

Abstract Submitted
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Boron Carbide Materials for Inertial Confinement Fusion¹ C. MATTSSON, Lehigh University, G.C. RANDALL, H. XU, H. STRECKERT, C. HILL, A. NIKROO, General Atomics — Boron carbide shows promise as an inertial confinement fusion (ICF) ablator material because it is light enough that it can be driven efficiently to high velocity, yet strong enough that it may suppress Rayleigh-Taylor instabilities. We seek to fabricate strong, homogeneous boron carbide foils with thicknesses ~ 0.1 mm, relevant to the production of future ICF targets. We analyze the material properties of various chemical vapor deposition (CVD), sputtered, and hot-pressed boron carbide samples.

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