Progress Report

REGULARITIES AND SYSTEMATIC TRENDS ON Zr IV STARK WIDTHS

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Regularities and systematic trends among the Stark widths of 18 Zr IV spectral lines obtained by modified semiempirical approach have been discussed. Also we checked the possibility to approximate those calculated Stark broadening parameters with some of the most popular estimating methods. Results of such performed statistical analysis can be used to roughly predict new Stark width data for the ions in the same homologous or isoelectronic sequence, if the conditions are not satisfied to use more accurate theoretical methods, or a quick estimate is needed.