

Abstract Submitted
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Rayleigh–Taylor instability experiments in quasi-isentropically compressed Al targets at the Shenguang2 Laser JIAQIN DONG, Shanghai Institute of Laser Plasma — We present experiments on the Rayleigh-Taylor (RT) instability in pure Al foils at ~ 34 GPa pressure using a laser based, ramped-pressure acceleration technique. A line VISAR velocity diagnostic is developed to measure the drive on separate targets, and a X-rays K-B Microscope is used to measure the RT growth with 4.75 keV Ti He- α x-ray backlighter. RT growth factors in solid state and melted Al, driven by approximate plasma loader, are measured and compared. Material strength suppresses the RT growth rate dramatically.

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