

Gailhanou et al. (2013), Standard enthalpies of formation at 298.15 K of the constituents used for solution calorimetry experiments. – Appendix 1.

Table A-1. Standard enthalpies of formation  $\Delta H_f^\circ$  of the constituents, at 298.15 K.

Constituents	$\Delta H_f^\circ$ kJ/mol	Reference
Gibbsite $\text{Al}(\text{OH})_{3(\text{cr})}$	-1293.13 ( $\pm 1.2$ )	[1], [2]
$\alpha$ -Quartz $\text{SiO}_{2(\text{cr})}$	-910.7 ( $\pm 1.7$ )	[1], [3]
$\alpha$ -Cristobalite $\text{SiO}_{2(\text{cr})}$	-906.03 ( $\pm 2.1$ )*	[1], [4]
Goethite $\text{FeOOH}_{(\text{cr})}$	-560.7 ( $\pm 1.2$ )	[1], [5]
Ferrihydrite $\text{FeOOH} \cdot 0.225\text{H}_2\text{O}$	-606.4* ( $\pm 1.2$ )	[6]
$\text{FeO}_{(\text{cr})}$	-272.04 ( $\pm 2.1$ )	[1], [7]
Portlandite $\text{Ca}(\text{OH})_{2(\text{cr})}$	-984.55 ( $\pm 1.3$ )	[1], [8]
Brucite $\text{Mg}(\text{OH})_{2(\text{cr})}$	-924.14 ( $\pm 0.4$ )	[1], [9]
$\text{Na}_2\text{SiO}_{3(\text{cr})}$	-1561.43 ( $\pm 4.2$ )	[7]
$\text{KOH}_{(\text{cr})}$	-424.7 ( $\pm 0.6$ )	[10]
$\text{KNO}_{3(\text{cr})}$	-494.5 ( $\pm 0.4$ )	[10]
MnO	-385.2 ( $\pm 0.5$ )	[1], [11]
Rutile $\text{TiO}_{2(\text{cr})}$	-944.0 ( $\pm 0.8$ )	[1], [12]

Note. \*  $\Delta H_f^\circ$  value for  $\text{FeOOH} \cdot 0.225\text{H}_2\text{O}$  was calculated according to the linear function given by Majzlan et al. (2004),  $\Delta H_f^\circ = -541.2 - 289.2 x$ , where  $x$  is the compositional variable in  $\text{FeOOH} \cdot x \text{H}_2\text{O}$  ( $0.2 < x < 1$ ).

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