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Effect of Pellet Coatings on PETN Porosity and Slapper Detonator Efficacy KATHRYN BROWN, ERIK HAROZ, GEOFF BROWN, DEIRDRE MONROE, Los Alamos Natl Lab — PETN is well known to have a high vapor pressure and tends to sublime when heated. Preliminary experiments suggest that this phenomenon results in increased porosity and may decrease sensitivity to shock initiation by a chip slapper detonator. In this study, PETN pellets were coated on the flyer impact surface with various materials. The pellets were subjected to heating over several days, and the surfaces were analyzed for porosity and recrystallization. We attempted to shock initiate each using a chip slapper detonator, and the timing and voltages required were noted.

Kathryn Brown
Los Alamos Natl Lab

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