Abstract Submitted
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Measurement of highly excited states in ^9B for Big Bang Nucleosynthesis[1] GORDON W. MCCANN, INGO WIEDENHOEVER, LAGY T. BABY, Florida State University, JEFFERY C. BLACKMON, CATHERINE M. DEIBEL, ERIN C. GOOD, Louisiana State University, KENNETH HANSELMAN, Florida State University, KEVIN T. MACON, SCOTT T. MARLEY, BALAKRISHNAN SUDARSAN, Louisiana State University — The relative abundance of ^7Li to Standard Big Bang Nucleosynthesis (SBBN) calculations remains one of the major questions about the formation of the light elements. SBBN overestimates the abundance by a factor of 3 to 4, therefore channels of mass-7 destruction must be investigated. Of particular interest is the $^7Be + d \rightarrow {}^9B$ reaction channel, where the compound nucleus ^9B is unstable and decays to $2\alpha + p$. Using the $^{10}B(^3He, \alpha)^9B$ reaction with the Super Enge SplitPole Spectrograph (SESPS) at Florida State University, a high resolution measurement of the excited states in ^9B at BBN relevant energies was performed to better understand this system. The ^9B decay products were detected in coincidence by the Silicon Array for Branching Ratio Experiments (SABRE). Results and impact on BBN will be discussed.

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