## Abstract Submitted for the SHOCK09 Meeting of The American Physical Society

Impact experiments with an impact velocity higher than 10 km/s T. KADONO, T. SAKAIYA, Y. HIRONAKA, K. OTANI, T. SANO, T. FUJI-WARA, T. MOCHIYAMA, S. FUJIOKA, S. SUGITA, Y. SEKINE, A. NAKA-MURA, M. ARAKAWA, K. SHIGEMORI — We accelerate glass and aluminum projectiles to a velocity higher than 10 km/s using a high power laser, GEKKO XII - HIPER at Institute of Laser Engineering, Osaka University. The velocity of the projectiles is estimated using high-speed streak and framing cameras. The projectiles collide with copper targets. The copper plates are recovered and craters are observed. Also, a tantalum plate as a witness plate is recovered and a large number of crates caused by ejecta impacts are observed. Thus, we can simulate the hypervelocity impacts with a velocity over 10 km/s in the laboratory.

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