

Abstract Submitted  
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**Flexible Large Batch Production of High Energy Density Physics Targets**<sup>1</sup> D.P. HIGGINSON, Columbia U., R.B. STEPHENS, B.C. BROCATO, General Atomics — Currently, experimental High Energy Density Physics (HEDP) targets are fabricated one at a time. Individual production limits target quantities due to time and cost. Demand for statistically relevant HEDP data has led to development of higher repetition rate lasers and targeting systems. To meet increased target demand, larger batches of 100 to 1000 targets will be needed. Routes to batch production of a wide variety of targets with essentially identical or slightly modified characteristics are examined. Target attributes considered include complex geometry, different materials (i.e. metals, plastics, foams of variable density), material layering, and variable thickness. The compatibility of the machining, deposition and other processes required to produce these targets is discussed. Potentially desirable HEDP targets are identified and batch fabrication steps specific to these targets are outlined.

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