

High-power X-ray prototype source development using superconducting accelerator for radiological (Co-60) source replacement



20 kW, 1.6 MeV prototype Electron Accelerator

Reduce Pillar of ORS:

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REDUCE the global reliance on radioactive sources by promoting the adoption and development of non-radioisotopic alternative technologies

- Developing compact superconducting CW RF electron accelerator
 - Provide X-ray alternative to sterilization by Cobalt-60
- Free of liquid cryogenics: more compact, less complexity, safer
 - Cryocoolers with conduction cooling
 - CW operation maximizes efficiency
- Cavity fabrication for 20 kW prototype complete
 - Nb₃Sn coating in progress
 - Commissioning to follow
- Evaluating commercialization strategies

Poster 1M
Thomas Kroc
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