

Abstract Submitted
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Ablation of CsI by XUV Capillary Discharge Laser PETER PIRA, ZDENEK ZELINGER, J. Heyrovsky Institute of Physical Chemistry of the Academy of Sciences of the Czech Republic, v. v. i., Dolejskova 2155/3, 182 23 Praha 8, Czech Repu, TOMAS BURIAN, LUDEK VYSIN, Institute of Physics of the Academy of Sciences of the Czech Republic, v.v.i., Na Slovance 2, 182 21 Praha 8, Czech Republic, JAN WILD, Faculty of Mathematics and Physics, Charles University, V Holesovickach 2, 180 00 Praha 8, Czech Republic, LIBOR JUHA, Institute of Physics of the Academy of Sciences of the Czech Republic, v.v.i., Na Slovance 2, 182 21 Praha 8, Czech Republic, JAN LANCOK, Faculty of Mathematics and Physics, Charles University, V Holesovickach 2, 180 00 Praha 8, Czech Republic, VACLAV NEVRLY, Faculty of Safety Engineering, VSB - Technical University of Ostrava, Lumirova 630/13, 700 30 Ostrava, Czech Republic — XUV capillary discharge laser (CDL) is suitable source for ablation of ionic crystals as material which is difficult to ablate by conventional laser. Single crystal of CsI was irradiated by 2.5 ns pulses of a 46.9 nm radiation at 2 Hz. The CDL beam was focused by Sc/Si multilayer spherical mirror. Attenuation length of CsI for this wavelength is 38 nm. Ablation rate was calculated after irradiation of 10, 20, 30, 50 and 100 pulses. Depth of the craters was measured by optical profiler (white light interferometry). Ablation threshold was determined from craters after irradiation with the changing fluence and compared with modeling by XUV-ABLATOR.

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