عنوان مقاله:

Levels of PM۱۰, PM۲.۵ and PM۱ and Impacts of Meteorological Factors on Particle Matter Concentrations in Dust Events and non Dusty Days

محل انتشار:

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خلاصه مقاله:

Background: The aim of study was to measure particle matter concentration (PM۱, PM۲.۵ and PM۱۰) during normal, semi-dust and dust-event days. The impacts of some meteorological factors on particle matter concentrations were also investigated.Methods: Samples were collected by Grimm aerosol technik (GmbH model ۱/۱۰۸ Germany) from November ۲۰۱۱ to May ۲۰۱۲. Temperature, humidity, wind speed and UV index were obtaind from the website (www.Weather.ir).Results: The concentration of particulate matter PM۱, PM۲.۵, PM۱۰ in dust event days was ۱۰, ۶ and ۲ times higher than normal days, respectively. The highest concentration of particle matter was February in winter. There was significant relationship between the particulate matter concentration with temperature and wind speed (P<۰.۰۵).Conclusions: The concentration of particulate matter affected by traffic, crowded, humidity and temperature. These factors increased particulate matter concentration specially when was with inversion.Background: The aim of study was to measure particle matter concentration (PM۱, PM۲.۵ and PM۱۰) during normal, semi-dust and dust-event days. The impacts of some meteorological factors on particle matter concentrations were also investigated. Methods: Samples were collected by Grimm aerosol technik (GmbH model ۱/۱۰۸ Germany) from November ۲۰۱۱ to May ۲۰۱۲. Temperature, humidity, wind speed and UV index were obtaind from the website (www.Weather.ir). Results: The concentration of particulate matter PM۱, PM۲.۵, PM۱۰ in dust event days was ۱۰, ۶ and ۲ times higher than normal days, respectively. The highest concentration of particle matter was February in winter. There was significant relationship between the particulate matter concentration with temperature and wind speed (P<۰.۰۵). Conclusions: The concentration of particulate matter affected by traffic, crowded, humidity and temperature. These factors increased particulate matter concentration specially when was with inversion.

کلمات کلیدی: