

[54] **LOW-DISTURBANCE TRANSPARENT ELECTRODE FOR SUPERSONIC FLOW CHANNEL**

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[51] Int. Cl.² **H01J 1/02**

[58] Field of Search **331/94.5 PE, 94.5 G, 331/351, 94.5; 313/306, 309, 351; 315/249, 111, 111.1, 111.6**

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[57] **ABSTRACT**

An electrode for a supersonic flow channel comprising a series of spaced bars that define spaced closed grooves with depths equal to the bar depth located transverse to the flow direction is disclosed. The length (in the direction of flow) to depth ratio of the grooves is such that the flow creates substantially stationary vortices in the grooves. The bottoms of the grooves between the bars are defined by a thin foil that forms a suitable window for an ionizing beam. A replical backing grid also formed of spaced bars is used to sandwich the foil to prevent undesired movement thereof without reducing transparency.

11 Claims, 7 Drawing Figures

