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ANALYSIS OF STARK BROADENING PARAMETERS OF N II SPECTRAL LINES

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We propose a study of Stark broadening parameters of N II spectral lines. The conditions of interest cover wide temperature interval (from 5 000 K to 200 000 K) and a perturber density of 10^{17} cm^{-3}, suitable for astrophysical applications, laboratory diagnostics and for proton-boron fusion plasma research. The interactions that broad the spectral lines include particles as electrons, protons, alpha particles and boron ions in different stages of ionization. Recently, many experimental and theoretical studies are dedicated to proton-boron nuclear fusion which delivers energy with several significant advantages (Belloni, 2022).

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