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Corrigendum to "Compilation of Henry's law constants (version 4.0) for water as solvent" published in Atmos. Chem. Phys., 15, 4399–4981, 2015

Rolf Sander

Atmospheric Chemistry Department, Max Planck Institute for Chemistry, P.O. Box 3060, 55020 Mainz, Germany

Correspondence: Rolf Sander (rolf.sander@mpic.de)

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Since the compilation of Henry's law constants was published in 2015, a couple of errors have been discovered, as summarized below. If additional errata become necessary in the future, they will be posted on my Henry's law website at http://www.henrys-law.org (last access: 19 February 2021).

- Due to a unit conversion error, all H' values (products of Henry's law and acidity constants) for strong acids in my compilation were off by a factor of 1000. The corrected data are shown in Table 1.
- When analyzing Henry's law constant for N_2O_5 from Fried et al. (1994), I had incorrectly assumed that they were referring to Henry's law constant H^{cp} (in $M\,atm^{-1}$). Re-checking their publication, however, I noticed that they used the dimensionless Henry's law constant H^{cc}. Thus, the correct conversion yields $H^{cp}(N_2O_5) = 8.7 \times 10^{-4}\,mol\,(m^3\,Pa)^{-1}$ and a temperature dependence of $d\ln H^{cp}/d(1/T) = 3600\,K$.
- I adopted an incorrect value for HOBr from the JPL data evaluation by Sander et al. (2011). The corrected value, based on the updated JPL data evaluation by Burkholder et al. (2015), is $H^{cp}(HOBr) > 13\,mol\,(m^3\,Pa)^{-1}$.
- The reference "Lia et al. (2004)" should be Li et al. (2004).

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Table 1. Corrected values of $H' = H^{cp} \times K_A$ for strong acids, where H^{cp} is Henry's law constant, and K_A is the acidity constant.

Corrected value			Reference
$H'(HNO_3) =$	$2.6 \times 10^7 \times \exp\left(8700\,K \left(\frac{1}{T} - \frac{1}{T^\ominus}\right)\right)$	$mol^2\,(m^6\,Pa)^{-1}$	Clegg and Brimblecombe (1990)
$H'(HNO_3) =$	$2.4 \times 10^7 \times \exp\left(8700\,K \left(\frac{1}{T} - \frac{1}{T^\ominus}\right)\right)$	$mol^2\,(m^6\,Pa)^{-1}$	Brimblecombe and Clegg (1989)
$H'(HF) =$	$9.4 \times 10^1 \times \exp\left(7400\,K \left(\frac{1}{T} - \frac{1}{T^\ominus}\right)\right)$	$mol^2\,(m^6\,Pa)^{-1}$	Brimblecombe and Clegg (1989)
$H'(HCl) =$	2.0×10^7	$mol^2\,(m^6\,Pa)^{-1}$	Clegg and Brimblecombe (1986)
$H'(HCl) =$	$2.0 \times 10^7 \times \exp\left(9000\,K \left(\frac{1}{T} - \frac{1}{T^\ominus}\right)\right)$	$mol^2\,(m^6\,Pa)^{-1}$	Wagman et al. (1982)
$H'(HCl) =$	$2.0 \times 10^7 \times \exp\left(9000\,K \left(\frac{1}{T} - \frac{1}{T^\ominus}\right)\right)$	$mol^2\,(m^6\,Pa)^{-1}$	Carslaw et al. (1995)
$H'(HCl) =$	$2.0 \times 10^7 \times \exp\left(9000\,K \left(\frac{1}{T} - \frac{1}{T^\ominus}\right)\right)$	$mol^2\,(m^6\,Pa)^{-1}$	Brimblecombe and Clegg (1989)
$H'(HBr) =$	$7.0 \times 10^9 \times \exp\left(10\,000\,K \left(\frac{1}{T} - \frac{1}{T^\ominus}\right)\right)$	$mol^2\,(m^6\,Pa)^{-1}$	Wagman et al. (1982)
$H'(HBr) =$	$7.1 \times 10^9 \times \exp\left(6100\,K \left(\frac{1}{T} - \frac{1}{T^\ominus}\right)\right)$	$mol^2\,(m^6\,Pa)^{-1}$	Chameides and Stelson (1992)
$H'(HBr) =$	$8.2 \times 10^9 \times \exp\left(10\,000\,K \left(\frac{1}{T} - \frac{1}{T^\ominus}\right)\right)$	$mol^2\,(m^6\,Pa)^{-1}$	Carslaw et al. (1995)
$H'(HBr) =$	$1.3 \times 10^{10} \times \exp\left(10\,000\,K \left(\frac{1}{T} - \frac{1}{T^\ominus}\right)\right)$	$mol^2\,(m^6\,Pa)^{-1}$	Brimblecombe and Clegg (1989)
$H'(HI) =$	$2.1 \times 10^{10} \times \exp\left(9800\,K \left(\frac{1}{T} - \frac{1}{T^\ominus}\right)\right)$	$mol^2\,(m^6\,Pa)^{-1}$	Wagman et al. (1982)
$H'(HI) =$	$2.5 \times 10^{10} \times \exp\left(9800\,K \left(\frac{1}{T} - \frac{1}{T^\ominus}\right)\right)$	$mol^2\,(m^6\,Pa)^{-1}$	Brimblecombe and Clegg (1989)
$H'(MSA) =$	6.4×10^{14}	$mol^2\,(m^6\,Pa)^{-1}$	Brimblecombe and Clegg (1988)

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