



## Assessment of the Air Quality of Isfahan City, Iran, Using Selected Air Quality Parameters

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**Abstract:** Today, air pollution is one of the major problems in large cities including Isfahan. The objective of this study was to investigate the variations of ozone (O<sub>3</sub>), carbon monoxide (CO), nitric oxide (NO), nitrogen dioxide (NO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), sulphur dioxide (SO<sub>2</sub>), and particulate matter (PM<sub>10</sub>) concentrations in different months at three stations and also to explore the correlations between pollutants. Monthly averages of air pollutant concentrations recorded in three pollution monitoring stations (Bozorgmehr, Azadi, and Laleh) were obtained in 2008 and 2009. There were significant monthly variations in the concentrations of air quality parameters. Results showed that there was a correlation between ozone and particle matter ( $p < 0.05$ ), and between nitric oxide and nitrogen oxides ( $p < 0.01$ ). The statistical analysis indicated that there were significant differences in the O<sub>3</sub>, NO, NO<sub>x</sub> and PM<sub>10</sub> concentrations.

**Keywords:** *Air pollution, Isfahan city, nitrogen oxides, urban area, sulphur dioxide, carbon monoxide*

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