



Increase of upper troposphere/lower stratosphere wave baroclinicity during the second half of the 20th century

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Observational evidence of an increase of upper troposphere/lower stratosphere wave baroclinicity, during the second half of the 20th century, is presented. The evidence is given by positive trends in the energy of baroclinic normal modes of the NCEP/NCAR reanalysis, and positive trends in the frequency of double tropopause events in radiosonde data.

Considering results from several modelling studies, it is suggested that the positive trend in the upper-troposphere/lower-stratosphere wave baroclinicity may be associated with the increase of greenhouse gas radiative forcing.