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# Ozone Evolution in the Past and Future

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Deadline for manuscript submissions:
**closed (29 February 2020)**

## Message from the Guest Editor

The ozone layer plays an important role in the protection of the biosphere from dangerous ultraviolet radiation of the sun. It also forms the temperature structure of the stratosphere and therefore has a direct influence on the general circulation and the surface climate. The discovery of the ozone hole in 1987 led to limitations in the production of halogen-containing, ozone-depleting substances by the Montreal Protocol and its amendments (MPA). This measure aimed to become a protective agent against the ozone layer depletion. However, the expected recovery of ozone and the effectiveness of MPAs are now being questioned due to the continuous negative ozone trend in the lower stratosphere. Therefore, a search has begun for missing or unaccounted processes in chemistry–climate models. Papers on these and many other relevant topics are welcome: (1) Acceleration of meridional circulation caused by global warming; (2) decrease in solar activity; (3) the effect of halogen-containing, very short-lived species; (4) emissions of halogen-containing species; (5) uncertainties in stratospheric aerosol loading; (6) treatment of the gas transport in global models.

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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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