

# Elements

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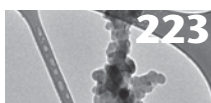
## Atmospheric Particles

Guest Editor: Reto Gieré



### Solid Particulate Matter in the Atmosphere

Reto Gieré and Xavier Querol



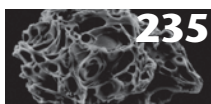
### Atmospheric Brown Clouds: From Local Air Pollution to Climate Change

Guenter Engling and András Gelencsér



### Airborne Particles in the Urban Environment

Bernard Grobéty, Reto Gieré, Volker Dietze, and Peter Stille



### Atmospheric and Environmental Impact of Volcanic Particulates

Adam J. Durant, Costanza Bonadonna, and Claire J. Horwell



### Airborne Mineral Dust

Johann P. Engelbrecht and Edward Derbyshire

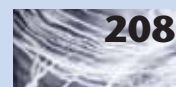


### Interactions between Mineral Dust, Climate, and Ocean Ecosystems

Santiago Gassó, Vicki H. Grassian, and Ron L. Miller

#### ABOUT THE COVER:

The Sydney Opera House engulfed in a thick cloud of desert dust on September 23, 2009. Originating in the arid west of New South Wales, the dust was transported to the east coast by severe storms with wind speeds up to 65 km/h. PM<sub>10</sub> concentrations in Sydney peaked at 1700 µg/cm<sup>3</sup> (24-hour mean), leading to a standstill in road, ferry, and air traffic and to an increase in hospital admissions due to respiratory problems. Reproduction of this photo was made possible by generous support from Carl Zeiss AG. PHOTO BY BRENDON THORNE/GETTY IMAGES



### Perspective Article: Atmospheric-Particle Research: Past, Present, and Future

Peter R. Buseck

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