

Abstract Submitted  
for the MAR12 Meeting of  
The American Physical Society

**Melting Studies of Metals in a Paris Edinburgh Cell via Radiography** MAGNUS LIPP, ZSOLT JENEI, DAVE RUDDLE, CHANTEL ARACNE-RUDDLE, HYUNCHAE CYNN, WILLIAM EVANS, Lawrence Livermore National Laboratory, YOSHIO KONO, CURTIS KENNEY-BENSON, CHANGY-ONG PARK, HPCAT, Advanced Photon Source, Argonne National Laboratory — Equation-of-state measurements of amorphous solids and liquids suffer from the lack of distinct X-ray diffraction patterns that can be indexed and used for a precise and accurate volume determination. For relatively high Z materials, however, a possible remedy might be found in the application of X-ray radiography. The presentation will describe current efforts with regard to cerium and alloys of noble metals in the liquid state. This work was performed under the auspices of the US DOE by LLNL under Contract DE-AC52-07NA27344. The X-ray studies were performed at HPCAT (Sector 16), APS/ANL. HPCAT is supported by CIW, CDAC, UNLV and LLNL through funding from DOE-NNSA, DOE-BES and NSF. APS is supported by DOE-BES, under Contract No. DE-AC02-06CH11357.

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Date submitted: 19 Nov 2011

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