

Satellite Observations of Aerosols during COVID-19 Pandemic

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As a result of an ongoing COVID-19 pandemic, global human activities have been limited or completely halted in many parts of the world. As a result of reduced anthropogenic emissions, this has created a natural experiment to observe the changes in atmospheric composition at different temporal and spatial scales. Some of these changes will be short-term, and some will last over a more prolonged period. Aerosols, however, are produced by not only human activities, but also natural sources such as dust, sea salt and biomass burning. As we now have a good-quality, stable, satellite-derived, global aerosol dataset from the past two decades, we can evaluate the recent COVID-19 impacts on aerosols. In this study, we will present results of satellite data analysis from around the world, focusing on urban centers as well as regions where significant changes were observed.

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