

ON THE STARK BROADENING OF Pb IV SPECTRAL LINES WITHIN THE 3000-7000 Å SPECTRAL RANGE

R. Hamdi¹, N. Ben Nessib^{2,3}, M. S. Dimitrijević^{4,5}, S. Sahal-Bréchot⁵

¹Faculté des Sciences de Bizerte, Université de Carthage, Tunisia

²College of Science, King Saud University. PO Box 2455, Riyadh 11451, Saudi Arabia

³INSAT, Université de Carthage, Tunisia

⁴Astronomical Observatory, Volgina 7, 11060 Belgrade, Serbia

⁵LERMA, Observatoire de Paris, UMR CNRS 8112, UPMC,
92195 Meudon Cedex, France

E-mail: Rafik.Hamdi@istls.rnu.tn, nbnessib@ksu.edu.sa,
mdimitrijevic@aob.bg.ac.rs, sylvie.sahal-brechot@obspm.fr

Stark broadening parameters for 113 spectral lines of triply charged lead ion (Pb IV), have been determined recently, using semi-classical perturbation approach within the impact approximation. Spectral line widths and shifts have been obtained for temperatures from 20 000 K to 300 000 K and for an electron density of 10^{17} cm^{-3} . The complete obtained results and their analysis and comparison with other theoretical and experimental data will be published in MNRAS. Here are presented results for 31 spectral lines from the 3000-7000 Å spectral range in the visible part of the spectrum.