

The 8pi and TIGRESS Gamma-Ray Facilities at TRIUMF-ISAC

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The Isotope Separator and Accelerator (ISAC) produces and extracts radioactive ion beams by the ISOL technique. These radioactive-ion beams are used at a variety of experimental stations for nuclear structure, nuclear astrophysics, or material science studies. Two large arrays of high energy-resolution HPGe detectors are sited at ISAC. Low-energy beams can be delivered to the 8pi spectrometer that has been retrofitted for decay spectroscopy with an emphasis on high-precision lifetime and branching ratio measurements of superallowed Fermi beta decay. Reactions with accelerated beams, to energies beyond the Coulomb barrier, are studied with the TIGRESS array that has completed data-taking for two spectroscopy measurements to date. This talk will summarize the configuration and performance of the arrays, with discussion of specific scientific highlights and some future initiatives.

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