

THE X-RAY SPECTRA OF LASER PRODUCED PLASMAS WITH A CONCAVE
MICA CRYSTAL SPECTROGRAPH AND THEIR TIME DEPENDENCE

By

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Soft X-ray spectra of aluminum and titanium and some other elements were observed in laser produced plasmas. The hydrogen and helium-like ion resonance lines and their satellites were obtained for one laser pulse by means of a concave mica crystal spectrograph. The experimental wavelengths were compared with theoretical ones. Time dependence of the aluminum spectra was studied using the electron optical camera and scintillator as the X-ray detector. The duration time of the resonance line emission is approximately equal to that of laser pulse for helium-like ions and is noticeably shorter for hydrogen-like ions. In the latter case this time is rather different for each laser pulse.