

Abstract Submitted
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On and off Hugoniot measurements of aluminum using laser driven shock wave NORIMASA OZAKI¹, Graduate School of Engineering, Osaka University, Japan, MICHEL KOENIG, LULI, Ecole Polytechnique, France, TAKATOSHI ONO, Graduate School of Engineering, Osaka University, Japan, SHINSUKE FUJIOKA, MITSUO NAKAI, Institute of Laser Engineering, Osaka University, Japan, ALESSANDRA RAVASIO, CEA, France, KEISUKE SHIGEMORI, KAZUO TANAKA, Institute of Laser Engineering, Osaka University, Japan, KUNIIHIKO WAKABAYASHI, National Institute of Advanced Industrial Science and Technology (AIST), Japan, RYOSUKE KODAMA, Graduate School of Engineering, Osaka University, Japan — We performed absolute Hugoniot measurements on one of the most important metal, aluminum as a standard material. Shock and particle velocities were simultaneously measured with a side-on x-ray backlighting technique. The pressure was reached up to around 2 TPa. To know the off-Hugoniot properties, we also performed reflected shock experiments. Using copper and tantalum anvils, the Al reflected shock states were obtained in TPa pressure regime. The difference between shock reflection curves from some models is discussed.

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