Abstract Submitted
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Updates on neutron induced measurements on Gadolinium isotopes at the DANCE array[1] DUGERSUREN DASHDORJ, GARY MITCHELL, BAYARBADRAKH BARAMSAI, ANDRII CHYZH, CARRIE WALKER, North Carolina State University, DANCE COLLABORATION — The gadolinium isotopes are important for practical applications such as reactor applications, medicine and astrophysics. Decay gamma rays following neutron capture on Gd isotopes are detected by the DANCE array, which is located at flight path 14 at the Lujan Neutron Scattering Center at Los Alamos National Laboratory. The high segmentation and close packing of the detector array enable gamma-ray multiplicity measurements. The singles ?-ray spectrum for each multiplicity can be separated by their DANCE cluster multiplicity. The gamma- ray multiplicities and energy spectra for different multiplicities can be measured and analyzed for spin and parity determination of the resolved resonances.

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