

Interactive comment on “Heavy ozone enrichments from MIPAS limb emission spectra” by C. Piccolo et al.

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Please eliminate the notation "50O₃" and "49O₃" isotopomers. The notation with an upper left superscript indicating the mass of the entity may only be used for atoms, not molecules. In other words, "50O₃" would refer to a molecule made up of three 50O atoms (a non-existent species with 8 protons and 42 neutrons). You could use 18O₁₆O₂ and 17O₁₆O₂ instead.

Please make the following correction to avoid ambiguities: Where the word "enrichment" is used to designate the physical quantity δ , please replace it by the correct name for δ , i.e. "relative isotope ratio difference". However, where the word "enrichment" refers to the process of concentrating heavier isotopes, it may still be used.

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Equation 1 is incorrect. Please write either $\delta/\% = 100$ (R/R_{0-1}) or $\delta = 100 \%$ (R/R_{0-1}) or, eliminating % symbols altogether, $\delta = R/R_{0-1}$.

The international water standard is actually VSMOW (or, now, VSMOW2), i.e. Vienna Standard Mean Ocean Water, not SMOW.

p. 25129, l. 29: The relative isotope ratio difference between atmospheric O₂ and VSMOW needs updating: $\delta^{17}\text{O} = 12.08 \text{ ‰}$ and $\delta^{18}\text{O} = 23.88 \text{ ‰}$ (Barkan E, Luz B (2005) High precision measurements of 17O/16O and 18O/16O ratios in H₂O. Rapid Commun Mass Spectrom 19, 3737-3742).

p. 25131, l. 12: The reference is inappropriate. Please replace it.

Interactive comment on Atmos. Chem. Phys. Discuss., 9, 25127, 2009.

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