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Probing Nucleosynthesis in Novae: ^{22}Na(p,γ)^{23}Mg A.L. SALLASKA, D.W. STORM, T.A.D. BROWN, A. GARCIA, University of Washington, C. RUIZ, D.F. OTTEWELL, TRIUMF, C. WREDE, K. SNOVER, K. DERYCKX, University of Washington, D.A. HUTCHEON, L. BUCHMANN, C. VOCKENHUBER, TRIUMF, J.A. CAGGIANO, PNNL — Orbiting gamma ray telescopes have yet to observe the elusive ^{22}Na isotope. More sensitive observatories are planned. Present uncertainties in the dominant destructive reaction, ^{22}Na(p,γ), suggest new measurements in the proton energy range of 150 to 300 keV are needed to clarify the predictions of the amount of ^{22}Na expected in novae explosions. In particular, Ref [1] suggested that a possible resonance at $E_p = 198$ keV could be significant. We have measured the ^{22}Na(p,γ) resonance strengths and energies directly by using protons from the University of Washington accelerator with a specially designed beamline, which included rastering and cold vacuum protection of the ^{22}Na implanted targets, fabricated at TRIUMF. Utilizing two high-purity germanium detectors with anticoincidence shields to reduce cosmic backgrounds, measurements have been performed on known resonances of ^{22}Na+p, as well as on the proposed new resonance. Results will be presented. These indicate that the dominant contribution to the reaction rate in the temperature region of interest to novae is the resonance at $E_p = 214$ keV, rather than the suggested new resonance at $E_p = 198$ keV. [1] Jenkins *et al.*, PRL **92** (2004) 031101

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