Abstract Submitted
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The 8π Spectrometer: A Detector Array for Decay Spectroscopy[1]

W.D. KULP, Georgia Tech, 8π COLLABORATION — The 8π spectrometer, an array of 20 Compton-suppressed HPGe detectors arranged in a regular icosahedral geometry, was originally designed for γ-ray coincidence spectroscopy following heavy-ion reactions. At TRIUMF/ISAC-I, the 8π has been recommissioned for studies of rare radioactive decays. The symmetry of the array virtually eliminates the effects of $\gamma - \gamma$ angular correlations when the integrated array is used in coincidence spectroscopy. When $\gamma - \gamma$ coincidences are analyzed by the five possible angles between detector pairs, however, rich angular correlation information may be extracted. Results from angular correlation decay studies with the 8π will be presented and implications for high-granualarity detector arrays will be discussed.

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