

Abstract Submitted
for the DNP06 Meeting of
The American Physical Society

Sterile Neutrinos and Big Bang Nucleosynthesis CHRISTEL SMITH, GEORGE FULLER, CHAD KISHIMOTO, University of California, San Diego — We calculate primordial element abundances in the presence of neutrino spectral distortion resulting from active-sterile transformation. We find that the effects of adding a significant lepton number to the big bang nucleosynthesis calculation are reversed when we include nonthermal distorted spectra. Our results show that this can be true for a variety of ν_e and $\bar{\nu}_e$ spectral distortions arising from various active-sterile transformation processes.

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Date submitted: 05 Jul 2006

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