

Abstract Submitted
for the APR08 Meeting of
The American Physical Society

Characterization of photoionized SiO₂ aerogel plasmas created by radiation fields in gold hohlraum targets YUTONG LI, JIE ZHANG, Institute of Physics, Chinese Academy of Sciences, ZHENGMING SHENG, XIN LU, QUANGLI DONG — The photoionized SiO₂ aerogel plasmas generated under a near-Planckian radiation field in gold hohlraum targets irradiated by high power laser pulses are measured by observing the absorption spectra and line emissions in the range between 0.64 and 0.74 nm. The experimental results are simulated by theoretical calculations under local thermodynamic equilibrium (LTE) using a detailed-level-accounting (DLA) model. The contributions of different Si ions to the specific components of the measured absorption spectra are identified.

Yutong Li
Institute of Physics, Chinese Academy of Sciences

Date submitted: 08 Jan 2008

Electronic form version 1.4