



Analysis of Distribution Characteristics of Air Pollutants in China during 2015-2019

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Air pollution affects the global climate, causing serious harm to human health and the ecological environment, and has become an environmental issue that cannot be underestimated, which has aroused strong concern from all walks of life. Analysis of the temporal and spatial distribution characteristics of urban air pollutants helps us to better study the countermeasures of air pollution, so as to carry out targeted protection control measures. The significance of this work is to provide more reasonable decision support and fact analysis for air pollution control and emergency pollution. The Spatial and Temporal Patterns of air pollutants (particulate matter, sulfur dioxide, nitrogen dioxide, ozone) of 1614 environmental monitoring stations in 369 cities in China between March 2019 and January 2015 using hourly data released by the National Urban Air Quality Real-time Release Platform of China National Environmental Monitoring Center. The characteristics and changes of the temporal and spatial distribution of atmospheric pollutants in various cities in China are analyzed.

The results show that the main atmospheric pollutants are different in the eastern and western cities of China, showing a distinct regional distribution, possibly due to the difference between economic development and industrial density in the eastern and western regions; the atmospheric pollutant concentration is seasonal, the seasonal variations are clearly related to variations in atmospheric circulation; The concentration of pollutants in some cities in China has shown a downward trend, while the concentration of pollutants in other cities has increased. The reasons may be related to the environmental pollution control and urbanization.