ERRATA

Retrieval of Thermodynamic Data from a Study of Inter-Crystalline and Intra-Crystalline Ion-Exchange Equilibrium: A Correction

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On p. 1785 (Saxena, 1972) the equation for equilibrium constant should read

$$K_b = \frac{x_{Mg}{}^{sol}(x_{Fe}{}^{ol})f_{Mg}{}^{sol}(f_{Fe}{}^{ol})}{x_{Fe}{}^{sol}(x_{Mg}{}^{ol})f_{Fe}{}^{sol}(f_{Mg}{}^{ol})}$$

This is because the chemical potential of Fe^{2+} (or fayalite) in olivine is given by

$$\mu_{Fe}{}^{ol} = \mu_{Fe}{}^{fay} + 2RT \ln a_{Fe}{}^{ol}$$

The above definition has been discussed by Ramberg (1952) and Saxena (1973), among others. Thus there is no need to raise the $(x_{Fe}{}^{ol}f_{Fe}{}^{ol})$ term to the power 1/2 as done in the article. The mistake, which crept in during proof reading, is regretted.

References

RAMBERG, H. (1952) *The origin of metamorphic and metasomatic rocks.* Chicago University Press.

SAXENA, S. K. (1972) Retrieval of thermodynamic data from a study of inter-crystalline and intra-crystalline ion-exchange equilibrium. *Amer. Mineral.* **57,** 1782–1800.

——— (1973) *Thermodynamics of rock-forming crystalline solutions.* Vol. 8, *Rocks, Minerals and Inorganic Materials,* Springer-Verlag.

Nuclear Magnetic Resonance of ^{1}H, ^{7}Li, ^{11}B, ^{23}Na and ^{27}Al in Tourmaline (Elbaite): Erratum

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It was inadvertently stated (*Amer. Mineral.* **58,** 228) that "in the crystal structure of tourmaline boron atoms occupy general positions." In fact, boron atoms occupy special position 9(b) with point symmetry *m* in the space group *R3m*. We are indebted to Professor G. Donnay for pointing out this error. This does not in any way affect the interpretation of the NMR spectra. In addition, we would like to point out that a chemical analysis of the gem quality tourmaline crystal used for NMR measurement (American Museum of Natural History, Speciman No. 12210) could not be performed because the crystal was loaned to us on condition that it will be used for non-destructive experiments only.

Refinement of the Callaghanite Structure

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Table 1, the all important atomic and thermal parameters, was inadvertently omitted from the article published in the May-June 1973 issue of *The American Mineralogist,* page 551.

TABLE 1. Atomic and Thermal Parameters of Callaghanite

	x 10^4	y 10^4	z 10^4	$\beta_{11}{}^{a}10^4$	$\beta_{22}10^4$	$\beta_{33}10^4$	$\beta_{12}10^4$	$\beta_{13}10^4$	$\beta_{23}10^4$
Cu	484.4(2)	1082.0(2)	4559.5(2)	17.1(2)	9.1(1)	39.0(3)	-1.5(1)	8.7(1)	2.2(1)
Mg	1564.0(6)	3152.7(5)	3276.7(7)	15.6(4)	11.4(3)	36.3(7)	-0.3(3)	5.3(4)	2.3(4)
C	0	5395(2)	2500	23(2)	11(1)	40(2)	0	7(2)	0
O(1)	1165(1)	4860(1)	2787(2)	25(1)	13.4(6)	83(2)	3.1(6)	7(1)	0.4(9)
O(2)	0	6487(2)	2500	33(2)	10.7(9)	99(3)	0	24(2)	0
OH(1)	169(1)	2648(1)	987(1)	21.2(8)	14.0(6)	37(1)	-1.0(6)	8.0(9)	-3.3(7)
OH(2)	1153(1)	9511(1)	4962(2)	22.6(9)	13.3(6)	55(2)	-1.1(6)	13.1(9)	1.7(8)
OH(3)	2225(1)	1524.7(9)	4171(2)	18.4(8)	14.1(6)	41(1)	-0.7(5)	9.8(9)	1.4(7)
H_2O	3328(1)	3271(1)	2481(2)	28(1)	21.1(7)	56(2)	3.7(7)	21(1)	4.9(9)

[a] Coefficients in the temperature factor: $\exp[-(\beta_{11}h^2+\beta_{22}k^2+\beta_{33}\ell^2+2\beta_{12}hk+2\beta_{13}h\ell+2\beta_{23}k\ell)]$.

The number in parentheses is the standard error in terms of the last significant figure.