

Abstract Submitted  
for the DPP08 Meeting of  
The American Physical Society

**The Dependence of Electron Trapping on Plasma Density in a Plasma Wakefield Accelerator** NEIL KIRBY, IAN BLUMENFELD, FRANZ-JOSEF DECKER, MARK HOGAN, RASMUS ISCHEBECK, RICHARD IVERSON, ROBERT SIEMANN, DIETER WALZ, SLAC, DAVID AUERBACH, CHRISTOPHER CLAYTON, CHENGKUN HUANG, CHANDRASHEKHAR JOSHI, DEVON JOHNSON, WEI LU, KENNETH MARSH, WARREN MORI, MIAOMIAO ZHOU, UCLA, THOMAS KATSOULEAS, PATRIC MUGGLI, ERDEM OZ, USC, E167 COLLABORATION — Plasma density is one factor that contributes to the onset of ionization induced electron trapping in a plasma wakefield accelerator. Here, experimental measurements and theory exhibit the dependence of trapping on plasma density.

Neil Kirby  
SLAC

Date submitted: 18 Jul 2008

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