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Non-Resonant Neutron Emission of Excited Neutron-Rich Nuclei STEPHEN QUINN, Notre Dame, NSCL/MSU, JOHN NOVAK, MICHAEL STRONGMAN, SHEA MOSBY, ARTEMIS SPYROU, THOMAS BAUMANN, MICHAEL THOENNESSEN, NSCL/MSU, MONA COLLABORATION —
Neutron-decay spectroscopy of neutron-unbound states at and beyond the dripline rely on the correct description of non- resonant events underlying the resonance states. In order to understand the origin of these events, decay energy spectra of isotopes with no apparent resonances were analyzed. Neutrons were measured in coincidence with light neutron-rich fragments produced in stripping reactions from an 85MeV/u 29Na beam on a beryllium target. The neutrons were detected with the Modular Neutron Array (MoNA) and the fragments were analyzed with the MSU/FSU Sweeper magnet system. The decay energy spectra of the isotopes 18N, 19N, 20N, 21O, 22O, 23F, 24F, 26Ne, and 27Ne were analyzed. No evidence for an isotope dependence was observed. However, the spectral shape exhibited differences as a function of element. The description of the data using a thermal emission model will be presented.

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