

A Statistical Study Of Variability Of Ionospheric foF2 With Sunspots

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ABSTRACT

The present study explores the saturation effects in ionospheric foF2 due to sunspot numbers 'R'. To locate the value of 'R' at which the foF2 values are saturated, third degree polynomial regression equations are used based on the data of strictly rise period of solar cycle 19, recorded by three Indian equatorial and low latitude ionosonde stations. Results clearly show that saturation feature appears not only around the anomaly crest regions but also at the equatorial regions. The obtained results demonstrate that the dense ionospheric electron density play a major role in more profound saturation effects.

Keywords: Sunspots, Electron density, Saturation effect, Ionosonde, R_{12} , foF2