

Abstract Submitted
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Neutron Capture Measurements on Tl-isotopes at DANCE¹ A. COUTURE, T.A. BREDEWEG, E.-I. ESCH, M. JANDEL, R.C. HAIGHT, J.M. O'DONNELL, R. REIFARTH, R.S. RUNDBERG, J.L. ULLMANN, D.J. VIEIRA, J.M. WOUTERS, Los Alamos National Laboratory — The thallium isotopes play an important role in the *s*-process nucleosynthesis at the *s*-process endpoint. Furthermore, ²⁰⁴Tl is one of few branch point isotopes in the endpoint region. The understanding of branch point isotopes provides modeling constraints on the temperatures during which the process takes place. The production of *s*-only ²⁰⁴Pb is controlled entirely by ²⁰⁴Tl. Measurements of the capture cross-sections of the stable Tl isotopes have recently been made using the DANCE 4- π array at LANSCE. This provides needed resonance information in the region as well as preparing the way for measurements of as yet unmeasured capture cross-section of the unstable ²⁰⁴Tl. The neutron capture data for the stable isotopes as well as the plan for future measurements will be discussed.

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