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Single shot ultrafast dynamic ellipsometry of laser-driven shocks in single crystal explosives and thin films of metals VON WHITLEY, SHAWN MCGRANE, DAVID MOORE, DAN EAKINS, CYNTHIA BOLME, DE-9, Los Alamos National Labs, Los Alamos, NM — Ultrafast dynamic ellipsometry (UDE) was used to measure the shock conditions of single-crystal energetic materials and metal thin films. Explosive crystals are coated with aluminum, which through frustrated laser ablation acts as a shock drive layer. UDE data on shocked explosives and different potential metal drive layers will be reported and experimental considerations will be discussed.

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