			# 0.091+- 0.102 #0.310	+-.540E-01	29.9+- 6.6	10.7+- 2.4	.877E-01 +- .153E-01 230
2.38+- 0.08	2.31+- 0.03	5.35+- 0.15	#-0.106+- 0.032 #0.262	+-.270E-01	11.2+- 5.0	4.0+- 1.8	.772E-01 +- .795E-02 230
			#-0.004+- 0.087 #0.277	+-.270E-01	22.0+- 7.2	7.8+- 2.5	.816E-01 +- .795E-02 230
			# 0.097+- 0.103 #0.232	+-.490E-01	29.6+- 6.5	10.4+- 2.3	.683E-01 +- .144E-01 230
2.41	2.32	5.40	-0.141 --0.112 .307	+-.276E-01	0 0 - 10.0	0 0 - 3.5	.919E-01 +- .825E-02 242
2.46+- 0.08	2.34+- 0.03	5.50+- 0.15	#-0.101+- 0.032 #0.231	+-.260E-01	11.1+- 4.9	3.9+- 1.7	.707E-01 +- .796E-02 230
			# 0.002+- 0.089 #0.279	+-.280E-01	21.8+- 7.1	7.7+- 2.5	.854E-01 +- .857E-02 230
			# 0.060+- 0.103 #0.232	+-.330E-01	29.0+- 6.4	9.1+- 2.3	.710E-01 +- .101E-01 230
2.53	2.37	5.63	-0.135 --0.105 .276	+-.260E-01	0 0 - 10.0	0 0 - 3.4	.873E-01 +- .825E-02 242
2.54+- 0.08	2.38+- 0.03	5.65+- 0.15	#-0.097+- 0.032 #0.191	+-.230E-01	10.9+- 4.9	3.8+- 1.7	.607E-01 +- .731E-02 230
			# 0.007+- 0.090 #0.258	+-.350E-01	21.5+- 7.0	7.5+- 2.4	.820E-01 +- .111E-01 230
			# 0.107+- 0.105 #0.260	+-.370E-01	28.6+- 6.3	9.8+- 2.2	.827E-01 +- .118E-01 230
2.62+- 0.08	2.41+- 0.03	5.80+- 0.15	#-0.094+- 0.033 #0.186	+-.230E-01	10.7+- 4.8	3.7+- 1.6	.613E-01 +- .758E-02 230
			# 0.012+- 0.091 #0.321	+-.400E-01	21.2+- 6.9	7.3+- 2.4	.106 +- .132E-01 230
			# 0.114+- 0.097 #0.235	+-.470E-01	28.2+- 5.7	9.6+- 2.0	.774E-01 +- .155E-01 230
2.66	2.42	5.87	-0.129 --0.097 .163	+-.246E-01	0 0 - 10.0	0 0 - 3.4	.548E-01 +- .825E-02 242
2.70+- 0.08	2.44+- 0.03	5.95+- 0.15	#-0.092+- 0.033 #0.136	+-.270E-01	10.5+- 4.8	3.5+- 1.6	.646E-01 +- .921E-02 230
			# 0.016+- 0.092 #0.269	+-.360E-01	20.9+- 6.8	7.1+- 2.3	.918E-01 +- .123E-01 230
			# 0.119+- 0.099 #0.129	+-.360E-01	27.8+- 5.6	9.4+- 2.0	.440E-01 +- .123E-01 230
2.71	2.44	5.97	-0.127 --0.095 .133	+-.160E-01	0 0 - 10.0	0 0 - 3.3	.456E-01 +- .550E-02 242
2.78+- 0.08	2.47+- 0.03	6.10+- 0.15	#-0.088+- 0.033 #0.110	+-.260E-01	10.3+- 4.7	3.5+- 1.6	.388E-01 +- .918E-02 230
			# 0.019+- 0.093 #0.179	+-.300E-01	20.6+- 6.8	6.9+- 2.3	.632E-01 +- .106E-01 230
			# 0.125+- 0.100 #0.171	+-.430E-01	27.5+- 5.6	9.2+- 1.9	.604E-01 +- .152E-01 230
2.80	2.48	6.13	-0.070 --0.015 .192	+-.172E-01	12.6	4.2	.684E-01 +- .613E-02 63
			-0.015 .228	+-.204E-01	17.9	6.0	.812E-01 +- .727E-02 63

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M2: 0.9383 GEV
 M3: 0.9395 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 1.20 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GFV**2	THETA (BARYON) CM	LAB	D SIG/D OMEGA (CM) MU BARN/ STERAD	REF
2.80	2.48	6.13	0.085	0.198 +- .166E-01	25.0	8.3	.705E-01+- .591E-02	63
			0.200	0.140 +- .242E-01	31.2	10.5	.499E-01+- .862E-02	63
			0.425	0.860E-01+- .128E-01	41.0	13.9	.306E-01+- .456E-02	63
2.82+- 0.16	2.48+- 0.06	6.17+- 0.30	0.025+- 0.093	0.112 +- .340E-01	20.3+- 6.7	7.0+- 2.3	.401E-01+- .122E-01	230
2.86+- 0.08	2.50+- 0.03	6.25+- 0.15	0.085+- 0.034	0.680E-01+- .200E-01	10.1+- 4.6	3.4+- 1.5	.248E-01+- .729E-02	230
			0.022+- 0.094	0.156 +- .280E-01	20.3+- 6.7	6.8+- 2.2	.569E-01+- .102E-01	230
			0.131+- 0.101	0.134 +- .380E-01	27.1+- 5.5	9.0+- 1.9	.489F-01+- .139E-01	230
			0.031+- 0.095	0.110 +- .330E-01	19.9+- 6.6	5.7+- 2.2	.420F-01+- .126E-01	230
2.98+- 0.16	2.54+- 0.06	6.47+- 0.30	0.116 +- 0.078	0.870E-01+- .141E-01	0.0 - 10.0	0.0 - 3.2	.339F-01+- .550F-02	242
3.03	2.56	6.57	0.037+- 0.097	0.500E-01+- .260E-01	19.4+- 6.4	6.4+- 2.1	.202E-01+- .105E-01	230
3.14+- 0.16	2.60+- 0.06	6.77+- 0.30	0.108 +- 0.068	0.548E-01+- .706E-02	0.0 - 10.0	0.0 - 3.1	.233E-01+- .300E-02	242
3.27	2.65	7.02	0.045+- 0.098	0.390E-01+- .200E-01	18.9+- 6.3	6.2+- 2.0	.167E-01+- .857E-02	230
3.30+- 0.16	2.66+- 0.06	7.07+- 0.30	0.101 +- 0.056	0.354E-01+- .536E-02	0.0 - 10.0	0.0 - 3.1	.2165F-01+- .250E-02	242
3.55	2.75	7.54	0.095 +- 0.046	0.275E-01+- .594E-02	0.0 - 10.0	0.0 - 3.0	.2139E-01+- .300E-02	242
3.81	2.83	8.03	0.086 +- 0.032	0.290E-01+- .663E-02	0.0 - 10.0	0.0 - 2.9	.2164E-01+- .375E-02	242
4.22	2.97	8.80	0.550	0.129E-01+- .170E-02	34.4	10.0	.744E-02+- .981E-03	63
4.30	2.99	8.95	0.377	0.242E-01+- .240E-02	29.3	8.5	.139E-01+- .138E-02	105
4.10 - 4.50	2.93 - 3.05	8.57 - 9.32	0.190	0.335E-01+- .300E-02	22.5	6.5	.193F-01+- .173E-02	63
4.30	2.99	8.95	0.190	0.335E-01+- .330E-02	22.5	6.5	.193E-01+- .190E-02	63
			0.240	0.373E-01+- .380E-02	24.4	7.0	.215F-01+- .219E-02	63
			0.303	0.244E-01+- .430E-02	26.7	7.7	.141F-01+- .248F-02	63
4.10 - 4.50	2.93 - 3.05	8.57 - 9.32	0.069	0.394E-01+- .410E-02	16.8	4.8	.227E-01+- .236E-02	105
4.30	2.99	8.95	0.149	0.322E-01+- .410E-02	20.7	6.0	.185E-01+- .236E-02	105
			0.050	0.377E-01+- .540E-02	8.0	2.3	.218E-01+- .312E-02	63
			0.030	0.335E-01+- .980E-02	10.0	2.9	.193E-01+- .566E-02	63
			0.008	0.322E-01+- .490E-02	13.0	3.7	.186E-01+- .283E-02	63
			0.065	0.445E-01+- .590E-02	16.5	4.7	.257E-01+- .340F-02	63
4.73	3.12	9.76	0.078 +- 0.017	0.236E-01+- .468E-02	0.0 - 10.0	0.0 - 2.8	.2151E-01+- .300E-02	242
5.00	3.20	10.26	0.050	0.206E-01+- .180E-02	6.1	1.6	.140E-01+- .123E-02	105
			0.028	0.229F-01+- .210E-02	8.4	2.3	.156E-01+- .143E-02	105
			0.008	0.230F-01+- .380E-02	11.2	3.0	.157E-01+- .259E-02	105
			0.039	0.275E-01+- .220E-02	13.2	3.6	.187F-01+- .150E-02	105
			0.110	0.254E-01+- .200E-02	16.9	4.6	.173E-01+- .136F-02	105
			0.150	0.203E-01+- .190E-02	18.6	5.1	.138E-01+- .129E-02	105
			0.203	0.196E-01+- .140E-02	20.7	5.6	.133E-01+- .953E-03	105
			0.257	0.166E-01+- .160E-02	22.7	6.2	.113F-01+- .109F-02	105
			0.323	0.198F-01+- .170E-02	24.9	6.8	.135E-01+- .116E-02	105
			0.400	0.142F-01+- .100E-02	27.2	7.4	.967E-02+- .681E-03	105
			0.560	0.117E-01+- .900E-03	30.0	8.2	.796E-02+- .613E-03	105
			0.533	0.112E-01+- .130E-02	30.9	8.5	.762F-02+- .885E-03	105
			0.585	0.105E-01+- .120E-02	32.2	8.9	.715F-02+- .817F-03	105
			0.650	0.930E-02+- .100E-02	33.8	9.3	.633E-02+- .681E-03	105
			0.700	0.850E-02+- .900E-03	35.0	9.7	.579F-02+- .613E-03	105
			0.850	0.740E-02+- .600E-03	38.4	10.6	.504F-02+- .408E-03	105
			1.000	0.630E-02+- .100E-02	41.5	11.5	.429E-02+- .681E-03	105
			1.200	0.500E-02+- .500E-03	45.4	12.7	.340E-02+- .340E-03	105
			1.417	0.480E-02+- .600E-03	49.4	13.9	.327E-02+- .408E-03	105
			1.880	0.420E-02+- .600E-03	53.8	15.3	.286F-02+- .408E-03	105
5.04	3.22	10.34	0.073 +- 0.008	0.213E-01+- .655E-02	0.0 - 10.0	0.0 - 2.7	.2146E-01+- .450E-02	242
5.66	3.35	11.50	0.066 +- 0.008	0.250E-01+- .514E-02	0.0 - 10.0	0.0 - 2.6	.2195F-01+- .400F-02	242
6.41	3.59	12.91	0.059 +- 0.026	0.937E-02+- .753E-02	0.0 - 10.0	0.0 - 2.4	.2834F-02+- .670E-02	242
6.70	3.67	13.45	0.012	0.127E-01+- .390E-02	7.1	1.7	.119E-01+- .364E-02	63
			0.0	0.800E-02+- .170E-02	8.0	1.9	.747E-02+- .159E-02	63
			0.185	0.870E-02+- .160E-02	16.5	4.0	.812E-02+- .149E-02	63
			0.300	0.910E-02+- .800E-03	20.1	4.9	.849E-02+- .747E-03	63
7.22	3.80	14.43	0.053 +- 0.044	0.660F-02+- .643E-02	0.0 - 10.0	0.0 - 2.1	.2667E-02+- .650E-02	242
9.50	4.33	18.71	0.015	0.360E-02+- .150E-03	6.6	1.4	.486F-02+- .203E-03	105
			0.054	0.380E-02+- .500E-03	8.6	1.8	.513E-02+- .675E-03	105
			0.125	0.360E-02+- .400E-03	11.3	2.4	.486E-02+- .540E-03	105
			0.213	0.340E-02+- .400E-03	14.0	2.9	.459E-02+- .540E-03	105
			0.264	0.270E-02+- .300E-03	15.4	3.2	.365E-02+- .405E-03	105
			0.400	0.150E-02+- .280E-03	18.5	3.9	.203E-02+- .378E-03	105
			0.500	0.200E-02+- .240E-03	20.6	4.3	.270E-02+- .324E-03	105
			0.583	0.120F-02+- .210E-03	22.1	4.6	.162E-02+- .284E-03	105
			0.700	0.120E-02+- .170E-03	24.1	5.1	.162F-02+- .230E-03	105
			0.850	0.110E-02+- .150E-03	26.5	5.6	.149E-02+- .203E-03	105
			1.000	0.880E-03+- .100E-03	28.7	6.0	.119E-02+- .135E-03	105
			1.180	0.730E-03+- .100E-03	31.1	6.6	.986E-03+- .135E-03	105
			1.430	0.610E-03+- .160E-03	34.2	7.3	.824E-03+- .216E-03	105
			1.710	0.520E-03+- .700E-03	37.5	8.0	.702E-03+- .945E-03	105
9.80	4.39	19.27	0.020	0.270E-02+- .170E-02	6.7	1.4	.377E-02+- .237E-02	63
			0.065	0.320E-02+- .120E-02	8.9	1.8	.446E-02+- .167E-02	63
			0.125	0.470E-02+- .700E-03	11.1	2.3	.656E-02+- .976E-03	63
			0.212	0.320E-02+- .600E-03	13.8	2.8	.446E-02+- .837E-03	63
			0.330	0.270E-02+- .400E-03	16.7	3.4	.377E-02+- .558E-03	63
			0.405	0.220E-02+- .600E-03	18.3	3.8	.307F-02+- .837E-03	63
14.80	5.35	28.65	0.0	0.690E-03+- .130E-03	3.6	0.6	.148E-02+- .278E-03	105
			0.154	0.990F-03+- .150E-03	9.4	1.6	.212E-02+- .321E-03	105
			0.336	0.960F-03+- .930E-04	13.3	2.3	.205E-02+- .199F-03	105

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 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; F* = CM ENERGY.

C111: GAMMA + PROTON --> NEUTRON + PI+ (K > 1.20 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9395 GEV
 M4: 0.1396 GEV

RATIO OF CROSS SECTIONS FOR TRANSVERSE AND PARALLEL (TO THE PRODUCTION PLANE) POLARIZED GAMMAS

K GEV	E* GEV	-T GEV**2	THETA (MESON)		A=STG TRANSVERSE		B=STG PARALLEL		REF	
			CM	LAB	(A-B)/(A+B)	A/(A+B)	B/(A+B)			
2.50	2.36	# 0.0200	8.18	3.243	#0.980	+-100E 00	0.990	+-500E-01	0.100E-01+-500E-01	87
		# 0.0500	12.96	5.147	#0.960	+-800E-01	0.980	+-400E-01	0.200E-01+-400E-01	87
		# 0.1000	18.37	7.322	#0.800	+-800E-01	0.900	+-400E-01	0.100 +-400E-01	87
		# 0.2000	26.09	10.49	#0.580	+-800E-01	0.790	+-400E-01	0.210 +-400E-01	87
		# 0.3000	32.10	12.99	#0.590	+-800E-01	0.795	+-400E-01	0.205 +-400E-01	87
3.00	2.55	P2 0.1400	19.57	7.234						
		+- 0.0500	+- 3.53	+-1.327	P20.930	+-0.110	0.965	+-550E-01	0.350E-01+-550E-01	119
		P2 0.2400	25.72	9.564						
		+- 0.0500	+- 2.73	+-1.043	P20.670	+-0.900E-01	0.835	+-450E-01	0.165 +-450E-01	119
		P2 0.3400	30.73	11.50						
		+- 0.0500	+- 2.32	+-0.9027	P20.900	+-0.100E 00	0.950	+-500E-01	0.500E-01+-500E-01	119
		P2 0.6000	41.21	15.68						
		+- 0.1200	+- 4.31	+-1.766	P20.680	+-0.170	0.840	+-850E-01	0.160 +-850E-01	119
		P2 0.8400	49.22	19.04						
		+- 0.1200	+- 3.75	+-1.614	P20.800	+-0.140	0.900	+-700E-01	0.100 +-700E-01	119
3.40	2.69	P2 1.0600	55.78	21.94						
		+- 0.1000	+- 2.86	+-1.290	P20.880	+-0.160	0.940	+-800E-01	0.600E-01+-800E-01	119
		# 0.0100	4.85	1.684	#0.680	+-0.110	0.840	+-550E-01	0.160 +-550E-01	87
		# 0.0200	6.86	2.384	# 1.00	+-0.120	1.00	+-600E-01	0.0 +-600E-01	87
		# 0.0500	10.86	3.780	#0.970	+-800E-01	0.985	+-400E-01	0.150E-01+-400E-01	87
		# 0.1000	15.38	5.368	#0.800	+-800E-01	0.900	+-400E-01	0.100 +-400E-01	87
		# 0.2000	21.82	7.656	#0.790	+-800E-01	0.895	+-400E-01	0.105 +-400E-01	87
		# 0.3000	26.81	9.457	#0.690	+-800E-01	0.845	+-400E-01	0.155 +-400E-01	87
		# 0.4000	31.05	11.01	#0.640	+-100F 00	0.820	+-500E-01	0.180 +-500E-01	87
		# 0.5000	34.83	12.42	#0.640	+-900E-01	0.820	+-450E-01	0.180 +-450E-01	87
5.00	3.20	# 0.6000	38.27	13.73	#0.630	+-100E 00	0.815	+-500E-01	0.185 +-500E-01	87
		# 0.1000	12.41	3.641	#0.730	+-0.170	0.865	+-850E-01	0.135 +-850E-01	87
		# 0.4000	24.98	7.407	#0.720	+-0.200	0.860	+-100E 00	0.140 +-100E 00	87

C111: GAMMA + PROTON --> NEUTRON + PI+ (K > 1.20 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9395 GEV
 M4: 0.1396 GEV

POLARIZED GAMMAS (DIRECTION OF POLARIZATION IS WITH RESPECT TO THE PRODUCTION PLANE)

R = RATIO (SIG(TRANSVERSE) - SIG(PARALLEL))/(SIG(TRANSVERSE) + SIG(PARALLEL))
 (T DEPENDENCE)

2.00 GEV < K < GEV 5.00

	-T	K	E*	S	R	REF
	GEV**2	GEV	GEV	GEV**2		
	# 0.0100	3.40	2.69	7.26	#0.680	+-0.110 87
	# 0.0200	2.50	2.36	5.57	#0.980	+-100E 00 87
	# 0.0200	3.40	2.69	7.26	# 1.00	+-0.120 87
	# 0.0500	2.50	2.36	5.57	#0.960	+-800E-01 87
	# 0.0500	3.40	2.69	7.26	#0.970	+-800E-01 87
	# 0.1000	2.50	2.36	5.57	#0.800	+-800E-01 87
	# 0.1000	3.40	2.69	7.26	#0.800	+-800E-01 87
	# 0.1000	5.00	3.20	10.26	#0.730	+-0.170 87
P2	0.1400+- 0.0500	3.00	2.55	6.51	P20.930	+-0.110 119
	# 0.2000	2.50	2.36	5.57	#0.580	+-800E-01 87
	# 0.2000	3.40	2.69	7.26	#0.790	+-800E-01 87
P2	0.2400+- 0.0500	3.00	2.55	6.51	P20.670	+-900E-01 119
	# 0.3000	2.50	2.36	5.57	#0.590	+-800E-01 87
	# 0.3000	3.40	2.69	7.26	#0.690	+-800E-01 87
P2	0.3400+- 0.0500	3.00	2.55	6.51	P20.900	+-100E 00 119
	# 0.4000	3.40	2.69	7.26	#0.640	+-100E 00 87
	# 0.4000	5.00	3.20	10.26	#0.720	+-0.200 87
	# 0.5000	3.40	2.69	7.26	#0.640	+-900E-01 87
P2	0.6000+- 0.1200	3.00	2.55	6.51	P20.680	+-0.170 119
	# 0.6000	3.40	2.69	7.26	#0.630	+-100E 00 87
P2	0.8400+- 0.1200	3.00	2.55	6.51	P20.800	+-0.140 119
P2	1.0600+- 0.1000	3.00	2.55	6.51	P20.880	+-0.160 119

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 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C111: GAMMA + PROTON --> NEUTRON + P(+) (K > 1.20 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9395 GEV
 M4: 0.1396 GEV

A = ASYMMETRY ((+)-(-))/((+)+(-)) FOR POLARIZED TARGET (POLARIZATION POSITIVE ALONG K(GAMMA) X P(MESON))

K GEV	E* GEV	-T GEV**2	THETA CM	{MESON} LAB	A	REF
5.00	3.20	# 0.0200	5.54	1.621	#-.180	+-.120 184
		# 0.0800	11.10	3.253	#-.340	+-.110 184
		# 0.1700	16.21	4.766	#-.380	+-.110 184
		# 0.3200	22.30	6.594	#-.560	+-.140 184
		# 0.6200	31.24	9.340	#-.710	+-.150 184
		# 1.0200	40.40	12.27	#-.400	+-.180 184
16.00	5.56	# 0.0200	3.00	.5064	#-.250	+-.240 184
		# 0.0800	6.01	1.014	#-.720	+-.130 184
		# 0.1600	8.50	1.436	#-.660	+-.120 184
		# 0.3100	11.84	2.004	#-.590	+-.190 184
		# 0.6100	16.64	2.825	#-.360	+-.200 184

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 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C112: GAMMA + PROTON --> PROTON + PI ZERO (K > 1.21 GEV)

#2: 0.9383 GEV
 #3: 0.9383 GEV
 #4: 0.1350 GEV

TOTAL CROSS SECTION : NO DATA TO BE LISTED

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	D SIG/D T MU BARN/GEV**2	{D SIG/D T}*{S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
1.21	1.78	0.4033	# 60.00 33.63	7.40 +-1.09	38.2 +-5.62	# .950 +-1.140	231
		0.5267	# 69.70 40.02	9.19 +-1.01	47.4 +-5.22	# 1.18 +-1.130	231
		0.8079	# 90.10 55.20	4.99 +-1.545	25.7 +-2.81	# .640 +-1.700E-01	231
		0.9562	#100.70 64.32	5.14 +-1.390	26.5 +-2.01	# .660 +-1.500E-01	231
		1.0889	#110.50 73.74	5.38 +-1.701	27.7 +-3.62	# .690 +-1.900E-01	231
		1.2157	#120.50 84.51	5.92 +-1.545	30.5 +-2.81	# .760 +-1.700E-01	231
		1.3334	#130.80 97.05	7.17 +-1.623	37.0 +-3.21	# .920 +-1.800E-01	231
		1.4367	#141.40 111.7	7.79 +-1.623	40.2 +-3.21	# 1.00 +-1.800E-01	231
		1.5110	#150.90 126.5	8.88 +-1.09	45.8 +-5.62	# 1.14 +-1.140	231
		1.5666	#160.50 143.0	10.8 +-1.01	55.4 +-5.22	# 1.38 +-1.130	231
		1.6011	#170.20 161.0	12.7 +-1.48	65.5 +-7.63	# 1.63 +-1.190	231
		1.6128	#180.00 180.0	12.5 +-1.530	64.7 +-2.73	# 1.61 +-1.680E-01	47
1.23	1.79	0.8238	@ 90.00 54.85	5.07 +-1.458	27.0 +-2.44	@ .665 +-1.600E-01	6
		1.6475	@180.00 180.0	8.20 +-1.198	43.7 +-1.06	@ 1.07 +-1.260E-01	74
		1.6475	@180.00 180.0	11.8 +-1.404	63.0 +-2.15	@ 1.55 +-1.530E-01	47
1.25	1.80	1.6823	@180.00 180.0	10.5 +-1.366	58.0 +-2.01	@ 1.41 +-1.490E-01	47
1.26	1.80	0.8499	@ 90.00 54.45	3.77 +-1.325	21.1 +-1.82	@ .510 +-1.440E-01	6
1.27	1.81	1.7171	@180.00 180.0	9.05 +-1.256	51.4 +-1.45	@ 1.24 +-1.350E-01	74
		1.7171	@180.00 180.0	13.2 +-1.00	74.8 +-5.69	@ 1.80 +-1.137	47
1.29	1.82	1.7520	@180.00 180.0	10.5 +-1.983	61.4 +-5.76	@ 1.46 +-1.137	47
1.30	1.82	0.8848	@ 90.00 53.94	4.25 +-1.561	25.3 +-3.34	@ .599 +-1.790E-01	6
		1.7695	@180.00 180.0	11.8 +-1.13	70.2 +-6.72	@ 1.66 +-1.159	47
1.31	1.83	1.7870	@180.00 180.0	11.9 +-1.689	71.8 +-4.16	@ 1.69 +-1.980E-01	47
1.32	1.83	1.8045	@180.00 180.0	9.07 +-1.181	55.7 +-1.11	@ 1.30 +-1.260E-01	74
1.34	1.84	0.9198	@ 90.00 53.44	3.70 +-1.588	23.4 +-3.71	@ .541 +-1.860E-01	6
		1.8395	@180.00 180.0	10.5 +-1.991	66.5 +-6.26	@ 1.54 +-1.145	47
1.36	1.85	0.0566	# 20.00 10.13	14.5 +-1.27	94.3 +-8.30	# 2.16 +-1.190	53
		0.1256	# 30.00 15.34	15.4 +-1.61	100. +-10.5	# 2.30 +-1.240	53
		0.2193	# 40.00 20.73	12.0 +-1.737	78.2 +-4.80	# 1.79 +-1.110	53
		0.4687	# 60.00 32.32	3.15 +-1.603	20.5 +-3.93	# .470 +-1.900E-01	53
		0.4687	@ 60.00 32.32	3.39 +-1.308	22.1 +-2.01	@ .506 +-1.460E-01	6
1.37	1.86	1.8921	@180.00 180.0	8.68 +-1.173	57.4 +-1.14	@ 1.31 +-1.260E-01	74
		1.8921	@180.00 180.0	11.0 +-1.565	72.9 +-3.73	@ 1.66 +-1.850E-01	47
1.41	1.88	1.9625	@180.00 180.0	8.31 +-1.166	58.2 +-1.17	@ 1.30 +-1.260E-01	74
1.42	1.88	1.9801	@180.00 180.0	10.3 +-1.641	73.0 +-4.55	@ 1.62 +-1.101	47
1.44	1.89	1.0077	@ 90.00 52.24	3.76 +-1.237	27.5 +-1.73	@ .603 +-1.380E-01	6
		2.0154	@180.00 180.0	9.04 +-1.917	66.0 +-6.69	@ 1.45 +-1.147	47
1.45	1.90	0.5083	@ 60.00 31.61	2.29 +-1.142	16.9 +-1.05	@ .370 +-1.230E-01	6
1.46	1.90	2.0508	@180.00 180.0	6.96 +-1.190	52.3 +-1.43	@ 1.14 +-1.310E-01	74
		2.0508	@180.00 180.0	9.07 +-1.784	68.1 +-5.89	@ 1.48 +-1.128	47
1.50	1.92	2.1216	@180.00 180.0	5.98 +-1.184	47.4 +-1.45	@ 1.01 +-1.310E-01	74
1.53	1.94	1.0874	@ 90.00 51.23	3.54 +-1.156	29.2 +-1.29	@ .613 +-1.270E-01	6
1.55	1.95	2.2103	@180.00 180.0	4.41 +-1.199	37.3 +-1.68	@ .776 +-1.350E-01	74
1.56	1.95	2.2281	@180.00 180.0	5.87 +-1.530	50.3 +-4.54	@ 1.04 +-1.940E-01	47
1.57	1.96	2.2459	@180.00 180.0	4.45 +-1.257	38.6 +-2.23	@ .795 +-1.460E-01	47
1.58	1.96	1.1319	@ 90.00 50.69	3.40 +-1.111	29.9 +-1.976	@ .613 +-1.200E-01	6
1.59	1.97	0.5704	@ 60.00 30.59	1.17 +-1.110	10.4 +-1.981	@ .212 +-1.200E-01	6
1.60	1.97	2.2993	@180.00 180.0	3.60 +-1.191	32.4 +-1.72	@ .658 +-1.350E-01	74
1.62	1.98	1.1675	@ 90.00 50.27	3.03 +-1.129	28.0 +-1.19	@ .563 +-1.240E-01	6
1.65	1.99	2.3885	@180.00 180.0	2.93 +-1.163	28.1 +-1.56	@ .597 +-1.310E-01	74
1.66	2.00	2.4064	@180.00 180.0	2.79 +-1.188	27.1 +-1.82	@ .535 +-1.360E-01	47
1.67	2.00	1.2121	@ 90.00 49.77	2.71 +-1.161	26.6 +-1.58	@ .523 +-1.310E-01	6
1.68	2.01	2.4421	@180.00 180.0	2.01 +-1.216	19.9 +-2.15	@ .390 +-1.420E-01	47
1.70	2.02	2.4779	@180.00 180.0	2.18 +-1.223	22.2 +-2.27	@ .430 +-1.440E-01	74
1.72	2.03	1.2569	@ 90.00 49.27	2.31 +-1.195	24.1 +-2.03	@ .462 +-1.390E-01	6
		2.5138	@180.00 180.0	1.71 +-1.205	17.9 +-2.14	@ .343 +-1.410E-01	47
1.74	2.04	2.5496	@180.00 180.0	1.67 +-1.153	17.8 +-1.63	@ .338 +-1.310E-01	74
1.75	2.04	2.5676	@180.00 180.0	2.03 +-1.147	21.9 +-1.58	@ .415 +-1.300E-01	47
1.78	2.05	1.3107	@ 90.00 48.70	2.17 +-1.182	24.2 +-2.03	@ .452 +-1.380E-01	6
1.83	2.08	1.3557	@ 90.00 48.24	3.11 +-1.139	36.7 +-1.64	@ .672 +-1.300E-01	6
1.86	2.09	2.7654	@180.00 180.0	1.04 +-1.727E-01	12.6 +-1.886	@ .228 +-1.160E-01	47
1.88	2.10	1.4007	@ 90.00 47.79	1.26 +-1.108	15.6 +-1.34	@ .280 +-1.240E-01	6
		0.7004	@ 60.00 28.75	.785 +-1.807E-01	9.77 +-1.00	@ .175 +-1.180E-01	6
		2.8014	@180.00 180.0	.902 +-1.942E-01	11.2 +-1.17	@ .201 +-1.210E-01	47
1.90+- 0.12	2.11	@ 1.0000	73.00 36.31	@ .575 +-1.126	7.31 +-1.60	@ .129 +-1.283E-01	37
1.90+- 0.08	2.11	@ 1.5000	93.39 50.21	@ 2.38 +-1.247	30.2 +-3.14	@ .536 +-1.557E-01	37
1.90	2.11	1.4188	@ 90.00 47.61	1.10 +-1.797E-01	14.0 +-1.01	@ .249 +-1.180E-01	6
1.92	2.12	2.8736	@180.00 180.0	.870 +-1.700E-01	11.3 +-1.908	@ .199 +-1.160E-01	47
1.94	2.13	2.9097	@180.00 180.0	.721 +-1.950E-01	9.56 +-1.26	@ .167 +-1.220E-01	47
1.96	2.14	1.4730	@ 90.00 47.10	.994 +-1.141	13.4 +-1.90	@ .233 +-1.330E-01	6
1.99+- 0.13	2.15	@ 1.0000	70.70 34.31	@ .398 +-1.930E-01	5.55 +-1.30	@ .946E-01 +-1.221E-01	37
2.00	2.15	# 0.0000	# 0.00 0	# 2.04 +-1.410	28.7 +-5.77	# .490 +-1.985E-01	149
		# 0.0150	# 8.00 3.509	# 2.96 +-1.440	41.7 +-6.20	# .711 +-1.106	149
		# 0.0510	# 15.00 6.508	# 4.73 +-1.650	66.6 +-9.16	# 1.14 +-1.156	149
		# 0.0910	# 20.00 8.745	# 5.77 +-1.460	81.3 +-6.48	# 1.39 +-1.110	149
		# 0.1410	# 25.00 10.97	# 5.19 +-1.490	73.1 +-6.90	# 1.25 +-1.118	149
		# 0.2020	# 30.00 13.25	# 4.43 +-1.340	62.4 +-4.79	# 1.06 +-1.817E-01	149
		# 0.3530	# 40.00 17.93	# 2.77 +-1.290	39.0 +-4.08	# .665 +-1.697E-01	149
		# 0.5390	# 50.00 22.85	# 1.63 +-1.190	23.0 +-2.68	# .391 +-1.456E-01	149
2.00+- 0.10	2.15	@ 0.5800	52.07 23.95	@ .749 +-1.269	10.5 +-3.79	@ .179 +-1.644E-01	37
2.00	2.15	# 0.7550	# 60.00 28.10	# .650 +-1.180	9.16 +-2.54	@ .156 +-1.432E-01	149
2.00+- 0.10	2.15	@ 0.7800	61.19 28.79	@ .385 +-1.710E-01	5.42 +-1.00	@ .922E-01 +-1.170E-01	37
		+ 0.0700	+ 3.04 +-1.667				

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 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C112: GAMMA + PROTON --> PROTON + PI ZERO (K > 1.21 GEV)

(CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.1350 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D T T1*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF			
2.00+- 0.10	2.15	@ 1.0200	71.19	34.50	@ .441	+- .130	6.21	+-1.83	.106	+- .311E-01	37
		+- 0.0900	+- 3.62	+-2.157							
		@ 1.3100	82.54	41.65							
		+- 0.1100	+- 4.22	+-2.816	@ 1.11	+- .115	15.6	+-1.62	.266	+- .276E-01	37
2.00+- 0.08	2.15	@ 1.5000	85.75	46.62	@ 1.94	+- .202	27.3	+-2.85	.465	+- .484E-01	37
2.00+- 0.10	2.15	@ 1.5700	92.46	48.64							
		+- 0.1300	+- 4.95	+-3.697	@ 1.91	+- .210	26.9	+-2.96	.458	+- .503E-01	37
		@ 1.6900	97.05	52.16							
		+- 0.1000	+- 3.84	+-3.030	@ 2.14	+- .222	30.2	+-3.13	.513	+- .532E-01	37
2.01	2.16	@ 0.7591	@ 60.00	28.03	.728	+- .579E-01	10.4	+- .824	@ .176	+- .140E-01	6
		3.0364	#180.00	180.0	.567	+- .662E-01	8.07	+- .942	# .137	+- .160E-01	47
2.02	2.16	1.5272	@ 90.00	46.55	.946	+- .535E-01	13.6	+- .768	@ .230	+- .130E-01	6
2.03	2.17	3.0726	#180.00	180.0	.528	+- .613E-01	7.66	+- .890	# .129	+- .150E-01	47
2.05	2.17	3.1088	#180.00	180.0	.449	+- .608E-01	6.64	+- .897	# .111	+- .150E-01	47
2.06	2.18	0.7818	@ 60.00	27.77	.743	+- .442E-01	11.1	+- .661	@ .185	+- .110E-01	6
2.08	2.19	1.5816	@ 50.00	46.11	.779	+- .437E-01	11.9	+- .666	@ .196	+- .110E-01	6
2.08+- 0.08	2.19	@ 1.5000	87.12	44.12	@ 1.84	+- .192	28.1	+-2.93	@ .463	+- .483E-01	37
2.12	2.20	3.2358	#180.00	180.0	.396	+- .350E-01	6.27	+- .553	# .102	+- .900E-02	47
2.15	2.22	1.6452	@ 90.00	45.56	.729	+- .229E-01	11.9	+- .373	@ .191	+- .600E-02	6
2.15+- 0.08	2.22	@ 2.0000	102.55	55.27	@ 1.29	+- .134	21.0	+-2.18	@ .338	+- .350E-01	37
2.15	2.22	3.2903	#180.00	180.0	.420	+- .420E-01	6.84	+- .684	# .110	+- .110E-01	47
2.16	2.22	1.6543	@ 90.00	45.49	.589	+- .608E-01	9.67	+- .998	@ .155	+- .160E-01	23
2.16+- 0.08	2.22	@ 4.0000	180.00	180.0	@ .170	+- .270E-01	2.79	+- .444	@ .447E-01	+- .710E-02	37
2.18	2.23	0.8362	@ 60.00	27.16	.845	+- .564E-01	14.1	+- .943	@ .225	+- .150E-01	6
		3.3449	#180.00	180.0	.413	+- .301E-01	6.92	+- .503	# .110	+- .800E-02	47
2.19	2.23	1.6816	@ 90.00	45.26	.523	+- .897E-01	8.83	+-1.51	@ .140	+- .240E-01	23
		3.3631	#180.00	180.0	.430	+- .262E-01	7.26	+- .442	# .115	+- .700E-02	47
2.21	2.24	1.6997	@ 90.00	45.11	.595	+- .185E-01	10.2	+- .318	@ .161	+- .500E-02	6
2.22	2.25	3.4177	#180.00	180.0	.375	+- .331E-01	6.51	+- .574	# .102	+- .900E-02	47
2.23	2.25	3.4359	#180.00	180.0	.490	+- .622E-01	8.58	+-1.09	# .134	+- .170E-01	47
2.24	2.25	1.7271	@ 50.00	44.89	.411	+- .618E-01	7.26	+-1.09	@ .113	+- .170E-01	23
		3.4541	#180.00	180.0	.335	+- .291E-01	5.91	+- .514	# .920E-01	+- .800E-02	47
2.26	2.26	1.7453	@ 90.00	44.74	.364	+- .396E-01	6.54	+- .712	@ .101	+- .110E-01	23
2.28	2.27	1.7635	@ 90.00	44.60	.527	+- .178E-01	9.65	+- .326	@ .148	+- .500E-02	6
		3.5270	#180.00	180.0	.321	+- .463E-01	5.87	+- .848	# .900E-01	+- .130E-01	47
2.30+- 0.09	2.28	@ 2.0000	97.14	49.76	@ .383	+- .500E-01	7.13	+- .931	@ .108	+- .142E-01	37
2.30	2.28	3.5635	#180.00	180.0	.335	+- .389E-01	6.24	+- .723	# .950E-01	+- .110E-01	47
2.31	2.28	3.5817	#180.00	180.0	.463	+- .526E-01	8.70	+- .989	# .132	+- .150E-01	47
2.33	2.29	0.9046	@ 60.00	26.46	.816	+- .660E-01	15.6	+-1.26	@ .235	+- .190E-01	6
		1.8091	@ 90.00	44.24	.354	+- .660E-01	6.77	+-1.26	@ .102	+- .190E-01	23
		3.6182	#180.00	180.0	.413	+- .521E-01	7.90	+- .996	# .119	+- .150E-01	47
2.34	2.30	3.6364	#180.00	180.0	.346	+- .415E-01	6.66	+- .800	# .100E 00	+- .120E-01	47
2.35	2.30	1.8274	@ 90.00	44.10	.457	+- .378E-01	8.89	+- .736	@ .133	+- .110E-01	6
2.36	2.30	1.8365	@ 90.00	44.03	.200	+- .277E-01	3.93	+- .544	@ .585E-01	+- .810E-02	23
2.39	2.32	3.7277	#180.00	180.0	.455	+- .640E-01	9.15	+-1.29	# .135	+- .190E-01	47
		3.7277	#180.00	180.0	.435	+- .337E-01	8.75	+- .678	# .129	+- .100E-01	47
2.40+- 0.21	2.32	@ 1.0000	62.49	27.59	@ .564	+- .850E-01	11.4	+-1.72	@ .167	+- .251E-01	37
2.40	2.32	@ 3.0000	126.99	77.35	@ .180	+- .380E-01	3.65	+- .771	@ .537E-01	+- .113E-01	37
2.42	2.33	1.8913	@ 90.00	43.62	.295	+- .259E-01	6.09	+- .534	@ .889E-01	+- .780E-02	6
2.42+- 0.07	2.33	@ 4.0000	180.00	180.0	@ .129	+- .240E-01	2.66	+- .495	@ .388E-01	+- .722E-02	37
2.44	2.34	1.9096	@ 90.00	43.49	.156	+- .230E-01	3.26	+- .483	@ .473E-01	+- .700E-02	23
2.46	2.34	1.9279	@ 90.00	43.35	.111	+- .137E-01	2.38	+- .292	@ .342E-01	+- .420E-02	23
2.47	2.35	3.8740	#180.00	180.0	.493	+- .454E-01	10.6	+- .976	# .152	+- .140E-01	47
2.49	2.36	3.9106	#180.00	180.0	.456	+- .386E-01	9.96	+- .842	# .142	+- .170E-01	47
2.50+- 0.10	2.36	@ 0.7200	50.74	21.28							
		+- 0.0600	+- 2.26	+-1.060	@ .646	+- .110	14.2	+-2.42	@ .202	+- .343E-01	37
2.50	2.36	@ 0.9822	@ 60.00	25.73	.691	+- .480E-01	15.2	+-1.06	@ .216	+- .150E-01	6
2.50+- 0.10	2.36	@ 1.0600	60.65	26.09							
		+- 0.1000	+- 3.35	+-1.687	@ .531	+- .119	11.7	+-2.62	.166	+- .371E-01	37
		@ 1.3200	76.91	31.45							
		+- 0.1200	+- 3.71	+-2.044	@ .313	+- .330E-01	6.89	+- .726	.977E-01	+- .103E-01	37
2.50+- 0.11	2.36	@ 1.5000	76.41	34.61	@ .259	+- .410E-01	5.70	+- .907	.808E-01	+- .128E-01	37
2.50+- 0.10	2.36	@ 1.6500	80.87	37.25							
		+- 0.1200	+- 3.55	+-2.168	@ .211	+- .320E-01	4.64	+- .704	.659E-01	+- .999E-02	37
		@ 2.0000	91.13	43.91	@ .219	+- .290E-01	4.82	+- .638	.684E-01	+- .905E-02	37
		@ 2.3300	100.84	51.06							
		+- 0.1400	+- 4.16	+-3.275	@ .278	+- .420E-01	6.12	+- .924	.868E-01	+- .131E-01	37
2.50+- 0.01	2.36	@ 2.6600	110.74	59.40							
		+- 0.1500	+- 4.68	+-4.272	@ .190	+- .290E-01	4.18	+- .638	.594E-01	+- .907E-02	37
2.50+- 0.10	2.36	@ 2.9700	120.95	65.60							
		+- 0.1300	+- 4.43	+-4.792	@ .213	+- .250E-01	4.69	+- .550	.665E-01	+- .780E-02	37
		@ 3.2700	131.66	82.62							
		+- 0.1200	+- 4.71	+-6.198	@ .143	+- .270E-01	3.15	+- .594	.446E-01	+- .843E-02	37
		@ 3.4700	140.28	94.65							
		+- 0.1200	+- 5.49	+-8.463	@ .156	+- .280E-01	3.43	+- .616	.487E-01	+- .974E-02	37
		@ 3.8000	155.63	130.4							
		+- 0.1200	+- 10.07	+-21.88	@ .299	+- .470E-01	6.58	+-1.03	.933E-01	+- .147E-01	37
2.50	2.36	1.9645	@ 90.00	43.05	.226	+- .240E-01	4.98	+- .528	@ .708E-01	+- .750E-02	6
2.51	2.36	@ 3.0000	121.34	69.88	@ .219	+- .340E-01	4.86	+- .754	.688E-01	+- .107E-01	37
2.57	2.39	2.0286	@ 90.00	42.64	.138	+- .136E-01	3.21	+- .317	@ .446E-01	+- .440E-02	6
		4.0571	#180.00	180.0	.511	+- .465E-01	11.9	+-1.08	# .165	+- .150E-01	47
2.58+- 0.14	2.39	@ 1.0000	59.48	25.21	@ .493	+- .510E-01	11.6	+-1.20	# .159	+- .165E-01	37
2.60+- 0.10	2.40	@ 2.0000	88.52	41.51	@ .177	+- .330E-01	4.21	+- .786	.578E-01	+- .108E-01	37
2.60	2.40	@ 3.0000	117.33	64.90	@ .132	+- .240E-01	3.14	+- .571	.432E-01	+- .785E-02	37
		4.1121	#180.00	180.0	.458	+- .397E-01	10.9	+- .946	# .150	+- .130E-01	47
2.61	2.40	4.1305	#180.00	180.0	.423	+- .426E-01	10.1	+-1.02	# .139	+- .140E-01	47
2.62	2.41	1.0372	@ 60.00	25.24	.642	+- .515E-01	15.5	+-1.24	@ .212	+- .170E-01	6
		2.0744	@ 90.00	42.33	.128	+- .112E-01	3.09	+- .271	@ .422E-01	+- .370E-02	6

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 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C112: GAMMA + PROTON --> PROTON + P[ZERO (K > 1.21 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.1350 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
2.62	2.41	4.1488	#180.00	180.0	.424 +- .575E-01	10.2 +- 1.39	# .140 +- .190E-01	47
2.63	2.41	4.1672	#180.00	180.0	.446 +- .452E-01	10.9 +- 1.10	# .148 +- .150E-01	47
2.64	2.42	2.0928	@ 90.00	42.21	.612E-01 +- .991E-02	1.50 +- .243	@ .204E-01 +- .330E-02	23
2.69+- 0.11	2.43	@ 2.0000	86.37	39.60	@ .850E-01 +- .188E-01	2.17 +- .479	@ .289E-01 +- .639E-02	37
2.71	2.44	4.3140	#180.00	180.0	.425 +- .437E-01	11.0 +- 1.13	# .146 +- .150E-01	47
2.72	2.45	2.1662	@ 90.00	41.73	.882E-01 +- .609E-02	2.30 +- .159	@ .304E-01 +- .210E-02	6
2.73	2.45	4.3507	#180.00	180.0	.373 +- .231E-01	9.78 +- .606	# .129 +- .800E-02	47
2.74+- 0.19	2.45	@ 1.0000	57.32	23.60	@ .468 +- .480E-01	12.4 +- 1.27	@ .162 +- .166E-01	37
2.74	2.45	2.1846	@ 90.00	41.61	.460E-01 +- .170E-01	1.22 +- .449	@ .160E-01 +- .590E-02	23
		4.3691	#180.00	180.0	.406 +- .345E-01	10.7 +- .912	# .141 +- .120E-01	47
2.75	2.46	4.3875	#180.00	180.0	.384 +- .516E-01	10.2 +- 1.37	# .134 +- .180E-01	47
2.76	2.46	2.2029	@ 90.00	41.49	.394E-01 +- .456E-02	1.06 +- .122	@ .138E-01 +- .160E-02	23
2.78	2.47	1.1107	@ 60.00	24.64	.636 +- .283E-01	17.3 +- .770	@ .225 +- .100E-01	6
2.79	2.47	4.4610	#180.00	180.0	.442 +- .704E-01	12.1 +- 1.93	# .157 +- .250E-01	47
2.80	2.48	4.4794	#180.00	180.0	.353 +- .252E-01	9.76 +- .697	# .126 +- .900E-02	47
2.81	2.48	2.2489	@ 90.00	41.21	.629E-01 +- .503E-02	1.75 +- .140	@ .225E-01 +- .180E-02	6
		4.4978	#180.00	180.0	.319 +- .363E-01	8.86 +- 1.01	# .114 +- .130E-01	47
2.83	2.49	4.5346	#180.00	180.0	.357 +- .333E-01	10.1 +- .938	# .129 +- .120E-01	47
2.85	2.50	2.2857	@ 90.00	40.98	.181E-01 +- .550E-02	0.519 +- .157	@ .660E-02 +- .200E-02	23
2.86	2.50	4.5857	#180.00	180.0	.331 +- .274E-01	9.54 +- .789	# .121 +- .100E-01	47
		4.5897	#180.00	180.0	.235 +- .383E-01	6.78 +- 1.10	# .860E-01 +- .140E-01	47
2.87	2.50	2.3041	@ 90.00	40.87	.188E-01 +- .191E-02	0.546 +- .554E-01	@ .690E-02 +- .700E-03	23
2.89	2.51	2.3225	@ 90.00	40.76	.425E-01 +- .352E-02	1.25 +- .103	@ .157E-01 +- .130E-02	6
		4.6450	#180.00	180.0	.268 +- .216E-01	7.88 +- .637	# .990E-01 +- .800E-02	47
2.90+- 0.22	2.51	@ 1.0000	55.35	22.16	@ .413 +- .430E-01	12.2 +- 1.27	@ .152 +- .159E-01	37
2.92	2.52	1.1751	@ 60.00	24.15	.612 +- .588E-01	18.4 +- 1.77	@ .229 +- .220E-01	6
2.93	2.53	4.7186	#180.00	180.0	.298 +- .320E-01	9.02 +- .966	# .112 +- .120E-01	47
2.96	2.54	4.7739	#180.00	180.0	.258 +- .263E-01	7.96 +- .812	# .980E-01 +- .100E-01	47
2.97	2.54	2.3961	@ 90.00	40.33	.108E-01 +- .142E-02	0.336 +- .440E-01	@ .412E-02 +- .540E-03	23
		4.7923	#180.00	180.0	.254 +- .236E-01	7.90 +- .733	# .970E-01 +- .900E-02	47
2.98	2.54	2.4054	@ 90.00	40.27	.259E-01 +- .392E-02	0.810 +- .123	@ .992E-02 +- .150E-02	6
2.99	2.55	2.4146	@ 90.00	40.22	.126E-01 +- .114E-02	0.397 +- .360E-01	@ .485E-02 +- .440E-03	23
3.00	2.55	@ 0.0000	# 0.00	0	# 1.14 +- .290	36.1 +- 9.19	.440 +- .112	149
		# 0.0370	# 10.00	3.682	# 1.91 +- .230	60.5 +- 7.29	.737 +- .887E-01	149
		# 0.0830	# 15.00	5.539	# 3.48 +- .300	110. +- 9.51	1.34 +- .116	149
		# 0.1460	# 20.00	7.391	# 2.43 +- .240	77.0 +- 7.61	.937 +- .926E-01	149
		# 0.2270	# 25.00	9.288	# 2.14 +- .180	67.8 +- 5.70	.826 +- .694E-01	149
		# 0.3250	# 30.00	11.22	# 1.47 +- .150	46.6 +- 4.75	.567 +- .579E-01	149
		# 0.5670	# 40.00	15.15	# .430 +- .700E-01	13.6 +- 2.22	.166 +- .270E-01	149
		# 0.8660	# 50.00	19.39	# .390 +- .800E-01	12.4 +- 2.54	.150 +- .309E-01	149
3.00+- 0.10	2.55	@ 1.0200	54.64	21.45	@ .378 +- .670E-01	12.0 +- 2.12	.146 +- .258E-01	37
		+ 0.0900	+ 2.61	+ 1.169				
		@ 1.0800	56.36	22.23	@ .383 +- .400E-01	12.1 +- 1.27	.148 +- .154E-01	37
		+ 0.1000	+ 2.84	+ 1.289	@ .390 +- .800E-01	12.4 +- 2.54	.150 +- .309E-01	149
3.00	2.55	# 1.2120	# 60.00	23.88	# .310 +- .800E-01	9.82 +- 2.54	.120 +- .309E-01	149
		# 1.5950	# 70.00	28.76				
3.00+- 0.10	2.55	@ 4.0400	131.97	78.44	@ .129 +- .180E-01	4.08 +- .570	.496E-01 +- .694E-02	37
		+ 0.1500	+ 4.77	+ 6.224	.213 +- .207E-01	6.74 +- .657	# .820E-01 +- .800E-02	47
3.00	2.55	4.8476	#180.00	180.0	.197 +- .333E-01	6.38 +- 1.08	# .770E-01 +- .130E-01	47
3.03	2.56	4.9029	#180.00	180.0	.204 +- .204E-01	6.65 +- .665	# .800E-01 +- .800E-02	47
3.04	2.57	4.9213	#180.00	180.0	.189 +- .281E-01	6.15 +- .914	# .740E-01 +- .110E-01	47
		4.9213	#180.00	180.0	.237 +- .354E-01	7.88 +- 1.17	# .940E-01 +- .140E-01	47
3.07	2.58	4.9766	#180.00	180.0	.443 +- .252E-01	14.8 +- .840	@ .176 +- .100E-01	6
3.08	2.58	1.2488	@ 60.00	23.62	.250E-01 +- .657E-02	0.830 +- .218	@ .990E-02 +- .260E-02	6
3.07	2.58	2.4883	@ 90.00	39.81	.559E-02 +- .108E-02	0.188 +- .362E-01	@ .223E-02 +- .430E-03	23
3.09	2.58	2.5067	@ 90.00	39.70	.351E-01 +- .160E-01	1.18 +- .539	@ .140E-01 +- .640E-02	23
		3.7601	@ 120.00	63.86	.140 +- .150E-01	4.73 +- .507	# .560E-01 +- .600E-02	47
3.10	2.59	5.0319	#180.00	180.0	.898E-02 +- .746E-03	0.306 +- .254E-01	@ .361E-02 +- .300E-03	23
3.11	2.59	2.5252	@ 90.00	39.60	.363E-01 +- .871E-02	1.24 +- .297	@ .146E-01 +- .350E-02	23
		3.7878	@ 120.00	63.72	.174 +- .149E-01	5.93 +- .508	# .700E-01 +- .600E-02	47
		5.0504	#180.00	180.0	.134E-01 +- .342E-02	0.473 +- .120	@ .550E-02 +- .140E-02	6
3.16	2.61	2.5713	@ 90.00	39.35	.141 +- .146E-01	5.00 +- .517	# .580E-01 +- .800E-02	47
3.17	2.61	5.1611	#180.00	180.0	.134 +- .170E-01	4.74 +- .603	# .550E-01 +- .700E-02	47
		5.1611	#180.00	180.0	.136 +- .146E-01	4.82 +- .517	# .560E-01 +- .600E-02	47
		5.1611	#180.00	180.0	.126 +- .145E-01	4.50 +- .520	# .520E-01 +- .600E-02	47
3.19	2.62	5.1980	#180.00	180.0	@ .282 +- .300E-01	10.2 +- 1.08	.116 +- .123E-01	37
3.20+- 0.35	2.62	@ 1.0000	52.27	20.03	.468E-02 +- .101E-02	0.170 +- .366E-01	@ .195E-02 +- .420E-03	23
3.21	2.63	2.6175	@ 90.00	39.11	.534E-02 +- .548E-03	0.196 +- .201E-01	@ .224E-02 +- .230E-03	23
3.23	2.63	2.6360	@ 90.00	39.01	.265E-01 +- .834E-02	0.972 +- .306	@ .111E-01 +- .350E-02	23
		3.9539	@ 120.00	62.89	.352 +- .166E-01	13.0 +- .615	@ .148 +- .700E-02	6
3.24	2.64	1.3226	@ 60.00	23.12	.162 +- .190E-01	5.97 +- .702	# .680E-01 +- .800E-02	47
		5.2904	#180.00	180.0	@ .384E-01 +- .910E-02	1.43 +- .338	@ .162E-01 +- .384E-02	37
3.25+- 0.15	2.64	@ 2.0000	75.82	30.84	.211E-01 +- .402E-02	0.784 +- .150	@ .890E-02 +- .170E-02	23
3.25	2.64	3.9816	@ 120.00	62.75	.104 +- .947E-02	3.87 +- .352	# .440E-01 +- .400E-02	47
		5.3088	#180.00	180.0	.100E-01 +- .226E-02	0.375 +- .847E-01	@ .425E-02 +- .960E-03	6
3.26	2.65	2.6637	@ 90.00	38.87	@ .102E-01 +- .500E-02	0.396 +- .194	@ .441E-02 +- .216E-02	37
3.32+- 0.10	2.67	@ 3.0000	95.99	42.49	.111 +- .139E-01	4.31 +- .538	# .480E-01 +- .600E-02	47
3.32	2.67	5.4382	#180.00	180.0	.920E-02 +- .252E-02	0.362 +- .992E-01	@ .401E-02 +- .110E-02	6
3.34	2.67	2.7376	@ 90.00	38.49	.397E-02 +- .666E-03	0.156 +- .261E-01	@ .173E-02 +- .290E-03	23
		2.7376	@ 90.00	38.49	.174E-01 +- .505E-02	0.685 +- .198	@ .760E-02 +- .220E-02	37
		4.1064	@ 120.00	62.15	@ .269 +- .420E-01	10.6 +- 1.66	.116 +- .182E-01	23
3.35+- 0.34	2.68	@ 1.0000	50.80	19.00	.103 +- .137E-01	4.07 +- .542	# .450E-01 +- .600E-02	47
3.35	2.68	5.4936	#180.00	180.0	.383E-02 +- .365E-03	0.152 +- .145E-01	@ .168E-02 +- .160E-03	23
3.36	2.68	2.7561	@ 90.00	38.40	.169E-01 +- .274E-02	0.671 +- .109	@ .740E-02 +- .120E-02	23
		4.1341	@ 120.00	62.02	.107 +- .137E-01	4.26 +- .544	# .470E-01 +- .600E-02	47
		5.5121	#180.00	180.0	.932E-01 +- .182E-01	3.73 +- .727	# .410E-01 +- .800E-02	47
3.37	2.68	5.5306	#180.00	180.0	.204 +- .115E-01	8.27 +- .466	@ .905E-01 +- .510E-02	6
3.39	2.69	1.3919	@ 60.00	22.68				

= NUMERICAL VALUE FROM TABLE @ = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA \$ = FOR DETAILS SEE REFERENCE
 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C112: GAMMA + PROTON --> PROTON + PI ZERO {K > 1.21 GEV}

{CONTINUED}

M2: 0.9383 GEV
M3: 0.9383 GEV
M4: 0.1350 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	{D SIG/D T}*{S-M**2}**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
3.39+- 0.15	2.69	2.0000	73.73	29.23	2.372E-01+- .910E-02	1.51 +- .368	.164E-01+- .402E-02	37
3.43	2.70	5.6416	#180.00	180.0	.958E-01+- .134E-01	3.97 +- .554	#.430E-01+- .600E-02	47
		5.6416	#180.00	180.0	.846E-01+- .111E-01	3.51 +- .461	#.380E-01+- .500E-02	47
3.46	2.72	2.8486	2 90.00	37.95	.922E-02+- .179E-02	0.3A9 +- .753E-01	2 418E-02+- .810E-03	6
3.46+- 0.10	2.72	4.0000	113.92	55.64	.480E-01+- .100E-01	2.02 +- .422	.217E-01+- .453E-02	37
3.47	2.72	2.8578	2 90.00	37.90	.389E-02+- .748E-03	0.165 +- .317E-01	2 177E-02+- .340E-03	23
3.47+- 0.10	2.72	3.0000	92.90	39.74	.137E-01+- .450E-02	0.581 +- .191	.623E-02+- .205E-02	37
3.47	2.72	4.2867	2120.00	61.32	.123E-01+- .418E-02	0.522 +- .177	.560E-02+- .190E-02	23
3.49+- 0.34	2.73	1.0000	49.54	18.14	.230 +- .440E-01	9.86 +- 1.89	.104 +- .200E-01	37
3.49	2.73	2.8763	2 90.00	37.81	.310E-02+- .415E-03	0.133 +- .178E-01	.142E-02+- .190E-03	23
		4.3145	2120.00	61.19	.105E-01+- .240E-02	0.450 +- .103	.480E-02+- .110E-02	23
3.50+- 0.10	2.73	1.0200	49.74	18.06				
		0.0900	+- 2.34	+- .9513	2.237 +- .310E-01	10.2 +- 1.34	.109 +- .142E-01	37
		1.4100	59.27	22.07				
		0.1200	+- 2.77	+- 1.211	.143 +- .270E-01	6.17 +- 1.16	.656E-01+- .124E-01	37
		2.0200	72.58	28.25				
		0.1800	+- 3.75	+- 1.855	.383E-01+- .490E-02	1.65 +- .211	.178E-01+- .225E-02	37
		3.0300	92.92	39.61				
		0.2000	+- 3.98	+- 2.529	.104E-01+- .310E-02	0.449 +- .134	.477E-02+- .142E-02	37
		3.9800	112.36	54.03				
		0.2000	+- 4.30	+- 3.734	.420E-01+- .910E-02	1.81 +- .393	.193E-01+- .418E-02	37
3.50	2.73	5.7711	#180.00	180.0	.523E-01+- .653E-02	2.25 +- .282	#.740E-01+- .300E-02	47
3.51	2.73	1.4474	2 60.00	22.35	.142 +- .111E-01	6.18 +- .480	.656E-01+- .510E-02	6
3.55	2.75	2.0000	71.47	27.52	.345E-01+- .840E-02	1.53 +- .373	.161E-01+- .392E-02	37
3.56	2.75	2.9411	2 50.00	37.51	.812E-02+- .169E-02	0.362 +- .753E-01	.380E-02+- .790E-03	6
3.58+- 0.11	2.76	4.0000	110.66	52.13	.175E-01+- .470E-02	0.790 +- .212	.824E-02+- .221E-02	37
3.60	2.76	5.9563	#180.00	180.0	.654E-01+- .844E-02	2.98 +- .385	.310E-01+- .400E-02	47
3.61	2.77	2.9874	2 90.00	37.30	.488E-02+- .862E-03	0.224 +- .396E-01	.232E-02+- .410E-03	23
		4.4811	2120.00	60.46	.612E-02+- .149E-02	0.281 +- .685E-01	.291E-02+- .710E-03	23
3.63	2.77	3.0059	2 90.00	37.21	.418E-02+- .397E-03	0.194 +- .184E-01	.200E-02+- .190E-03	23
		4.5089	2120.00	60.34	.100E-01+- .230E-02	0.466 +- .107	.480E-02+- .110E-02	23
3.64+- 0.11	2.78	3.0000	89.76	37.06	.780E-02+- .370E-02	0.364 +- .173	.374E-02+- .177E-02	37
3.68	2.79	1.5261	2 60.00	21.90	.103 +- .117E-01	4.89 +- .560	.498E-01+- .570E-02	6
		3.0522	2 90.00	37.01	.609E-02+- .144E-02	0.291 +- .687E-01	.296E-02+- .700E-03	6
3.69+- 0.29	2.79	1.5000	59.54	21.79	.127 +- .300E-01	6.09 +- 1.44	.615E-01+- .145E-01	37
3.70	2.80	6.1415	#180.00	180.0	.982E-01+- .818E-02	4.73 +- .395	.480E-01+- .400E-02	47
3.73+- 0.14	2.81	2.0000	69.29	25.55	.283E-01+- .680E-02	1.39 +- .333	.139E-01+- .335E-02	37
3.75+- 0.43	2.81	1.0000	47.56	16.86	.197 +- .270E-01	9.76 +- 1.34	.964E-01+- .132E-01	37
3.76	2.82	3.1264	2 90.00	36.68	.318E-02+- .563E-03	0.158 +- .280E-01	.158E-02+- .280E-03	23
3.79	2.83	3.1542	2 90.00	36.56	.371E-02+- .339E-03	0.187 +- .171E-01	.186E-02+- .170E-03	23
		3.1542	2 90.00	36.56	.600E-02+- .141E-02	0.303 +- .715E-01	.301E-02+- .710E-03	6
3.83	2.84	1.5956	2 60.00	21.53	.868E-01+- .120E-01	4.48 +- .620	.441E-01+- .610E-02	37
3.88+- 0.18	2.86	2.0000	67.61	24.77	.201E-01+- .450E-02	1.07 +- .239	.103E-01+- .231E-02	37
3.90+- 0.22	2.86	1.5000	57.46	20.36	.127 +- .260E-01	6.80 +- 1.39	.656E-01+- .134E-01	37
3.90	2.86	3.2562	2 90.00	36.13	.430E-02+- .164E-02	0.230 +- .878E-01	.223E-02+- .850E-03	6
		6.5124	#180.00	180.0	.733E-01+- .772E-02	3.93 +- .413	.380E-01+- .400E-02	47
3.91	2.87	3.2655	2 90.00	36.10	.292E-02+- .693E-03	0.157 +- .373E-01	.152E-02+- .360E-03	23
3.93	2.87	3.2840	2 90.00	36.02	.291E-02+- .689E-03	0.158 +- .375E-01	.152E-02+- .360E-03	23
3.94+- 0.49	2.88	1.0000	46.25	16.63	.224 +- .440E-01	12.2 +- 2.41	.116 +- .227E-01	37
3.96+- 0.09	2.88	4.0000	102.03	43.62	.101E-01+- .360E-02	0.558 +- .199	.532E-02+- .190E-02	37
4.00	2.90	0.0000	# 0.00	0.0	# 1.17 +- .150	65.9 +- 8.45	.624 +- .800E-01	149
		0.0005	# 1.00	.3240	# .690 +- .330	38.9 +- 18.6	.368 +- .176	149
		0.0020	# 2.00	.6465	# .710 +- .110	40.0 +- 6.20	.378 +- .586E-01	149
		0.0046	# 3.00	.9700	# .680 +- .110	38.3 +- 6.20	.362 +- .586E-01	149
		0.0090	# 4.25	1.358	# 1.11 +- .130	62.5 +- 7.32	.592 +- .693E-01	149
		0.0510	# 10.00	3.243	# 1.62 +- .190	91.3 +- 10.7	.863 +- .101	149
		0.0800	# 12.50	4.070	# 1.91 +- .900E-01	108. +- 5.07	.1.02 +- .480E-01	149
		0.1150	# 15.00	4.892	# 1.77 +- .130	99.7 +- 7.32	.943 +- .693E-01	149
		0.1560	# 17.50	5.714	# 1.70 +- .190	95.8 +- 10.7	.906 +- .101	149
		0.2040	# 20.00	6.557	# 1.28 +- .130	72.1 +- 7.32	.682 +- .693E-01	149
		0.3160	# 25.00	8.226	# .760 +- .900E-01	42.8 +- 5.07	.405 +- .480E-01	149
		0.4520	# 30.00	9.937	# .340 +- .600E-01	19.2 +- 3.38	.181 +- .320E-01	149
4.00+- 0.10	2.90	0.5500	33.31	11.05				
		0.0600	+- 1.87	+- .6524	.292 +- .990E-01	16.5 +- 5.58	.156 +- .527E-01	37
4.00	2.90	0.6110	# 35.00	11.69	.280 +- .600E-01	15.8 +- 3.38	.149 +- .370E-01	149
		0.7900	# 40.00	13.48	.300 +- .700E-01	16.9 +- 3.94	.160 +- .373E-01	149
		0.9890	# 45.00	15.32	.320 +- .600E-01	18.0 +- 3.38	.171 +- .320E-01	149
4.00+- 0.10	2.90	1.0000	45.48	15.43				
		0.0800	+- 1.92	+- .7163	.245 +- .370E-01	13.8 +- 2.08	.131 +- .197E-01	37
		1.0600	46.90	15.56				
		0.1000	+- 2.34	+- .8824	.174 +- .310E-01	9.80 +- 1.75	.927E-01+- .165E-01	37
4.00	2.90	1.2060	# 50.00	17.22	.260 +- .400E-01	14.6 +- 2.25	.139 +- .213E-01	149
		1.4400	# 55.00	19.19	.260 +- .600E-01	14.6 +- 3.38	.119 +- .320E-01	149
		1.6880	# 60.00	21.24	.600E-01+- .300E-01	3.38 +- 1.69	.320E-01+- .160E-01	149
4.00+- 0.10	2.90	1.9600	65.52	23.49				
		0.1500	+- 2.82	+- 1.234	.203E-01+- .600E-02	1.14 +- .338	.108E-01+- .320E-02	37
		2.1200	68.50	24.81				
		0.1600	+- 2.94	+- 1.325	.262E-01+- .500E-02	1.48 +- .282	.140E-01+- .266E-02	37
		4.0200	101.60	43.15				
		0.2100	+- 3.67	+- 2.549	.880E-02+- .160E-02	0.496 +- .901E-01	.469E-02+- .852E-03	37
4.05	2.91	3.3954	2 90.00	35.57	.244E-02+- .592E-03	0.141 +- .342E-01	.132E-02+- .320E-03	23
4.07	2.92	3.4140	2 90.00	35.50	.162E-02+- .405E-03	0.945E-01+- .236E-01	.880E-03+- .220E-03	23
4.07+- 0.24	2.92	4.0000	100.12	41.92	.610E-02+- .210E-02	0.356 +- .122	.330E-02+- .114E-02	37
4.08+- 0.21	2.92	2.0000	65.53	23.33	.225E-01+- .610E-02	1.32 +- .358	.122E-01+- .331E-02	37
4.10	2.93	6.8836	#180.00	180.0	.767E-01+- .913E-02	4.54 +- .540	.420E-01+- .500E-02	47
4.12+- 0.31	2.93	1.5000	55.67	19.20	.103 +- .220E-01	6.16 +- 1.31	.564E-01+- .120E-01	37
4.20	2.96	7.0694	#180.00	180.0	.551E-01+- .711E-02	3.42 +- 4.42	.310E-01+- .400E-02	47
4.23+- 0.62	2.97	1.0000	44.52	14.98	.210 +- .510E-01	13.2 +- 3.21	.117 +- .283E-01	37

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 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C112: GAMMA + PROTON --> PROTON + PI ZERO (K > 1.21 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.1350 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
4.23+- 0.22	2.97	@ 2.0000	64.08 22.36	@ .221E-01+- .530E-02	1.39 +- .334	.125E-01+- .300E-02	37
4.23	2.97	@ 3.5626	@ 90.00 34.93	.104E-02+- .282E-03	0.656E-01+- .178E-01	@ .590E-03+- .160E-03	23
4.25	2.98	@ 3.5812	@ 90.00 34.86	.877E-03+- .386E-03	0.558E-01+- .246E-01	@ .500E-03+- .220E-03	23
4.30	2.99	@ 7.2552	#180.00 180.00	.416E-01+- .520E-02	2.71 +- .338	# .240E-01+- .300E-02	47
4.33+- 0.30	3.00	@ 1.5000	54.01 18.13	@ .900E-01+- .130E-01	5.94 +- .858	@ .521E-01+- .753E-02	37
4.40	3.02	@ 3.7206	@ 90.00 34.36	.963E-03+- .355E-03	0.656E-01+- .242E-01	@ .570E-03+- .210E-03	23
4.42	3.03	@ 3.7392	@ 90.00 34.29	.588E-03+- .336E-03	0.405E-01+- .231E-01	@ .350E-03+- .200E-03	23
4.47+- 0.27	3.04	@ 2.0000	61.98 20.98	@ .139E-01+- .420E-02	0.978 +- .296	@ .834E-02+- .252E-02	37
4.47	3.04	@ 3.0000	78.02 27.95	@ .100E-03+- .100E-03	0.704E-02+- .704E-02	@ .603E-04+- .603E-04	37
4.50+- 0.10	3.05	@ 0.5700	31.74 9.965				
		+- 0.0600	+- 1.71 +- .5638	@ .146 +- .570E-01	10.4 +- 4.06	@ .886E-01+- .346E-01	37
		@ 1.0200	42.91 13.74				
		+- 0.0900	+- 1.99 +- .6929	@ .188 +- .490E-01	13.4 +- 3.49	@ .114 +- .297E-01	37
		@ 1.4500	52.48 17.15				
		+- 0.1400	+- 2.65 +- .9876	@ .733E-01+- .115E-01	5.23 +- .820	@ .445E-01+- .698E-02	37
		@ 1.9700	61.11 20.51				
		+- 0.1500	+- 2.58 +- 1.029	@ .165E-01+- .700E-02	1.18 +- .499	@ .100E-01+- .425E-02	37
		@ 2.0600	62.64 21.13				
		+- 0.1800	+- 3.05 +- 1.235	@ .202E-01+- .400E-02	1.44 +- .285	@ .123E-01+- .243E-02	37
4.50	3.05	@ 7.6271	#180.00 180.00	.346E-01+- .494E-02	2.47 +- .352	# .210E-01+- .300E-02	47
4.52+- 0.35	3.06	@ 1.5000	52.69 17.31	@ .690E-01+- .210E-01	4.96 +- 1.51	@ .418E-01+- .127E-01	37
4.57	3.08	@ 3.8787	@ 90.00 33.61	<.583E-03	<.429E-01	@ <.360E-03	23
4.59	3.08	@ 3.8973	@ 90.00 33.75	.564E-03+- .564E-03	0.419E-01+- .419E-01	@ .350E-03+- .350E-03	23
4.62+- 0.59	3.09	@ 1.0000	42.19 13.52	@ .510E-01+- .350E-01	3.83 +- 2.63	@ .313E-01+- .215E-01	37
4.64+- 0.32	3.10	@ 2.0000	60.63 20.12	@ .114E-01+- .460E-02	0.864 +- .349	@ .712E-02+- .287E-02	37
4.66	3.10	@ 3.0000	75.94 26.48	@ .170E-02+- .170E-02	0.130 +- .130	@ .107E-02+- .107E-02	37
4.70	3.11	@ 7.9993	#180.00 180.00	.298E-01+- .471E-02	2.32 +- .367	# .190E-01+- .300E-02	47
4.74+- 0.36	3.13	@ 1.5000	51.23 16.42	@ .570E-01+- .100E-01	4.51 +- .791	@ .364E-01+- .639E-02	37
4.75+- 0.16	3.13	@ 4.0000	89.41 32.57	@ .120E-02+- .900E-03	0.953E-01+- .715E-01	@ .772E-03+- .579E-03	37
4.75	3.13	@ 4.0462	@ 90.00 33.26	.342E-03+- .342E-03	0.271E-01+- .271E-01	@ .220E-03+- .220E-03	23
4.77	3.14	@ 4.0648	@ 90.00 33.20	<.479E-03	<.384E-01	@ <.310E-03	23
4.78+- 0.36	3.14	@ 2.0000	59.58 19.47	@ .108E-01+- .440E-02	0.869 +- .354	@ .696E-02+- .284E-02	37
4.85	3.16	@ 3.0000	74.02 25.17	@ <.290E-02	<.240	@ <.191E-02	37
4.86	3.16	@ 8.2972	#180.00 180.00	.273E-01+- .454E-02	2.27 +- .378	# .180E-01+- .300E-02	47
4.94+- 0.13	3.19	@ 4.0000	87.01 31.15	@ .100E-02+- .800E-03	0.859E-01+- .687E-01	@ .672E-03+- .537E-03	37
4.95+- 0.37	3.19	@ 2.0000	58.35 18.70	@ .780E-02+- .490E-02	0.673 +- .423	@ .522E-02+- .328E-02	37
4.97+- 0.39	3.19	@ 1.5000	49.84 15.59	@ .340E-01+- .900E-02	2.96 +- .783	@ .229E-01+- .605E-02	37
5.00	3.20	@ 0.0000	# 0.00 0.0	# 1.62 +- .440	143. +- 38.7	# 1.10 +- .300	149
		# 0.0150	# 4.75 1.403	# .740 +- .280	65.1 +- 24.6	# .504 +- .191	149
		# 0.0650	# 10.00 2.930	# 1.43 +- .140	126. +- 12.3	# .974 +- .953E-01	149
		# 0.1010	# 12.50 3.659	# 1.16 +- .160	102. +- 14.1	# .790 +- .109	149
		# 0.1460	# 15.00 4.411	# 1.06 +- .140	93.3 +- 12.3	# .722 +- .953E-01	149
		# 0.1980	# 17.50 5.151	# .840 +- .130	73.9 +- 11.4	# .572 +- .885E-01	149
		# 0.2580	# 20.00 5.900	# .690 +- .110	60.7 +- 9.68	# .470 +- .749E-01	149
		# 0.4010	# 25.00 7.416	# .320 +- .600E-01	28.2 +- 5.28	# .218 +- .409E-01	149
		# 0.5730	# 30.00 8.954	# .160 +- .400E-01	14.1 +- 3.52	# .109 +- .272E-01	149
		# 0.6700	# 32.50 9.737	# .130 +- .300E-01	11.4 +- 2.64	# .885E-01+- .204E-01	149
		# 0.7740	# 35.00 10.53	# .180 +- .400E-01	15.8 +- 3.52	# .123 +- .272E-01	149
		# 1.0010	# 40.00 12.14	# .190 +- .400E-01	16.7 +- 3.52	# .129 +- .272E-01	149
5.00+- 0.10	3.20	@ 1.0700	41.42 12.62				
		+- 0.1000	+- 2.02 +- .6680	@ .415E-01+- .360E-01	3.65 +- 3.17	@ .283E-01+- .245E-01	37
5.00	3.20	@ 1.1240	# 42.50 12.97	# .140 +- .400E-01	12.3 +- 3.52	@ .953E-01+- .272E-01	149
		# 1.2530	# 45.00 13.80	# .160 +- .400E-01	14.1 +- 3.52	@ .109 +- .272E-01	149
		# 1.5280	# 50.00 15.51	# .800E-01+- .300E-01	7.04 +- 2.64	@ .545E-01+- .204E-01	149
5.00+- 0.10	3.20	@ 1.5700	50.73 15.78				
		+- 0.1400	+- 2.42 +- .8502	@ .377E-01+- .800E-02	3.32 +- .704	@ .257E-01+- .545E-02	37
5.00	3.20	@ 1.8250	# 55.00 17.30	# .300E-01+- .150E-01	2.64 +- 1.32	@ .204E-01+- .102E-01	149
5.00+- 0.10	3.20	@ 2.0700	58.93 18.75				
		+- 0.2000	+- 3.13 +- 1.173	@ .950E-02+- .200E-02	0.836 +- .176	@ .647E-02+- .136E-02	37
		@ 3.0600	73.47 24.60				
		+- 0.2400	+- 3.35 +- 1.453	@ <.100E-02	<.880E-01	@ <.681E-03	37
		@ 4.1000	87.62 31.30				
		+- 0.2900	+- 3.89 +- 2.016	@ .900E-03+- .900E-03	0.792E-01+- .792E-01	@ .613E-03+- .613E-03	37
5.03	3.21	@ 3.0000	72.34 24.04	@ <.110E-02	<.980E-01	@ <.754E-03	37
		@ 8.6138	#180.00 180.00	.321E-01+- .584E-02	2.86 +- .520	# .220E-01+- .400E-02	47
5.07	3.22	@ 8.6884	#180.00 180.00	.289E-01+- .579E-02	2.62 +- .524	# .200E-01+- .400E-02	47
5.15+- 0.21	3.25	@ 4.0000	84.65 29.44	@ .190E-02+- .110E-02	0.177 +- .103	@ .133E-02+- .772E-03	37
5.17	3.25	@ 8.8747	#180.00 180.00	.255E-01+- .566E-02	2.40 +- .533	# .180E-01+- .400E-02	47
5.20+- 0.18	3.26	@ 3.0000	70.89 23.11	@ .900E-03+- .900E-03	0.857E-01+- .857E-01	@ .639E-03+- .639E-03	37
5.28	3.28	@ 9.0798	#180.00 180.00	.194E-01+- .415E-02	1.90 +- .408	# .140E-01+- .300E-02	47
5.35+- 0.32	3.30	@ 4.0000	82.63 28.03	@ .110E-02+- .800E-03	0.111 +- .806E-01	@ .803E-03+- .584E-03	37
5.36+- 0.29	3.31	@ 3.0000	69.64 22.32	@ .140E-02+- .140E-02	0.142 +- .142	@ .103E-02+- .103E-02	37
5.50	3.35	@ 9.4900	#180.00 180.00	.185E-01+- .397E-02	1.97 +- .423	# .140E-01+- .300E-02	47
5.80	3.43	@ 0.0000	# 0.00 0.0	# 1.48 +- .220	175. +- 26.1	# 1.18 +- .176	149
		@ 0.0008	# 1.00 .2733	# .800 +- .310	94.8 +- 36.7	# .640 +- .248	149
		@ 0.0031	# 2.00 .5465	# .640 +- .200	75.8 +- 23.7	# .512 +- .160	149
		@ 0.0094	# 3.50 .9561	# .500 +- .110	59.2 +- 13.0	# .400 +- .880E-01	149
		@ 0.0190	# 5.00 1.362	# .800 +- .110	94.8 +- 13.0	# .640 +- .880E-01	149
		@ 0.0760	# 10.00 2.731	# 1.08 +- .140	128. +- 16.6	# .864 +- .112	149
		@ 0.1190	# 12.50 3.425	# .920 +- .130	109. +- 15.4	# .736 +- .104	149
		@ 0.1710	# 15.00 4.115	# .670 +- .700E-01	79.4 +- 8.29	# .536 +- .560E-01	149
		@ 0.2330	# 17.50 4.818	# .510 +- .100E 00	60.4 +- 11.8	# .408 +- .800E-01	149
		@ 0.3030	# 20.00 5.513	# .360 +- .800E-01	40.3 +- 9.48	# .272 +- .640E-01	149
		@ 0.4710	# 25.00 6.930	# .100E 00+- .400E-01	11.8 +- 4.74	# .800E-01+- .320E-01	149
		@ 0.6730	# 30.00 8.368	# .130 +- .400E-01	15.4 +- 4.74	# .104 +- .320E-01	149
6.00	3.48	@ 0.1000	11.24 3.031	# 1.13 +- .110	143. +- 13.9	# .938 +- .912E-01	137
		@ 0.1500	13.78 3.721	# .863 +- .600E-01	109. +- 7.61	# .716 +- .498E-01	137
		@ 0.2000	15.92 4.307	# .671 +- .500E-01	85.1 +- 6.34	# .557 +- .415E-01	137

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 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C112: GAMMA + PROTON --> PROTON + PI ZERO (K > 1.21 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.1350 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)**(5-M**2)**2 MU BARN/GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
6.00	3.48	# 0.3000	19.54	5.300	# .339 +- .400E-01	43.0 +-5.07	.281 +- .332E-01	137
		# 0.4000	22.59	6.148	# .130 +- .140E-01	16.5 +-1.77	.108 +- .116E-01	137
		# 0.5000	25.30	6.907	# .777E-01 +- .100E-01	9.85 +-1.27	.644E-01 +- .829E-02	137
		# 0.6000	27.76	7.602	# .946E-01 +- .120E-01	12.0 +-1.52	.785E-01 +- .995E-02	137
		# 0.7000	30.04	8.251	# .122 +- .100E-01	15.5 +-1.27	.101 +- .829E-02	137
		# 0.9000	34.18	9.448	# .140 +- .700E-02	17.7 +- .887	.116 +- .581E-02	137
		# 1.0000	37.91	10.55	# .129 +- .500E-02	16.4 +- .634	.107 +- .415E-02	137
		# 1.3800	42.68	11.99	# .849E-01 +- .450E-02	10.8 +- .570	.704E-01 +- .373E-02	137
		\$ 9.2735	141.21	74.31	@ .378E-02 +- .650E-03	0.479 +- .824E-01	.314E-02 +- .539E-03	113
		\$ 9.6695	148.81	87.27	@ .472E-02 +- .580E-03	0.598 +- .735E-01	.391E-02 +- .481E-03	113
		\$ 9.9335	154.97	100.2	@ .852E-02 +- .107E-02	1.08 +- .136	.707E-02 +- .887E-03	113
		\$10.1275	160.61	114.4	@ .118E-01 +- .117E-02	1.50 +- .148	.983E-02 +- .970E-03	113
		\$10.1355	160.88	115.1	@ .578E-02 +- .760E-03	0.733 +- .963E-01	.479E-02 +- .630E-03	113
		\$10.2125	163.66	123.0	@ .125E-01 +- .115E-02	1.59 +- .146	.104E-01 +- .361E-03	113
		\$10.2825	166.66	132.3	@ .168E-01 +- .182E-02	2.13 +- .231	.139E-01 +- .151E-02	113
		\$10.2985	167.45	134.8	@ .161E-01 +- .134E-02	2.04 +- .170	.133E-01 +- .111E-02	113
		\$11.8855	132.73	56.27	@ .146E-02 +- .320E-03	0.329 +- .721E-01	.165E-02 +- .361E-03	113
		\$12.2575	136.98	61.36	@ .178E-02 +- .300E-03	0.401 +- .676E-01	.201E-02 +- .338E-03	113
		\$12.6845	142.32	68.77	@ .214E-02 +- .320E-03	0.482 +- .721E-01	.241E-02 +- .361E-03	113
		\$13.0115	146.89	76.23	@ .228E-02 +- .340E-03	0.514 +- .766E-01	.257E-02 +- .383E-03	113
8.00	3.99	\$13.4065	153.30	88.88	@ .213E-02 +- .320E-03	0.480 +- .721E-01	.240E-02 +- .361E-03	113
		\$13.6865	158.90	102.5	@ .352E-02 +- .500E-03	0.793 +- .113	.397E-02 +- .563E-03	113
		\$14.0205	168.56	133.1	@ .560E-02 +- .490E-03	1.26 +- .110	.631E-02 +- .552E-03	113
		\$14.0665	176.62	140.8	@ .692E-02 +- .790E-03	1.56 +- .178	.780E-02 +- .890E-03	113
		# 0.1000	9.06	2.018	# .592 +- .700E-01	169. +-20.0	.755 +- .893E-01	137
		# 0.1500	11.10	2.476	# .468 +- .500E-01	133. +-14.3	.597 +- .638E-01	137
		# 0.2000	12.83	2.863	# .332 +- .400E-01	94.7 +-11.4	.424 +- .510E-01	137
		# 0.3000	15.72	3.517	# .138 +- .200E-01	39.4 +-5.70	.176 +- .255E-01	137
		# 0.4000	18.18	4.074	# .582E-01 +- .800E-02	16.6 +-2.28	.743E-01 +- .102E-01	137
		# 0.5000	20.34	4.569	# .388E-01 +- .600E-02	11.1 +-1.71	.495E-01 +- .766E-02	137
		# 0.6000	22.31	5.020	# .452E-01 +- .800E-02	12.9 +-2.28	.577E-01 +- .102E-01	137
		# 0.7000	24.12	5.440	# .542E-01 +- .500E-02	15.5 +-1.43	.692E-01 +- .638E-02	137
		# 0.8000	25.82	5.834	# .657E-01 +- .130E-01	18.7 +-3.71	.838E-01 +- .166E-01	137
		# 0.9000	27.41	6.207	# .630E-01 +- .400E-02	18.0 +-1.14	.804E-01 +- .510E-02	137
		# 1.0000	30.37	6.906	# .512E-01 +- .300E-02	14.6 +- .856	.653E-01 +- .383E-02	137
		# 1.3800	34.12	7.806	# .321E-01 +- .240E-02	9.16 +- .685	.410E-01 +- .306E-02	137
		@ 0.2000	11.54	2.340	@ .237 +- .470E-01	101. +-20.0	.373 +- .740E-01	64
		@ 0.3000	14.15	2.873	@ .137 +- .180E-01	58.4 +-7.67	.216 +- .283E-01	64
		@ 0.4000	16.35	3.326	@ .755E-01 +- .760E-02	32.2 +-3.24	.119 +- .120E-01	64
11.00	4.64	@ 0.5000	18.30	3.728	@ .507E-01 +- .600E-02	21.6 +-2.56	.798E-01 +- .944E-02	64
		@ 0.6000	20.06	4.094	@ .549E-01 +- .108E-01	23.4 +-4.60	.864E-01 +- .170E-01	64
		@ 0.7000	21.69	4.433	@ .527E-01 +- .740E-02	22.5 +-3.15	.829E-01 +- .116E-01	64
		@ 0.9000	24.63	5.052	@ .510E-01 +- .510E-02	21.7 +-2.17	.803E-01 +- .803E-02	64
		# 0.1000	7.49	1.513	# .374 +- .500E-01	190. +-25.4	.644 +- .862E-01	137
		# 0.1500	9.55	1.855	# .303 +- .400E-01	154. +-20.3	.522 +- .689E-01	137
		# 0.2000	11.63	2.144	# .202 +- .300E-01	102. +-15.2	.348 +- .517E-01	137
		# 0.3000	13.52	2.632	# .731E-01 +- .130E-01	37.1 +-6.59	.176 +- .224E-01	137
		# 0.4000	15.62	3.046	# .329E-01 +- .600E-02	16.7 +-3.04	.567E-01 +- .103E-01	137
		# 0.5000	17.48	3.414	# .237E-01 +- .400E-02	12.0 +-2.03	.408E-01 +- .689E-02	137
		# 0.6000	19.16	3.748	# .268E-01 +- .600E-02	13.6 +-3.04	.462E-01 +- .103E-01	137
		# 0.7000	20.72	4.058	# .304E-01 +- .300E-02	15.4 +-1.52	.524E-01 +- .517E-02	137
		# 0.8000	22.16	4.348	# .376E-01 +- .300E-02	19.1 +-1.52	.648E-01 +- .517E-02	137
		# 0.9000	23.53	4.622	# .358E-01 +- .300E-02	18.2 +-1.52	.617E-01 +- .517E-02	137
		# 1.0000	26.05	5.134	# .266E-01 +- .200E-02	13.5 +-1.01	.458E-01 +- .345E-02	137
		# 1.3800	29.25	5.789	# .161E-01 +- .130E-02	8.16 +- .659	.277E-01 +- .224E-02	137
		\$18.9176	138.37	53.82	@ .177E-03 +- .117E-03	0.898E-01 +- .593E-01	.305E-03 +- .202E-03	113
		\$19.3756	142.16	58.72	@ .355E-03 +- .980E-04	0.180 +- .497E-01	.612E-03 +- .169E-03	113
		\$19.7946	145.54	64.34	@ .466E-03 +- .100E-03	0.236 +- .507E-01	.803E-03 +- .172E-03	113
12.00	4.84	\$20.1676	149.64	70.70	@ .586E-03 +- .780E-04	0.297 +- .396E-01	.101E-02 +- .134E-03	113
		\$20.5326	153.71	78.81	@ .586E-03 +- .120E-03	0.297 +- .608E-01	.101E-02 +- .207E-03	113
		\$20.5886	157.93	89.05	@ .650E-03 +- .140E-03	0.330 +- .710E-01	.112E-02 +- .241E-03	113
		\$21.1926	163.25	104.8	@ .970E-03 +- .160E-03	0.492 +- .811E-01	.167E-02 +- .276E-03	113
		\$21.4026	167.68	121.0	@ .185E-02 +- .250E-03	0.938 +- .127	.319E-02 +- .431E-03	113
		\$21.5416	171.81	138.8	@ .218E-02 +- .220E-03	1.11 +- .112	.376E-02 +- .379E-03	113
		\$21.6116	175.05	154.3	@ .174E-02 +- .280E-03	0.882 +- .142	.300E-02 +- .482E-03	113
		# 0.1500	8.51	1.483	# .216 +- .300E-01	171. +-23.8	.469 +- .651E-01	137
		# 0.2000	9.82	1.714	# .137 +- .200E-01	109. +-15.8	.297 +- .434E-01	137
		# 0.3000	12.04	2.103	# .446E-01 +- .900E-02	35.3 +-7.13	.968E-01 +- .195E-01	137
		# 0.4000	13.91	2.433	# .212E-01 +- .450E-02	16.8 +-3.57	.460E-01 +- .977E-02	137
		# 0.5000	15.56	2.725	# .161E-01 +- .300E-02	12.8 +-2.38	.349E-01 +- .651E-02	137
		# 0.6000	17.06	2.990	# .178E-01 +- .400E-02	14.1 +-3.17	.386E-01 +- .868E-02	137
		# 0.7000	18.44	3.236	# .194E-01 +- .300E-02	15.4 +-2.38	.421E-01 +- .651E-02	137
		# 0.8000	19.72	3.466	# .244E-01 +- .300E-02	19.3 +-2.38	.530E-01 +- .651E-02	137
		# 0.9000	20.93	3.683	# .231E-01 +- .250E-02	18.3 +-1.98	.501E-01 +- .543E-02	137
		# 1.0000	23.17	4.086	# .160E-01 +- .130E-02	12.7 +-1.03	.347E-01 +- .282E-02	137
		# 1.3800	26.00	4.601	# .944E-02 +- .900E-03	7.48 +- .713	.205E-01 +- .195E-02	137
		@ 0.4000	13.45	2.280	@ .458E-01 +- .112E-01	41.3 +-10.1	.106 +- .260E-01	64
16.00	5.56	@ 0.7000	17.83	3.031	@ .290E-01 +- .520E-02	26.1 +-4.69	.673E-01 +- .121E-01	64
		@ 0.9000	20.24	3.449	@ .275E-01 +- .250E-02	24.8 +-2.25	.638E-01 +- .580E-02	64
		\$30.1456	146.36	55.36	@ .730E-04 +- .280E-04	0.833E-01 +- .319E-01	.191E-03 +- .733E-04	113
		\$30.6266	149.52	60.36	@ .880E-04 +- .220E-04	0.100 +- .251E-01	.230E-03 +- .576E-04	113
		\$31.0226	152.36	65.52	@ .129E-03 +- .390E-04	0.147 +- .445E-01	.338E-03 +- .102E-03	113
		\$31.4266	155.56	72.27	@ .150E-03 +- .320E-04	0.171 +- .365E-01	.393E-03 +- .838E-04	113
		\$31.7916	158.84	80.43	@ .150E-03 +- .460E-04	0.171 +- .525E-01	.393E-03 +- .120E-03	113
		\$32.1796	162.98	92.94	@ .202E-03 +- .600E-04	0.230 +- .685E-01	.529E-03 +- .157E-03	113
		\$32.4286	166.24	105.0	@ .416E-03 +- .630E-04	0.475 +- .719E-01	.109E-02 +- .165E-03	113
		\$32.6496	169.90	121.2	@ .648E-03 +- .109E-03	0.739 +- .124	.170E-02 +- .285E-03	113
		\$32.7936	173.46	139.9	@ .651E-03 +- .760E-04	0.743 +- .867E-01	.170E-02 +- .199E-03	113

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 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C112: GAMMA + PROTON --> PROTON + PI ZERO (K > 1.21 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 0.9383 GEV
M4: 0.1350 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 16.00

-T GEV**2	K GEV	E* GEV	S GEV**2	O SIG/D T MU BARN/GEV**2	(O SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
\$ 0.0000	5.80	3.43	11.76	# 1.48 +-0.220	175. +-26.1	149
\$ 0.0000	5.00	3.20	10.26	# 1.62 +-0.440	143. +-38.7	149
\$ 0.0000	4.00	2.90	8.39	# 1.17 +-0.150	65.9 +-8.45	149
\$ 0.0000	3.00	2.55	6.51	# 1.14 +-0.290	36.1 +-9.19	149
\$ 0.0000	2.00	2.15	4.63	# 2.04 +-0.410	28.7 +-5.77	149
\$ 0.0005	4.00	2.90	8.39	# 0.690 +-0.330	38.9 +-18.6	149
\$ 0.0008	5.80	3.43	11.76	# 0.800 +-0.310	94.8 +-36.7	149
\$ 0.0020	4.00	2.90	8.39	# 0.710 +-0.110	40.0 +-6.20	149
\$ 0.0031	5.80	3.43	11.76	# 0.640 +-0.200	75.8 +-23.7	149
\$ 0.0046	4.00	2.90	8.39	# 0.680 +-0.110	38.3 +-6.20	149
\$ 0.0090	4.00	2.90	8.39	# 1.11 +-0.130	62.5 +-7.32	149
\$ 0.0094	5.80	3.43	11.76	# 0.500 +-0.110	59.2 +-13.0	149
\$ 0.0150	2.00	2.15	4.63	# 2.96 +-0.440	41.7 +-6.20	149
\$ 0.0150	5.00	3.20	10.26	# 0.740 +-0.280	65.1 +-24.6	149
\$ 0.0190	5.80	3.43	11.76	# 0.800 +-0.110	94.8 +-13.0	149
\$ 0.0370	3.00	2.55	6.51	# 1.91 +-0.230	60.5 +-7.29	149
\$ 0.0510	2.00	2.15	4.63	# 4.73 +-0.650	66.6 +-9.16	149
\$ 0.0510	4.00	2.90	8.39	# 1.62 +-0.190	91.3 +-10.7	149
\$ 0.0650	5.00	3.20	10.26	# 1.43 +-0.140	126. +-12.3	149
\$ 0.0760	5.80	3.43	11.76	# 1.08 +-0.140	128. +-16.6	149
\$ 0.0800	2.90	8.39	1.91	+-900E-01	108. +-5.07	149
\$ 0.0830	3.00	2.55	6.51	# 3.48 +-0.300	110. +-9.51	149
\$ 0.0910	2.00	2.15	4.63	# 5.77 +-0.460	81.3 +-6.48	149
\$ 0.1000	6.00	3.48	12.14	# 1.13 +-0.110	143. +-13.9	137
\$ 0.1000	9.00	4.22	17.77	# 0.592 +-0.700E-01	169. +-20.0	137
\$ 0.1000	12.00	4.84	23.40	# 0.374 +-0.500E-01	190. +-25.4	137
\$ 0.1010	5.00	3.20	10.26	# 1.16 +-0.160	102. +-14.1	149
\$ 0.1150	4.00	2.90	8.39	# 1.77 +-0.130	99.7 +-7.32	149
\$ 0.1190	5.80	3.43	11.76	# 0.920 +-0.130	109. +-15.4	149
\$ 0.1410	2.00	2.15	4.63	# 5.19 +-0.490	73.1 +-6.90	149
\$ 0.1460	3.00	2.55	6.51	# 2.43 +-0.240	77.0 +-7.61	149
\$ 0.1460	5.00	3.20	10.26	# 1.06 +-0.140	93.3 +-12.3	149
\$ 0.1500	6.00	3.48	12.14	# 0.863 +-0.600E-01	109. +-7.61	137
\$ 0.1500	9.00	4.22	17.77	# 0.468 +-0.500E-01	133. +-14.3	137
\$ 0.1500	12.00	4.84	23.40	# 0.303 +-0.400E-01	154. +-20.3	137
\$ 0.1500	15.00	5.39	29.03	# 0.216 +-0.300E-01	171. +-23.8	137
\$ 0.1560	4.00	2.90	8.39	# 1.70 +-0.190	95.8 +-10.7	149
\$ 0.1710	3.43	11.76	0.670	+-700E-01	79.4 +-8.29	149
\$ 0.1980	5.00	3.20	10.26	# 0.840 +-0.130	73.9 +-11.4	149
\$ 0.2000	6.00	3.48	12.14	# 0.671 +-0.500E-01	85.1 +-6.34	137
\$ 0.2000	9.00	4.22	17.77	# 0.332 +-0.400E-01	94.7 +-11.4	137
\$ 0.2000	11.00	4.64	21.52	# 0.237 +-0.470E-01	101. +-20.0	64
\$ 0.2000	12.00	4.84	23.40	# 0.202 +-0.300E-01	102. +-15.2	137
\$ 0.2000	15.00	5.39	29.03	# 0.137 +-0.200E-01	109. +-15.8	137
\$ 0.2020	2.00	2.15	4.63	# 4.43 +-0.340	62.4 +-4.79	149
\$ 0.2040	4.00	2.90	8.39	# 1.28 +-0.130	72.1 +-7.32	149
\$ 0.2270	3.00	2.55	6.51	# 2.14 +-0.180	67.8 +-5.70	149
\$ 0.2330	5.80	3.43	11.76	# 0.510 +-0.100E 00	60.4 +-11.8	149
\$ 0.2580	5.00	3.20	10.26	# 0.690 +-0.110	60.7 +-9.68	149
\$ 0.3000	6.00	3.48	12.14	# 0.339 +-0.400E-01	43.0 +-5.07	137
\$ 0.3000	9.00	4.22	17.77	# 0.138 +-0.200E-01	39.4 +-5.70	137
\$ 0.3000	11.00	4.64	21.52	# 0.137 +-0.180E-01	58.4 +-7.67	64
\$ 0.3000	12.00	4.84	23.40	# 0.731E-01+-0.130E-01	37.1 +-6.59	137
\$ 0.3000	15.00	5.39	29.03	# 0.446E-01+-0.900E-02	35.3 +-7.13	137
\$ 0.3030	5.80	3.43	11.76	# 0.340 +-0.800E-01	40.3 +-9.48	149
\$ 0.3160	4.00	2.90	8.39	# 0.760 +-0.900E-01	42.8 +-5.07	149
\$ 0.3250	3.00	2.55	6.51	# 1.47 +-0.150	46.6 +-4.75	149
\$ 0.3530	2.00	2.15	4.63	# 2.77 +-0.290	39.0 +-4.08	149
\$ 0.4000	6.00	3.48	12.14	# 0.130 +-0.140E-01	16.5 +-1.77	137
\$ 0.4000	9.00	4.22	17.77	# 0.582E-01+-0.800E-02	16.6 +-2.28	137
\$ 0.4000	11.00	4.64	21.52	# 0.755E-01+-0.760E-02	32.2 +-3.24	64
\$ 0.4000	12.00	4.84	23.40	# 0.329E-01+-0.600E-02	16.7 +-3.04	137
\$ 0.4000	15.00	5.39	29.03	# 0.212E-01+-0.450E-02	16.8 +-3.57	137
\$ 0.4000	16.00	5.56	30.90	# 0.458E-01+-0.112E-01	41.3 +-10.1	64
\$ 0.4010	5.00	3.20	10.26	# 0.320 +-0.600E-01	28.2 +-5.28	149
\$ 0.4520	4.00	2.90	8.39	# 0.340 +-0.600E-01	19.2 +-3.38	149
\$ 0.4710	5.80	3.43	11.76	# 0.100E 00+-0.400E-01	11.8 +-4.74	149
\$ 0.5000	6.00	3.48	12.14	# 0.777E-01+-0.100E-01	9.85 +-1.27	137
\$ 0.5000	9.00	4.22	17.77	# 0.388E-01+-0.600E-02	11.1 +-1.71	137
\$ 0.5000	11.00	4.64	21.52	# 0.507E-01+-0.600E-02	21.6 +-2.56	64
\$ 0.5000	12.00	4.84	23.40	# 0.237E-01+-0.400E-02	12.0 +-2.03	137
\$ 0.5000	15.00	5.39	29.03	# 0.161E-01+-0.300E-02	12.8 +-2.38	137
\$ 0.5390	2.00	2.15	4.63	# 1.63 +-0.190	23.0 +-2.68	149
@ 0.5500+-0.0600	4.00+-0.10	2.90+-0.03	8.39+-0.19	@ 0.292 +-0.990E-01	16.5 +-5.58	37
\$ 0.5670	3.00	2.55	6.51	# 0.430 +-0.700E-01	13.6 +-2.22	149
@ 0.5700+-0.0600	4.50+-0.10	3.05+-0.03	9.32+-0.19	@ 0.146 +-0.570E-01	10.4 +-4.06	37
\$ 0.5730	5.00	3.20	10.26	# 0.160 +-0.400E-01	14.1 +-3.52	149
@ 0.5800+-0.0600	2.00+-0.10	2.15+-0.04	4.63+-0.19	@ 0.749 +-0.269	10.5 +-3.79	37
\$ 0.6000	6.00	3.48	12.14	# 0.946E-01+-0.120E-01	12.0 +-1.52	137
\$ 0.6000	9.00	4.22	17.77	# 0.452E-01+-0.800E-02	12.9 +-2.28	137
\$ 0.6000	11.00	4.64	21.52	# 0.549E-01+-0.108E-01	23.4 +-4.60	64
\$ 0.6000	12.00	4.84	23.40	# 0.268E-01+-0.600E-02	13.6 +-3.04	137
\$ 0.6000	15.00	5.39	29.03	# 0.178E-01+-0.400E-02	14.1 +-3.17	137
\$ 0.6110	4.00	2.90	8.39	# 0.280 +-0.600E-01	15.8 +-3.38	149
\$ 0.6700	5.80	3.20	10.26	# 0.130 +-0.300E-01	11.4 +-2.64	149
\$ 0.6730	5.80	3.43	11.76	# 0.130 +-0.400E-01	15.4 +-4.74	149

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ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C112: GAMMA + PROTON --> PROTON + PI ZERO (K > 1.21 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.1350 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 16.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	0 SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	RFF
#	0.7000	6.00	3.48	12.14	# .122 +- .100E-01	15.5 +-1.27	137
#	0.7000	9.00	4.22	17.77	# .542E-01+- .500E-02	15.5 +-1.43	137
#	0.7000	11.00	4.64	21.52	# .527E-01+- .740E-02	22.5 +-3.15	64
#	0.7000	12.00	4.84	23.40	# .304E-01+- .300E-02	15.4 +-1.52	137
#	0.7000	15.00	5.39	29.03	# .194E-01+- .300E-02	15.4 +-2.38	137
#	0.7000	16.00	5.56	30.90	# .290E-01+- .520E-02	26.1 +-4.69	64
#	0.7200+- 0.0600	2.50+- 0.10	2.36+- 0.04	5.57+- 0.19	# .646 +- .110	14.2 +-2.42	37
#	0.7550	2.00	2.15	4.63	# .650 +- .180	9.16 +-2.54	149
#	0.7591	2.01	2.16	4.65	# .728 +- .579E-01	10.4 +- .824	6
#	0.7740	5.00	3.20	10.26	# .180 +- .400E-01	15.8 +-3.52	149
#	0.7800+- 0.0700	2.00+- 0.10	2.15+- 0.04	4.63+- 0.19	# .385 +- .710E-01	5.42 +-1.00	37
#	0.7818	2.06	2.18	4.75	# .743 +- .442E-01	11.1 +- .661	6
#	0.7900	4.00	2.90	8.39	# .300 +- .700E-01	16.9 +-3.94	149
#	0.8000	9.00	4.22	17.77	# .657E-01+- .130E-01	18.7 +-3.71	137
#	0.8000	12.00	4.84	23.40	# .376E-01+- .300E-02	19.1 +-1.52	137
#	0.8000	15.00	5.39	29.03	# .244E-01+- .300E-02	19.3 +-2.38	137
#	0.8362	2.18	2.23	4.97	# .845 +- .564E-01	14.1 +- .943	6
#	0.8660	3.00	2.55	6.51	# .390 +- .800E-01	12.4 +-2.54	149
#	0.9000	6.00	3.48	12.14	# .140 +- .700E-02	17.7 +- .887	137
#	0.9000	9.00	4.22	17.77	# .630E-01+- .400E-02	18.0 +-1.14	137
#	0.9000	11.00	4.64	21.52	# .510E-01+- .510E-02	21.7 +-2.17	64
#	0.9000	12.00	4.84	23.40	# .358E-01+- .300E-02	18.2 +-1.52	137
#	0.9000	15.00	5.39	29.03	# .231E-01+- .250E-02	18.3 +-1.98	137
#	0.9000	16.00	5.56	30.90	# .275E-01+- .250E-02	24.8 +-2.25	64
#	0.9046	2.33	2.29	5.25	# .816 +- .660E-01	15.6 +-1.26	6
#	0.9822	2.50	2.36	5.57	# .691 +- .480E-01	15.2 +-1.06	6
#	0.9890	4.00	2.90	8.39	# .320 +- .600E-01	18.0 +-3.38	149
#	1.0000	2.40+- 0.21	2.32+- 0.08	5.38+- 0.39	# .564 +- .850E-01	11.4 +-1.72	37
#	1.0000+- 0.1000	2.50+- 0.10	2.36+- 0.04	5.57+- 0.19	# .531 +- .119	11.7 +-2.62	37
#	1.0000	2.58+- 0.14	2.39+- 0.05	5.72+- 0.26	# .493 +- .510E-01	11.6 +-1.20	37
#	1.0000	2.74+- 0.19	2.45+- 0.07	6.02+- 0.36	# .468 +- .480E-01	12.4 +-1.27	37
#	1.0000	2.90+- 0.22	2.51+- 0.08	6.32+- 0.41	# .413 +- .430E-01	12.2 +-1.27	37
#	1.0000	3.20+- 0.35	2.62+- 0.13	6.89+- 0.66	# .282 +- .300E-01	10.2 +-1.08	37
#	1.0000	3.35+- 0.34	2.68+- 0.12	7.17+- 0.64	# .269 +- .420E-01	10.6 +-1.66	37
#	1.0000	3.49+- 0.34	2.73+- 0.12	7.43+- 0.64	# .230 +- .440E-01	9.86 +-1.89	37
#	1.0000	3.75+- 0.43	2.81+- 0.14	7.92+- 0.81	# .197 +- .270E-01	9.76 +-1.34	37
#	1.0000	3.94+- 0.49	2.88+- 0.16	8.27+- 0.92	# .224 +- .440E-01	12.2 +-2.41	37
#	1.0000+- 0.0800	4.00+- 0.10	2.90+- 0.03	8.39+- 0.19	# .245 +- .370E-01	13.8 +-2.08	37
#	1.0000	4.23+- 0.62	2.97+- 0.20	8.82+- 1.16	# .210 +- .510E-01	13.2 +-3.21	37
#	1.0000	4.62+- 0.59	3.09+- 0.18	9.55+- 1.11	# .510E-01+- .350E-01	3.83 +-2.63	37
#	1.0010	5.00	3.20	10.26	# .190 +- .400E-01	16.7 +-3.52	149
#	1.0200+- 0.0900	2.00+- 0.10	2.15+- 0.04	4.63+- 0.19	# .441 +- .130	6.21 +-1.83	37
#	1.0200+- 0.0900	3.00+- 0.10	2.55+- 0.04	6.51+- 0.19	# .378 +- .670E-01	12.0 +-2.12	37
#	1.0200+- 0.0900	3.50+- 0.10	2.73+- 0.03	7.45+- 0.19	# .237 +- .310E-01	10.2 +-1.34	37
#	1.0200+- 0.0900	4.50+- 0.10	3.05+- 0.03	9.32+- 0.19	# .189 +- .490E-01	13.4 +-3.49	37
#	1.0372	2.62	2.41	5.80	# .642 +- .515E-01	15.5 +-1.24	6
#	1.0600+- 0.1000	4.00+- 0.10	2.90+- 0.03	8.39+- 0.19	# .174 +- .310E-01	9.80 +-1.75	37
#	1.0700+- 0.1000	5.00+- 0.10	3.20+- 0.04	10.26+- 0.19	# .415E-01+- .360E-01	3.65 +-3.17	37
#	1.0800+- 0.1000	3.00+- 0.10	2.55+- 0.04	6.51+- 0.19	# .383 +- .400E-01	12.1 +-1.27	37
#	1.1000	6.00	3.48	12.14	# .129 +- .500E-02	16.4 +- .634	137
#	1.1000	9.00	4.22	17.77	# .512E-01+- .300E-02	14.6 +- .856	137
#	1.1000	12.00	4.84	23.40	# .266E-01+- .200E-02	13.5 +-1.01	137
#	1.1000	15.00	5.39	29.03	# .160E-01+- .130E-02	12.7 +-1.03	137
#	1.1107	2.78	2.47	6.10	# .636 +- .283E-01	17.3 +- .770	6
#	1.1240	5.00	3.20	10.26	# .140 +- .400E-01	12.3 +-3.52	149
#	1.1751	2.92	2.52	6.36	# .612 +- .588E-01	18.4 +-1.77	6
#	1.2060	4.00	2.90	8.39	# .260 +- .400E-01	14.6 +-2.25	149
#	1.2120	3.00	2.55	6.51	# .390 +- .800E-01	12.4 +-2.54	149
#	1.2488	3.08	2.58	6.66	# .443 +- .252E-01	14.8 +- .840	6
#	1.2530	5.00	3.20	10.26	# .160 +- .400E-01	14.1 +-3.52	149
#	1.3100+- 0.1100	2.00+- 0.10	2.15+- 0.04	4.63+- 0.19	# .111 +- .115	15.6 +-1.62	37
#	1.3200+- 0.1200	2.50+- 0.10	2.36+- 0.04	5.57+- 0.19	# .313 +- .330E-01	6.89 +- .726	37
#	1.3226	3.24	2.64	6.96	# .352 +- .166E-01	13.0 +- .615	6
#	1.3800	6.00	3.48	12.14	# .849E-01+- .450E-02	10.8 +- .570	137
#	1.3800	9.00	4.22	17.77	# .321E-01+- .240E-02	9.16 +- .685	137
#	1.3800	12.00	4.84	23.40	# .161E-01+- .130E-02	8.16 +- .659	137
#	1.3800	15.00	5.39	29.03	# .944E-02+- .900E-03	7.48 +- .713	137
#	1.3919	3.39	2.69	7.24	# .204 +- .115E-01	8.27 +- .466	6
#	1.4100+- 0.1200	3.50+- 0.10	2.73+- 0.03	7.45+- 0.19	# .143 +- .270E-01	6.17 +-1.16	37
#	1.4400	4.00	2.90	8.39	# .260 +- .600E-01	14.6 +-3.38	149
#	1.4474	3.51	2.73	7.47	# .142 +- .111E-01	6.18 +- .480	6
#	1.4900+- 0.1400	4.50+- 0.10	3.05+- 0.03	9.32+- 0.19	# .733E-01+- .115E-01	5.23 +- .820	37
#	1.5000	2.08+- 0.08	2.19+- 0.03	4.78+- 0.15	# .184 +- .192	28.1 +-2.93	37
#	1.5000	2.50+- 0.11	2.36+- 0.04	5.57+- 0.21	# .259 +- .410E-01	5.70 +- .902	37
#	1.5000	3.69+- 0.29	2.79+- 0.10	7.80+- 0.54	# .127 +- .300E-01	6.09 +-1.44	37
#	1.5000	3.90+- 0.22	2.86+- 0.07	8.20+- 0.41	# .127 +- .260E-01	6.80 +-1.39	37
#	1.5000	4.12+- 0.31	2.93+- 0.10	8.61+- 0.58	# .103 +- .220E-01	6.16 +-1.31	37
#	1.5000	4.33+- 0.30	3.00+- 0.09	9.01+- 0.56	# .900E-01+- .130E-01	5.94 +- .858	37
#	1.5000	4.52+- 0.35	3.06+- 0.11	9.36+- 0.66	# .690E-01+- .210E-01	4.96 +-1.51	37
#	1.5000	4.74+- 0.36	3.13+- 0.11	9.77+- 0.68	# .570E-01+- .100E-01	4.51 +- .791	37
#	1.5000	4.97+- 0.39	3.19+- 0.11	10.21+- 0.73	# .340E-01+- .900E-02	2.96 +- .783	37
#	1.5261	3.68	2.79	7.79	# .103 +- .117E-01	4.89 +- .560	6
#	1.5280	5.00	3.20	10.26	# .800E-01+- .300E-01	7.04 +-2.64	149
#	1.5700+- 0.1400	5.00+- 0.10	3.20+- 0.03	10.26+- 0.19	# .377E-01+- .800E-02	3.32 +- .704	37
#	1.5950	3.00	2.55	6.51	# .310 +- .800E-01	9.82 +-2.54	149
#	1.5956	3.83	2.84	8.07	# .868E-01+- .120E-01	4.48 +- .620	6

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 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C112: GAMMA + PROTON --> PROTON + PI ZERO [K > 1.21 GEV] {CONTINUE}

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.1350 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 16.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
a	1.6500+- 0.1200	2.50+- 0.10	2.36+- 0.04	5.57+- 0.19	a .211 +- .320E-01	4.64 +- .704	37
	# 1.6880	4.00	2.90	8.39	# .600E-01+- .300E-01	3.36 +- 1.69	149
	# 1.8250	5.00	3.20	10.26	# .300E-01+- .150E-01	2.64 +- 1.32	149
a	1.9600+- 0.1500	4.00+- 0.10	2.90+- 0.03	8.39+- 0.19	a .203E-01+- .600E-02	1.14 +- .338	37
a	1.9700+- 0.1500	4.50+- 0.10	3.05+- 0.03	9.32+- 0.19	a .165E-01+- .700E-02	1.18 +- .499	37
	a 2.0000	2.69+- 0.11	2.43+- 0.04	5.93+- 0.21	a .850E-01+- .188E-01	2.17 +- .479	37
	a 2.0000	3.25+- 0.15	2.64+- 0.05	6.98+- 0.28	a .384E-01+- .910E-02	1.43 +- .338	37
	a 2.0000	3.39+- 0.15	2.69+- 0.05	7.24+- 0.28	a .372E-01+- .910E-02	1.51 +- .368	37
	a 2.0000	3.55	2.75	7.54	a .345E-01+- .840E-02	1.53 +- .373	37
	a 2.0000	3.73+- 0.14	2.81+- 0.05	7.88+- 0.26	a .283E-01+- .680E-02	1.39 +- .333	37
	a 2.0000	3.88+- 0.16	2.86+- 0.06	8.16+- 0.34	a .201E-01+- .450E-02	1.07 +- .239	37
	a 2.0000	4.08+- 0.21	2.92+- 0.07	8.54+- 0.39	a .225E-01+- .610E-02	1.32 +- .358	37
	a 2.0000	4.23+- 0.22	2.97+- 0.07	8.82+- 0.41	a .221E-01+- .530E-02	1.39 +- .334	37
	a 2.0000	4.47+- 0.27	3.04+- 0.08	9.27+- 0.51	a .139E-01+- .420E-02	.978 +- .296	37
	a 2.0000	4.64+- 0.32	3.10+- 0.10	9.59+- 0.60	a .114E-01+- .460E-02	.864 +- .349	37
	a 2.0000	4.78+- 0.36	3.14+- 0.11	9.85+- 0.68	a .108E-01+- .440E-02	.869 +- .354	37
	a 2.0000	4.95+- 0.37	3.19+- 0.11	10.17+- 0.69	a .780E-02+- .490E-02	.673 +- .423	37
a	2.0200+- 0.1800	3.50+- 0.10	2.73+- 0.03	7.45+- 0.19	a .383E-01+- .490E-02	1.65 +- .211	37
a	2.0600+- 0.1800	4.50+- 0.10	3.05+- 0.03	9.32+- 0.19	a .202E-01+- .400E-02	1.44 +- .285	37
a	2.0700+- 0.2000	5.00+- 0.10	3.20+- 0.03	10.26+- 0.19	a .950E-02+- .200E-02	.836 +- .176	37
a	2.1200+- 0.1600	4.00+- 0.10	2.90+- 0.03	8.39+- 0.19	a .262E-01+- .500E-02	1.48 +- .282	37
	a 3.0000	4.47	3.04	9.27	a .100E-03+- .100E-03	.704E-02+- .704E-02	37
	a 3.0000	4.66	3.10	9.62	a .170E-02+- .170E-02	.130 +- .130	37
	a 3.0000	4.85	3.16	9.98	a <.290E-02	<.240	37
	a 3.0000	5.03	3.21	10.32	a <.110E-02	<.980E-01	37
	a 3.0000	5.20+- 0.18	3.26+- 0.05	10.64+- 0.34	a .900E-03+- .900E-03	.857E-01+- .857E-01	37
	a 3.0000	5.36+- 0.29	3.31+- 0.08	10.94+- 0.54	a .140E-02+- .140E-02	.142 +- .142	37
a	3.0600+- 0.2400	5.00+- 0.10	3.20+- 0.03	10.26+- 0.19	a <.100E-02	<.880E-01	37
	a 4.0000	4.75+- 0.16	3.13+- 0.05	9.79+- 0.30	a .120E-02+- .900E-03	.953E-01+- .715E-01	37
	a 4.0000	4.94+- 0.13	3.19+- 0.04	10.15+- 0.24	a .100E-02+- .800E-03	.859E-01+- .687E-01	37
	a 4.0000	5.15+- 0.21	3.25+- 0.06	10.54+- 0.39	a .190E-02+- .110E-02	.177 +- .103	37
	a 4.0000	5.35+- 0.32	3.30+- 0.09	10.92+- 0.60	a .110E-02+- .800E-03	.111 +- .806E-01	37
a	4.1000+- 0.2900	5.00+- 0.10	3.20+- 0.03	10.26+- 0.19	a .900E-03+- .900E-03	.792E-01+- .792E-01	37

1.21 GEV < K < GEV 2.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
	0.0566	1.36	1.85	3.43	14.5 +- 1.27	94.3 +- 8.30	53
	0.1256	1.36	1.85	3.43	15.4 +- 1.61	100. +- 10.5	53
	0.2193	1.36	1.85	3.43	12.0 +- .737	78.2 +- 4.80	53
	0.4033	1.21	1.78	3.15	7.40 +- 1.09	38.2 +- 5.62	231
	0.4687	1.36	1.85	3.43	3.15 +- .603	20.5 +- 3.93	53
	0.4687	1.36	1.85	3.43	3.39 +- .308	22.1 +- 2.01	6
	0.5083	1.45	1.90	3.60	2.29 +- .142	16.9 +- 1.05	6
	0.5267	1.21	1.78	3.15	9.19 +- 1.01	47.4 +- 5.22	231
	0.5704	1.59	1.97	3.86	1.17 +- .110	10.4 +- .981	6
	0.7004	1.88	2.10	4.41	.785 +- .807E-01	9.77 +- 1.00	6
a	1.0000	1.90+- 0.12	2.11+- 0.05	4.45+- 0.23	a .575 +- .126	7.31 +- 1.60	37
a	1.0000	1.99+- 0.13	2.15+- 0.06	4.61+- 0.24	a .398 +- .930E-01	5.55 +- 1.30	37

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 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C112: GAMMA + PROTON --> PROTON + PI ZERO (K > 1.21 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 0.9383 GEV
M4: 0.1350 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 1.21 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM	LAB	D SIG/D OMEGA (CM) MU BARN/ STERAD	REF
1.21	1.78	3.15	-0.241	12.5	+-530	# 0.0	0.0	#1.61 +-680E-01 47
			-0.229	12.7	+-1.48	# 9.8	4.0	#1.63 +-190 231
			-0.195	10.8	+-1.01	# 19.5	8.0	#1.38 +-130 231
			-0.139	8.88	+-1.09	# 29.1	12.0	#1.14 +-140 231
			-0.065	7.79	+-623	# 38.6	16.1	#1.00 +-800E-01 231
			0.039	7.17	+-623	# 49.2	20.6	#.920 +-800E-01 231
			0.156	5.92	+-545	# 59.5	25.1	#.760 +-700E-01 231
			0.283	5.38	+-701	# 69.5	29.6	#.690 +-900E-01 231
			0.416	5.14	+-390	# 79.3	34.2	#.660 +-500E-01 231
			0.564	4.99	+-545	# 89.9	39.2	#.640 +-700E-01 231
1.23	1.79	3.19	-0.238	11.8	+-404	# 0.0	0.0	#1.55 +-530E-01 47
			-0.238	8.20	+-198	# 0.0	0.0	#1.07 +-260E-01 74
			0.586	5.07	+-458	# 90.0	39.2	#.665 +-600E-01 6
1.25	1.80	3.23	-0.235	10.5	+-366	# 0.0	0.0	#1.41 +-490E-01 47
1.26	1.80	3.24	0.616	3.77	+-325	# 90.0	39.1	#.510 +-440E-01 6
1.27	1.81	3.26	-0.232	13.2	+-1.00	# 0.0	0.0	#1.80 +-137 47
			-0.232	9.05	+-256	# 0.0	0.0	#1.24 +-350E-01 74
1.29	1.82	3.30	-0.230	10.5	+-983	# 0.0	0.0	#1.46 +-137 47
1.30	1.82	3.32	-0.229	11.8	+-1.13	# 0.0	0.0	#1.66 +-159 47
			0.656	4.25	+-561	# 90.0	38.9	#.599 +-790E-01 6
1.31	1.83	3.34	-0.227	11.9	+-689	# 0.0	0.0	#1.69 +-980E-01 47
1.32	1.83	3.36	-0.226	9.07	+-181	# 0.0	0.0	#1.30 +-260E-01 74
1.34	1.84	3.39	-0.224	10.5	+-991	# 0.0	0.0	#1.54 +-145 47
			0.696	3.70	+-588	# 90.0	38.7	#.541 +-860E-01 6
1.37	1.86	3.45	-0.220	11.0	+-565	# 0.0	0.0	#1.66 +-850E-01 47
			-0.220	8.68	+-173	# 0.0	0.0	#1.31 +-260E-01 74
1.41	1.88	3.53	-0.215	8.31	+-166	# 0.0	0.0	#1.30 +-260E-01 74
1.42	1.88	3.54	-0.214	10.3	+-641	# 0.0	0.0	#1.62 +-101 47
1.44	1.89	3.58	-0.212	9.04	+-917	# 0.0	0.0	#1.45 +-147 47
			0.796	3.76	+-237	# 90.0	38.3	#.603 +-380E-01 6
1.46	1.90	3.62	-0.210	9.07	+-784	# 0.0	0.0	#1.48 +-128 47
			-0.210	6.96	+-190	# 0.0	0.0	#1.14 +-310E-01 74
1.50	1.92	3.70	-0.205	5.98	+-184	# 0.0	0.0	#1.01 +-310E-01 74
1.53	1.94	3.75	0.885	3.54	+-156	# 90.0	37.9	#.613 +-270E-01 6
1.55	1.95	3.79	-0.200	4.41	+-199	# 0.0	0.0	#.776 +-350E-01 74
1.56	1.95	3.81	-0.199	5.87	+-530	# 0.0	0.0	#1.04 +-940E-01 47
1.57	1.96	3.83	-0.198	4.45	+-257	# 0.0	0.0	#.795 +-460E-01 47
1.58	1.96	3.85	0.934	3.40	+-111	# 90.0	37.7	#.613 +-200E-01 6
1.60	1.97	3.88	-0.195	3.60	+-191	# 0.0	0.0	#.658 +-350E-01 74
1.62	1.98	3.92	0.974	3.03	+-129	# 90.0	37.6	#.563 +-240E-01 6
1.65	1.99	3.98	-0.191	2.93	+-163	# 0.0	0.0	#.557 +-310E-01 74
1.66	2.00	4.00	-0.190	2.79	+-188	# 0.0	0.0	#.535 +-360E-01 47
1.67	2.00	4.01	1.023	2.71	+-161	# 90.0	37.4	#.523 +-310E-01 6
1.68	2.01	4.03	-0.188	2.01	+-216	# 0.0	0.0	#.390 +-420E-01 47
1.70	2.02	4.07	-0.186	2.18	+-223	# 0.0	0.0	#.430 +-440E-01 74
1.72	2.03	4.11	-0.185	1.71	+-205	# 0.0	0.0	#.343 +-410E-01 47
			1.072	2.31	+-195	# 90.0	37.2	#.462 +-390E-01 6
1.74	2.04	4.15	-0.183	1.67	+-153	# 0.0	0.0	#.338 +-310E-01 74
1.75	2.04	4.16	-0.182	2.03	+-147	# 0.0	0.0	#.415 +-300E-01 47
1.78	2.05	4.22	1.131	2.17	+-182	# 90.0	36.9	#.452 +-380E-01 6
1.83	2.08	4.31	1.180	3.11	+-139	# 90.0	36.8	#.672 +-300E-01 6
1.86	2.09	4.37	-0.174	1.04	+-727E-01	# 0.0	0.0	#.228 +-160E-01 47
1.88	2.10	4.41	-0.172	.902	+-942E-01	# 0.0	0.0	#.201 +-210E-01 47
			1.229	1.26	+-108	# 90.0	36.6	#.280 +-240E-01 6
1.90	2.11	4.45	1.248	1.10	+-797E-01	# 90.0	36.5	#.249 +-180E-01 6
1.90+- 0.08	2.11+- 0.04	4.45+- 0.15	\$ 1.167	32.38	+-247	86.6	34.9	#.536 +-557E-01 37
1.92	2.12	4.48	-0.169	.870	+-700E-01	# 0.0	0.0	#.199 +-160E-01 47
1.94	2.13	4.52	-0.168	.721	+-950E-01	# 0.0	0.0	#.167 +-220E-01 47
1.96	2.14	4.56	1.306	.994	+-141	# 90.0	36.3	#.213 +-330E-01 6
2.00+- 0.10	2.15+- 0.04	4.63+- 0.15	\$ 1.164+- 0.100	32.14	+-222	83.0+- 3.8	32.9+- 1.8	#.513 +-532E-01 37
			\$ 1.284+- 0.130	31.91	+-210	87.5+- 5.0	35.0+- 2.3	#.458 +-503E-01 37
2.00+- 0.08	2.15+- 0.03	4.63+- 0.15	\$ 1.354	31.94	+-202	90.3	36.3	#.465 +-484E-01 37
2.01	2.16	4.65	-0.163	.567	+-662E-01	# 0.0	0.0	#.137 +-160E-01 47
2.02	2.16	4.67	1.365	.946	+-535E-01	# 90.0	36.0	#.230 +-130E-01 6
2.03	2.17	4.69	-0.162	.528	+-613E-01	# 0.0	0.0	#.129 +-150E-01 47
2.05	2.17	4.73	-0.161	.449	+-606E-01	# 0.0	0.0	#.111 +-150E-01 47
2.08	2.19	4.78	1.423	.779	+-437E-01	# 90.0	35.8	#.196 +-110E-01 6
2.12	2.20	4.86	-0.156	.396	+-350E-01	# 0.0	0.0	#.102 +-900E-02 47
2.15	2.22	4.91	-0.154	.420	+-420E-01	# 0.0	0.0	#.110 +-110E-01 47
2.15+- 0.08	2.22+- 0.03	4.91+- 0.15	\$ 1.136	31.29	+-134	77.4	29.9	#.338 +-350E-01 37
2.15	2.22	4.91	1.491	.729	+-229E-01	# 90.0	35.6	#.191 +-600E-02 6
2.16+- 0.08	2.22+- 0.03	4.93+- 0.15	\$-0.845	31.70	+-270E-01	# 0.0	0.0	#.447E-01+-710E-02 37
2.16	2.22	4.93	1.500	.589	+-608E-01	# 90.0	35.5	#.155 +-160E-01 23
2.18	2.23	4.97	-0.153	.413	+-301E-01	# 0.0	0.0	#.110 +-800E-02 47
2.19	2.23	4.99	-0.152	.430	+-262E-01	# 0.0	0.0	#.115 +-700E-02 47
			1.529	.523	+-897E-01	# 90.0	35.4	#.140 +-240E-01 23
2.21	2.24	5.03	1.549	.595	+-185E-01	# 90.0	35.4	#.161 +-500E-02 6
2.22	2.25	5.05	-0.150	.375	+-331E-01	# 0.0	0.0	#.102 +-900E-02 47
2.23	2.25	5.06	-0.150	.490	+-622E-01	# 0.0	0.0	#.134 +-170E-01 47
2.24	2.25	5.08	-0.149	.335	+-291E-01	# 0.0	0.0	#.920E-01+-800E-02 47
			1.578	.411	+-618E-01	# 90.0	35.3	#.113 +-170E-01 23
2.26	2.26	5.12	1.597	.364	+-396E-01	# 90.0	35.2	#.101 +-110E-01 23
2.28	2.27	5.16	-0.147	.321	+-463E-01	# 0.0	0.0	#.900E-01+-130E-01 47
			1.616	.527	+-178E-01	# 90.0	35.1	#.148 +-500E-02 6
2.30	2.28	5.20	-0.146	.335	+-388E-01	# 0.0	0.0	#.950E-01+-110E-01 47
2.30+- 0.09	2.28+- 0.04	5.20+- 0.17	\$ 1.417	32.38	+-500E-01	82.9	31.8	#.108 +-142E-01 37
2.31	2.28	5.22	-0.146	.463	+-526E-01	# 0.0	0.0	#.132 +-150E-01 47
2.33	2.29	5.25	-0.144	.413	+-521E-01	# 0.0	0.0	#.119 +-150E-01 47

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UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C112: GAMMA + PROTON --> PROTON + P[ZERO (K > 1.21 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.1350 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 1.21 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM	LAB	D SIG/D OMEGA (CM) MU BARN/ STERAD	REF
2.33	2.29	5.25	1.665	.354 +- .660E-01	90.0	35.0	.102 +- .190E-01	23
2.34	2.30	5.27	-0.144	.346 +- .415E-01	# 0.0	0.0	.100E-01 +- .120E-01	47
2.35	2.30	5.29	1.684	.457 +- .378E-01	90.0	34.9	.133 +- .110E-01	6
2.36	2.30	5.31	1.694	.200 +- .277E-01	90.0	34.9	.585E-01 +- .810E-02	23
2.39	2.32	5.37	-0.141	.435 +- .337E-01	# 0.0	0.0	.129 +- .100E-01	47
			-0.141	.455 +- .640E-01	# 0.0	0.0	.135 +- .190E-01	47
2.40	2.32	5.38	\$ 0.605	.180 +- .380E-01	53.0	19.1	.537E-01 +- .113E-01	37
2.42+- 0.07	2.33+- 0.03	5.42+- 0.13	\$ -0.357	.129 +- .240E-01	0.0	0.0	.388E-01 +- .722E-02	37
2.42	2.33	5.42	1.751	.295 +- .259E-01	90.0	34.7	.889E-01 +- .780E-02	6
2.44	2.34	5.46	1.771	.156 +- .230E-01	90.0	34.6	.473E-01 +- .700E-02	23
2.46	2.34	5.50	1.790	.111 +- .137E-01	90.0	34.5	.342E-01 +- .420E-02	23
2.47	2.35	5.52	-0.138	.493 +- .454E-01	# 0.0	0.0	.152 +- .140E-01	47
2.49	2.36	5.55	-0.137	.456 +- .386E-01	# 0.0	0.0	.142 +- .120E-01	47
2.50	2.36	5.57	1.828	.226 +- .240E-01	90.0	34.4	.708E-01 +- .750E-02	6
2.50+- 0.10	2.36+- 0.04	5.57+- 0.19	\$ -0.007+- 0.120	.299 +- .470E-01	20.4+- 10.1	7.0+- 3.5	.933E-01 +- .147E-01	37
			\$ 0.323+- 0.120	.156 +- .280E-01	39.7+- 5.5	13.9+- 2.0	.487E-01 +- .874E-02	37
			\$ 0.523+- 0.120	.143 +- .270E-01	48.1+- 4.7	17.0+- 1.8	.446E-01 +- .843E-02	37
			\$ 0.823+- 0.130	.213 +- .250E-01	59.0+- 4.4	21.2+- 1.7	.665E-01 +- .780E-02	37
			\$ 1.133+- 0.150	.190 +- .290E-01	69.3+- 4.7	25.3+- 1.9	.594E-01 +- .907E-02	37
2.50+- 0.10	2.36+- 0.04	5.57+- 0.19	\$ 1.463+- 0.140	.278 +- .420E-01	79.2+- 4.2	29.6+- 1.8	.868E-01 +- .131E-01	37
				.219 +- .290E-01	88.9	33.9	.684E-01 +- .905E-02	37
			\$ 0.811	.219 +- .340E-01	58.7	21.0	.688E-01 +- .107E-01	37
2.51	2.36	5.59	-0.133	.511 +- .465E-01	# 0.0	0.0	.165 +- .150E-01	47
2.57	2.39	5.70	1.896	.138 +- .136E-01	90.0	34.2	.446E-01 +- .440E-02	6
			-0.132	.458 +- .397E-01	# 0.0	0.0	.150 +- .130E-01	47
			\$ 0.980	.132 +- .240E-01	62.7	22.4	.432E-01 +- .785E-02	37
2.60+- 0.10	2.40+- 0.04	5.76+- 0.19	\$ 1.980	.177 +- .330E-01	91.5	34.8	.578E-01 +- .108E-01	37
2.61	2.40	5.78	-0.131	.423 +- .426E-01	# 0.0	0.0	.139 +- .140E-01	47
2.62	2.41	5.80	-0.131	.424 +- .575E-01	# 0.0	0.0	.140 +- .190E-01	47
			1.944	.128 +- .112E-01	90.0	34.0	.422E-01 +- .370E-02	6
2.63	2.41	5.82	-0.130	.446 +- .452E-01	# 0.0	0.0	.148 +- .150E-01	47
2.64	2.42	5.83	1.963	.612E-01 +- .991E-02	90.0	34.0	.204E-01 +- .330E-02	23
2.71	2.44	5.97	-0.127	.425 +- .437E-01	# 0.0	0.0	.146 +- .150E-01	47
2.72	2.45	5.98	2.039	.882E-01 +- .609E-02	90.0	33.7	.304E-01 +- .210E-02	6
2.73	2.45	6.00	-0.126	.373 +- .231E-01	# 0.0	0.0	.129 +- .800E-02	47
2.74	2.45	6.02	-0.126	.406 +- .345E-01	# 0.0	0.0	.141 +- .120E-01	47
			2.059	.460E-01 +- .170E-01	90.0	33.7	.160E-01 +- .590E-02	23
2.75	2.46	6.04	-0.126	.384 +- .516E-01	# 0.0	0.0	.134 +- .180E-01	47
2.76	2.46	6.06	2.078	.394E-01 +- .456E-02	90.0	33.6	.138E-01 +- .160E-02	23
2.79	2.47	6.12	-0.124	.442 +- .704E-01	# 0.0	0.0	.157 +- .250E-01	47
2.80	2.48	6.13	-0.124	.353 +- .252E-01	# 0.0	0.0	.126 +- .900E-02	47
2.81	2.48	6.15	-0.123	.319 +- .363E-01	# 0.0	0.0	.114 +- .130E-01	47
			2.126	.629E-01 +- .503E-02	90.0	33.4	.225E-01 +- .180E-02	6
2.83	2.49	6.19	-0.123	.357 +- .333E-01	# 0.0	0.0	.129 +- .120E-01	47
2.85	2.50	6.23	2.164	.181E-01 +- .550E-02	90.0	33.3	.660E-02 +- .200E-02	23
2.86	2.50	6.25	-0.121	.235 +- .383E-01	# 0.0	0.0	.860E-01 +- .140E-01	47
			-0.121	.331 +- .274E-01	# 0.0	0.0	.121 +- .100E-01	47
2.87	2.50	6.27	2.183	.188E-01 +- .191E-02	90.0	33.3	.690E-02 +- .700E-03	23
2.89	2.51	6.30	-0.120	.268 +- .216E-01	# 0.0	0.0	.990E-01 +- .800E-02	47
			2.202	.425E-01 +- .352E-02	90.0	33.2	.157E-01 +- .130E-02	6
2.93	2.53	6.38	-0.119	.298 +- .320E-01	# 0.0	0.0	.112 +- .120E-01	47
2.96	2.54	6.43	-0.118	.258 +- .263E-01	# 0.0	0.0	.980E-01 +- .100E-01	47
2.97	2.54	6.45	-0.118	.254 +- .236E-01	# 0.0	0.0	.970E-01 +- .900E-02	47
			2.279	.108E-01 +- .142E-02	90.0	33.0	.417E-02 +- .540E-03	23
2.98	2.54	6.47	2.288	.259E-01 +- .392E-02	90.0	32.9	.992E-02 +- .150E-02	6
2.99	2.55	6.49	2.298	.126E-01 +- .114E-02	90.0	32.9	.485E-02 +- .440E-03	23
3.00	2.55	6.51	-0.117	.213 +- .207E-01	# 0.0	0.0	.820E-01 +- .800E-02	47
3.00+- 0.10	2.55+- 0.04	6.51+- 0.19	\$ 0.691+- 0.150	.129 +- .180E-01	48.0+- 4.8	16.1+- 1.7	.496E-01 +- .694E-02	37
3.03	2.56	6.57	-0.116	.197 +- .333E-01	# 0.0	0.0	.770E-01 +- .130E-01	47
3.04	2.57	6.58	-0.115	.189 +- .281E-01	# 0.0	0.0	.740E-01 +- .110E-01	47
			-0.115	.204 +- .204E-01	# 0.0	0.0	.800E-01 +- .800E-02	47
3.07	2.58	6.64	2.374	.250E-01 +- .657E-02	90.0	32.7	.990E-02 +- .260E-02	6
			-0.114	.237 +- .354E-01	# 0.0	0.0	.940E-01 +- .140E-01	47
3.09	2.58	6.68	1.140	.351E-01 +- .160E-01	60.0	20.3	.140E-01 +- .640E-02	23
			2.393	.559E-02 +- .108E-02	90.0	32.6	.223E-02 +- .430E-03	23
3.10	2.59	6.70	-0.113	.140 +- .150E-01	# 0.0	0.0	.560E-01 +- .600E-02	47
3.11	2.59	6.72	-0.113	.174 +- .149E-01	# 0.0	0.0	.700E-01 +- .600E-02	47
			1.150	.363E-01 +- .871E-02	60.0	20.3	.146E-01 +- .350E-02	23
			2.412	.898E-02 +- .746E-03	90.0	32.6	.361E-02 +- .300E-03	23
3.16	2.61	6.81	2.460	.134E-01 +- .342E-02	90.0	32.4	.550E-02 +- .140E-02	6
3.17	2.61	6.83	-0.111	.136 +- .146E-01	# 0.0	0.0	.560E-01 +- .600E-02	47
			-0.111	.134 +- .170E-01	# 0.0	0.0	.550E-01 +- .700E-02	47
			-0.111	.241 +- .146E-01	# 0.0	0.0	.580E-01 +- .600E-02	47
3.19	2.62	6.87	-0.111	.126 +- .145E-01	# 0.0	0.0	.520E-01 +- .600E-02	47
3.21	2.63	6.90	2.508	.468E-02 +- .101E-02	90.0	32.3	.195E-02 +- .420E-03	23
3.23	2.63	6.94	1.209	.265E-01 +- .834E-02	60.0	20.0	.111E-01 +- .350E-02	23
			2.527	.534E-02 +- .548E-03	90.0	32.3	.224E-02 +- .230E-03	23
3.24	2.64	6.96	-0.109	.162 +- .190E-01	# 0.0	0.0	.680E-01 +- .800E-02	47
3.25	2.64	6.98	-0.109	.104 +- .947E-02	# 0.0	0.0	.440E-01 +- .400E-02	47
			1.218	.211E-01 +- .402E-02	60.0	20.0	.890E-02 +- .170E-02	23
3.26	2.65	7.00	2.555	.100E-01 +- .226E-02	90.0	32.2	.425E-02 +- .960E-03	6
3.32	2.67	7.11	-0.107	.111 +- .139E-01	# 0.0	0.0	.480E-01 +- .600E-02	47
3.32+- 0.10	2.67+- 0.04	7.11+- 0.19	\$ 2.331	.102E-01 +- .500E-02	84.0	29.4	.441E-02 +- .216E-02	37
3.34	2.67	7.15	1.263	.174E-01 +- .505E-02	60.0	19.8	.760E-02 +- .220E-02	23
			2.631	.397E-02 +- .666E-03	90.0	32.0	.173E-02 +- .290E-03	23
			2.631	.920E-02 +- .252E-02	90.0	32.0	.401E-02 +- .110E-02	6
3.35	2.68	7.17	-0.106	.103 +- .137E-01	# 0.0	0.0	.450E-01 +- .600E-02	47
3.36	2.68	7.19	-0.106	.107 +- .137E-01	# 0.0	0.0	.470E-01 +- .600E-02	47

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 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C112: GAMMA + PROTON --> PROTON + PI ZERO (K > 1.21 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.1350 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 1.21 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM	LAB	D SIG/D OMEGA (CM) MU BARN/ STERAD	REF
3.36	2.68	7.19	1.272	.169E-01+- .274E-02	60.0	19.8	.740E-02+- .120E-02	23
			2.650	.383E-02+- .365E-03	90.0	31.9	.168E-02+- .160E-03	23
3.37	2.68	7.20	-0.105	.932E-01+- .182E-01	0.0	0.0	.410E-01+- .800E-02	47
3.43	2.70	7.32	-0.104	.846E-01+- .111E-01	0.0	0.0	.380E-01+- .500E-02	47
			-0.104	.958E-01+- .134E-01	0.0	0.0	.430E-01+- .600E-02	47
3.46+- 0.10	2.72+- 0.03	7.37+- 0.19	\$ 1.594	.480E-01+- .100E-01	66.1	21.9	.217E-01+- .453E-02	37
3.46	2.72	7.37	2.746	.922E-02+- .179E-02	90.0	31.7	.418E-02+- .810E-03	6
3.47	2.72	7.39	1.326	.123E-01+- .418E-02	60.0	19.6	.560E-02+- .190E-02	23
3.47+- 0.10	2.72+- 0.03	7.39+- 0.19	\$ 2.613	.137E-01+- .450E-02	87.1	30.4	.623E-02+- .205E-02	37
3.47	2.72	7.39	2.755	.389E-02+- .748E-03	90.0	31.6	.177E-02+- .340E-03	23
3.49	2.73	7.43	1.336	.105E-01+- .240E-02	60.0	19.5	.480E-02+- .110E-02	23
			2.774	.310E-02+- .415E-03	90.0	31.6	.142E-02+- .190E-03	23
3.50	2.73	7.45	-0.102	.523E-01+- .653E-02	0.0	0.0	.240E-01+- .300E-02	47
3.50+- 0.10	2.73+- 0.03	7.45+- 0.19	\$ 1.689+- 0.200	.420E-01+- .910E-02	67.6+- 4.3	22.4+- 1.6	.193E-01+- .418E-02	37
			\$ 2.639+- 0.200	.104E-01+- .310E-02	87.1+- 4.0	30.3+- 1.7	.477E-02+- .142E-02	37
3.56	2.75	7.56	2.841	.812E-02+- .169E-02	90.0	31.4	.380E-02+- .790E-03	6
3.58+- 0.11	2.76+- 0.04	7.66+- 0.21	\$ 1.819	.175E-01+- .470E-02	69.3	22.9	.824E-02+- .221E-02	37
3.60	2.76	7.64	-0.099	.654E-01+- .844E-02	0.0	0.0	.310E-01+- .400E-02	47
3.61	2.77	7.65	1.395	.612E-02+- .149E-02	60.0	19.3	.291E-02+- .710E-03	23
			2.888	.488E-02+- .862E-03	90.0	31.3	.232E-02+- .410E-03	23
3.63	2.77	7.69	1.404	.100E-01+- .230E-02	60.0	19.3	.480E-02+- .110E-02	23
			2.907	.418E-02+- .397E-03	90.0	31.2	.200E-02+- .190E-03	23
3.64+- 0.11	2.78+- 0.04	7.71+- 0.21	\$ 2.932	.780E-02+- .370E-02	90.2	31.3	.374E-02+- .177E-02	37
3.68	2.79	7.79	2.955	.609E-02+- .144E-02	90.0	31.1	.296E-02+- .700E-03	6
3.70	2.80	7.82	-0.097	.982E-01+- .818E-02	0.0	0.0	.480E-01+- .400E-02	47
3.76	2.82	7.94	3.031	.318E-02+- .563E-03	90.0	30.9	.158E-02+- .280E-03	23
3.79	2.83	7.99	3.059	.600E-02+- .141E-02	90.0	30.8	.301E-02+- .710E-03	6
			3.059	.371E-02+- .339E-03	90.0	30.8	.186E-02+- .170E-03	23
3.90	2.86	8.20	-0.093	.733E-01+- .772E-02	0.0	0.0	.380E-01+- .400E-02	47
			3.164	.430E-02+- .164E-02	90.0	30.6	.223E-02+- .850E-03	6
3.91	2.87	8.22	3.173	.292E-02+- .693E-03	90.0	30.6	.152E-02+- .360E-03	23
3.93	2.87	8.26	3.192	.291E-02+- .689E-03	90.0	30.5	.152E-02+- .360E-03	23
3.96+- 0.09	2.88+- 0.03	8.31+- 0.17	\$ 2.532	.101E-01+- .360E-02	78.0	25.5	.532E-02+- .190E-02	37
4.00+- 0.10	2.90+- 0.03	8.39+- 0.19	\$ 2.588+- 0.210	.880E-02+- .160E-02	78.4+- 3.7	25.6+- 1.5	.469E-02+- .852E-03	37
4.05	2.91	8.48	3.306	.244E-02+- .592E-03	90.0	30.3	.132E-02+- .320E-03	23
4.07+- 0.24	2.92+- 0.08	8.52+- 0.45	\$ 2.739	.610E-02+- .210E-02	79.9	26.1	.330E-02+- .114E-02	37
4.07	2.92	8.52	3.325	.162E-02+- .405E-03	90.0	30.2	.880E-03+- .220E-03	23
4.10	2.93	8.57	-0.088	.767E-01+- .913E-02	0.0	0.0	.420E-01+- .500E-02	47
4.20	2.96	8.76	-0.087	.551E-01+- .711E-02	0.0	0.0	.310E-01+- .400E-02	47
4.23	2.97	8.82	3.477	.104E-02+- .282E-03	90.0	29.9	.590E-03+- .160E-03	23
4.25	2.98	8.84	3.495	.877E-03+- .386E-03	90.0	29.8	.500E-03+- .220E-03	23
4.30	2.99	8.95	-0.085	.416E-01+- .520E-02	0.0	0.0	.240E-01+- .300E-02	47
4.40	3.02	9.14	3.638	.963E-03+- .355E-03	90.0	29.5	.570E-03+- .210E-03	23
4.42	3.03	9.17	3.656	.588E-03+- .336E-03	90.0	29.5	.350E-03+- .200E-03	23
4.50	3.05	9.32	-0.081	.346E-01+- .494E-02	0.0	0.0	.210E-01+- .300E-02	47
4.57	3.08	9.46	3.798	<.583E-03	90.0	29.2	<.360E-03	23
4.59	3.08	9.49	3.817	.564E-03+- .564E-03	90.0	29.1	.350E-03+- .350E-03	23
4.70	3.11	9.70	-0.078	.298E-01+- .471E-02	0.0	0.0	.190E-01+- .300E-02	47
4.75	3.13	9.79	3.965	.342E-03+- .342E-03	90.0	28.8	.220E-03+- .220E-03	23
4.77	3.14	9.83	3.988	<.479E-03	90.0	28.8	<.310E-03	23
4.86	3.16	10.00	-0.076	.273E-01+- .454E-02	0.0	0.0	.180E-01+- .300E-02	47
5.03	3.21	10.32	-0.074	.321E-01+- .584E-02	0.0	0.0	.220E-01+- .400E-02	47
5.07	3.22	10.39	-0.073	.289E-01+- .579E-02	0.0	0.0	.200E-01+- .400E-02	47
5.17	3.25	10.58	-0.072	.255E-01+- .566E-02	0.0	0.0	.180E-01+- .400E-02	47
5.28	3.28	10.79	-0.070	.194E-01+- .415E-02	0.0	0.0	.140E-01+- .300E-02	47
5.50	3.35	11.20	-0.068	.185E-01+- .397E-02	0.0	0.0	.140E-01+- .300E-02	47
6.00	3.48	12.14	0.062	.161E-01+- .134E-02	12.5	3.2	.133E-01+- .111E-02	113
			0.078	.168E-01+- .182E-02	13.3	3.4	.139E-01+- .151E-02	113
			0.148	.125E-01+- .115E-02	16.3	4.1	.104E-01+- .954E-03	113
			0.225	.578E-02+- .760E-03	19.1	4.8	.479E-02+- .630E-03	113
			0.233	.118E-01+- .117E-02	19.4	4.9	.983E-02+- .970E-03	113
			0.427	.857E-02+- .107E-02	25.0	6.4	.707E-02+- .887E-03	113
			0.691	.472E-02+- .580E-03	31.2	8.0	.391E-02+- .481E-03	113
			1.087	.378E-02+- .650E-03	38.8	10.0	.314E-02+- .539E-03	113
			0.047	.692E-02+- .790E-03	9.4	2.1	.780E-02+- .890E-03	113
			0.093	.560E-02+- .490E-03	11.4	2.6	.631E-02+- .552E-03	113
			0.427	.352E-02+- .500E-03	21.1	4.7	.397E-02+- .563E-03	113
			0.707	.213E-02+- .320E-03	26.7	6.0	.240E-02+- .361E-03	113
			1.102	.228E-02+- .340E-03	33.1	7.6	.257E-02+- .383E-03	113
			1.429	.214E-02+- .320E-03	37.7	8.7	.241E-02+- .361E-03	113
			1.856	.178E-02+- .300E-03	43.0	10.0	.201E-02+- .338E-03	113
			2.228	.146E-02+- .320E-03	47.3	11.0	.165E-02+- .361E-03	113
12.00	4.84	23.40	0.008	.174E-02+- .280E-03	5.0	0.9	.300E-02+- .482E-03	113
			0.078	.218E-02+- .220E-03	8.2	1.5	.376E-02+- .379E-03	113
			0.217	.185E-02+- .250E-03	12.3	2.3	.319E-02+- .431E-03	113
			0.427	.970E-03+- .160E-03	16.8	3.2	.167E-02+- .276E-03	113
			0.761	.650E-03+- .140E-03	22.1	4.2	.112E-02+- .241E-03	113
			1.087	.586E-03+- .120E-03	26.3	5.0	.101E-02+- .207E-03	113
			1.452	.586E-03+- .780E-04	30.4	5.8	.101E-02+- .134E-03	113
			1.825	.466E-03+- .100E-03	34.1	6.5	.803E-03+- .172E-03	113
			2.244	.355E-03+- .980E-04	37.8	7.3	.612E-03+- .169E-03	113
			2.702	.177E-03+- .117E-03	41.6	8.1	.305E-03+- .202E-03	113
18.00	5.89	34.66	0.085	.651E-03+- .760E-04	6.5	1.0	.170E-02+- .199E-03	113
			0.233	.648E-03+- .109E-03	10.1	1.6	.170E-02+- .285E-03	113
			0.450	.416E-03+- .630E-04	13.8	2.1	.109E-02+- .165E-03	113
			0.699	.202E-03+- .600E-04	17.0	2.7	.529E-03+- .157E-03	113
			1.087	.150E-03+- .460E-04	21.2	3.3	.393E-03+- .120E-03	113
			1.452	.150E-03+- .320E-04	24.4	3.9	.393E-03+- .838E-04	113

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C112: GAMMA + PROTON --> PROTON + PI ZERO (K > 1.21 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.1350 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 1.21 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM LAB	D SIG/D OMEGA (CM) MU BARN/ STERAD	REF	
18.00	5.89	34.66	2 1.856 2 2.252 2 2.733	2.129E-03+-390E-04 2.880E-04+-220E-04 2.730E-04+-280E-04	27.6 30.5 33.6	4.4 4.8 5.4	.338E-03+-102E-03 .230E-03+-576E-04 .191E-03+-733E-04	113 113 113

C112: GAMMA + PROTON --> PROTON + PI ZERO (K > 1.21 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.1350 GEV

RATIO OF CROSS SECTIONS FOR TRANSVERSE AND PARALLEL TO THE PRODUCTION PLANE POLARIZED GAMMAS

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	A=SIG TRANSVERSE (A-B)/(A+B)	B=SIG PARALLEL A/(A+B)	R/(A+B)	REF
3.00+-0.30	2.55	2 0.1000 +- 0.0500 2 0.4000 +- 0.0500 2 0.5000 +- 0.0500 2 0.6000 +- 0.0500 2 0.7000 +- 0.0500 2 1.1000 +- 0.0500 2 1.2000 +- 0.0500 2 1.3000 +- 0.0500	16.61 4.18 33.57 2.16 37.67 1.95 41.42 1.80 44.91 1.69 57.21 1.42 60.01 1.38 62.73 1.34	6.180 +-1.572 12.72 +-8.594 14.37 +-7.927 15.91 +-7.468 17.37 +-7.140 22.78 +-6.525 24.08 +-6.477 25.37 +-6.457	20.879 +-1.11 1.00 +-1.138 1.00 +-1.19 0.769 +-1.138 0.831 +-1.163 1.01 +-1.160 0.958 +-1.146 0.915 +-1.232	0.939 +-5.55E-01 0.605E-01 +-5.55E-01 0.0 +-7.90E-01 0.120 +-5.95E-01 0.231 +-6.90E-01 0.169 +-8.15E-01 0.0 +-1.10 0.420E-01 +-7.30E-01 0.850E-01 +-2.32	70 70 70 70 70 70 70 70 70 70 70 70 70 70 70 70

C112: GAMMA + PROTON --> PROTON + PI ZERO (K > 1.21 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.1350 GEV

P = BARYON POLARIZATION ALONG K(GAMMA) X P(MESON)

K	E*	THETA MESON		THETA BARYON		P	REF
GEV	GEV	CM	LAB	CM	LAB		
1.250+-0.050	1.796	# 60.0+- 10.0	33.4+- 11.8	120.0+- 10.0	54.5+- 10.3	# 0.30+-0.13	71
1.250+-0.050	1.796	# 65.0	37.0	115.0	51.9	# 0.60+-0.16	148
1.350+-0.050	1.847	# 60.0+- 10.0	32.6+- 11.5	120.0+- 10.0	54.1+- 10.3	# 0.44+-0.18	71
1.350+-0.050	1.847	# 65.0	36.0	115.0	51.5	# 0.30+-0.21	148
1.450+-0.050	1.898	# 60.0+- 10.0	31.8+- 11.3	120.0+- 10.0	53.7+- 10.4	# 0.84+-0.32	71
1.450+-0.050	1.898	# 65.0	35.1	115.0	51.1	# 0.14+-0.28	148
1.550+-0.050	1.946	# 65.0	34.3	115.0	50.7	# 0.73+-0.33	148
1.650+-0.050	1.994	# 65.0	33.5	115.0	50.3	# 0.09+-0.41	148
1.750+-0.050	2.041	# 65.0	32.8	115.0	49.9	# 0.19+-0.66	148

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 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C113: GAMMA + PROTON --> DELTA ZERO + PI+ (K > 0.40 GEV)

M2: 0.9383 GEV
M3: 1.2360 GEV
M4: 0.1396 GEV

TOTAL CROSS SECTION

K GEV	E* GEV	SIGMA MU BARN	SIGMA*(S-M**2)**2 MU BARN*GEV**2	REF
0.40 - 0.50	1.31	<4.30	<2.95	36
0.50 - 0.60	1.38	<12.7	<13.2	36
0.60 - 0.70	1.45	<11.9	<17.4	36
0.70 - 0.80	1.51	<20.0	<39.1	36
0.80 - 0.90	1.57	14.6 +-14.6	36.8 +-36.8	36
0.90 - 1.00	1.63	22.7 +-12.6	71.5 +-39.7	36
1.00 - 1.10	1.69	<30.0	<116.	36
1.10 - 1.30	1.77	9.70 +-7.70	48.2 +-38.2	36
1.10 - 1.30	1.77	8.10 +-2.70	40.2 +-13.4	28
1.30 - 1.50	1.87	2.20 +-2.20	15.0 +-15.0	28
1.30 - 1.50	1.87	14.8 +-11.5	101. +-78.2	36
1.50 - 1.80	1.99	<6.20	<58.0	36
1.50 - 1.80	1.99	3.90 +-2.10	36.5 +-19.6	28
1.80 - 2.50	2.19	<9.00	<13.5	28
1.80 - 2.50	2.19	<9.70	<146.	36
2.50 - 3.50	2.48	1.50 +-1.600	41.4 +-16.6	212
2.50 - 3.50	2.52	<2.70	<78.7	36
2.50 - 3.50	2.52	3.80 +-1.800	111. +-23.3	28
3.50 - 5.80	3.01	.800 +-1.400	50.6 +-25.3	28
3.50 - 6.00	3.03	<3.30	<212.	36
4.70	3.11	.480 +-1.270	37.3 +-21.0	212

C113: GAMMA + PROTON --> DELTA ZERO + PI+ (K > 0.40 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 1.2360 GEV
M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA CM	IMESON LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D (MEGA (CM) MU BARN/STERAD	REF	
16.00	5.56	# 0.0010	0.51	.8638E-01					
		+ 0.0006	+ 0.27	+.4549E-01	# .470	+-110	424.	+-99.2	126
		# 0.0028	1.04	.1762					
		+ 0.0022	+ 0.48	+.8179E-01	# .280	+-500E-01	252.	+-45.1	126
		# 0.0140	2.50	.3000					
		+ 0.0060	+ 0.55	+.9327E-01	# .350	+-400E-01	316.	+-36.1	126
		# 0.0380	4.16	.7000	# .300	+-300E-01	270.	+-27.0	126
		# 0.0770	5.94	.1000	# .202	+-120E-01	182.	+-10.8	126
		# 0.1490	8.28	.1400	# .138	+-900E-02	124.	+-8.11	126
		# 0.4000	13.60	.2300	# .640E-01	+-600E-02	57.7	+-5.41	126
		# 0.8000	19.28	.3280	# .260E-01	+-300E-02	23.4	+-2.70	126
		# 1.0000	21.58	.3680	# .168E-01	+-170E-02	15.1	+-1.53	126
		# 1.2900	24.55	.4200	# .650E-02	+-800E-03	5.86	+-1.771	126
		# 1.5800	27.22	.4680	# .190E-02	+-500E-03	1.71	+-1.451	126
		# 2.0000	30.71	.5300	# .700E-03	+-300E-03	0.631	+-1.270	126

C113: GAMMA + PROTON --> DELTA ZERO + PI+ (K > 0.40 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 1.2360 GEV
M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 16.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
#	0.0010+- 0.0006	16.00	5.56	30.90	# .470 +-110	424. +-99.2	126
#	0.0028+- 0.0022	16.00	5.56	30.90	# .280 +-500E-01	252. +-45.1	126
#	0.0140+- 0.0060	16.00	5.56	30.90	# .350 +-400E-01	316. +-36.1	126
#	0.0380	16.00	5.56	30.90	# .300 +-300E-01	270. +-27.0	126
#	0.0770	16.00	5.56	30.90	# .202 +-120E-01	182. +-10.8	126
#	0.1490	16.00	5.56	30.90	# .138 +-900E-02	124. +-8.11	126
#	0.4000	16.00	5.56	30.90	# .640E-01+-600E-02	57.7 +-5.41	126
#	0.8000	16.00	5.56	30.90	# .260E-01+-300E-02	23.4 +-2.70	126

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C113: GAMMA + PROTON --> DELTA ZERO + PI+ (K > 0.40 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 16.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
#	1.0000	16.00	5.56	30.90	# .168E-01+- .170E-02	15.1 +-1.53	126
#	1.2900	16.00	5.56	30.90	# .650E-02+- .800E-03	5.86 +- .721	126
#	1.5800	16.00	5.56	30.90	# .190E-02+- .500E-03	1.71 +- .451	126
#	2.0000	16.00	5.56	30.90	# .700E-03+- .300E-03	.631 +- .270	126

C113: GAMMA + PROTON --> DELTA ZERO + PI+ (K > 0.40 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

A = ASYMMETRY ((+)-(-))/((+)+(-)) FOR POLARIZED TARGET (POLARIZATION POSITIVE ALONG K(GAMMA) X P(MESON))

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	A	REF
16.00	5.56	# 0.0800	6.06 1.022	#-.600E-01+- .760	184
		# 0.3100	11.96 2.024	#-1.21 +-1.09	184

G115: GAMMA + PROTON --> DELTA++ + PI- (K > 0.35 GEV)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

TOTAL CROSS SECTION

K GEV	E* GEV	SIGMA MU BARN	SIGMA*(S-M**2)**2 MU BARN*GEV**2	REF
0.35 - 0.50	1.29	5.60 +-1.40	3.24 +-0.11	155
0.40 - 0.45	1.29	4.00 +-0.80	2.52 +-0.50	28
0.40 - 0.50	1.31	7.80 +-3.20	5.36 +-2.20	36
0.45 - 0.50	1.33	13.8 +-1.40	10.9 +-1.10	28
0.50 - 0.55	1.37	40.0 +-5.00	38.6 +-4.82	155
0.50 - 0.55	1.37	33.1 +-2.30	31.9 +-2.22	28
0.50 - 0.60	1.38	44.2 +-4.00	45.9 +-4.16	36
0.55 - 0.60	1.40	50.0 +-5.00	57.9 +-5.79	155
0.55 - 0.60	1.40	47.8 +-3.40	55.3 +-3.94	28
0.58	1.40	69.0 +-2.60	81.7 +-3.08	159
0.60	1.42	68.1 +-2.20	86.3 +-2.79	159
0.60 - 0.65	1.43	71.0 +-7.00	97.2 +-9.58	155
0.60 - 0.65	1.43	66.5 +-5.50	91.0 +-7.53	28
0.63	1.44	73.4 +-7.90	103. +-11.0	159
0.65	1.45	74.7 +-8.70	111. +-12.9	159
0.60 - 0.70	1.45	69.5 +-6.00	102. +-8.77	36
0.65 - 0.70	1.46	72.0 +-10.0	115. +-16.0	155
0.65 - 0.70	1.46	54.5 +-6.20	87.1 +-9.91	28
0.70	1.48	65.9 +-3.50	114. +-6.04	159
0.70 - 0.75	1.50	59.0 +-9.00	109. +-16.6	155
0.70 - 0.75	1.50	64.5 +-6.40	119. +-11.8	28
0.70 - 0.80	1.51	76.5 +-6.60	150. +-12.9	36
0.75	1.51	49.8 +-3.10	98.6 +-6.14	159
0.75 - 0.80	1.53	41.0 +-9.00	86.4 +-19.0	155
0.75 - 0.80	1.53	50.2 +-7.30	106. +-15.4	28
0.80	1.54	46.7 +-5.20	105. +-11.7	159
0.80 - 0.85	1.56	31.0 +-8.00	74.1 +-19.1	155
0.80 - 0.85	1.56	58.0 +-7.00	139. +-16.7	28
0.85	1.57	43.0 +-2.80	109. +-7.12	159
0.80 - 0.90	1.57	53.4 +-6.00	134. +-15.1	36
0.85 - 0.90	1.59	48.0 +-8.50	129. +-22.9	155
0.85 - 0.90	1.59	62.0 +-6.00	167. +-16.1	28
0.90	1.60	46.9 +-5.20	134. +-14.8	159
0.90 - 0.95	1.62	54.8 +-6.10	165. +-18.3	28
0.95	1.63	41.5 +-2.20	132. +-6.99	159
0.90 - 1.00	1.63	57.0 +-6.00	180. +-18.9	155
0.90 - 1.00	1.63	51.4 +-7.10	162. +-22.4	36
0.95 - 1.00	1.65	51.2 +-5.50	171. +-18.4	28
1.00 - 1.10	1.69	53.0 +-8.60	204. +-33.2	36
1.00 - 1.10	1.69	44.5 +-3.60	172. +-13.9	28
1.10 - 1.15	1.73	30.0 +-2.80	134. +-12.5	28
1.15 - 1.20	1.76	22.0 +-2.80	107. +-13.6	28
1.10 - 1.30	1.77	29.0 +-4.00	144. +-19.9	36
1.20 - 1.25	1.78	22.5 +-3.00	119. +-15.8	28
1.25 - 1.30	1.81	19.5 +-2.50	111. +-14.3	28
1.30 - 1.35	1.83	18.5 +-2.50	114. +-15.4	28
1.35 - 1.40	1.86	13.7 +-2.20	91.1 +-14.6	28
1.30 - 1.50	1.87	17.5 +-5.20	119. +-35.3	36
1.40 - 1.50	1.90	15.5 +-2.00	114. +-14.8	28
1.50 - 1.60	1.95	15.2 +-1.60	128. +-13.5	28
1.50 - 1.80	1.99	11.8 +-3.50	110. +-32.7	36
1.60 - 1.70	1.99	12.2 +-1.50	117. +-14.3	28
1.70 - 1.80	2.04	15.4 +-1.50	166. +-16.1	28
1.80 - 2.00	2.11	9.60 +-1.00	121. +-12.6	28
2.00 - 2.20	2.19	6.20 +-1.00	95.6 +-15.4	28
1.80 - 2.50	2.19	11.8 +-3.50	177. +-52.6	36
2.20 - 2.50	2.30	6.10 +-7.00	117. +-13.4	28
2.00 - 4.00	2.43	3.50 +-1.20	78.9 +-27.0	65
2.00 - 4.00	2.43	3.50 +-1.20	78.9 +-27.0	107
2.50 - 3.00	2.45	3.00 +-6.00	77.9 +-15.6	28
2.80	2.48	3.70 +-4.00	102. +-11.0	212
2.50 - 3.50	2.52	1.20 +-9.00	35.0 +-26.2	36
3.00 - 3.50	2.63	3.80 +-6.00	139. +-21.9	28
3.50 - 4.50	2.88	1.90 +-5.00	102. +-26.9	28
4.30	2.99	1.40 +-3.00	91.2 +-19.5	94
3.50 - 6.00	3.03	1.10 +-1.10	70.8 +-70.8	36
4.70	3.11	1.00 +-1.00	77.8 +-7.78	212
4.50 - 5.80	3.22	1.50 +-3.00	134. +-26.7	28
5.25	3.28	1.70 +-4.00	165. +-38.8	114
4.00 - 8.00	3.30	8.00 +-4.00	72.1 +-36.1	107
8.00 - 16.00	4.57	3.00 +-2.00	108. +-72.1	107

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C115: GAMMA + PROTON --> DELTA++ + P1- (K > 0.35 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)**(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
M3 = 1.1760 - 1.2090 GEV								
0.40 - 0.50	1.31	-----	# 0.0 -	-----	-----	-----	# 1.00 +- .200	28
			36.90	-----	-----	-----		
			# 36.90-	-----	-----	-----	# .960 +- .150	28
			53.10	-----	-----	-----		
			# 53.10-	-----	-----	-----	# .760 +- .180	28
			66.40	-----	-----	-----		
			# 66.40-	-----	-----	-----	# .620 +- .180	28
			78.50	-----	-----	-----		
			# 78.50-	-----	-----	-----	# .650 +- .150	28
			90.00	-----	-----	-----		
			# 90.00-	-----	-----	-----	# .900 +- .150	28
			101.50	-----	-----	-----		
			# 101.50-	-----	-----	-----	# .600 +- .150	28
			113.60	-----	-----	-----		
			# 113.60-	-----	-----	-----	# .500 +- .150	28
			126.90	-----	-----	-----		
			# 126.90-	-----	-----	-----	# .400 +- .150	28
			143.10	-----	-----	-----		
			# 143.10-	-----	-----	-----	# .150 +- .150	28
			180.00	-----	-----	-----		
			# 0.0 -	-----	-----	-----		
			0.0500	-----	# 60.0 +-10.0	41.2 +-6.87	-----	28
			# 0.0500-	-----	# 76.0 +- 10.0	52.2 +-6.87	-----	28
			0.1000	-----	# 43.0 +-7.00	29.5 +-4.81	-----	28
			# 0.1000-	-----	# 13.0 +-5.00	8.93 +-3.44	-----	28
			0.1500	-----				
			# 0.1500-	-----				
			0.2000	-----				
			# 0.2000-	-----				
M3 = 1.2090 - 1.2768 GEV								
0.50 - 0.60	1.38	-----	# 0.0 -	-----	-----	-----	# 5.45 +- .450	28
			36.90	-----	-----	-----		
			# 36.90-	-----	-----	-----	# 4.80 +- .400	28
			53.10	-----	-----	-----		
			# 53.10-	-----	-----	-----	# 4.40 +- .400	28
			66.40	-----	-----	-----		
			# 66.40-	-----	-----	-----	# 4.10 +- .400	28
			78.50	-----	-----	-----		
			# 78.50-	-----	-----	-----	# 3.20 +- .300	28
			90.00	-----	-----	-----		
			# 90.00-	-----	-----	-----	# 2.80 +- .300	28
			101.50	-----	-----	-----		
			# 101.50-	-----	-----	-----	# 3.10 +- .300	28
			113.60	-----	-----	-----		
			# 113.60-	-----	-----	-----	# 2.60 +- .300	28
			126.90	-----	-----	-----		
			# 126.90-	-----	-----	-----	# 3.00 +- .400	28
			143.10	-----	-----	-----		
			# 143.10-	-----	-----	-----	# 2.10 +- .300	28
			180.00	-----	-----	-----		
			# 0.0 -	-----	# 193. +-18.0	201. +-18.7	-----	28
			0.0500	-----	# 311. +-18.0	323. +-18.7	-----	28
			# 0.0500-	-----	# 200. +-15.0	208. +-15.6	-----	28
			0.1000	-----	# 102. +-12.0	106. +-12.5	-----	28
			# 0.1000-	-----	# 53.0 +-9.00	55.1 +-9.35	-----	28
			0.1500	-----	# 14.0 +-6.00	14.5 +-6.23	-----	28
			# 0.1500-	-----	# 9.00 +-7.00	9.35 +-7.27	-----	28
			0.2000	-----	# 3.00 +-4.00	3.12 +-4.16	-----	28
			# 0.2000-	-----	# 3.00 +-4.00	3.12 +-4.16	-----	28
0.58	1.40		0.0810	@ 66.40	36.93	611. +-62.9	@ 6.51 +- .670	159
			0.1077	@ 89.90	51.76	501. +-80.7	@ 5.34 +- .860	159
			0.1305	@ 109.80	65.97	472. +-113.6	@ 5.03 +-1.20	159
0.60	1.42		0.0455	@ 28.30	16.00	496. +-126.6	@ 6.71 +-1.71	159
			0.0760	@ 58.60	34.06	469. +-42.9	@ 6.34 +- .580	159
			0.0812	@ 62.60	36.58	469. +-28.1	@ 6.34 +- .380	159
			0.1014	@ 77.20	46.13	489. +-63.6	@ 6.61 +- .860	159
			0.1269	@ 94.50	58.47	398. +-65.8	@ 5.38 +- .890	159
			0.1525	@ 112.30	72.90	375. +-76.2	@ 5.07 +-1.03	159
			0.1745	@ 129.70	89.77	263. +-101.6	@ 3.56 +-1.37	159
0.63	1.44		0.0867	@ 61.30	37.10	428. +-49.3	@ 7.47 +- .860	159
			0.0955	@ 66.40	40.51	351. +-49.3	@ 6.13 +- .860	159
			0.1283	@ 84.20	53.15	343. +-29.2	@ 5.99 +- .510	159
			0.1567	@ 99.10	64.90	280. +-47.0	@ 4.89 +- .820	159
			0.2095	@ 129.70	94.63	329. +-66.4	@ 5.75 +-1.16	159
			0.2292	@ 145.00	114.3	184. +-88.2	@ 3.22 +-1.54	159
M3 = 1.2360 GEV								
0.60 - 0.70	1.45	-----	# 0.0 -	-----	-----	-----	# 9.00 +-1.10	28
			25.10	-----	-----	-----		

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G115: GAMMA + PROTON --> DELTA++ + P1- (K > 0.35 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	N SIG/D T MU BARN/GEV**2	ID SIG/D T (IS-M**2)**2 MU BARN*GEV**2	N SIG/D OMEGA (CM) MU BARN/STERAD	REF
0.60 - 0.70	1.45	-----	# 25.10- 36.90	-----	-----	-----	# 8.20 +-1.00	28
			# 36.90- 53.10	-----	-----	-----	# 7.80 +-0.700	28
0.65	1.45	0.1097	@ 70.10	43.60	312. +-33.6	464. +-49.9	@ 6.23 +-0.670	159
0.60 - 0.70	1.45	-----	# 53.10- 66.40	-----	-----	-----	# 6.70 +-0.600	28
			# 66.40- 78.50	-----	-----	-----	# 5.00 +-0.600	28
			# 78.50- 90.00	-----	-----	-----	# 5.20 +-0.550	28
0.65	1.45	0.1397	@ 84.20	53.91	250. +-41.1	373. +-61.1	@ 5.00 +-0.820	159
		0.1635	@ 95.10	62.56	261. +-27.5	388. +-41.0	@ 5.21 +-0.550	159
0.60 - 0.70	1.45	-----	# 90.00- 101.50	-----	-----	-----	# 4.20 +-0.600	28
			# 101.50- 113.60	-----	-----	-----	# 4.10 +-0.500	28
0.65	1.45	0.1974	@ 111.00	76.64	266. +-22.5	396. +-33.5	@ 5.31 +-0.450	159
0.60 - 0.70	1.45	-----	# 113.60- 126.90	-----	-----	-----	# 3.70 +-0.500	28
0.65	1.45	0.2225	@ 124.00	85.89	214. +-37.6	319. +-55.9	@ 4.28 +-0.750	159
0.60 - 0.70	1.45	-----	# 126.90- 143.10	-----	-----	-----	# 4.60 +-0.550	28
0.65	1.45	0.2502	@ 141.20	110.9	223. +-53.1	332. +-79.0	@ 4.45 +-1.06	159
0.60 - 0.70	1.45	-----	# 143.10- 180.00	-----	-----	-----	# 5.50 +-0.550	28
		# 0.0 - 0.0500	-----	-----	# 225. +-21.0	329. +-30.7	-----	28
		# 0.0500- 0.1000	-----	-----	# 340. +-27.0	497. +-39.5	-----	28
		# 0.1000- 0.1500	-----	-----	# 270. +-23.0	395. +-33.6	-----	28
		# 0.1500- 0.2000	-----	-----	# 202. +-19.0	295. +-27.8	-----	28
		# 0.2000- 0.2500	-----	-----	# 146. +-15.0	213. +-21.9	-----	28
		# 0.2500- 0.3000	-----	-----	# 107. +-13.0	156. +-19.0	-----	28
		# 0.3000- 0.3500	-----	-----	# 71.0 +-11.0	104. +-16.1	-----	28
		# 0.3500- 0.4000	-----	-----	# 45.0 +-9.00	65.8 +-13.2	-----	28
		# 0.4000- 0.4500	-----	-----	# 16.0 +-7.00	23.4 +-10.2	-----	28
0.70	1.48	0.0450	@ 30.70	18.30	337. +-46.0	581. +-79.4	@ 8.77 +-1.20	159
		0.1431	@ 74.90	47.63	189. +-33.0	326. +-56.9	@ 4.93 +-0.860	159
		0.2086	@ 98.00	66.12	138. +-19.6	238. +-33.8	@ 3.60 +-0.510	159
		0.2380	@ 108.60	75.81	166. +-22.3	286. +-38.4	@ 4.32 +-0.580	159
		0.2674	@ 119.90	87.29	148. +-19.6	256. +-33.8	@ 3.87 +-0.510	159
		0.2936	@ 131.20	100.3	164. +-17.3	283. +-29.8	@ 4.28 +-0.450	159
		0.3199	@ 145.00	118.7	164. +-25.7	283. +-44.4	@ 4.28 +-0.670	159
0.70 - 0.80	1.51	-----	# 0.0 - 25.10	-----	-----	-----	# 10.0 +-1.30	28
0.75	1.51	0.0470	@ 30.70	18.29	195. +-36.2	387. +-71.6	@ 6.27 +-1.16	159
0.70 - 0.80	1.51	-----	# 25.10- 36.90	-----	-----	-----	# 7.70 +-1.40	28
			# 36.90- 53.10	-----	-----	-----	# 7.40 +-0.900	28
			# 53.10- 66.40	-----	-----	-----	# 6.50 +-0.700	28
0.75	1.51	0.1354	@ 65.10	40.56	127. +-12.8	252. +-25.3	@ 4.08 +-0.410	159
0.70 - 0.80	1.51	-----	# 66.40- 78.50	-----	-----	-----	# 4.40 +-0.650	28
			# 78.50- 90.00	-----	-----	-----	# 3.40 +-0.650	28
			# 90.00- 101.50	-----	-----	-----	# 3.90 +-0.650	28
0.75	1.51	0.2483	@ 98.00	66.31	81.1 +-15.9	161. +-31.5	@ 2.60 +-0.510	159
0.70 - 0.80	1.51	-----	# 101.50- 113.60	-----	-----	-----	# 2.50 +-0.650	28
0.75	1.51	0.2968	@ 112.30	79.81	101. +-15.0	201. +-29.6	@ 3.25 +-0.480	159
0.70 - 0.80	1.51	-----	# 113.60- 126.90	-----	-----	-----	# 3.10 +-0.650	28
0.75	1.51	0.3330	@ 124.00	92.37	96.0 +-15.9	190. +-31.5	@ 3.08 +-0.510	159
		0.3611	@ 134.30	104.8	113. +-15.9	224. +-31.5	@ 3.63 +-0.510	159
0.70 - 0.80	1.51	-----	# 126.90- 143.10	-----	-----	-----	# 3.10 +-0.650	28
			# 143.10- 180.00	-----	-----	-----	# 4.50 +-0.700	28
		# 0.0 - 0.0500	-----	-----	# 156. +-17.0	305. +-33.2	-----	28
		@ 0.0 - 0.1000	-----	-----	@ 228. +-36.0	446. +-70.4	-----	36
		# 0.0500- 0.1000	-----	-----	# 249. +-23.0	487. +-45.0	-----	28
		# 0.1000- 0.1500	-----	-----	# 166. +-21.0	324. +-41.0	-----	28
		@ 0.1000- 0.2000	-----	-----	@ 190. +-30.0	371. +-58.6	-----	36

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M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*{S-M**2} MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF			
0.70 - 0.80	1.51	# 0.1500- 0.2000	-----	-----	# 134.	+19.0	262.	+37.1	28		
		# 0.2000- 0.2500	-----	-----	# 102.	+17.0	199.	+33.2	28		
		@ 0.2000- 0.3000	-----	-----	@ 146.	+28.0	285.	+54.7	36		
		# 0.2500- 0.3000	-----	-----	# 86.0	+16.0	168.	+31.3	28		
		# 0.3000- 0.3500	-----	-----	# 81.0	+15.0	158.	+29.3	28		
		@ 0.3000- 0.4000	-----	-----	@ 113.	+11.0	221.	+21.5	36		
		# 0.3500- 0.4000	-----	-----	# 86.0	+14.0	168.	+27.4	28		
		# 0.4000- 0.4500	-----	-----	# 40.0	+10.0	78.2	+19.5	28		
		@ 0.4000- 0.5000	-----	-----	@ 70.0	+16.0	137.	+31.3	36		
		# 0.4500- 0.5000	-----	-----	# 36.0	+9.00	70.4	+17.6	28		
		@ 0.5000- 0.6000	-----	-----	@ 12.0	+7.00	23.5	+13.7	36		
		0.80	1.54	0.0545 @ 32.80	19.35	224.	+27.8	504.	+62.7	@ 8.53 +1.06	159
				0.1504 @ 63.90	39.45	109.	+10.8	245.	+24.2	@ 4.14 +.410	159
				0.2508 @ 88.80	58.21	68.2	+13.4	154.	+30.2	@ 2.60 +.510	159
				0.3321 @ 108.60	75.98	67.4	+13.4	152.	+30.2	@ 2.57 +.510	159
				0.3897 @ 124.00	92.34	48.5	+13.4	109.	+30.2	@ 1.85 +.510	159
0.4280 @ 136.00	107.1			63.8	+12.6	144.	+28.4	@ 2.43 +.480	159		
0.80 - 0.90	1.57			0.0130- # 0.0 -	0.0 -						
				0.0429 25.10	14.35	151.	+27.8	380.	+70.0	# 7.60 +1.40	28
		0.0389- # 25.10-	# 14.35-								
		0.0764 36.90	21.35	208.	+32.3	522.	+81.3	# 9.00 +1.40	28		
		0.0588 @ 32.80	19.13	143.	+19.5	365.	+49.5	@ 6.34 +.860	159		
		0.0643- # 36.90-	# 21.35-								
		0.1394 53.10	31.44	175.	+20.8	441.	+52.2	# 7.60 +.900	28		
		0.1475 @ 58.60	35.46	86.9	+14.0	221.	+35.7	@ 3.84 +.620	159		
0.80 - 0.90	1.57	0.1120- # 53.10-	# 31.44-								
		0.2026 66.40	40.36	148.	+18.4	372.	+46.4	# 6.40 +.800	28		
		0.1599- # 66.40-	# 40.36-								
		0.2662 78.50	49.13	136.	+18.4	343.	+46.4	# 5.90 +.800	28		
		0.2420 @ 79.60	50.47	76.0	+9.28	193.	+23.6	@ 3.36 +.410	159		
		0.2080- # 78.50-	# 49.13-								
		0.3292 90.60	58.23	58.0	+16.1	247.	+40.6	# 4.25 +.700	28		
		0.2558- # 90.00-	# 58.23-								
0.85	1.57	0.3923 101.50	68.27	98.0	+16.1	247.	+40.6	# 4.25 +.700	28		
		0.3308 @ 98.00	65.65	51.8	+6.11	132.	+15.5	@ 2.29 +.270	159		
		0.3035- # 101.50-	# 68.27-								
		0.4558 113.60	80.09	70.3	+15.0	177.	+37.7	# 3.05 +.650	28		
		0.3516- # 113.60-	# 80.09-								
		0.5191 126.90	94.96	31.1	+15.0	78.4	+37.7	# 1.35 +.650	28		
		0.4474 @ 124.00	92.02	57.3	+12.4	146.	+31.7	@ 2.53 +.550	159		
		0.3995- # 126.90-	# 94.96-								
0.85	1.57	0.5821 143.10	116.4	66.9	+15.0	168.	+37.7	# 2.90 +.650	28		
		0.4918 @ 136.00	106.9	60.4	+11.5	154.	+29.4	@ 2.67 +.510	159		
		0.5195 @ 145.00	119.5	51.8	+11.5	132.	+29.4	@ 2.29 +.510	159		
		0.4472- # 143.10-	# 116.39-								
		0.6454 180.00	180.0	85.3	+15.0	215.	+37.7	# 3.70 +.650	28		
		# 0.0 -	0.0 -	0.0 -							
		0.0500 30.75	18.10	# 117.	+19.0	295.	+47.8	4.46 +.724	28		
		# 0.0500- 27.98-	16.04-								
0.80 - 0.90	1.57	0.1000 49.41	29.75	# 195.	+22.0	491.	+55.4	8.62 +.973	28		
		# 0.1000- 43.53-	25.40-								
		0.1500 63.78	39.37	# 193.	+20.0	486.	+50.4	8.53 +.884	28		
		# 0.1500- 55.47-	32.98-								
		0.2000 76.53	48.57	# 131.	+19.0	330.	+47.8	5.79 +.840	28		
		# 0.2000- 65.88-	39.99-								
		0.2500 88.62	58.07	# 119.	+18.0	300.	+45.3	5.26 +.796	28		
		# 0.2500- 75.49-	46.88-								
0.85	1.57	0.3000 100.65	68.46	# 105.	+18.0	264.	+45.3	4.64 +.796	28		
		# 0.3000- 84.69-	53.93-								
		0.3500 113.18	80.57	# 48.0	+17.0	121.	+42.8	2.12 +.752	28		
		# 0.3500- 93.77-	61.40-								
		0.4000 127.04	95.91	# 71.0	+17.0	179.	+42.8	3.14 +.752	28		
		# 0.4000- 102.93-	69.59-								
		0.4500 144.22	118.5	# 51.0	+15.0	128.	+37.8	2.25 +.663	28		
		# 0.4500- 112.45-	78.91-								
0.86	1.58	0.5000 180.00	180.0	# 50.0	+14.0	126.	+35.2	2.21 +.619	28		
		0.1568 # 60.00	36.32	111.	+4.18	290.	+10.9	# 5.06 +.190	177		
		0.1645 @ 58.60	35.05	110.	+8.94	315.	+25.5	@ 5.55 +.450	159		
		0.2342 @ 72.50	44.65	88.0	+7.55	194.	+21.5	@ 3.42 +.380	159		
		0.3226 @ 88.80	57.24	51.1	+6.16	146.	+17.6	@ 2.57 +.310	159		
		0.4047 @ 103.80	70.41	21.9	+8.15	62.3	+23.2	@ 1.10 +.410	159		
		0.5375 @ 131.20	100.3	38.2	+8.15	109.	+23.2	@ 1.92 +.410	159		
		0.1748 # 60.00	35.90	93.9	+3.69	274.	+10.7	# 4.84 +.190	177		
0.93	1.62	0.2447 # 71.60	43.74	64.8	+5.55	197.	+16.9	# 3.50 +.300	160		
		0.3376 # 87.60	55.92	53.7	+7.40	163.	+22.5	# 2.90 +.400	160		
		0.5070 # 117.20	83.54	27.8	+9.25	84.5	+28.2	# 1.50 +.500	160		
		0.0147 # 7.10	3.579	107.	+14.5	332.	+45.0	# 5.90 +.800	160		

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C115: GAMMA + PROTON --> DELTA++ + PI- (K > 0.35 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION,

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)**(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF	
0.94	1.63	0.0356	# 21.20	11.96	190.	+16.3	# 10.5	+1.900	160
		0.0742	# 34.80	19.87	156.	+9.04	# 8.60	+1.500	160
		0.1413	# 51.10	29.85	101.	+9.04	# 5.60	+1.500	160
0.90 - 1.00	1.63	0.0109-	# 0.0 -	0.0 -					
		0.0481	# 25.10	13.97	116.	+22.3	# 7.30	+1.40	28
		0.0429-	# 25.10-	13.97-					
		0.0899	# 36.50	20.78	166.	+25.1	# 9.30	+1.40	28
		0.0764-	# 36.50-	20.78-					
		0.1686	# 53.10	30.65	141.	+16.1	# 7.90	+1.900	28
		0.1394-	# 53.10-	30.65-					
		0.2475	# 66.40	39.35	125.	+16.1	# 7.00	+1.900	28
0.95	1.63	0.2392	# 68.90	41.62	79.4	+7.25	# 4.49	+1.410	159
0.90 - 1.00	1.63	0.2026-	# 66.40-	39.35-					
		0.3268	# 78.50	48.03	78.7	+14.3	# 4.40	+1.800	28
		0.2662-	# 78.50-	48.03-					
		0.4055	# 90.00	57.03	67.1	+11.6	# 3.75	+1.650	28
0.95	1.63	0.4165	# 98.00	64.49	33.3	+4.78	# 1.88	+1.270	159
		0.3355	# 84.90	53.52	52.7	+5.48	# 2.98	+1.310	159
0.90 - 1.00	1.63	0.3292-	# 90.00-	57.03-					
		0.4841	# 101.50	67.00	34.0	+11.6	# 1.90	+1.650	28
		0.3923-	# 101.50-	67.00-					
		0.5634	# 113.60	78.81	45.6	+11.6	# 2.55	+1.650	28
0.95	1.63	0.5087	# 113.50	79.37	11.0	+3.71	# 0.620	+1.210	159
0.90 - 1.00	1.63	0.4558-	# 113.60-	78.81-					
		0.6424	# 126.90	93.74	26.0	+11.6	# 1.45	+1.650	28
		0.5191-	# 126.90-	93.74-					
		0.7210	# 143.10	115.4	26.0	+11.6	# 1.45	+1.650	28
		0.5821-	# 143.10-	115.38-					
		0.8001	# 180.00	180.0	50.1	+11.6	# 2.80	+1.650	28
		# 0.0 -	0.0 -	0.0 -					
		0.0500	# 27.98	16.04	# 96.0	+18.0	4.83	+1.906	28
		# 0.0500-	25.73-	14.32-					
		0.1000	# 43.53	25.40	# 155.	+18.0	8.77	+1.02	28
		# 0.1000-	39.27-	22.18-					
		0.1500	# 55.47	32.98	# 136.	+18.0	7.69	+1.02	28
		# 0.1500-	49.65-	28.49-					
		0.2000	# 65.88	39.95	# 124.	+17.0	7.01	+1.962	28
		# 0.2000-	58.62-	34.15-					
		0.2500	# 75.49	46.88	# 122.	+16.0	6.90	+1.905	28
		# 0.2500-	66.80-	35.66-					
		0.3000	# 84.69	53.93	# 85.0	+16.0	4.81	+1.905	28
		# 0.3000-	74.50-	45.05-					
		0.3500	# 93.77	61.40	# 58.0	+14.0	3.28	+1.792	28
		# 0.3500-	81.92-	50.62-					
		0.4000	# 102.93	69.55	# 39.0	+15.0	2.21	+1.848	28
		# 0.4000-	89.21-	56.38-					
		0.4500	# 112.45	78.91	# 29.0	+15.0	1.64	+1.848	28
		# 0.4500-	96.48-	62.52-					
		0.5000	# 122.69	90.01	# 29.0	+15.0	1.64	+1.848	28
0.96	1.64	0.1932	# 60.00	35.46	73.9	+3.12	# 4.27	+1.180	177
0.98	1.65	0.0379	# 21.60	12.05	141.	+13.3	# 8.50	+1.800	160
		0.0813	# 35.40	20.01	126.	+9.95	# 7.60	+1.600	160
		0.1558	# 51.80	29.99	92.9	+8.29	# 5.60	+1.500	160
		0.2768	# 72.60	43.94	68.6	+4.98	# 4.10	+1.300	160
		0.3814	# 88.70	56.21	39.8	+8.29	# 2.40	+1.500	160
		0.5684	# 118.10	83.88	24.9	+8.29	# 1.50	+1.500	160
0.99	1.65	0.0141	# 7.20	3.979	110.	+13.0	# 6.80	+1.800	160
1.01	1.67	0.2120	# 60.00	35.01	48.2	+3.28	# 3.09	+1.210	177
1.03	1.68	0.0138	# 7.30	3.989	54.1	+18.0	# 3.60	+1.20	160
		0.0406	# 21.90	12.05	108.	+18.0	# 7.20	+1.20	160
		0.3107	# 73.60	44.12	54.1	+6.01	# 3.60	+1.400	160
		0.4251	# 89.50	56.25	25.5	+13.5	# 1.70	+1.900	160
		0.6297	# 118.70	83.86	37.5	+15.0	# 2.50	+1.00	160
1.04	1.68	0.0908	# 35.80	19.92	100.	+8.84	# 6.80	+1.600	160
1.00 - 1.10	1.69	# 0.0 -	0.0 -	0.0 -					
		0.0500	# 25.73	14.32	# 90.0	+17.0	5.65	+1.07	28
		# 0.0 -	0.0 -	0.0 -					
		0.1000	# 39.27	22.18	# 110.	+30.0	6.91	+1.88	36
		# 0.0500-	23.85-	12.91-					
		0.1000	# 39.27	22.18	# 103.	+16.0	7.12	+1.11	28
		# 0.1000-	36.00-	19.71-					
		0.1500	# 49.65	28.49	# 74.0	+16.0	5.12	+1.11	28
		# 0.1000-	36.00-	19.71-					
		0.2000	# 58.62	34.19	# 98.0	+28.0	6.78	+1.94	36
		# 0.1500-	45.28-	25.12-					
		0.2000	# 58.62	34.19	# 116.	+17.0	8.02	+1.18	28
		# 0.2000-	53.25-	29.95-					
		0.2500	# 66.80	39.66	# 83.0	+14.0	5.74	+1.968	28
		# 0.2000-	53.25-	29.95-					
		0.3000	# 74.50	45.09	# 65.0	+22.0	4.50	+1.52	36
		# 0.2500-	60.47-	34.51-					
		0.3000	# 74.50	45.09	# 78.0	+16.0	5.40	+1.11	28
		# 0.3000-	67.20-	38.95-					
		0.3500	# 81.92	50.62	# 50.0	+13.0	3.46	+1.899	28
		# 0.3000-	67.20-	38.95-					
		0.4000	# 89.21	56.38	# 58.0	+19.0	4.01	+1.31	36
		# 0.3500-	73.61-	43.38-					
		0.4000	# 89.21	56.38	# 51.0	+14.0	3.53	+1.968	28

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C115: GAMMA + PROTON --> DELTA++ + PI- [K > 0.35 GEV] (CONTINUED)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	ID SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
1.00 - 1.10	1.69	# 0.4000- 0.4500	75.81- 96.48	47.88- 62.52	# 47.0	+13.0	181. +50.1	3.25 +-0.899 28
		@ 0.4000- 0.5000	75.81- 103.86	47.88- 69.19	@ 71.0	+22.0	274. +84.8	4.91 +-1.52 36
		# 0.4500- 0.5000	85.90- 103.86	52.52- 69.19	# 30.0	+12.0	116. +46.3	2.08 +-0.830 28
		@ 0.5000- 0.6000	91.94- 119.54	57.37- 85.20	@ 46.0	+17.0	177. +65.6	3.18 +-1.18 36
1.06	1.69	0.2311	# 60.00	34.56	42.5	+2.56	168. +10.1	# 2.99 +-0.180 177
1.08	1.70	0.4697	# 90.20	56.20	27.4	+5.48	113. +22.5	# 2.00 +-0.400 160
		0.6939	# 119.50	84.05	24.7	+17.8	101. +73.2	# 1.80 +-1.30 160
		0.8509	# 146.60	119.7	<85.0		<349.	# <6.20 160
1.09	1.71	0.0134	# 7.40	3.977	64.6	+13.5	270. +56.3	# 4.80 +-1.00 160
		0.0438	# 22.10	11.96	128.	+14.8	535. +62.0	# 9.50 +-1.10 160
		0.1000	# 36.30	19.93	86.2	+8.08	361. +33.8	# 6.40 +-0.600 160
		0.3490	# 74.20	43.91	44.4	+6.73	186. +28.2	# 3.30 +-0.500 160
1.00 - 1.20	1.71	0.0082- 0.0607	0.0 - 25.10	0.0 - 13.22	52.7	+19.2	385. +79.8	# 8.20 +-1.70 28
		0.0481- 0.1196	# 25.10- 36.90	# 13.22- 19.69	68.1	+19.1	283. +79.2	# 5.00 +-1.40 28
		0.0899- 0.2304	# 36.90- 53.10	# 19.69- 29.09	84.4	+10.9	351. +45.3	# 6.20 +-0.800 28
		0.1686- 0.3416	# 53.10- 66.40	# 29.09- 37.47	57.2	+9.53	238. +39.6	# 4.20 +-0.700 28
		0.2475- 0.4534	# 66.40- 78.50	# 37.47- 45.81	40.8	+9.53	170. +39.6	# 3.00 +-0.700 28
		0.3268- 0.5643	# 78.50- 90.60	# 45.81- 54.56	28.6	+6.81	119. +28.3	# 2.10 +-0.500 28
		0.4055- 0.6751	# 90.60- 101.50	# 54.56- 64.33	17.7	+6.81	73.5 +28.3	# 1.30 +-0.500 28
		0.4841- 0.7869	# 101.50- 113.60	# 64.33- 76.02	8.85	+6.81	36.8 +28.3	# 0.650 +-0.500 28
		0.5634- 0.8981	# 113.60- 126.90	# 76.02- 90.58	17.7	+5.44	73.5 +22.6	# 1.30 +-0.400 28
		0.6424- 1.0090	# 126.90- 143.10	# 90.58- 113.0	15.0	+5.44	62.2 +22.6	# 1.10 +-0.400 28
		0.7210- 1.1203	# 143.10- 180.00	# 112.96- 180.0	12.3	+5.44	50.9 +22.6	# 0.900 +-0.400 28
1.11	1.72	0.2506	# 60.00	34.12	31.2	+2.34	136. +10.2	# 2.40 +-0.180 177
1.13	1.73	0.5166	# 91.00	56.23	21.4	+6.30	96.3 +28.3	# 1.70 +-0.500 160
		0.7573	# 120.00	83.90	<18.9		<84.9	# <1.50 160
		0.9268	# 147.10	119.9	<95.7		<430.	# <7.60 160
1.14	1.74	0.0132	# 7.50	3.975	55.8	+18.6	255. +85.1	# 4.50 +-1.50 160
		0.0474	# 22.50	12.02	75.6	+16.1	346. +73.7	# 6.10 +-1.30 160
		0.1099	# 36.80	19.95	70.6	+7.44	323. +34.0	# 5.70 +-0.600 160
		0.3846	# 75.00	43.94	27.3	+6.20	125. +28.4	# 2.20 +-0.500 160
1.16	1.75	0.2703	# 60.00	33.69	23.5	+2.16	112. +10.2	# 1.96 +-0.180 177
1.18	1.76	0.5641	# 91.70	56.18	15.1	+5.82	74.2 +28.5	# 1.30 +-0.500 160
		0.8236	# 120.70	83.98	17.5	+14.0	85.6 +68.5	# 1.50 +-1.20 160
		1.0037	# 147.60	120.2	<47.7		<234.	# <4.10 160
1.19	1.76	0.0132	# 7.70	4.026	95.2	+12.6	475. +62.9	# 8.30 +-1.10 160
		0.0511	# 22.80	12.02	66.5	+10.3	332. +51.5	# 5.80 +-0.900 160
		0.1203	# 37.30	19.97	61.9	+5.73	309. +28.6	# 5.40 +-0.500 160
		0.4218	# 75.80	43.98	25.2	+5.73	126. +28.6	# 2.20 +-0.500 160
1.21	1.78	0.2902	# 60.00	33.27	9.69	+2.78	49.9 +14.4	# 0.870 +-0.250 177
1.23	1.79	0.6140	# 92.50	56.22	<6.49		<34.6	# <0.600 160
		0.8921	# 121.50	84.18	<10.8		<57.6	# <1.00 160
		1.0807	# 147.90	120.0	<56.3		<300.	# <5.20 160
1.10 - 1.40	1.79	# 0.0 - 0.1000	----- -----	----- -----	# 82.0	+8.00	432. +42.2	----- 28
		# 0.1000- 0.2000	----- -----	----- -----	# 60.0	+8.00	316. +42.2	----- 28
		# 0.2000- 0.3000	----- -----	----- -----	# 40.0	+7.00	211. +36.9	----- 28
		# 0.3000- 0.4000	----- -----	----- -----	# 14.0	+6.00	73.8 +31.6	----- 28
		# 0.4000- 0.5000	----- -----	----- -----	# 14.0	+6.00	73.8 +31.6	----- 28
1.24	1.79	0.0133	# 7.80	4.023	68.3	+13.9	370. +75.1	# 6.40 +-1.30 160
		0.0550	# 23.10	12.02	93.9	+11.7	508. +63.5	# 8.80 +-1.10 160
		0.1314	# 37.80	19.98	48.0	+5.33	260. +28.9	# 4.50 +-0.500 160
		0.4603	# 76.60	44.03	16.0	+5.33	86.6 +28.9	# 1.50 +-0.500 160
1.28	1.81	0.6654	# 93.30	56.27	<9.09		<52.4	# <0.900 160
		0.9584	# 121.90	83.94	<15.1		<87.4	# <1.50 160
		1.1590	# 148.30	120.1	<47.5		<274.	# <4.70 160
1.29	1.82	0.0134	# 7.90	4.021	81.7	+13.0	479. +75.9	# 8.20 +-1.30 160
		0.0592	# 23.40	12.02	70.8	+14.0	415. +81.8	# 7.10 +-1.40 160
		0.1431	# 38.30	20.00	37.9	+4.98	222. +29.2	# 3.80 +-0.500 160
		0.5003	# 77.40	44.08	6.98	+5.98	40.9 +35.0	# 0.700 +-0.600 160
1.20 - 1.40	1.82	0.0066- 0.1513	0.0 - 36.90	0.0 - 18.71	80.0	+6.96	468. +40.7	# 9.20 +-0.800 28
		0.1196- 0.2953	# 36.90- 53.10	# 18.71- 27.69	34.0	+7.00	199. +40.9	# 3.40 +-0.700 28
		0.2304- 0.4399	# 53.10- 66.40	# 27.69- 35.72	22.0	+7.00	129. +40.9	# 2.20 +-0.700 28
		0.3416- 0.5852	# 66.40- 78.50	# 35.72- 43.76	18.0	+5.00	105. +29.2	# 1.80 +-0.500 28
		0.4534- 0.7292	# 78.50- 90.60	# 43.76- 52.24	10.0	+5.00	58.4 +29.2	# 1.00 +-0.500 28

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DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF	
1.20 - 1.40	1.82	0.5643-	# 90.00-	# 52.24-					
		0.8733	101.50	61.79	<4.00	<23.4	# <.400	28	
		0.7869-	#113.60-	# 73.32-					
		1.1631	126.90	88.22	<3.00	<17.5	# <.300	28	
		0.8981-	#126.90-	# 88.22-					
		1.3071	143.10	110.5	<3.00	<17.5	# <.300	28	
1.40 - 1.60	1.92	1.0090-	#143.10-	#110.45-					
		1.4519	180.00	180.0	<3.00	<17.5	# <.300	28	
		0.0055-	# 0.0 -	0.0 -					
		0.1844	36.90	17.85	59.8	+5.63	468. +44.0	# 8.50 +- .800	28
		0.1513-	# 36.90-	# 17.85-					
		0.3624	53.10	26.44	19.7	+3.93	154. +30.7	# 2.50 +- .500	28
		0.2953-	# 53.10-	# 26.44-					
		0.5410	66.40	34.16	14.9	+3.93	117. +30.7	# 1.90 +- .500	28
		0.4399-	# 66.40-	# 34.16-					
		0.7205	78.50	41.92	<4.72	<36.9	# <.600	28	
		0.5852-	# 78.50-	# 41.92-					
		0.8986	90.00	50.15	6.29	+3.15	49.2 +24.6	# .800 +- .400	28
		0.7292-	# 90.00-	# 50.15-					
		1.0767	101.50	59.47	4.72	+3.15	36.9 +24.6	# .600 +- .400	28
		0.8733-	#101.50-	# 59.47-					
		1.2561	113.60	70.81	3.15	+3.15	24.6 +24.6	# .400 +- .400	28
		1.0186-	#113.60-	# 70.81-					
		1.4348	126.90	85.62	<3.15	<24.6	# <.400	28	
		1.1631-	#126.90-	# 85.62-					
		1.6128	143.10	108.0	<3.15	<24.6	# <.400	28	
1.40 - 1.80	1.96	1.3071-	#143.10-	#108.03-					
		1.7917	180.00	180.0	<3.15	<24.6	# <.400	28	
		# 0.0 -	0.0 -	0.0 -					
		0.1000	29.46	14.80	# 81.0	+6.00	697. +51.6	9.32 +- .690	28
		# 0.1000-	24.40-	11.13-					
		0.2000	42.92	21.96	# 39.0	+6.00	335. +51.6	5.55 +- .854	28
		# 0.2000-	35.23-	16.27-					
		0.3000	53.56	27.95	# 16.0	+4.00	138. +34.4	2.28 +- .569	28
		# 0.3000-	43.69-	20.46-					
		0.4000	62.90	33.53	# 6.00	+4.00	51.6 +34.4	.854 +- .569	28
1.50 - 1.80	1.99	# 0.4000-	51.00-	24.22-					
		0.5000	71.51	39.01	# 5.00	+4.00	43.0 +34.4	.712 +- .569	28
		# 0.0 -	0.0 -	0.0 -					
		0.1000	27.92	13.67	# 50.0	+28.0	468. +262.0	6.43 +- 3.60	36
		# 0.1000-	24.40-	11.13-					
		0.2000	40.56	20.19	# 39.0	+21.0	365. +196.0	5.82 +- 3.13	36
		# 0.2000-	35.23-	16.27-					
		0.4000	59.20	30.57	# 4.70	+3.50	44.0 +32.7	.701 +- .522	36
		# 0.4000-	51.00-	24.22-					
		0.6000	74.67	40.22	# 1.80	+1.80	16.8 +16.8	.268 +- .268	36
1.60 - 1.80	2.01	0.0047-	# 0.0 -	0.0 -					
		0.2183	36.90	17.09	47.1	+5.89	475. +59.3	# 8.00 +- 1.00	28
		0.1844-	# 36.90-	# 17.09-					
		0.4309	53.10	25.34	16.5	+4.52	166. +45.6	# 2.55 +- .700	28
		0.3624-	# 53.10-	# 25.34-					
		0.6442	66.40	32.77	4.20	+3.23	42.3 +32.5	# .650 +- .500	28
		0.5410-	# 66.40-	# 32.77-					
		0.8586	78.50	40.27	2.59	+2.59	26.0 +26.0	# .400 +- .400	28
		0.7205-	# 78.50-	# 40.27-					
		1.0712	90.00	48.26	<1.62	<16.3	# <.250	28	
		0.8986-	# 90.00-	# 48.26-					
		1.2838	101.50	57.36	<1.62	<16.3	# <.250	28	
		1.0767-	#101.50-	# 57.36-					
		1.4981	113.60	68.51	<2.59	<26.0	# <.400	28	
		1.2561-	#113.60-	# 68.51-					
		1.7115	126.90	83.20	1.62	+1.62	16.3 +16.3	# .250 +- .250	28
		1.4348-	#126.90-	# 83.20-					
		1.9240	143.10	105.7	2.59	+2.59	26.0 +26.0	# .400 +- .400	28
1.80 - 2.50	2.19	1.6128-	#143.10-	#105.73-					
		2.1376	180.00	180.0	<2.59	<26.0	# <.400	28	
		-----	# 0.0 -	-----	-----	-----	# 10.6 +- 1.20	28	
			18.20	-----	-----	-----	# 8.50 +- 1.00	28	
		# 18.20-	25.10	-----	-----	-----	# 3.80 +- .800	28	
		# 25.10-	31.80	-----	-----	-----	# 3.00 +- .800	28	
		# 31.80-	36.90	-----	-----	-----	# 3.00 +- .800	28	
		# 36.90-	53.10	-----	-----	-----	# .500 +- .250	28	
		# 53.10-	66.40	-----	-----	-----	# <.190	28	
		# 66.40-	78.50	-----	-----	-----	# <.100E 00	28	
		# 78.50-	90.00	-----	-----	-----	# <.120	28	
		# 90.00-	101.50	-----	-----	-----	# <.100E 00	28	
		# 101.50-	113.60	-----	-----	-----	# <.100E 00	28	
		# 113.60-	126.90	-----	-----	-----	# <.100E 00	28	
				</					

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C115: GAMMA + PROTON --> DELTA++ + P1- (K > 0.35 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	D SIG/D T MU BARN/GEV**2	{D SIG/D T}*{S-M**2}**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
1.80 - 2.50	2.19	-----	#126.90- 143.10 #143.10- 180.00	-----	-----	# <.120 # <.100E 00	28 28
		# 0.0 -	-----				
		# 0.1000-	-----	# 42.0 +-4.00	631. +-60.1	-----	28
		# 0.2000-	-----	# 19.0 +-4.00	286. +-60.1	-----	28
		# 0.3000-	-----	# 7.00 +-3.00	105. +-45.1	-----	28
		# 0.4000-	-----	# <1.00	<15.0	-----	28
		# 0.5000-	-----	# <1.00	<15.0	-----	28
2.80	2.48	# 0.0 -	0.0 - 0.0 -				
		# 0.0200-	7.60 2.870	# 17.2 +-3.20	475. +-88.3	5.36 +-1.998	212
		# 0.0400-	7.60 2.87-				
		# 0.0600-	13.88 5.256	# 23.6 +-2.20	652. +-60.7	7.36 +-1.686	212
		# 0.0800-	13.88 5.26-				
		# 0.1000-	18.13 6.882	# 9.70 +-1.90	268. +-52.5	3.02 +-1.592	212
		# 0.1200-	18.13 6.88-				
		# 0.1400-	25.93 9.919	# 8.40 +-1.00	232. +-27.6	2.62 +-1.312	212
		# 0.1600-	25.93 9.92-				
		# 0.1800-	31.98 12.33	# 3.30 +-1.670	91.1 +-18.5	1.03 +-1.209	212
		# 0.2000-	31.98 12.33-				
		# 0.2200-	41.74 16.35	# 1.50 +-1.330	41.4 +-9.11	.468 +-1.103	212
		# 0.2400-	41.74 16.35-				
		# 0.2600-	60.60 24.81	# .510 +-1.130	14.1 +-3.59	.159 +-1.405E-01	212
		# 0.2800-	60.60 24.81-				
		# 0.3000-	180.00 180.0	# .110 +-1.300E-01	3.04 +-1.828	.343E-01+-1.935E-02	212
2.50 - 3.50	2.52	-----	# 0.0 -				
		# 18.20-	-----			# 11.1 +-1.00	28
		# 25.10-	-----			# 3.20 +-1.800	28
		# 31.80-	-----			# 1.80 +-1.700	28
		# 36.90-	-----			# .800 +-1.500	28
		# 53.10-	-----			# <.200	28
		# 66.40-	-----			# <.100E 00	28
		# 78.50-	-----			# <.150	28
		# 90.00-	-----			# <.120	28
		# 101.50-	-----			# <.800E-01	28
		# 113.60-	-----			# <.800E-01	28
		# 126.90-	-----			# <.100E 00	28
		# 143.10-	-----			# <.800E-01	28
		# 180.00-	-----			# <.100E 00	28
		# 0.0 -	-----				
		# 0.1000-	-----	# 25.0 +-3.00	729. +-87.4	-----	28
		# 0.2000-	-----	# 8.00 +-3.00	233. +-87.4	-----	28
		# 0.3000-	-----	# 2.00 +-1.00	58.3 +-29.1	-----	28
		# 0.4000-	-----	# 3.00 +-3.00	87.4 +-87.4	-----	28
		# 0.5000-	-----	# <3.00	<87.4	-----	28
3.50 - 5.80	3.01	-----	# 0.0 -				
		# 18.20-	-----			# 6.80 +-1.800	28
		# 25.10-	-----			# 1.70 +-1.500	28
		# 31.80-	-----			# .500 +-1.300	28
		# 36.90-	-----			# <1.00	28
		# 53.10-	-----			# <.100E 00	28
		# 66.40-	-----			# <.100E 00	28
		# 78.50-	-----			# <.700E-01	28
		# 90.00-	-----			# <.700E-01	28
		# 101.50-	-----			# <.700E-01	28
		# 113.60-	-----			# <.700E-01	28
		# 126.90-	-----			# <.700E-01	28

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DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
3.50 - 5.80	3.01	-----	#126.90- 143.10 #143.10- 180.00	-----	-----	-----	# <.700E-01 # <.700E-01	28 28
		# 0.0 - 0.1000 # 0.1000- 0.2000 # 0.2000- 0.3000 # 0.3000- 0.4000 # 0.4000- 0.5000	----- ----- ----- ----- ----- ----- ----- ----- -----	----- ----- ----- ----- ----- ----- ----- ----- -----	# 10.0 +-3.00 # 5.50 +-2.00 # <3.50 # <3.50 # <1.00	632. +-190. 348. +-126. <221. <221. <63.2	----- ----- ----- ----- -----	28 28 28 28 28
4.50	3.05	\$ 6.8251 \$ 6.8411 \$ 6.9741	159.97 160.75 169.07	119.1 121.1 144.5	@ .314E-01+- .380E-02 @ .467E-01+- .560E-02 @ .589E-01+- .490E-02	2.24 +- .271 3.33 +- .399 4.20 +- .349	.176E-01+- .213E-02 .261E-01+- .314E-02 .330E-01+- .274E-02	105 105 105
4.70	3.11	# 0.0015- 0.0200 # 0.0200- 0.0600 # 0.0600- 0.1000 # 0.1000- 0.2000 # 0.2000- 0.3000 # 0.3000- 0.5000 # 0.5000- 1.0000 # 1.0000- 7.0000	0.0 - 5.72 5.72- 10.19 10.19- 13.24 13.24- 18.84 18.84- 23.16 23.16- 30.07 30.07- 43.08 43.08- 180.00	0.0 - 1.720 1.72- 3.070 3.07- 3.995 3.99- 5.708 5.71- 7.046 7.05- 9.228 9.23- 13.52 13.52- 180.0	# 5.90 +-1.40 # 6.40 +-1.20 # 3.40 +- .800 # 1.80 +- .400 # 1.50 +- .340 # .300 +- .140 # .140 +- .500E-01 # .600E-02+- .400E-02 # <12.0	459. +-109. 498. +-93.3 264. +-62.2 140. +-31.1 117. +-26.4 23.3 +-10.9 10.9 +-3.89 0.467 +- .311 <.106E 04	3.48 +- .825 3.77 +- .707 2.00 +- .471 1.06 +- .236 .884 +- .200 .177 +- .825E-01 .825E-01+- .295E-01 .354E-02+- .236E-02 <7.60	212 212 212 212 212 212 212 212 82 82
5.00	3.20	# 0.0017 # 0.0050 # 0.0101 # 0.0201 # 0.0399 # 0.0701 # 0.1500 # 0.2500 # 0.4000 # 0.6000	0.64 2.42 3.78 5.55 7.57 10.66 15.70 20.35 25.86 31.83 31.83	.1868 .7069 1.104 1.622 2.332 3.122 4.614 6.004 7.673 9.522 9.522	# 10.2 +-1.50 # 10.9 +-1.60 # 10.7 +-1.60 # 7.90 +-1.20 # 5.77 +- .860 # 2.64 +- .400 # 1.14 +- .170 # .478 +- .720E-01 # .280 +- .420E-01 @ .390E-02+- .120E-02 @ .570E-02+- .160E-02 @ .660E-02+- .160E-02 @ .140E-01+- .230E-02 @ .191E-01+- .380E-02 @ .314E-01+- .280E-02 @ .300E-01+- .410E-02 @ .384E-01+- .490E-02	898. +-132. 960. +-141. 942. +-141. 695. +-106. 508. +-75.7 232. +-35.2 100. +-15.0 42.1 +-6.34 24.6 +-3.70 0.386 +- .119 0.564 +- .158 0.653 +- .158 1.38 +- .228 1.89 +- .376 3.11 +- .277 2.97 +- .406 3.80 +- .485	6.46 +- .950 6.91 +-1.01 6.78 +-1.01 5.01 +- .760 3.66 +- .545 1.67 +- .253 .722 +- .108 .303 +- .456E-01 .177 +- .266E-01 .264E-02+- .813E-03 .386E-02+- .108E-02 .447E-02+- .108E-02 .949E-02+- .156E-02 .129E-01+- .258E-02 .213E-01+- .190E-02 .203E-01+- .278E-02 .260E-01+- .332E-02	82 82 82 82 82 82 82 82 82 105 105 105 105 105 105 105 105
5.30	3.29	\$ 7.6483 \$ 7.8923 \$ 8.0723 \$ 8.2053 \$ 8.3063 \$ 8.3753 \$ 8.4283 \$ 8.4883	142.70 148.51 153.51 157.85 161.79 165.04 168.12 173.05	79.66 89.78 99.94 110.0 120.3 129.5 139.0 155.3	@ .390E-02+- .120E-02 @ .570E-02+- .160E-02 @ .660E-02+- .160E-02 @ .140E-01+- .230E-02 @ .191E-01+- .380E-02 @ .314E-01+- .280E-02 @ .300E-01+- .410E-02 @ .384E-01+- .490E-02	0.386 +- .119 0.564 +- .158 0.653 +- .158 1.38 +- .228 1.89 +- .376 3.11 +- .277 2.97 +- .406 3.80 +- .485	.264E-02+- .813E-03 .386E-02+- .108E-02 .447E-02+- .108E-02 .949E-02+- .156E-02 .129E-01+- .258E-02 .213E-01+- .190E-02 .203E-01+- .278E-02 .260E-01+- .332E-02	105 105 105 105 105 105 105 105
8.00	3.99	# 0.0011 # 0.0014 # 0.0035 # 0.0043 # 0.0052 # 0.0062 # 0.0101 # 0.0198 # 0.0376 # 0.0688 # 0.1520 # 0.2460 # 0.4010 # 0.6020 # 0.8010 # 1.0350	0.41 0.74 1.60 1.82 2.05 2.27 2.99 4.28 5.97 8.12 12.13 15.46 19.79 24.32 28.13 32.08	.9708E-01 .1741 .3750 .4283 .4813 .5336 .7027 1.007 1.404 1.912 2.860 3.655 4.696 5.798 6.739 7.730	# 2.18 +- .750 # 2.94 +- .790 # 3.62 +- .580 # 4.31 +- .650 # 4.26 +- .680 # 4.51 +- .680 # 4.33 +- .650 # 4.33 +- .650 # 3.71 +- .560 # 2.14 +- .320 # 1.05 +- .160 # .479 +- .720E-01 # .237 +- .360E-01 # .113 +- .170E-01 # .104 +- .160E-01 # .680E-01+- .100E-01	491. +-169. 663. +-178. 816. +-131. 971. +-146. 960. +-153. 0.102E 04+-153. 976. +-146. 976. +-146. 836. +-126. 482. +-72.1 237. +-36.1 108. +-16.2 53.4 +-8.11 25.5 +-3.83 23.4 +-3.61 15.3 +-2.25	2.35 +- .809 3.17 +- .852 3.90 +- .625 4.65 +- .701 4.59 +- .733 4.86 +- .733 4.67 +- .701 4.67 +- .701 4.00 +- .604 2.31 +- .345 1.13 +- .172 .516 +- .776E-01 .255 +- .388E-01 .122 +- .183E-01 .112 +- .172E-01 .733E-01+- .108E-01	82 82 82 82 82 82 82 82 82 82 82 82 82 82 82 82 82
11.00	4.64	# 0.0009 # 0.0016 # 0.0038 # 0.0058 # 0.0084 # 0.0114 # 0.0201 # 0.0400 # 0.0705 # 0.1500 # 0.2490 # 0.4000 # 0.6010 # 1.0000	0.45 0.83 1.47 1.89 2.30 2.72 3.65 5.20 6.92 10.13 13.08 16.60 20.39 26.41	.9079E-01 .1676 .2576 .3810 .4650 .5490 .7384 1.051 1.401 2.052 2.653 3.377 4.163 5.428	# 1.81 +- .270 # 1.30 +- .200 # 2.70 +- .400 # 2.54 +- .380 # 2.18 +- .330 # 1.83 +- .270 # 2.10 +- .310 # 1.69 +- .250 # 1.19 +- .180 # .459 +- .690E-01 # .226 +- .330E-01 # .107 +- .160E-01 # .812E-01+- .122E-01 # .351E-01+- .530E-02	771. +-115. 554. +-85.2 0.115E 04+-170. 0.108E 04+-162. 929. +-141. 780. +-115. 895. +-132. 720. +-107. 507. +-76.7 196. +-29.4 96.3 +-14.1 45.6 +-6.82 34.6 +-5.20 15.0 +-2.26	2.76 +- .412 1.98 +- .305 4.12 +- .610 3.87 +- .579 3.32 +- .503 2.79 +- .412 3.20 +- .473 2.58 +- .381 1.81 +- .274 .700 +- .105 .344 +- .503E-01 .163 +- .244E-01 .124 +- .186E-01 .535E-01+- .808E-02	82 82 82 82 82 82 82 82 82 82 82 82 82 82
16.00	5.56	# 0.0010 # 0.0010 + 0.0006 # 0.0026 # 0.0028 + 0.0022 # 0.0097	0.50 0.51 + 0.27 1.00 1.04 + 0.48 2.07	.8408E-01 .8638E-01 + .4549E-01 .1690 .1762 + .8179E-01 .3467	# .596 +- .890E-01 # .740 +- .600E-01 # .809 +- .122 # .810 +- .500E-01 # .982 +- .133	537. +-80.2 667. +-54.1 729. +-110. 730. +-45.1 885. +-120.	1.35 +- .202 1.68 +- .136 1.84 +- .277 1.84 +- .113 2.23 +- .302	82 126 82 126 82

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K GEV	E* GEV	-T GEV**2	THETA {MESON} CM	LAB	D SIG/D T MU BARN/GEV**2	{D SIG/D T}*{(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA {CM} MU BARN/STERAD	REF			
16.00	5.56	# 0.0134	2.44	.4122	# 1.16	+-.170	0.105E 04+-153.	2.63	+-.386	82	
		# 0.0140	2.50	#.300G							
		+ 0.0060	+ 0.55	+-.9327E-01	# 1.07	+-.700E-01	965.	+-.63.1	2.43	+-.159	126
		# 0.0176	2.81	.4744	# 1.05	+-.160	947.	+-.144.	2.38	+-.363	82
		# 0.0212	3.09	.5218	# .900	+-.135	811.	+-.122.	2.04	+-.306	82
		# 0.0380	4.16	#.700G	# .660	+-.300E-01	595.	+-.27.0	1.50	+-.681E-01	126
		# 0.0396	4.25	.7167	# .682	+-.102	615.	+-.91.9	1.55	+-.231	82
		# 0.0694	5.64	.9516	# .486	+-.730E-01	438.	+-.65.8	1.10	+-.166	82
		# 0.0770	5.54	#1.00G	# .420	+-.200E-01	379.	+-.18.0	.953	+-.454E-01	126
		# 0.0991	6.74	1.139	# .326	+-.490E-01	294.	+-.44.2	.740	+-.111	82
		# 0.1490	8.28	#1.40G	# .169	+-.900E-02	152.	+-.8.11	.384	+-.204E-01	126
		# 0.1490	8.28	1.399	# .182	+-.270E-01	164.	+-.24.3	.413	+-.613E-01	82
		# 0.2490	10.71	1.812	# .968E-01	+-.150E-01	87.3	+-.13.5	.220	+-.340E-01	82
		# 0.3990	13.58	2.301	# .657E-01	+-.720E-02	59.2	+-.6.49	.149	+-.163E-01	82
		# 0.4000	13.60	#2.30G	# .600E-01	+-.300E-02	54.1	+-.2.70	.136	+-.681E-02	126
		# 0.5970	16.63	2.824	# .472E-01	+-.420E-02	42.5	+-.3.79	.107	+-.953E-02	82
		# 0.7960	19.23	3.273	# .283E-01	+-.250E-02	25.5	+-.2.25	.642E-01	+-.567E-02	82
		# 0.8000	19.28	#3.28G	# .274E-01	+-.160E-02	24.7	+-.1.44	.622E-01	+-.363E-02	126
		# 0.9990	21.57	3.680	# .170E-01	+-.500E-02	15.3	+-.4.51	.386E-01	+-.113E-01	82
		# 1.0000	21.58	#3.68G	# .150E-01	+-.100E-02	13.5	+-.9.01	.340E-01	+-.227E-02	126
		# 1.2900	24.55	#4.20G	# .480E-02	+-.400E-03	4.33	+-.3.61	.109E-01	+-.908E-03	126
		# 1.5000	26.51	4.551	# .255E-02	+-.380E-02	2.30	+-.3.43	.579E-02	+-.862E-02	82
		# 1.5800	27.22	#4.68G	# .200E-02	+-.300E-03	1.80	+-.2.70	.454E-02	+-.681E-03	126
		# 2.0000	30.71	#5.30G	# .330E-03	+-.900E-04	0.297	+-.811E-01	.749E-03	+-.204E-03	126
		# 2.0000	30.71	5.303	# .350E-03	+-.900E-04	0.316	+-.811E-01	.794E-03	+-.204E-03	82

C115: GAMMA + PROTON --> DELTA++ + PI- (K > 0.35 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 16.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
#	0.0009	11.00	4.64	21.52	# 1.81 +- .270	771. +-115.	82
#	0.0010	16.00	5.56	30.90	# .596 +- .890E-01	537. +-80.2	82
# 0.0010+- 0.0006		16.00	5.56	30.90	# .740 +- .600E-01	667. +-54.1	126
#	0.0011	8.00	3.99	15.89	# 2.18 +- .750	491. +-169.	82
#	0.0014	8.00	3.99	15.89	# 2.94 +- .790	663. +-178.	82
#	0.0016	11.00	4.64	21.52	# 1.30 +- .200	554. +-85.2	82
#	0.0017	5.00	3.20	10.26	# <12.0	<.106E 04	82
#	0.0026	16.00	5.56	30.90	# .809 +- .122	729. +-110.	82
# 0.0028+- 0.0022		16.00	5.56	30.90	# .810 +- .500E-01	730. +-45.1	126
#	0.0035	8.00	3.99	15.89	# 3.62 +- .580	816. +-131.	82
#	0.0038	11.00	4.64	21.52	# 2.70 +- .400	.115F 04+-170.	82
#	0.0043	8.00	3.99	15.69	# 4.31 +- .650	971. +-146.	82
#	0.0050	5.00	3.20	10.26	# 10.2 +-1.50	898. +-132.	82
#	0.0052	8.00	3.99	15.89	# 4.26 +- .680	960. +-153.	82
#	0.0058	11.00	4.64	21.52	# 2.54 +- .380	.108E 04+-162.	82
#	0.0062	8.00	3.99	15.89	# 4.51 +- .680	.102F 04+-153.	82
#	0.0084	11.00	4.64	21.52	# 2.18 +- .330	929. +-141.	82
#	0.0097	16.00	5.56	30.90	# .982 +- .133	885. +-120.	82
# 0.0 - 0.0200		2.80	2.48	6.13	# 17.2 +-3.20	475. +-88.3	212
#	0.0101	5.00	3.20	10.26	# 10.9 +-1.60	960. +-141.	82
#	0.0101	8.00	3.99	15.89	# 4.33 +- .650	976. +-146.	82
# 0.0015 - 0.0200		4.70	3.11	9.70	# 5.90 +-1.40	459. +-109.	212
#	0.0114	11.00	4.64	21.52	# 1.83 +- .270	780. +-115.	82
#	0.0134	16.00	5.56	30.90	# 1.16 +- .170	.105E 04+-153.	82
# 0.0140+- 0.0060		16.00	5.56	30.90	# 1.07 +- .700E-01	965. +-63.1	126
#	0.0176	16.00	5.56	30.90	# 1.05 +- .160	947. +-144.	82
#	0.0198	8.00	3.99	15.89	# 4.33 +- .650	976. +-146.	82
#	0.0201	5.00	3.20	10.26	# 10.7 +-1.60	942. +-141.	82
#	0.0201	11.00	4.64	21.52	# 2.10 +- .310	895. +-132.	82
#	0.0212	16.00	5.56	30.90	# .900 +-1.35	811. +-122.	82
#	0.0376	8.00	3.99	15.89	# 3.71 +- .560	836. +-124.	82
#	0.0380	16.00	5.56	30.90	# .660 +- .300E-01	595. +-27.0	126
#	0.0396	16.00	5.56	30.90	# .682 +- .102	615. +-91.9	82
#	0.0399	5.00	3.20	10.26	# 7.90 +-1.20	695. +-106.	82
# 0.0200 - 0.0600		2.80	2.48	6.13	# 23.6 +-2.20	652. +-60.7	212
# 0.0200 - 0.0600		4.70	3.11	9.70	# 6.40 +-1.20	498. +-93.3	212
# 0.0400		11.00	4.64	21.52	# 1.69 +- .250	720. +-107.	82
# 0.0 - 0.1000	1.80 - 2.50		2.06 - 2.36	4.26 - 5.57	# 42.0 +-4.00	631. +-60.1	28
# 0.0 - 0.1000	2.50 - 3.50		2.36 - 2.73	5.57 - 7.45	# 25.0 +-3.00	729. +-87.4	28
# 0.0 - 0.1000	3.50 - 5.80		2.73 - 3.43	7.45 -11.76	# 10.0 +-3.00	632. +-190.	28

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 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C115: GAMMA + PROTON --> DELTA++ + P1- (K > 0.35 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 16.00

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
# 0.0688	8.00	3.99	15.89	# 2.14 +-0.320	482. +-72.1	82
# 0.0694	16.00	5.56	30.90	# 4.86 +-0.730E-01	438. +-65.8	82
# 0.0701	5.00	3.20	10.26	# 5.77 +-0.860	508. +-75.7	82
# 0.0705	11.00	4.64	21.52	# 1.19 +-0.180	507. +-76.7	82
# 0.0770	16.00	5.56	30.90	# 4.20 +-0.200E-01	379. +-18.0	126
# 0.0600 - 0.1000	2.80	2.48	6.13	# 9.70 +-1.90	268. +-52.5	212
# 0.0600 - 0.1000	4.70	3.11	9.70	# 3.40 +-0.800	264. +-62.2	212
# 0.0991	16.00	5.56	30.90	# 3.26 +-0.490E-01	294. +-44.2	82
# 0.1490	16.00	5.56	30.90	# 1.69 +-0.900E-02	152. +-8.11	126
# 0.1490	16.00	5.56	30.90	# 1.82 +-0.270E-01	164. +-24.3	82
# 0.1000 - 0.2000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 19.0 +-4.00	286. +-60.1	28
# 0.1000 - 0.2000	2.80	2.48	6.13	# 8.40 +-1.00	232. +-27.6	212
# 0.1000 - 0.2000	2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	# 8.00 +-3.00	233. +-87.4	28
# 0.1000 - 0.2000	3.50 - 5.80	2.73 - 3.43	7.45 - 11.76	# 5.50 +-2.00	348. +-126.0	28
# 0.1000 - 0.2000	4.70	3.11	9.70	# 1.80 +-0.400	140. +-31.1	212
# 0.1500	5.00	3.20	10.26	# 2.64 +-0.400	232. +-35.2	82
# 0.1500	11.00	4.64	21.52	# 4.59 +-0.690E-01	196. +-29.4	82
# 0.1520	8.00	3.99	15.89	# 1.05 +-0.160	237. +-36.1	82
# 0.2460	8.00	3.99	15.89	# 4.79 +-0.720E-01	108. +-16.2	82
# 0.2490	11.00	4.64	21.52	# 4.22 +-0.330E-01	96.3 +-14.1	82
# 0.2490	16.00	5.56	30.90	# 9.68E-01 +-0.150E-01	87.3 +-13.5	82
# 0.2000 - 0.3000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 7.00 +-3.00	105. +-45.1	28
# 0.2000 - 0.3000	2.80	2.48	6.13	# 3.30 +-0.670	91.1 +-18.5	212
# 0.2000 - 0.3000	2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	# 2.00 +-1.00	58.3 +-29.1	28
# 0.2000 - 0.3000	3.50 - 5.80	2.73 - 3.43	7.45 - 11.76	# 3.50	<221.	28
# 0.2000 - 0.3000	4.70	3.11	9.70	# 1.50 +-0.340	117. +-26.4	212
# 0.2500	5.00	3.20	10.26	# 1.14 +-0.170	100. +-15.0	82
# 0.3000 - 0.4000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 3.00 +-3.00	<15.0	28
# 0.3000 - 0.4000	2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	# 3.00	87.4 +-87.4	28
# 0.3000 - 0.4000	3.50 - 5.80	2.73 - 3.43	7.45 - 11.76	# 3.50	<221.	28
# 0.3990	16.00	5.56	30.90	# 6.57E-01 +-0.720E-02	59.2 +-6.49	82
# 0.3000 - 0.5000	2.80	2.48	6.13	# 1.50 +-0.330	41.4 +-9.11	212
# 0.3000 - 0.5000	4.70	3.11	9.70	# 3.00 +-0.140	23.3 +-10.9	212
# 0.4000	5.00	3.20	10.26	# 4.78 +-0.720E-01	42.1 +-6.34	82
# 0.4000	11.00	4.64	21.52	# 1.07 +-0.160E-01	45.6 +-6.82	82
# 0.4000	16.00	5.56	30.90	# 6.00E-01 +-0.300E-02	54.1 +-2.70	126
# 0.4010	8.00	3.99	15.89	# 2.37 +-0.360E-01	53.4 +-8.11	82
# 0.4000 - 0.5000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 3.00	<15.0	28
# 0.4000 - 0.5000	2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	# 3.00	<87.4	28
# 0.4000 - 0.5000	3.50 - 5.80	2.73 - 3.43	7.45 - 11.76	# 3.50	<63.2	28
# 0.5970	16.00	5.56	30.90	# 4.72E-01 +-0.420E-02	42.5 +-3.79	82
# 0.6000	5.00	3.20	10.26	# 2.80 +-0.420E-01	24.6 +-3.70	82
# 0.6010	11.00	4.64	21.52	# 8.12E-01 +-0.122E-01	34.6 +-5.20	82
# 0.6020	8.00	3.99	15.89	# 1.13 +-0.170E-01	25.5 +-3.83	82
# 0.5000 - 1.0000	2.80	2.48	6.13	# 5.10 +-0.130	14.1 +-3.59	212
# 0.5000 - 1.0000	4.70	3.11	9.70	# 1.40 +-0.500E-01	10.9 +-3.89	212
# 0.7960	16.00	5.56	30.90	# 2.83E-01 +-0.250E-02	25.5 +-2.25	82
# 0.8000	16.00	5.56	30.90	# 2.74E-01 +-0.160E-02	24.7 +-1.44	126
# 0.8010	8.00	3.99	15.89	# 1.04 +-0.160E-01	23.4 +-3.61	82
# 0.9990	16.00	5.56	30.90	# 1.70E-01 +-0.500E-02	15.3 +-4.51	82
# 1.0000	11.00	4.64	21.52	# 3.51E-01 +-0.530E-02	15.0 +-2.26	82
# 1.0000	16.00	5.56	30.90	# 1.50E-01 +-0.100E-02	13.5 +-0.901	126
# 1.0350	8.00	3.99	15.89	# 6.80E-01 +-0.100E-01	15.3 +-2.25	82
# 1.2900	16.00	5.56	30.90	# 4.80E-02 +-0.400E-03	4.33 +-0.361	126
# 1.5000	16.00	5.56	30.90	# 2.55E-02 +-0.380E-02	2.30 +-0.343	82
# 1.5800	16.00	5.56	30.90	# 2.00E-02 +-0.300E-03	1.80 +-0.270	126
# 2.0000	16.00	5.56	30.90	# 3.30E-03 +-0.900E-04	0.297 +-0.811E-01	126
# 2.0000	16.00	5.56	30.90	# 3.50E-03 +-0.900E-04	0.316 +-0.811E-01	82

1.03 GEV < K < GEV 2.00

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
0.0132	1.14	1.74	3.02	55.8 +-18.6	255. +-85.1	160
0.0132	1.19	1.76	3.11	95.2 +-12.6	475. +-62.9	160
0.0133	1.24	1.79	3.21	68.3 +-13.9	370. +-75.1	160
0.0134	1.29	1.82	3.30	81.7 +-13.0	479. +-75.9	160
0.0134	1.09	1.71	2.93	64.6 +-13.5	270. +-56.3	160
0.0138	1.03	1.68	2.81	54.1 +-18.0	202. +-67.3	160
# 0.0 - 0.0500	1.00 - 1.10	1.66 - 1.72	2.76 - 2.94	# 90.0 +-17.0	347. +-65.6	28
0.0082 - 0.0607	1.00 - 1.20	1.66 - 1.77	2.76 - 3.13	92.7 +-19.2	385. +-79.8	28
0.0406	1.03	1.68	2.81	108. +-18.0	404. +-67.3	160
0.0438	1.09	1.71	2.93	128. +-14.8	535. +-62.0	160
0.0474	1.14	1.74	3.02	75.6 +-16.1	346. +-73.7	160
# 0.0 - 0.1000	1.00 - 1.10	1.66 - 1.72	2.76 - 2.94	# 110. +-30.0	424. +-116.0	36
# 0.0 - 0.1000	1.10 - 1.40	1.72 - 1.87	2.94 - 3.51	# 82.0 +-8.00	432. +-42.2	28

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 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C115: GAMMA + PROTON --> DELTA++ + P1- (K > 0.35 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

1.03 GEV < K < GEV 2.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*S-M**2)**2 MU BARN*GEV**2	REF
#	0.0	- 0.1000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26 # 81.0	+6.00	697. +51.6 28
2	0.0	- 0.1000	1.50 - 1.80	1.92 - 2.06	3.70 - 4.26 a 50.0	+28.0	468. +262. 36
	0.0511	1.19	1.76	3.11	66.5	+10.3	332. +51.5 160
	0.0550	1.24	1.79	3.21	93.9	+11.7	568. +63.5 160
	0.0592	1.29	1.82	3.30	70.8	+14.0	415. +81.8 160
#	0.0500 - 0.1000	1.00 - 1.10	1.66 - 1.72	2.76 - 2.94 # 103.	+16.0	397. +61.7 28	
	0.0066 - 0.1513	1.20 - 1.40	1.77 - 1.87	3.13 - 3.51	80.0	+6.96	468. +40.7 28
	0.0481 - 0.1196	1.00 - 1.20	1.66 - 1.77	2.76 - 3.13	68.1	+19.1	283. +79.2 28
	0.0908	1.04	1.68	2.83	100.	+8.84	382. +33.7 160
	0.0055 - 0.1844	1.40 - 1.60	1.87 - 1.97	3.51 - 3.88	59.8	+5.63	468. +44.0 28
	0.1000	1.09	1.71	2.93	86.2	+8.08	361. +33.8 160
	0.1099	1.14	1.74	3.02	70.6	+7.44	323. +34.0 160
	0.0047 - 0.2183	1.60 - 1.80	1.97 - 2.06	3.88 - 4.26	47.1	+5.89	475. +59.3 28
	0.1203	1.19	1.76	3.11	61.9	+5.73	309. +28.6 160
#	0.1000 - 0.1500	1.00 - 1.10	1.66 - 1.72	2.76 - 2.94 # 74.0	+16.0	285. +61.7 28	
	0.1314	1.24	1.79	3.21	48.0	+5.33	260. +28.9 160
	0.1431	1.29	1.82	3.30	37.9	+4.98	222. +29.2 160
2	0.1000 - 0.2000	1.00 - 1.10	1.66 - 1.72	2.76 - 2.94 a 98.0	+28.0	378. +108. 36	
#	0.1000 - 0.2000	1.10 - 1.40	1.72 - 1.87	2.94 - 3.51 # 60.0	+8.00	316. +42.2 28	
#	0.1000 - 0.2000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26 # 39.0	+6.00	335. +51.6 28	
2	0.1000 - 0.2000	1.50 - 1.80	1.92 - 2.06	3.70 - 4.26 a 39.0	+21.0	365. +196. 36	
	0.0899 - 0.2304	1.00 - 1.20	1.66 - 1.77	2.76 - 3.13	84.4	+10.9	351. +45.3 28
#	0.1500 - 0.2000	1.00 - 1.10	1.66 - 1.72	2.76 - 2.94 # 116.	+17.0	447. +65.6 28	
	0.1196 - 0.2953	1.20 - 1.40	1.77 - 1.87	3.13 - 3.51	34.0	+7.00	199. +40.9 28
#	0.2000 - 0.3000	1.10 - 1.40	1.72 - 1.87	2.94 - 3.51 # 40.0	+7.00	211. +36.9 28	
#	0.2000 - 0.3000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26 # 16.0	+4.00	138. +34.4 28	
	0.2506	1.11	1.72	2.96	31.2	+2.34	136. +10.2 177
	0.1686 - 0.3416	1.00 - 1.20	1.66 - 1.77	2.76 - 3.13	57.2	+9.53	238. +39.6 28
	0.1513 - 0.3624	1.40 - 1.60	1.87 - 1.97	3.51 - 3.88	19.7	+3.93	154. +30.7 28
	0.2703	1.16	1.75	3.06	23.5	+2.16	112. +10.2 177
	0.2902	1.21	1.78	3.15	9.69	+2.78	49.9 +14.4 177
2	0.2000 - 0.4000	1.50 - 1.80	1.92 - 2.06	3.70 - 4.26 a 4.70	+3.50	44.0 +32.7 36	
	0.1844 - 0.4309	1.60 - 1.80	1.97 - 2.06	3.88 - 4.26	16.5	+4.52	166. +45.6 28
	0.2304 - 0.4399	1.20 - 1.40	1.77 - 1.87	3.13 - 3.51	22.0	+7.00	129. +40.9 28
#	0.3000 - 0.4000	1.10 - 1.40	1.72 - 1.87	2.94 - 3.51 # 14.0	+6.00	73.8 +31.6 28	
#	0.3000 - 0.4000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26 # 6.00	+4.00	51.6 +34.4 28	
	0.2953 - 0.5410	1.40 - 1.60	1.87 - 1.97	3.51 - 3.88	14.9	+3.93	117. +30.7 28
#	0.4000 - 0.5000	1.10 - 1.40	1.72 - 1.87	2.94 - 3.51 # 14.0	+6.00	73.8 +31.6 28	
#	0.4000 - 0.5000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26 # 5.00	+4.00	43.0 +34.4 28	
2	0.4000 - 0.6000	1.50 - 1.80	1.92 - 2.06	3.70 - 4.26 a 1.80	+1.80	16.8 +16.8 36	
	0.3624 - 0.6442	1.60 - 1.80	1.97 - 2.06	3.88 - 4.26	4.20	+3.23	42.3 +32.5 28
	0.4399 - 0.7205	1.40 - 1.60	1.87 - 1.97	3.51 - 3.88	<4.72	<36.9	28
	0.5410 - 0.8586	1.60 - 1.80	1.97 - 2.06	3.88 - 4.26	2.59	+2.59	26.0 +26.0 28

C115: GAMMA + PROTON --> DELTA++ + P1- (K > 0.35 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 1.01 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM LAB	D SIG/D OMEGA (CM) MU BARN/ STERAD	REF
1.01	1.67	2.78	0.136	48.2	+3.28	#120.0 28.2	#3.09 +-2.10 177
1.03	1.68	2.81	-0.244	37.5	+15.0	# 61.3 17.7	#2.50 +-1.00 160
			-0.040	25.5	+13.5	# 90.5 24.8	#1.70 +-9.00 160
			0.075	54.1	+6.01	#106.4 27.4	#3.60 +-4.00 160
1.00 - 1.10	1.66 - 1.72	2.76 - 2.94	\$-0.271 - 0.017	46.0	+17.0	60.5 - 88.1 17.3 - 24.9	3.18 +-1.18 36
			\$-0.171 - 0.067	30.0	+12.0	76.1 - 94.1 21.3 - 26.2	2.08 +-8.30 28
			\$-0.171 - 0.117	371.0	+22.0	76.1 -100.2 21.3 - 27.4	4.91 +-1.52 36
			\$-0.121 - 0.117	47.0	+13.0	83.5 -100.2 22.9 - 27.4	3.25 +-8.99 28
			\$-0.071 - 0.167	51.0	+14.0	90.8 -106.4 24.4 - 28.4	3.53 +-9.68 28
			\$-0.071 - 0.217	358.0	+19.0	90.8 -112.8 24.4 - 29.2	4.01 +-1.31 36
			\$-0.021 - 0.217	550.0	+13.0	98.1 -112.8 25.8 - 29.2	3.46 +-8.99 28
			\$ 0.029 - 0.267	78.0	+16.0	105.5 -119.5 26.8 - 29.7	5.40 +-1.11 28
			\$ 0.029 - 0.317	265.0	+22.0	105.5 -126.7 26.8 - 29.8	4.50 +-1.52 36
			\$ 0.079 - 0.317	83.0	+14.0	113.2 -126.7 27.6 - 29.8	5.74 +-9.68 28
1.06	1.69	2.87	0.211	42.5	+2.56	#120.0 29.1	#2.99 +-1.80 177
1.08	1.70	2.91	-0.371	<85.0	10.0	# 33.4 10.0	# <6.20 160
			-0.214	24.7	+17.8	# 60.5 17.8	#1.80 +-1.30 160
			0.010	27.4	+5.48	# 89.8 25.1	#2.00 +-4.00 160
1.09	1.71	2.93	0.149	44.4	+6.73	#105.8 28.2	#3.30 +-5.00 160
1.00 - 1.20	1.66 - 1.77	2.76 - 3.13	-0.471 --0.304	12.3	+5.44	# 0.0 - 36.9 0.0 - 11.3	#.900 +-4.00 28
			-0.392 --0.194	15.0	+5.44	# 36.9 - 53.1 10.8 - 16.2	#1.10 +-4.00 28
			-0.313 --0.082	17.7	+5.44	# 53.1 - 66.4 15.3 - 20.0	#1.30 +-4.00 28

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C115: GAMMA + PROTON --> DELTA++ + PI- (K > 0.35 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 1.01 GEV

K GEV	E# GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM LAB	O SIG/D OMEGA (CM) MU BARN/ STERAD	REF	
1.00 - 1.20	1.66 - 1.77	2.76 - 3.13	-0.234 - 0.030 -0.155 - 0.140 -0.076 - 0.251 0.003 - 0.363	8.65 +-6.81 17.7 +-6.81 28.6 +-6.81 40.8 +-9.53	# 66.4 - 78.5 # 78.5 - 90.0 # 90.0 - 101.5 # 101.5 - 113.6	18.9 - 23.3 21.8 - 26.2 24.3 - 28.7 26.3 - 30.6	#.650 +-500 #1.30 +-500 #2.10 +-500 #3.00 +-700	28 28 28 28
1.13	1.73	3.00	-0.353 -0.184 0.057	<95.7 <18.9 21.4 +-6.30	# 32.9 # 60.0 # 89.0	10.0 17.9 25.4	# # #1.70 +-500	160 160 160
1.14	1.74	3.02	0.207	27.3 +-6.20	# 105.0	28.7	#2.20 +-500	160
1.18	1.76	3.09	-0.337 -0.156 0.103	<47.7 17.5 +-14.0 15.1 +-5.82	# 32.4 # 59.3 # 88.3	9.9 17.9 25.6	# <4.10 #1.50 +-1.20 #1.30 +-500	160 160 160
1.19	1.76	3.11	0.264	25.2 +-5.73	# 104.2	29.1	#2.20 +-500	160
1.23	1.79	3.19	-0.320 -0.131 0.147	<56.3 <10.8 <6.49	# 32.1 # 58.5 # 87.5	9.9 17.8 25.8	# <5.20 # <1.00 # <600	160 160 160
1.24	1.79	3.21	0.319	16.0 +-5.33	# 103.4	29.4	#1.50 +-500	160
1.28	1.81	3.28	-0.304 -0.104 0.189	<47.5 <15.1 <9.09	# 31.7 # 58.1 # 86.7	9.8 17.8 25.8	# <4.70 # <1.50 # <900	160 160 160
1.29	1.82	3.30	0.373	6.98 +-5.98	# 102.6	29.6	#.700 +-600	160
1.20 - 1.40	1.77 - 1.87	3.13 - 3.51	-0.416 +-0.227 -0.304 +-0.083 -0.194 +-0.061 0.030 - 0.351	<3.00 <3.00 <3.00 <4.00	# 0.0 - 36.9 # 36.9 - 53.1 # 53.1 - 66.4 # 78.5 - 90.0	0.0 - 11.5 11.3 - 16.5 16.2 - 20.6 23.3 - 27.2	# <300 # <300 # <300 # <400	28 28 28 28
			0.140 - 0.495 0.251 - 0.640	10.0 +-5.00 18.0 +-5.00	# 90.0 - 101.5 # 101.5 - 113.6	26.2 - 30.0 28.7 - 32.4	#1.00 +-500 #1.80 +-500	28 28
1.40 - 1.60	1.87 - 1.97	3.51 - 3.88	-0.372 +-0.158 -0.227 - 0.020 -0.083 - 0.199	<3.15 <3.15 <3.15	# 0.0 - 36.9 # 36.9 - 53.1 # 53.1 - 66.4	0.0 - 11.6 11.5 - 16.7 16.5 - 20.8	# <400 # <400 # <400	28 28 28
			0.061 - 0.379 0.207 - 0.557 0.351 - 0.735	3.15 +-3.15 4.72 +-3.15 6.29 +-3.15	# 66.4 - 78.5 # 78.5 - 90.0 # 90.0 - 101.5	20.6 - 24.5 24.1 - 27.8 27.2 - 30.9	#.400 +-400 #.600 +-400 #.800 +-400	28 28 28
1.60 - 1.80	1.97 - 2.06	3.88 - 4.26	-0.336 +-0.693 -0.158 - 0.119 0.020 - 0.332	<2.59 2.59 +-2.59 1.62 +-1.62	# 0.0 - 36.9 # 36.9 - 53.1 # 53.1 - 66.4	0.0 - 11.6 11.6 - 16.7 16.7 - 20.9	# <400 #.400 +-400 #.250 +-250	28 28 28
			0.199 - 0.547 0.379 - 0.759 0.557 - 0.972	<2.59 <1.62 <1.62	# 66.4 - 78.5 # 78.5 - 90.0 # 90.0 - 101.5	20.8 - 24.7 24.5 - 28.1 27.8 - 31.4	# <400 # <250 # <250	28 28 28
1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	----- ----- ----- ----- ----- -----	----- ----- ----- ----- ----- -----	# 0.0 - 36.9 # 36.9 - 53.1 # 53.1 - 66.4 # 66.4 - 78.5 # 78.5 - 90.0 # 90.0 - 101.5	----- ----- ----- ----- ----- -----	# <100E 00 # <120 # <100E 00 # <100E 00 # <100E 00 # <120	28 28 28 28 28 28
2.80	2.48	6.13	\$-0.293 - 2.707	#.110 +-300E-01	0.0 - 119.4	0.0 - 37.2	.343E-01 +-935E-02	212
2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	----- ----- ----- ----- ----- -----	----- ----- ----- ----- ----- -----	# 0.0 - 36.9 # 36.9 - 53.1 # 53.1 - 66.4 # 66.4 - 78.5 # 78.5 - 90.0 # 90.0 - 101.5	----- ----- ----- ----- ----- -----	# <100E 00 # <800E-01 # <100E 00 # <800E-01 # <800E-01 # <120	28 28 28 28 28 28
3.50 - 5.80	2.73 - 3.43	7.45 - 11.76	----- ----- ----- ----- ----- -----	----- ----- ----- ----- ----- -----	# 0.0 - 36.9 # 36.9 - 53.1 # 53.1 - 66.4 # 66.4 - 78.5 # 78.5 - 90.0 # 90.0 - 101.5	----- ----- ----- ----- ----- -----	# <700E-01 # <700E-01 # <700E-01 # <700E-01 # <700E-01 # <700E-01	28 28 28 28 28 28
4.50	3.05	9.32	\$-0.077 \$ 0.056 \$ 0.072	\$.589E-01 +-490E-02 \$.467E-01 +-560E-02 \$.314E-01 +-380E-02	10.9 19.3 20.0	2.9 5.0 5.2	.330E-01 +-274E-02 .261E-01 +-314E-02 .176E-01 +-213E-02	105 105 105
4.70	3.11	9.70	\$-0.428 - 6.272	\$.600E-02 +-400E-02	0.0 - 136.9	0.0 - 42.2	.354E-02 +-236E-02	212
5.30	3.29	10.83	\$-0.090 \$-0.030 \$ 0.023 \$ 0.092 \$ 0.193 \$ 0.326 \$ 0.506 \$ 0.750	\$.384E-01 +-490E-02 \$.300E-01 +-410E-02 \$.314E-01 +-280E-02 \$.191E-01 +-380E-02 \$.140E-01 +-230E-02 \$.660E-02 +-160E-02 \$.570E-02 +-160E-02 \$.390E-02 +-120E-02	6.9 11.9 15.0 18.2 22.1 26.5 31.5 37.3	1.7 2.9 3.7 4.5 5.5 6.6 7.9 9.4	.260E-01 +-332E-02 .203E-01 +-278E-02 .213E-01 +-190E-02 .129E-01 +-258E-02 .949E-02 +-156E-02 .447E-02 +-108E-02 .386E-02 +-108E-02 .264E-02 +-813E-03	105 105 105 105 105 105 105 105

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C115: GAMMA + PROTON --> DELTA++ + PI- (K > 0.35 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

RATIO OF CROSS SECTIONS FOR TRANSVERSE AND PARALLEL (TO THE PRODUCTION PLANE) POLARIZED GAMMAS

K GEV	E* GEV	-T GEV**2	THETA (MESON)		A=SIG TRANSVERSE			B=SIG PARALLEL		REF	
			CM	LAB	(A-B)/(A+B)	A/(A+B)	B/(A+B)				
0.57	1.40	0.1017	@ 90.00	49.05	@ 0.220	+-.150E-01	0.610	+-.750E-02	0.390	+-.750E-02	67
0.65	1.45	0.0637	@ 45.00	26.97	@ 0.150	+-.110E-01	0.575	+-.550E-02	0.425	+-.550E-02	67
		0.1524	@ 90.00	58.43	@ 0.160	+-.110E-01	0.580	+-.550E-02	0.420	+-.550E-02	67
0.80	1.54	0.2558	@ 90.00	59.21	@ 0.130	+-.120E-01	0.555	+-.600E-02	0.445	+-.600E-02	67
2.00	2.48	# 0.0 -	0.0 -	0.0 -							
		0.5000	41.74	16.35	#-.270	+-.120	0.365	+-.600E-01	0.635	+-.600E-01	212
4.70	3.11	# 0.0 -	0.0 -	0.0 -							
		0.5000	30.07	9.228	#-.530	+-.150	0.235	+-.750E-01	0.765	+-.750E-01	212

C115: GAMMA + PROTON --> DELTA++ + PI- (K > 0.35 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

A = ASYMMETRY ((+)-(-))/(+)+(-) FOR POLARIZED TARGET (POLARIZATION POSITIVE ALONG K(GAMMA) X P(MESON))

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	A	REF
16.00	5.54	# 0.1600	8.58	1.450	#0.330 +-0.340	184

C116: GAMMA + PROTON --> PROTON + ETA (K > 0.71 GEV)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.5488 GEV

TOTAL CROSS SECTION

K GEV	E* GEV	SIGMA MU BARN	SIGMA*(S-M**2)**2 MU BARN*GEV**2	REF
0.71 - 0.75	1.50	± 12.0 ±-3.20	22.6 ±-5.99	28
0.73	1.50	± 6.40 ±-1.25	12.0 ±-2.35	90
0.75	1.51	± 13.2 ±-0.750	26.1 ±-1.49	90
0.75 - 0.80	1.53	± 17.2 ±-3.00	36.3 ±-6.33	28
0.71 - 0.90	1.54	± 10.4 ±-2.70	22.8 ±-5.91	49
0.80 - 0.85	1.56	± 15.3 ±-2.80	36.6 ±-6.69	28
0.84	1.57	± 12.4 ±-0.630	30.8 ±-1.57	90
0.87	1.59	± 11.6 ±-0.880	30.9 ±-2.35	90
0.85 - 0.90	1.59	± 10.5 ±-3.00	28.2 ±-8.07	28
0.88	1.59	± 11.4 ±-1.00	31.1 ±-2.73	90
0.90 - 1.00	1.63	± 6.00 ±-1.90	18.9 ±-5.99	28
0.90 - 1.10	1.65	± 3.00 ±-1.50	10.3 ±-5.13	49
1.00 - 1.10	1.69	± 4.60 ±-1.80	17.7 ±-6.94	28
1.10 - 1.30	1.77	± 5.20 ±-2.60	25.8 ±-12.9	49
1.10 - 1.30	1.77	± 2.90 ±-1.30	14.4 ±-6.46	28
1.30 - 1.50	1.87	± 1.70 ±-1.70	11.6 ±-11.6	49
1.30 - 1.50	1.87	± 2.00 ±-1.30	13.6 ±-8.84	28
1.50 - 1.80	1.99	± 7.00 ±-7.00	6.55 ±-6.55	49
1.80 - 2.50	2.19	± 7.00 ±-7.00	10.5 ±-10.5	49
1.50 - 3.50	2.20	± 580 ±-370	7.76 ±-4.95	28
2.50 - 3.50	2.52	± <700	<20.4	49
3.50 - 5.80	3.01	± <200	<12.6	28

C116: GAMMA + PROTON --> PROTON + ETA (K > 0.71 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.5488 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	D SIG/D T MU BARN/GEV**2	ID SIG/D T*(S-M**2)**2 MU BARN*GEV**2	D SIG/D (OMEGA (CM) MU BARN/STERAD	REF
0.73+- 0.01	1.50	0.2225	±100.00 20.35	18.1 ±-7.95	33.9 ±-14.9	±.250 ±-.110	19
		0.2632	#130.00 19.75	36.9 ±-3.62	69.2 ±-6.79	#.510 ±-.500E-01	90
0.74+- 0.01	1.51	0.2344	±100.00 24.28	53.5 ±-15.3	103. ±-29.5	±.910 ±-.260	19
0.75+- 0.01	1.51	0.1251	# 37.00 11.39	50.6 ±-8.09	100. ±-16.0	# 1.00 ±-.160	90
		0.1256	37.43 ±11.51				
		+- 0.0012	+- 0.93 ±-.4109	42.0 ±-31.9	83.2 ±-63.1	#.830 ±-.630	5
		0.1622	# 60.00 18.06	42.0 ±-8.09	83.2 ±-16.0	#.830 ±-.160	90
		0.2373	# 96.00 26.66	65.3 ±-7.59	129. ±-15.0	# 1.29 ±-.150	90
		0.2919	#123.00 29.38	44.5 ±-6.58	88.2 ±-13.0	#.880 ±-.130	90
		0.3260	#145.00 25.87	51.1 ±-5.06	101. ±-10.0	# 1.01 ±-.100E 00	90
0.76+- 0.01	1.52	0.2571	±100.00 29.87	45.8 ±-7.18	93.1 ±-14.6	± 1.02 ±-.160	19
0.78	1.53	0.0865	± 14.00 5.016				
		+- 0.0100	+- 14.00 ±-5.011	37.3 ±-4.85	79.9 ±-10.4	± 1.00 ±-.130	54
		0.1247	± 42.00 14.98				
		+- 0.0157	+- 8.00 ±-2.818	31.7 ±-4.85	68.0 ±-10.4	±.850 ±-.130	54
		0.1760	± 64.00 22.60				
		+- 0.0211	+- 8.00 ±-2.710	36.2 ±-5.22	77.5 ±-11.2	±.970 ±-.140	54
		0.2077	± 75.50 26.42				
		+- 0.0213	+- 7.50 ±-2.440	37.3 ±-5.97	79.9 ±-12.8	± 1.00 ±-.160	54
0.79+- 0.01	1.54	0.1213	± 41.00 15.09	34.3 ±-7.62	75.3 ±-16.7	±.990 ±-.220	19
		0.2804	± 97.00 34.45	35.0 ±-5.54	76.8 ±-12.2	± 1.01 ±-.160	19
		0.3174	±109.00 37.82	29.8 ±-6.92	65.4 ±-15.2	±.860 ±-.200	19
		0.4138	±149.00 39.70	38.4 ±-6.23	84.4 ±-13.7	± 1.11 ±-.180	19
		0.4138	±149.00 39.70	35.3 ±5.19	77.6 ±11.4	± 1.02 ±.150	19
				-3.12	-6.85	-.900E-01	
0.80	1.54	0.0785	± 14.00 5.296				
		+- 0.0115	+- 14.00 ±-5.295	41.7 ±-5.18	94.1 ±-11.7	± 1.29 ±-.160	54
		0.1226	± 42.00 15.87				
		+- 0.0181	+- 8.00 ±-3.011	30.4 ±-4.53	68.6 ±-10.2	±.940 ±-.140	54
		0.1818	± 64.00 24.09				
		+- 0.0244	+- 8.00 ±-2.955	25.9 ±-4.21	58.3 ±-9.48	±.800 ±-.130	54
0.80+- 0.01	1.54	0.2298	# 79.00 29.55	39.8 ±-7.44	89.7 ±-16.8	# 1.23 ±-.230	90
0.80	1.54	0.2804	± 94.00 34.75				
		+- 0.0338	+- 10.00 ±-3.332	33.0 ±-4.93	74.4 ±-10.2	± 1.02 ±-.140	54
0.80+- 0.01	1.54	0.2938	# 58.00 36.07	29.5 ±-4.85	66.4 ±-10.9	±.910 ±-.150	90
		0.3697	±122.00 42.68	32.7 ±-4.53	73.7 ±-10.2	# 1.01 ±-.140	90
		0.4349	#150.00 42.74	33.3 ±-2.59	75.1 ±-5.84	# 1.03 ±-.800E-01	90
0.81	1.55	0.2048	± 70.00 26.97				
		+- 0.0338	+- 10.00 ±-3.792	30.4 ±-3.96	70.3 ±-9.14	± 1.00 ±-.130	80
0.82	1.56	0.2093	± 70.00 27.57				
		+- 0.0358	+- 10.00 ±-3.914	27.6 ±-2.68	65.3 ±-6.34	±.958 ±-.930E-01	80
0.83	1.56	0.2139	± 70.00 28.09				
		+- 0.0377	+- 10.00 ±-4.023	27.6 ±-2.05	67.0 ±-4.97	± 1.01 ±-.750E-01	80
0.84	1.57	0.2186	± 70.00 28.56				
		+- 0.0396	+- 10.00 ±-4.122	26.8 ±-1.75	66.7 ±-4.34	± 1.03 ±-.670E-01	80

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 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C116: GAMMA + PROTON --> PROTON + ETA {K > 0.71 GEV}

(CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.5488 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF	
0.84+- 0.02	1.57	0.0860	# 27.00	10.94	7.56	+2.35	# .290	+-.900E-01	90
0.84+- 0.01	1.57	0.3429	@100.00	40.80	24.7	+5.73	@ .950	+-.220	19
0.84	1.57	0.3717	#107.00	43.53	28.9	+3.39	# 1.11	+-.130	29
		0.3757	#108.00	43.92	22.7	+3.39	# .870	+-.130	29
0.84+- 0.01	1.57	0.3756	#108.00	43.92	23.4	+3.39	# .900	+-.130	90
		0.4428	#126.00	50.32	28.9	+2.87	# 1.11	+-.110	90
		0.5140	#152.00	54.38	26.1	+2.61	# 1.00	+-.100E 00	90
0.85	1.57	0.0649	@ 14.00	5.730					
		+ 0.0149	+ 14.00	+5.737	22.2	+3.98	@ .890	+-.160	54
		0.1222	@ 42.00	17.27					
		+ 0.0236	+ 8.00	+3.320	15.9	+3.49	@ .640	+-.140	54
		0.1991	@ 64.00	26.46					
		+ 0.0317	+ 8.00	+3.361	16.4	+3.49	@ .660	+-.140	54
		0.2234	@ 70.00	28.98					
		+ 0.0414	+ 10.00	+4.211	21.6	+1.62	@ .867	+-.650E-01	80
		0.3317	@ 95.00	34.49					
		+ 0.0439	+ 10.00	+4.168	21.7	+3.49	@ .870	+-.140	54
		0.3919	#109.00	45.23	26.6	+3.73	# 1.07	+-.150	29
		0.3961	#110.00	45.63	24.4	+3.73	# .980	+-.150	29
		0.5261	@149.00	57.06					
		+ 0.0204	+ 9.00	+3.706	39.1	+8.47	@ 1.57	+-.340	54
0.86	1.58	0.2283	@ 70.00	29.36					
		+ 0.0432	+ 10.00	+4.292	21.2	+1.55	@ .890	+-.650E-01	80
0.86+- 0.02	1.58	0.3637	@100.00	42.28	21.7	+3.34	@ .910	+-.140	19
0.86	1.58	0.4127	#111.00	46.91	25.5	+3.58	# 1.07	+-.150	29
0.87+- 0.02	1.59	0.0825	# 27.00	11.29	37.6	+16.3	# 1.64	+-.710	90
0.87	1.59	0.2332	@ 70.00	29.65					
		+ 0.0450	+ 10.00	+4.365	17.9	+1.49	@ .783	+-.650E-01	80
		0.4297	#112.00	48.15	24.8	+2.98	# 1.08	+-.130	29
		0.4341	#113.00	48.58	24.5	+3.44	# 1.07	+-.150	29
0.87+- 0.01	1.59	0.4513	#117.00	50.30	21.6	+2.06	# .940	+-.900E-01	90
		0.5828	#159.00	61.73	20.9	+2.52	# .910	+-.110	90
0.88	1.59	0.2382	@ 70.00	30.00					
		+ 0.0467	+ 10.00	+4.433	15.9	+1.37	@ .722	+-.620E-01	80
0.88+- 0.02	1.59	0.3847	@100.00	43.50	16.1	+3.53	@ .730	+-.160	19
0.88	1.59	0.4469	#113.00	49.35	17.7	+3.31	# .800	+-.150	29
		0.4514	#114.00	49.80	19.4	+4.41	# .880	+-.200	29
0.89	1.60	0.2433	@ 70.00	30.28					
		+ 0.0484	+ 10.00	+4.495	14.9	+1.38	@ .702	+-.650E-01	80
		0.3057	@ 82.00	35.94	P 15.3	+6.38	P @ .720	+-.300E-01	131
0.89+- 0.02	1.60	0.3952	@100.00	44.03	P 9.37	+2.13	@ .440	+-.100E 00	19
0.89	1.60	0.4330	@107.50	47.50	P 24.0	+1.92	P @ 1.13	+-.900E-01	131
		0.4643	#114.00	50.52	17.0	+4.26	# .800	+-.200	29
		0.4690	#115.00	50.99	19.4	+4.26	# .910	+-.200	29
0.89+- 0.02	1.60	0.5336	@130.00	57.83	19.6	+1.49	@ .920	+-.700E-01	19
0.90	1.60	0.2483	@ 70.00	30.53					
		+ 0.0501	+ 10.00	+4.551	13.7	+1.64	@ .668	+-.800E-01	80
0.91	1.61	0.2535	@ 70.00	30.75					
		+ 0.0518	+ 10.00	+4.604	13.9	+1.59	@ .698	+-.800E-01	80
		0.4951	#115.00	52.29	12.3	+2.19	# .620	+-.110	29
0.92	1.61	0.2586	@ 70.00	30.96					
		+ 0.0535	+ 10.00	+4.652	9.59	+1.79	@ .498	+-.930E-01	80
		0.3702	@ 90.00	40.46					
		+ 0.0569	+ 10.00	+4.846	13.5	+1.79	@ .700	+-.930E-01	80
		0.5133	#116.00	53.37	6.74	+2.89	# .350	+-.150	29
0.93	1.62	0.1627	@ 50.00	21.94					
		+ 0.0450	+ 10.00	+4.518	7.79	+1.10	@ .417	+-.590E-01	80
		0.2639	@ 70.00	31.15					
		+ 0.0552	+ 10.00	+4.696	14.1	+2.65	@ .755	+-.142	80
		0.5316	#117.00	54.44	11.0	+6.35	# .590	+-.340	29
		0.5316	#117.00	54.44	9.53	+6.35	# .510	+-.340	29
0.94	1.63	0.1426	# 45.00	19.78	4.52	+1.31	# .249	+-.720E-01	18
		0.3876	@ 90.00	41.03					
		+ 0.0605	+ 10.00	+4.977	9.83	+1.22	@ .542	+-.670E-01	80
0.94+- 0.02	1.63	0.4474	@100.00	46.05	4.72	+1.81	@ .260	+-.100E 00	19
0.94	1.63	0.5503	#118.00	55.50	3.08	+3.99	# .170	+-.220	29
0.95	1.63	0.1672	@ 50.00	22.14					
		+ 0.0477	+ 10.00	+4.572	7.98	+1.22	@ .453	+-.410E-01	80
		0.5691	#119.00	56.54	12.3	+4.23	# .700	+-.240	29
0.96	1.64	0.4050	@ 90.00	41.51					
		+ 0.0640	+ 10.00	+5.092	7.32	+1.703	@ .427	+-.410E-01	80
		0.4242	# 93.00	43.05	4.60	+1.446	# .268	+-.260E-01	95
		0.5827	#119.00	57.01	2.57	+4.63	# .150	+-.270	29
0.97	1.64	0.1476	# 45.00	20.00	4.14	+1.534	# .248	+-.320E-01	18
		0.2313	# 61.00	27.44	5.71	+4.17	# .342	+-.250E-01	95
		0.6349	#126.00	61.52	5.51	+1.09	# .330	+-.650E-01	95
0.98	1.65	0.1743	@ 50.00	22.37					
		+ 0.0516	+ 10.00	+4.638	4.83	+1.635	@ .297	+-.390E-01	80
		0.4225	@ 50.00	41.92					
		+ 0.0674	+ 10.00	+5.193	5.53	+1.504	@ .340	+-.310E-01	80
0.99	1.65	0.1512	# 45.00	20.12	2.86	+1.333	# .180	+-.210E-01	18
1.00	1.66	0.1792	@ 50.00	22.49					
		+ 0.0542	+ 10.00	+4.673	2.99	+1.403	@ .193	+-.260E-01	80
		0.4400	@ 90.00	42.27					
		+ 0.0708	+ 10.00	+5.281	3.19	+1.403	@ .206	+-.260E-01	80
1.02	1.67	0.1569	# 45.00	20.24	2.42	+1.296	# .164	+-.200E-01	18
		0.2322	# 58.00	26.38	2.23	+1.177	# .151	+-.120E-01	95
		0.4575	@ 90.00	42.56					
		+ 0.0742	+ 10.00	+5.359	2.90	+1.384	@ .196	+-.260E-01	80

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 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C116: GAMMA + PROTON --> PROTON + ETA (K > 0.71 GEV) [CONTINUED]

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.5488 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
1.03	1.68	0.1868	@ 50.00 22.62				
		+ 0.0581	+ 10.00 +4.715	3.69	+-.376	@ .255 +- .260E-01	80
1.04	1.68	0.1608	# 45.00 20.31	2.47	+-.325	# .175 +- .230E-01	18
		@ 90.00 42.81					
		+ 0.0776	+ 10.00 +5.429	2.55	+-.368	@ .180 +- .260E-01	80
1.05	1.69	0.1920	@ 50.00 22.65				
		+ 0.0607	+ 10.00 +4.738	3.57	+-.388	@ .258 +- .280E-01	80
		0.4285	P@ 83.00 39.16	2.77	10.7	P@ .200	131
1.06	1.69	0.2750	# 62.00 28.51	2.25	+-.339	# .166 +- .250E-01	95
1.07	1.70	0.1669	# 45.00 20.38	2.35	+-.372	# .177 +- .280E-01	18
1.08	1.70	0.2001	@ 50.00 22.76				
		+ 0.0645	+ 10.00 +4.765	2.68	+-.339	@ .206 +- .260E-01	80
1.09	1.71	0.1711	# 45.00 20.41	2.76	+-.638	# .216 +- .500E-01	18
1.10	1.72	0.2055	@ 50.00 22.79				
		+ 0.0671	+ 10.00 +4.779	3.58	+-.351	@ .286 +- .280E-01	80
1.13	1.73	0.2138	@ 50.00 22.82				
		+ 0.0708	+ 10.00 +4.795	3.06	+-.308	@ .258 +- .260E-01	80
1.11	1.72	0.2735	# 59.00 27.17	2.57	+-.184	# .209 +- .150E-01	95
1.14	1.74	0.3184	# 63.00 29.20	2.56	+-.384	# .220 +- .330E-01	95
1.15	1.74	0.2194	@ 50.00 22.82				
		+ 0.0734	+ 10.00 +4.803	3.18	+-.263	@ .278 +- .230E-01	80
		0.2268	# 51.00 23.31	3.05	+-.344	# .266 +- .300E-01	95
		0.4769	# 80.00 38.05	2.97	+-.344	# .259 +- .300E-01	95
1.18	1.76	0.2280	@ 50.00 22.82				
		+ 0.0771	+ 10.00 +4.811	3.05	+-.196	@ .280 +- .180E-01	80
1.20	1.77	0.2338	@ 50.00 22.81				
		+ 0.0796	+ 10.00 +4.814	2.45	+-.222	@ .232 +- .210E-01	80
1.23	1.79	0.3699	# 64.00 29.70	1.80	+-.181	# .179 +- .180E-01	95
1.25	1.80	0.2484	@ 50.00 22.76				
		+ 0.0858	+ 10.00 +4.816	2.17	+-.147	@ .222 +- .150E-01	80
1.28	1.81	0.2572	@ 50.00 22.71				
		+ 0.0896	+ 10.00 +4.814	2.15	+-.169	@ .229 +- .180E-01	80
1.30	1.82	0.2632	@ 50.00 22.68				
		+ 0.0921	+ 10.00 +4.812	2.35	+-.237	@ .258 +- .260E-01	80
1.32	1.83	0.4249	# 65.00 30.07	1.54	+-.160	# .173 +- .180E-01	95
1.33	1.84	0.2722	@ 50.00 22.62				
		+ 0.0958	+ 10.00 +4.806	1.76	+-.228	@ .201 +- .260E-01	80
		0.2722	# 50.00 22.62	1.58	+-.140	# .180 +- .160E-01	95
		0.6453	# 83.00 39.71	1.66	+-.114	# .189 +- .130E-01	95
1.34	1.84	0.2285	# 45.00 20.22	1.35	+-.173	# .156 +- .200E-01	95
1.35	1.85	0.2782	@ 50.00 22.58				
		+ 0.0982	+ 10.00 +4.801	1.65	+-.333	@ .193 +- .390E-01	80
1.38	1.86	0.2873	@ 50.00 22.52				
		+ 0.1020	+ 10.00 +4.793	1.91	+-.297	@ .232 +- .360E-01	80
1.40	1.87	0.2934	@ 50.00 22.47				
		+ 0.1044	+ 10.00 +4.787	1.58	+-.314	@ .196 +- .390E-01	80
1.41	1.88	0.4705	# 65.00 29.85	1.18	+-.954E-01	# .149 +- .120E-01	95
1.43	1.89	0.3026	@ 50.00 22.40				
		+ 0.1081	+ 10.00 +4.777	1.12	+-.280	@ .144 +- .360E-01	80
1.45	1.90	0.3088	@ 50.00 22.35				
		+ 0.1106	+ 10.00 +4.770	1.41	+-.494	@ .186 +- .650E-01	80
1.50	1.92	0.5304	# 66.00 30.09	.691	+-.719E-01	# .960E-01 +- .100E-01	95
		0.6449	# 74.00 34.28	1.01	+-.863E-01	# .141 +- .120E-01	95
1.51	1.93	0.2286	# 41.00 17.99	1.12	+-.926E-01	# .157 +- .130E-01	95
1.59	1.97	0.5329	# 63.00 28.27	.539	+-.526E-01	# .820E-01 +- .800E-02	95
1.64	1.99	0.3816	# 51.00 22.29	.577	+-.627E-01	# .920E-01 +- .100E-01	95
1.68	2.01	0.6427	# 67.00 29.97	.387	+-.544E-01	# .640E-01 +- .900E-02	95
1.70	2.02	0.2334	# 38.00 16.19	.760	+-.594E-01	# .128 +- .100E-01	95
1.83	2.08	0.3674	# 46.00 19.44	.432	+-.640E-01	# .810E-01 +- .120E-01	95
1.85	2.09	0.5348	# 56.00 23.99	.273	+-.420E-01	# .520E-01 +- .800E-02	95
1.88	2.10	0.2287	# 35.00 14.48	.703	+-.668E-01	# .137 +- .130E-01	95
2.02	2.16	0.5262	# 52.00 21.60	.441	+-.511E-01	# .950E-01 +- .110E-01	95
2.03	2.17	0.6465	# 58.00 24.33	.254	+-.369E-01	# .550E-01 +- .800E-02	95
2.04	2.17	0.2681	# 36.00 14.57	.834	+-.733E-01	# .182 +- .160E-01	95
2.20	2.24	0.6530	# 55.00 22.42	.277	+-.662E-01	# .670E-01 +- .160E-01	95
4.00	2.90	# 0.0170	5.65 1.757	# .295	+-.500E-01	# .150 +- .254E-01	239
		# 0.0280	7.39 2.299	# .270	+-.490E-01	# .137 +- .249E-01	239
		@ 0.0400	8.91 2.774	@ .800E-01	+1.00E 00	# .406E-01 +- .508E-01	81
					-5.00E-01	-2.82	
		# 0.0630	11.27 3.511	# .406	+-.620E-01	.206 +- .315E-01	239
		@ 0.1000	14.27 4.454	@ .290	+-.620E-01	.147 +- .315E-01	81
		# 0.1200	15.66 4.892	# .408	+-.580E-01	.207 +- .295E-01	239
		@ 0.2000	20.32 6.367	@ .250	+-.600E-01	.127 +- .305E-01	81
		# 0.2100	20.83 6.530	# .432	+-.650E-01	.219 +- .330E-01	239
		@ 0.3100	25.40 7.999	# .330	+-.500E-01	.168 +- .254E-01	239
		@ 0.4000	28.94 9.149	@ .162	+-.320E-01	.823E-01 +- .163E-01	81
		# 0.4400	30.39 9.625	# .234	+-.420E-01	.119 +- .213E-01	239
		@ 0.5900	35.35 11.27	# .153	+-.340E-01	.777E-01 +- .173E-01	239
		@ 0.6600	37.47 11.99	@ .100E 00	+-.400E-01	.508E-01 +- .203E-01	81
		# 0.7600	40.33 12.96	# .128	+-.300E-01	.650E-01 +- .152E-01	239
		# 0.9400	45.10 14.62	# .620E-01	+-.220E-01	.315E-01 +- .112E-01	239
		@ 1.0000	46.60 15.15	@ .760E-01	+-.740E-01	.386E-01 +- .376E-01	81
					-4.60E-01	-2.59	
		# 1.1200	49.50 16.18	# .410E-01	+-.240E-01	.208E-01 +- .122E-01	239
		@ 1.3700	55.17 18.27	# .440E-01	+-.220E-01	.223E-01 +- .112E-01	239
		@ 0.3000	20.80 5.712	@ .325	+-.178	.238 +- .130	137
		@ 0.4000	24.67 6.632	@ .179	+-.500E-01	.131 +- .365E-01	137
5.50	3.35	@ 0.5000	26.97 7.454	@ .160	+-.410E-01	.117 +- .300E-01	137

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C116: GAMMA + PROTON --> PROTON + ETA (K > 0.71 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.5488 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
5.50	3.35	@ 0.7000	32.04 8.913	@ .890E-01+-210E-01	9.48 +-2.24	.650E-01+-153E-01	137
		@ 0.9000	36.47 10.22	@ .450E-01+-140E-01	4.79 +-1.49	.329E-01+-102E-01	137
6.00	3.48	# 0.0120	3.84 1.006	# .191 +-370E-01	24.2 +-4.69	.154 +-298E-01	239
		# 0.0300	6.17 1.619	# .158 +-390E-01	20.0 +-4.94	.127 +-314E-01	239
		# 0.0900	10.78 2.833	# .232 +-420E-01	29.4 +-5.32	.187 +-338E-01	239
		# 0.1800	15.30 4.030	# .194 +-340E-01	24.6 +-4.31	.156 +-274E-01	239
		@ 0.2900	19.47 5.145	@ .375 +-180	47.5 +-22.8	.302 +-145	64
					-140	-113	
		# 0.3100	20.14 5.325	# .133 +-280E-01	16.9 +-3.55	.107 +-225E-01	239
		# 0.3900	22.63 5.996	# .142 +-280E-01	18.0 +-3.55	.114 +-225E-01	239
		@ 0.4000	22.92 6.075	@ .132 +-420E-01	16.7 +-5.32	.106 +-338E-01	64
		# 0.4800	25.14 6.680	# .106 +-260E-01	13.4 +-3.30	.853E-01+-209E-01	239
		@ 0.5000	25.67 6.825	@ .145 +-450E-01	18.4 +-5.70	.117 +-362E-01	64
		# 0.5800	27.69 7.379	# .910E-01+-230E-01	11.5 +-2.92	.733E-01+-185E-01	239
		# 0.6800	30.04 8.028	# .550E-01+-230E-01	6.97 +-2.92	.443E-01+-185E-01	239
		@ 0.7000	30.48 8.153	@ .790E-01+-170E-01	10.0 +-2.16	.636E-01+-137E-01	64
		# 0.7900	32.44 8.649	# .480E-01+-190E-01	6.08 +-2.41	.386E-01+-153E-01	239
		@ 0.9000	34.69 9.335	@ .390E-01+-800E-02	4.94 +-1.01	.314E-01+-644E-02	64
		# 0.9100	34.89 9.392	# .370E-01+-180E-01	4.69 +-2.28	.298E-01+-145E-01	239
		@ 1.1000	38.49 10.42	@ .188E-01+-920E-02	2.38 +-1.17	.151E-01+-741E-02	137
		# 1.1800	39.92 10.84	# .240E-01+-150E-01	3.04 +-1.90	.193E-01+-121E-01	239
		\$10.0316	169.34 #2.750	# .991E-02+-139E-02	1.26 +-1.76	.798E-02+-112E-02	113
		\$10.0886	173.72 #1.600	# .682E-02+-156E-02	0.865 +-1.98	.549E-02+-126E-02	113
6.50	3.62	@ 0.3000	18.95 4.832	@ .242 +-102	36.0 +-15.2	.213 +-897E-01	137
		@ 0.4000	21.92 5.604	@ .110 +-400E-01	16.4 +-5.95	.968E-01+-352E-01	137
		@ 0.5000	24.55 6.294	@ .900E-01+-200E-01	13.4 +-2.98	.792E-01+-176E-01	137
		@ 0.7000	29.14 7.513	@ .490E-01+-900E-02	7.29 +-1.34	.431E-01+-792E-02	137
		@ 0.9000	33.15 8.595	@ .257E-01+-160E-01	3.82 +-2.38	.226E-01+-141E-01	137
		@ 1.1000	36.77 9.589	@ .150E-01+-760E-02	2.23 +-1.13	.132E-01+-669E-02	137
8.00	3.99	\$13.1606	153.99 #5.820	# .210E-02+-570E-03	0.473 +-1.28	.232E-02+-629E-03	113
		\$13.7806	171.19 #1.900	# .446E-02+-860E-03	1.01 +-1.94	.492E-02+-949E-03	113
9.00	4.22	@ 0.7000	24.35 5.396	@ .274E-01+-137E-01	7.82 +-3.91	.343E-01+-172E-01	137
		@ 0.9000	27.67 6.157	@ .162E-01+-890E-02	4.62 +-2.54	.203E-01+-111E-01	137
12.00	4.84	\$20.6916	159.65 #3.850	# .470E-03+-420E-03	0.238 +-2.13	.799E-03+-714E-03	113
		\$21.2916	173.60 #1.200	# .920E-03+-300E-03	0.467 +-1.52	.156E-02+-510E-03	113
18.00	5.89	\$31.9257	163.34 #2.590	# .530E-04+-580E-04	0.605E-01+-662E-01	.138E-03+-151E-03	113
		\$32.5537	175.22 #.7500	# .260E-03+-120E-03	0.297 +-1.137	.675E-03+-311E-03	113

C116: GAMMA + PROTON --> PROTON + ETA (K > 0.71 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.5488 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 9.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	{D SIG/D T}*{S-M**2)**2 MU BARN*GEV**2	REF
#	0.0120	6.00	3.48	12.14	# .191 +-370E-01	24.2 +-4.69	239
#	0.0170	4.00	2.90	8.39	# .295 +-500E-01	16.6 +-2.82	239
#	0.0280	4.00	2.90	8.39	# .270 +-490E-01	15.2 +-2.76	239
#	0.0300	6.00	3.48	12.14	# .158 +-390E-01	20.0 +-4.94	239
@	0.0400	4.00	2.90	8.39	@ .800E-01 +-100E 00	4.51 +-5.63	81
					-.500E-01	-2.82	
#	0.0630	4.00	2.90	8.39	# .406 +-620E-01	22.9 +-3.49	239
#	0.0900	6.00	3.48	12.14	# .232 +-420E-01	29.4 +-5.32	239
@	0.1000	4.00	2.90	8.39	@ .290 +-620E-01	16.3 +-3.49	81
#	0.1200	4.00	2.90	8.39	# .408 +-580E-01	23.0 +-3.27	239
#	0.1800	6.00	3.48	12.14	# .194 +-340E-01	24.6 +-4.31	239
@	0.2000	4.00	2.90	8.39	@ .250 +-600E-01	14.1 +-3.38	81
#	0.2100	4.00	2.90	8.39	# .432 +-650E-01	24.3 +-3.66	239
	0.2681	2.04	2.17	4.71	# .834 +-733E-01	12.2 +-1.07	95
@	0.2900	6.00	3.48	12.14	@ .375 +-180	47.5 +-22.8	64
					-.140	-17.7	
@	0.3000	5.50	3.35	11.20	@ .325 +-178	34.6 +-18.9	137
@	0.3000	6.50	3.62	13.08	@ .242 +-102	36.0 +-15.2	137
#	0.3100	4.00	2.90	8.39	# .330 +-500E-01	18.6 +-2.82	239
#	0.3100	6.00	3.48	12.14	# .133 +-280E-01	16.9 +-3.55	239
#	0.3900	6.00	3.48	12.14	# .142 +-280E-01	18.0 +-3.55	239
@	0.4000	4.00	2.90	8.39	@ .162 +-320E-01	9.13 +-1.80	81
@	0.4000	5.50	3.35	11.20	@ .179 +-500E-01	19.1 +-5.33	137
@	0.4000	6.00	3.48	12.14	@ .132 +-420E-01	16.7 +-5.32	64
@	0.4000	6.50	3.62	13.08	@ .110 +-400E-01	16.4 +-5.95	137
#	0.4400	4.00	2.90	8.39	# .234 +-420E-01	13.2 +-2.37	239
#	0.4800	6.00	3.48	12.14	# .106 +-260E-01	13.4 +-3.30	239
@	0.5000	5.50	3.35	11.20	@ .160 +-410E-01	17.0 +-4.37	137

= NUMERICAL VALUE FROM TABLE @ = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA \$ = FOR DETAILS SEE REFERENCE
 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C116: GAMMA + PROTON --> PROTON + ETA (K > 0.71 GEV) (CONTINUED)

#2: 0.9383 GEV
 #3: 0.9383 GEV
 #4: 0.5488 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 9.00

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
a 0.5000	6.00	3.48	12.14	a .145 +- .450E-01	18.4 +-5.70	64
a 0.5000	6.50	3.62	13.08	a .900E-01+- .200E-01	13.4 +-2.98	137
0.5262	2.02	2.16	4.67	.441 +- .511E-01	6.34 +- .734	95
# 0.5800	6.00	3.48	12.14	# .910E-01+- .230E-01	11.5 +-2.92	239
# 0.5900	4.00	2.90	8.39	# .153 +- .340E-01	8.62 +-1.92	239
0.6465	2.03	2.17	4.69	.254 +- .369E-01	3.68 +- .536	95
0.6530	2.20	2.24	5.01	.277 +- .662E-01	4.72 +-1.13	95
a 0.6600	4.00	2.90	8.39	a .100E 00+- .400E-01	5.63 +-2.25	81
# 0.6800	6.00	3.48	12.14	# .550E-01+- .230E-01	6.97 +-2.92	239
a 0.7000	5.50	3.35	11.20	a .890E-01+- .210E-01	9.48 +-2.24	137
a 0.7000	6.00	3.48	12.14	a .790E-01+- .170E-01	10.0 +-2.16	64
a 0.7000	6.50	3.62	13.08	a .490E-01+- .900E-02	7.29 +-1.34	137
a 0.7000	9.00	4.22	17.77	a .274E-01+- .137E-01	7.82 +-3.91	137
# 0.7600	4.00	2.90	8.39	# .128 +- .300E-01	7.21 +-1.69	239
# 0.7900	6.00	3.48	12.14	# .480E-01+- .190E-01	6.08 +-2.41	239
a 0.9000	5.50	3.35	11.20	a .450E-01+- .140E-01	4.79 +-1.49	137
a 0.9000	6.00	3.48	12.14	a .390E-01+- .800E-02	4.94 +-1.01	64
a 0.9000	6.50	3.62	13.08	a .257E-01+- .160E-01	3.82 +-2.38	137
a 0.9000	9.00	4.22	17.77	a .162E-01+- .890E-02	4.62 +-2.54	137
# 0.9100	6.00	3.48	12.14	# .370E-01+- .180E-01	4.69 +-2.28	239
# 0.9400	4.00	2.90	8.39	# .620E-01+- .220E-01	3.49 +-1.24	239
a 1.0000	4.00	2.90	8.39	a .760E-01 +- .740E-01	4.28 +-4.17	81
				-.460E-01	-2.59	
a 1.1000	6.00	3.48	12.14	a .188E-01+- .920E-02	2.38 +-1.17	137
a 1.1000	6.50	3.62	13.08	a .150E-01+- .760E-02	2.23 +-1.13	137
# 1.1200	4.00	2.90	8.39	# .410E-01+- .240E-01	2.31 +-1.35	239
# 1.1800	6.00	3.48	12.14	# .240E-01+- .150E-01	3.04 +-1.90	239
# 1.3700	4.00	2.90	8.39	# .440E-01+- .220E-01	2.48 +-1.24	239

1.18 GEV < K < GEV 2.00

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
0.2280+- 0.0771	1.18	1.76	3.09	3.05 +- .196	15.0 +- .961	80
0.2285	1.34	1.84	3.39	1.35 +- .173	8.54 +-1.10	95
0.2286	1.51	1.93	3.71	1.12 +- .926E-01	8.97 +- .743	95
0.2287	1.88	2.10	4.41	.703 +- .668E-01	8.76 +- .831	95
0.2334	1.70	2.02	4.07	.760 +- .594E-01	7.74 +- .605	95
0.2338+- 0.0796	1.20	1.77	3.13	2.45 +- .222	12.4 +-1.12	80
0.2484+- 0.0858	1.25	1.80	3.23	2.17 +- .147	12.0 +- .808	80
0.2572+- 0.0896	1.28	1.81	3.28	2.15 +- .169	12.4 +- .974	80
0.2632+- 0.0921	1.30	1.82	3.32	2.35 +- .237	14.0 +-1.41	80
0.2722+- 0.0958	1.33	1.84	3.38	1.76 +- .228	11.0 +-1.42	80
0.2722	1.33	1.84	3.38	1.58 +- .140	9.83 +- .874	95
0.2782+- 0.0982	1.35	1.85	3.41	1.65 +- .333	10.6 +-2.14	80
0.2873+- 0.1020	1.38	1.86	3.47	1.91 +- .297	12.8 +-1.99	80
0.2934+- 0.1044	1.40	1.87	3.51	1.58 +- .314	10.9 +-2.17	80
0.3026+- 0.1081	1.43	1.89	3.56	1.12 +- .280	8.06 +-2.01	80
0.3088+- 0.1106	1.45	1.90	3.60	1.41 +- .494	10.5 +-3.66	80
0.3674	1.83	2.08	4.31	.432 +- .640E-01	5.10 +- .755	95
0.3699	1.23	1.79	3.19	1.80 +- .181	9.61 +- .966	95
0.3816	1.64	1.99	3.96	.577 +- .627E-01	5.46 +- .594	95
0.4249	1.32	1.83	3.36	1.54 +- .160	9.43 +- .981	95
0.4705	1.41	1.88	3.53	1.18 +- .954E-01	8.29 +- .668	95
0.5304	1.50	1.92	3.70	.691 +- .719E-01	5.47 +- .570	95
0.5329	1.59	1.97	3.86	.539 +- .526E-01	4.80 +- .468	95
0.5348	1.85	2.09	4.35	.273 +- .420E-01	3.29 +- .507	95
0.6427	1.68	2.01	4.03	.387 +- .544E-01	3.85 +- .541	95
0.6449	1.50	1.92	3.70	1.01 +- .863E-01	8.04 +- .684	95
0.6453	1.33	1.84	3.38	1.66 +- .114	10.3 +- .710	95

= NUMERICAL VALUE FROM TABLE a = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA
 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C116: GAMMA + PROTON $\rightarrow$ PROTON + ETA (K > 0.71 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.5488 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 6.00 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM	LAB	D SIG/D OMEGA (CM) MU BARN/ STERAD	REF
6.00	3.48	12.14	#-0.011	#.682E-02+-1.56E-02	6.3	1.6	.549E-02+-1.26E-02	113
			# 0.046	#.991E-02+-1.39E-02	10.7	2.7	.798E-02+-1.12E-02	113
8.00	3.99	15.89	# 0.050	#.446E-02+-8.60E-03	8.8	2.0	.492E-02+-9.49E-03	113
			# 0.670	#.210E-02+-5.70E-03	26.0	5.9	.232E-02+-6.29E-03	113
12.00	4.84	23.40	# 0.045	#.920E-03+-3.00E-03	6.4	1.2	.156E-02+-5.10E-03	113
			# 0.645	#.470E-03+-4.20E-03	20.4	3.8	.799E-03+-7.14E-03	113
18.00	5.89	34.66	# 0.042	#.260E-03+-1.20E-03	4.8	0.7	.675E-03+-3.11E-03	113
			#-0.670	#.530E-04+-5.80E-04	16.7	2.6	.138E-03+-1.51E-03	113

C117: GAMMA + PROTON --> PROTON + X ZERO (K > 1.47 GEV)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.9583 GEV

TOTAL CROSS SECTION

K GEV	E* GEV	SIGMA MU BARN		SIGMA*(S-M**2)**2 MU BARN*GEV**2		REF
1.47 - 1.90	2.00	2	1.20 +- .500	11.4	+-4.76	29
1.90 - 2.50	2.22	2	1.00 +- .450	16.1	+-7.25	28
2.50 - 5.80	2.73	2	.200 +- .100E 00	7.42	+-3.71	28

= NUMERICAL VALUE FROM TABLE 2 = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA
 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C121: GAMMA + NEUTRON --> NEUTRON + PI ZERO (K > 4.00 GEV)

M2: 0.9395 GEV
 M3: 0.9395 GEV
 M4: 0.1350 GEV

TOTAL CROSS SECTION : NO DATA TO BE LISTED

RATIO OF DIFFERENTIAL CROSS SECTION ON NEUTRON TO THAT ON PROTON

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB		D SIG/D T (PI0,N)/(PI0,P)		REF
4.00	2.90	P# 0.3000	24.42	8.006			
		+ 0.1000	+ 4.13	+ -1.392	P#0.850	+ .110	130
		P# 0.5300	32.65	10.82			
		+ 0.1200	+ 3.80	+ -1.322	P#0.630	+ .110	130
						- .900E-02	130
		P# 0.8000	40.41	13.57			
		+ 0.1500	+ 3.95	+ -1.430	P#0.700	+ -.600E-01	130
		P# 1.6000	58.48	20.51			
		+ 0.3000	+ 6.01	+ -2.468	P#0.850	+ .120	130
						- .110	130

TOTAL CROSS SECTION

K GEV	E* GEV	SIGMA MU BARN	SIGMA*(S-M**2)**2 MU BARN*GEV**2	REF
1.20	1.77	# 21.0	107.4	182
1.20 - 1.30	1.80	# 12.8	+2.20 -2.00	62
1.30 - 1.40	1.85	# 13.4	+2.40 -2.20	62
1.40 - 1.50	1.90	# 10.6	+2.10 -2.00	62
1.50 - 2.00	2.03	# 6.20	+9.00 -8.80	62

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D T MU BARN*GEV**2	D SIG/D T MU BARN*GEV**2	D SIG/D T MU BARN*GEV**2	D SIG/D OMEGA (CH) MU BARN/STERAD	REF	
1.20	1.77	0.2340	@ 45.00	24.55	26.0	+1.73	132.	+8.80	@ 3.30	+1.220	182
1.24	1.79	0.2441	@ 45.00	24.28	21.9	+1.51	119.	+8.19	@ 2.90	+1.200	182
1.20 - 1.30	1.80	0.0482-	# 20.00-	# 10.30-							
		0.1187	30.00	15.59	12.7	+7.48	69.8	+41.1	# 1.70	+1.00	62
		0.1070-	# 30.00-	# 15.59-							
		0.2073	40.00	21.06	16.5	+7.48	90.4	+41.1	# 2.20	+1.00	62
		0.1869-	# 40.00-	# 21.06-							
		0.3164	50.00	26.78	33.7	+10.5 -9.70	185.	+57.5 -53.3	# 4.50	+1.40 -1.30	62
		0.2853-	# 50.00-	# 26.78-							
		0.4429	60.00	32.82	31.4	+8.98	173.	+49.3	# 4.20	+1.20	62
		0.3993-	# 60.00-	# 32.82-							
		0.5828	70.00	39.29	9.72	+4.49	53.4	+24.6	# 1.30	+1.600	62
		0.5255-	# 70.00-	# 39.29-							
		0.7320	80.00	46.28	.0		.0		# .0		62
		0.6600-	# 80.00-	# 46.28-							
		0.8858	90.00	53.97	2.24	+2.24	12.3	+12.3	# .300	+1.300	62
		0.7987-	# 90.00-	# 53.92-							
		1.0396	100.00	62.38	2.24	+2.24	12.3	+12.3	# .300	+1.300	62
		0.9373-	#100.00-	# 62.38-							
		1.1887	110.00	71.82	.0		.0		# .0		62
		1.0718-	#110.00-	# 71.82-							
		1.3286	120.00	82.47	.0		.0		# .0		62
		1.1980-	#120.00-	# 82.47-							
		1.4551	130.00	94.54	.0		.0		# .0		62
		1.3120-	#130.00-	# 94.54-							
		1.5643	140.00	108.3	5.98	+3.74	32.9	+20.5	# .800	+1.500	62
		1.4104-	#140.00-	#108.27-							
		1.6528	150.00	123.8	3.74	+3.74	20.5	+20.5	# .500	+1.500	62
		1.4903-	#150.00-	#123.82-							
		1.7181	160.00	141.2	.0		.0		# .0		62
		1.5491-	#160.00-	#141.20-							
		1.7580	170.00	160.1	.0		.0		# .0		62
		1.5851-	#170.00-	#160.14-							
		1.7715	180.00	180.0	.0		.0		# .0		62
1.28	1.81	0.2543	@ 45.00	24.01	20.3	+1.59	117.	+9.21	@ 2.80	+1.220	182
1.30 - 1.40	1.85	0.0535-	# 20.00-	# 10.03-							
		0.1305	30.00	15.18	35.2	+12.2	226.	+78.1	# 5.20	+1.80	62
		0.1187-	# 30.00-	# 15.18-							
		0.2278	40.00	20.51	21.7	+8.81	139.	+56.4	# 3.20	+1.30	62
		0.2073-	# 40.00-	# 20.51-							
		0.3478	50.00	26.09	13.5	+6.10	86.8	+39.1	# 2.00	+1.900	62
		0.3164-	# 50.00-	# 26.09-							
		0.4868	60.00	32.00	6.10	+4.06	39.1	+26.0	# .900	+1.600	62
		0.4429-	# 60.00-	# 32.00-							
		0.6406	70.00	38.33	10.2	+4.74	65.1	+30.4	# 1.50	+1.700	62
		0.5828-	# 70.00-	# 38.33-							
		0.8045	80.00	45.18	5.42	+3.39	34.7	+21.7	# .800	+1.500	62
		0.7320-	# 80.00-	# 45.18-							
		0.9736	90.00	52.70	7.45	+5.42 -4.06	47.8	+34.7 -26.0	# 1.10	+1.800 -1.600	62
		0.8858-	# 90.00-	# 52.70-							
		1.1427	100.00	61.03	2.03	+2.03	13.0	+13.0	# .300	+1.300	62
		1.0396-	#100.00-	# 61.03-							
		1.3066	110.00	70.38	.0		.0		# .0		62
		1.1887-	#110.00-	# 70.38-							
		1.4604	120.00	80.96	2.71	+2.03	17.4	+13.0	# .400	+1.300	62
		1.3286-	#120.00-	# 80.96-							
		1.5994	130.00	93.02	6.10	+4.06	39.1	+26.0	# .900	+1.600	62

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C122: GAMMA + NEUTRON --> PROTON + PI- (K > 1.20 GEV) (CONTINUED)

M2: 0.9395 GEV
 M3: 0.9383 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D T*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
1.30 - 1.40	1.85	1.4551-	#130.00-	# 93.02-				
		1.7194	140.00	106.8	.0	.0	# .0	62
		1.5643-	#140.00-	#106.82-				
		1.8167	150.00	122.5	.0	.0	# .0	62
		1.6528-	#150.00-	#122.54-				
		1.8885	160.00	140.2	4.74	+4.06	# .700	+-.600 62
		1.7181-	#160.00-	#140.23-				
		1.9324	170.00	159.6	7.45	+6.77	# 1.10	+1.00 62
		1.7580-	#170.00-	#159.62-				
		1.9472	180.00	180.0	.0	.0	# .0	62
1.40 - 1.50	1.90	0.0587-	# 20.00-	# 9.77-				
		0.1423	30.00	14.80	13.6	+8.04	# 2.20	+1.30 62
		0.1305-	# 30.00-	# 14.80-				
		0.2485	40.00	20.01	13.0	+6.80	# 2.10	+1.10 62
		0.2278-	# 40.00-	# 20.01-				
		0.3794	50.00	25.46	6.80	+4.33	# 1.10	+-.700 62
		0.3478-	# 50.00-	# 25.46-				
		0.5310	60.00	31.24	8.04	+4.33	# 1.30	+-.700 62
		0.4868-	# 60.00-	# 31.24-				
		0.6988	70.00	37.43	4.95	+3.09	# .800	+-.500 62
		0.6406-	# 70.00-	# 37.43-				
		0.8776	80.00	44.16	9.28	+4.33	# 1.50	+-.700 62
		0.8045-	# 80.00-	# 44.16-				
		1.0621	90.00	51.55	2.47	+1.86	# .400	+-.300 62
		0.9736-	# 90.00-	# 51.55-				
		1.2465	100.00	59.77	.0	.0	# .0	62
		1.1427-	#100.00-	# 59.77-				
		1.4253	110.00	69.02	2.47	+2.47	# .400	+-.400 62
		1.3066-	#110.00-	# 69.02-				
		1.5931	120.00	79.53	.0	.0	# .0	62
		1.4604-	#120.00-	# 79.53-				
		1.7447	130.00	91.58	2.47	+2.47	# .400	+-.400 62
		1.5994-	#130.00-	# 91.58-				
		1.8756	140.00	105.4	3.09	+3.09	# .500	+-.500 62
		1.7194-	#140.00-	#105.43-				
		1.9818	150.00	121.3	.0	.0	# .0	62
		1.8167-	#150.00-	#121.31-				
		2.0601	160.00	139.3	.0	.0	# .0	62
		1.8885-	#160.00-	#139.29-				
		2.1080	170.00	159.1	13.6	+9.28 -8.64	# 2.20	+1.50 -1.40 62
1.50 - 2.00	2.03	1.9324-	#170.00-	#159.10-				
		2.1241	180.00	180.0	.0	.0	# .0	62
		0.0641-	# 20.00-	# 8.75-				
		0.2025	30.00	13.26	8.06	+3.02	# 1.60	+-.600 62
		0.1423-	# 30.00-	# 13.26-				
		0.3535	40.00	17.94	6.04	+2.01	# 1.20	+-.400 62
		0.2485-	# 40.00-	# 17.94-				
		0.5398	50.00	22.86	5.04	+1.51	# 1.00	+-.300 62
		0.3794-	# 50.00-	# 22.86-				
		0.7555	60.00	28.09	1.01	+1.01	# .200	+-.200 62
		0.5310-	# 60.00-	# 28.09-				
		0.9943	70.00	33.74	3.02	+1.01	# .600	+-.200 62
		0.6988-	# 70.00-	# 33.74-				
		1.2467	80.00	39.91	2.01	+1.01	# .400	+-.200 62
		0.8776-	# 80.00-	# 39.91-				
		1.5111	90.00	46.76	1.51	+-.504	# .300	+-.100E 00 62
		1.0621-	# 90.00-	# 46.76-				
		1.7735	100.00	54.46	1.01	+-.504	# .200	+-.100E 00 62
		1.2465-	#100.00-	# 54.46-				
		2.0279	110.00	63.25	2.01	+1.01	# .400	+-.200 62
		1.4253-	#110.00-	# 63.25-				
		2.2666	120.00	73.40	2.01	+1.01	# .400	+-.200 62
		1.5931-	#120.00-	# 73.40-				
		2.4824	130.00	85.28	.0	.0	# .0	62
		1.7447-	#130.00-	# 85.28-				
		2.6686	140.00	99.27	1.51	+1.01	# .300	+-.200 62
		1.8756-	#140.00-	# 99.27-				
		2.8197	150.00	115.8	1.51	+1.01	# .300	+-.200 62
		1.9818-	#150.00-	#115.77-				
		2.9310	160.00	135.0	.0	.0	# .0	62
		2.0601-	#160.00-	#134.99-				
		2.9992	170.00	156.7	5.54	+3.02	# 1.10	+-.600 62
		2.1080-	#170.00-	#156.71-				
		3.0221	180.00	180.0	.0	.0	# .0	62
3.40	2.70	a 0.3740	a 30.00	10.62	a .713	+-.150	.317	+-.668E-01 44
		a 0.6530	a 40.00	14.39	a .303	+-.360E-01	.135	+-.160E-01 44
		a 0.8176	a 45.00	16.35	a .195	+-.410E-01	.868E-01	+-.183E-01 44
		a 0.9971	a 50.00	18.37	a .950E-01	+-.230E-01	.423E-01	+-.102E-01 44
		a 1.3956	a 60.00	22.63	a .710E-01	+-.220E-01	.316E-01	+-.979E-02 44

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C122: GAMMA + NEUTRON --> PROTON + PI- (K > 1.20 GEV) (CONTINUED)

M2: 0.9395 GEV
 M3: 0.9383 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 3.40

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
0.3740	3.40	2.70	7.27	0.713 +-0.150	29.1 +-6.12	44
0.6530	3.40	2.70	7.27	0.303 +-0.360E-01	12.4 +-1.47	44
0.8176	3.40	2.70	7.27	0.195 +-0.410E-01	7.96 +-1.67	44
0.9971	3.40	2.70	7.27	0.950E-01 +-0.230E-01	3.88 +-0.939	44
1.3956	3.40	2.70	7.27	0.710E-01 +-0.220E-01	2.90 +-0.898	44

1.20 GEV < K < GEV 2.00

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
0.0482 - 0.1187	1.20 - 1.30	1.77 - 1.82	3.14 - 3.33	12.7 +-7.48	69.8 +-41.1	62
0.0535 - 0.1305	1.30 - 1.40	1.82 - 1.87	3.33 - 3.51	35.2 +-12.2	226. +-78.1	62
0.0587 - 0.1423	1.40 - 1.50	1.87 - 1.92	3.51 - 3.70	13.6 +-8.04	101. +-59.5	62
0.0641 - 0.2025	1.50 - 2.00	1.92 - 2.15	3.70 - 4.64	8.06 +-3.02	82.0 +-30.7	62
0.1070 - 0.2073	1.20 - 1.30	1.77 - 1.82	3.14 - 3.33	16.5 +-7.48	90.4 +-41.1	62
0.1187 - 0.2278	1.30 - 1.40	1.82 - 1.87	3.33 - 3.51	21.7 +-8.81	139. +-56.4	62
0.1305 - 0.2485	1.40 - 1.50	1.87 - 1.92	3.51 - 3.70	13.0 +-6.80	96.1 +-50.3	62
0.2340	1.20	1.77	3.14	26.0 +-1.73	132. +-8.80	182
0.2441	1.24	1.79	3.21	21.9 +-1.51	119. +-8.19	182
0.1423 - 0.3535	1.50 - 2.00	1.92 - 2.15	3.70 - 4.64	6.04 +-2.01	61.5 +-20.5	62
0.1869 - 0.3164	1.20 - 1.30	1.77 - 1.82	3.14 - 3.33	33.7 +-10.5	185. +-57.5	62
0.2543	1.28	1.81	3.29	20.3 +-1.59	117. +-9.21	182
0.2073 - 0.3478	1.30 - 1.40	1.82 - 1.87	3.33 - 3.51	13.5 +-6.10	86.8 +-39.1	62
0.2278 - 0.3794	1.40 - 1.50	1.87 - 1.92	3.51 - 3.70	6.80 +-4.33	50.3 +-32.0	62
0.2853 - 0.4429	1.20 - 1.30	1.77 - 1.82	3.14 - 3.33	31.4 +-8.98	173. +-49.3	62
0.2485 - 0.5398	1.50 - 2.00	1.92 - 2.15	3.70 - 4.64	5.04 +-1.51	51.2 +-15.4	62
0.3164 - 0.4868	1.30 - 1.40	1.82 - 1.87	3.33 - 3.51	6.10 +-4.06	39.1 +-26.0	62
0.3478 - 0.5310	1.40 - 1.50	1.87 - 1.92	3.51 - 3.70	8.04 +-4.33	59.5 +-32.0	62
0.3993 - 0.5828	1.20 - 1.30	1.77 - 1.82	3.14 - 3.33	9.72 +-4.49	53.4 +-24.6	62
0.4429 - 0.6406	1.30 - 1.40	1.82 - 1.87	3.33 - 3.51	10.2 +-4.74	65.1 +-30.4	62
0.3794 - 0.7555	1.50 - 2.00	1.92 - 2.15	3.70 - 4.64	1.01 +-1.01	10.2 +-10.2	62
0.4868 - 0.6988	1.40 - 1.50	1.87 - 1.92	3.51 - 3.70	4.95 +-3.09	36.6 +-22.9	62
0.5255 - 0.7320	1.20 - 1.30	1.77 - 1.82	3.14 - 3.33	0.0	0.0	62
0.5828 - 0.8045	1.30 - 1.40	1.82 - 1.87	3.33 - 3.51	5.42 +-3.39	34.7 +-21.7	62
0.6406 - 0.8776	1.40 - 1.50	1.87 - 1.92	3.51 - 3.70	9.28 +-4.33	68.6 +-32.0	62
0.5310 - 0.9943	1.50 - 2.00	1.92 - 2.15	3.70 - 4.64	3.02 +-1.01	30.7 +-10.2	62
0.6988 - 1.2487	1.50 - 2.00	1.92 - 2.15	3.70 - 4.64	2.01 +-1.01	20.5 +-10.2	62
0.8776 - 1.5111	1.50 - 2.00	1.92 - 2.15	3.70 - 4.64	1.51 +-0.504	15.4 +-5.12	62

C122: GAMMA + NEUTRON --> PROTON + PI- (K > 1.20 GEV) (CONTINUED)

M2: 0.9395 GEV
 M3: 0.9383 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 1.20 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM	LAB	D SIG/D OMEGA (CM1 MU BARN/ STERAD	REF
1.20 - 1.30	1.77 - 1.82	3.14 - 3.33	-0.242 --0.215	0.0	# 0.0 - 10.0	0.0 - 4.1	# 0.0	62
			-0.230 --0.175	0.0	# 10.0 - 20.0	4.1 - 8.3	# 0.0	62
			-0.194 --0.110	0.0	# 20.0 - 30.0	8.1 - 12.4	# 0.0	62
			-0.135 --0.021	3.74 +-3.74	# 30.0 - 40.0	12.3 - 16.7	# 500 +-500	62
			-0.055 - 0.088	5.98 +-3.74	# 40.0 - 50.0	16.4 - 21.0	# 800 +-500	62
			0.043 - 0.214	0.0	# 50.0 - 60.0	20.7 - 25.4	# 0.0	62
			0.157 - 0.354	0.0	# 60.0 - 70.0	25.1 - 29.9	# 0.0	62
			0.283 - 0.503	0.0	# 70.0 - 80.0	29.5 - 34.6	# 0.0	62
			0.418 - 0.657	2.24 +-2.24	# 80.0 - 90.0	34.2 - 39.4	# 300 +-300	62
			0.556 - 0.811	2.24 +-2.24	# 90.0 - 100.0	38.9 - 44.3	# 300 +-300	62
1.30 - 1.40	1.82 - 1.87	3.33 - 3.51	-0.228 --0.201	0.0	# 0.0 - 10.0	0.0 - 4.1	# 0.0	62
			-0.215 --0.158	7.45 +-6.77	# 10.0 - 20.0	4.0 - 8.1	# 1.10 +-1.00	62
			-0.175 --0.086	4.74 +-4.06	# 20.0 - 30.0	8.0 - 12.3	# 700 +-600	62
			-0.110 - 0.012	0.0	# 30.0 - 40.0	12.1 - 16.4	# 0.0	62
			-0.021 - 0.132	0.0	# 40.0 - 50.0	16.2 - 20.7	# 0.0	62
			0.088 - 0.271	6.10 +-4.06	# 50.0 - 60.0	20.4 - 25.1	# 900 +-600	62

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C122: GAMMA + NEUTRON --> PROTON + PI- (K > 1.20 GEV) (CONTINUED)

M2: 0.9395 GEV
 M3: 0.9383 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 1.20 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM LAB	D SIG/D OMEGA (CM) MU BARN/ STERAD	REF
1.30 - 1.40	1.82 - 1.87	3.33 - 3.51	0.214 - 0.424	2.71 +-2.03	# 60.0 - 70.0 24.7 - 29.5	#.400 +- .300	62
			0.354 - 0.588	.0	# 70.0 - 80.0 29.2 - 34.2	# .0	62
			0.503 - 0.757	2.03 +-2.03	# 80.0 - 90.0 33.8 - 38.9	#.300 +- .300	62
			0.657 - 0.926	7.45 +-5.42	# 90.0 -100.0 38.5 - 43.9	#1.10 +- .800	62
1.40 - 1.50	1.87 - 1.92	3.51 - 3.70	-0.216 --0.189	.0	# 0.0 - 10.0 0.0 - 4.0	# .0	62
			-0.201 --0.141	13.6 +-9.28	# 10.0 - 20.0 3.9 - 8.0	#2.20 +-1.50	62
				-8.64		-1.40	
			-0.158 --0.063	.0	# 20.0 - 30.0 7.9 - 12.1	# .0	62
			-0.086 - 0.043	.0	# 30.0 - 40.0 11.9 - 16.2	# .0	62
			0.012 - 0.174	3.09 +-3.09	# 40.0 - 50.0 16.0 - 20.4	#.500 +- .500	62
			0.132 - 0.326	2.47 +-2.47	# 50.0 - 60.0 20.1 - 24.7	#.400 +- .400	62
			0.271 - 0.494	.0	# 60.0 - 70.0 24.4 - 29.2	# .0	62
			0.424 - 0.672	2.47 +-2.47	# 70.0 - 80.0 28.8 - 33.8	#.400 +- .400	62
			0.588 - 0.857	.0	# 80.0 - 90.0 33.4 - 38.5	# .0	62
			0.757 - 1.041	2.47 +-1.86	# 90.0 -100.0 38.1 - 43.4	#.400 +- .300	62
			-0.205 --0.141	.0	# 0.0 - 10.0 0.0 - 3.9	# .0	62
1.50 - 2.00	1.92 - 2.15	3.70 - 4.64	-0.189 --0.073	5.54 +-3.02	# 10.0 - 20.0 3.7 - 7.9	#1.10 +- .600	62
			-0.141 - 0.039	.0	# 20.0 - 30.0 7.4 - 11.9	# .0	62
			-0.063 - 0.190	1.51 +-1.01	# 30.0 - 40.0 11.1 - 16.0	#.300 +- .200	62
			0.043 - 0.376	1.51 +-1.01	# 40.0 - 50.0 14.9 - 20.1	#.300 +- .200	62
			0.174 - 0.592	.0	# 50.0 - 60.0 18.8 - 24.4	# .0	62
			0.326 - 0.831	2.01 +-1.01	# 60.0 - 70.0 22.9 - 28.8	#.400 +- .200	62
			0.494 - 1.085	2.01 +-1.01	# 70.0 - 80.0 27.1 - 33.4	#.400 +- .200	62
			0.672 - 1.347	1.01 +- .504	# 80.0 - 90.0 31.5 - 38.1	#.200 +- .100E 00	62

C122: GAMMA + NEUTRON --> PROTON + PI- (K > 1.20 GEV) (CONTINUED)

M2: 0.9395 GEV
 M3: 0.9383 GEV
 M4: 0.1396 GEV

RATIO OF CROSS SECTIONS FOR TRANSVERSE AND PARALLEL (TO THE PRODUCTION PLANE) POLARIZED GAMMAS

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	A=SIG TRANSVERSE (A-B)/(A+B)	B=SIG PARALLEL B/(A+B)	REF
3.00	2.55	@ 0.1400	19.56 7.231			
		+ 0.0400	+ 2.82 +-1.061	@0.510 +- .220	0.755 +- .110 0.245 +- .110	116
		@ 0.2300	25.15 9.349			
		+ 0.0450	+ 2.50 +- .9555	@0.190 +- .170	0.595 +- .850E-01 0.405 +- .850E-01	116
		@ 0.4000	33.36 12.54			
		+ 0.1100	+ 4.72 +-1.863	@-.290 +- .180	0.355 +- .900E-01 0.645 +- .900E-01	116
		@ 0.6000	41.17 15.68			
		+ 0.0600	+ 2.15 +- .8825	@-.950E-01 +- .170	0.452 +- .850E-01 0.547 +- .850E-01	116
		@ 0.8500	49.48 19.17			
		+ 0.1700	+ 5.28 +-2.278	@0.320 +- .200	0.660 +- .100E 00 0.340 +- .100E 00	116
		@ 1.2000	59.63 23.71			
		+ 0.1000	+ 2.74 +-1.273	@0.130 +- .195	0.565 +- .975E-01 0.435 +- .975E-01	116
		@ 1.5000	67.54 27.52			
		+ 0.1000	+ 2.55 +-1.274	@0.675 +- .220	0.837 +- .110 0.163 +- .110	116
3.41	2.70	@ 1.8000	75.03 31.40			
		+ 0.1000	+ 2.44 +-1.314	@0.530 +- .250	0.765 +- .125 0.235 +- .125	116
		@ 0.2000	21.76 7.630	@0.340 +- .150	0.670 +- .750E-01 0.330 +- .750E-01	118
		@ 0.4000	30.97 10.98	@-.200 +- .200	0.400 +- .100E 00 0.600 +- .100E 00	118

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C122: GAMMA + NEUTRON --> PROTON + PI- (K > 1.20 GEV) (CONTINUED)

M2: 0.9395 GEV
 M3: 0.9383 GEV
 M4: 0.1396 GEV

POLARIZED GAMMAS (DIRECTION OF POLARIZATION IS WITH RESPECT TO THE PRODUCTION PLANE)

R = RATIO (SIG(TRANSVERSE) - SIG(PARALLEL))/(SIG(TRANSVERSE) + SIG(PARALLEL))
 (T DEPENDENCE)

2.00 GEV < K < GEV 3.41

	-T GEV**2	K GEV	E* GEV	S GEV**2	R	REF
2	0.1400+- 0.0400	3.00	2.55	6.52	20.510 +- .220	116
	# 0.2000	3.41	2.70	7.29	20.340 +- .150	118
2	0.2300+- 0.0450	3.00	2.55	6.52	20.190 +- .170	116
2	0.4000+- 0.1100	3.00	2.55	6.52	20.290 +- .180	116
	# 0.4000	3.41	2.70	7.29	20.200 +- .200	118
2	0.6000+- 0.0600	3.00	2.55	6.52	20.950E-01+- .170	116
2	0.8500+- 0.1700	3.00	2.55	6.52	20.320 +- .200	116
2	1.2000+- 0.1000	3.00	2.55	6.52	20.130 +- .195	116
2	1.5000+- 0.1000	3.00	2.55	6.52	20.675 +- .220	116
2	1.8000+- 0.1000	3.00	2.55	6.52	20.530 +- .250	116

C131: GAMMA + DEUTERON --> NEUTRON + NEUTRON + PI+

AND

C122: GAMMA + NEUTRON --> PROTON + PI- (K > 1.20 GEV) (CONTINUED)

M2: 0.9395 GEV
 M3: 0.9383 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION: RATIO PI-/PI+ AND (PI+,D)/(PI+,PI)

K GEV	E* GEV	-T GEV**2	THETA CM	(MESON) LAB	PI-/PI+	(PI+ - PI-)/(PI+ + PI-)	(PI+,D)/(PI+,P)	REF	
1.20	1.77	\$ 0.0000	0.00	.4767E-01	0.780	+- .900E-01	0.124 +- .568E-01	157	
		# 0.2340	45.00	24.55	0.700	+- .600E-01	0.176 +- .415E-01	182	
1.24	1.79	0.2441	45.00	24.28	0.830	+- .100E 00	0.929E-01+- .597E-01	182	
1.28	1.81	0.2543	45.00	24.01	0.880	+- .120	0.638E-01+- .679E-01	182	
1.30	1.82	\$ 0.0000	0.00	.4400E-01	1.00	+- .110	0.0 +- .550E-01	157	
1.40	1.87	\$ 0.0000	0.00	.4086E-01	0.960	+- .100E 00	0.204E-01+- .521E-01	157	
1.55	1.95	\$ 0.0000	0.00	.0	1.01	+- .110	-.497E-02+- .545E-01	157	
1.70	2.02	\$ 0.0000	0.00	.0	1.09	+- .120	-.431E-01+- .549E-01	157	
2.60	2.40	# 0.0970	17.66	6.926	#0.647	+- .720E-01	0.214 +- .531E-01	66	
3.04	2.57	0.7217	@ 45.00	17.17	-----	-----	@ 1.13 +- .600E-01	44	
3.05	2.57	0.7244	@ 45.00	17.14	@0.450	+- .500E-01	0.379 +- .476E-01	44	
3.06	2.58	0.7271	@ 45.00	17.12	@0.410	+- .600E-01	0.418 +- .604E-01	44	
3.15	2.61	0.7514	@ 45.00	16.91	-----	-----	@0.950 +- .600E-01	44	
3.16	2.61	0.7541	@ 45.00	16.89	@0.430	+- .400E-01	0.399 +- .391E-01	44	
3.17	2.62	0.7568	@ 45.00	16.87	@0.470	+- .600E-01	0.361 +- .555E-01	44	
3.26	2.65	0.7812	@ 45.00	16.67	@0.430	+- .400E-01	0.399 +- .391E-01	@ 1.15 +- .900E-01	44
3.27	2.65	0.7839	@ 45.00	16.64	@0.350	+- .600E-01	0.481 +- .658E-01	-----	44
3.36	2.68	0.8083	@ 45.00	16.45	@0.420	+- .500E-01	0.408 +- .496E-01	-----	44
3.37	2.69	0.8110	@ 45.00	16.43	@0.440	+- .400E-01	0.389 +- .386E-01	@0.970 +- .900E-01	44
3.38	2.69	0.8137	@ 45.00	16.41	@0.440	+- .500E-01	0.389 +- .482E-01	-----	44
3.40	2.70	# 0.0030	2.65	.9218					
		+- 0.0010	+- 0.44	+- .1538	# 1.02	+- .870E-01	-.794E-02+- .428E-01	#0.618 +- .560E-01	66
		# 0.0120	5.31	1.845	#0.861	+- .670E-01	0.747E-01+- .387E-01	#0.799 +- .670E-01	66
		# 0.0480	10.63	3.702	#0.771	+- .590E-01	0.129 +- .376E-01	#0.880 +- .680E-01	66
		# 0.0960	15.06	5.256	#0.650	+- .490E-01	0.212 +- .360E-01	#0.897 +- .690E-01	66
		# 0.1900	21.24	7.453	#0.553	+- .440E-01	0.288 +- .365E-01	#0.859 +- .670E-01	66
		# 0.2900	26.32	9.286	#0.482	+- .410E-01	0.350 +- .373E-01	-----	66
		# 0.3900	30.62	10.86	#0.304	+- .240E-01	0.534 +- .282E-01	# 1.00 +- .760E-01	66
3.41	2.70	0.3759	@ 30.00	10.62	@0.360	+- .300E-01	0.471 +- .324E-01	@ 1.04 +- .900E-01	44
		0.5075	@ 35.00	12.48	@0.370	+- .400E-01	0.460 +- .426E-01	-----	44
		0.6565	@ 40.00	14.39	@0.380	+- .400E-01	0.449 +- .420E-01	@0.950 +- .600E-01	44
		0.8219	@ 45.00	16.35	@0.420	+- .300E-01	0.408 +- .298E-01	@0.930 +- .900E-01	44
		1.0024	@ 50.00	18.37	@0.410	+- .700E-01	0.418 +- .704E-01	@ 1.12 +- .100E 00	44
		1.4030	@ 60.00	22.63	@0.580	+- .700E-01	0.266 +- .561E-01	@0.980 +- .140	44
		1.8463	@ 70.00	27.27	@0.590	+- .800E-01	0.258 +- .633E-01	-----	44
		2.3188	@ 80.00	32.41	@0.860	+- .200	0.753E-01+- .116	-----	44
		2.8061	@ 90.00	38.18	@0.780	+- .140	0.124 +- .884E-01	-----	44
3.48	2.72	0.8409	@ 45.00	16.20	@0.560	+- .600E-01	0.282 +- .493E-01	-----	44
3.59	2.76	0.8707	@ 45.00	15.99	@0.710	+- .100E 00	0.170 +- .684E-01	-----	44
5.00	3.21	# 0.0060	3.03	.8870					
		+- 0.0020	+- 0.51	+- .1480	#0.983	+- .980E-01	0.857E-02+- .498E-01	-----	66
		# 0.0140	4.63	1.356	#0.959	+- .750E-01	0.209E-01+- .391E-01	#0.731 +- .560E-01	66
		# 0.0570	9.36	2.742	#0.754	+- .610E-01	0.140 +- .397E-01	#0.823 +- .720E-01	66
		# 0.1000	12.40	3.640	#0.589	+- .450E-01	0.259 +- .356E-01	#0.890 +- .690E-01	66
		# 0.2000	17.57	5.177	#0.488	+- .390E-01	0.344 +- .352E-01	#0.893 +- .770E-01	66
		# 0.3000	21.57	6.376	#0.350	+- .290E-01	0.481 +- .318E-01	#0.977 +- .810E-01	66
		# 0.3900	24.64	7.307	#0.268	+- .230E-01	0.577 +- .286E-01	-----	66
		# 0.6000	30.69	9.174	#0.331	+- .330E-01	0.503 +- .373E-01	#0.899 +- .920E-01	66

= NUMERICAL VALUE FROM TABLE 2 = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA \$ = FOR DETAILS SEE REFERENCE
 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C131: GAMMA + DEUTERON --> NEUTRON + NEUTRON + PI+

AND

C122: GAMMA + NEUTRON --> PROTON + PI- (K > 1.20 GEV) (CONTINUED)

M2: 0.9395 GEV
 M3: 0.9383 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION: RATIO PI-/PI+ AND (P+,D)/(P+,P)

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	PI-/PI+	(PI+ - PI-)/(PI+ + PI-)	(PI+,D)/(PI+,P)	REF
6.00	3.49	# 0.0980	11.12 3.000	#0.602 +- .500E-01	0.248 +- .390E-01	#0.950 +- .830E-01	66
		# 0.3000	19.52 5.299	#0.282 +- .360E-01	0.560 +- .438E-01	-----	66
8.00	3.99	# 0.0000	0.17 .3995E-01	# 1.17 +- .160	-.783E-01 +- .680E-01	@0.810 +- .140	83
		# 0.0106	3.13 .7372	# 1.05 +- .800E-01	-.244E-01 +- .381E-01	@0.820 +- .800E-01	83
		# 0.0200	4.30 1.013	#0.930 +- .600E-01	0.363E-01 +- .322E-01	@0.850 +- .700E-01	83
		# 0.0400	6.09 1.433	#0.808 +- .580E-01	0.106 +- .355E-01	@0.800 +- .700E-01	83
		# 0.0800	8.62 2.030	#0.569 +- .420E-01	0.275 +- .341E-01	@0.950 +- .100E 00	83
		# 0.1200	10.56 2.490	#0.475 +- .360E-01	0.356 +- .331E-01	@0.950 +- .100E 00	83
		# 0.1600	12.20 2.879	#0.435 +- .490E-01	0.394 +- .476E-01	@0.910 +- .800E-01	83
		# 0.3000	16.73 3.961	#0.299 +- .240E-01	0.540 +- .284E-01	@0.950 +- .700E-01	83
		# 0.4500	20.52 4.876	#0.303 +- .280E-01	0.535 +- .330E-01	@0.950 +- .900E-01	83
		# 0.6000	23.74 5.660	#0.380 +- .430E-01	0.449 +- .452E-01	@ 1.08 +- .160	83
		# 0.8000	27.48 6.583	#0.435 +- .540E-01	0.394 +- .524E-01	@ 1.13 +- .230	83
		# 1.0000	30.80 7.413	#0.544 +- .700E-01	0.295 +- .587E-01	@ 1.15 +- .170	83
		# 1.3000	35.25 8.546	#0.604 +- .830E-01	0.247 +- .645E-01	-----	83
16.00	5.56	\$ 0.0000	0.00 .0	0.988 +- .152	0.604E-02 +- .769E-01	@0.960 +- .190	83
		# 0.0050	1.50 .2531	# 1.03 +- .160	-.138E-01 +- .778E-01	-----	83
		# 0.0100	2.12 .3580	#0.959 +- .112	0.209E-01 +- .584E-01	-----	83
		# 0.0160	2.68 .4529	# 1.12 +- .120	-.575E-01 +- .533E-01	-----	83
		# 0.0240	3.29 .5548	#0.779 +- .110	0.124 +- .695E-01	@0.880 +- .800E-01	83
		# 0.0400	4.24 .7164	#0.712 +- .550E-01	0.168 +- .375E-01	-----	83
		# 0.0800	6.00 1.014	#0.480 +- .390E-01	0.351 +- .356E-01	@0.950 +- .900E-01	83
		# 0.1200	7.35 1.243	#0.432 +- .400E-01	0.397 +- .390E-01	@0.970 +- .100E 00	83
		# 0.1600	8.49 1.436	#0.336 +- .300E-01	0.497 +- .336E-01	@0.880 +- .130	83
		# 0.3000	11.64 1.971	#0.331 +- .280E-01	0.503 +- .316E-01	@0.970 +- .100E 00	83
		# 0.4500	14.26 2.420	#0.421 +- .370E-01	0.407 +- .366E-01	@ 1.18 +- .170	83
		# 0.6000	16.49 2.801	#0.471 +- .390E-01	0.360 +- .360E-01	@ 1.09 +- .160	83
		# 0.8000	19.06 3.246	#0.524 +- .520E-01	0.312 +- .448E-01	@ 1.07 +- .160	83
		# 1.0000	21.33 3.641	#0.636 +- .740E-01	0.222 +- .553E-01	@ 1.09 +- .190	83
		# 1.3000	24.37 4.174	#0.569 +- .920E-01	0.275 +- .747E-01	-----	83

C122: GAMMA + NEUTRON --> PROTON + PI- (K > 1.20 GEV) (CONTINUED)

M2: 0.9395 GEV
 M3: 0.9383 GEV
 M4: 0.1396 GEV

R = RATIO (-)/(+) (T DEPENDENCE)

2.00 GEV < K < 6EV 16.00

-T GEV**2	K GEV	E* GEV	S GEV**2	R	REF
\$ 0.0000	16.00	5.56	30.95	#0.988 +- .152	83
# 0.0000	8.00	3.99	15.92	# 1.17 +- .160	83
# 0.0030+- 0.0010	3.40	2.70	7.27	# 1.02 +- .870E-01	66
# 0.0050	16.00	5.56	30.95	# 1.03 +- .160	83
# 0.0060+- 0.0020	5.00	3.21	10.28	#0.983 +- .980E-01	66
# 0.0100	16.00	5.56	30.95	#0.959 +- .112	83
# 0.0106	8.00	3.99	15.92	# 1.05 +- .800E-01	83
# 0.0120	3.40	2.70	7.27	#0.861 +- .670E-01	66
# 0.0140	5.00	3.21	10.28	#0.959 +- .750E-01	66
# 0.0160	16.00	5.56	30.95	# 1.12 +- .120	83
# 0.0200	8.00	3.99	15.92	#0.930 +- .600E-01	83
# 0.0240	16.00	5.56	30.95	#0.779 +- .110	83
# 0.0400	8.00	3.99	15.92	#0.808 +- .580E-01	83
# 0.0400	16.00	5.56	30.95	#0.712 +- .550E-01	83
# 0.0480	3.40	2.70	7.27	#0.771 +- .590E-01	66
# 0.0570	5.00	3.21	10.28	#0.754 +- .610E-01	66
# 0.0800	8.00	3.99	15.92	#0.569 +- .420E-01	83
# 0.0800	16.00	5.56	30.95	#0.480 +- .390E-01	83
# 0.0960	3.40	2.70	7.27	#0.650 +- .490E-01	66
# 0.0970	2.60	2.40	5.77	#0.647 +- .720E-01	66
# 0.0980	6.00	3.49	12.16	#0.602 +- .500E-01	66
# 0.1000	5.00	3.21	10.28	#0.589 +- .450E-01	66
# 0.1200	8.00	3.99	15.92	#0.475 +- .360E-01	83
# 0.1200	16.00	5.56	30.95	#0.432 +- .400E-01	83
# 0.1600	8.00	3.99	15.92	#0.435 +- .490E-01	83
# 0.1600	16.00	5.56	30.95	#0.336 +- .300E-01	83
# 0.1900	3.40	2.70	7.27	#0.553 +- .440E-01	66
# 0.2000	5.00	3.21	10.28	#0.488 +- .390E-01	66
# 0.2900	3.40	2.70	7.27	#0.482 +- .410E-01	66
# 0.3000	5.00	3.21	10.28	#0.350 +- .290E-01	66
# 0.3000	6.00	3.49	12.16	#0.282 +- .360E-01	66

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 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C122: GAMMA + NEUTRON --> PROTON + PI- (K > 1.20 GEV) (CONTINUED)

M2: 0.9395 GEV
 M3: 0.9383 GEV
 M4: 0.1396 GEV

R = RATIO (-I/I+) (T DEPENDENCE)

2.00 GEV < K < GEV 16.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	R	REF
#	0.3000	8.00	3.99	15.92	#0.299	+-.240E-01 83
#	0.3000	16.00	5.56	30.95	#0.331	+-.280E-01 83
	0.3759	3.41	2.70	7.29	0.360	+-.300E-01 44
#	0.3900	3.40	2.70	7.27	#0.304	+-.240E-01 66
#	0.3900	5.00	3.21	10.28	#0.268	+-.230E-01 66
#	0.4500	8.00	3.99	15.92	#0.303	+-.280E-01 83
#	0.4500	16.00	5.56	30.95	#0.421	+-.370E-01 83
#	0.5075	3.41	2.70	7.29	0.370	+-.400E-01 44
#	0.6000	5.00	3.21	10.28	#0.331	+-.330E-01 66
#	0.6000	8.00	3.99	15.92	#0.380	+-.430E-01 83
#	0.6000	16.00	5.56	30.95	#0.471	+-.390E-01 83
	0.6565	3.41	2.70	7.29	0.380	+-.400E-01 44
	0.7244	3.05	2.57	6.61	0.450	+-.500E-01 44
	0.7271	3.06	2.58	6.63	0.410	+-.600E-01 44
	0.7541	3.16	2.61	6.82	0.430	+-.400E-01 44
	0.7568	3.17	2.62	6.84	0.470	+-.600E-01 44
	0.7812	3.26	2.65	7.01	0.430	+-.400E-01 44
	0.7839	3.27	2.65	7.03	0.350	+-.600E-01 44
#	0.8000	8.00	3.99	15.92	#0.435	+-.540E-01 83
#	0.8000	16.00	5.56	30.95	#0.524	+-.520E-01 83
	0.8003	3.36	2.68	7.20	0.420	+-.500E-01 44
	0.8110	3.37	2.69	7.22	0.440	+-.400E-01 44
	0.8137	3.38	2.69	7.23	0.440	+-.500E-01 44
	0.8219	3.41	2.70	7.29	0.420	+-.300E-01 44
	0.8409	3.48	2.72	7.42	0.560	+-.600E-01 44
	0.8707	3.59	2.76	7.63	0.710	+-.100E 00 44
#	1.0000	8.00	3.99	15.92	#0.544	+-.700E-01 83
#	1.0000	16.00	5.56	30.95	#0.636	+-.740E-01 83
	1.0024	3.41	2.70	7.29	0.410	+-.700E-01 44
#	1.3000	8.00	3.99	15.92	#0.604	+-.830E-01 83
#	1.3000	16.00	5.56	30.95	#0.569	+-.920E-01 83
	1.4030	3.41	2.70	7.29	0.580	+-.700E-01 44
	1.8463	3.41	2.70	7.29	0.590	+-.800E-01 44
	2.3188	3.41	2.70	7.29	0.860	+-.200 44

1.20 GEV < K < GEV 2.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	R	REF
\$	0.0000	1.70	2.02	4.08	# 1.09	+-.120 157
\$	0.0000	1.55	1.95	3.80	# 1.01	+-.110 157
\$	0.0000	1.40	1.87	3.51	#0.960	+-.100E 00 157
\$	0.0000	1.30	1.82	3.33	# 1.00	+-.110 157
\$	0.0000	1.20	1.77	3.14	#0.780	+-.900E-01 157
P\$	0.2340	1.20	1.77	3.14	P\$0.700	+-.600E-01 182
P\$	0.2441	1.24	1.79	3.21	P\$0.830	+-.100E 00 182
P\$	0.2543	1.28	1.81	3.29	P\$0.880	+-.120 182

C131: GAMMA + DEUTERON --> NEUTRON + NEUTRON + PI+ (K > 1.20 GEV) (CONTINUED)

M2: 0.9395 GEV
 M3: 0.9383 GEV
 M4: 0.1396 GEV

R = RATIO (PI+,D)/(PI+,P) (T DEPENDENCE)

2.00 GEV < K < GEV 16.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	R	REF
\$	0.0000	16.00	5.56	30.95	#0.960	+-.190 83
#	0.0000	8.00	3.99	15.92	#0.810	+-.140 83
#	0.0030+- 0.0010	3.40	2.70	7.27	#0.618	+-.560E-01 66
#	0.0106	8.00	3.99	15.92	#0.820	+-.800E-01 83
#	0.0120	3.40	2.70	7.27	#0.799	+-.670E-01 66
#	0.0140	5.00	3.21	10.28	#0.731	+-.560E-01 66

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 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C131: GAMMA + DEUTERON --> NEUTRON + NEUTRON + P1+ (K > 1.20 GEV) (CONTINUED)

M2: 0.9395 GEV
 M3: 0.9383 GEV
 M4: 0.1396 GEV

R = RATIO (PI+,D)/(PI+,P) (T DEPENDENCE)

2.00 GEV < K < GEV 16.00

-T GEV**2	K GEV	E* GEV	S GEV**2	R	REF
# 0.0200	9.00	3.99	15.92	#0.850	+- .700E-01 83
# 0.0240	16.00	5.56	30.95	#0.880	+- .800E-01 83
# 0.0400	8.00	3.99	15.92	#0.800	+- .700E-01 83
# 0.0480	3.40	2.70	7.27	#0.880	+- .680E-01 66
# 0.0570	5.00	3.21	10.28	#0.823	+- .720E-01 66
# 0.0800	8.00	3.99	15.92	#0.950	+- .100E 00 83
# 0.0800	16.00	5.56	30.95	#0.950	+- .900E-01 83
# 0.0960	3.40	2.70	7.27	#0.897	+- .690E-01 66
# 0.0980	6.00	3.49	12.16	#0.950	+- .830E-01 66
# 0.1000	5.00	3.21	10.28	#0.890	+- .690E-01 66
# 0.1200	8.00	3.99	15.92	#0.950	+- .100E 00 83
# 0.1200	16.00	5.56	30.95	#0.970	+- .100E 00 83
# 0.1600	8.00	3.99	15.92	#0.910	+- .800E-01 83
# 0.1600	16.00	5.56	30.95	#0.880	+- .130 83
# 0.1900	3.40	2.70	7.27	#0.859	+- .670E-01 66
# 0.2000	5.00	3.21	10.28	#0.893	+- .770E-01 66
# 0.3000	5.00	3.21	10.28	#0.977	+- .810E-01 66
# 0.3000	8.00	3.99	15.92	#0.950	+- .700E-01 83
# 0.3000	16.00	5.56	30.95	#0.970	+- .100E 00 83
0.3759	3.41	2.70	7.29	1.04	+- .900E-01 44
# 0.3900	3.40	2.70	7.27	# 1.00	+- .760E-01 66
# 0.4500	8.00	3.99	15.92	#0.950	+- .900E-01 83
# 0.4500	16.00	5.56	30.95	# 1.18	+- .170 83
# 0.6000	5.00	3.21	10.28	#0.899	+- .920E-01 66
# 0.6000	8.00	3.99	15.92	# 1.08	+- .160 83
# 0.6000	16.00	5.56	30.95	# 1.09	+- .160 83
0.6565	3.41	2.70	7.29	0.950	+- .600E-01 44
0.7217	3.04	2.57	6.60	1.13	+- .600E-01 44
0.7514	3.15	2.61	6.80	0.950	+- .600E-01 44
0.7812	3.26	2.65	7.01	1.15	+- .900E-01 44
# 0.8000	8.00	3.99	15.92	# 1.13	+- .230 83
# 0.8000	16.00	5.56	30.95	# 1.07	+- .160 83
0.8110	3.37	2.69	7.22	0.970	+- .900E-01 44
0.8219	3.41	2.70	7.29	0.930	+- .900E-01 44
# 1.0000	8.00	3.99	15.92	# 1.15	+- .170 83
# 1.0000	16.00	5.56	30.95	# 1.09	+- .190 83
1.0024	3.41	2.70	7.29	1.12	+- .100E 00 44
1.4030	3.41	2.70	7.29	0.980	+- .140 44

C123: GAMMA + NEUTRON --> DELTA- + PI+ (K > 16.00 GEV)

M2: 0.9395 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

TOTAL CROSS SECTION : NO DATA TO BE LISTED

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	0 SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	0 SIG/D OMEGA (CM) MU BARN/STERAD	REF	
16.00	5.56	# 0.0010	0.51	.8654E-01					
		+ 0.0006	+ 0.27	+.4540E-01	# .540	+-.180	488.	+-.163.	126
		# 0.0028	1.04	.1762					
		+ 0.0022	+ 0.48	+.8175E-01	# .710	+-.900E-01	642.	+-.81.4	126
		# 0.0140	2.50	.3000					
		+ 0.0060	+ 0.55	+.9326E-01	# .980	+-.100E 00	886.	+-.90.4	126
		# 0.0380	4.16	.7000	# .680	+-.600E-01	615.	+-.54.2	126
		# 0.0770	5.94	.1.000	# .500	+-.400E-01	452.	+-.36.2	126
		# 0.1490	8.27	.1.400	# .269	+-.240E-01	243.	+-.21.7	126
		# 0.4000	13.59	.2.300	# .112	+-.120E-01	101.	+-.10.8	126
		# 0.8000	19.26	.3.280	# .500E-01	+-.500E-02	45.2	+-.4.52	126
		# 1.0000	21.56	.3.680	# .210E-01	+-.300E-02	19.0	+-.2.71	126
		# 1.2900	24.54	.4.200	# .870E-02	+-.140E-02	7.86	+-.1.27	126
		# 1.5800	27.20	.4.680	# .280E-02	+-.900E-03	2.53	+-.814	126
		# 2.0000	30.69	.5.300	# .900E-03	+-.500E-03	0.814	+-.452	126

C123: GAMMA + NEUTRON --> DELTA- + PI+ (K > 16.00 GEV) (CONTINUED)

M2: 0.9395 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 16.00

-T GEV**2	K GEV	E* GEV	S GEV**2	0 SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
# 0.0010	16.00	5.56	30.95	# .540	+-.180	126
+ 0.0006	16.00	5.56	30.95	# .710	+-.900E-01	126
# 0.0028	16.00	5.56	30.95	# .980	+-.100E 00	126
+ 0.0022	16.00	5.56	30.95	# .680	+-.600E-01	126
# 0.0140	16.00	5.56	30.95	# .500	+-.400E-01	126
# 0.0380	16.00	5.56	30.95	# .269	+-.240E-01	126
# 0.0770	16.00	5.56	30.95	# .112	+-.120E-01	126
# 0.1490	16.00	5.56	30.95	# .500E-01	+-.500E-02	126
# 0.4000	16.00	5.56	30.95	# .210E-01	+-.300E-02	126
# 0.8000	16.00	5.56	30.95	# .870E-02	+-.140E-02	126
# 1.0000	16.00	5.56	30.95	# .280E-02	+-.900E-03	126
# 1.2900	16.00	5.56	30.95	# .900E-03	+-.500E-03	126
# 1.5800	16.00	5.56	30.95	# .900E-03	+-.500E-03	126
# 2.0000	16.00	5.56	30.95	# .900E-03	+-.500E-03	126

C125: GAMMA + NEUTRON --> DELTA+ + PI- (K > 16.00 GEV)

M2: 0.9395 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

TOTAL CROSS SECTION : NO DATA TO BE LISTED

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
16.00	5.56	# 0.0010 +- 0.0006 # 0.0028 +- 0.0022 # 0.0140 +- 0.0060 # 0.0380 # 0.0770 # 0.1490 # 0.4000 # 0.8000 # 1.0000 # 1.2900 # 1.5800 # 2.0000	0.51 0.27 1.04 0.48 2.50 0.55 4.16 5.54 8.27 13.59 19.26 21.56 24.54 27.20 30.69	.8654E-01 +.4540E-01 # <.250 .1762 +.8175E-01 # .260 #.3000 +.9326E-01 # .170 #.7000 #.160 +.600E-01 #.900E-01+.400E-01 #.510E-01+.150E-01 #.200E-01+.600E-02 #.120E-01+.300E-02 #.410E-02+.190E-02 #.360E-02+.900E-03 #.170E-02+.600E-03 #.500E-03+.300E-03	<226. 235. +-81.4 +-99.4 +-54.2 81.4 46.1 +-13.6 18.1 +-5.42 10.8 +-2.71 3.71 3.25 1.54 0.452 +-271	+-81.4 +-99.4 +-54.2 81.4 46.1 +-13.6 18.1 +-5.42 10.8 +-2.71 3.71 3.25 1.54 0.452 +-271	<.568 +.591 +-205 +.386 +-250 +.364 +-136 +.205 +-909E-01 +.116 +-341E-01 +.455E-01+.136E-01 +.273E-01+.682E-02 +.932E-02+.432E-02 +.818E-02+.205E-02 +.386E-02+.136E-02 +.114E-02+.682E-03	126 126 126 126 126 126 126 126 126 126 126 126 126 126 126

C125: GAMMA + NEUTRON --> DELTA+ + PI- (K > 16.00 GEV) (CONTINUED)

M2: 0.9395 GEV
 M3: 1.2360 GEV
 M4: 0.1396 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 16.00

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
# 0.0010+- 0.0006	16.00	5.56	30.95	# <.250	<226.	126
# 0.0028+- 0.0022	16.00	5.56	30.95	# .260 +- .900E-01	235. +-81.4	126
# 0.0140+- 0.0060	16.00	5.56	30.95	# .170 +- .110	154. +-99.4	126
# 0.0380	16.00	5.56	30.95	# .160 +- .600E-01	145. +-54.2	126
# 0.0770	16.00	5.56	30.95	# .900E-01+.400E-01	81.4 +-36.2	126
# 0.1490	16.00	5.56	30.95	# .510E-01+.150E-01	46.1 +-13.6	126
# 0.4000	16.00	5.56	30.95	# .200E-01+.600E-02	18.1 +-5.42	126
# 0.8000	16.00	5.56	30.95	# .120E-01+.300E-02	10.8 +-2.71	126
# 1.0000	16.00	5.56	30.95	# .410E-02+.190E-02	3.71 +-1.72	126
# 1.2900	16.00	5.56	30.95	# .360E-02+.900E-03	3.25 +-814	126
# 1.5800	16.00	5.56	30.95	# .170E-02+.600E-03	1.54 +-542	126
# 2.0000	16.00	5.56	30.95	# .500E-03+.300E-03	.452 +-271	126

C211: GAMMA + PROTON --> SIGMA+ + K ZERO (K > 1.06 GEV)

M2: 0.9383 GEV
M3: 1.1894 GEV
M4: 0.4978 GEV

TOTAL CROSS SECTION

K GEV	E* GEV	SIGMA MU BARN	SIGMA*(S-M**2)**2 MU BARN*GEV**2	REF
1.06 - 1.30	1.75	# .690 +- .310	3.28 +- 1.47	100
1.30 - 2.00	1.96	# .700E-01 +- .700E-01	.586 +- .586	100

C212: GAMMA + PROTON --> SIGMA ZERO + K+ (K > 1.04 GEV)

M2: 0.9383 GEV
M3: 1.1925 GEV
M4: 0.4938 GEV

TOTAL CROSS SECTION

K GEV	E* GEV	SIGMA MU BARN	SIGMA*(S-M**2)**2 MU BARN*GEV**2	REF
1.05 - 1.20	1.73	# .620 +- .190	2.72 +- .833	100
1.20 - 1.30	1.80	# .880 +- .330	4.82 +- 1.81	100
1.30 - 1.40	1.85	# 1.93 +- .500	12.3 +- 3.20	100
1.40 - 1.50	1.90	# 2.06 +- .550	15.2 +- 4.06	100
1.50 - 1.70	1.97	# 1.32 +- .330	11.8 +- 2.94	100
1.70 - 2.00	2.08	# .900 +- .240	10.6 +- 2.84	100
2.00 - 3.00	2.32	# .290 +- .800E-01	5.66 +- 1.56	100
3.00 - 5.80	2.88	# .100E 00 +- .400E-01	5.00 +- 2.00	100

C212: GAMMA + PROTON --> SIGMA ZERO + K+ (K > 1.04 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 1.1925 GEV
M4: 0.4938 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
1.08	1.70	0.3587	# 90.00 19.64	1.89 +- .231	7.77 +- .947	# .410E-01 +- .500E-02	22
1.11	1.72	0.2232	# 33.00 9.917	2.89 +- .329	12.6 +- 1.43	# .880E-01 +- .100E-01	22
		0.2879	# 60.00 17.71	2.27 +- .263	9.84 +- 1.14	# .690E-01 +- .800E-02	22
		0.3340	# 75.00 21.72	1.84 +- .296	7.99 +- 1.28	# .560E-01 +- .900E-02	224
		0.3835	# 90.00 25.28	1.41 +- .263	6.13 +- 1.14	# .430E-01 +- .800E-02	22
		0.4124	# 98.70 27.03	1.51 +- .164	6.56 +- .713	# .460E-01 +- .500E-02	224
		0.4790	# 120.00 29.64	2.07 +- .230	8.99 +- .999	# .630E-01 +- .700E-02	22
1.12	1.73	0.5177	# 127.50 32.05	1.03 +- .213	4.56 +- .939	# .340E-01 +- .700E-02	224
1.14	1.74	0.2443	# 46.00 15.23	3.17 +- .293	14.5 +- 1.34	# .119 +- .110E-01	27
1.15	1.74	0.3562	# 76.00 25.52	2.81 +- .427	13.1 +- 1.99	# .112 +- .170E-01	27
1.16	1.75	0.1968	# 30.00 10.40	1.98 +- .477	9.38 +- 2.26	# .830E-01 +- .200E-01	27
		0.2539	# 49.50 17.15	2.79 +- .429	13.2 +- 2.03	# .117 +- .180E-01	27
		0.3568	# 75.00 25.84	2.24 +- .358	10.6 +- 1.69	# .940E-01 +- .150E-01	224
		0.4250	# 90.00 30.70	2.15 +- .191	10.2 +- .904	# .900E-01 +- .800E-02	22
		0.4544	# 96.40 32.66	1.69 +- .262	8.02 +- 1.24	# .710E-01 +- .110E-01	224
		0.4888	# 104.00 34.84	1.22 +- .238	5.76 +- 1.13	# .510E-01 +- .100E-01	27
		0.6097	# 134.50 40.23	.906 +- .358	4.29 +- 1.69	# .380E-01 +- .150E-01	27
1.17	1.75	0.2473	# 47.70 16.85	3.41 +- .386	16.4 +- 1.86	# .150 +- .170E-01	27
1.18	1.76	0.2717	# 54.00 19.40	3.35 +- .782	16.4 +- 3.83	# .154 +- .360E-01	202
		0.4115	# 84.00 30.10	2.67 +- .608	13.1 +- 2.98	# .123 +- .280E-01	202
1.20	1.77	0.4869	# 95.20 35.27	1.90 +- .300	9.64 +- 1.52	# .950E-01 +- .150E-01	224
1.22	1.78	0.6322	# 117.70 44.65	1.34 +- .205	7.02 +- 1.07	# .720E-01 +- .110E-01	224
		0.6699	# 125.20 47.03	.987 +- .168	5.17 +- .878	# .530E-01 +- .900E-02	224
1.23	1.79	0.7484	# 139.30 51.71	.504 +- .378	2.68 +- 2.01	# .280E-01 +- .210E-01	224
1.24	1.79	0.5236	# 95.00 37.31	2.54 +- .174	13.8 +- .943	# .146 +- .100E-01	224
1.31	1.83	0.6967	# 109.40 46.48	2.07 +- .230	12.5 +- 1.39	# .144 +- .160E-01	224
1.33	1.84	0.8261	# 124.20 54.53	1.23 +- .219	7.69 +- 1.37	# .900E-01 +- .160E-01	224
1.34	1.84	0.9286	# 138.60 62.36	.818 +- .147	5.17 +- .932	# .610E-01 +- .110E-01	224
1.05 - 1.80	1.83	# 0.1000- 0.2000 # 0.2000- 0.3000 # 0.3000- 0.4000 # 0.4000- 0.5000	----- ----- ----- ----- ----- ----- -----	# .770 +- .450 # 2.42 +- .670 # 2.04 +- .620 # 2.27 +- .650	4.44 +- 2.60 14.0 +- 3.87 11.8 +- 3.58 13.1 +- 3.75	----- ----- ----- -----	100 100 100 100

= NUMERICAL VALUE FROM TABLE S = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA
UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C212: GAMMA + PROTON $\rightarrow$ SIGMA ZERO + K+ (K > 1.05 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 1.1925 GEV
M4: 0.4938 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D DMEGA (CM) MU BARN/STERAD	REF			
1.05 - 1.80	1.63	# 0.5000- 0.6000 # 0.6000- 0.8000 # 0.8000- 1.0000 # 1.0000- 1.9300	----- ----- ----- ----- ----- ----- -----	----- ----- ----- ----- ----- ----- -----	# 1.83 # 1.00 # 1.33 # .240	+-.580 +-.330 +-.440 +-.140	10.6 5.77 7.68 1.39	+-.3.35 +-.1.90 +-.2.54 +-.808	----- ----- ----- -----	100 100 100 100	
		# 0.0 - 39.60 # 39.60- 60.00 # 60.00- 75.50 # 75.50- 90.00 # 90.00- 104.50 # 104.50- 120.00 # 120.00- 140.40 # 140.40- 180.00	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----	# .112 # .157 # .189 # .145 # .108 # .620F-01 # .400F-01 # .250F-01	+-.370E-01 +-.440E-01 +-.470E-01 +-.400E-01 +-.380E-01 +-.280E-01 +-.200E-01 +-.170E-01	----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- ----- -----	100 100 100 100 100 100 100 100 100 100 100 100 100 100
1.35	1.85	0.5856	# 90.00	38.32	1.99	+-.184	12.8	+-.1.18	# .152	+-.140E-01	111
1.36	1.85	0.5941	# 90.00	38.50	2.02	+-.193	13.1	+-.1.25	# .157	+-.150E-01	111
1.37	1.86	0.8821	# 124.00	56.21	1.07	+-.189	7.06	+-.1.25	# .850E-01	+-.150F-01	224
1.41	1.88	0.1170	# 15.70	6.359	2.91	+-.465	20.4	+-.3.26	# .250	+-.400E-01	127
		0.1327	# 21.00	8.521	2.56	+-.465	17.9	+-.3.26	# .220	+-.400E-01	127
1.42	1.88	0.2361	# 41.90	17.24	2.63	+-.571	18.6	+-.4.05	# .230	+-.500E-01	127
1.45	1.90	# 0.1031	# 11.70	4.755	2.91	+-.368	21.6	+-.2.73	# .269	+-.340E-01	127
		# 0.1210	# 18.50	7.534	2.47	+-.271	18.3	+-.2.00	# .228	+-.250E-01	127
		# 0.1427	# 24.30	9.922	2.47	+-.271	18.3	+-.2.00	# .228	+-.250E-01	127
		# 0.1964	# 35.00	14.38	2.52	+-.314	18.7	+-.2.33	# .233	+-.290E-01	127
		# 0.2627	# 45.10	18.69	3.02	+-.325	22.4	+-.2.41	# .279	+-.300F-01	127
		# 0.3395	# 55.00	23.02	2.98	+-.325	22.1	+-.2.41	# .275	+-.300F-01	127
		# 0.4244	# 64.70	27.41	3.34	+-.325	24.7	+-.2.41	# .308	+-.300E-01	127
		# 0.5149	# 74.20	31.86	2.85	+-.357	21.1	+-.2.65	# .263	+-.330E-01	127
		# 0.6083	# 83.50	36.39	2.50	+-.314	18.5	+-.2.33	# .231	+-.290E-01	127
1.47	1.91	0.6888	# 90.00	39.85	1.98	+-.115	15.1	+-.877	# .189	+-.110E-01	111
		0.9959	# 120.80	57.29	1.05	+-.733E-01	7.97	+-.558	# .100E 00	+-.700E-02	224
1.48	1.91	1.0348	# 123.60	59.28	.917	+-.721E-01	7.07	+-.556	# .890E-01	+-.700E-02	224
		1.0893	# 130.00	63.50	.526	+-.618E-01	4.05	+-.477	# .510E-01	+-.600E-02	224
1.49	1.92	0.7061	# 90.00	40.00	1.82	+-.122	14.2	+-.951	# .179	+-.120E-01	111
		1.1672	# 138.10	65.56	.456	+-.710E-01	3.57	+-.555	# .450E-01	+-.700E-02	224
1.50	1.92	1.1817	# 137.90	69.74	.689	+-.998E-01	5.46	+-.791	# .690E-01	+-.100F-01	224
1.51	1.93	0.7234	# 90.00	40.14	1.61	+-.118	12.9	+-.947	# .164	+-.120E-01	111
1.52	1.93	0.7321	# 90.00	40.20	1.52	+-.116	12.4	+-.945	# .157	+-.120E-01	111
1.56	1.95	0.1721	# 30.12	12.40	P 2.42	+-.155	20.8	+-.1.33	P# .265	+-.170E-01	127
1.58	1.96	1.1724	# 123.30	60.81	.827	+-.107	7.27	+-.938	# .930E-01	+-.120E-01	224
1.59	1.97	0.7930	# 90.00	40.51	1.30	+-.789E-01	11.6	+-.703	# .148	+-.900E-02	111
1.60	1.97	1.3405	# 137.90	72.33	.242	+-.692E-01	2.18	+-.624	# .280E-01	+-.800E-02	224
1.62	1.98	0.8193	# 90.00	40.59	1.15	+-.843E-01	10.6	+-.779	# .136	+-.100E-01	111
1.65	1.99	0.8455	# 90.00	40.65	.958	+-.893E-01	9.18	+-.856	# .118	+-.110F-01	111
1.67	2.00	0.8631	# 90.00	40.67	.888	+-.103	8.72	+-.1.01	# .112	+-.130F-01	111
1.76	2.05	1.5918	# 137.70	74.50	.243	+-.501E-01	2.65	+-.546	# .740F-01	+-.700F-02	224
1.84	2.08	1.7171	# 137.60	75.07	.257	+-.527E-01	3.06	+-.629	# .390E-01	+-.800E-02	224
1.85	2.09	1.7847	# 142.40	80.05	.300	+-.653E-01	3.62	+-.787	# .460F-01	+-.100E-01	224
3.46	2.72	0.4696	# 35.00	11.82							
		+-.0.0861	+-.3.50	+-.1.240	.894	+-.434	37.7	+-.18.3	# .350	+-.170	16
3.58	2.76	0.4888	# 35.00	11.67							
		+-.0.0901	+-.3.50	+-.1.225	.880	+-.4269	39.7	+-.12.1	# .360	+-.110	16
3.70	2.80	0.5080	# 35.00	11.53							
		+-.0.0940	+-.3.50	+-.1.210	.609	+-.211	29.4	+-.10.2	# .260	+-.900F-01	16
3.78	2.82	0.8297	# 45.00	14.94							
		+-.0.1191	+-.3.50	+-.1.261	.365	+-.912E-01	18.4	+-.4.59	# .160	+-.400F-01	16
3.82	2.84	0.5273	# 35.00	11.38							
		+-.0.0979	+-.3.50	+-.1.196	.517	+-.180	26.6	+-.9.25	# .230	+-.800E-01	16
3.94	2.88	0.5467	# 35.00	11.25							
		+-.0.1018	+-.3.50	+-.1.182	.779	+-.151	42.6	+-.8.28	# .360	+-.700E-01	16
4.06	2.92	0.5662	# 35.00	11.12							
		+-.0.1057	+-.3.50	+-.1.169	.729	+-.146	42.3	+-.8.46	# .350	+-.700E-01	16
4.30	2.99	\$ 5.7230	139.49	71.07	@ .129E-01	+-.277E-02	0.843	+-.180	# .668E-02	+-.143E-02	106
		\$ 5.8030	141.72	73.84	@ .168E-01	+-.352E-02	1.10	+-.229	# .869E-02	+-.182E-02	106
		\$ 5.9430	145.91	79.50	@ .262F-01	+-.629E-02	1.70	+-.409	# .135E-01	+-.324E-02	106
		\$ 6.0880	150.80	87.00	@ .268E-01	+-.428E-02	1.74	+-.278	# .138E-01	+-.221E-02	106
		\$ 6.2230	156.15	96.69	@ .401E-01	+-.742E-02	2.61	+-.483	# .207F-01	+-.383F-02	106
5.00	3.20	# 0.0201	2.60	.7384	# .173	+-.330E-01	15.2	+-.2.91	# .107	+-.204E-01	92
		# 0.0261	4.11	1.168	# .176	+-.570E-01	15.5	+-.5.02	# .169	+-.353E-01	92
		# 0.0361	5.81	1.653	# .151	+-.350E-01	13.3	+-.3.08	# .935F-01	+-.217F-01	92
		# 0.0551	8.12	2.310	# .241	+-.450E-01	21.2	+-.3.96	# .149	+-.279E-01	92
		# 0.0951	11.56	3.296	# .213	+-.460E-01	18.8	+-.4.05	# .132	+-.285E-01	92
		# 0.1731	16.33	4.667	# .150	+-.500E-01	13.2	+-.4.40	# .929E-01	+-.310E-01	92
		# 0.1791	16.64	4.757	# .440	+-.100E 00	38.7	+-.8.80	# .273	+-.620E-01	92
		# 0.3211	22.83	6.562	# .350	+-.900E-01	30.8	+-.7.92	# .217	+-.558E-01	92
		# 0.4561	27.51	7.945	# .260	+-.800E-01	22.9	+-.7.04	# .161	+-.496E-01	92
		# 0.6061	31.96	9.285	# .140	+-.500E-01	12.3	+-.4.40	# .867E-01	+-.310F-01	92
		# 0.7761	36.41	10.65	# .120	+-.500E-01	10.6	+-.4.40	# .743E-01	+-.310F-01	92

= NUMERICAL VALUE FROM TABLE Q = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA \$ = FOR DETAILS SEE REFERENCE
UNMARKED CROSS SECTIONS; ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C212: GAMMA + PROTON --> SIGMA ZERO + K+ (K > 1.05 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 1.1925 GEV
M4: 0.4938 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
5.00	3.20	# 0.9761	41.12	12.12	# .400E-01+-360E-01	3.52 +-3.17	.248E-01+-223E-01	92
		# 1.1561	45.00	13.37	# .260E-01+-250E-01	2.29 +-2.20	.161E-01+-155E-01	92
		# 0.0196	3.13	.7243	# .390E-01+-140E-01	8.79 +-3.16	.416E-01+-149E-01	92
		# 0.0296	4.43	1.025	# .810E-01+-120E-01	18.3 +-2.70	.863E-01+-128E-01	92
		# 0.0486	6.19	1.432	# .820E-01+-800E-02	18.5 +-1.80	.874E-01+-853E-02	92
		# 0.0896	8.87	2.054	# .940E-01+-150E-01	21.2 +-3.38	.100 +-160E-01	92
		# 0.1696	12.55	2.912	# .138 +-220E-01	31.1 +-4.96	.147 +-234E-01	92
		# 0.2596	15.71	3.652	# .126 +-270E-01	28.4 +-6.08	.134 +-288E-01	92
		# 0.3196	17.50	4.075	# .940E-01+-900E-02	21.2 +-2.03	.100 +-959E-02	92
		# 0.4496	20.89	4.878	# .900E-01+-160E-01	20.3 +-3.61	.959E-01+-171E-01	92
8.00	3.99	# 0.0296	24.44	5.729	# .680E-01+-170E-01	15.3 +-3.83	.725E-01+-181E-01	92
		# 0.06096	27.75	6.531	# .460E-01+-800E-02	10.4 +-1.80	.490E-01+-853E-02	92
		# 0.07796	31.22	7.384	# .140E-01+-800E-02	3.16 +-1.80	.169E-01+-853E-02	92
		# 0.2896	36.02	8.582	# .800E-02+-350E-02	1.80 +-789	.853E-02+-373E-02	92
		# 1.6596	41.10	9.885	# .130E-02+-210E-02	0.293 +-4.73	.139E-02+-224E-02	92
		# 2.0096	45.47	11.04	# .600E-03+-600E-03	0.135 +-1.35	.639E-03+-639E-03	92
		# 0.0268	3.72	.7427	# .440E-01+-800E-02	18.7 +-3.41	.666E-01+-121E-01	92
		# 0.0468	5.26	1.051	# .440E-01+-800E-02	18.7 +-3.41	.666E-01+-121E-01	92
		# 0.0868	7.44	1.488	# .630E-01+-600E-02	26.8 +-2.56	.953E-01+-908E-02	92
		# 0.1718	10.69	2.141	# .810E-01+-130E-01	34.5 +-5.54	.123 +-197E-01	92
11.00	4.64	# 0.3268	14.91	2.993	# .460E-01+-120E-01	19.6 +-5.11	.696E-01+-182E-01	92
		# 0.4668	17.90	3.602	# .530E-01+-110E-01	22.6 +-4.69	.802E-01+-166E-01	92
		# 0.7968	23.52	4.760	# .180E-01+-400E-02	7.67 +-1.70	.272E-01+-605E-02	92
		# 1.0068	26.52	5.385	# <.410E-02	<1.75	<.620E-02	92
		# 1.3068	30.32	6.189	# .310E-02+-900E-03	1.32 +-383	.469E-02+-136E-02	92
		# 2.0068	37.85	7.824	# <.310E-02	<1.32	<.469E-02	92
		# 0.0436	4.25	.7113	# .240E-01+-300E-02	21.6 +-2.70	.542E-01+-678E-02	92
		# 0.0826	6.01	1.007	# .360E-01+-300E-02	32.5 +-2.70	.813E-01+-678E-02	92
		# 0.1666	8.67	1.453	# .450E-01+-700E-02	40.6 +-6.31	.102 +-158E-01	92
		# 0.2646	10.98	1.844	# .460E-01+-700E-02	41.5 +-6.31	.104 +-158E-01	92
16.00	5.56	# 0.3146	12.00	2.015	# .310E-01+-500E-02	27.9 +-4.51	.700E-01+-113E-01	92
		# 0.4446	14.30	2.406	# .280E-01+-900E-02	25.2 +-8.11	.632E-01+-203E-01	92
		# 0.6046	16.72	2.817	# .130E-01+-400E-02	11.7 +-3.61	.294E-01+-903E-02	92
		# 0.7946	19.21	3.243	# .560E-02+-190E-02	5.05 +-1.71	.126E-01+-429E-02	92
		# 1.0046	21.64	3.662	# .320E-02+-130E-02	2.88 +-1.17	.723E-02+-294E-02	92
		# 1.3046	24.72	4.198	# .160E-02+-700E-03	1.44 +-631	.361E-02+-158E-02	92
		# 2.0046	30.79	5.273	# .180E-03+-110E-03	0.162 +-992E-01	.407E-03+-248E-03	92

C212: GAMMA + PROTON --> SIGMA ZERO + K+ (K > 1.05 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 1.1925 GEV
M4: 0.4938 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 16.00

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
# 0.0196	8.00	3.99	15.89	# .390E-01+-140E-01	8.79 +-3.16	92
# 0.0201	5.00	3.20	10.26	# .173 +-330E-01	15.2 +-2.91	92
# 0.0261	5.00	3.20	10.26	# .176 +-570E-01	15.5 +-5.02	92
# 0.0268	11.00	4.64	21.52	# .440E-01+-800E-02	18.7 +-3.41	92
# 0.0296	8.00	3.99	15.89	# .810E-01+-120E-01	18.3 +-2.70	92
# 0.0361	5.00	3.20	10.26	# .151 +-350E-01	13.3 +-3.08	92
# 0.0436	16.00	5.56	30.90	# .240E-01+-300E-02	21.6 +-2.70	92
# 0.0468	11.00	4.64	21.52	# .440E-01+-800E-02	18.7 +-3.41	92
# 0.0486	8.00	3.99	15.89	# .820E-01+-800E-02	18.5 +-1.80	92
# 0.0551	5.00	3.20	10.26	# .241 +-450E-01	21.2 +-3.96	92
# 0.0926	16.00	5.56	30.90	# .360E-01+-300E-02	32.5 +-2.70	92
# 0.0868	11.00	4.64	21.52	# .630E-01+-600E-02	26.8 +-2.56	92
# 0.0896	8.00	3.99	15.89	# .940E-01+-150E-01	21.2 +-3.38	92
# 0.0951	5.00	3.20	10.26	# .213 +-460E-01	18.8 +-4.05	92
# 0.1666	16.00	5.56	30.90	# .450E-01+-700E-02	40.6 +-6.31	92
# 0.1696	8.00	3.99	15.89	# .138 +-220E-01	31.1 +-4.96	92
# 0.1718	11.00	4.64	21.52	# .810E-01+-130E-01	34.5 +-5.54	92
# 0.1731	5.00	3.20	10.26	# .150 +-500E-01	13.2 +-4.40	92
# 0.1791	5.00	3.20	10.26	# .440 +-100E 00	38.7 +-8.80	92
# 0.2596	8.00	3.99	15.89	# .126 +-270E-01	28.4 +-6.08	92
# 0.2646	16.00	5.56	30.90	# .460E-01+-700E-02	41.5 +-6.31	92
# 0.3146	16.00	5.56	30.90	# .310E-01+-500E-02	27.9 +-4.51	92
# 0.3196	8.00	3.99	15.89	# .940E-01+-900E-02	21.2 +-2.03	92
# 0.3211	5.00	3.20	10.26	# .350 +-900E-01	30.8 +-7.92	92
# 0.3268	11.00	4.64	21.52	# .460E-01+-120E-01	19.6 +-5.11	92
# 0.4446	16.00	5.56	30.90	# .280E-01+-900E-02	25.2 +-8.11	92
# 0.4496	8.00	3.99	15.89	# .900E-01+-160E-01	20.3 +-3.61	92
# 0.4561	5.00	3.20	10.26	# .260 +-800E-01	22.9 +-7.04	92

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 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C212: GAMMA + PROTON --> SIGMA ZERO + K+ (K > 1.05 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 1.1925 GEV
M4: 0.4938 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 16.00

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
# 0.4668	11.00	4.64	21.52	# .530E-01+- .110E-01	22.6 +-4.69	92
0.4696+- 0.0861	3.46	2.72	7.37	.894 +- .434	37.7 +-18.3	16
0.4888+- 0.0901	3.58	2.76	7.60	.880 +- .269	39.7 +-12.1	16
0.5080+- 0.0940	3.70	2.80	7.82	.609 +- .211	29.4 +-10.2	16
0.5273+- 0.0979	3.82	2.84	8.05	.517 +- .180	26.6 +-9.25	16
0.5467+- 0.1018	3.94	2.88	8.27	.779 +- .151	42.6 +-8.28	16
0.5662+- 0.1057	4.06	2.92	8.50	.729 +- .146	42.3 +-8.46	16
# 0.6046	16.00	5.56	30.90	# .130E-01+- .400E-02	11.7 +-3.61	92
# 0.6061	5.00	3.20	10.26	# .140 +- .500E-01	12.3 +-4.40	92
# 0.6096	8.00	3.99	15.89	# .680E-01+- .170E-01	15.3 +-3.83	92
# 0.7761	5.00	3.20	10.26	# .120 +- .500E-01	10.6 +-4.40	92
# 0.7796	8.00	3.99	15.89	# .460E-01+- .800E-02	10.4 +-1.80	92
# 0.7946	16.00	5.56	30.90	# .560E-02+- .190E-02	5.05 +-1.71	92
# 0.7966	11.00	4.64	21.52	# .180E-01+- .400E-02	7.67 +-1.70	92
0.8297+- 0.1191	3.78	2.82	7.97	.365 +- .912E-01	18.4 +-4.59	16
# 0.9761	5.00	3.20	10.26	# .400E-01+- .360E-01	3.52 +-3.17	92
# 0.9796	8.00	3.99	15.89	# .140E-01+- .800E-02	3.16 +-1.80	92
# 1.0046	16.00	5.56	30.90	# .320E-02+- .130E-02	2.88 +-1.17	92
# 1.0068	11.00	4.64	21.52	# <.410E-02	<1.75	92
# 1.1561	5.00	3.20	10.26	# .260E-01+- .250E-01	2.29 +-2.20	92
# 1.2896	8.00	3.99	15.89	# .800E-02+- .350E-02	1.80 +- .789	92
# 1.3046	16.00	5.56	30.90	# .160E-02+- .700E-03	1.44 +- .631	92
# 1.3068	11.00	4.64	21.52	# .310E-02+- .900E-03	1.32 +- .383	92
# 1.6596	8.00	3.99	15.89	# .130E-02+- .210E-02	.293 +- .473	92
# 2.0046	16.00	5.56	30.90	# .180E-03+- .110E-03	.162 +- .992E-01	92
# 2.0068	11.00	4.64	21.52	# <.310E-02	<1.32	92
# 2.0096	8.00	3.99	15.89	# .600E-03+- .600E-03	.135 +- .135	92

1.56 GEV < K < GEV 2.00

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
0.1721	1.56	1.95	3.81	2.42 +- .155	20.8 +-1.33	127

C212: GAMMA + PROTON --> SIGMA ZERO + K+ (K > 1.05 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 1.1925 GEV
M4: 0.4938 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 1.52 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM	D SIG/D MU BARN/GEV**2	D SIG/D MU BARN/GEV**2	REF
1.52	1.93	3.73	0.454	1.52 +- .116	# 90.0	23.7	# .157 +- .120E-01	111
1.58	1.96	3.85	0.126	.827 +- .107	# 56.7	16.0	# .930E-01+- .120E-01	224
1.59	1.97	3.86	0.525	1.30 +- .789E-01	# 90.0	24.5	# .148 +- .900E-02	111
1.60	1.97	3.88	-0.004	.242 +- .692E-01	# 42.1	12.0	# .780E-01+- .800E-02	224
1.62	1.98	3.92	0.555	1.15 +- .843E-01	# 90.0	24.7	# .136 +- .100E-01	111
1.65	1.99	3.98	0.585	.958 +- .893E-01	# 90.0	25.0	# .118 +- .110E-01	111
1.67	2.00	4.01	0.605	.888 +- .103	# 90.0	25.1	# .112 +- .130E-01	111
1.76	2.05	4.18	0.045	.243 +- .501E-01	# 42.3	12.4	# .340E-01+- .700E-02	224
1.84	2.08	4.33	0.070	.257 +- .527E-01	# 42.4	12.6	# .390E-01+- .800E-02	224
1.85	2.09	4.35	0.021	.300 +- .653E-01	# 37.6	11.2	# .460E-01+- .100E-01	224
4.30	2.99	8.95	0.180	.401E-01+- .742E-02	23.8	6.4	.207E-01+- .383E-02	106
			0.315	.268E-01+- .428E-02	29.2	7.8	.138E-01+- .221E-02	106
			0.460	.262E-01+- .629E-02	34.1	9.2	.135E-01+- .324E-02	106
			0.600	.168E-01+- .352E-02	38.3	10.3	.869E-02+- .182E-02	106
			0.680	.129E-01+- .277E-02	40.5	11.0	.668E-02+- .143E-02	106

= NUMERICAL VALUE FROM TABLE @ = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA
 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C213: GAMMA + PROTON --> LAMBDA ZERO + K+ (K > 0.91 GEV)

M2: 0.9383 GEV
 M3: 1.1156 GEV
 M4: 0.4938 GEV

TOTAL CROSS SECTION

K GEV	E* GEV	SIGMA MU BARN	SIGMA*(S-M**2)**2 MU BARN*GEV**2	REF
0.91 - 1.00	1.63	# 1.40 +- .370	4.48 +-1.18	100
1.00 - 1.10	1.69	# 1.36 +- .360	5.24 +-1.39	100
1.10 - 1.20	1.74	# 1.85 +- .450	8.57 +-2.08	100
1.20 - 1.30	1.80	# 2.16 +- .510	11.8 +-2.79	100
1.30 - 1.40	1.85	# 2.11 +- .530	13.5 +-3.39	100
1.40 - 1.50	1.90	# 1.40 +- .440	10.3 +-3.25	100
1.50 - 1.60	1.95	# 1.42 +- .470	12.0 +-3.96	100
1.60 - 1.70	1.99	# 2.04 +- .590	19.5 +-5.64	100
1.70 - 1.80	2.04	# 1.27 +- .480	13.7 +-5.16	100
1.80 - 1.90	2.09	# 1.20 +- .490	14.4 +-5.89	100
1.90 - 2.00	2.13	# 1.51 +- .570	20.2 +-7.62	100
2.00 - 2.40	2.23	# .500 +- .190	8.31 +-3.16	100
2.40 - 2.80	2.39	# .460 +- .190	10.8 +-4.44	100
2.80 - 3.20	2.55	# .600 +- .250	18.8 +-7.82	100
3.20 - 3.60	2.69	# .780 +- .290	31.4 +-11.7	100
3.60 - 5.80	3.04	# .120 +- .600E-01	7.91 +-3.95	100

C213: GAMMA + PROTON --> LAMBDA ZERO + K+ (K > 0.91 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.1156 GEV
 M4: 0.4938 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
0.93	1.62	0.2962	# 90.00 16.79	3.70 +- .269	11.3 +- .819	# .550E-01 +- .400E-02	27
0.97	1.64	0.1832	# 31.10 9.835	4.94 +- .295	16.4 +- .978	# .134 +- .800E-02	27
		0.2544	# 64.00 19.82	4.91 +- .295	16.3 +- .978	# .133 +- .800E-02	27
		0.4142	# 120.00 31.66	2.43 +- .111	8.07 +- .367	# .660E-01 +- .390E-02	224
0.98	1.65	0.2660	# 67.40 21.80	3.32 +- .135	11.2 +- .458	# .980E-01 +- .400E-02	224
		0.3373	# 90.00 28.26	2.40 +- .135	8.13 +- .458	# .710E-01 +- .400E-02	224
0.99	1.65	0.2351	# 56.50 19.12	3.52 +- .377	12.1 +-1.30	# .112 +- .120E-01	202
1.00	1.66	0.1686	# 30.00 10.52	5.99 +- .206	21.1 +- .724	# .204 +- .700E-02	27
		0.2478	# 60.30 21.02	4.96 +- .264	17.5 +- .931	# .169 +- .900E-02	27
		0.3486	# 88.60 30.29	4.52 +- .264	15.9 +- .931	# .154 +- .900E-02	27
		0.4986	# 132.60 39.51	3.55 +- .294	12.5 +-1.03	# .121 +- .100E-01	27
1.01	1.67	0.2286	# 54.00 19.35	3.90 +- .359	14.0 +-1.29	# .141 +- .130E-01	202
1.02	1.67	0.1631	# 30.30 11.10	5.96 +- .288	21.9 +-1.05	# .228 +- .110E-01	27
		0.1965	# 43.60 15.57	5.13 +- .288	18.8 +-1.05	# .196 +- .110E-01	27
		0.2348	# 55.60 20.37	5.23 +- .262	19.2 +- .958	# .200 +- .100E-01	27
		0.2875	# 66.80 25.53	4.06 +- .209	14.9 +- .767	# .155 +- .800E-02	27
		0.2848	# 69.10 25.27	4.00 +- .157	14.7 +- .575	# .153 +- .600E-02	224
		0.3705	# 90.00 32.65	3.69 +- .157	13.5 +- .575	# .141 +- .600E-02	224
		0.3880	# 94.20 34.06	3.79 +- .288	13.9 +-1.05	# .145 +- .110E-01	27
		0.3997	# 97.00 34.99	3.48 +- .157	12.7 +- .575	# .133 +- .600E-02	27
1.04	1.68	0.1998	# 45.00 17.07	5.45 +- .190	20.8 +- .723	# .230 +- .800E-02	27
		0.1521	# 27.50 10.40	6.66 +- .332	25.4 +-1.26	# .281 +- .140E-01	27
1.05	1.69	0.1557	# 30.00 11.51	6.26 +- .340	24.3 +-1.32	# .276 +- .150E-01	27
		0.1581	# 31.00 11.89	6.44 +- .499	25.0 +-1.94	# .284 +- .220E-01	7
		0.1913	# 42.50 16.34	6.15 +- .295	23.9 +-1.15	# .271 +- .130E-01	27
		0.2102	# 48.00 18.48	5.29 +- .431	20.5 +-1.67	# .233 +- .190E-01	7
		0.2194	# 50.50 19.45	5.38 +- .340	20.9 +-1.32	# .237 +- .150E-01	202
		0.2308	# 53.50 20.62	5.54 +- .318	21.5 +-1.23	# .244 +- .140E-01	27
		0.3379	# 78.00 30.20	3.90 +- .250	15.2 +- .969	# .172 +- .110E-01	202
		0.3484	# 80.20 31.06	4.45 +- .272	17.3 +-1.06	# .196 +- .120E-01	27
		0.3940	# 89.70 34.74	3.56 +- .204	13.8 +- .793	# .157 +- .900E-02	27
		0.5819	# 132.30 48.98	2.79 +- .250	10.8 +- .969	# .123 +- .110E-01	27
1.06	1.69	0.2145	# 49.00 19.11	5.64 +- .370	22.3 +-1.46	# .259 +- .170E-01	202
		0.3340	# 76.00 29.87	4.07 +- .196	16.1 +- .775	# .187 +- .900E-02	202
		0.4039	# 90.00 35.45	3.53 +- .131	14.0 +- .517	# .162 +- .600E-02	224
		0.5134	# 112.30 44.04	3.00 +- .152	11.9 +- .603	# .138 +- .700E-02	224
		0.5482	# 120.00 46.76	2.83 +- .109	11.2 +- .431	# .130 +- .500E-02	224
		0.6080	# 135.00 51.12	2.26 +- .218	8.96 +- .861	# .104 +- .100E-01	224
1.08	1.70	0.2062	# 46.50 18.51	5.63 +- .363	23.1 +-1.49	# .279 +- .180E-01	7
		0.2062	# 46.50 18.51	4.92 +- .242	20.2 +- .994	# .244 +- .120E-01	27
		0.4207	# 50.00 36.50	3.19 +- .161	13.1 +- .663	# .158 +- .800E-02	27
		0.5750	# 119.70 48.64	2.52 +- .161	10.4 +- .663	# .125 +- .800E-02	27
1.09	1.71	0.2132	# 48.00 19.30	4.83 +- .234	20.2 +- .978	# .248 +- .120E-01	202
		0.3374	# 73.50 29.93	4.07 +- .195	17.0 +- .815	# .209 +- .100E-01	202
		0.4628	# 96.00 39.53	2.67 +- .156	11.2 +- .652	# .137 +- .800E-02	202
1.10	1.72	0.4375	# 90.00 37.38	2.62 +- .410	11.2 +-1.75	# .139 +- .218E-01	45
		0.4375	# 90.00 37.38	3.03 +- .113	12.9 +- .481	# .161 +- .600E-02	224
1.11	1.72	0.2131	# 47.50 19.39	4.27 +- .219	18.5 +- .949	# .234 +- .120E-01	202
		0.3423	# 72.50 30.05	3.72 +- .237	16.1 +-1.03	# .204 +- .130E-01	202
		0.4670	# 93.50 39.33	2.57 +- .146	11.2 +- .633	# .141 +- .800E-02	202
1.15	1.74	0.2133	# 46.50 19.42	4.11 +- .146	19.1 +- .680	# .253 +- .900E-02	202

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 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C213: GAMMA + PROTON --> LAMBDA ZERO + K+ (K > 0.91 GEV)

(CONTINUED)

M2: 0.9383 GEV
 M3: 1.1156 GEV
 M4: 0.4938 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
1.15	1.74	0.3537	# 71.00 30.22	3.39 +-1.179	15.8 +-1.831	# .209 +-1.10E-01	202
		0.4865	# 91.00 39.51	2.13 +-2.227	9.90 +-1.06	# .131 +-1.40E-01	202
1.16	1.75	0.1666	# 36.00 15.01	4.09 +-2.659	19.4 +-12.7	# .259 +-1.170	22
		0.2895	# 60.00 25.42	3.26 +-1.90	15.4 +-8.99	# .206 +-1.120	22
		0.3854	# 75.00 32.22	3.24 +-2.53	15.4 +-12.0	# .205 +-1.160	22
		0.4883	# 90.00 39.30	2.10 +-1.58	9.96 +-7.49	# .133 +-1.00E-00	22
		0.5912	#105.00 46.67	1.69 +-7.90E-01	8.01 +-1.374	# .107 +-5.00E-02	224
		0.6870	#120.00 54.32	1.23 +-6.32E-01	5.84 +-1.300	# .780E-01+-4.00E-02	224
		0.7694	#135.00 62.18	1.09 +-6.32E-01	5.17 +-1.300	# .690E-01+-4.00E-02	224
		0.7694	#135.00 62.18	1.25 +-1.42	5.92 +-6.74	# .790E-01+-9.00E-01	22
1.17	1.75	0.2134	# 46.00 19.37	3.80 +-1.231	18.3 +-1.11	# .247 +-1.50E-01	202
		0.3539	# 69.50 29.85	3.02 +-1.185	14.6 +-1.891	# .196 +-1.20E-01	202
		0.4897	# 89.00 39.05	2.88 +-1.185	10.0 +-1.891	# .135 +-1.20E-01	202
1.19	1.76	0.5138	# 90.00 39.97	1.89 +-1.132	9.44 +-1.658	# .129 +-1.900E-02	111
1.20	1.77	0.0988	# 15.00 6.280	5.43 +-3.87E-01	27.5 +-1.196	# .379 +-2.70E-02	7
		0.1249	# 25.00 10.50	4.79 +-1.215	24.3 +-1.09	# .334 +-1.50E-01	7
		0.1426	# 30.00 12.63	4.89 +-2.72E-01	24.8 +-1.138	# .341 +-1.90E-02	7
		0.1427	P# 30.03 12.64	P 5.06 +-2.72	25.6 +-1.38	P# .353 +-1.90E-01	127
		0.1631	# 35.00 14.78	4.30 +-2.01E-01	21.8 +-1.102	# .300 +-1.40E-02	7
		0.1965	# 42.00 17.81	4.07 +-2.15	20.6 +-1.09	# .284 +-1.50E-01	7
		0.2347	# 49.00 20.89	4.04 +-2.29	20.5 +-1.16	# .282 +-1.60E-01	7
		0.2708	# 55.00 23.57	3.95 +-2.29	20.1 +-1.16	# .276 +-1.60E-01	7
		0.3233	# 63.00 27.21	3.45 +-2.29	17.5 +-1.16	# .241 +-1.60E-01	7
		0.3724	# 70.00 30.46	2.89 +-2.01	14.7 +-1.02	# .202 +-1.40E-01	7
		0.4312	# 78.00 34.26	2.78 +-2.44	14.1 +-1.24	# .194 +-1.70E-01	7
		0.4841	# 85.00 37.68	2.21 +-2.58	11.2 +-1.31	# .154 +-1.80E-01	7
		0.5223	# 90.00 40.17	2.05 +-3.14	10.4 +-1.59	# .143 +-2.19E-01	45
		0.7416	#120.00 56.16	1.35 +-5.73E-01	6.83 +-1.291	# .940E-01+-4.00E-02	224
1.21	1.78	0.5309	# 90.00 40.35	2.00 +-1.40	10.3 +-1.722	# .143 +-1.00E-01	111
0.91 - 1.40	1.72	# 0.1000-	-----	# 4.18 +-1.58	17.2 +-6.50	-----	100
		# 0.1600-	-----	# 4.36 +-1.17	17.9 +-4.81	-----	100
		# 0.2400-	-----	# 5.00 +-1.18	20.6 +-4.85	-----	100
		# 0.3200-	-----	# 3.25 +-1.980	13.4 +-4.03	-----	100
		# 0.4000-	-----	# 1.72 +-1.460	7.08 +-1.89	-----	100
		# 0.6000-	-----	# 1.15 +-1.470	4.73 +-1.93	-----	100
		# 0.8000-	-----	# 1.96 +-1.690	8.06 +-2.84	-----	100
		# 1.0500-	-----	-----	-----	-----	100
		# 0.0 -	-----	-----	-----	# .210 +-1.560E-01	100
		# 39.60-	-----	-----	-----	# .276 +-1.630E-01	100
		# 60.00-	-----	-----	-----	# .165 +-1.480E-01	100
		# 75.50-	-----	-----	-----	# .125 +-1.420E-01	100
		# 90.00-	-----	-----	-----	# .120 +-1.420E-01	100
		# 104.50-	-----	-----	-----	# .710E-01+-1.320E-01	100
		# 120.00-	-----	-----	-----	# .122 +-1.430E-01	100
		# 140.40-	-----	-----	-----	# .530E-01+-1.210E-01	100
1.30	1.82	# 0.0737	# 6.00 2.544	3.75 +-1.386	22.3 +-2.30	# .321 +-1.330E-01	127
		# 0.0789	# 10.00 4.243	3.67 +-1.234	21.8 +-1.39	# .314 +-1.200E-01	127
		# 0.0890	# 15.00 6.372	3.69 +-1.187	22.0 +-1.11	# .316 +-1.160E-01	127
		# 0.1031	# 20.00 8.511	3.83 +-1.152	22.8 +-1.904	# .328 +-1.130E-01	127
		# 0.1427	# 30.00 12.83	3.94 +-1.210	23.4 +-1.25	# .337 +-1.180E-01	127
		# 0.1965	# 40.00 17.23	3.86 +-1.234	23.0 +-1.39	# .330 +-1.200E-01	127
		# 0.2627	# 50.00 21.74	3.45 +-1.175	20.5 +-1.04	# .295 +-1.150E-01	127
		# 0.3395	# 60.00 26.35	2.72 +-1.175	16.2 +-1.04	# .233 +-1.150E-01	127
		# 0.4244	# 70.00 31.21	2.34 +-1.199	13.9 +-1.18	# .200 +-1.170E-01	127
		# 0.5149	# 80.00 36.22	2.06 +-1.210	12.2 +-1.25	# .176 +-1.180E-01	127
		# 0.6082	# 90.00 41.48	1.60 +-1.199	9.53 +-1.18	# .137 +-1.170E-01	127
		0.6082	# 90.00 41.48	1.67 +-1.298	9.95 +-1.77	# .143 +-1.255E-01	45
		0.8539	#117.20 57.37	1.25 +-1.468E-01	7.44 +-1.278	# .107 +-1.400E-02	224
		0.8770	#120.00 59.17	1.22 +-1.351E-01	7.23 +-1.209	# .104 +-1.300E-02	224
		0.9279	#126.50 63.52	1.25 +-1.468E-01	7.44 +-1.278	# .107 +-1.400E-02	224
1.31	1.83	0.9809	#131.70 67.51	1.03 +-1.574E-01	6.24 +-1.347	# .900E-01+-5.00E-02	224
1.30	1.82	0.9883	#135.00 69.64	1.01 +-1.468E-01	5.98 +-1.278	# .860E-01+-4.00E-02	224
1.32	1.83	0.6255	# 90.00 41.64	1.44 +-1.790E-01	8.86 +-1.485	# .128 +-1.700E-02	111
1.33	1.84	0.2908	# 52.70 23.05	2.99 +-1.244	18.7 +-1.52	# .270 +-1.220E-01	127
		0.3682	# 62.00 27.43	2.65 +-1.222	16.5 +-1.38	# .239 +-1.200E-01	127
1.34	1.84	0.0776	# 11.20 4.761	3.64 +-1.273	23.0 +-1.72	# .334 +-1.250E-01	127
		0.0939	# 17.70 7.540	3.81 +-1.196	24.1 +-1.24	# .349 +-1.180E-01	127
		0.1136	# 23.30 9.950	3.94 +-1.164	24.9 +-1.03	# .361 +-1.150E-01	127
		0.1623	# 33.50 14.40	3.71 +-1.207	23.4 +-1.31	# .340 +-1.190E-01	127
		0.2228	# 43.20 18.72	3.26 +-1.218	20.6 +-1.38	# .299 +-1.200E-01	127
		0.6428	# 90.00 41.78	1.55 +-1.763E-01	9.79 +-1.483	# .142 +-1.700E-02	111
1.36	1.85	0.6602	# 90.00 41.90	1.42 +-1.739E-01	9.28 +-1.481	# .135 +-1.700E-02	111
1.37	1.86	0.6689	# 90.00 41.95	1.28 +-1.831E-01	8.44 +-1.549	# .123 +-1.800E-02	111
1.40	1.87	0.0906	# 17.50 7.454	2.69 +-2.28	18.5 +-1.57	# .271 +-1.230	22

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C213: GAMMA + PROTON --> LAMBDA ZERO + K+ (K > 0.91 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.1156 GEV
 M4: 0.4938 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF			
1.40	1.87	0.1207	# 25.00	10.65	2.58	+1.98	17.8	+13.7	# .260	+-.200	22
		0.1605	# 32.50	13.97	2.71	+1.98	18.7	+13.7	# .273	+-.200	22
		0.2095	# 40.00	17.30	2.42	+1.98	16.7	+13.7	# .244	+-.200	22
		0.2469	# 45.00	19.56	2.52	+1.59	17.4	+10.9	# .254	+-.160	22
		0.3781	# 60.00	26.57	2.19	+1.19	15.1	+8.21	# .221	+-.120	22
		0.5310	# 75.00	34.03	1.81	+1.29	12.5	+8.90	# .183	+-.130	22
		0.6950	# 90.00	42.08	1.55	+-.793	10.7	+5.47	# .156	+-.800E-01	22
		1.0118	#120.00	60.84	1.18	+-.397E-01	8.14	+-.274	# .119	+-.400E-02	224
		1.1430	#135.00	72.37	1.20	+-.496E-01	8.28	+-.342	# .121	+-.500E-02	224
		1.1977	#142.50	79.12	1.31	+1.88	9.03	+13.0	# .132	+-.190	22
1.44	1.89	0.7299	# 90.00	42.20	1.07	+-.561E-01	7.79	+-.410	# .114	+-.600E-02	111
1.45	1.90	0.1427	P# 28.97	12.40	P 3.14	+-.148	23.2	+1.09	P# .340	+-.160F-01	127
1.47	1.91	0.7561	# 50.00	42.25	1.07	+-.539E-01	8.13	+-.410	# .119	+-.600E-02	111
1.48	1.91	1.1718	#125.00	65.40	1.07	+-.443E-01	8.27	+-.342	# .121	+-.500E-02	224
		1.2665	#135.00	73.74	1.23	+-.443E-01	9.50	+-.342	# .139	+-.500E-02	224
1.49	1.92	0.7736	# 90.00	42.27	1.08	+-.612E-01	8.47	+-.478	# .124	+-.700E-02	111
1.52	1.93	0.8000	# 90.00	42.29	.925	+-.589E-01	7.53	+-.479	# .110	+-.700E-02	111
1.55	1.95	1.3745	#135.00	74.55	.965	+-.405E-01	8.16	+-.343	# .119	+-.500E-02	224
1.62	1.98	1.4825	#135.00	75.09	.785	+-.374E-01	7.25	+-.345	# .105	+-.500E-02	224
		1.5321	#140.00	80.11	.852	+-.374E-01	7.87	+-.345	# .114	+-.500E-02	224
1.70	2.02	1.6061	#135.00	75.49	.549	+-.206E-01	5.59	+-.210	# .800E-01	+-.300E-02	224
1.40 - 1.80	1.96	# 0.0500-	0.2400	-----	# 1.00	+-.450	8.60	+3.87	-----	-----	100
		# 0.2400-	0.4000	-----	# 1.86	+-.700	16.0	+6.02	-----	-----	100
		# 0.4000-	0.6000	-----	# 1.21	+-.490	10.4	+4.21	-----	-----	100
		# 0.6000-	0.8000	-----	# 1.60	+-.570	13.8	+4.90	-----	-----	100
		# 0.8000-	1.0000	-----	# .980	+-.440	8.43	+3.78	-----	-----	100
		# 1.0000-	1.7000	-----	# .520	+-.200	4.47	+1.72	-----	-----	100
		# 0.0 -	39.60	-----	-----	-----	-----	-----	# .177	+-.670E-01	100
		# 39.60-	60.00	-----	-----	-----	-----	-----	# .248	+-.830E-01	100
		# 60.00-	75.50	-----	-----	-----	-----	-----	# .128	+-.570E-01	100
		# 75.50-	90.00	-----	-----	-----	-----	-----	# .106	+-.530E-01	100
		# 90.00-	120.00	-----	-----	-----	-----	-----	# .710E-01	+-.290E-01	100
		#120.00-	180.00	-----	-----	-----	-----	-----	# .880E-01	+-.330E-01	100
1.80 - 5.80	2.46	# 0.0500-	0.0800	-----	# 1.16	+-.580	24.1	+12.1	-----	-----	100
		# 0.0800-	0.1600	-----	# .780	+-.320	16.2	+6.66	-----	-----	100
		# 0.1600-	0.2400	-----	# .850	+-.340	17.7	+7.08	-----	-----	100
		# 0.2400-	0.4000	-----	# .310	+-.120	6.45	+2.50	-----	-----	100
		# 0.4000-	0.5600	-----	# .400	+-.130	8.33	+2.71	-----	-----	100
		# 0.5600-	0.8400	-----	# .190	+-.700E-01	3.95	+1.46	-----	-----	100
		# 0.8400-	1.3600	-----	# .600E-01	+-.300E-01	1.25	+-.624	-----	-----	100
		# 0.0 -	18.00	-----	-----	-----	-----	-----	# .253	+-.960E-01	100
		# 18.00-	25.80	-----	-----	-----	-----	-----	# .274	+-.976E-01	100
		# 25.80-	36.80	-----	-----	-----	-----	-----	# .750E-01	+-.310E-01	100
		# 36.80-	45.50	-----	-----	-----	-----	-----	# .380E-01	+-.196E-01	100
		# 45.50-	53.10	-----	-----	-----	-----	-----	# .133	+-.400E-01	100
		# 53.10-	60.00	-----	-----	-----	-----	-----	# .360E-01	+-.186E-01	100
		# 60.00-	90.00	-----	-----	-----	-----	-----	# .900E-02	+-.500E-02	100
3.46	2.72	0.4770	# 35.00	11.86	.765	+-.272	32.3	+11.4	# .310	+-.110	16
3.58	2.76	+0.0892	+3.50	+1.245	.710	+-.189	32.0	+8.54	# .300	+-.800E-01	16
3.70	2.80	+0.0931	+3.50	+1.229	.499	+-.159	24.1	+7.66	# .220	+-.700E-01	16
3.78	2.82	+0.0970	+3.50	+1.214	.309	+-.663E-01	15.6	+3.34	# .140	+-.300F-01	16
3.82	2.84	+0.08476	+3.50	+1.265	.196	+-.131	10.1	+6.73	# .900E-01	+-.600E-01	16
3.94	2.88	+0.1009	+3.50	+1.199	.252	+-.105	13.8	+5.74	# .120	+-.500E-01	16
4.06	2.92	+0.5356	+3.50	+1.127	.344	+-.101	20.0	+5.88	# .170	+-.500E-01	16
4.30	2.99	+0.1048	+3.50	+1.185	.604E-02	+-.151E-02	0.393	+-.982E-01	.320E-02	+-.799E-03	106
		+0.5750	+3.50	+1.14							
		+0.1087	+3.50	+1.172							
		+5.9006	140.34	72.58							

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C213: GAMMA + PROTON --> LAMBDA ZERO + K+ (K > 0.91 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 1.1156 GEV
M4: 0.4938 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
4.30	2.99	\$ 5.9806	142.55	75.42	@ .112E-01+- .176E-02	0.729 +- .115	.592E-02+- .932E-03	106
		\$ 6.1206	146.72	81.25	@ .152E-01+- .302E-02	0.991 +- .197	.806E-02+- .160E-02	106
		\$ 6.2656	151.59	89.02	@ .156E-01+- .252E-02	1.02 +- .164	.826E-02+- .133E-02	106
		\$ 6.4006	156.95	99.13	@ .270E-01+- .453E-02	1.76 +- .295	.143E-01+- .240E-02	106
		# 0.0110	0.57	.1635	# .340 +- .600E-01	29.9 +- 5.28	.215 +- .380E-01	92
5.00	3.20	# 0.0148	2.57	.7312	# .333 +- .220E-01	29.3 +- 1.94	.211 +- .139E-01	92
		# 0.0208	4.06	1.157	# .425 +- .380E-01	37.4 +- 3.35	.269 +- .241E-01	92
		# 0.0308	5.75	1.636	# .398 +- .250E-01	35.0 +- 2.20	.252 +- .158E-01	92
		# 0.0498	8.03	2.288	# .405 +- .310E-01	35.7 +- 2.73	.256 +- .196E-01	92
		# 0.0898	11.44	3.263	# .424 +- .300E-01	37.3 +- 2.64	.269 +- .190E-01	92
		# 0.1678	16.15	4.621	# .473 +- .320E-01	41.6 +- 2.82	.300 +- .203E-01	92
		# 0.1738	16.46	4.710	# .394 +- .390E-01	34.7 +- 3.43	.250 +- .247E-01	92
		# 0.3158	22.58	6.496	# .341 +- .370E-01	30.0 +- 3.26	.216 +- .234E-01	92
		# 0.4508	27.20	7.864	# .325 +- .330E-01	28.6 +- 2.91	.206 +- .209E-01	92
		# 0.6008	31.60	9.188	# .228 +- .250E-01	20.1 +- 2.20	.144 +- .158E-01	92
		# 0.7708	36.00	10.54	# .134 +- .200E-01	11.8 +- 1.76	.849E-01+- .127E-01	92
		# 0.9708	40.65	11.99	# .920E-01+- .160E-01	8.10 +- 1.41	.583E-01+- .101E-01	92
		# 1.1508	44.48	13.22	# .500E-01+- .110E-01	4.40 +- .968	.317E-01+- .697E-02	92
		# 0.0069	0.70	.1609	# .940E-01+- .330E-01	21.2 +- 7.44	.101 +- .356E-01	92
		# 0.0093	1.68	.3876	# .790E-01+- .180E-01	17.8 +- 4.06	.853E-01+- .194E-01	92
8.00	3.99	# 0.0114	2.20	.5090	# .105 +- .140E-01	23.7 +- 3.16	.113 +- .151E-01	92
		# 0.0164	3.11	.7199	# .130 +- .300E-01	29.3 +- 6.76	.140 +- .324E-01	92
		# 0.0264	4.40	1.018	# .127 +- .600E-02	28.6 +- 1.35	.137 +- .648E-02	92
		# 0.0454	6.15	1.423	# .141 +- .500E-02	31.8 +- 1.13	.152 +- .540E-02	92
		# 0.0864	8.81	2.041	# .161 +- .900E-02	36.3 +- 2.03	.174 +- .648E-02	92
		# 0.1664	12.47	2.895	# .161 +- .120E-01	36.3 +- 2.70	.174 +- .130E-01	92
		# 0.2564	15.60	3.630	# .147 +- .160E-01	33.1 +- 3.61	.159 +- .173E-01	92
		# 0.3164	17.39	4.050	# .135 +- .600E-02	30.4 +- 1.35	.146 +- .648E-02	92
		# 0.4464	20.75	4.848	# .980E-01+- .800E-02	22.1 +- 1.80	.106 +- .864E-02	92
		# 0.6064	24.28	5.693	# .760E-01+- .700E-02	17.1 +- 1.58	.820E-01+- .756E-02	92
		# 0.7764	27.57	6.489	# .410E-01+- .300E-02	9.24 +- .676	.443E-01+- .324E-02	92
		# 0.9764	31.02	7.337	# .240E-01+- .300E-02	5.41 +- .676	.259E-01+- .324E-02	92
		# 1.2864	35.78	8.526	# .910E-02+- .130E-02	2.05 +- .293	.982E-02+- .140E-02	92
		# 1.6564	40.82	9.818	# .290E-02+- .900E-03	0.654 +- .203	.313E-02+- .972E-03	92
		# 2.0064	45.16	10.96	# .860E-03+- .320E-03	0.194 +- .721E-01	.928E-03+- .972E-03	92
11.00	4.64	# 0.0057	0.87	.1733	# .570E-01+- .130E-01	24.3 +- 5.54	.870E-01+- .198E-01	92
		# 0.0120	2.25	.4497	# .700E-01+- .140E-01	29.8 +- 5.97	.107 +- .214E-01	92
		# 0.0246	3.70	.7395	# .580E-01+- .500E-02	24.7 +- 2.13	.885E-01+- .763E-02	92
		# 0.0446	5.23	1.046	# .710E-01+- .400E-02	30.3 +- 1.70	.108 +- .611E-02	92
		# 0.0846	7.40	1.481	# .790E-01+- .400E-02	33.7 +- 1.70	.121 +- .611E-02	92
		# 0.1696	10.64	2.132	# .800E-01+- .600E-02	34.1 +- 2.56	.122 +- .916E-02	92
		# 0.3246	14.84	2.980	# .780E-01+- .700E-02	33.2 +- 2.98	.119 +- .107E-01	92
		# 0.4646	17.82	3.586	# .580E-01+- .500E-02	24.7 +- 2.13	.885E-01+- .763E-02	92
		# 0.7946	23.42	4.739	# .203E-01+- .190E-02	8.65 +- .810	.310E-01+- .290E-02	92
		# 1.0046	26.39	5.361	# .133E-01+- .180E-02	5.67 +- .767	.203E-01+- .275E-02	92
		# 1.3046	30.18	6.160	# .360E-02+- .400E-03	1.53 +- .170	.550E-02+- .611E-03	92
		# 2.0046	37.67	7.787	# .560E-03+- .140E-03	0.239 +- .597E-01	.855E-03+- .214E-03	92
		# 0.0053	1.01	.1683	# .240E-01+- .500E-02	21.6 +- 4.51	.543E-01+- .114E-01	92
		# 0.0189	2.70	.4512	# .420E-01+- .800E-02	37.9 +- 7.21	.954E-01+- .182E-01	92
		# 0.0421	4.24	.7092	# .350E-01+- .200E-02	31.6 +- 1.80	.795E-01+- .455E-02	92
16.00	5.56	# 0.0811	5.99	1.004	# .400E-01+- .200E-02	36.1 +- 1.80	.909E-01+- .455E-02	92
		# 0.1651	8.64	1.448	# .350E-01+- .300E-02	31.6 +- 2.70	.795E-01+- .682E-02	92
		# 0.2631	10.95	1.838	# .410E-01+- .300E-02	37.0 +- 2.70	.932E-01+- .682E-02	92
		# 0.3131	11.96	2.009	# .335E-01+- .230E-02	30.2 +- 2.07	.761E-01+- .523E-02	92
		# 0.4431	14.26	2.399	# .264E-01+- .330E-02	23.8 +- 2.97	.600E-01+- .750E-02	92
		# 0.6031	16.67	2.809	# .149E-01+- .150E-02	13.4 +- 1.35	.339E-01+- .341E-02	92
		# 0.7931	19.15	3.233	# .940E-02+- .100E-02	8.47 +- .901	.214E-01+- .227E-02	92
		# 1.0031	21.57	3.651	# .380E-02+- .600E-03	3.43 +- .541	.864E-02+- .136E-02	92
		# 1.3031	24.64	4.185	# .210E-02+- .300E-03	1.89 +- .270	.477E-02+- .682E-03	92
		# 2.0031	30.69	5.256	# .130E-03+- .500E-04	0.117 +- .451E-01	.295E-03+- .114E-03	92

C213: GAMMA + PROTON --> LAMBDA ZERO + K+ (K > 0.91 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 1.1156 GEV
M4: 0.4938 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 16.00

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
# 0.0053	16.00	5.56	30.90	# .240E-01+- .500E-02	21.6 +- 4.51	92
# 0.0057	11.00	4.64	21.52	# .570E-01+- .130E-01	24.3 +- 5.54	92
# 0.0069	8.00	3.99	15.89	# .940E-01+- .330E-01	21.2 +- 7.44	92
# 0.0093	8.00	3.99	15.89	# .790E-01+- .180E-01	17.8 +- 4.06	92
# 0.0110	5.00	3.20	10.26	# .340 +- .600E-01	29.9 +- 5.28	92

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C213: GAMMA + PROTON --> LAMBDA ZERO + K+ (K > 0.91 GEV) (CONTINUED)

#2: 0.9383 GEV
 #3: 1.1156 GEV
 #4: 0.4938 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 16.00

-T EEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	ID SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
# 0.0114	8.00	3.99	15.89	# .105 +- .140E-01	23.7 +-3.16	92
# 0.0120	11.00	4.64	21.52	# .700E-01+- .140E-01	29.8 +-5.97	92
# 0.0148	5.00	3.20	10.26	# .333 +- .220E-01	29.3 +-1.94	92
# 0.0164	8.00	3.99	15.89	# .130 +- .300E-01	29.3 +-6.76	92
# 0.0189	16.00	5.56	30.90	# .420E-01+- .800E-02	37.9 +-7.21	92
# 0.0208	5.00	3.20	10.26	# .425 +- .380E-01	37.4 +-3.35	92
# 0.0246	11.00	4.64	21.52	# .580E-01+- .500E-02	24.7 +-2.13	92
# 0.0264	8.00	3.99	15.89	# .127 +- .600E-02	28.6 +-1.35	92
# 0.0308	5.00	3.20	10.26	# .398 +- .250E-01	35.0 +-2.20	92
# 0.0421	16.00	5.56	30.90	# .350E-01+- .200E-02	31.6 +-1.80	92
# 0.0446	11.00	4.64	21.52	# .710E-01+- .400E-02	30.3 +-1.70	92
# 0.0454	8.00	3.99	15.89	# .141 +- .500E-02	31.8 +-1.13	92
# 0.0498	5.00	3.20	10.26	# .405 +- .310E-01	35.7 +-2.73	92
# 0.0500 - 0.0800	1.80 - 5.80	2.06 - 3.43	4.26 - 11.76	# 1.16 +- .580	24.1 +-12.1	100
# 0.0811	16.00	5.56	30.90	# .400E-01+- .200E-02	36.1 +-1.80	92
# 0.0846	11.00	4.64	21.52	# .790E-01+- .400E-02	33.7 +-1.70	92
# 0.0864	8.00	3.99	15.89	# .161 +- .900E-02	36.3 +-2.03	92
# 0.0898	5.00	3.20	10.26	# .424 +- .300E-01	37.3 +-2.64	92
# 0.0800 - 0.1600	1.80 - 5.80	2.06 - 3.43	4.26 - 11.76	# .780 +- .320	16.2 +-6.66	100
# 0.1651	16.00	5.56	30.90	# .350E-01+- .300E-02	31.6 +-2.70	92
# 0.1664	8.00	3.99	15.89	# .161 +- .120E-01	36.3 +-2.70	92
# 0.1678	5.00	3.20	10.26	# .473 +- .320E-01	41.6 +-2.82	92
# 0.1696	11.00	4.64	21.52	# .800E-01+- .600E-02	34.1 +-2.56	92
# 0.1738	5.00	3.20	10.26	# .394 +- .390E-01	34.7 +-3.43	92
# 0.1600 - 0.2400	1.80 - 5.80	2.06 - 3.43	4.26 - 11.76	# .850 +- .340	17.7 +-7.08	100
# 0.2564	8.00	3.99	15.89	# .147 +- .160E-01	33.1 +-3.61	92
# 0.2631	16.00	5.56	30.90	# .410E-01+- .300E-02	37.0 +-2.70	92
# 0.3131	16.00	5.56	30.90	# .335E-01+- .230E-02	30.2 +-2.07	92
# 0.3158	5.00	3.20	10.26	# .341 +- .370E-01	30.0 +-3.26	92
# 0.3164	8.00	3.99	15.89	# .135 +- .600E-02	30.4 +-1.35	92
# 0.2400 - 0.4000	1.80 - 5.80	2.06 - 3.43	4.26 - 11.76	# .310 +- .120	6.45 +-2.50	100
# 0.3246	11.00	4.64	21.52	# .780E-01+- .700E-02	33.2 +-2.98	92
# 0.4431	16.00	5.56	30.90	# .264E-01+- .330E-02	23.8 +-2.97	92
# 0.4464	8.00	3.99	15.89	# .980E-01+- .800E-02	22.1 +-1.80	92
# 0.4508	5.00	3.20	10.26	# .325 +- .330E-01	28.6 +-2.91	92
# 0.4646	11.00	4.64	21.52	# .580E-01+- .500E-02	24.7 +-2.13	92
0.4770+- 0.0892	3.46	2.72	7.37	# .765 +- .272	32.3 +-11.4	16
# 0.4000 - 0.5600	1.80 - 5.80	2.06 - 3.43	4.26 - 11.76	# .400 +- .130	8.33 +-2.71	100
0.4965+- 0.0931	3.58	2.76	7.60	# .710 +- .189	32.0 +-8.54	16
0.5160+- 0.0970	3.70	2.80	7.82	# .499 +- .159	24.1 +-7.66	16
0.5356+- 0.1009	3.82	2.84	8.05	# .196 +- .131	10.1 +-6.73	16
0.5553+- 0.1048	3.94	2.88	8.27	# .252 +- .105	13.8 +-5.74	16
0.5750+- 0.1087	4.06	2.92	8.50	# .344 +- .101	20.0 +-5.88	16
# 0.6008	5.00	3.20	10.26	# .228 +- .250E-01	20.1 +-2.20	92
# 0.6031	16.00	5.56	30.90	# .149E-01+- .150E-02	13.4 +-1.35	92
# 0.6064	8.00	3.99	15.89	# .760E-01+- .700E-02	17.1 +-1.58	92
# 0.5600 - 0.8400	1.80 - 5.80	2.06 - 3.43	4.26 - 11.76	# .190 +- .700E-01	3.95 +-1.46	100
# 0.7708	5.00	3.20	10.26	# .134 +- .200E-01	11.8 +-1.76	92
# 0.7764	8.00	3.99	15.89	# .410E-01+- .300E-02	9.24 +-6.76	92
# 0.7931	16.00	5.56	30.90	# .940E-02+- .100E-02	8.47 +- .901	92
# 0.7946	11.00	4.64	21.52	# .203E-01+- .190E-02	8.65 +- .810	92
0.8476+- 0.1228	3.78	2.82	7.97	# .309 +- .663E-01	15.6 +-3.34	16
# 0.9708	5.00	3.20	10.26	# .920E-01+- .160E-01	8.10 +-1.41	92
# 0.9764	8.00	3.99	15.89	# .240E-01+- .300E-02	5.41 +-6.76	92
# 1.0031	16.00	5.56	30.90	# .380E-02+- .600E-03	3.43 +- .541	92
# 1.0046	11.00	4.64	21.52	# .133E-01+- .180E-02	5.67 +- .767	92
# 0.8400 - 1.3600	1.80 - 5.80	2.06 - 3.43	4.26 - 11.76	# .600E-01+- .300E-01	1.25 +- .624	100
# 1.1508	5.00	3.20	10.26	# .500E-01+- .110E-01	4.40 +- .968	92
# 1.2864	8.00	3.99	15.89	# .910E-02+- .130E-02	2.05 +- .293	92
# 1.3031	16.00	5.56	30.90	# .210E-02+- .300E-03	1.89 +- .270	92
# 1.3046	11.00	4.64	21.52	# .360E-02+- .400E-03	1.53 +- .170	92
# 1.6564	8.00	3.99	15.89	# .290E-02+- .900E-03	.654 +- .203	92
# 2.0031	16.00	5.56	30.90	# .130E-03+- .500E-04	.117 +- .451E-01	92
# 2.0046	11.00	4.64	21.52	# .560E-03+- .140E-03	.239 +- .597E-01	92
# 2.0064	8.00	3.99	15.89	# .860E-03+- .320E-03	.194 +- .721E-01	92

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C213: GAMMA + PROTON --> LAMBDA ZERO + K+ (K > 0.91 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.1156 GEV
 M4: 0.4938 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

1.40 GEV < K < GEV 2.00

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	ID SIG/D T)*(S-M**2)**2 MU BARN*GEV**2	REF
0.0906	1.40	1.87	3.51	2.69	+2.28	22
0.1207	1.40	1.87	3.51	2.58	+1.98	22
0.1427	1.45	1.90	3.60	3.14	+1.48	127
# 0.0500 - 0.2400	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	# 1.00	+1.450	100
0.1605	1.40	1.87	3.51	2.71	+1.98	22
0.2095	1.40	1.87	3.51	2.42	+1.98	22
0.2469	1.40	1.87	3.51	2.52	+1.59	22
# 0.2400 - 0.4000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	# 1.86	+1.700	100
0.3781	1.40	1.87	3.51	2.19	+1.19	22
# 0.4000 - 0.6000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	# 1.21	+1.490	100
0.5310	1.40	1.87	3.51	1.81	+1.29	22
# 0.6000 - 0.8000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	# 1.60	+1.570	100
# 0.8000 - 1.0000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	# 1.980	+1.440	100
# 1.0000 - 1.7000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	# 1.520	+1.200	100

C213: GAMMA + PROTON --> LAMBDA ZERO + K+ (K > 0.91 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.1156 GEV
 M4: 0.4938 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 1.40 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM LAB	D SIG/D OMEGA {CM} MU BARN/ STERAD	REF			
1.40	1.87	3.51	-0.059	1.31	+1.88	# 37.5	11.5	#.132	+1.190	22
			-0.004	1.20	+1.496E-01	# 45.0	13.8	#.121	+1.500E-02	224
			0.127	1.18	+1.397E-01	# 60.0	18.3	#.119	+1.400E-02	224
			0.444	1.55	+1.793	# 90.0	26.7	#.156	+1.800E-01	22
1.44	1.89	3.58	0.484	1.07	+1.561E-01	# 90.0	27.1	#.114	+1.600E-02	111
1.47	1.91	3.64	0.514	1.07	+1.539E-01	# 90.0	27.3	#.119	+1.600E-02	111
1.48	1.91	3.66	0.022	1.23	+1.443E-01	# 45.0	14.1	#.139	+1.500E-02	224
			0.117	1.07	+1.443E-01	# 55.0	17.1	#.121	+1.500E-02	224
1.49	1.92	3.68	0.534	1.08	+1.612E-01	# 90.0	27.5	#.124	+1.700E-02	111
1.52	1.93	3.73	0.564	.925	+1.589E-01	# 90.0	27.7	#.110	+1.700E-02	111
1.55	1.95	3.79	0.046	.965	+1.405E-01	# 45.0	14.2	#.119	+1.500E-02	224
1.62	1.98	3.92	0.020	.852	+1.374E-01	# 40.0	12.7	#.114	+1.500E-02	224
			0.069	.785	+1.374E-01	# 45.0	14.3	#.105	+1.500E-02	224
1.70	2.02	4.07	0.096	.549	+1.206E-01	# 45.0	14.4	#.800E-01	+1.300E-02	224
1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	-----	-----	# 0.0 - 60.0	#.880E-01	+1.330E-01	100		
			-----	-----	# 60.0 - 90.0	#.710E-01	+1.290E-01	100		
			-----	-----	# 90.0 - 104.5	#.106	+1.530E-01	100		
			-----	-----	# 90.0 - 120.0	#.900E-02	+1.500E-02	100		
1.80 - 5.80	2.06 - 3.43	4.26 - 11.76								
4.30	2.99	8.95	# 0.180	#.270E-01	+1.453E-02	23.0	6.3	.143E-01	+1.240E-02	106
			# 0.315	#.156E-01	+1.252E-02	28.4	7.8	.826E-02	+1.133E-02	106
			# 0.460	#.152E-01	+1.302E-02	33.3	9.2	.806E-02	+1.160E-02	106
			# 0.600	#.112E-01	+1.176E-02	37.4	10.4	.592E-02	+1.932E-03	106
			# 0.680	#.604E-02	+1.151E-02	39.7	11.0	.320E-02	+1.799E-03	106

C213: GAMMA + PROTON --> LAMBDA ZERO + K+ (K > 0.91 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 1.1156 GEV
 M4: 0.4938 GEV

P = BARYON POLARIZATION ALONG K(GAMMA) X P(MESON)

K	E*	THETA MESON			THETA BARYON			P	REF
GEV	GEV	CM	LAB		CM	LAB			
0.960+-0.010	1.638	# 91.0+-	9.0	25.1+- 7.6	89.0+-	9.0	11.8+- 3.1	#-0.19+-0.14	14
1.000+-0.030	1.660	# 32.0+-	10.0	11.3+- 8.7	148.0+-	10.0	10.5+- 0.8	#-0.06+-0.18	14
1.000+-0.020	1.660	# 93.0+-	4.3	31.5+- 7.2	87.0+-	4.3	15.2+- 3.6	#-0.23+-0.11	3
1.020+-0.030	1.672	# 61.0+-	7.0	22.3+- 8.0	119.0+-	7.0	17.4+- 4.0	#-0.16+-0.12	14
1.020+-0.020	1.672	# 92.0+-	7.0	33.3+- 8.3	88.0+-	7.0	16.6+- 3.9	#-0.30+-0.13	14
1.030+-0.020	1.677	# 87.0+-	4.3	32.3+- 6.0	93.0+-	4.3	17.7+- 3.2	#-0.21+-0.10	3
1.050	1.688	# 49.8		19.2	130.2		18.9	#-0.28+-0.12	202

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C213: GAMMA + PROTON --> LAMBDA ZERO + K+ (K > 0.91 GEV) (CONTINUED)

#2: 0.9383 GEV
 #3: 1.1156 GEV
 #4: 0.4938 GEV

P = BARYON POLARIZATION ALONG K(GAMMA) X P(MESON)

K GEV	E* GEV	THETA MESON		THETA BARYON		P	REF
		CM	LAB	CM	LAB		
1.050	1.688	# 76.8	29.7	103.2	19.7	#-0.07+-0.13	202
1.050+-0.020	1.688	# 85.0+- 6.0	32.9+- 6.9	95.0+- 6.0	19.0+- 3.3	#-0.39+-0.15	14
1.060+-0.030	1.694	# 80.0+- 4.6	31.4+- 6.5	100.0+- 4.6	19.9+- 3.9	#-0.40+-0.13	3
1.060+-0.030	1.694	# 80.0+- 4.6	31.4+- 6.5	100.0+- 4.6	19.9+- 3.9	#-0.36+-0.13	3
1.100	1.716	# 47.6	19.3	132.4	21.7	#-0.38+-0.12	202
1.100	1.716	# 72.8	29.9	107.2	22.5	#-0.48+-0.10	202
1.100	1.716	# 89.9+- 5.1	37.3+- 4.5	90.1+- 5.1	20.6+- 1.5	#-0.34+-0.09	45
1.100+-0.030	1.716	# 91.0+- 4.0	37.8+- 6.0	89.0+- 4.0	20.4+- 3.4	#-0.09+-0.11	3
1.100	1.716	# 94.4	39.3	85.6	19.9	#-0.32+-0.19	202
1.120+-0.030	1.727	# 90.0+- 3.5	38.1+- 5.2	90.0+- 3.5	21.3+- 3.1	#-0.37+-0.11	3
1.160	1.748	# 46.0	19.3	134.0	24.5	#-0.54+-0.09	202
1.160	1.748	# 70.0	29.9	110.0	25.2	#-0.44+-0.10	202
1.160	1.748	# 90.0	39.3	90.0	22.5	#-0.27+-0.14	202
1.190+-0.010	1.764	# 90.2+- 4.6	40.1+- 5.0	89.8+- 4.6	23.2+- 2.2	#-0.30+-0.07	45
1.290+-0.010	1.817	# 89.8+- 4.3	41.3+- 4.8	90.2+- 4.3	25.3+- 2.2	#-0.08+-0.06	45

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C512: GAMMA + PROTON --> PROTON + RHC ZERO (K > 1.00 GEV)

M2: 0.9383 GEV
M3: 0.9383 GEV
M4: 0.7650 GEV

CONSTANTS AND TOTAL CROSS SECTION
 $D \text{ SIGMA}/D T = A \cdot \exp(B \cdot T)$ $A = (D \text{ SIGMA}/D T)_{T=0}$
IF A VALUE FOR 'C' IS GIVEN $D \text{ SIGMA}/D T = A \cdot \exp(B \cdot T + C \cdot T^2)$

K GEV	E* GEV	S GEV**2	A MU BARN/GEV**2	B 1/GEV**2	C 1/GEV**4	SIG TOT MU BARN	REF
1.00 - 1.10	1.66 - 1.72	2.76 - 2.94	-----	-----	-----	@ 5.49+- 2.05	28
1.10 - 1.20	1.72 - 1.77	2.94 - 3.13	-----	-----	-----	@ 11.24+- 2.20	28
1.10 - 1.30	1.72 - 1.82	2.94 - 3.32	-----	-----	-----	@ 21.10+- 5.00	26
1.20 - 1.30	1.77 - 1.82	3.13 - 3.32	-----	-----	-----	@ 14.40+- 2.30	28
1.30 - 1.40	1.82 - 1.87	3.32 - 3.51	-----	-----	-----	@ 18.34+- 2.70	28
1.30 - 1.50	1.82 - 1.92	3.32 - 3.70	-----	-----	-----	@ 29.80+- 7.10	26
1.40 - 1.60	1.87 - 1.97	3.51 - 3.88	-----	-----	-----	@ 22.00+- 4.70	28
1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	#140.70+- 19.00	# 5.75+- 0.65	-----	@ 17.89+- 4.44	28
1.50 - 1.80	1.92 - 2.06	3.70 - 4.26	-----	-----	-----	@ 37.50+- 5.00	26
1.60 - 1.80	1.97 - 2.06	3.88 - 4.26	-----	-----	-----	@ 25.10+- 4.30	28
1.80 - 2.00	2.06 - 2.15	4.26 - 4.63	-----	-----	-----	@ 21.50+- 3.00	28
2.00 - 2.20	2.15 - 2.24	4.63 - 5.01	-----	-----	-----	@ 18.00+- 2.70	28
1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	#128.80+- 11.30	# 5.43+- 0.39	-----	@ 20.56+- 3.28	28
1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	-----	-----	-----	@ 33.20+- 4.10	26
2.20 - 2.40	2.24 - 2.32	5.01 - 5.38	-----	-----	-----	@ 15.50+- 2.00	28
2.40 - 2.60	2.32 - 2.40	5.38 - 5.76	-----	-----	-----	@ 16.80+- 2.00	28
2.60 - 2.80	2.40 - 2.48	5.76 - 6.13	-----	-----	-----	@ 19.60+- 2.10	28
2.80	2.48	6.13	# 93.00+- 7.00	# 5.40+- 0.40	-----	@ 16.40+- 1.00	138
2.80 - 3.00	2.48 - 2.55	6.13 - 6.51	-----	-----	-----	@ 18.40+- 2.00	28
2.90	2.51	6.32	@156.00+- 21.00	-----	-----	-----	136
2.00 - 4.00	2.15 - 2.90	4.63 - 8.39	#178.00+- 33.00	# 8.30+- 1.00	-----	# 19.20+- 2.30	107
2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	#146.80+- 13.00	# 6.92+- 0.43	-----	@ 19.50+- 2.94	28
2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	-----	-----	-----	@ 22.40+- 3.40	26
3.00 - 3.50	2.55 - 2.73	6.51 - 7.45	-----	-----	-----	@ 16.50+- 1.30	28
3.50	2.73	7.45	@139.00+- 24.00	-----	-----	-----	136
3.50 - 4.00	2.73 - 2.90	7.45 - 8.39	-----	-----	-----	@ 16.40+- 1.30	28
4.10	2.93	8.57	@132.00+- 16.00	-----	-----	-----	136
3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	#149.30+- 18.50	# 8.10+- 0.69	-----	@ 17.52+- 3.66	28
3.20 - 4.90	2.62 - 3.17	6.85 - 10.08	125.00+- 15.00	8.10+- 1.50	-----	@ 14.60+- 1.80	38
4.00 - 4.50	2.90 - 3.05	8.39 - 9.32	-----	-----	-----	@ 16.00+- 1.30	28
4.30	2.99	8.95	#145.00+- 15.00	# 7.60+- 0.50	-----	# 19.20+- 1.20	94
4.70	3.11	9.70	# 80.00+- 5.00	# 5.50+- 0.30	-----	# 16.40+- 1.00	138
3.50 - 6.00	2.73 - 3.48	7.45 - 12.14	-----	-----	-----	@ 20.90+- 2.50	26
4.70	3.11	9.70	@136.00+- 6.00	-----	-----	-----	136
4.50 - 5.00	3.05 - 3.20	9.32 - 10.26	-----	-----	-----	@ 16.90+- 1.40	28
5.10	3.23	10.45	@145.00+- 14.00	-----	-----	-----	85
5.20	3.26	10.64	-----	-----	-----	# 16.00+- 2.50	78
5.23	3.27	10.69	@145.00+- 12.00	-----	-----	-----	85
4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	#129.70+- 16.20	# 7.90+- 0.66	-----	15.95+- 3.32	28
4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	#146.00+- 50.00	# 10.00+- 1.50	# 3.70+- 1.30	-----	73
5.25	3.28	10.73	-----	-----	-----	# 18.50+- 0.60	114
5.30	3.29	10.83	@139.00+- 8.00	-----	-----	-----	136
5.00 - 5.80	3.20 - 3.43	10.26 - 11.76	-----	-----	-----	@ 15.00+- 2.20	28
5.50	3.35	11.20	#166.90+- 20.00	-----	-----	# 19.80+- 2.18	137
4.00 - 8.00	2.90 - 3.99	8.39 - 15.89	#133.00+- 34.00	# 8.90+- 1.50	-----	# 15.60+- 1.70	107
5.90	3.46	11.95	@119.00+- 7.00	-----	-----	-----	136
6.00	3.48	12.14	@115.00+- 9.00	@ 8.90+- 0.70	-----	12.63+- 1.98	85
6.00	3.48	12.14	#151.90+- 15.20	-----	-----	# 18.00+- 1.80	137
6.50	3.62	13.08	#137.60+- 13.80	-----	-----	# 16.27+- 1.63	137
6.50	3.62	13.08	@117.00+- 7.00	-----	-----	-----	136
6.85	3.71	13.73	@120.00+- 10.00	@ 8.50+- 0.50	-----	13.89+- 1.97	85
7.16	3.78	14.32	@132.00+- 11.00	@ 8.50+- 0.50	-----	15.30+- 2.17	85
7.50	3.87	14.95	-----	-----	-----	# 14.40+- 2.50	78
8.80	4.17	17.39	@142.00+- 11.00	@ 8.50+- 0.50	-----	16.54+- 2.25	85
9.20	4.26	18.14	@131.00+- 10.00	-----	-----	-----	85
9.58	4.34	18.86	@118.00+- 9.00	-----	-----	-----	85
11.50	4.74	22.46	#113.40+- 6.80	-----	-----	# 13.44+- 0.81	137
11.50	4.74	22.46	# 94.00+- 32.00	# 8.60+- 1.50	# 2.10+- 1.30	-----	73
8.00 - 16.00	3.99 - 5.56	15.89 - 30.90	#152.00+- 65.00	# 11.10+- 2.80	-----	# 13.40+- 3.60	107
12.25	4.89	23.87	#111.40+- 6.80	-----	-----	# 13.19+- 0.79	137
13.00	5.03	25.27	#108.70+- 6.50	-----	-----	# 12.86+- 0.77	137
13.00	5.03	25.27	# 71.00+- 25.00	# 7.40+- 1.50	# 0.90+- 1.30	-----	73
13.75	5.17	26.68	#109.50+- 5.50	-----	-----	# 12.95+- 0.65	137
14.50	5.30	28.09	#101.20+- 6.10	-----	-----	# 11.98+- 0.72	137
14.50	5.30	28.09	# 80.00+- 34.00	# 8.50+- 1.40	# 2.10+- 1.20	-----	73
15.25	5.43	29.50	#106.60+- 6.40	-----	-----	# 12.54+- 0.75	137
16.00	5.56	30.90	#103.30+- 6.20	-----	-----	# 12.24+- 0.73	137
16.00	5.56	30.90	# 78.00+- 26.00	# 8.20+- 1.30	# 1.60+- 1.10	-----	73
16.90	5.71	32.59	#105.30+- 6.30	-----	-----	# 12.47+- 0.75	137
17.80	5.86	34.28	#100.50+- 5.00	-----	-----	# 11.89+- 0.60	137
17.80	5.86	34.28	# 87.00+- 30.00	# 8.50+- 1.30	# 1.90+- 1.20	-----	73

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C512: GAMMA + PROTON --> PROTON + RHO ZERO (K > 0.90 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 0.9383 GEV
M4: 0.7650 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
M4 = 0.6975 - 0.8315 GEV							
0.90 - 1.20	1.68	-----	# 0.0 -	-----	-----	# 2.00 +-1.00	8
			50.00	-----	-----		
			# 45.00-	-----	-----	# 4.40 +-1.30	8
			63.00	-----	-----		
			# 63.00-	-----	-----	# 3.60 +-2.10	8
			81.00	-----	-----		
			# 81.00-	-----	-----	# 2.10 +-1.800	8
			99.00	-----	-----		
			# 99.00-	-----	-----	# 1.30 +-1.600	8
			117.00	-----	-----		
M4 = 0.7650 GEV							
1.40 - 1.80	1.96	-----	# 0.0 -	-----	-----	# 14.5 +-2.50	28
			12.83	-----	-----		
			# 12.83-	-----	-----	# 11.8 +-2.10	28
			18.20	-----	-----		
			# 18.20-	-----	-----	# 12.6 +-2.10	28
			22.33	-----	-----		
			# 22.33-	-----	-----	# 9.80 +-2.00	28
			25.84	-----	-----		
			# 25.84-	-----	-----	# 9.55 +-1.25	28
			31.79	-----	-----		
			# 31.79-	-----	-----	# 9.68 +-1.36	28
			36.87	-----	-----		
			# 36.87-	-----	-----	# 3.92 +-1.630	28
			45.58	-----	-----		
			# 45.58-	-----	-----	# 2.19 +-1.350	28
			60.00	-----	-----		
			# 60.00-	-----	-----	# 1.890 +-1.240	28
			75.52	-----	-----		
			# 75.52-	-----	-----	# 1.640 +-1.200	28
			90.00	-----	-----		
			# 90.00-	-----	-----	# 1.18 +-1.220	28
			104.48	-----	-----		
			# 104.48-	-----	-----	# 1.470 +-1.170	28
			120.00	-----	-----		
			# 120.00-	-----	-----	# 1.340 +-1.150	28
			138.59	-----	-----		
			# 138.59-	-----	-----	# 1.130 +-1.130	28
			180.00	-----	-----		
		# 0.0500-	-----	-----	# 97.3 +-10.0	-----	28
		0.1000	-----	-----		-----	
		# 0.1000-	-----	-----	# 62.7 +-6.40	-----	28
		0.2000	-----	-----		-----	
		# 0.2000-	-----	-----	# 33.9 +-4.70	-----	28
		0.3000	-----	-----		-----	
		# 0.3000-	-----	-----	# 17.7 +-4.20	-----	28
		0.4000	-----	-----		-----	
		# 0.4000-	-----	-----	# 9.90 +-3.50	-----	28
		0.5000	-----	-----		-----	
		# 0.5000-	-----	-----	# 8.10 +-2.10	-----	28
		0.7000	-----	-----		-----	
		# 0.7000-	-----	-----	# 8.80 +-1.60	-----	28
		1.0000	-----	-----		-----	
		# 1.0000-	-----	-----	# 2.80 +-1.800	-----	28
		1.5000	-----	-----		-----	
1.80 - 2.50	2.19	-----	# 0.0 -	-----	-----	# 24.1 +-2.10	28
			12.83	-----	-----		
			# 12.83-	-----	-----	# 19.5 +-1.80	28
			18.20	-----	-----		
			# 18.20-	-----	-----	# 15.7 +-1.60	28
			22.33	-----	-----		
			# 22.33-	-----	-----	# 12.7 +-1.60	28
			25.84	-----	-----		
			# 25.84-	-----	-----	# 9.74 +-1.970	28
			31.79	-----	-----		
			# 31.79-	-----	-----	# 6.55 +-1.730	28
			36.87	-----	-----		
			# 36.87-	-----	-----	# 4.55 +-1.470	28
			45.58	-----	-----		
			# 45.58-	-----	-----	# 1.24 +-1.210	28
			60.00	-----	-----		
			# 60.00-	-----	-----	# 1.350 +-1.130	28
			75.52	-----	-----		
			# 75.52-	-----	-----	# 1.450 +-1.140	28
			90.00	-----	-----		
			# 90.00-	-----	-----	# 1.190 +-1.800E-01	28
			120.00	-----	-----		
			# 120.00-	-----	-----	# 1.800E-01+-1.600E-01	28
			138.59	-----	-----		
			# 138.59-	-----	-----	# 1.800E-01+-1.600E-01	28
			180.00	-----	-----		
		# 0.0250-	-----	-----	# 116. +-14.0	-----	28
		0.0500	-----	-----		-----	
		# 0.0500-	-----	-----	# 91.4 +-7.50	-----	28
		0.1000	-----	-----		-----	

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G512: GAMMA + PROTON --> PROTON + RHO ZERO (K > 0.90 GEV) (CONTINUED)

M2: 0.9383 GEV
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M4: 0.7650 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	T*ETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D CMFGA (CM) MU BARN/STERAD	REF
1.80 - 2.50	2.19	# 0.1000- 0.2000	-----	-----	# 52.1 +-4.20	-----	28
		# 0.2000- 0.3000	-----	-----	# 35.0 +-3.10	-----	28
		# 0.3000- 0.4000	-----	-----	# 20.3 +-2.50	-----	28
		# 0.4000- 0.5000	-----	-----	# 10.5 +-1.80	-----	28
		# 0.5000- 0.7000	-----	-----	# 2.00 +-1.900	-----	28
		# 0.7000- 1.0000	-----	-----	# 2.30 +-1.700	-----	28
		# 1.0000- 1.5000	-----	-----	# .900 +-1.500	-----	28
2.52	2.37	\$ 0.0163	# 0.00	0.0	# 350. +-110.	91.3 +-28.7	11
2.56	2.38	# 0.0960	# 6.50	6.110	# 150. +-62.0	40.0 +-16.5	11
2.60	2.40	# 0.0390	# 3.50	3.258	# 220. +-74.0	60.0 +-20.2	11
2.00 - 4.00	2.43	# 0.0 - 0.0500	-----	-----	# >65.0	-----	107
		# 0.0500- 0.1000	-----	-----	# 87.0 +-15.0	-----	107
		# 0.1000- 0.2000	-----	-----	# 63.0 +-8.30	-----	107
		# 0.2000- 0.3000	-----	-----	# 16.8 +-4.40	-----	107
		# 0.3000- 0.4000	-----	-----	# 12.9 +-3.20	-----	107
		# 0.4000- 0.5000	-----	-----	# 3.20 +-2.20	-----	107
2.80	2.48	# 0.0200- 0.0500	4.96- 11.34	1.66- 3.792	# 78.0 +-6.00	23.6 +-1.82	138
		# 0.0500- 0.0750	11.34- 14.68	3.79- 4.917	# 64.0 +-6.00	19.4 +-1.82	138
		# 0.0750- 0.1000	14.68- 17.41	4.92- 5.837	# 58.0 +-6.00	17.6 +-1.82	138
		# 0.1000- 0.1500	17.41- 21.85	5.84- 7.355	# 46.0 +-4.00	13.9 +-1.21	138
		# 0.1500- 0.2000	21.85- 25.62	7.36- 8.638	# 39.0 +-4.00	11.8 +-1.21	138
		# 0.2000- 0.2500	25.62- 28.91	8.64- 9.772	# 25.0 +-4.00	7.57 +-1.21	138
		# 0.2500- 0.3000	28.91- 31.85	9.77- 10.81	# 22.0 +-2.00	6.66 +-1.606	138
		# 0.3000- 0.3500	31.85- 34.63	10.81- 11.77	# 15.0 +-4.00	4.54 +-1.21	138
		# 0.3500- 0.4000	34.63- 37.20	11.77- 12.68	# 11.4 +-2.40	3.45 +-1.727	138
		# 0.4000- 0.5000	37.20- 41.93	12.68- 14.37	# 6.20 +-1.10	1.88 +-1.333	138
		# 0.5000- 0.7000	41.93- 50.29	14.37- 17.43	# 2.40 +-1.600	.727 +-1.182	138
		# 0.7000- 1.0000	50.29- 61.24	17.43- 21.62	# 2.20 +-1.400	.666 +-1.121	138
		# 1.0000- 1.5000	61.24- 77.39	21.62- 28.26	# .760 +-1.220	.230 +-1.666E-01	138
		# 1.5000- 2.5000	77.39- 107.89	28.26- 42.95	# .170 +-1.900E-01	.515E-01 +-1.273E-01	138
		# 2.5000- 3.8182	107.89- 179.52	42.95- 176.6	# .230 +-1.800E-01	.696E-01 +-1.242E-01	138
2.50 - 3.50	2.52	-----	# 0.0 - 9.07	-----	-----	# 30.4 +-3.10	28
			# 9.07- 12.83	-----	-----	# 29.5 +-3.70	28
			# 12.83- 18.20	-----	-----	# 25.5 +-2.00	28
			# 18.20- 22.33	-----	-----	# 15.7 +-1.70	28
			# 22.33- 25.84	-----	-----	# 11.2 +-1.40	28
			# 25.84- 31.79	-----	-----	# 5.90 +-1.500	28
			# 31.79- 45.58	-----	-----	# 1.18 +-1.270	28
			# 45.58- 60.00	-----	-----	# .670 +-1.140	28
			# 60.00- 90.00	-----	-----	# .900E-01 +-1.500E-01	28
			# 90.00- 120.00	-----	-----	# <.200E-01	28
			# 120.00- 180.00	-----	-----	# .600E-01 +-1.300E-01	28
		# 0.0100- 0.0500	-----	-----	# 92.0 +-8.40	-----	28
		# 0.0500- 0.1000	-----	-----	# 94.8 +-7.00	-----	28
		# 0.1000- 0.2000	-----	-----	# 49.2 +-3.60	-----	28
		# 0.2000- 0.3000	-----	-----	# 24.0 +-2.70	-----	28

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DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
2.50 - 3.50	2.52	# 0.3000-	-----	-----	# 16.0	+2.00	28
		0.4000	-----	-----	# 6.00	+1.40	28
		# 0.4000-	-----	-----	# 2.60	+1.700	28
		0.5000	-----	-----	# .900	+1.400	28
		# 0.5000-	-----	-----	# .580	+1.200	28
3.20 - 4.90	2.85	1.0000	-----	-----	# 94.0	+8.00	38
		# 1.0000-	1.93	.5808	# 85.0	+9.00	38
		1.5000	6.59	2.110	# 76.0	+12.0	38
		# 0.0080	9.71	2.930	# 71.0	+14.0	38
		# 0.0280	11.82	3.570	# 46.0	+15.0	38
		# 0.0480	13.61	4.114	# 33.0	+9.00	38
		# 0.0680	16.35	4.951	# 18.0	+7.00	38
		# 0.0880	19.55	5.931	# 39.0	+16.0	38
		# 0.1240	22.36	6.781	# 23.0	+12.0	38
		# 0.1740	24.77	7.546	# 32.0	+20.0	38
		# 0.2240	27.02	8.250			
		# 0.2740	27.02	8.250			
		# 0.3240	27.02	8.250			
		# 0.3240	27.02	8.250			
		# 0.3240	27.02	8.250			
3.50 - 4.50	2.88	# 0.0046-	0.0	0.0	49.6	+6.47	28
		0.0484	9.07	2.593	# 27.6	+3.60	28
		# 0.0399-	9.07	2.593	# 45.2	+5.50	28
		0.0920	12.83	3.674	# 26.0	+3.10	28
		# 0.0718-	12.83	3.674	# 13.6	+1.80	28
		0.1797	18.20	5.227	# 8.00	+1.40	28
		# 0.1360-	18.20	5.227	# 2.56	+1.410	28
		0.2670	22.33	6.433	# .310	+1.230	28
		# 0.1999-	22.33	6.433	# .320	+1.110	28
		0.3544	25.84	7.468	# .276E-01	+1.552E-01	28
		# 0.2639-	25.84	7.468	# .531E-01	+1.446E-01	28
		0.5295	31.79	9.247	# .310E-01	+1.260E-01	28
		# 0.3920-	31.79	9.247			
		1.0545	45.58	13.53			
		# 0.7763-	45.58	13.53			
		1.7540	60.00	18.34			
		# 1.2882-	60.00	18.34			
		3.5033	90.00	30.14			
		# 2.5686-	90.00	30.14			
		5.2526	120.00	46.16			
		# 3.8489-	120.00	46.16			
		7.0020	180.00	180.0			
		# 0.0050-	0.0	0.0	# 57.6	+8.70	28
		0.0500	10.40	3.252	# 88.6	+7.90	28
		# 0.0500-	9.24	2.644	# 41.7	+3.90	28
		0.1000	15.41	4.827	# 17.4	+2.60	28
		# 0.1000-	13.41	3.84	# 9.20	+2.00	28
		0.2000	22.34	7.025	# 6.20	+1.60	28
		# 0.2000-	19.24	5.53	# 1.81	+1.500	28
		0.3000	27.63	8.731	# .880	+1.300	28
		# 0.3000-	23.71	6.84	# .400	+1.200	28
		0.4000	32.13	10.20			
		# 0.4000-	27.50	7.96			
		0.5000	36.12	11.52			
		# 0.5000-	30.86	8.97			
		0.7000	43.14	13.88			
		# 0.7000-	36.75	10.76			
		1.0000	52.23	17.06			
		# 1.0000-	44.32	13.12			
		1.5000	65.34	21.92			
4.30	2.99	# 0.0	0.0	0.0	# >26.1	>13.8	94
		0.0250	6.29	1.827	# >74.1	>39.0	94
		# 0.0250-	6.29	1.83			
		0.0450	8.91	2.584			
		# 0.0400-	8.33	2.42	# 87.6	+10.4	94
		0.1000	13.75	4.006	# 59.5	+8.90	94
		# 0.1000-	13.75	4.01	# 30.1	+6.60	94
		0.1500	17.01	4.965	# 29.0	+6.30	94
		# 0.1500-	17.01	4.97	# 13.6	+3.20	94
		0.2000	19.76	5.776	# 7.50	+2.50	94
		# 0.2000-	19.76	5.78	# 3.80	+1.80	94
		0.2500	22.18	6.495			
		# 0.2500-	22.18	6.50			
		0.3500	26.38	7.757			
		# 0.3500-	26.38	7.76			
		0.4500	30.05	8.867			
		# 0.4500-	30.05	8.87			
		0.5500	33.34	9.877			
		# 0.5500-	33.34	9.88			
		0.6500	36.37	10.82			
		# 0.6500-	36.37	10.82			
		1.2500	51.39	15.67	P# 1.03	+1.410	94
		# 0.0048	0.0	0.0	# 230.	+30.0	11
4.40 4.70	3.02 3.11	# 0.0200-	5.30	1.49	# 65.0	+4.00	138
		0.0500	9.04	2.543	# 56.0	+5.00	138
		# 0.0500-	9.04	2.54			
		0.0750	11.25	3.166			
		# 0.0750-	11.25	3.17			

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4.70	3.11	# 0.1000-	13.09-	3.69-	# 41.0	24.1	138
		0.1500	16.17	4.563			
		# 0.1500-	16.17-	4.56-			
		0.2000	18.76	5.303		11.7	
		# 0.2000-	18.76-	5.30-			
		0.2500	21.04	5.958		20.0	
		# 0.2500-	21.04-	5.96-			11.7
		0.3000	23.11	6.555		20.0	
		# 0.3000-	23.11-	6.56-			11.7
		0.3500	25.02	7.108		# 12.4	
		# 0.3500-	25.02-	7.11-			7.27
		0.4000	26.79	7.627		# 9.00	
		# 0.4000-	26.79-	7.63-			5.28
		0.5000	30.06	8.587		# 6.20	
		# 0.5000-	30.06-	8.59-			3.64
		0.7000	35.78	10.29		# 2.40	
		# 0.7000-	35.78-	10.25-			1.41
		1.0000	43.13	12.55		# .780	
		# 1.0000-	43.13-	12.55-			.458
		1.5000	53.54	15.89		# .340	
		# 1.5000-	53.54-	15.89-			.199
		2.5000	71.16	22.06		# .670E-01	
		# 2.5000-	71.16-	22.06-			.393E-01
		7.3766	179.92	178.7		# .160E-01	
		# 0.0900	# 3.50	3.421			# 95.0
0.0027-	# 0.0 -	0.0 -	52.6				
0.0617	9.07	2.350		# 39.5			
0.0484-	# 9.07-	# 2.35-	58.7				
0.1205	12.83	3.329		# 43.9			
0.0920-	# 12.83-	# 3.33-	41.1				
0.2387	18.20	4.738		# 26.3			
0.1797-	# 18.20-	# 4.74-	15.8				
0.3565	22.33	5.833		# 10.1			
0.2670-	# 22.33-	# 5.83-	7.66				
0.4744	25.84	6.773		# 4.90			
0.3544-	# 25.84-	# 6.77-	2.03				
0.7104	31.79	8.390		# 1.30			
0.5295-	# 31.79-	# 8.39-	.938E-01				
1.4184	45.58	12.30		# .600E-01			
1.0545-	# 45.58-	# 12.30-	.563				
2.3614	60.00	16.71		# 141			
1.7540-	# 60.00-	# 16.71-	# .938E-01				
4.7201	90.00	27.74		# .900E-01			
3.5033-	# 90.00-	# 27.74-	# .188E-01				
7.0789	120.00	43.28		# .120E-01			
0.2156-	# 20.00-	# 5.21-	# <.188E-01				
3.9010	80.00	23.71		# <.120E-01			
# 0.0025-	0.0 -	0.0 -	# 55.2				
0.0500	9.24	2.641		# 69.6			
# 0.0500-	8.12-	2.10-	# 42.7				
0.1000	13.41	3.841		# 16.5			
# 0.1000-	11.66-	3.02-	# 7.10				
0.2000	19.24	5.530		# 7.10			
# 0.2000-	16.63-	4.32-	# 5.60				
0.3000	23.71	6.840		# 1.68			
# 0.3000-	20.45-	5.33-	# 370				
0.4000	27.50	7.962		# 370			
# 0.4000-	23.68-	6.15-	# 370				
0.5000	30.86	8.967		# 370			
# 0.5000-	26.54-	6.96-	# 370				
0.7000	36.75	10.76		# 370			
# 0.7000-	31.55-	8.32-	# 370				
1.0000	44.32	13.12		# 370			
4.00 ~ 8.00	3.30	# 0.0 -	-----		-----	# >59.0	-----
		0.0500	-----	-----	# 74.4		
		# 0.0500-	-----	-----			30.8
		0.1000	-----	-----	# 17.9		
		# 0.1000-	-----	-----			# 7.10
		0.2000	-----	-----	# 1.80		
		# 0.2000-	-----	-----			# 14.2
		0.3000	-----	-----	# 9.53		
		# 0.3000-	-----	-----			# 3.41
		0.4000	-----	-----	# .795		
5.50	3.35	@ 0.2000	17.14	4.554		@ 14.2	10.0
		@ 0.3000	21.08	5.619	@ 9.53	6.73	137
		@ 0.5000	27.38	7.342	@ 3.41	2.41	137
		@ 0.7000	32.55	8.783	@ .795	.561	137
		@ 0.9000	37.08	10.07	@ .317	.224	137
		@ 1.1000	41.17	11.25	@ .212	.150	137
		@ 0.0070	2.45	.6240	@ 136.	106.	85
		@ 0.0180	4.55	1.162	@ 121.	94.5	85
		@ 0.0330	6.39	1.631	@ 96.1	75.0	85
		@ 0.0520	8.14	2.080	@ 70.0	54.6	85
6.00	3.48	@ 0.0780	10.06	2.573	@ 61.1	47.7	85
		@ 0.1080	11.90	3.045	@ 49.7	38.8	85
		@ 0.1200	12.56	3.216	@ 41.2	32.2	137
		@ 0.1200	12.56	3.216	@ 41.2	32.2	137

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6.00	3.48	a 0.1750	15.24	3.906	a 28.2 +-3.10	22.0 +-2.42	85
		a 0.2210	17.16	4.405	a 18.5 +-2.70	14.4 +-2.11	85
		a 0.2700	19.01	4.885	a 12.3 +-1.60	9.60 +-1.25	85
		a 0.5000	26.03	6.731	a 3.42 +-0.600	2.67 +-0.468	137
		a 0.7000	30.93	8.045	a 1.08 +-0.220	0.843 +-0.172	137
		a 0.9000	35.21	9.212	a 0.376 +-0.730E-01	0.294 +-0.570E-01	137
		a 1.1000	39.08	10.28	a 0.259 +-0.570E-01	0.202 +-0.445E-01	137
		a 0.1200	12.02	2.977	a 40.9 +-7.30	35.0 +-6.24	137
		a 0.2000	15.60	3.869	a 27.6 +-5.20	23.6 +-4.45	137
		a 0.3000	19.17	4.767	a 11.4 +-2.20	9.75 +-1.88	137
6.50	3.62	a 0.4000	22.19	5.533	a 5.22 +-0.980	4.46 +-0.838	137
		a 0.5000	24.86	6.215	a 2.61 +-0.330	2.23 +-0.282	137
		a 0.7000	29.53	7.421	a 0.920 +-0.140	0.787 +-0.120	137
		a 0.9000	33.60	8.491	a 0.455 +-0.850E-01	0.389 +-0.727E-01	137
		a 1.1000	37.28	9.472	a 0.165 +-0.900E-01	0.141 +-0.770E-01	137
		a 0.0080	2.57	0.5943	a 133. +-11.0	136. +-11.2	85
		a 0.0160	3.85	0.8899	a 108. +-7.60	110. +-7.75	85
		a 0.0500	7.05	1.632	a 84.8 +-6.50	86.4 +-6.63	85
		a 0.1020	10.16	2.354	a 51.6 +-4.00	52.6 +-4.08	85
		a 0.1740	13.33	3.092	a 31.3 +-2.80	31.9 +-2.85	85
7.60	3.89	a 0.2640	16.46	3.826	a 13.6 +-1.10	13.9 +-1.12	85
		a 0.3750	19.66	4.582	a 6.10 +-0.750	6.22 +-0.765	85
8.00 -16.00	4.57	# 0.0 -	-----	-----	# >30.0	-----	107
		a 0.0500	-----	-----	# 68.5 +-23.0	-----	107
		# 0.0500-	-----	-----	# 34.0 +-9.00	-----	107
		a 0.1000	-----	-----	# 9.90 +-5.00	-----	107
		# 0.2000-	-----	-----	# 3.00 +-2.10	-----	107
11.50	4.74	a 0.4000	-----	-----	a 23.0 +-3.60	36.8 +-5.77	137
		a 0.2000	11.42	2.207	a 8.36 +-1.66	13.4 +-2.66	137
		a 0.3000	14.01	2.710	a 4.91 +-0.700	7.86 +-1.12	137
		a 0.4000	16.20	3.138	a 2.28 +-0.320	3.65 +-0.512	137
		a 0.5000	18.13	3.517	a 0.667 +-0.670E-01	1.07 +-0.107	137
		a 0.7000	21.49	4.182	a 0.236 +-0.340E-01	0.378 +-0.544E-01	137
		a 0.9000	24.41	4.765	a 0.107 +-0.150E-01	0.171 +-0.240E-01	137
		a 1.1000	27.03	5.293	a 0.338E-01 +-0.111E-01	0.541E-01 +-0.178E-01	137
		a 1.3800	30.35	5.970	a 17.4 +-3.70	31.8 +-6.75	137
		a 0.2000	10.70	1.954	a 7.85 +-1.23	14.3 +-2.25	137
13.00	5.03	a 0.3000	13.12	2.399	a 4.61 +-0.700	8.41 +-1.28	137
		a 0.4000	15.17	2.777	a 2.21 +-0.300	4.03 +-0.548	137
		a 0.5000	16.97	3.112	a 0.690 +-0.900E-01	1.26 +-0.164	137
		a 0.7000	20.11	3.698	a 0.191 +-0.270E-01	0.349 +-0.493E-01	137
		a 0.9000	22.84	4.211	a 0.104 +-0.190E-01	0.190 +-0.347E-01	137
		a 1.1000	25.29	4.675	a 0.316E-01 +-0.910E-02	0.577E-01 +-0.166E-01	137
		a 1.3800	28.39	5.268	a 39.1 +-6.50	80.1 +-13.3	137
		a 0.1200	7.81	1.356	a 16.3 +-3.10	33.4 +-6.35	137
		a 0.2000	10.10	1.754	a 7.61 +-1.22	15.6 +-2.50	137
		a 0.3000	12.38	2.153	a 4.13 +-0.620	8.46 +-1.27	137
14.50	5.30	a 0.4000	14.31	2.491	a 2.19 +-0.330	4.49 +-0.676	137
		a 0.5000	16.01	2.790	a 0.603 +-0.860E-01	1.24 +-0.176	137
		a 0.7000	18.97	3.314	a 0.236 +-0.270E-01	0.484 +-0.553E-01	137
		a 0.9000	21.54	3.772	a 0.936E-01 +-0.187E-01	0.192 +-0.383E-01	137
		a 1.1000	23.85	4.186	a 0.207E-01 +-0.900E-02	0.424E-01 +-0.184E-01	137
		a 1.3800	26.77	4.714	a 33.9 +-5.80	77.1 +-13.2	137
		a 0.1200	7.42	1.230	a 16.5 +-3.40	37.5 +-7.73	137
		a 0.2000	9.59	1.591	a 9.18 +-1.99	20.9 +-4.52	137
		a 0.3000	11.76	1.952	a 4.45 +-0.650	10.1 +-1.48	137
		a 0.4000	13.59	2.258	a 2.10 +-0.280	4.77 +-0.637	137
16.00	5.56	a 0.5000	15.20	2.529	a 0.586 +-0.660E-01	1.33 +-0.150	137
		a 0.7000	18.01	3.003	a 0.216 +-0.250E-01	0.491 +-0.568E-01	137
		a 0.9000	20.44	3.416	a 0.924E-01 +-0.122E-01	0.210 +-0.277E-01	137
		a 1.1000	22.63	3.790	a 0.211E-01 +-0.770E-02	0.480E-01 +-0.175E-01	137
		a 1.3800	25.39	4.266	a 35.3 +-5.50	89.7 +-14.0	137
		a 0.1200	7.02	1.106	a 16.1 +-4.40	40.9 +-11.2	137
		a 0.2000	9.07	1.431	a 8.13 +-1.33	20.7 +-3.38	137
		a 0.3000	11.12	1.755	a 3.99 +-0.570	10.1 +-1.45	137
		a 0.4000	12.85	2.030	a 1.94 +-0.320	4.93 +-0.813	137
		a 0.5000	14.37	2.273	a 0.539 +-0.610E-01	1.37 +-0.155	137
17.80	5.86	a 0.7000	17.02	2.698	a 0.190 +-0.300E-01	0.483 +-0.763E-01	137
		a 0.9000	19.32	3.069			

= NUMERICAL VALUE FROM TABLE a = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA
 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C512: GAMMA + PROTON --> PROTON + RHC ZERO (K > 0.90 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.7650 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 17.80

	-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	REF
#	0.0048	4.40	3.02	9.14	# 230. + -30.0	11
@	0.0070	6.00	3.48	12.14	@ 136. + -11.0	85
#	0.0080	3.20 - 4.90	2.62 - 3.17	6.89 - 10.08	# 94.0 + -8.00	38
@	0.0080	7.60	3.89	15.14	@ 133. + -11.0	85
@	0.0 - 0.0250	4.30	2.99	8.95	@ > 26.1	94
#	0.0160	7.60	3.89	15.14	@ 108. + -7.60	85
\$	0.0163	2.52	2.37	5.61	# 350. + -110.	11
@	0.0180	6.00	3.48	12.14	@ 121. + -9.30	85
#	0.0 - 0.0500	2.00 - 4.00	2.15 - 2.90	4.63 - 8.39	# > 65.0	107
#	0.0 - 0.0500	4.00 - 8.00	2.90 - 3.99	8.39 - 15.89	# > 59.0	107
#	0.0 - 0.0500	8.00 - 16.00	3.99 - 5.56	15.89 - 30.90	# > 30.0	107
#	0.0025 - 0.0500	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	# 55.2 + -7.10	28
#	0.0046 - 0.0484	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	# 49.6 + -6.47	28
#	0.0050 - 0.0500	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	# 57.6 + -8.70	28
#	0.0280	3.20 - 4.90	2.62 - 3.17	6.89 - 10.08	# 85.0 + -9.00	38
#	0.0100 - 0.0500	2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	# 92.0 + -8.40	28
#	0.0027 - 0.0617	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	# 52.6 + -5.86	28
@	0.0330	6.00	3.48	12.14	@ 96.1 + -8.20	85
#	0.0200 - 0.0500	2.80	2.48	6.13	# 78.0 + -6.00	138
@	0.0250 - 0.0450	4.30	2.99	8.95	@ > 74.1	94
#	0.0200 - 0.0500	4.70	3.11	9.70	# 65.0 + -4.00	138
#	0.0250 - 0.0500	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 116. + -14.0	28
#	0.0390	2.60	2.40	5.76	# 220. + -74.0	11
#	0.0480	3.20 - 4.90	2.62 - 3.17	6.89 - 10.08	# 76.0 + -12.0	38
@	0.0500	7.60	3.89	15.14	@ 84.8 + -6.50	85
@	0.0520	6.00	3.48	12.14	@ 70.0 + -7.50	85
#	0.0500 - 0.0750	2.80	2.48	6.13	# 64.0 + -6.00	138
#	0.0500 - 0.0750	4.70	3.11	9.70	# 56.0 + -5.00	138
#	0.0399 - 0.0920	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	# 96.0 + -11.7	28
#	0.0680	3.20 - 4.90	2.62 - 3.17	6.89 - 10.08	# 71.0 + -14.0	38
@	0.0400 - 0.1000	4.30	2.99	8.95	@ 87.6 + -10.4	94
#	0.0500 - 0.1000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 91.4 + -7.50	28
#	0.0500 - 0.1000	2.00 - 4.00	2.15 - 2.90	4.63 - 8.39	# 87.0 + -15.0	107
#	0.0500 - 0.1000	2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	# 94.8 + -7.00	28
#	0.0500 - 0.1000	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	# 88.6 + -7.90	28
#	0.0500 - 0.1000	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	# 69.6 + -7.50	28
#	0.0500 - 0.1000	4.00 - 8.00	2.90 - 3.99	8.39 - 15.89	# 74.4 + -14.0	107
#	0.0500 - 0.1000	8.00 - 16.00	3.99 - 5.56	15.89 - 30.90	# 68.5 + -23.0	107
@	0.0780	6.00	3.48	12.14	@ 61.1 + -6.90	85
#	0.0484 - 0.1205	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	# 68.7 + -7.35	28
#	0.0750 - 0.1000	2.80	2.48	6.13	# 58.0 + -6.00	138
#	0.0750 - 0.1000	4.70	3.11	9.70	# 49.0 + -4.00	138
#	0.0880	3.20 - 4.90	2.62 - 3.17	6.89 - 10.08	# 46.0 + -15.0	38
#	0.0900	4.80	3.14	9.89	# 95.0 + -14.0	11
#	0.0960	2.56	2.38	5.68	# 150. + -62.0	11
@	0.1020	7.60	3.89	15.14	@ 51.6 + -4.00	85
@	0.1080	6.00	3.48	12.14	@ 49.7 + -5.10	85
@	0.1200	6.00	3.48	12.14	@ 41.2 + -7.70	137
@	0.1200	6.50	3.62	13.08	@ 40.9 + -7.30	137
@	0.1200	14.50	5.30	28.09	@ 39.1 + -6.50	137
@	0.1200	16.00	5.56	30.90	@ 33.9 + -5.80	137
@	0.1200	17.80	5.86	34.28	@ 35.3 + -5.50	137
#	0.1240	3.20 - 4.90	2.62 - 3.17	6.89 - 10.08	# 33.0 + -9.00	38
#	0.1000 - 0.1500	2.80	2.48	6.13	# 46.0 + -4.00	138
@	0.1000 - 0.1500	4.30	2.99	8.95	@ 59.5 + -8.90	94
#	0.1000 - 0.1500	4.70	3.11	9.70	# 41.0 + -3.00	138
#	0.0718 - 0.1797	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	# 55.2 + -6.59	28
#	0.1000 - 0.2000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 52.1 + -4.20	28
#	0.1000 - 0.2000	2.00 - 4.00	2.15 - 2.90	4.63 - 8.39	# 63.0 + -8.30	107
#	0.1000 - 0.2000	2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	# 49.2 + -3.60	28
#	0.1000 - 0.2000	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	# 41.7 + -3.90	28
#	0.1000 - 0.2000	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	# 42.7 + -4.10	28
#	0.1000 - 0.2000	4.00 - 8.00	2.90 - 3.99	8.39 - 15.89	# 30.8 + -5.80	107
#	0.1000 - 0.2000	8.00 - 16.00	3.99 - 5.56	15.89 - 30.90	# 34.0 + -9.00	107
#	0.0920 - 0.2387	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	# 41.1 + -4.07	28
#	0.1740	3.20 - 4.90	2.62 - 3.17	6.89 - 10.08	# 18.0 + -7.00	38
@	0.1740	7.60	3.89	15.14	@ 31.3 + -2.80	85
#	0.1500 - 0.2000	2.80	2.48	6.13	# 39.0 + -4.00	138
@	0.1500 - 0.2000	4.30	2.99	8.95	@ 30.1 + -6.60	94
#	0.1500 - 0.2000	4.70	3.11	9.70	# 33.0 + -2.00	138
@	0.1750	6.00	3.48	12.14	@ 28.2 + -3.10	85
@	0.2000	5.50	3.35	11.20	@ 14.2 + -4.50	137
@	0.2000	6.50	3.62	13.08	@ 27.6 + -5.20	137
@	0.2000	11.50	4.74	22.46	@ 23.0 + -3.60	137
@	0.2000	13.00	5.03	25.27	@ 17.4 + -3.70	137
@	0.2000	14.50	5.30	28.09	@ 16.3 + -3.10	137
@	0.2000	16.00	5.56	30.90	@ 16.5 + -3.40	137
@	0.2000	17.80	5.86	34.28	@ 16.1 + -4.40	137
#	0.1360 - 0.2670	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	# 28.9 + -3.82	28
@	0.2210	6.00	3.48	12.14	@ 18.5 + -2.70	85
#	0.2240	3.20 - 4.90	2.62 - 3.17	6.89 - 10.08	# 39.0 + -16.0	38
#	0.2000 - 0.2500	2.80	2.48	6.13	# 25.0 + -4.00	138
@	0.2000 - 0.2500	4.30	2.99	8.95	@ 29.0 + -6.30	94
#	0.2000 - 0.2500	4.70	3.11	9.70	# 20.0 + -2.00	138
#	0.2000 - 0.3000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 35.0 + -3.10	28
#	0.2000 - 0.3000	2.00 - 4.00	2.15 - 2.90	4.63 - 8.39	# 16.8 + -4.40	107

= NUMERICAL VALUE FROM TABLE @ = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA \$ = FOR DETAILS SEE REFERENCE
 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C512: GAMMA + PROTON --> PROTON + RHO ZERO (K > 0.90 GEV) (CONTINUED)

M2: 0.9383 GEV
M3: 0.9383 GEV
M4: 0.7650 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 17.80

	-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	REF
#	0.2000 - 0.3000	2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	# 24.0	+2.70 28
#	0.2000 - 0.3000	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	# 17.4	+2.60 28
#	0.2000 - 0.3000	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	# 16.5	+2.60 28
#	0.2000 - 0.3000	4.00 - 8.00	2.90 - 3.99	8.39 - 15.89	# 17.9	+4.80 107
#	0.2000 - 0.3000	8.00 - 16.00	3.99 - 5.56	15.89 - 30.90	# 9.90	+5.00 107
a	0.2640	7.60	3.89	15.14	a 13.6	+1.10 85
a	0.1797 - 0.3565	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	a 15.8	+2.50 28
a	0.2700	6.00	3.48	12.14	a 12.3	+1.60 85
#	0.2740	3.20 - 4.90	2.62 - 3.17	6.89 - 10.08	# 23.0	+12.0 38
#	0.2500 - 0.3000	2.80	2.48	6.13	# 22.0	+2.00 138
#	0.2500 - 0.3000	4.70	3.11	9.70	# 20.0	+1.40 138
a	0.1999 - 0.3544	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	a 17.0	+2.97 28
a	0.2500 - 0.3500	4.30	2.99	8.95	a 13.6	+3.20 94
a	0.3000	5.50	3.35	11.20	a 9.53	+1.93 137
a	0.3000	6.50	3.62	13.08	a 11.4	+2.20 137
a	0.3000	11.50	4.74	22.46	a 8.36	+1.66 137
a	0.3000	13.00	5.03	25.27	a 7.85	+1.23 137
a	0.3000	14.50	5.30	28.09	a 7.61	+1.22 137
a	0.3000	16.00	5.56	30.90	a 9.18	+1.99 137
a	0.3000	17.80	5.86	34.28	a 8.13	+1.33 137
#	0.3240	3.20 - 4.90	2.62 - 3.17	6.89 - 10.08	# 32.0	+20.0 38
#	0.3000 - 0.3500	2.80	2.48	6.13	# 15.0	+4.00 138
#	0.3000 - 0.3500	4.70	3.11	9.70	# 12.4	+1.60 138
#	0.3000 - 0.4000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 20.3	+2.50 28
#	0.3000 - 0.4000	2.00 - 4.00	2.15 - 2.90	4.63 - 8.39	# 12.9	+3.20 107
#	0.3000 - 0.4000	2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	# 16.0	+2.00 28
#	0.3000 - 0.4000	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	# 9.20	+2.00 28
#	0.3000 - 0.4000	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	# 7.10	+1.70 28
#	0.3000 - 0.4000	4.00 - 8.00	2.90 - 3.99	8.39 - 15.89	# 7.10	+2.90 107
#	0.3000 - 0.4000	8.00 - 16.00	3.99 - 5.56	15.89 - 30.90	# 3.00	+2.10 107
a	0.2670 - 0.4744	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	a 7.66	+1.88 28
#	0.3500 - 0.4000	2.80	2.48	6.13	# 11.4	+2.40 138
#	0.3500 - 0.4000	4.70	3.11	9.70	# 9.00	+1.50 138
a	0.3750	7.60	3.89	15.14	a 6.10	+1.750 85
a	0.2639 - 0.5295	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	a 5.44	+0.871 28
a	0.3500 - 0.4500	4.30	2.99	8.95	a 7.50	+2.50 94
a	0.4000	6.50	3.62	13.08	a 5.22	+0.980 137
a	0.4000	11.50	4.74	22.46	a 4.91	+0.700 137
a	0.4000	13.00	5.03	25.27	a 4.61	+0.700 137
a	0.4000	14.50	5.30	28.09	a 4.13	+0.620 137
a	0.4000	16.00	5.56	30.90	a 4.45	+0.650 137
a	0.4000	17.80	5.86	34.28	a 3.99	+0.570 137
#	0.4000 - 0.5000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 10.5	+1.80 28
#	0.4000 - 0.5000	2.00 - 4.00	2.15 - 2.90	4.63 - 8.39	# 3.20	+2.20 107
#	0.4000 - 0.5000	2.80	2.48	6.13	# 6.20	+1.10 138
#	0.4000 - 0.5000	2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	# 6.00	+1.40 28
#	0.4000 - 0.5000	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	# 6.20	+1.60 28
#	0.4000 - 0.5000	4.70	3.11	9.70	# 6.20	+1.00 138
#	0.4000 - 0.5000	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	# 5.60	+1.70 28
#	0.4000 - 0.5000	4.00 - 8.00	2.90 - 3.99	8.39 - 15.89	# 1.80	+1.20 107
a	0.4500 - 0.5500	4.30	2.99	8.95	a 3.80	+1.80 94
a	0.5000	5.50	3.35	11.20	a 3.41	+0.540 137
a	0.5000	6.00	3.48	12.14	a 3.42	+0.600 137
a	0.5000	6.50	3.62	13.08	a 2.61	+0.330 137
a	0.5000	11.50	4.74	22.46	a 2.28	+0.320 137
a	0.5000	13.00	5.03	25.27	a 2.21	+0.300 137
a	0.5000	14.50	5.30	28.09	a 2.19	+0.330 137
a	0.5000	16.00	5.56	30.90	a 2.10	+0.280 137
a	0.5000	17.80	5.86	34.28	a 1.94	+0.320 137
a	0.3544 - 0.7104	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	a 2.03	+0.547 28
#	0.5000 - 0.7000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 2.00	+0.900 28
#	0.5000 - 0.7000	2.80	2.48	6.13	# 2.40	+0.600 138
#	0.5000 - 0.7000	2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	# 2.60	+0.700 28
#	0.5000 - 0.7000	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	# 1.81	+0.500 28
a	0.5500 - 0.6500	4.30	2.99	8.95	a 2.20	+1.30 94
#	0.5000 - 0.7000	4.70	3.11	9.70	# 2.40	+0.400 138
#	0.5000 - 0.7000	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	# 1.68	+0.600 28
a	0.7000	5.50	3.35	11.20	a 0.795	+0.166 137
a	0.7000	6.00	3.48	12.14	a 1.08	+0.220 137
a	0.7000	6.50	3.62	13.08	a 0.920	+0.140 137
a	0.7000	11.50	4.74	22.46	a 0.667	+0.670E-01 137
a	0.7000	13.00	5.03	25.27	a 0.690	+0.900E-01 137
a	0.7000	14.50	5.30	28.09	a 0.603	+0.860E-01 137
a	0.7000	16.00	5.56	30.90	a 0.586	+0.660E-01 137
a	0.7000	17.80	5.86	34.28	a 0.539	+0.610E-01 137
a	0.3920 - 1.0545	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	a 0.659	+0.489 28
#	0.7000 - 1.0000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 2.30	+0.700 28
#	0.7000 - 1.0000	2.80	2.48	6.13	# 2.20	+0.400 138
#	0.7000 - 1.0000	2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	# 0.900	+0.400 28
#	0.7000 - 1.0000	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	# 0.880	+0.300 28
#	0.7000 - 1.0000	4.70	3.11	9.70	# 0.780	+0.160 138
#	0.7000 - 1.0000	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	# 0.370	+0.300 28
a	0.9000	5.50	3.35	11.20	a 0.317	+0.109 137
a	0.9000	6.00	3.48	12.14	a 0.376	+0.730E-01 137
a	0.9000	6.50	3.62	13.08	a 0.455	+0.850E-01 137
a	0.9000	11.50	4.74	22.46	a 0.236	+0.340E-01 137

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UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C512: GAMMA + PROTON --> PROTON + RHC ZERO (K > 0.90 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.7650 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 17.80

	-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	REF
	0.9000	13.00	5.03	25.27	20.191 +- .270E-01	137
	0.9000	14.50	5.30	28.09	20.236 +- .270E-01	137
	0.9000	16.00	5.56	30.90	20.216 +- .250E-01	137
	0.9000	17.80	5.86	34.28	20.190 +- .300E-01	137
P#	0.6500 - 1.2500	4.30	2.99	8.95	P# 1.03 +- .410	94
	0.5295 - 1.4184	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	0.938E-01 +- .938E-01	28
	1.1000	5.50	3.35	11.20	20.212 +- .540	137
	1.1000	6.00	3.48	12.14	20.259 +- .570E-01	137
	1.1000	6.50	3.62	13.08	20.165 +- .900E-01	137
	1.1000	11.50	4.74	22.46	20.107 +- .150E-01	137
	1.1000	13.00	5.03	25.27	20.104 +- .190E-01	137
	1.1000	14.50	5.30	28.09	20.936E-01 +- .187E-01	137
	1.1000	16.00	5.56	30.90	20.924E-01 +- .122E-01	137
#	1.0000 - 1.5000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	0.900 +- .500	28
#	1.0000 - 1.5000	2.80	2.48	6.13	0.760 +- .220	138
#	1.0000 - 1.5000	2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	0.580 +- .200	28
#	1.0000 - 1.5000	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	0.400 +- .200	28
#	1.0000 - 1.5000	4.70	3.11	9.70	0.340 +- .800E-01	138
	0.7763 - 1.7540	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	0.680 +- .234	28
	1.3800	11.50	4.74	22.46	20.338E-01 +- .111E-01	137
	1.3800	13.00	5.03	25.27	20.316E-01 +- .910E-02	137
	1.3800	14.50	5.30	28.09	20.207E-01 +- .900E-02	137
	1.3800	16.00	5.56	30.90	20.211E-01 +- .770E-02	137
	1.0545 - 2.3614	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	0.563 +- .407	28
#	1.5000 - 2.5000	4.70	3.11	9.70	0.670E-01 +- .270E-01	138
	0.2156 - 3.9010	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	0.188E-01	28
	1.2882 - 3.5033	3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	0.276E-01 +- .552E-01	28
	1.7540 - 4.7201	4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	0.141 +- .938E-01	28

1.60 GEV < K < GEV 2.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	REF
#	0.0500 - 0.1000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	# 97.3 +- 10.0	28
#	0.1000 - 0.2000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	# 62.7 +- 6.40	28
#	0.2000 - 0.3000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	# 33.9 +- 4.70	28
#	0.3000 - 0.4000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	# 17.7 +- 4.20	28
#	0.4000 - 0.5000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	# 9.90 +- 3.50	28
#	0.5000 - 0.7000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	# 8.10 +- 2.10	28
#	0.7000 - 1.0000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	# 8.80 +- 1.60	28
#	1.0000 - 1.5000	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	# 2.80 +- .800	28

C512: GAMMA + PROTON --> PROTON + RHC ZERO (K > 0.90 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.7650 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 1.40 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM	D SIG/D OMEGA (CM) MU BARN/ STERAD	REF
1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	-----	-----	# 0.0 - 41.4	# .130 +- .130	28
			-----	-----	# 41.4 - 60.0	# .340 +- .150	28
			-----	-----	# 60.0 - 75.5	# .470 +- .170	28
			-----	-----	# 75.5 - 90.0	# 1.18 +- .220	28
			-----	-----	# 90.0 - 104.5	# .640 +- .200	28
1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	-----	-----	# 0.0 - 41.4	# .800E-01 +- .600E-01	28
			-----	-----	# 41.4 - 60.0	# .800E-01 +- .600E-01	28
			-----	-----	# 60.0 - 90.0	# .190 +- .800E-01	28
			-----	-----	# 90.0 - 104.5	# .450 +- .140	28
2.80	2.48	6.13	\$-0.029 - 1.289 #.230	+- .800E-01	0.1 - 72.1	.696E-01 +- .242E-01	138
			\$ 1.289 - 2.289 #.170	+- .900E-01	72.1 - 102.6	.515E-01 +- .273E-01	138
2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	-----	-----	# 0.0 - 60.0	# .600E-01 +- .300E-01	28
			-----	-----	# 60.0 - 90.0	# <.200E-01	28
			-----	-----	# 90.0 - 120.0	# .900E-01 +- .500E-01	28

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 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C512: GAMMA + PROTON --> PROTON + RHO ZERO (K > 0.90 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.7650 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 1.40 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM LAB	D SIG/D OMEGA (CM) MU BARN/ STERAD	REF
3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	-0.027 - 1.726	.659E-01+-552E-01 #	0.0 - 60.0	0.0 - 18.9	#.310E-01+-260E-01 28
			1.253 - 3.475	.531E-01+-446E-01 #	60.0 - 90.0	17.6 - 30.3	#.250E-01+-210E-01 28
4.70	3.11	9.70	1.023 - 4.854	#.160E-01+-800E-02	0.1 - 108.8	0.0 - 36.6	.939E-02+-469E-02 138
4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	1.726 - 4.698	.188E-01+-188E-01 #	60.0 - 90.0	16.2 - 28.6	#.120E-01+-120E-01 28

C512: GAMMA + PROTON --> PROTON + RHO ZERO (K > 0.90 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.7650 GEV

RATIO OF CROSS SECTIONS FOR TRANSVERSE AND PARALLEL (TO THE VECTOR MESON DECAY PLANE) POLARIZED GAMMAS

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB	A=SIG PARALLEL (A-B)/(A+B)	B=SIG TRANSVERSE B/(A+B)	REF
1.40 - 1.80	1.96	# 0.0520-	-----	-----	# 1.06 +-850E-01 1.03 +-425E-01 0.0 +-100	135
1.40 - 1.80	1.96	0.1190	-----	-----	# 0.986 +-790E-01 0.993 +-395E-01 0.700E-02+-395E-01	135
1.40 - 1.80	1.96	0.1700	-----	-----	# 0.971 +-780E-01 0.985 +-390E-01 0.145E-01+-390E-01	135
1.40 - 1.80	1.96	0.2430	-----	-----	# 0.844 +-740E-01 0.922 +-370E-01 0.780E-01+-370E-01	135
1.40 - 1.80	1.96	0.3180	-----	-----	# 0.994 +-800E-01 0.997 +-400E-01 0.300E-02+-400E-01	135
1.80 - 2.10	2.13	# 0.0520-	10.34-	3.74-	# 0.994 +-800E-01 0.997 +-400E-01 0.300E-02+-400E-01	135
		0.1190	24.04	8.725	# 0.888 +-750E-01 0.944 +-375E-01 0.560E-01+-375E-01	135
		0.1700	30.73	11.15	# 0.869 +-700E-01 0.934 +-350E-01 0.655E-01+-350E-01	135
		0.2430	38.49	14.08	# 0.866 +-760E-01 0.933 +-380E-01 0.670E-01+-380E-01	135
2.10 - 2.40	2.25	# 0.0520-	11.95-	4.27-	# 0.966 +-900E-01 0.983 +-450E-01 0.170E-01+-450E-01	135
		0.1190	22.46	8.036	# 0.855 +-100E 00 0.927 +-500E-01 0.725E-01+-500E-01	135
		0.1700	20.94-	7.31-	# 0.855 +-100E 00 0.927 +-500E-01 0.725E-01+-500E-01	135
		0.2430	27.99-	10.05-	# 0.841 +-980E-01 0.920 +-490E-01 0.795E-01+-490E-01	135
		0.3180	34.50	12.44	# 0.842 +-109 0.921 +-545E-01 0.790E-01+-545E-01	135
2.80	2.48	# 0.0200-	40.22	14.57	# 0.960 +-800E-01 0.980 +-400E-01 0.200E-01+-400E-01	158
		0.0500	11.34	3.792	# 0.840 +-150 0.920 +-750E-01 0.800E-01+-750E-01	158
		0.0800	15.26-	5.11-	# 0.960 +-130 0.980 +-650E-01 0.200E-01+-650E-01	158
		0.1200	19.32-	6.485	# 0.860 +-190 0.930 +-950E-01 0.700E-01+-950E-01	158
		0.1800	24.19-	8.148	# 1.08 +-260 1.04 +-130 0.0 +-210	158
		0.2500	28.91-	9.77-	# 0.660 +-170 0.830 +-850E-01 0.170 +-850E-01	158
		0.4000	37.20	12.68	# 1.14 +-390 1.07 +-195 0.0 +-335	158
3.50	2.73	# 0.0079	0.00	0	0.870 +-600E-01 0.935 +-300E-01 0.650E-01+-300E-01	110
4.70	3.11	# 0.0200-	5.30-	1.49-	# 1.12 +-110 1.06 +-550E-01 0.0 +-175	158
		0.0500	9.04	2.543	# 0.850 +-140 0.925 +-700E-01 0.750E-01+-700E-01	158
		0.0800	11.64	3.277	# 1.13 +-110 1.06 +-550E-01 0.0 +-185	158
		0.1200	14.40	4.059	# 1.01 +-120 1.00 +-600E-01 0.0 +-700E-01	158
		0.1800	17.77	5.019	# 0.930 +-170 0.965 +-850E-01 0.350E-01+-850E-01	158
		0.2500	21.04	5.96-	# 1.16 +-160 1.08 +-800E-01 0.0 +-240	158
		0.4000	26.79	7.627	# 1.25 +-270 1.13 +-135 0.0 +-385	158
		1.0000	43.13	12.55		

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C512: GAMMA + PROTON --> PROTON + RHC ZERO (K > 0.90 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.7650 GEV

POLARIZED GAMMAS (DIRECTION OF POLARIZATION IS WITH RESPECT TO THE VECTOR MESON DECAY PLANE)

R = RATIO (SIG(PARALLEL) - SIG(TRANSVERSE))/(SIG(PARALLEL) + SIG(TRANSVERSE))
 (T DEPENDENCE)

2.00 GEV < K < GEV 4.70

	-T GEV**2	K GEV	E* GEV	S GEV**2	R	REF
	\$ 0.0079	3.50	2.73	7.45	#0.870	+-.600E-01 110
#	0.0200 - 0.0500	2.80	2.48	6.13	#0.960	+-.800E-01 158
#	0.0200 - 0.0500	4.70	3.11	9.70	# 1.12	+-.110 158
#	0.0500 - 0.0800	2.80	2.48	6.13	#0.840	+-.150 158
#	0.0500 - 0.0800	4.70	3.11	9.70	#0.850	+-.140 158
#	0.0520 - 0.1190	2.10 - 2.40	2.20 - 2.32	4.82 - 5.38	#0.966	+-.900E-01 135
#	0.0800 - 0.1200	2.80	2.48	6.13	#0.960	+-.130 158
#	0.0800 - 0.1200	4.70	3.11	9.70	# 1.13	+-.110 158
#	0.1190 - 0.1700	2.10 - 2.40	2.20 - 2.32	4.82 - 5.38	#0.855	+-.100E 00 135
#	0.1200 - 0.1800	2.80	2.48	6.13	#0.860	+-.190 158
#	0.1200 - 0.1800	4.70	3.11	9.70	# 1.01	+-.120 158
#	0.1700 - 0.2430	2.10 - 2.40	2.20 - 2.32	4.82 - 5.38	#0.841	+-.980E-01 135
#	0.1800 - 0.2500	2.80	2.48	6.13	# 1.08	+-.260 158
#	0.1800 - 0.2500	4.70	3.11	9.70	#0.930	+-.170 158
#	0.2430 - 0.3180	2.10 - 2.40	2.20 - 2.32	4.82 - 5.38	#0.842	+-.109 135
#	0.2500 - 0.4000	2.80	2.48	6.13	#0.660	+-.170 158
#	0.2500 - 0.4000	4.70	3.11	9.70	# 1.16	+-.160 158
#	0.4000 - 1.0000	2.80	2.48	6.13	# 1.14	+-.390 158
#	0.4000 - 1.0000	4.70	3.11	9.70	# 1.25	+-.270 158

1.60 GEV < K < GEV 2.00

	-T GEV**2	K GEV	E* GEV	S GEV**2	R	REF
#	0.0520 - 0.1190	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	# 1.06	+-.850E-01 135
#	0.0520 - 0.1190	1.80 - 2.10	2.06 - 2.20	4.26 - 4.82	#0.994	+-.800E-01 135
#	0.1190 - 0.1700	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	#0.986	+-.790E-01 135
#	0.1190 - 0.1700	1.80 - 2.10	2.06 - 2.20	4.26 - 4.82	#0.888	+-.750E-01 135
#	0.1700 - 0.2430	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	#0.971	+-.780E-01 135
#	0.1700 - 0.2430	1.80 - 2.10	2.06 - 2.20	4.26 - 4.82	#0.869	+-.700E-01 135
#	0.2430 - 0.3180	1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	#0.844	+-.740E-01 135
#	0.2430 - 0.3180	1.80 - 2.10	2.06 - 2.20	4.26 - 4.82	#0.866	+-.760E-01 135

C514: GAMMA + PROTON --> PROTON + OMEGA (K > 1.10 GEV)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.7834 GEV

CONSTANTS AND TOTAL CROSS SECTION
 $\sigma \text{ SIGMA/D T} = A \cdot \exp(B \cdot T)$ $A = (\sigma \text{ SIGMA/D T})_{T=0}$
 IF A VALUE FOR 'C' IS GIVEN $\sigma \text{ SIGMA/D T} = A \cdot \exp(B \cdot T + C \cdot T^2)$

K GEV	E* GEV	S GEV**2	A MU BARN/GEV**2	B 1/GEV**2	C 1/GEV**4	SIG TOT MU BARN	REF
1.11 - 1.40	1.72 - 1.87	2.97 - 3.51	-----	-----	-----	# 6.70+- 1.10	28
1.11 - 1.50	1.72 - 1.92	2.97 - 3.70	-----	-----	-----	# 7.30+- 1.60	25
1.40 - 1.80	1.87 - 2.06	3.51 - 4.26	# 43.90+- 12.60	# 6.30+- 1.40	-----	# 7.51+- 0.97	28
1.50 - 1.80	1.92 - 2.06	3.70 - 4.26	-----	-----	-----	# 6.30+- 1.90	25
1.80 - 2.10	2.06 - 2.20	4.26 - 4.82	-----	-----	-----	# 7.37+- 1.20	28
1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 37.60+- 8.10	# 5.40+- 1.00	-----	# 5.94+- 2.38	28
1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	-----	-----	-----	# 5.50+- 1.00	25
2.10 - 2.50	2.20 - 2.36	4.82 - 5.57	-----	-----	-----	# 6.80+- 1.02	28
2.50 - 3.00	2.36 - 2.55	5.57 - 6.51	-----	-----	-----	# 5.45+- 1.00	28
2.80	2.48	6.13	# 34.40+- 4.00	# 6.20+- 0.70	-----	# 5.80+- 0.50	213
2.00 - 5.00	2.15 - 3.20	4.63 - 10.26	# 35.00+- 12.00	# 9.00+- 2.60	-----	# 3.90+- 0.90	107
3.00 - 3.50	2.55 - 2.73	6.51 - 7.45	-----	-----	-----	# 4.23+- 0.86	28
3.50 - 4.50	2.73 - 3.05	7.45 - 9.32	-----	-----	-----	# 3.60+- 0.61	28
2.50 - 5.80	2.36 - 3.43	5.57 - 11.76	# 28.40+- 5.20	# 7.60+- 1.20	-----	# 3.45+- 1.18	28
2.50 - 6.00	2.36 - 3.48	5.57 - 12.14	-----	-----	-----	# 3.20+- 0.60	25
4.30	2.99	8.95	# 20.50+- 4.50	# 7.40+- 1.20	-----	# 2.80+- 0.50	94
4.70	3.11	9.70	# 25.00+- 3.00	# 8.00+- 0.80	-----	# 3.20+- 0.30	213
4.50 - 5.80	3.05 - 3.43	9.32 - 11.76	-----	-----	-----	# 3.15+- 0.66	28
5.25	3.28	10.73	-----	-----	-----	# 2.00+- 0.50	114
5.00 - 16.00	3.20 - 5.56	10.26 - 30.90	# 25.00+- 10.00	# 9.50+- 2.30	-----	# 2.60+- 0.70	107

C514: GAMMA + PROTON --> PROTON + OMEGA (K > 1.10 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.7834 GEV

NATURAL PARITY CONTRIBUTION

CONSTANTS AND TOTAL CROSS SECTION
 $\sigma \text{ SIGMA/D T} = A \cdot \exp(B \cdot T)$ $A = (\sigma \text{ SIGMA/D T})_{T=0}$
 IF A VALUE FOR 'C' IS GIVEN $\sigma \text{ SIGMA/D T} = A \cdot \exp(B \cdot T + C \cdot T^2)$

K GEV	E* GEV	S GEV**2	A MU BARN/GEV**2	B 1/GEV**2	C 1/GEV**4	SIG TOT MU BARN	REF
2.80	2.48	6.13	# 13.10+- 4.10	# 5.50+- 1.60	-----	# 2.50+- 0.37	213
4.70	3.11	9.70	# 15.20+- 3.80	# 7.50+- 1.50	-----	# 1.84+- 0.28	213

C514: GAMMA + PROTON --> PROTON + OMEGA (K > 1.10 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.7834 GEV

UNNATURAL PARITY CONTRIBUTION

CONSTANTS AND TOTAL CROSS SECTION
 $\sigma \text{ SIGMA/D T} = A \cdot \exp(B \cdot T)$ $A = (\sigma \text{ SIGMA/D T})_{T=0}$
 IF A VALUE FOR 'C' IS GIVEN $\sigma \text{ SIGMA/D T} = A \cdot \exp(B \cdot T + C \cdot T^2)$

K GEV	E* GEV	S GEV**2	A MU BARN/GEV**2	B 1/GEV**2	C 1/GEV**4	SIG TOT MU BARN	REF
2.80	2.48	6.13	-----	-----	-----	# 2.70+- 0.39	213
4.70	3.11	9.70	-----	-----	-----	# 1.25+- 0.27	213

G514: GAMMA + PROTON --> PROTON + OMEGA (K > 1.10 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.7834 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA CM	(MESON) LAB	D SIG/D T MU BARN/GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
1.11 - 1.40	1.79	-----	@ 0.0 -	-----	-----	@ .960 +- .800	28
			36.90	-----	-----	@ .540 +- .220	28
			@ 36.90-	-----	-----	@ .540 +- .260	28
			53.10	-----	-----	@ .520 +- .130	28
			@ 53.10-	-----	-----	@ .640 +- .160	28
			66.40	-----	-----	@ .360 +- .120	28
			@ 66.40-	-----	-----	@ 3.04 +- .630	28
			90.00	-----	-----	@ 1.93 +- .790	28
			@ 90.00-	-----	-----	@ .960 +- .310	28
			107.50	-----	-----	@ .300 +- .210	28
1.40 - 1.80	1.96	-----	@ 107.50-	-----	-----	@ .390 +- .140	28
			180.00	-----	-----	@ .410 +- .140	28
			@ 180.00-	-----	-----	@ .190 +- .900E-01	28
			0.0 -	-----	-----	-----	28
			25.80	-----	-----	-----	28
			@ 25.80-	-----	-----	-----	28
			36.90	-----	-----	-----	28
			@ 36.90-	-----	-----	-----	28
			53.10	-----	-----	-----	28
			@ 53.10-	-----	-----	-----	28
1.50 - 1.80	1.99	-----	66.40	-----	-----	-----	28
			@ 66.40-	-----	-----	-----	28
			90.00	-----	-----	-----	28
			@ 90.00-	-----	-----	-----	28
			107.50	-----	-----	-----	28
			@ 107.50-	-----	-----	-----	28
			180.00	-----	-----	-----	28
			@ 180.00-	-----	-----	-----	28
			0.0500-	-----	-----	-----	28
			0.1000-	-----	-----	-----	28
1.80 - 2.50	2.19	-----	0.2000	-----	-----	-----	28
			@ 0.2000-	-----	-----	-----	28
			0.3000	-----	-----	-----	28
			@ 0.3000-	-----	-----	-----	28
			0.4000	-----	-----	-----	28
			@ 0.4000-	-----	-----	-----	28
			0.5000	-----	-----	-----	28
			@ 0.5000-	-----	-----	-----	28
			1.2000	-----	-----	-----	28
			@ 1.2000-	-----	-----	-----	28
1.80 - 2.50	2.19	-----	0.0 -	-----	-----	-----	28
			18.20	-----	-----	-----	28
			@ 18.20-	-----	-----	-----	28
			25.80	-----	-----	-----	28
			@ 25.80-	-----	-----	-----	28
			36.90	-----	-----	-----	28
			@ 36.90-	-----	-----	-----	28
			53.10	-----	-----	-----	28
			@ 53.10-	-----	-----	-----	28
			90.00	-----	-----	-----	28
1.80 - 2.50	2.19	-----	@ 90.00-	-----	-----	-----	28
			113.60	-----	-----	-----	28
			@ 113.60-	-----	-----	-----	28
			0.0 -	-----	-----	-----	28
			18.20	-----	-----	-----	28
			@ 18.20-	-----	-----	-----	28
			25.80	-----	-----	-----	28
			@ 25.80-	-----	-----	-----	28
			36.90	-----	-----	-----	28
			@ 36.90-	-----	-----	-----	28
1.80 - 2.50	2.19	-----	45.30	-----	-----	-----	28
			@ 45.30-	-----	-----	-----	28
			53.10	-----	-----	-----	28
			@ 53.10-	-----	-----	-----	28
			66.40	-----	-----	-----	28
			@ 66.40-	-----	-----	-----	28
			90.00	-----	-----	-----	28
			@ 90.00-	-----	-----	-----	28
			107.50	-----	-----	-----	28
			@ 107.50-	-----	-----	-----	28
1.80 - 2.50	2.19	-----	180.00	-----	-----	-----	28
			@ 180.00-	-----	-----	-----	28
			0.0 -	-----	-----	-----	28
			0.0500	-----	-----	-----	28
			@ 0.0500-	-----	-----	-----	28
			0.1000	-----	-----	-----	28
			@ 0.1000-	-----	-----	-----	28
			0.2000	-----	-----	-----	28
			@ 0.2000-	-----	-----	-----	28
			0.3000	-----	-----	-----	28
1.80 - 2.50	2.19	-----	@ 0.3000-	-----	-----	-----	28
			0.4000	-----	-----	-----	28
			@ 0.4000-	-----	-----	-----	28
			0.5000	-----	-----	-----	28
			@ 0.5000-	-----	-----	-----	28
			0.0 -	-----	-----	-----	28
			0.0500	-----	-----	-----	28
			@ 0.0500-	-----	-----	-----	28
			0.1000	-----	-----	-----	28
			@ 0.1000-	-----	-----	-----	28

= NUMERICAL VALUE FROM TABLE @ = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA
 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

DIFFERENTIAL CROSS SECTION

= NUMERICAL VALUE FROM TABLE @ = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA
UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

CS14: GAMMA + PROTON --> PROTON + OMEGA (K > 1.10 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.7834 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
4.70	3.11	# 0.3000-	23.14-	6.54-			
		0.4000	26.84	7.611	# 2.20	+-.500	213
		# 0.4000-	26.84-	7.61-			
		0.5000	30.11	8.570	# 1.10	+-.400	213
		# 0.5000-	30.11-	8.57-			
		1.0000	43.21	12.52	# .270	+-.900E-01	213
		# 1.0000-	43.21-	12.52-			
		2.0000	62.85	18.96	# <.300E-01	<.175E-01	213
		# 2.0000-	62.85-	18.96-			
		5.5000	119.82	45.15	# <.700E-02	<.409E-02	213
		# 5.5000-	119.82-	45.15-			
		7.3451	179.92	178.3	# .506E-01+-.200E-01	.292E-01+-.117E-01	213

CS14: GAMMA + PROTON --> PROTON + OMEGA (K > 1.10 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.7834 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 4.70

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	REF
0.0 - 0.0125	4.30	2.99	8.95	>0.152	94
0.0 - 0.0250	2.50 - 5.80	2.36 - 3.43	5.57 - 11.76	> 3.30	28
0.0 - 0.0500	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	> 38.7	28
0.0125 - 0.0525	4.30	2.99	8.95	> 10.4	94
0.0140 - 0.0600	2.80	2.48	6.13	# 27.3	213
0.0140 - 0.0600	4.70	3.11	9.70	# 20.1	213
0.0250 - 0.0500	2.50 - 5.80	2.36 - 3.43	5.57 - 11.76	# 20.2	28
0.0500 - 0.1000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 24.8	28
0.0500 - 0.1000	2.50 - 5.80	2.36 - 3.43	5.57 - 11.76	# 17.6	28
0.0500 - 0.1000	4.30	2.99	8.95	# 10.4	94
0.0600 - 0.1000	2.80	2.48	6.13	# 22.5	213
0.0600 - 0.1000	4.70	3.11	9.70	# 11.7	213
0.1000 - 0.1500	2.80	2.48	6.13	# 16.6	213
0.1000 - 0.1500	4.70	3.11	9.70	# 9.00	213
0.1000 - 0.2000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 16.4	28
0.1000 - 0.2000	2.50 - 5.80	2.36 - 3.43	5.57 - 11.76	# 8.96	28
0.1000 - 0.2000	4.30	2.99	8.95	# 4.30	94
0.1500 - 0.2000	2.80	2.48	6.13	# 8.70	213
0.1500 - 0.2000	4.70	3.11	9.70	# 5.90	213
0.2000 - 0.3000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 9.95	28
0.2000 - 0.3000	2.80	2.48	6.13	# 7.30	213
0.2000 - 0.3000	2.50 - 5.80	2.36 - 3.43	5.57 - 11.76	# 2.87	28
0.2000 - 0.3000	4.70	3.11	9.70	# 2.90	213
0.2000 - 0.4000	4.30	2.99	8.95	# 1.80	94
0.3000 - 0.4000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 5.45	28
0.3000 - 0.4000	2.80	2.48	6.13	# 4.10	213
0.3000 - 0.4000	2.50 - 5.80	2.36 - 3.43	5.57 - 11.76	# 2.79	28
0.3000 - 0.4000	4.70	3.11	9.70	# 2.20	213
0.4000 - 0.5000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 3.79	28
0.4000 - 0.5000	2.80	2.48	6.13	# 2.00	213
0.4000 - 0.5000	2.50 - 5.80	2.36 - 3.43	5.57 - 11.76	# 1.51	28
0.4000 - 0.5000	4.70	3.11	9.70	# 1.10	213
0.4400 - 1.0000	4.30	2.99	8.95	# 0.150	94
0.5000 - 1.0000	2.80	2.48	6.13	# 0.900	213
0.5000 - 1.0000	4.70	3.11	9.70	# 0.270	213
0.5000 - 1.2000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	# 0.990	28
0.5000 - 1.2000	2.50 - 5.80	2.36 - 3.43	5.57 - 11.76	# 0.320	28
1.0000 - 2.0000	2.80	2.48	6.13	# 0.280	213
1.0000 - 2.0000	4.70	3.11	9.70	# <0.300E-01	213

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 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C514: GAMMA + PROTON --> PROTON + OMEGA (K > 1.10 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.7834 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 1.50 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM LAB	D SIG/D OMEGA (CM) MU BARN/ STERAD	REF
1.50 - 1.80	1.92 - 2.06	3.70 - 4.26	-----	-----	@ 66.4 - 90.0	@ <.360	25
			-----	-----	@ 90.0 - 126.9	@ <.294	25
1.80 - 2.50	2.06 - 2.36	4.26 - 5.57	-----	-----	@ 0.0 - 72.5	@.121 +- .820E-01	28
			-----	-----	@ 72.5 - 90.0	@.220 +- .190	28
			-----	-----	@ 90.0 - 113.6	@.150 +- .100E 00	28
2.80	2.48	6.13	\$-0.024 - 1.760	\$.150 -.800E-01	0.1 - 86.9 0.0 - 30.1	-.450E-01 +.450E-01 -.240E-01	213
2.50 - 5.80	2.36 - 3.43	5.57 - 11.76	-----	-----	@ 0.0 - 72.5	@.200E-01 +.200E-01	28
			-----	-----	@ 72.5 - 90.0	@.700E-01 +.430E-01	28
			-----	-----	@ 90.0 - 113.6	@.390E-01 +.290E-01	28
2.50 - 6.00	2.36 - 3.48	5.57 - 12.14	-----	-----	@ 90.0 - 126.9	@1.53 +-1.02	25
4.70	3.11	9.70	\$-0.020 ~ 1.626	\$.500E-01 +-.200E-01	0.1 - 60.2 0.0 - 17.4	-.292E-01 +-.117E-01	213
			\$ 1.826 - 5.326	\$ <.700E-02	60.2 - 117.2 17.4 - 40.6	<.409E-02	213

C514: GAMMA + PROTON --> PROTON + OMEGA (K > 1.10 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 0.7834 GEV

NATURAL PARITY CONTRIBUTION
 DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA CM	IMESON) LAB	D SIG/D T MU BARN/GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
2.80	2.48	@ 0.0 - 0.0500 @ 0.0500- 0.1000 @ 0.1000- 0.2000 @ 0.2000- 0.4000	0.0 - 11.17 11.17- 17.35 17.35- 25.65 25.65- 37.31	0.0 - 3.710 3.71- 5.775 5.77- 8.583 8.58- 12.62	@ 11.5 +-4.00 @ 6.50 +-3.20 @ 6.90 +-1.00 @ 2.20 +-1.800	3.45 +-1.20 1.95 +-1.960 2.07 +-1.900 1.660 +-1.240	213 213 213 213
4.70	3.11	@ 0.0 - 0.0600 @ 0.0600- 0.1000 @ 0.1000- 0.2000 @ 0.2000- 0.4000	0.0 - 9.96 9.96- 13.09 13.09- 18.78 18.78- 26.84	0.0 - 2.793 2.79- 3.674 3.67- 5.289 5.29- 7.611	@ 10.0 +-2.90 @ 9.10 +-2.70 @ 4.90 +-1.10 @ 1.60 +-1.500	5.84 +-1.69 5.32 +-1.58 2.86 +-1.643 1.935 +-1.292	213 213 213 213

C515: GAMMA + PROTON --> PROTON + PHI (K > 1.58 GEV)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 1.0195 GEV

CONSTANTS AND TOTAL CROSS SECTION
 $D \text{ SIGMA}/D T = A \cdot \exp(B \cdot T)$ $A = (D \text{ SIGMA}/D T) T = 0$
 IF A VALUE FOR 'C' IS GIVEN $D \text{ SIGMA}/D T = A \cdot \exp(B \cdot T + C \cdot T^2)$

K GEV	E* GEV	S GEV**2	A MU BARN/GEV**2	B 1/GEV**2	C 1/GEV**4	SIG TOT MU BARN	REF
1.58 - 2.50	1.96 - 2.36	3.85 - 5.57	@ 1.13+- 0.70	@ 2.70+- 1.10	-----	@ 0.30+- 0.10	28
1.60 - 3.50	1.97 - 2.73	3.88 - 7.45	-----	-----	-----	# 0.50 + 0.70	41
1.60 - 3.50	1.97 - 2.73	3.88 - 7.45	-----	-----	-----	# 0.50 + 0.50	41
2.80	2.48	6.13	-----	-----	-----	P# 0.33+- 0.13	140
2.50 - 3.50	2.36 - 2.73	5.57 - 7.45	-----	-----	-----	@ 0.40+- 0.14	28
2.50 - 5.80	2.36 - 3.43	5.57 - 11.76	@ 1.60+- 0.60	@ 3.50+- 0.90	-----	@ 0.40+- 0.26	28
3.50 - 5.80	2.73 - 3.43	7.45 - 11.76	-----	-----	-----	@ 0.45+- 0.13	28
4.70	3.11	9.70	-----	-----	-----	P@ 0.45+- 0.16	140
5.20	3.26	10.64	P@ 2.76+- 0.54	-----	-----	-----	211
6.25	3.55	12.61	4.04+- 0.74	-----	-----	-----	108
2.00 - 16.00	2.15 - 5.56	4.63 - 30.90	# 3.40+- 1.80	# 6.30+- 2.50	-----	# 0.61+- 0.24	107
8.25	4.04	16.36	5.28+- 0.31	-----	-----	-----	108
9.25	4.27	18.24	5.81+- 0.51	-----	-----	-----	108

C515: GAMMA + PROTON --> PROTON + PHI (K > 1.50 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 1.0195 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
1.57 - 2.50	2.12	-----	@ 0.0 - 45.50	-----	-----	@ .735E-01+- .285E-01	28
			@ 45.50- 66.40	-----	-----	@ .259E-01+- .151E-01	28
			@ 66.40- 90.00	-----	-----	@ .111E-01+- .800E-02	28
			@ 90.00- 180.00	-----	-----	@ .115E-01+- .550E-02	28
		@ 0.1000- 0.2000	-----	-----	@ .755 +- .628	-----	28
		@ 0.2000- 0.6000	-----	-----	@ .386 +- .141	-----	28
		@ 0.6000- 1.0000	-----	-----	@ .125 +- .750E-01	-----	28
		@ 1.0000- 1.6000	-----	-----	@ .950E-01+- .680E-01	-----	28
2.50 - 5.80	2.73	-----	@ 0.0 - 25.80	-----	-----	@ .385 +- .110	28
			@ 25.80- 45.50	-----	-----	@ .935E-01+- .353E-01	28
			@ 45.50- 90.00	-----	-----	@ .850E-02+- .490E-02	28
			@ 90.00- 180.00	-----	-----	@ .480E-02+- .340E-02	28
		@ 0.0500- 0.2000	-----	-----	@ 1.07 +- .310	-----	28
		@ 0.2000- 0.3000	-----	-----	@ .370 +- .120	-----	28
		@ 0.3000- 1.0000	-----	-----	@ .960E-01+- .530E-01	-----	28
		@ 1.0000- 1.6000	-----	-----	@ .160E-01+- .160E-01	-----	28
3.20 - 4.40	2.80	# 0.0250- 0.0350	-----	-----	# 1.90 +- .140	-----	52
5.20	3.26	P@ 0.0360- 6.43	6.43	1.648	P@ 2.30 +- .400	P 1.43 +- .248	211
6.00	3.48	@ 0.5000- 26.57	26.57	6.558	@ .311 +- .800E-01	.230 +- .593E-01	137
		@ 1.1000- 40.05	40.05	10.04	@ .397E-01+- .200E-01	.294E-01+- .148E-01	137
6.25	3.55	\$ 0.0077- 0.00	# 0.00	0	# 3.85 +- .700	3.00 +- .545	108
6.50	3.62	@ 0.5000- 25.33	25.33	6.070	@ .289 +- .750E-01	.236 +- .612E-01	137
		@ 0.7000- 30.14	30.14	7.256	@ .171 +- .430E-01	.140 +- .351E-01	137
		@ 0.9000- 34.33	34.33	8.306	@ .596E-01+- .359E-01	.486E-01+- .293E-01	137
8.25	4.04	\$ 0.0043- 0.00	# 0.00	0	# 5.14 +- .300	5.54 +- .323	108
		# 0.2330- 14.93	14.93	3.242	# 1.44 +- .100E 00	1.55 +- .108	108
9.25	4.27	# 0.0040- 0.72	0.72	1.497	# 5.67 +- .500	6.96 +- .614	108
11.50	4.74	@ 0.4000- 16.36	16.36	3.099	@ .364 +- .810E-01	.569 +- .127	137
		@ 0.5000- 18.32	18.32	3.475	@ .172 +- .410E-01	.269 +- .641E-01	137
		@ 0.7000- 21.72	21.72	4.133	@ .850E-01+- .210E-01	.133 +- .328E-01	137
		@ 0.9000- 24.69	24.69	4.710	@ .370E-01+- .110E-01	.579E-01+- .172E-01	137
13.00	5.03	# 0.2000- 10.78	10.78	1.931	# 1.15 +- .450	2.06 +- .805	73
		@ 0.3000- 13.23	13.23	2.373	@ .555 +- .111	.992 +- .198	137
		@ 0.4000- 15.30	15.30	2.748	@ .299 +- .590E-01	.535 +- .105	137
		@ 0.5000- 17.13	17.13	3.079	@ .210 +- .620E-01	.375 +- .111	137

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 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C515: GAMMA + PROTON --> PROTON + PHI (K > 1.50 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 1.0195 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
13.00	5.03	@ 0.7000	20.31	3.660	@ .896E-01+- .197E-01	.160 +- .352E-01	137
		@ 0.9000	23.07	4.169	@ .300E-01+- .120E-01	.536E-01+- .215E-01	137
		@ 1.1000	25.55	4.629	@ .341E-01+- .800E-02	.610E-01+- .143E-01	137
14.50	5.30	@ 0.3000	12.48	2.132	@ .496 +- .960E-01	.998 +- .193	137
		@ 0.4000	14.43	2.467	@ .294 +- .610E-01	.591 +- .123	137
		@ 0.5000	16.15	2.765	@ .192 +- .410E-01	.386 +- .825E-01	137
		@ 0.7000	19.14	3.284	@ .900E-01+- .180E-01	.181 +- .362E-01	137
		@ 0.9000	21.73	3.739	@ .350E-01+- .110E-01	.704E-01+- .221E-01	137
16.00	5.56	@ 0.3000	11.84	1.935	@ .259 +- .100E 00	.579 +- .224	137
		@ 0.4000	13.69	2.239	@ .211 +- .133	.472 +- .298	137
		@ 0.5000	15.32	2.508	@ .129 +- .400E-01	.288 +- .894E-01	137
		@ 0.7000	18.15	2.978	@ .569E-01+- .185E-01	.127 +- .414E-01	137
		@ 0.9000	20.61	3.389	@ .271E-01+- .730E-02	.606E-01+- .163E-01	137
		@ 1.1000	22.81	3.760	@ .267E-01+- .700E-02	.597E-01+- .157E-01	137
		@ 1.3800	25.60	4.232	@ .730E-02+- .340E-02	.163E-01+- .760E-02	137
17.80	5.86	@ 0.3000	11.19	1.742	@ .313 +- .183	.784 +- .458	137
		@ 0.5000	14.47	2.257	@ .139 +- .420E-01	.348 +- .105	137
		@ 0.7000	17.14	2.679	@ .630E-01+- .190E-01	.158 +- .476E-01	137
		@ 0.9000	19.46	3.047	@ .260E-01+- .110E-01	.651E-01+- .276E-01	137

C515: GAMMA + PROTON --> PROTON + PHI (K > 1.50 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 1.0195 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 17.80

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	REF
# 0.0040	9.25	4.27	18.24	# 5.67 +- .500	108
\$ 0.0043	8.25	4.04	16.36	# 5.14 +- .300	108
\$ 0.0077	6.25	3.55	12.61	# 3.85 +- .700	108
# 0.0250 - 0.0350	3.20 - 4.40	2.62 - 3.02	6.89 - 9.14	# 1.90 +- 1.40	52
P@ 0.0360	5.20	3.26	10.64	P@ 2.30 +- .400	211
@ 0.0500 - 0.2000	2.50 - 5.80	2.36 - 3.43	5.57 - 11.76	@ 1.07 +- .310	28
# 0.2000	13.00	5.03	25.27	# 1.15 +- .450	73
# 0.2330	8.25	4.04	16.36	# 1.44 +- .100E 00	108
@ 0.2000 - 0.3000	2.50 - 5.80	2.36 - 3.43	5.57 - 11.76	@ 0.370 +- .120	28
@ 0.3000	13.00	5.03	25.27	@ 0.555 +- .111	137
@ 0.3000	14.50	5.30	28.09	@ 0.496 +- .960E-01	137
@ 0.3000	16.00	5.56	30.90	@ 0.259 +- .100E 00	137
@ 0.3000	17.80	5.86	34.28	@ 0.313 +- .183	137
@ 0.4000	11.50	4.74	22.46	@ 0.364 +- .810E-01	137
@ 0.4000	13.00	5.03	25.27	@ 0.299 +- .590E-01	137
@ 0.4000	14.50	5.30	28.09	@ 0.294 +- .610E-01	137
@ 0.4000	16.00	5.56	30.90	@ 0.211 +- .133	137
@ 0.5000	6.00	3.48	12.14	@ 0.311 +- .800E-01	137
@ 0.5000	6.50	3.62	13.08	@ 0.289 +- .750E-01	137
@ 0.5000	11.50	4.74	22.46	@ 0.172 +- .410E-01	137
@ 0.5000	13.00	5.03	25.27	@ 0.210 +- .620E-01	137
@ 0.5000	14.50	5.30	28.09	@ 0.192 +- .410E-01	137
@ 0.5000	16.00	5.56	30.90	@ 0.129 +- .400E-01	137
@ 0.5000	17.80	5.86	34.28	@ 0.139 +- .420E-01	137
@ 0.7000	6.50	3.62	13.08	@ 0.171 +- .430E-01	137
@ 0.7000	11.50	4.74	22.46	@ 0.850E-01+- .210E-01	137
@ 0.7000	13.00	5.03	25.27	@ 0.896E-01+- .197E-01	137
@ 0.7000	14.50	5.30	28.09	@ 0.900E-01+- .180E-01	137
@ 0.7000	16.00	5.56	30.90	@ 0.569E-01+- .185E-01	137
@ 0.7000	17.80	5.86	34.28	@ 0.610E-01+- .190E-01	137
@ 0.6000 - 1.0000	2.50 - 5.80	2.36 - 3.43	5.57 - 11.76	@ 0.960E-01+- .530E-01	28
@ 0.9000	6.50	3.62	13.08	@ 0.596E-01+- .359E-01	137
@ 0.9000	11.50	4.74	22.46	@ 0.370E-01+- .110E-01	137
@ 0.9000	13.00	5.03	25.27	@ 0.300E-01+- .120E-01	137
@ 0.9000	14.50	5.30	28.09	@ 0.350E-01+- .110E-01	137
@ 0.9000	16.00	5.56	30.90	@ 0.271E-01+- .730E-02	137
@ 0.9000	17.80	5.86	34.28	@ 0.260E-01+- .110E-01	137
@ 1.1000	6.00	3.48	12.14	@ 0.397E-01+- .200E-01	137
@ 1.1000	13.00	5.03	25.27	@ 0.341E-01+- .800E-02	137
@ 1.1000	16.00	5.56	30.90	@ 0.267E-01+- .700E-02	137
@ 1.0000 - 1.6000	2.50 - 5.80	2.36 - 3.43	5.57 - 11.76	@ 0.160E-01+- .160E-01	28
@ 1.3800	16.00	5.56	30.90	@ 0.730E-02+- .340E-02	137

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 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C515: GAMMA + PROTON --> PROTON + PHI (K > 1.50 GEV) (CONTINUED)

M2: 0.9383 GEV
 M3: 0.9383 GEV
 M4: 1.0195 GEV

DIFFERENTIAL CROSS SECTION (BACKWARD PRODUCTION) K > 2.50 GEV

K GEV	E* GEV	S GEV**2	-U GEV**2	D SIG/D U MU BARN/GEV**2	THETA (BARYON) CM LAB	D SIG/D OMEGA (CM) MU BARN/ STERAD	REF
2.50 - 5.80	2.36 - 3.43	5.57 - 11.76	----- -----	----- -----	@ 0.0 - 90.0 @ 90.0 - 134.5	@.480E-02+- .340E-02 @.850E-02+- .490E-02	28 28

C516: GAMMA + PROTON $\rightarrow$ DELTA ZERO + RHO+ (K > 1.40 GEV)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.7650 GEV

TOTAL CROSS SECTION

K GEV	E* GEV	SIGMA MU BARN		REF
1.40 - 1.80	1.96	# 1.20	+-.900	100
1.80 - 2.50	2.19	# <1.40		100
2.50 - 3.50	2.52	# <.700		100
4.30	2.99	.900	+-.600	243
3.50 - 5.80	3.01	# .600	+-.300	100
5.25	3.28	# <.500		114

C517: GAMMA + PROTON $\rightarrow$ DELTA+ + RHO ZERO (K > 4.30 GEV)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.7650 GEV

TOTAL CROSS SECTION

K GEV	E* GEV	SIGMA MU BARN		REF
4.30	2.99	# .300	+-.200	243
3.50 - 5.80	3.01	# .500	+-.300	100
5.25	3.28	# .400	+-.400	114

C518: GAMMA + PROTON $\rightarrow$ DELTA++ + RHO- (K > 1.40 GEV)

M2: 0.9383 GEV
 M3: 1.2360 GEV
 M4: 0.7650 GEV

TOTAL CROSS SECTION

K GEV	E* GEV	SIGMA MU BARN		REF
1.40 - 1.80	1.96	# 1.40	+-.600	100
1.80 - 2.50	2.19	# 6.70	+-.2.50	49
1.80 - 2.50	2.19	# 2.10	+-.900	100
2.80	2.48	P# 1.70	+-.700	140
2.50 - 3.50	2.52	# 1.50	+-.600	100
2.50 - 6.00	2.74	* 3.50	+-.1.10	49
4.30	2.99	# 1.80	+-.400	243
3.50 - 5.80	3.01	# .800	+-.300	100
4.70	3.11	P# .700	+-.300	140
5.25	3.28	# <.500		114

C521: GAMMA + DEUTERON --> PROTON + NEUTRON + RHC ZERO (K > 1.08 GEV)

M2: 0.9389 GEV
 M3: 0.9389 GEV
 M4: 0.7650 GEV

TOTAL CROSS SECTION : NO DATA TO BE LISTED

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
0.0 GEV/C . PROTON MOMENTUM < 0.100 GEV/C							
1.80 - 2.50	2.19	# 0.0500-			# 50.0	+14.0	102
		0.1000	-----	-----			
		# 0.1000-			# 36.0	+11.3	102
		0.1500	-----	-----			
		# 0.1500-			# 37.4	+8.20	102
		0.2000	-----	-----			
		# 0.2000-			# 15.6	+5.10	102
		0.3000	-----	-----			
		# 0.3000-			# 10.5	+4.20	102
		0.4000	-----	-----			
2.50 - 5.30	2.69	# 0.4000-			# 6.90	+2.50	102
		0.6000	-----	-----			
		# 0.6000-			# 5.60	+2.00	102
		0.8000	-----	-----			
		# 0.8000-			# 8.00	+1.700	102
		1.5000	-----	-----			
		# 0.0500-			# 35.2	+5.70	102
		0.1000	-----	-----			
		# 0.1000-			# 18.7	+3.10	102
		0.2000	-----	-----			
		# 0.2000-			# 12.7	+2.50	102
		0.3000	-----	-----			
		# 0.3000-			# 7.70	+1.80	102
		0.4000	-----	-----			
		# 0.4000-			# 1.60	+1.500	102
		0.8000	-----	-----			
		# 0.8000-			# 4.00	+1.300	102
		1.5000	-----	-----			

C521: GAMMA + DEUTERON --> PROTON + NEUTRON + RHC ZERO (K > 1.08 GEV)

(CONTINUED)

M2: 0.9389 GEV
 M3: 0.9389 GEV
 M4: 0.7650 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 3.90

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	REF
0.0 GEV/C < PROTON MOMENTUM < 0.100 GEV/C					
# 0.0500 - 0.1000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.58	# 50.0 +14.0	102
# 0.0500 - 0.1000	2.50 - 5.30	2.36 - 3.29	5.58 - 10.83	# 35.2 +5.70	102
# 0.1000 - 0.1500	1.80 - 2.50	2.06 - 2.36	4.26 - 5.58	# 36.0 +11.3	102
# 0.1000 - 0.2000	2.50 - 5.30	2.36 - 3.29	5.58 - 10.83	# 18.7 +3.10	102
# 0.1500 - 0.2000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.58	# 37.4 +8.20	102
# 0.2000 - 0.3000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.58	# 15.6 +5.10	102
# 0.2000 - 0.3000	2.50 - 5.30	2.36 - 3.29	5.58 - 10.83	# 12.7 +2.50	102
# 0.3000 - 0.4000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.58	# 10.5 +4.20	102
# 0.3000 - 0.4000	2.50 - 5.30	2.36 - 3.29	5.58 - 10.83	# 7.70 +1.80	102
# 0.4000 - 0.6000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.58	# 6.90 +2.50	102
# 0.4000 - 0.8000	2.50 - 5.30	2.36 - 3.29	5.58 - 10.83	# 1.60 +1.500	102
# 0.6000 - 0.8000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.58	# 5.60 +2.00	102
# 0.8000 - 1.5000	1.80 - 2.50	2.06 - 2.36	4.26 - 5.58	# 8.00 +1.700	102
# 0.8000 - 1.5000	2.50 - 5.30	2.36 - 3.29	5.58 - 10.83	# 4.00 +1.300	102

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C521: GAMMA + DEUTERON --> PROTON + NEUTRON + RHO ZERO (K > 1.08 GEV) (CONTINUED)

M2: 0.9359 GEV
 M3: 0.9389 GEV
 M4: 0.7650 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF	
0.100 GEV/C . PROTON MOMENTUM < 0.300 GEV/C								
2.50 - 5.30	2.69	# 0.0 -						
		0.0500	-----	-----	# 20.1	+5.20	-----	102
		# 0.0500-						
		0.1000	-----	-----	# 60.8	+5.90	-----	102
		# 0.1000-						
		0.1500	-----	-----	# 27.7	+4.40	-----	102
		# 0.1500-						
		0.2000	-----	-----	# 12.5	+2.90	-----	102
		# 0.2000-						
		0.4000	-----	-----	# 2.70	+1.600	-----	102
# 0.4000-								
0.6000	-----	-----	# 1.20	+1.500	-----	102		
# 0.6000-								
0.8000	-----	-----	# .300	+1.200	-----	102		

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C522: GAMMA + NEUTRON --> PROTON + RHC- (K > 1.10 GEV)

M2: 0.9395 GEV
 M3: 0.9383 GEV
 M4: 0.7650 GEV

TOTAL CROSS SECTION

K GEV	E* GEV	SIGMA MU BARN		SIGMA*(S-M**2)**2 MU BARN*GEV**2		REF
1.10 - 1.40	1.79	2 .400	+-.400	2.11	+-.2.11	103
1.40 - 1.80	1.96	2 7.80	+-.1.80	67.3	+-.15.5	103
1.80 - 2.50	2.19	2 3.00	+-.1.40	45.2	+-.21.1	103
2.50 - 3.50	2.52	2 1.00	+-.850	29.2	+-.24.8	103
3.50 - 5.30	2.97	2 .800	+-.600	48.2	+-.36.1	103

C522: GAMMA + NEUTRON --> PROTON + RHC- (K > 1.10 GEV) [CONTINUED]

M2: 0.9395 GEV
 M3: 0.9383 GEV
 M4: 0.7650 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM LAB		D SIG/D T MU BARN/GEV**2		(D SIG/D T)*(S-M**2)**2 MU BARN*GEV**2		D SIG/D OMEGA (CHI) MU BARN/STERAD	REF
1.40 - 2.50	2.06	@ 0.0 -	-----	-----	@ 5.50	+-.2.00	58.0	+-.21.1	-----	103
		0.1500	-----	-----						
		@ 0.1500-	-----	-----	@ 6.90	+-.2.10	72.7	+-.22.1	-----	103
		0.3000	-----	-----						
		@ 0.3000-	-----	-----	@ 5.80	+-.1.90	61.1	+-.20.0	-----	103
		0.5000	-----	-----						
		@ 0.5000-	-----	-----	@ 3.50	+-.1.80	36.9	+-.19.0	-----	103
		0.7000	-----	-----						
		@ 0.7000-	-----	-----	@ 3.40	+-.1.50	35.8	+-.15.8	-----	103
		0.9000	-----	-----						
		@ 0.9000-	-----	-----	@ 2.20	+-.700	23.2	+7.38	-----	103
		1.1000	-----	-----		-1.50		-15.8	-----	
		@ 1.1000-	-----	-----	@ .900	+-.900	9.48	+9.48	-----	103
		1.5000	-----	-----		-7.50		-7.90	-----	

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C532: GAMMA + DEUTERON --> DEUTERON + RHC ZERO (K > 1.80 GEV)

M2: 3.7527 GEV
 M3: 3.7527 GEV
 M4: 0.7650 GEV

CONSTANTS AND TOTAL CROSS SECTION
 $D \text{ SIGMA}/D T = A \cdot \exp(B \cdot T)$ $A = (D \text{ SIGMA}/D T)_{T=0}$
 IF A VALUE FOR 'C' IS GIVEN $D \text{ SIGMA}/D T = A \cdot \exp(B \cdot T + C \cdot T^2)$

K GEV	E* GEV	S GEV**2	A MU BARN/GEV**2	B 1/GEV**2	C 1/GEV**4	SIG TOT MU BARN	REF
1.80 - 2.50	5.25 - 5.73	27.59 - 32.85	#262.00+- 83.00	# 21.50+- 3.50	-----	7.58+- 3.63	102
2.50 - 3.50	5.73 - 6.35	32.85 - 40.35	#283.00+-109.00	# 23.70+- 4.60	-----	9.21+- 5.34	102
3.50 - 5.30	6.35 - 7.34	40.35 - 53.86	#288.00+- 93.00	# 23.30+- 3.60	-----	10.96+- 5.23	102

C532: GAMMA + DEUTERON --> DEUTERON + RHC ZERO (K > 1.80 GEV) (CONTINUED)

M2: 3.7527 GEV
 M3: 3.7527 GEV
 M4: 0.7650 GEV

CONSTANTS AND TOTAL CROSS SECTION
 $D \text{ SIGMA}/D T = A \cdot \exp(B \cdot T)$ $A = (D \text{ SIGMA}/D T)_{T=0}$
 IF A VALUE FOR 'C' IS GIVEN $D \text{ SIGMA}/D T = A \cdot \exp(B \cdot T + C \cdot T^2)$

K GEV	E* GEV	S GEV**2	A D / H	B D / H	C D / H	SIG TOT D / H	REF
4.48	6.91	47.71	@ 3.08+- 0.15	-----	-----	-----	85
6.06	7.49	59.12	@ 3.22+- 0.13	-----	-----	-----	85
7.00	8.16	66.62	@ 3.50+- 0.20	-----	-----	-----	85
7.60	8.43	71.12	@ 3.36+- 0.26	-----	-----	-----	85
8.50	8.82	77.88	@ 3.14+- 0.17	-----	-----	-----	85

C532: GAMMA + DEUTERON --> DEUTERON + RHC ZERO (K > 1.80 GEV) (CONTINUED)

M2: 3.7527 GEV
 M3: 3.7527 GEV
 M4: 0.7650 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA {MESON} CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D OMEGA {CM} MU BARN/STERAD	REF
1.80 - 2.50	5.46	# 0.0 -	-----	-----	# 722.	-----	102
		0.0200	-----	-----	# 120.	-----	102
		# 0.0200-	-----	-----	# 94.4 +-20.4	-----	102
		0.0400	-----	-----	# 56.0 +-15.6	-----	102
		# 0.0400-	-----	-----	# 38.4 +-11.7	-----	102
		0.0600	-----	-----	# 19.4 +-9.40	-----	102
		# 0.0600-	-----	-----	# 15.7 +-7.90	-----	102
		0.0800	-----	-----	# 16.0 +-8.00	-----	102
		# 0.0800-	-----	-----	# 15.8 +-7.90	-----	102
		0.1000	-----	-----	# 3.20 +-3.20	-----	102
		# 0.1000-	-----	-----	# 257.	-----	102
		0.1200	-----	-----	# 97.9 +-23.1	-----	102
		# 0.1200-	-----	-----	# 81.2 +-23.4	-----	102
		0.1400	-----	-----	# 24.1 +-11.7	-----	102
		# 0.1400-	-----	-----	# 12.5 +-8.70	-----	102
2.50 - 3.50	6.00	0.1600	-----	-----	# 17.0 +-9.90	-----	102
		# 0.1600-	-----	-----	# 13.0 +-7.50	-----	102
		0.1800	-----	-----			
		# 0.1800-	-----	-----			
		0.2000	-----	-----			
		# 0.2000-	-----	-----			

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C532: GAMMA + DEUTERON --> DEUTERON + RHO ZERO (K > 1.80 GEV) (CONTINUED)

M2: 3.7527 GEV
 M3: 3.7527 GEV
 M4: 0.7650 GEV

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA CM	(MESON) LAB	D SIG/D T MU BARN/GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF	
2.50 - 3.50	6.00	# 0.1600- 0.1800	-----	-----	# 9.10 +6.00	-----	102	
		# 0.1800- 0.2000	-----	-----	# 12.2 +8.00	-----	102	
3.50 - 5.30	6.76	# 0.0400- 0.0600	-----	-----	# 96.8 +23.0	-----	102	
		# 0.0600- 0.0800	-----	-----	# 53.1 +17.1	-----	102	
		# 0.0800- 0.1000	-----	-----	# 41.0 +14.2	-----	102	
		# 0.1000- 0.1200	-----	-----	# 35.9 +14.1	-----	102	
		# 0.1200- 0.1400	-----	-----	# 21.8 +10.2	-----	102	
		# 0.1400- 0.1600	-----	-----	# 7.00 +5.60	-----	102	
		# 0.1600- 0.1800	-----	-----	# 4.00 +4.10	-----	102	
		# 0.1800- 0.2000	-----	-----	# 8.00 +6.40	-----	102	
6.00	7.69	@ 0.0070	1.34	6.440	@ 395.	+23.0	.105E 04+-61.5	85
		@ 0.0180	2.47	1.189	@ 342.	+26.0	914. +-69.5	85
		@ 0.0520	4.40	2.122	@ 183.	+21.0	489. +-56.1	85
		@ 0.1080	6.43	3.099	@ 91.5	+6.10	244. +-16.3	85
		@ 0.1750	8.22	3.965	@ 51.1	+3.50	137. +-9.35	85
		@ 0.2700	10.24	4.944	@ 21.1	+2.40	56.4 +-6.41	85
7.60	8.43	@ 0.0080	1.38	6.058	@ 407.	+33.0	.146E 04+-118.	85
		@ 0.0160	2.06	9.052	@ 309.	+21.0	.111E 04+-75.3	85
		@ 0.0320	2.98	1.313	@ 209.	+13.0	749. +-46.6	85
		@ 0.0500	3.76	1.657	@ 177.	+11.0	634. +-39.4	85
		@ 0.1020	5.41	2.386	@ 106.	+7.40	380. +-26.5	85
		@ 0.1740	7.10	3.128	@ 52.7	+4.10	189. +-14.7	85
		@ 0.2640	8.76	3.862	@ 27.2	+2.20	97.5 +-7.89	85
		@ 0.3750	10.45	4.612	@ 11.2	+1.20	40.1 +-4.30	85

C532: GAMMA + DEUTERON --> DEUTERON + RHO ZERO (K > 1.80 GEV) (CONTINUED)

M2: 3.7527 GEV
 M3: 3.7527 GEV
 M4: 0.7650 GEV

DIFFERENTIAL CROSS SECTION (T DEPENDENCE)

2.00 GEV < K < GEV 7.60

-T GEV**2	K GEV	E* GEV	S GEV**2	D SIG/D T MU BARN/GEV**2	REF
@ 0.0070	6.00	7.69	59.12	@ 395.	+23.0 85
@ 0.0080	7.60	8.43	71.12	@ 407.	+33.0 85
# 0.0 - 0.0200	2.50 - 3.50	5.73 - 6.35	32.85 - 40.35	# 257.	102
@ 0.0160	7.60	8.43	71.12	@ 309.	+21.0 85
@ 0.0180	6.00	7.69	59.12	@ 342.	+26.0 85
@ 0.0320	7.60	8.43	71.12	@ 209.	+13.0 85
# 0.0400 - 0.0600	2.50 - 3.50	5.73 - 6.35	32.85 - 40.35	# 97.9	+23.1 102
# 0.0400 - 0.0600	3.50 - 5.30	6.35 - 7.34	40.35 - 53.86	# 96.8	+23.0 102
@ 0.0500	7.60	8.43	71.12	@ 177.	+11.0 85
@ 0.0520	6.00	7.69	59.12	@ 183.	+21.0 85
# 0.0600 - 0.0800	2.50 - 3.50	5.73 - 6.35	32.85 - 40.35	# 81.2	+23.4 102
# 0.0600 - 0.0800	3.50 - 5.30	6.35 - 7.34	40.35 - 53.86	# 53.1	+17.1 102
# 0.0800 - 0.1000	2.50 - 3.50	5.73 - 6.35	32.85 - 40.35	# 24.1	+11.7 102
# 0.0800 - 0.1000	3.50 - 5.30	6.35 - 7.34	40.35 - 53.86	# 41.0	+14.2 102
@ 0.1020	7.60	8.43	71.12	@ 106.	+7.40 85
@ 0.1080	6.00	7.69	59.12	@ 91.5	+6.10 85
# 0.1000 - 0.1200	2.50 - 3.50	5.73 - 6.35	32.85 - 40.35	# 12.5	+8.70 102
# 0.1000 - 0.1200	3.50 - 5.30	6.35 - 7.34	40.35 - 53.86	# 35.9	+14.1 102
# 0.1200 - 0.1400	2.50 - 3.50	5.73 - 6.35	32.85 - 40.35	# 17.0	+9.90 102
# 0.1200 - 0.1400	3.50 - 5.30	6.35 - 7.34	40.35 - 53.86	# 21.8	+10.2 102
# 0.1400 - 0.1600	2.50 - 3.50	5.73 - 6.35	32.85 - 40.35	# 13.0	+7.50 102
# 0.1400 - 0.1600	3.50 - 5.30	6.35 - 7.34	40.35 - 53.86	# 7.00	+5.60 102
# 0.1600 - 0.1800	2.50 - 3.50	5.73 - 6.35	32.85 - 40.35	# 9.10	+6.00 102
# 0.1600 - 0.1800	3.50 - 5.30	6.35 - 7.34	40.35 - 53.86	# 4.00	+4.10 102
@ 0.1740	7.60	8.43	71.12	@ 52.7	+4.10 85
@ 0.1750	6.00	7.69	59.12	@ 51.1	+3.50 85
# 0.1800 - 0.2000	2.50 - 3.50	5.73 - 6.35	32.85 - 40.35	# 12.2	+8.00 102
# 0.1800 - 0.2000	3.50 - 5.30	6.35 - 7.34	40.35 - 53.86	# 8.00	+6.40 102
@ 0.2640	7.60	8.43	71.12	@ 27.2	+2.20 85
@ 0.2700	6.00	7.69	59.12	@ 21.1	+2.40 85
@ 0.3750	7.60	8.43	71.12	@ 11.2	+1.20 85

= NUMERICAL VALUE FROM TABLE @ = VALUE READ FROM DIAGRAM P = PRELIMINARY DATA
 UNMARKED CROSS SECTIONS, ANGLES AND T VALUES ARE CALCULATED FROM THE QUANTITIES GIVEN BY THE AUTHOR(S).
 ANGLES ARE IN DEGREES; CM AND LAB ARE CENTER-OF MASS AND LABORATORY SYSTEM; E* = CM ENERGY.

C535: GAMMA + DEUTERON --> DEUTERON + PHI (K > 6.25 GEV)

M2: 3.7527 GEV
 M3: 3.7527 GEV
 M4: 1.0195 GEV

TOTAL CROSS SECTION : NO DATA TO BE LISTED

DIFFERENTIAL CROSS SECTION

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T MU BARN/GEV**2	D SIG/D OMEGA (CM) MU BARN/STERAD	REF
6.25	7.81	\$ 0.0072	# 0.00	.0	# 14.2	+1.00	108
8.25	8.72	\$ 0.0041	# 0.00	.0	# 13.9	+-.600	108
		# 0.2330	7.82	3.314	# 2.25	+-.150	108

C535: GAMMA + DEUTERON --> DEUTERON + PHI (K > 6.25 GEV) (CONTINUED)

M2: 3.7527 GEV
 M3: 3.7527 GEV
 M4: 1.0195 GEV

DIFFERENTIAL CROSS SECTION: RATIO DEUTERIUM TO HYDROGEN

K GEV	E* GEV	-T GEV**2	THETA (MESON) CM	LAB	D SIG/D T D / H	REF
6.25	7.81	\$ 0.0072	0.00	.0	\$ 4.60	+1.00
8.25	8.72	\$ 0.0041	0.00	.0	\$ 3.05	+-.200
		# 0.2330	7.82	3.314	# 1.57	+-.150

INDEX OF REFERENCES BY REACTION

REFERENCES FOR REACTIONS FOR WHICH DATA HAVE BEEN COMPILED

A = ALL REFERENCES B = REFERENCES WHOSE DATA ARE INCLUDED IN THE COMPILATION

C110 GAMMA+PROTON= TOTAL	A: 72, 79, 101, 112, 115, 133, 134, 209, B: 72, 79, 101, 112, 115, 133, 134, 209,
C120 GAMMA+NEUTRON= TOTAL	A: 112, 134, B: 112, 134,
C130 GAMMA+DEUTERON= TOTAL	A: 104, 112, 134, B: 112, 134,
C011 PROTON COMPTON EFFECT	A: 15, 147, 166, 167, 168, 169, 170, 171, 172, 173, 174, 226, 227, B: 15, 147, 166, 167, 169, 170, 171, 172, 173, 174, 226, 227,
C111 GAMMA + P = N + PI+	A: 4, 6, 13, 16, 21, 24, 34, 39, 44, 46, 51, 63, 66, 75, 87, 89, 105, 115, 119, 121, 156, 176, 182, 184, 210, 229, 230, 242, B: 16, 21, 24, 34, 39, 44, 46, 51, 63, 66, 87, 105, 119, 156, 176, 182, 184, 210, 229, 230, 242,
C112 GAMMA + P = P + PIO	A: 6, 13, 23, 37, 47, 53, 63, 64, 70, 71, 74, 89, 113, 115, 120, 137, 148, 149, 180, 231, B: 6, 23, 37, 47, 53, 64, 70, 71, 74, 113, 137, 148, 149, 231,
C113 GAMMA + P = N*(1236) + PI+	A: 28, 36, 126, 155, 184, 186, 212, B: 28, 36, 126, 184, 212,
C114 GAMMA + P = N*(1236) + PIO	NO DATA AVAILABLE
C115 GAMMA + P = N**+(1236) + PI-	A: 12, 20, 31, 32, 33, 36, 63, 65, 67, 82, 94, 105, 107, 114, 126, 143, 155, 159, 160, 161, 177, 178, 184, 186, 206, 212, B: 28, 36, 65, 67, 82, 94, 105, 107, 114, 126, 155, 159, 160, 177, 184, 212,
C116 GAMMA + P = P + ETA	A: 1, 5, 13, 18, 19, 20, 29, 31, 49, 54, 64, 80, 81, 90, 95, 113, 131, 137, 145, 146, 239, B: 5, 10, 19, 28, 29, 49, 54, 64, 80, 81, 90, 95, 113, 131, 137, 239,
C117 GAMMA + P = P + X0	A: 20, 31, 137, B: 20,
C121 GAMMA + N = N + PIO	A: 130, B: 130,
C122 GAMMA + N = P + PI-	A: 44, 62, 66, 83, 115, 116, 117, 118, 122, 157, 182, B: 44, 62, 66, 83, 116, 118, 157, 182,
C123 GAMMA + N = N*(1236) + PI+	A: 44, 126, B: 126,
C124 GAMMA + N = N*(1236) + PIO	NO DATA AVAILABLE
C125 GAMMA + N = N**+(1236) + PI-	A: 100, 126, B: 126,
C131 GAMMA + D = N + N + PI+	A: 44, 66, 83, B: 44, 66, 83,
C211 GAMMA + P = SIGMA+ + K0	A: 42, 50, 100, B: 100,
C212 GAMMA + P = SIGMA0 + K+	A: 16, 22, 27, 41, 42, 48, 55, 92, 100, 106, 111, 127, 142, 202, 224, B: 16, 22, 27, 92, 100, 106, 111, 127, 202, 224,
C213 GAMMA + P = LAMBDA + K+	A: 3, 7, 14, 16, 22, 27, 41, 42, 45, 48, 55, 92, 100, 106, 111, 127, 142, 202, 224, B: 3, 7, 14, 16, 22, 27, 45, 92, 100, 106, 111, 127, 202, 224,
C511 GAMMA + P = N + RHO+	NO DATA AVAILABLE
C512 GAMMA + P = P + RHO0	A: 0, 11, 12, 13, 26, 28, 33, 38, 61, 65, 73, 76, 77, 78, 85, 94, 107, 110, 114, 135, 136, 137, 138, 158, 161, 186, 200, 222, B: 0, 11, 26, 28, 38, 73, 78, 85, 94, 107, 110, 114, 135, 136, 137, 138, 158,
C514 GAMMA + P = P + OMEGA	A: 12, 13, 25, 28, 31, 61, 76, 78, 94, 107, 114, 140, 158, 200, 213, B: 25, 28, 94, 107, 114, 213,
C515 GAMMA + P = P + PHI	A: 13, 28, 31, 41, 52, 56, 61, 73, 76, 78, 100, 107, 108, 137, 140, 162, 163, 211, B: 28, 41, 52, 73, 107, 108, 137, 140, 211,
C516 GAMMA + P = N*(1236)0 + RHO+	A: 100, 114, 137, 243, B: 100, 114, 243,

C517 GAMMA + P = N*(12361)+ + RHOO A: 100, 114, 243,
B: 100, 114, 243,

C518 GAMMA + P = N*(12361)++ + RHOO- A: 49, 94, 100, 114, 140, 243,
B: 49, 100, 114, 140, 243,

C521 GAMMA + D = P + N + RHOO A: 102, 185,
B: 102,

C522 GAMMA + N = P + RHOO- A: 103,
B: 103,

C532 GAMMA + C = D + RHOO A: 85, 102, 108, 185,
B: 85, 102,

C534 GAMMA + C = C + CMEGA NO DATA AVAILABLE

C535 GAMMA + C = D + P+I A: 85, 108,
B: 108,

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N1 PION PAIRS OFF HYDROGEN 8, 9, 11, 12, 13, 26, 28, 32, 33, 36, 38, 61, 65, 69, 77, 78, 79, 82,
85, 89, 94, 100, 107, 110, 114, 126, 135, 136, 138, 143, 153, 155, 158, 159, 160, 161,
178, 186, 222, 225,

N2 MULTI MESON PRODUCTION OFF H 12, 13, 25, 28, 31, 33, 41, 42, 49, 61, 63, 76, 78, 79, 89, 94, 100, 114,
132, 140, 143, 154, 205,

N3 PARTICLE YIELD OFF HYDROGEN 12, 20, 35, 48, 55, 56, 88, 101, 125, 144, 179, 181, 184, 186, 205, 223,

N4 YIELD OFF COMPLEX NUCLEI 2, 20, 40, 50, 57, 66, 91, 96, 97, 124, 132, 142, 146, 152, 175, 179, 181, 183,
204, 232, 236,

N5 VECTOR M.P. PROD. ON COMPL. NUCL. 30, 38, 52, 60, 68, 84, 93, 99, 109, 110, 123, 129, 201, 208, 220, 221, 222, 238,

N6 SEARCH FOR NEW PARTICLES 9, 10, 35, 55, 58, 59, 65, 98, 137, 139, 151, 153, 154, 164, 203, 208, 214, 215,
216, 217, 218, 219,

N7 PRIMAKOFF EFFECT 1, 17, 43, 128, 234,

N8 PHOTODISINTEGRATION ETC. 141, 165,

N9 TEST OF QED 150, 197, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 207, 214, 233,
235, 237, 241,

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Flatte S.M., Murray J.J., Klein P.R., Johnston L.H., Wojcicki S.G.
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Small angle pion flux produced in a thick beryllium target by high energy photons
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Reaction C114
SLAC
41. Photoproduction of strange particles
Cambridge Bubble Chamber Group
Phys. Rev. 156 (1967) 1426
Reactions C212, C213, C515, N2
CEA
42. Photoproduction of strange particles at energies up to 5.8 GeV
Aachen-Berlin-Bonn-Hamburg-Heidelberg-München Collaboration
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Reactions C211, C212, C213, N2
For new results see Ref. 100
DESY
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Reaction N7
DESY
44. Photoproduction of single charged pions from deuterium and hydrogen
Bar-Yam Z., De Pagter J., Hoenig M.M., Kern W., Luckey D., Osborne L.S.
Phys. Rev. Letters 19 (1967) 40
Reactions C111, C122, C131
CEA
45. A polarization at 90 degrees in K^+A photoproduction
Groom D.E., Marshall J.H.
Phys. Rev. 159 (1967) 1213
Reaction C213
CIT
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Buschhorn G., Heide P., Koetz U., Lewis R.A., Schmueser P., Skronn H.J.
Physics Letters 25B (1967) 622
Reaction C111
DESY
47. Photoproduction of π^0 in the backward direction
Buschhorn G., Heide P., Koetz U., Lewis R.A., Schmueser P., Skronn H.J.
Phys. Rev. Letters 20 (1968) 230
Reaction C112
DESY
48. Photoproduction of K^+ mesons at 3.4 and 5.0 GeV
Joseph P.M., Hicks M., Litt L., Pipkin F.M., Russell J.J.
Physics Letters 26B (1967) 41
Reactions C212, C213, N3
CEA
49. Multipion photoproduction at energies up to 6 GeV
Cambridge Bubble Chamber Group
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Reactions C116, C518, N2
CEA
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Schivell J.F., Engels E., Entis A., Hand L.N., Sadoff A.
Phys. Rev. Letters 19 (1967) 1349
Reactions C211, N4
CEA
51. 5 - 16 GeV single π^+ photoproduction from hydrogen
Boyariski A.M., Bulos F., Busza W., Diebold R., Ecklund S.D., Fischer G.E., Rees J.R., Richter D.
Phys. Rev. Letters 20 (1968) 300
Reaction C111
SLAC
52. Photoproduction of ϕ meson on hydrogen, carbon and aluminum at photon energies between 3.2 and 4.4 GeV
Hoehne K.
DESY, Interner Bericht F32/5 (1968)
Reactions C515, N5
DESY
53. Single photoproduction of neutral π mesons on hydrogen at small angles between 4 and 5.8 GeV
Braunschweig M., Braunschweig W., Husemann D., Luebelmeyer K., Schmitz D.
Physics Letters 26B (1968) 405
Reaction C112

Single photoproduction of neutral π mesons on hydrogen at small angles between 1.3 and 3 GeV
Braunschweig M., Husemann D., Luebelmeyer K., Schmitz D.
Phys. Letters 22 (1966) 705
Reaction C112
For new results see Ref. 149
DESY
54. Angular distribution for the eta meson photoproduction from hydrogen at 775 - 850 MeV
Bacci C., Baldini-Celio R., Mencuccini C., Reale A., Spinetti M., Zallo A.
Phys. Rev. Letters 20 (1968) 571
Reaction C116
Frascati
55. Ratio of Λ^0 and Σ^0 photoproduction cross sections; high mass hyperon resonances
Greenberg J.S., Hughes V.W., Lu D.C., Minehart R.C., Mori S., Rothberg J.E., Tyson J.
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Reactions C212, C213, N3, N6
CEA
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Boyariski A., Bulos F., Busza A., Diebold R., Ecklund S., Fischer G., Richter B.
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Reactions C515, N3
SLAC
57. Photoproduction of K^+ mesons on deuterium
Jullian S.
L.A.L. 1187 (1968)
Reaction N4
ORSAY
58. A search for new particles produced by high energy photons
Barna A., Bellamy E.M., Cox J., Martin F., Perl M.L., Tan T.H., Toner W.T., Zipf T.F.
Phys. Rev. 173 (1968) 1391
Reaction N6
SLAC
59. Search for fractionally-charged particles
Bellamy E.M., Hofstadter R., Lakin W.L., Perl M.L., Toner W.T.
Phys. Rev. 166 (1968) 1391
Reaction N6
SLAC
60. Photoproduction of ϕ mesons from carbon at 1800 MeV
Mostek P., Eisenhandler E., McClellan G., Mistry N., Ogren M., Silverman A., Swartz J., Talman R.
Phys. Rev. Letters 20 (1968) 1057
Reaction N5
Cornell
61. Photoproduction of vector mesons on protons at energies up to 5.8 GeV
Aachen-Berlin-Bonn-Hamburg-Heidelberg-München Collaboration
Phys. Letters 27B (1968) 54
Reactions C512, C514, C515, N1, N2
For new results see Ref. 28
DESY
62. Photoproduction of negative pions on neutrons between 0.2 and 2.0 GeV
Aachen-Berlin-Bonn-Hamburg-Heidelberg-München Collaboration
Nucl. Phys. B8 (1968) 535
Reaction C122
DESY
63. High energy photon meson photoproduction from hydrogen via the u-channel
Anderson R., Gustavson D., Johnson J., Riteon D., Weinstein R., Jones W.G., Krainick D.
Phys. Rev. Letters 21 (1968) 479
Reaction C111
SLAC

64. Measurement of π^0 and η^0 photoproduction at incident gamma ray energies of 5.0 - 17.8 GeV
Anderson R., Gustavson D., Johnson J., Ritson D., Jones W.G., Kreinick D., Murphy F., Weinstein R.
Phys. Rev. Letters 21 (1968) 384
Reactions C112, C116
For new results see Ref. 137
SLAC
65. ρ -photoproduction from hydrogen by 16 GeV bremsstrahlung
Davies M., Darado I., Drickey D., Fries D., Mozley R., Odian A., Villa F., Yount D., Zdzien H.
Phys. Rev. Letters 21 (1968) 841
Reactions C115, C512, N1
For new results see Ref. 107
SLAC
66. Measurement of single π^- and π^+ photoproduction at small momentum transfers
Heide P., Koetz U., Lewis R.A., Schmüser P., Skronn H.J., Wahl H.
Phys. Rev. Letters 21 (1968) 248
Reactions C111, C122, C131
DESY
67. π pair production with polarized X-rays
Morrison R.W., Drickey D.J., Mozley R.F.
Nuovo Cimento 56A (1968) 409
Reaction C115
Stanford
68. High energy photoproduction of ϕ mesons on complex nuclei
Becker U., Bertram W.K., Binkley M., Jordan C.C., Knael T.M., Marshall R., Quinn D., Rohde M., Trefil J.S., Ting S.G.C.
Vienna Conference (1968) Abstr. 952
Reaction N5
DESY
69. Photoproduction search for dipion resonances in the mass range from 1400 to 1800 MeV
Hicks M., Eisner A., Feldmann G., Litt L., Lockeretz W., Pipkin F.W., Randolph J.K., Stanfield K.C.
Physics Letters 29B (1969) 602
Reactions N1, N6
CEA
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Bellinger D., Bordelon R., Cohen K., Deutsch S.B., Lobar W., Locky D., Osborne L.S., Pothier E., Schwitters R.
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Reaction C112
CEA
71. Recoil proton polarization in π^0 production
Bloom E.D., Heusch C.A., Prescott C.Y., Rochester L.S.
Phys. Rev. Letters 19 (1967) 671
Reaction C112
CIT
72. Total cross section for photoproduction of hadrons up to 5 GeV
Aachen-Berlin-Bonn-Hamburg-Heidelberg-München Collaboration
Physics Letters 21B (1968) 474
Reaction C110
DESY
73. Forward photoproduction of vector mesons from hydrogen at energies from 6.5 to 17.8 GeV
Jones W.G., Kreinick D., Gustavson D., Johnson J., Ritson D., Gettner M., Weinstein R.
Phys. Rev. Letters 21 (1968) 586
Reactions C512, C515
for new results see Ref. 137
SLAC
74. Photoproduction of π^0 mesons from hydrogen at 180 degrees
Cassidy G.L., Fischer H., Ito A., Lou E.C., Rutherford J.
Phys. Rev. Letters 21 (1968) 933
Reaction C112
Cornell
75. Photoproduction of positive pions at backward angles in the energy range 1 - 3 GeV
Alvarez R.A., Cooperstein G., Kalata K., Lanza R.C., Luckey D.
Phys. Rev. Letters 21 (1968) 1019
Reaction C111
CEA
76. Photoproduction of vector mesons with a 16 GeV bremsstrahlung beam
Davies M., Darado I., Drickey D., Fries D., Mozley R., Odian A., Villa F., Yount D.
Physics Letters 28B (1969) 619
Reactions C512, C514, C515, N2
For new results see Ref. 107
SLAC
77. ρ -production with polarized photons
Criegee L., Garrell M.M., Gottfried C., Krolzig A., Loeffler G., Saulys A., Schueler K.P., Timm U., Zimmermann W., Werner H., Collins G.B., Dougan P.W., von Goeler E., Carrigan R.A.
Physics Letters 28B (1968) 282
Reactions C512, N1
For new results see Ref. 135
DESY
78. Partial photoproduction cross section up to 12 GeV
Ballam J., Chadwick G.B., Guiragossian Z.G.T., Klein P., Levy A., Menke M., Pickup E., Tan T.H., Seyboth P., Wolf G.
Phys. Rev. Letters 21 (1968) 1541
Reactions C512, C514, C515, N1, N2
SLAC
79. Gamma-P total hadronic cross section at 7.5 GeV
Ballam J., Chadwick G.B., Guiragossian Z.G.T., Klein P., Levy A., Menke M., Pickup E., Seyboth P., Tan T.H., Wolf G.
Phys. Rev. Letters 21 (1968) 1544
Reactions C110, N1, N2
SLAC
80. Differential cross section in eta photoproduction from .8 to 1.45 GeV
Bloom E.D., Heusch C.A., Prescott C.Y., Rochester L.S.
Phys. Rev. Letters 21 (1968) 1100
Reaction C116
CIT
81. Photoproduction of η^0 mesons at 4 GeV
Bellinger D., Deutsch S., Luckey D., Osborne L.S., Schwitters R.
Phys. Rev. Letters 21 (1968) 1205
Reaction C116
CEA
82. Photoproduction of $\pi^- \pi^+ (1236)$ from hydrogen from 5 to 16 GeV
Boyarski A.M., Diebold R., Ecklund S.D., Fischer G.E., Murata Y., Richter B., Williams W.S.C.
Phys. Rev. Letters 22 (1968) 148
Reactions C115, N1
SLAC
83. Ratio of π^- to π^+ photoproduction from deuterium at 8 and 16 GeV
Boyarski A.M., Diebold R., Ecklund S.D., Fischer G.E., Murata Y., Richter B., Williams W.S.C.
Phys. Rev. Letters 21 (1968) 1167
Reactions C122, C131
SLAC
84. Photoproduction of ρ^0 mesons from complex nuclei
McClellan G., Mistry C., Mostek P., Ogren H., Silverman A., Swartz J., Talman R.
Phys. Rev. Letters 22 (1969) 377
Reaction N5
Cornell
85. High energy photoproduction of ρ^0 mesons from hydrogen and deuterium
Gottfried K., Lebedev A.I., McClellan G., Mistry N., Mostek P., Ogren H., Silverman A., Swartz J., Talman R.
Phys. Rev. Letters 22 (1969) 374
Reactions C512, C532
Cornell
86. Total eta nucleon cross section by photoproduction of eta mesons in complex nuclei
Bacci C., Baldini-Celio R., Epanashnikov V.M., Mencuccini C., Reale A., Salvini G., Spinetti M., Zallo A.
Lettere Nuovo Cimento 1 (1969) 391
Reaction N4
Frascati
87. π^+ production with linearly polarized photons
Gevener C., Heide P., Koetz U., Lewis R.A., Schmüser P., Skronn H.J., Wahl H., Wegener K.
Phys. Letters 29B (1969) 41
Reaction C111
DESY
88. Photoproduction of K^0 mesons
Albrow M.G., Aston D., Barber D.P., Bird L., Ellison R.J., Halliwell C., Harkham A.E., Leebinger F.K., Murphy P.G., Templeman R.F., Walters J., Wynros A.J.
Physics Letters 29B (1969) 54
Reaction N3
NINA
89. Analysis of γp reactions in a hydrogen bubble chamber up to 6.0 BeV: cross sections and laboratory distributions
Cambridge Bubble Chamber Group
Phys. Rev. 155 (1967) 1477
Reactions C111, C112, N1, N2
CEA
90. Photoproduction of eta mesons between threshold and 900 MeV
Belcourt B., Lefrançois J., Perez-Y-Jorba J.P., Sauvage G.
Physics Letters 29B (1969) 75
Reaction C116
ORSAY
91. Photoproduction of the eta meson on deuterium
Bacci C., Baldini-Celio R., Mencuccini C., Reale M., Spinetti M., Zallo A.
Physics Letters 28B (1969) 687
Reaction N4
Frascati
92. Photoproduction of $K^+ \Lambda$ and $K^+ \Sigma^0$ from hydrogen from 5 to 16 GeV
Boyarski A.M., Bulos F., Busza W., Diebold R., Ecklund S.D., Fischer G.E., Murata Y., Rees J.R., Richter B., Williams W.S.C.
Phys. Rev. Letters 22 (1969) 1131
Reactions C212, C213
SLAC
93. Photoproduction of ρ meson from complex nuclei at 9 GeV
Bulos F., Busza W., Diebold R., Giese R., Larsen R.R., Leith D.W.G.S., Richter B., Perez-Mendez V., Stetz A., Williams S.H., Beniston M., Rettberg J.
Phys. Rev. Letters 22 (1969) 490
Reaction N5
SLAC
94. Photoproduction of vector mesons and other resonances at 4.3 GeV
Eisenberg Y., Haber B., Carmel Z., Paleg E., Ronat E.E., Shapira A., Vishinsky G., Yaari R., Yekutieli G.
Phys. Rev. Letters 22 (1969) 669
Reactions C115, C512, C514, C518, N1, N2
SLAC
95. The photoproduction of eta mesons between 950 MeV and 2.2 GeV
Booth P.S.L., Butler M.F., Carroll L.J., Holt J.R., Jackson J.H., Range W.H., Williams E.G.H., Wormald J.R., Tait N.R.S.
Lettere Nuovo Cimento 2 (1969) 66
Reaction C116
NINA
96. Photoproduction of eta mesons on carbon nuclei
Aleksandrov Yu. A., Kutchenko A.B., Moyskov V.M., Palovskaya V.V., Tsarev A.V., Yadern Piz 2 (1969) 1009
English translation in J. Nucl. Phys. (USSR) 2 (1969) 590
Reaction N4
97. Coherent photoproduction of the eta neutral meson from deuterium
Anderson R.L., Prepost R.
Phys. Rev. Letters 23 (1969) 46
Reaction N4
CIT

98. Search for meson suggested by the Veneziano model
McClellan G., Mistry N., Mostek P., Ogren M., Osborne A.,
Silverman A., Swartz J., Talman R., Diambrini-Palazzi G.
Phys. Rev. Letters 23 (1969) 718
Reaction N6
Cornell
99. Incoherent photoproduction of ρ^0 mesons from complex nuclei
and comparison with vector dominance prediction
McClellan G., Mistry N., Mostek P., Ogren M., Osborne A.,
Silverman A., Swartz J., Talman R., Diambrini-Palazzi G.
Phys. Rev. Letters 23 (1969) 554
Reaction N5
Cornell
100. Multipion and strange particle photoproduction on protons
at energies up to 5.8 GeV
Aachen-Bonn-Hamburg-Heidelberg-München Collaboration
Phys. Rev. 188 (1969) 2060
Reactions C125, C211, C212, C213, C515, C516, C517, C518,
N1, N2; supersedes Ref. 42
DESY
101. Total and partial photoproduction cross section at 1.44,
2.8 and 4.7 GeV
Ballam J., Bingham H.H., Chadwick G.B., Fretter W.B.,
Gearhart R., Guiragossian Z.G.T., Klein P.R., Levy A.,
Menke M., Moffett K.C., Murray J.J., Podolsky W.J.,
Rabin M.S., Rosenfeld A.H., Seyboth P., Sinclair C.K.,
Windmolders A., Wolf G.
Phys. Rev. Letters 23 (1969) 498
Reactions C110, N3
SLAC
102. Photoproduction of ρ^0 mesons on deuterons between 1 and
5 GeV
Aachen-Bonn-Hamburg-Heidelberg-München Collaboration
Nucl. Phys. B23 (1970) 45
Reactions C521, C532
DESY
103. Photoproduction of ρ^- mesons on deuterons between 1 and
5 GeV
Aachen-Bonn-Hamburg-Heidelberg-München Collaboration
Nucl. Phys. B21 (1970) 93
Reaction C522
DESY
104. Total cross section for photoproduction of hadrons on
deuterons up to 5 GeV
Aachen-Bonn-Hamburg-Heidelberg-München Collaboration
Liverpool Conference (1969) Abstr. 138
Reaction C120
DESY
105. High energy photoproduction of charged pions at back-
ward angles
Anderson R.L., Gustavson D., Johnson J., Overman I.,
Ritson D., Wiik B.H.
Phys. Rev. Letters 23 (1969) 721
Reaction C111, C115
SLAC
106. Photoproduction of $K^+\Lambda^0$ and $K^+\Sigma^0$ from hydrogen at back-
ward angles
Anderson R.L., Gustavson D., Johnson J., Overman I.,
Ritson D., Wiik B.H.
Phys. Rev. Letters 23 (1969) 890
Reaction C212, C213
SLAC
107. Multibody photoproduction between 2 and 16 GeV
Davies M., Derado L., Dickey D., Fries D., Mozley R.,
Olian A., Villa F., Yount D.
Phys. Rev. 19 (1969) 790
Reactions C115, C512, C514, C515
supersedes Ref. 65 and 76
SLAC
108. Photoproduction of ϕ^0 mesons from hydrogen and deuterium
McClellan G., Mistry N., Mostek P., Ogren M., Swartz J.,
Talman R., Diambrini-Palazzi G.
CLNS 69 (1969)
Reactions C515, C532, C535
Cornell
109. Photoproduction of ϕ^0 mesons from complex nuclei
McClellan G., Mistry N., Mostek P., Ogren M., Swartz J.,
Talman R., Diambrini-Palazzi G.
CLNS 70 (1969)
Reaction N5
Cornell
110. Photoproduction of rho-mesons from hydrogen and carbon
by linearly polarized photons
Diambrini-Palazzi G., McClellan G., Mistry N., Mostek P.,
Ogren M., Swartz J., Talman R.
Phys. Rev. Letters 25 (1970) 478
Reactions C512, N5
Cornell
111. Photoproduction of $K^+\Lambda$ and $K^+\Sigma^0$ from 1.19 to 1.66 GeV at
c.m. angles around 90 degrees
Gding H., Schacht W., Tietze J., Weilnbock W.
MFT-PAE/EXP.EL 6 (1969)
Reactions C212, C213
DESY
112. Total cross section for photoproduction of hadrons on
protons and deuterium between 1.5 and 6.5 GeV
Meyer H., Naroska B., Weber K.J., Wong M., Heynen V.,
Mandelkow E., Notz D.
DESY 70/17
Reactions C110, C120, C130
DESY
113. π^0 photoproduction from hydrogen at backward angles
Anderson R., Gittelmann B., Litt J., Wiik B.H., Yount D.,
Minton A., Tompkins D.
Phys. Rev. Letters 23 (1969) 725
Reactions C112, C115
SLAC
114. γp interaction at 5.25 GeV
Ballam J., Chadwick G.B., Guiragossian Z.G.T., Levy A.,
Menke M., Seyboth P., Wolf G.
Physics Letters 30B (1969) 421
Reactions C115, C512, C514, C516, C517, C518, N1, N2, N3
SLAC
115. Pion photoproduction data below 1.5 GeV
Beale J.T., Ecklund S.D., Walker R.L.
CALT-68-108 (November 66)
for total cross section data of π^+ and π^0 production
were added
Reactions C110, C111, C112, C122
116. Photoproduction of single negative pions from deuterium
with polarized photons
Bar-Yam Z., de Pagter S., Dowd J., Kern W., Osborne L.S.,
Luckey D.
Phys. Rev. Letters 24 (1970) 1078
Reaction C122
CEA
117. Single-negative-pion photoproduction on deuterium in the
energy range (500 - 800) MeV. Preliminary investigation
Benaventano M., de Notaristefani F., Monacelli P.,
Paoluzzi L., Sebastiani F., Severi M.
Lettere Nuovo Cimento 1 (1969) 113
Reaction C122
Frascati
118. Pion production with polarized photons and test of vector
dominance model
Geveniger Chr., Heide P., Koetz U., Lewis R.A., Schmüser P.,
Skronn H.J., Wahl H., Wegener K.
Physics Letters 28B (1968) 155
Reaction C122
DESY
119. Single positive pion photoproduction with polarized photons
on hydrogen
Bar-Yam Z., de Pagter S., Dowd J., Kern W., Osborne L.S.,
Luckey D.
Liverpool Conference (1969) Abstr. 50
Reaction C111
CEA
120. Measurement of recoil proton polarization in π^0 photopro-
duction with a wire spark chamber system
Cheng S.U., Prescott C.Y., Hausch C.A.
Liverpool Conference (1969) Abstr. 60
Reaction C112
CIT
121. Small momentum transfer π^+ production with polarized
photons
Burfeindt H., Buschhorn G., Geveniger C., Heide P.
Liverpool Conference (1969) Abstr. 87
Reaction C111
DESY
122. π^- production with linear polarized photons
Burfeindt H., Buschhorn G., Geveniger C., Kotthaus R.,
Skronn H.J., Wahl H., Wegener K.
Liverpool Conference (1969) Abstr. 86
Reaction C122
DESY
123. Photoproduction of ω mesons from complex nuclei
Behrend H.J., Lobkowicz F., Thorndike E.H., Wehmann A.W.,
Nordberg M.E.
Phys. Rev. Letters 24 (1970) 1246
Reaction N5
Cornell
124. Single π^+ and K^+ meson photoproduction from complex
nuclei at 8 and 16 GeV
Boyarski A.M., Diebold R., Ecklund S.D., Fischer G.E.,
Murata Y., Richter B., Sands M.
SLAC-PUB-671
Reaction N4
SLAC
125. Inelastic photoproduction of π^0 mesons between 2 and
4.6 GeV
Brenner A.E., Peterson D., Walker J.K., Weam R., Wu S.L.
Liverpool Conference (1969) Abstr. 52
Bull. Am. Phys. Soc. 15 (1970) 580
Reaction N3
CEA
126. Measurement of the $\pi^+\Delta(1236)$ photoproduction cross
section of hydrogen and deuterium as a function of t
at 16 GeV
Boyarski A.M., Diebold R., Ecklund S.D., Fischer G.E.,
Murata Y., Richter B., Sands M.
Phys. Rev. Letters 25 (1970) 695
Reactions C113, C115, C123, C125, N1
SLAC
127. K^+ photoproduction cross section at 1.3 GeV and cm-
angles between 6 and 90
Blockmann A., Herda S., Opars U., Schulz W., Schville W.S.
BONN Univ. PI 1-92 (1970)
Reactions C212, C213
Bonn
128. A new measurement of the π^0 lifetime through Primakoff
effect in nuclei
Bellettini G., Bemporad C., Braccini F.L., Bradaschia C.,
Foa L., Lübelmeyer K., Schmitz D.
Nuovo Cimento 66A (1970) 243
Reaction N7
DESY
129. Photoproduction of neutral ρ mesons from complex nuclei
Alvensleben H., Becker U., Bertram W.K., Chen M.,
Cohen K.J., Knasel T.M., Marshall R., Quinn D.J., Rohde M.,
Sanders G.H., Schubel H., Ting S.C.C.
Phys. Rev. Letters 24 (1970) 786
Reaction N5
DESY
- Determination of strong-interaction nuclear radii
Alvensleben H., Becker U., Bertram W.K., Chen M.,
Cohen K.J., Knasel T.M., Marshall R., Quinn D.J., Rohde M.,
Sanders G.H., Schubel H., Ting S.C.C.
Phys. Rev. Letters 24 (1970) 792
Reaction N5
DESY
130. Photoproduction of π^0 from neutrons at 4 GeV
Bolton G.C., Ballenger D., Lobar W., Luckey D., Osborne L.S.,
Schwitters R.
Liverpool Conference (1969) Abstr. 42
Reaction C121
CEA

131. Differential cross section for $\gamma p \rightarrow n\pi^0$
Rongo M., Kikuchi K., Kobayakawa H., Mori K., Obayashi H.,
Ueno K., Ukai K., Yamaki T., Endo I., Sumi Y., Yoshida K.,
Liverpool Conference (1969) Abstr. 32
Reaction C116 Tokyo
132. Resonance production in the reaction $\gamma p \rightarrow p\pi^+\pi^-\pi^0$
at energies up to 5.3 GeV
Aachen-Bonn-Hamburg-Heidelberg-München Collaboration
Liverpool Conference (1969) Abstr. 153
Reactions N2, N4 DESY
133. Determination of the total photon-proton cross section
from high energy inelastic electron scattering
Bloom E.D., Cottrell R.L., Covard D.H., de Staebler C.H.,
Drees J., Miller G., Mo L.W., Taylor R.E., Friedman S.I.,
SLAC-PUB-653 (1969)
Reaction C110 SLAC
134. Total photoproduction cross section up to 18 GeV and the
nature of photon interactions
Galloway D.G., Elings V.B., Hesse W.P., Jahn G.E.,
Morrison R.J., Murphy F.V., Yount D.E.,
Phys. Rev. Letters 23 (1969) 1256; 24 (1970) 796; 25 (1970) 609
Reactions C110, C120, C130 SLAC
135. ρ^0 production with polarized photons
Carrigan R.A., Griesen L., Franke G., Loeffler G.,
Schueler K.P., Timm U., Werner H., Zimmermann W.,
DESY 70/19
Reactions C512, N1
supersedes Ref. 77 DESY
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240. Photoproduction of ω mesons from nuclei
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Abbreviations for Conference Proceedings

Hamburg	Proceedings of the International Symposium on Electron and Photon Interactions at High Energies Hamburg, June 8 - 12, 1965 Deutsche Physikalische Gesellschaft, Hamburg 1966
Vienna	14th International Conference on High Energy Physics Vienna, 28 August - 5 September, 1968 Proceedings European Organization for Nuclear Research, Geneva 1969
Liverpool	4th International Symposium on Electron and Photon Interactions at High Energies 1969 Proceedings Baresbury Nuclear Physics Laboratory 1969

List of accelerators cited in this compilation.

Abreviation	Accelerator		Location
Bonn	Synchrotron	2.3 GeV	Physikalisches Institut der Universität Bonn D5300 Bonn, Germany
CEA	Synchrotron	6.3 GeV	Cambridge Electron Accelerator Cambridge, MA 02138, USA
CIT	Synchrotron	1.5 GeV	California Institute of Technology Pasadena, CA 91109, USA
Cornell	Synchrotron	2.1 GeV 10 GeV	Cornell University Laboratory Nuclear Studies Ithaca, N.Y. 14950, USA
DESY	Synchrotron	7.5 GeV	Deutsches Elektronen Synchrotron D2000 Hamburg 52, Germany
Frascati	Synchrotron	1.1 GeV	Laboratori Nazionale di Frascati del CNEN Frascati (Roma), Italy
Illinois	Betatron	.3 GeV	University of Illinois Urbana, IL 61803, USA
Lebedev	Synchrotron	.3 GeV	Lebedev Physics Institute Academy of Science Moscow, USSR
NINA	Synchrotron	5.0 GeV	Daresbury Nuclear Physics Laboratory Daresbury, Nr. Warrington, U.K.
Orsay	Linear Accelerator	2.0 GeV	Ecole Normale Supérieure F91 Orsay, France
Stanford	Linear Accelerator	1.2 GeV	High Energy Physics Laboratory Stanford University Stanford, CA 94305, USA
SLAC	Linear Accelerator	20 GeV	Stanford Linear Accelerator Center Stanford, CA 94305, USA
Tokyo	Synchrotron	1.3 GeV	Institute for Nuclear Studies Tokyo University Tanashi, Tokyo, Japan
Tomsk	Synchrotron	1.3 GeV	Polytechnic Institute Tomsk, USSR





































