Short talk

STARK PARAMETERS REGULARITIES WITHIN SPECTRAL SERIES OF DIFFERENT ATOMS AND IONS

J. Purić[1], M. Šćepanović[2], I. Dojčinović[1], M. Kuraica[1], B. Obradović[1]

[1]*Faculty of Physics, University of Belgrade, P.O. Box 368, 11 000 Belgrade, Serbia*
Center for Science and Technology Development,
Obilicev venac 26, 11 000 Belgrade, Serbia
[2]*Faculty of Sciences and Mathematics, University of Montenegro,*
P.O. Box 211, 81 000 Podgorica, Montenegro

Stark widths and shifts regularities for the spectral lines originating from the same spectral series for different atoms and ions have been found and discussed. The emphases are on the Stark parameters dependence on the upper level ionization potential. The found dependence can be used for prediction of these parameters for the members of the series not calculated or measured so far. The accuracy of the obtained widths and shift values are of the same order as the accuracies of the used data in the procedure of finding regularities.

Short talk

THE MODELING OF THE CONTINUOUS EMISSION SPECTRUM OF A DENSE NON-IDEAL PLASMA IN OPTICAL REGION

N. M. Sakan, A. A. Mihajlov, Lj. M. Ignjatović, V. A. Srećković

Institute of physics, Pregrevica 118, Zemun, Belgrade, Serbia
e-mail: vlada@phy.bg.ac.yu

The comparison of a existing data on dense hydrogen plasma with two different Coulomb cut-off modeling potentials are presented. The additional plasma phenomena, that are not primarily included in this model figure, are introduced in several different ways.