

Abstract Submitted
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First Nuclear Self-Absorption Experiment at HI γ S Relevant to Astrophysics¹ S. PRATT, University of Rochester, G. RUSEV, E. KWAN, R. RAUT, A.P. TONCHEV, Duke University and TUNL, J.H. KELLEY, NCSU and TUNL, R. SCHWENGER, Research Center Dresden-Rossendorf, Germany — In supernovae explosion, about 35 nuclei cannot be produced by r or s processes. These co-called p nuclei can be created by photodisintegration reactions only. Furthermore, network calculations underpredict the abundances of the p nuclei which require more precise measurements of the photo-induced reactions. The accuracy of those measurements rely on the uncertainty of the width of the levels in ^{11}B used as a calibration standard. These are currently known with a relative uncertainty not better than 5%. We report the results for the width of the levels at 7.285 and 8.920 MeV in ^{11}B from the first nuclear self-absorption experiment at the High Intensity γ -Ray Source Facility at Triangle Universities Nuclear Laboratory using monoenergetic photon beams.

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