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Ozone in Stratosphere and Its Relation to Stratospheric Dynamics

Guest Editor:

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Message from the Guest Editor

Dear Colleagues,

The concentration of ozone-depleted substances is decreasing, which has a positive impact on the ozone concentration. The stratospheric dynamics are influenced by global warming, which plays an important role in the behavior of ozone in the stratosphere. We also observe the acceleration of Brewer–Dobson circulation, which transports the ozone from the tropics to a polar latitude together with a decrease in stratospheric temperatures due to global warming. The recovery of the ozone layer is expected in the future, but its date is uncertain depending on the model used. There are also model differences, which could be the matter of research. Stratospheric dynamics also have an influence on the troposphere, so vertical coupling between the troposphere and stratosphere is observed.

The basic topics of this Special Issue are the following: the relationship between ozone chemistry and dynamics in the statosphere, the influence of ozone to statosphere–troposphere coupling, and the influence of global warming on the stratospheric dynamics and ozone concentration. Similar topics are also suitable for this Special Issue.

Dr. Peter Krizan

Guest Editor

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Editor-in-Chief

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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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