Institut für Meteorologie und Klimaforschung
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Karlsruher Meteorologisches Kolloquium

Einladung zum Vortrag

"Propagation of tropospheric chlorine trends into the stratosphere and fractional release of ozone depleting substances"

Prof. Dr. Andreas Engel,
Institut für Atmosphäre und Umwelt,
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Dienstag, den 27. Juni 2017, 15:00 Uhr s.t.
Campus Nord, Gebäude 435, Raum 2.05

Chlorine containing source gases like CFCs are emitted into the troposphere. Due to their long tropospheric lifetime, they accumulate and show long term trends. It takes time for air parcels to propagate into the stratosphere where the inorganic chlorine is released from the source gases and can destroy ozone. In this talk I will discuss the interaction of chemistry and transport during this propagation. I will show a new formulation of fractional release factors and of Effective Equivalent Stratospheric Chlorine (EESC), two metrics commonly used in the assessment of the status of the Ozone layer. I will use these metrics to discuss the expected timing of chlorine recovery in the stratosphere to 1980 values.

gez. Prof. Dr. Johannes Orphal