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Neutron-Unbound States in the N=20 Island of Inversion[1]
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Studies of neutron-rich nuclei around N=20 investigate a region of the nuclear chart with anomalous structural properties known as the Island of Inversion. It is characterized by a level inversion not predicted in the spherical shell model and associated with enhanced binding energy, deformation, and novel structure. Nuclei in this region are short-lived and require radioactive beams in order to study them and their neutron-unbound states. An experiment was performed at the National Superconducting Cyclotron Lab (NSCL) to study unique nuclear structure characteristics of nuclei with A/Z 3 using the MoNA-LISA neutron arrays and the Sweeper magnet to perform invariant mass spectroscopy. Current status of data analysis will be discussed.

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