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Detection Efficiency of the Clover Array for Recoil Decay Spectroscopy JOHN ENGEL, MAHAMMAD AL-SHUDIFAT, S.V. PAULAUSKAS, MIGUEL MADURGA, ROBERT GRZYWACZ — The Clover Array for Recoil Decay Spectroscopy (CARDS) has been implemented in the newly commissioned facility Low-energy Radioactive Ion Beam Spectroscopy Station at Oak Ridge National Laboratory. Challenging experiments with very neutron rich isotopes near doubly magic ⁷⁸Ni has been performed. Quantitative analysis of the new data required a thorough measurement of the detection efficiency of the CARDS array using variety of the standard calibration sources. Of particular importance is observed high detection efficiency for gamma rays with energies in the range of 50-200 keV which has been achieved due to implementation of digital electronics. Examples of data from on-line experiments will be presented.

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