

Abstract Submitted  
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**Investigating Incipiently Spalled Tantalum through Multiple Section Planes and Serial Sectioning** BENJAMIN HENRIE, THOMAS MASON, JOHN BINGERT, Los Alamos National Laboratory, MST-8 TEAM — Shock wave interactions within a material create a three-dimensional damage field of voids and/or strain localizations. Flyer plate and high explosive experiments were performed on high purity tantalum to improve the understanding of void and strain localization interactions. Using a miniature high explosive experiment seven identical shots were performed to test the reproducibility of incipient spallation experiments. These experiments along with flyer plate experiments demonstrated that multiple section planes are required to accurately quantify the damage within a specimen. To further understand the three-dimensional nature of incipient spallation, serial sectioning was performed on a 5.6 GPa flyer plate experiment. Serial sectioning is yielding void and strain localization interactions not available in a two-dimensional slice.

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