

ON THE STARK BROADENING IN STELLAR ATMOSPHERES

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Stellar spectroscopy needs atomic and line-broadening parameters for a very extensive list of line transitions for various elements in neutral and ionized states. In several works we investigated Stark broadening mechanism in atmospheres of A type stars and DB and DA white dwarfs. Here, we present a review of our work on the importance of Stark broadening data for stellar atmospheres plasma research on the basis of our results for spectral line widths for Cr II, Mn II, Au II, Cu III, Zn III and Se III transitions, obtained within the modified semiempirical approach and semiclassical perturbation method. Also, Stark broadening of rare earth ions (La II, La III, Eu II and Eu III) was considered in chemically peculiar Ap stars.