*33rd EPS Conference on Plasma Phys. Rome, 19 - 23 June 2006 ECA Vol.**30I**, D-5.006 (2006)*

X-ray and optical spectroscopy from laser generating pulsed plasma

[1]*Dipartimento di Fisica, Università di Messina, 98166 S. Agata, Messina, Italy*

[2]*INFN-LNS, Catania, Via S. Sofia 44, 95124 Catania, Italy*

[3] *IPPLM, Hery street 23, 00-908 Warsaw, Poland*

1 Introduction

2 Experimental set-up

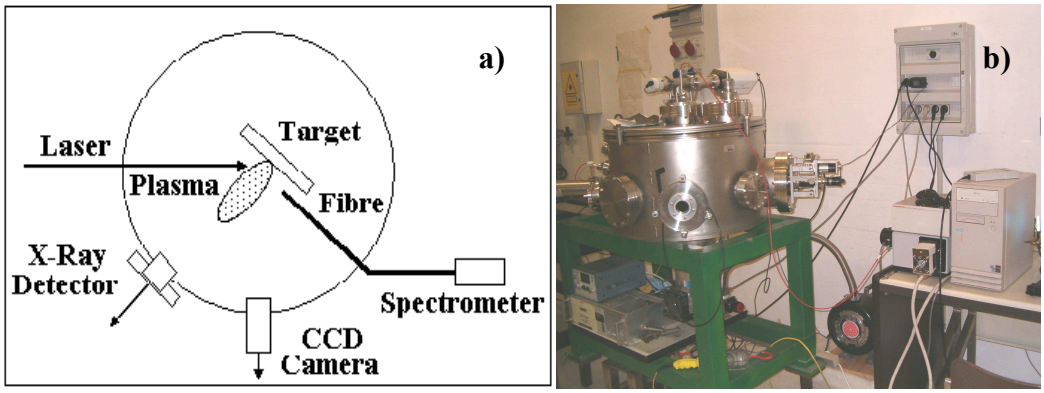

Fig. 1: Scheme (a)and photo of experimental set-up (b).

μ

μ

3 Results

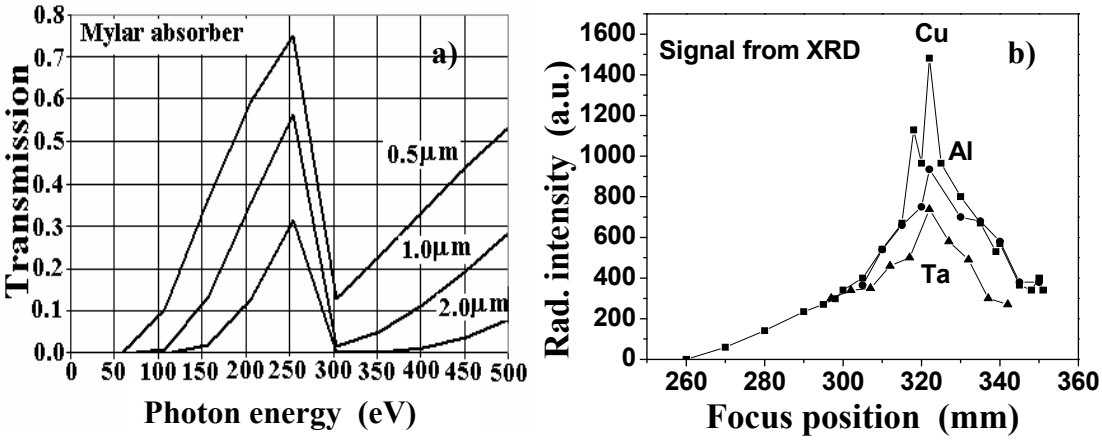

Fig. 2:Mylar transmission as a function of the photon energy for different absorber thicknesses (a). Radiation intensity from Cu, Al and Ta at 1064 nm vs. focus position of the focalising lens (b).

T μ μ

x

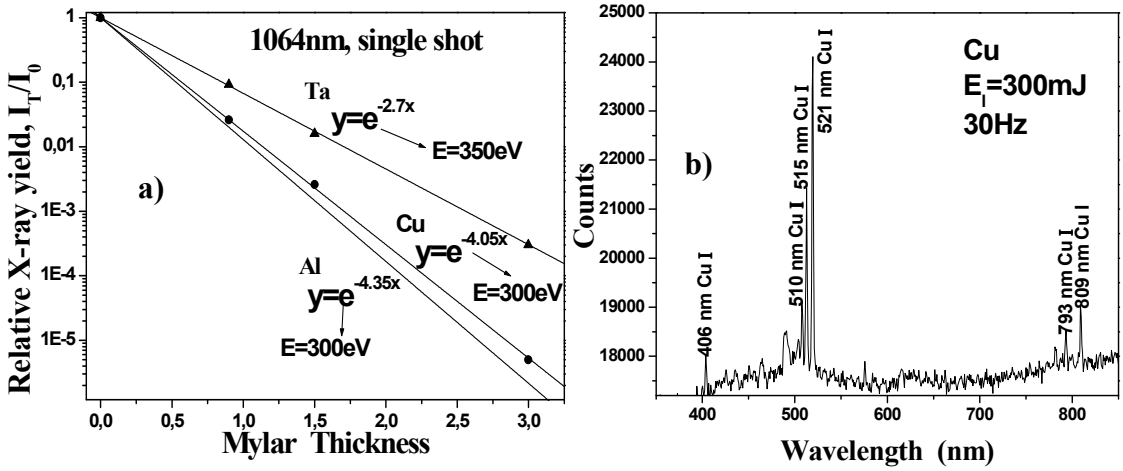

Fig.3 Relative X-ray yield as a function of the mylar thickness for Ta, Al and Cu ablation at 1064 nm and deduced absorption coefficients and correspondin mean energy of the X-ray spectrum (a). Optical spectrum obtained by Cu laser ablation at 1064 nm (b)

λ λ

$I\ A\ g$ λ

E

4 Conclusions

References

Rad. Eff. and Def. in Solids
Spectrochimica Acta

. J. Appl. Phys