

STARK WIDTHS OF SEVERAL Te II SPECTRAL LINES FOR INVESTIGATION OF ASTROPHYSICAL SPECTRA

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Abstract. Electron-impact widths for eight Te II spectral lines with energy levels which can be found in NIST database (Kramida et al, 2023) were calculated using modified semiempirical method (Dimitrijević and Konjević, 1980), with a purpose to be useful in investigation of astrophysical spectra. Line and multiplet factors were taken from Shore and Menzel (1965), wherever it was necessary, while matrix elements were obtained using Bates-Damgaard approximation (Bates i Damgaard, 1949), as it is usual in modified semiempirical approach. In astrophysical domain, tellurium is important for study of nucleosynthesis processes of creation heavy elements in star interior.

References

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