Abstract Submitted for the DNP08 Meeting of The American Physical Society

Determination of the <sup>11</sup>B( $\alpha,\alpha$ )<sup>11</sup>B Cross Section below 7 MeV CHELSEY DRIESSEN, University of Wisconsin Stevens Point, M.W. AHMED, S.S. HENSHAW, B.A. PERDUE, P.-N. SEO, S. STAVE, H.R. WELLER, TUNL, R.M. PRIOR, M.C. SPRAKER, North Georgia College and State University, P. MARTEL, A. TEYMURAZYAN, U. Mass., R.H. FRANCE, E. SAND, A. SMITH, Georgia College and State University — The use of <sup>11</sup>B as a fusion energy resource using the <sup>11</sup>B( $\alpha,\alpha$ ) are reaction has been studied for over 50 years. Recently TUNL has been requested to investigate discrepancies in previous measurements of the cross section of <sup>11</sup>B( $\alpha,\alpha$ ). The cross sections were measured using silicon surface barrier detectors at 45, 60, 75, 90, 90, 110, 130, 150 degrees. The target used for the measurement of the cross section of <sup>11</sup>B was composed of 2-3  $\mu$ g/cm<sup>2</sup> of pure <sup>11</sup>B with two surrounding thicker layers of gold. The alpha source and the tandem accelerator at TUNL were used to create a beam with a maximum energy of 7 MeV. Preliminary cross sections as a function of energy and angle will be reported and compared to previous results.

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Date submitted: 01 Aug 2008

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