## Abstract Submitted for the DNP19 Meeting of The American Physical Society

Measurements of the Astrophysical S Factor of  $^{12}C(\alpha,\gamma)^{16}$ OReaction EVGENI TSENTALOVICH, mit — E. TSENTALOVICH MIT-Bates Laboratory, E-mail: tsentalovich@bates.mit.edu A measurement of the astrophysical S factor of  $^{12}C$  ( $\alpha,\gamma$ ) $^{16}$ O reaction is proposed using the inverse  $^{16}$ O( $\gamma,\alpha$ ) $^{12}C$  reaction. The proposed experiment uses electron beam to produce Bremsstrahlung photons and allows an extension of the range of measurements down to  $E_{c.m.}=0.6$ -0.7 MeV.

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