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Progress Report

## SYSTEMATIC TRENDS AMONG THE STARK WIDTHS OF Co II SPECTRAL LINES

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The possibility of finding systematic trends among the electron-impact broadening parameters of Co II spectral lines were investigated. We compared previously calculated full widths at half maximum of 46 Co II multiplets obtained using modified semiempirical approach with simple estimates of Cowley and Lakićević. In our analysis two verions of Cowley's estimates were used, according to our similar discussion about regularities and systematic trends found among the Stark broadening parameters of Zr IV and Lu III spectral lines, while simple estimate of Lakićević has already been commonly used very often in the case of single-ionized emitters, either for comparison with more exact results, or to approximate unknown Stark width values. We aditionally found two new correlations between considering Stark width sample and lower ionization potential where better accuracy was achieved than in the case of using Lakićević's formula. We also shortly attempt to discuss possible consequences of our results on semiempirical Stark broadening theory.