



Ozone depletion potentials for very short lived species

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How many molecules of ozone would a single molecule of depleting species released at the surface destroy? Ozone depletion potentials (ODPs) give an approximate answer to this question for most (long lived) species considered in the Montreal protocol. However, the actual figure for a Very Short Lived Species (VSLs) is likely to depend on the location and time of release. VSLs include precursors to odd bromine (Bry), an active depleting trace gas family with sources in the boundary layer. Hence, ODPs for VSLs should take into account location and time of release. The work reported here sets out a scheme for using ensemble trajectory calculations as a basis for calculating ODPs for VSLs. The trajectory calculations are divided into two parts to reflect the different timescales and physico-chemical processes in the troposphere and stratosphere.