

Different Forms of low Pressure Discharge Plasma in Oxygen

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Direct current electrical discharge in oxygen at the pressure 0,002 - 5 Torr and discharge current 0,01 - 1 A has been investigated. Three different forms of the positive column, i.e., the H-form, the T-form, and the constricted form have been found at these conditions. The electric field distribution, the electron temperature, and the temperature of the neutral gas have been measured in these forms. The transitions between these forms have been studied, and some fundamental reactions in these forms are discussed.

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