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VALUES OF SPACE CHARGE DENSITY IN FAIR WEATHER CONDITIONS

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All manifestations of atmospheric electricity during both fair and disturbed weather arise from the presence of free electric charge in the atmosphere. This net electrical charge in the atmosphere, known as 'space charge' was measured in Colombo, by measuring the induced potential at the centre of a huge cubical cage made out of galvanized iron wire mesh.

Space charge densities ranging from +13 to +177 $\mu\mu C/m^3$ with a mean value of +65 $\mu\mu C/m^3$ were observed at ground level (1m) under fair weather conditions.

The pattern obtained for the diurnal variation shows that the space charge density at 1 m level is always positive. The results agreed well with those obtained by ion counting.

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