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Nziv predavanja: Astrophysically interesting Stark parameters measured

in laser-induced plasma

Abstrarct:

Laser Induced Plasma (LIP) is a small object with fast expansion rate, strong temperature, strong density and pressure gradients. Almost all spectroscopic diagnostic techniques are difficult to apply due to unstationary nature of LIP. We provide a brief overview of the main features of LIP and their relation to basic physics. Despite the difficulty in understanding underlying processes and problems in diagnostics, LIP is a very valuable spectroscopic source with complex but clean spectra suitable for Stark broadening and shift estimation. In the last decade germanium and molybdenum have become important in astrophysics as the elements relevant in nucleosynthesis processes. We present Stark parameters for number of spectral lines belonging to Ge II and Mo II spectra and discuss some specific aspects arising in processing raw spectroscopic data.