

Poster paper

HF ELECTRIC PROPERTIES OF THE ASTROPHYSICAL PLASMAS

Vladimir A. Srećković¹, Anatolij A. Mihajlov¹, Nenad M. Sakan¹,
Ljubinko M. Ignjatović¹, Milan S. Dimitrijević^{2,3,4}, Darko Jevremović² and
Veljko Vujičić²

¹*University of Belgrade, Institute of Physics, P. O. Box 57, 11001, Serbia*

²*Astronomical Observatory, Volgina 7, 11160 Belgrade 74, Serbia*

³*IHIS-Technoexperts, Bežanijska 23, 11080 Zemun, Serbia*

⁴*Observatoire de Paris, 92195 Meudon Cedex, France*

E-mail: vlada@ipb.ac.rs

Here we determine the HF characteristics of astrophysical plasmas on the basis of numerically calculated values for the dense plasma conductivity in an external HF electric field. The examined range of plasma frequencies covers the IR, visible and UV regions and consider electronic number density and temperature important for different stellar models.

The results presented here are important for the investigation of atmosphere plasmas of astrophysical objects like white dwarfs with different atmospheric compositions (DA, DC etc.), and for investigation of some other stars (M-type red dwarfs, Sun etc.) as well as for laboratory plasma research (Srećković *et al.* 2010).

References

Srećković, V. A., Ignjatović, Lj. M., Mihajlov, A. A., Dimitrijević, M. S: 2010,
MNRAS, **406**, 590.