

Special Issue

Selective Catalytic Reduction (SCR) of NO_x

Message from the Guest Editor

Nitrogen oxide (NO_x) is one of the main pollutants in the atmosphere, and can cause environmental problems such as photochemical smog and acid rain. NO_x mainly comes from coal combustion in power plants and automobile exhaust. NO_x's selective catalytic reduction (SCR) is an effective technology for removing NO_x, and has been widely used. However, this technology also faces some problems, such as the danger and inconvenience when using NH₃ as a reducing agent, and the potential threat to the environment caused by the toxicity of the catalyst. In recent years, researchers have developed various reducing agents and catalysts to improve the reduction efficiency of NO_x while reducing catalyst costs and environmental risks. At the same time, efforts were also devoted to in-depth research on the catalytic mechanism of NO_x SCR. This Special Issue welcomes both review and original research articles on the SCR of NO_x, including but not limited to the following topics:

- Advances in NO_x SCR catalysts;
- Advances in the study of NO_x reaction mechanisms;
- Recent advances in NO_x SCR process control;
- Technology innovation related with NO_x SCR;
- Life cycle assessment of NO_x SCR.

Guest Editor

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Deadline for manuscript submissions

closed (30 April 2023)



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About the Journal

Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

Editor-in-Chief

Dr. Daniele Contini

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