



Contribution of biomass burning to particles matter smaller than ten microns in Mexico City during April 2013.

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A forest fire is a natural combustion process in a specific geographic area, it's depends on meteorological variables, topography and vegetation type, The wildfires are potential sources of large amounts of pollutants.

The main air pollutants emitted in a forest fire are the particles (PM_{10} and $PM_{2.5}$) Carbon Monoxide (CO), Nitrogen Oxides (NO_x), Volatile Organic Compounds (VOCs) and a negligible amount of Sulfur Dioxide (SO_2) (Chow 1995), The study of the impact of air quality in Mexico City for a forest fire occurred on April 14 of 2013 was conducted a duration of 26 hours of grassland burning and consuming an extension of 150 ha, the WRF-Chem, WRF-fire and METv3 models were used to perform the study, for the study two modeling were made, one including emissions from forest fires and the other one no emission-fire, when interpolation is made between the two modeling and obtained the impact of air quality in Mexico City, performing calculating emissions and modeling, the impact on air quality for PM_{10} particles were observed arriving at a concentration of

350 mg/m^3 due to wildfire occurred, this issue exceeds the maximum permissible limit of PM_{10} particles governed by NOM-025-SSA1-1993 that establishes a maximum of

120 mg/m^3 on average for 24 hours, the modeling results with measured data is corroborated weather Stations the environmental monitoring network of the Mexico City, that alerts an environmental contingency for particles for the post-wildfire day. Until now is review the rule which establishes a maximum of 75 mg/m^3 on average for 24 hours, implying greater involvement in air quality.