

DYNAMICS OF THE CORROSION CRATER
FORMATION ON THE SURFACE OF A SOLID
SUBSTANCE BY POWER PULSE IRRADIATION

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S u m m a r y

The influence of a destructive laser pulse on the surface of a solid substance has been considered. The partial differential equation, which describes the formation of a corrosion crater on the surface of a hard target, has been derived. The dynamics of the pressure in the plasma-gas torch stimulated by the pulse laser radiation has been shown to affect the formation of a crater substantially. The asymptotic analysis of the “crater” equation gave reasons to assert that the adopted model of surface destruction is adequate to the actual dynamics of the formation of a crater.