

Abstract Submitted
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Unbound Resonances in Light Nuclei ELIZABETH HAVENS, JOSEPH FINCK, Central Michigan University, PAUL GUEYE, Hampton University, MICHAEL THOENNESSEN, Michigan State University, MONA COLLABORATION — Currently there has been no comprehensive study undertaken to compile experimental results from neutron unbound spectroscopy using invariant mass measurements, gamma resolutions, and half-lives. At Central Michigan University, Hampton University, and the NSCL, a project was initiated to catalog all unbound resonances in light nuclei ($Z=1-12$). Unbound resonances were characterized by having a confirmed neutron decay branch and/or an energy level greater than the neutron binding energy listed for that isotope according to either the National Nuclear Data Center's Evaluated Nuclear Structure Files or Experimental Unevaluated Nuclear Data List and the referred journals therein. Unbound resonances will be presented for twelve elements: H, He, Li, Be, B, C, N, O, F, Ne, Na, and Mg. The isotopes in which unbound resonances occur will be identified, along with unbound energy levels for these isotopes. If known, each unbound resonance's gamma resolution, half-life, method of production and journal reference were also determined and a selection of these will be presented.

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