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Measuring the properties of shock released Quartz and Parylene-N JAMES HAWRELIAK, Washington State University, MAX KARASIK, JAECHUL OH, YEFIM AGLITSKIY, Naval Research Laboratory — The high pressure and temperature properties of Quartz and hydrocarbons are important to high energy density (HED) research and inertial confinement fusion (ICF) science. The bulk of HED material research studies the single shock Hugoniot. Here, we present experimental results from the NIKE laser where quartz and parylene-N are shock compressed to high pressure and temperature and the release state is measured through x-ray imaging. The shock state is characterized by shock front velocity measurements using VISAR and the release state is characterized by using side-on streaked x-ray radiography.

James Hawreliak
Washington State University

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