

## **5.075 Ground-level ozone pollution in China: trends, influencing factors and abatement.**

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Abstract:

In the course of fast development of China, grave efforts have been placed on air pollution control, with the foci on fine particles (PM<sub>2.5</sub>) problems. As the results of these efforts, the ambient concentrations of PM<sub>2.5</sub> dropped evidently, achieving more than 30% in almost all cities in recent 5 years. However, the ground-level ozone levels kept on rising at the growth rate of 3-5% per year from limited long-term observation. This work, based on evaluating the data of ozone concentrations as well as NO/NO<sub>2</sub>, and VOC species, the spatial pattern and temporal trends of ozone and its precursors were evaluated. The role of NO<sub>x</sub>-VOCs chemistry, the influence of meteorological parameters, regional background and the effects of PM<sub>2.5</sub> decline were investigated and compared. Furthermore, by using the case studies in several cities, such as Chengdu, Hangzhou and Pearl River Delta, the pathway for efficient control measures were analyzed for the co-benefit abatement of PM<sub>2.5</sub> and ground-level ozone in China.