

## Erratum

**Oxy-amphibole equilibria in Ti-bearing calcic amphiboles: Experimental investigation and petrologic implications for mantle-derived amphiboles** by R.K. Popp, H.A. Hibbert, and W.M. Lamb (vol. 91, no. 1, p. 54–66, DOI: 10.2138/am.2006.1838).

The composition of the Vulcan's Throne sample expressed as atoms per formula unit (apfu) reported in Table 1 was taken directly from Table 2 in Popp et al. (1995), which contains an error. The actual 2.70 Al apfu was mistakenly reported as 2.07 apfu.

Use of the correct Al-content reduces the correlation coefficient of the regression of  $(\text{Ti} + \text{Al}_{\text{total}})$  vs.  $\log K_x$  to the extent that the correlation between Ti apfu and  $\log K_x$  now has the highest correlation coefficient, as shown in revised Figure 8.

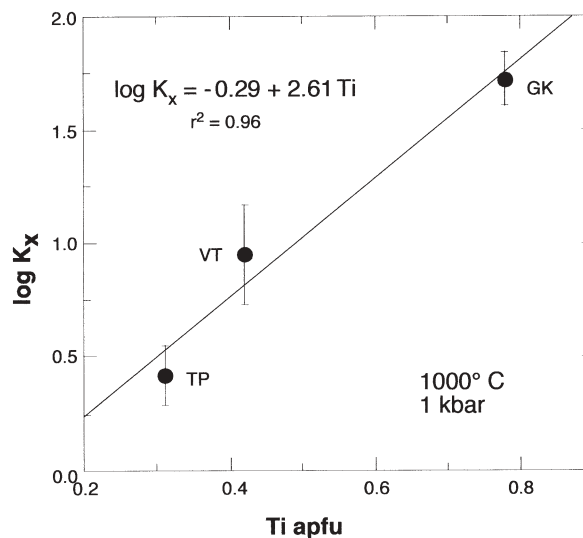
The revised Equation 14 that relates  $\log K_x$  to temperature, pressure, and amphibole composition is

$$\log K = 4.23 - \frac{4380}{T(\text{K})} + \{2.61 \cdot [\text{Ti} (\text{apfu}) - 0.42]\} \text{ (revised 14)}$$

$$+ \left\{ \frac{88}{T(\text{K})} [P - 1(\text{kbar})] \right\}$$

Use of the new equation to predict the known values of  $f_{\text{H}_2}$  of the experiments does not significantly change the reported uncertainty between the observed and calculated values. The revised Equation 14 predicts the  $\log f_{\text{H}_2}$  of the experiments to within ~0.1 to 0.3 log units.

Application of the results to mantle-derived amphiboles is affected only to the extent that revised Equation 14 may result in different values of  $\log K_x$ , depending on the Ti and Al contents of the amphiboles. In the case of Dish Hill sample DH101E, the estimated activity of  $\text{H}_2\text{O}$  is reduced 0.5 log units if the revised equation is used.



**REVISED FIGURE 8.** Variation in  $\log K$  as a function of Ti apfu, for results of experiments at 1000 °C and 1 kbar. Solid line and equation are from a least-squares fit of the data. TP = Tschicoma pargasite, VT = Vulcan's Throne titanian pargasite, GK = Greenland kaersutite

### REFERENCES CITED

- Popp, R.K., D. Virgo, T.C. Hoering, H.S. Yoder, Jr., and M.W. Phillips (1995) An experimental study of phase equilibria and Fe oxy-component in kaersutitic amphibole: Implications for the  $f_{\text{H}_2}$  and  $a_{\text{H}_2\text{O}}$  in the upper mantle. *American Mineralogist*, 80, 534–548.