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# Air Pollution XII

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# Advances in Air Pollution

## Objectives

The last decade has shown an increase in public and government concern around environmental issues due to air pollution, in particular that generated by man-made processes associated with the lifestyle of modern society. Pollution is widespread throughout the world and elimination of the risks to human health is of paramount importance.

Atmospheric pollution consists of the adverse effects of a variety of contaminants emitted into the atmosphere by natural and anthropogenic processes. These phenomena are complicated because an apparently inert contaminant can be transformed by chemical reaction into an adverse one, during its transport through the atmosphere.

Nowadays, the physical and chemical processes undertaken during an air pollution episode are to a large extent understood. The modelling of such processes has shown a constant and remarkable growth in the last three decades. Also, the development of efficient and economical monitoring devices has been very successful in recent years. Modelling and monitoring studies constitute only an initial activity. The results provide useful information for possible future implementation of emission regulations and control strategies.

The definition of efficient control strategies cannot be achieved without a good and clear knowledge of the complete pollution process, *i.e.* emission, transport and transformation.

Volumes in the series cover areas of current interest or active research in air pollution and include contributions by leaders in the field. Topics for the series consist of: air pollution assessment, management, monitoring and modelling; aerosols and particles; chemical transformation modelling; chemistry of air pollution; comparison of modelling with experiment; data analysis and observation; emission inventories; fluid mechanics for air pollution; global studies; health problems; indoor air pollution; laboratory studies; process studies; regulatory bodies; turbulence modelling at small and meso scales; urban air pollution, and urban and suburban transport emission.

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# **Air Pollution XII**

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## Preface

This volume contains the papers presented at the Twelfth International Conference on Modelling, Monitoring and Management of Air Pollution, held in Rhodes in 2004. The meeting has been successfully held since 1993 when the first conference took place in Mexico, followed by one in Barcelona (1994) and others in Halkidiki (1995); Toulouse (1996); Bologna (1997); Genova (1998); San Francisco (1999); Cambridge (2000); Ancona (2001); Segovia (2002) and Catania (in 2003).

As all previous meetings have done, this Conference in Rhodes aimed to act as a forum for the latest developments in experimental as well as computational techniques in order to achieve a better understanding of air pollution problems and to seek their solution.

Air Pollution 2004 brought together researchers and practitioners who are active in the field of air contamination. They were able to exchange information through the presentation and discussion of papers dealing with a wide variety of topics, i.e.,

- Air pollution and modelling
- Aerosols and particles
- Air quality management
- Global and regional studies
- Monitoring and measurement
- Comparison of model and experimental results
- Transport emissions
- Urban air pollution
- Indoor pollution
- Health effects
- Pollution engineering

The contributions in this book reflect the success of the meeting, which would not have been possible without the participation of many renowned scientists from all over the world. The editor is indebted to all authors and in particular to the members of the International Scientific Advisory Committee who helped to review the papers.

The Editor  
Rhodes, 2004



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