

Accepted Manuscript

Plasma temperature measurements using black-body radiation from spectral lines emitted by a capillary discharge

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PII: S0022-4073(18)30426-6
DOI: <https://doi.org/10.1016/j.jqsrt.2018.09.005>
Reference: JQSRT 6209



To appear in: *Journal of Quantitative Spectroscopy & Radiative Transfer*

Received date: 6 June 2018
Revised date: 22 August 2018
Accepted date: 5 September 2018

Please cite this article as: T. Page, S.A. Wilson, J. Branson, E. Wagenaars, G.J. Tallents, Plasma temperature measurements using black-body radiation from spectral lines emitted by a capillary discharge, *Journal of Quantitative Spectroscopy & Radiative Transfer* (2018), doi: <https://doi.org/10.1016/j.jqsrt.2018.09.005>

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Highlights

- Optically thick spectral line intensities approach black-body intensities.

We demonstrate a technique for temperature measurement using the peak intensities of optically thick spectral lines emitted from a capillary discharge plasma. Measuring spectral lines of argon in the 300 V 1000 nm range, we deduce plasma temperatures of 1- 1.5 eV.

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