Poster

STARK BROADENING CALCULATIONS OF NEUTRAL COPPER SPECTRAL LINES

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The aim of this work is to provide calculations of Stark broadening parameters of neutral cooper spectral lines. The neutral cooper CuI is often used in electrical industry as electrode materials. Therefore, diagnostic techniques of this element is of particular interest in industrial laboratories.

In a previous paper (Zmerli et al., 2008), we investigated temperature dependence of Stark width for neutral atom spectral lines in order to find a method for scaling with temperature. For analysis of this dependence, we used lines of neutral helium HeI.

In the present work, we extend this analysis to the neutral cooper spectral lines. We focused our studies on the CuI 324.75, 327.39, 510.54, 515.32, 521.82 and 578.21 nm spectral lines. Our results are compared with different available experimental and theoretical data.

References

Zmerli, B., Ben Nessib, N., Dimitrijević, M. S.: 2008, *European J. Phys.* D, **48**, 389.