

### 3.20 Soft X-rays produced by the gas discharge

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### 3.21 Measurement of temperature in peripheral zone of d.c. arc by the Schlieren method

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### 3.22 Transport properties in low pressure mercury discharge

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#### *Abstract*

The steady-state electron energy distribution in mercury discharge at high  $E/p$  values is investigated. Elastic and inelastic electron-atom collisions have been taken into account. By taking appropriate averages over the distribution function the mean electron energy, electron drift velocity and characteristic energy are computed. The distribution functions obtained deviate significantly from a Maxwellian distribution demonstrating a strong dependence on both inelastic collisions and the marked peak in the momentum transfer cross section. The calculated transport coefficients are in good agreement with the low current mercury discharge transport properties.

### 3.23 Ion cyclotron oscillations in alkali plasmas with light ions

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### 3.24 Drift instability in collisionless shocks

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