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Corrigendum: The solubility of oxygen in water and saline solutions

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A Corrigendum on
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In the published article, there was an error in Table 5. In line 3 [without table head, O_2(aq)] in the T_{min}/T_{max} column the stated temperature range is wrong. Since no temperature coefficients for $C_p^0(T)$ of O_2(aq) can be given, this field must stay empty. The table's footnote has been adjusted accordingly. The corrected Table 5 and it's caption *Standard formation data for H_2O(l), O_2(g), H_2(g), and O_2(aq). Temperature parameters for $C_p^0(T)$ with regard to the general function (**Eq. 12**) were fitted to values from **Chase (1998)**.* appears below.

In the published article, there was an error in Table 9. In line 7 [without table head, O_2(aq)-OH^-] in the last column (X_2) it has to be 3.934 ± 0.882, not 3.6934 ± 0.882. In line 15 [without table head, O_2(aq)-K^+-SO_4^{2-}] in the second column (X_0) it has to be −0.1618 ± 0.078 not −0.1575 ± 0.0688 and in the third column (X_1) it has to be 164.7 ± 102 not 183.5 ± 70.3. The corrected Table 9 and its caption *Parameters for the temperature dependency function of the binary and ternary interaction coefficients (λ, ζ). The uncertainty information refers to one standard deviation.* appears below.

The authors apologize for these errors and state that this does not change the scientific conclusions of the article in any way. The original article has been updated.

TABLE 5 Standard formation data for H_2O(l), O_2(g), H_2(g), and O_2(aq). Temperature parameters for $C_p^0(T)$ with regard to the general function (Eq. 12) were fitted to values from **Chase (1998)**.

Species	$\Delta_f H^0_{i,T=T_0}$	References	$S^0_{i,T=T_0}$	References	$\Delta_f G^0_{i,T=T_0}$	References	$C_p^0(T)$ (J/mol K)				T_{min}/T_{max}	$C^0_{p,T=T_0}$ (1)	References
	(J/mol)		(J/mol K)		(J/mol)		A_1	A_2	A_5	A_6	(K)	(J/mol K)	
H_2O(l)	−285,830 ± 40 (2)	Cox et al. (1989)/ Chase (1998)	69.95 ± 0.03 (2)	Cox et al. (1989)/ Chase (1998)	−237,140 ± 41	(1)	149 ± 11	−0.33 ± 0.04	−1,056,714 ± 250,728	0.00042 ± 0.00004	280/500	75.418	Chase (1998)
O_2(g)	0	(By definition)	205.152 ± 0.005 (2)	Cox et al. (1989)	0	(By definition)	24.64 ± 0.03	0.0121 ± 0.0001	100,230 ± 1,433	0	298.15/500	29.376	Chase (1998)
O_2(aq)	−12,411 ± 971	(This work)	108 ± 14	(This work)	16,593 ± 3,168	(This work)	(3)	(3)	(3)	(3)	(3)	249.90 ± 0.07	(This work)
H_2(g)	0	(By definition)	130.68 ± 0.003 (2)	Cox et al. (1989)/ Chase (1998)	0	(By definition)	33.6 ± 0.2	−0.012 ± 0.001	−174,946 ± 3,652	1.01 ± 0.05 × 10^{-5}	298.15/500	28.836	Chase (1998)

(1) Internally calculated. (2) Data uncertainty adopted from **Cox et al. (1989)**. (3) With our selection for the temperature dependence of Henry's law constant (**Eq. 8** and **Table 2**) no temperature function for the standard molar heat capacity of reaction $\Delta_r C^0_{p,m}(T)$(6) can be derived. Hence, no temperature dependence for the standard molar heat capacity for O_2(aq) can be given.

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TABLE 9 Parameters for the temperature dependency function of the binary and ternary interaction coefficients (λ, ζ). The uncertainty information refers to one standard deviation.

λ/ζ (Species: 1-2-3)	X_0	X_1	X_2
O_2(aq)-Cl^-	0 (by definition)	0 (by definition)	0 (by definition)
O_2(aq)-H^+	0.02598 ± 0.00171	4,941 ± 533	16.4 ± 1.8
O_2(aq)-Na^+	0.1315 ± 0.0093	2,897 ± 274	9.614 ± 0.947
O_2(aq)-K^+	0.135 ± 0.010	−1,004 ± 527	−3.513 ± 1.79
O_2(aq)-Mg^{2+}	0.2293 ± 0.0032	2,981 ± 860	9.9 ± 2.9
O_2(aq)-Ca^{2+}	0.2519 ± 0.0063	2,821 ± 651	9.449 ± 2.26
O_2(aq)-OH^-	0.06785 ± 0.00965	1,230 ± 280	3.934 ± 0.882
O_2(aq)-SO_4^{2-}	0.1334 ± 0.0082	−6,654 ± 1,150	−22.01 ± 3.38
O_2(aq)-HSO_4^-	0.03842 ± 0.00201	−45.38 ± 27.7	0 (fixed)
O_2(aq)-H^+-HSO_4^-	−0.002472 ± 0.000302	0 (fixed)	0 (fixed)
O_2(aq)-Na^+-Cl^-	−0.003767 ± 0.00579	−1,075 ± 128	−3.663 ± 0.442
O_2(aq)-Na^+-OH^-	0 (fixed)	−40.7 ± 17.9	0 (fixed)
O_2(aq)-Na^+-SO_4^{2-}	−0.0381 ± 0.0073	4,216 ± 1,820	13.49 ± 5.92
O_2(aq)-K^+-Cl^-	−0.01711 ± 0.00647	747.7 ± 319	2.464 ± 1.07
O_2(aq)-K^+-SO_4^{2-}	−0.1618 ± 0.078	164.7 ± 102	0 (fixed)
O_2(aq)-Mg^{2+}-Cl^-	−0.006612 ± 0.00101	−875.5 ± 351	−2.974 ± 1.18
O_2(aq)-Mg^{2+}-SO_4^{2-}	−0.05115 ± 0.00586	5,181 ± 550	16.86 ± 1.86
O_2(aq)-Ca^{2+}-Cl^-	−0.01269 ± 0.00291	24.49 ± 1.81	0 (fixed)

Publisher's note