

Corrigendum to

“Fractional release factors of long-lived halogenated organic compounds in the tropical stratosphere” published in Atmos. Chem. Phys., 10, 1093–1103, 2010

J. C. Laube^{1,2}, A. Engel¹, H. Bönisch¹, T. Möbius¹, W. T. Sturges², M. Braß³, and T. Röckmann³

¹Institute for Atmospheric and Environmental Sciences, University of Frankfurt, Frankfurt, Germany

²School of Environmental Sciences, University of East Anglia, Norwich, UK

³Institute for Marine and Atmospheric Research, Utrecht University, Utrecht, The Netherlands

We have noted a computational error in the calculation of the averaged Fractional Release Factors (FRFs) relative to the averaged FRF of CFC-11. This only affects the averaged values shown in Table 3 (absolute values as well as 1σ uncertainties). It does not affect any of the main conclusions of the paper. The updated version of this table can be found below. All changes in averaged FRF values are within the assigned uncertainty range. Three of the four compounds that showed significantly different FRFs as compared to those currently used by the WMO (Daniel and Velders, 2007) are still in disagreement with the WMO value, namely CFC-114, HCFC-22 and HCFC-142b. The FRF of H-2402 now agrees with the WMO value due to an increase in the uncertainty limit of the revised FRF for this compound. For all other compounds we still find agreement with WMO.

References

Daniel, J. S., Velders, G. J. M., Douglass, A. R., Forster, P. M. D., Hauglustaine, D. A., Isaksen, I. S. A., Kuijpers, L. J. M., McCulloch, A., and Wallington, T. J., Halocarbon scenarios, ozone depletion potentials, and global warming potentials, Chapter 8 in World Meteorological Organization: Scientific assessment of ozone depletion: 2006, Global Ozone Research and Monitoring Project – Report No. 50, Geneva, 2007.

Table 1. Comparison of averaged FRFs relative to the averaged FRF of CFC-11 in the tropics with current WMO values that are based on observations at mid and high latitudes (see Table 8-1 of Daniel and Velders, 2007). The stated tropical errors do not include measurement or calculation uncertainties but represent only the 1σ variability of the FRF within the mean age range used for averaging. The bold numbers are significantly different from those presented in Daniel and Velders, 2007.

Compound	tropical mean FRF relative to CFC-11*	mean FRF relative to CFC-11 (from Daniel and Velders, 2007)
CFC-12	0.49±0.23	0.60
CFC-11**	0.74±0.28	0.55
CFC-113	0.64±0.20	0.75
CFC-114	0.13±0.06	0.28±0.02
CFC-115	0.04±0.05	n.a.
CFC-114a	0.60±0.31	n.a.
HCFC-22	0.22±0.07	0.35
HCFC-141b	0.63±0.23	0.72
HCFC-142b	0.11±0.07	0.36
HCFC-124	0.57±0.11	0.52
CH ₃ CCl ₃	1.20±0.30	1.08
CCl ₄	1.14±0.17	1.06
H-1211	1.28±0.41	1.18
H-1301	0.79±0.24	0.62
H-2402	1.33±0.50	1.22

* averaged for mean ages between 2.0 to 4.8 years; ** CFC-11: absolute averaged FRF is given n.a. not available, model derived values were used for ODP calculations.



Correspondence to: J. C. Laube
(j.laube@uea.ac.uk)