

Abstract Submitted
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Mitigation of Charge Sharing and Cross-Talk in a Planar Germanium Double-Sided Strip Detector N. LARSON, S.N. LIDDICK, NSCL/MSU, B.P. CRIDER, NSCL, F.G. KONDEV, S. KUMAR, ANL, S.V. PAULAUSKAS, NSCL, C.J. PROKOP, S. SUCHYTA, NSCL/MSU — Fragmentation facilities provide access to a wide range of beta-decaying nuclei for experimental study. However, the higher the atomic number of species of interest the greater the chance that the ion will not be fully stripped of its atomic electrons. The delivery of multiple charge states, predominately fully stripped and H-like, to the experimental system typically leads to overlaps in standard DE-TOF identification plots. A standard method for resolving multiple charge states is a measurement of the ion's total kinetic energy. A recently commissioned planar Ge double-sided strip detector (GeDSSD) is being used at the NSCL for beta-decay spectroscopy studies. The capability of the GeDSSD to measure total kinetic energies and resolve charge state contamination in a cocktail of radioactive ions is being investigated which requires addressing the dual problems of charge sharing between neighboring strips within the detector and electronic cross talk. Preliminary results will be presented.

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