

Abstract Submitted
for the PSF15 Meeting of
The American Physical Society

Li : a cosmological problem from a nuclear physics perspective.¹

GWENALLE GILARDY, Univ of Notre Dame — The primordial abundance discrepancy in the lithium 7 between the prediction from the cosmological observations, like the cosmic microwave background, and the stellar abundances is one of the main astrophysical sources of concern for big bang nucleosynthesis. While various solutions are proposed, the focus of this work is on a nuclear origin. This motivated the study of ${}^7\text{Li}(\alpha, \gamma){}^{11}\text{B}$. The 5U accelerator of the Nuclear Science laboratory at the University of Notre Dame was used to accelerate an alpha beam on a LiF target. The Ge-detectors Online Array for Gamma Ray Spectroscopy in Nuclear astrophysics (Georgina) was used to detect gamma rays from three resonances at 401, 814 and 953 keV in ${}^{11}\text{B}$. Preliminary results will be presented.

¹ ${}^7\text{Li}$: a cosmological problem from a nuclear physics perspective

Gwenalle Gilardy
Univ of Notre Dame

Date submitted: 16 Oct 2015

Electronic form version 1.4