

Poster

STARK BROADENING OF THE 363.9 Pb I LINE

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The Stark profile characteristics, the width (W) and the shift (d) were measured in a pulsed helium discharge of the 363.9568 nm Pb I spectral line. Our W and d values are compared with existing experimental data. In the case of the Stark shift we have found disagreement between our new, and existing data. A linear low-pressure pulsed arc was used as an optically thin plasma source. A pulsed discharge was produced in a pyrex discharge tube. Helium was chosen as the carrier gas. The lead atoms were sputtered from the thin lead cylindrical plates located in the homogeneous axial part of the discharge tube. The helium plasma was operated at electron temperatures up to 23000 K and $1.1 \times 10^{23} \text{ m}^{-3}$ electron density.

Poster

MEASURED STARK WIDTHS AND SHIFT OF PROMINENT Pb III SPECTRAL LINES

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Stark broadening parameters, the width (W) and the shifts (d) of the prominent Pb III (doubly ionized lead) spectral lines have been obtained in a helium plasma. They represent the first experimental data. Our data are compared with the calculated W and d values.