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EUV nanosecond laser ablation of silicon carbide, tungsten and molybdenum¹ OLEKSANDR FROLOV, KAREL KOLACEK, JIRI SCHMIDT, JAROSLAV STRAUS, Pulse Plasma Systems Department, Institute of Plasma Physics AS CR, v.v.i., Prague, 182 00, Czech Republic, ANDREI CHOUKOUROV, Department of Macromolecular Physics, Faculty of Mathematics and Physics, Charles University in Prague, Prague, 121 16, Czech Republic, KOICHI KASUYA, Institute of Applied Flow, 3-24-4 Utsukushigaoka-Nishi, Aoba, Yokohama, Kanagawa 225-0001, Japan — In this paper we present results of study interaction of nanosecond EUV laser pulses at wavelength of 46.9 nm with silicon carbide (SiC), tungsten (W) and molybdenum (Mo). As a source of laser radiation was used discharge-plasma driver CAPEX (CAPillary EXperiment) based on high current capillary discharge in argon. The laser beam is focused with a spherical Si/Sc multilayer-coated mirror on samples. Experimental study has been performed with 1, 5, 10, 20 and 50 laser pulses ablation of SiC, W and Mo at various fluence values. Firstly, sample surface modification in the nanosecond time scale have been registered by optical microscope. And the secondly, laser beam footprints on the samples have been analyzed by atomic-force microscope (AFM).

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