BLACK CARBON VARIABILITY OVER A LOCATION IN THE INDO-GANGATIC PLAIN

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Contribution of Aerosol black carbon (BC) in global warming has been a subject of major concern in recent years. As a part of the Aerosol Radiative Forcing over India (ARFI) project of ISRO-GBP, regular measurements of BC were made from Varanasi, located in the Indo - Gangetic plane of India (25^0 19'N, 83^0 E, 80.7m above MSL). The present study shows significant temporal variation in BC associated with the prevailing meso scale and synoptic scale meteorological conditions. Mean BC concentration varied in the range of 2 - 40 μg m^{-3}. Maximum BC concentration was observed during the winter season. After rainfall, significant reduction in the BC concentration was observed. The diurnal variation of BC, showed two peaks , one in early morning and another in late night with low values during after noon hours. The details will be presented.

Key words: Black carbon, Indo - Gangetic plane, Diurnal variation

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