

High Power Gamma Irradiator

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- High power (above ~ 50 kW) gamma irradiation installations: problems with localized power deposition being too high without severe rastering
- Can be solved by designing the radiator rotating in vacuum and cooled by thermal radiation
- Direct application of the patent US 6,904,957 B1 “Cooled Particle Accelerator Target”
- For our purposes we can add rotating beryllium absorber to ease power requirements on the irradiated target while essentially keeping isotope production rates
- Rough estimate: one ~ 30 cm diameter disc should be capable of dissipating of about 5 kW at 1000 C

