Models for the Simulation of Chemistry, Climate, and Pollutant Dispersion in Indoor Environments and Atmospheric Near-Source Plumes

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Message from the Guest Editors

The focus of this Special Issue is on model applications related to chemistry, climate, and dispersion in indoor environments and near-source outdoor environments. The Special Issue covers model studies dealing with one or more aspects causing the modification of the physical and chemical properties of the atmosphere in urbanized areas. The application of models is crucial for the development of mitigation strategies such as source control, ventilation removal, exposure control, and air cleaning technologies.

We welcome scientific research papers and review articles that address chemical processes, particle emission and transformation, as well as climatic conditions in indoor environments or in atmospheric near-source pollution plumes by using computational models. Modelling of the urban heat island effect in relation to the incidence of thermal discomfort on the human cardiovascular and respiratory systems is also welcome.

All submitted papers should link results from their modelling studies to relevant impact on exposures and human health.
Addressing the environmental and public health challenges requires engagement and collaboration among clinicians and public health researchers. Discovery and advances in this research field play a critical role in providing a scientific basis for decision-making toward control and prevention of human diseases, especially the illnesses that are induced from environmental exposure to health hazards. *IJERPH* provides a forum for discussion of discoveries and knowledge in these multidisciplinary fields. Please consider publishing your research in this high quality, peer-reviewed, open access journal.