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## Response of ionospheric foF2 to the solar flare at mid latitude

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We investigate the response of critical frequency of F2 layer (foF2) of ionosphere to the solar flare on the mid latitude during the high solar activity period of solar cycle 23 i.e. 2003 and 2004. A mid latitude station, Guangzhou (23.1N, 113.4E) was selected to carry out the investigation. The ionospheric behaviour at the selected station is characterized by considering the critical frequency of F2 layer (foF2) obtained by using the ground based Ionosonde observations. To quantify the effect of solar flares we have considered the X-ray flux (0.1–0.8 nm) and EUV flux (26–34 nm). An increase of 3.5 MHz to 7.5 MHz was recorded in the value of foF2 during the flares. Therefore, it can be well concluded that solar flares have positive effect on ionosphere foF2 at mid latitudes.

Key Words: Solar flare, Ionosphere, Critical frequency, foF2

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