

Diagnostic of the Electronic and Neutral Components
of a flowing Ar/p-Xylene Glow Discharge

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Measurements have been made along the positive column of dc glow discharges in flowing Ar/p-Xylene as they are used for production of thin polymer films. With microwave techniques, using a movable resonator electron parameters have been measured and with gaschromatographic methods some stable products of the gaseous reactions in the volume are estimated. The results are characteristic distributions of the measured parameters along the positive column. In first approximation the distributions may be explained by means of a simple model.

The measuring methods, some experimental results and their interpretations are briefly discussed.

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