



## Corrigendum to

# “Gas transport in firn: multiple-tracer characterisation and model intercomparison for NEEM, Northern Greenland” published in *Atmos. Chem. Phys.*, 12, 4259-4277, 2012

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It was kindly pointed out to us by M. Battle that Eq. (2) on p. 4263 contains a typo, and should instead be

$$[X]_{\text{corr}}(z) = \frac{[X]_{\text{meas}}(z)}{\Delta M \delta_{\text{grav}}(z)/1000 + 1}, \quad (2)$$

where  $[X]_{\text{corr}}$  ( $[X]_{\text{meas}}$ ) is the gravity-corrected (measured) mixing ratio of gas species X,  $\Delta M = M_X - M_{\text{air}}$  is the molar mass difference between gas X and air, and  $\delta_{\text{grav}}(z)$  is the gravitational fractionation per unit mass difference at depth  $z$ . All calculations in the study were done correctly, following Eq. (2) as given here.

Furthermore, the present-day  $\Delta\text{age}$  value for NEEM is incorrect in the original manuscript, and underestimates  $\Delta\text{age}$  by 6 years. The correct value is  $188^{+3}_{-9}$  yr. In our original, incorrect calculation we used the ice age in years before 2000 CE (b2k), while we should have used the ice age relative to the surface ice age. In the updated  $\Delta\text{age}$  calculation we use the ice age found by annual layer counting of the shallow NEEM 2011 S1 core (Sigl et al., 2013). The NEEM chronology published in Rasmussen et al. (2013) uses the correct, updated  $\Delta\text{age}$  estimate.

Both errors addressed in this corrigendum affect neither the discussion nor the main conclusions of the original publication.

## References

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