

Abstract Submitted
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A High-Temperature Diamond Anvil Cell Technique using Electrical Microheater Elements¹ SAMUEL WEIR, DAMON JACKSON, STEVEN FALABELLA, Lawrence Livermore National Lab., GOPI SAMUDRALA, YOGESH VOHRA, University of Alabama at Birmingham — A technique has been developed for heating high-pressure metal samples to very high temperatures by means of electrical resistive heating of thin-film heating elements in a diamond anvil cell. Key features of this design include the use of chemical vapor deposited (CVD) layers of diamond for electrical insulation, and thin-film lithographic patterning for fabrication of the heating elements. Data will be presented from a heating experiment on gold to 20 GPa and T=2000K.

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