Progress Report

REGULARITIES AND SYSTEMATIC TRENDS ON L11 III STARK WIDTHS

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Regularity and systematic trend analysis has been performed on the Stark widths of 27 Lu III spectral lines calculated elsewhere by modified semiempirical method. Possible correlation of those Stark widths with corresponding effective principal quantum numbers or effective potentials have been also considered and discussed. Results obtained in such a way can be used for quick estimate of some other unknown Stark width data for the ions in the same homologous or isoelectronic sequence, especially if the conditions are not satisfied to use more accurate theoretical methods.