



Catalytic Oxidation of Volatile Organic Compounds

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Deadline for manuscript
submissions:

30 November 2024

Message from the Guest Editors

Volatile organic compounds (VOCs) are one of the most harmful and toxic species of VOCs because of their bioaccumulation potential and intractability. Catalytic conversion is the main technology for VOCs, which has the advantages of being thorough and consuming low amounts of energy. The design of catalysts containing transition metal oxides and supported noble metal catalysts is the core of catalytic oxidation technology. The reaction mechanisms of different VOCs are not different, leading to the difference in requirement of catalysts for different VOCs. Thus, apart from single VOC oxidation, the catalytic oxidation for mixtures of different VOCs also aroused great concern. This Special Issue aims to collect the latest data and reviews to better understand the key process and oxidation mechanisms for VOC catalytic oxidation. Topics of special interest include, but are not limited to, the following:

1. Deep oxidation of VOCs on the catalysts;
2. Development of chemicals from VOCs oxidation;
3. Catalytic ozonation for eliminating VOCs.





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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!

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Journal Rank: CiteScore - Q2 (*Environmental Science (miscellaneous)*)

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