

APR07-2007-000449

Abstract for an Invited Paper
for the APR07 Meeting of
the American Physical Society

The Nucleosynthesis of Helium

JAMES KNELLER, University of Minnesota

The large cosmic abundance of Helium - second only to Hydrogen - is a testament to the importance of its formation in the cosmos. Both Helium-3 and Helium-4 emerge from Big Bang Nucleosynthesis in considerable quantities, the synthesis of the isotopes are links in the pp chain and other stellar nucleosynthesis processes, and they are also created during the initial stages of the r-process. The importance of Helium formation in these settings provides us with valuable information upon the environments in which it occurs. We survey the role of the synthesis of Helium in nuclear astrophysics, how its manufacture is affected by many diverse factors, and what we have learnt from observations of Helium abundances.