

Abstract Submitted  
for the DAMOP08 Meeting of  
The American Physical Society

**Spectroscopy of high pressure cesium discharge** GORAN PICH-  
LER, Institute of Physics, Zagreb HR-10 000, Croatia, MARIN PICHLER, Physics  
Department, Goucher College, Baltimore, MD 21204 — Near UV, visible and NIR  
spectrum of Cs lamp has been studied in many experimental situations. We concen-  
trate on the spectral region around resonance lines where numerous satellite bands  
appear. We followed the appearance of these satellite bands after the ignition. They  
first appear in emission, and then in absorption, due to the steady increase of cesium  
atom density. The origin of the satellite bands have been described <sup>1,2</sup>. We observed  
the satellite band intensity behavior in several different burners filled with cesium  
and xenon. In one burner made out of crystalline sapphire we observed interesting  
spatial distribution of entire visible spectrum, during evolution in time after the ig-  
nition. The intensity behavior of satellite bands in the near-infrared spectral region  
will be used in further development of the white light source with pulsed cesium  
high-pressure discharge.

<sup>1</sup>D. Veža, R. Beuc, S. Milosević and G. Pichler, Eur. Phys. J. D, **2**, 45 (1998)

<sup>2</sup>R. Beuc, H. Skenderović, T. Ban, D. Veža, G. Pichler, W. Meyer, Eur. Phys. J.D  
**15**, 209 (2001)

Marin Pichler  
Physics Department, Goucher College, Baltimore MD 21204

Date submitted: 01 Feb 2008

Electronic form version 1.4