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Beryllium Drive Disc Characterization for Laboratory Astrophysics Experiments[1] J.R. DITMAR, R.P. DRAKE, C.C. KURANZ, M.J. GROSSKOPF, University of Michigan — Laboratory Astrophysics scales large-scale phenomena, such as core-collapse supernovae shocks, down to the sub-millimeter scale for investigation in a laboratory setting. In some experiments, targets are constructed with a 20μm thick beryllium disc attached to a polyimide tube. A shockwave is created by irradiating the Be disc with $\sim$ 4kJ of energy from the Omega Laser. The Be material is rolled into a 20μm sheet and then machined to a 2.5mm diameter. Characterizing the roughness and knowing if there are any major features on the initial surface could affect interpretations of data taken during experiments. Structure in the Beryllium discs could become an important parameter in future high-fidelity computer simulations. Surfaces were characterized with a Scanning Electron Microscope and an Atomic Force Microscope.

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