

ERRATUM AND ADDENDUM

Petrogenetic implications of the Fe³⁺ content of muscovite in pelitic schists, by C. V. Guidotti, M. G. Yates, M. D. Dyar, and M. E. Taylor (v. 79, p. 793–795, 1994).

It has been called to the attention of C. V. Guidotti, senior author of Guidotti et al. (1994), that the papers of Hoisch (1989, 1990) were incorrectly cited as having used the ratio Mg/(Mg + Fe_{tot}) for cation-exchange geothermobarometry purposes. In fact, Hoisch (1989) used the ratio Mg/⁶Al, and both papers avoided equilibria involving Fe-components of muscovite. The senior author accepts full responsibility for this unfortunate mistake.

This is an opportune time to alert readers also to the paper of Baldelli et al. (1989), which, although not discussing the effects of Fe³⁺ on the Mg/(Mg + Fe²⁺) ratio, provides very important, additional insights regarding the significant extent to which Fe³⁺ can replace ⁶Al, especially in highly phengitic muscovite. They reported a phengitic muscovite from an Al-poor magnetite-bearing specimen that contains 6.59 wt% Fe₂O₃ and only 0.3 wt% FeO. On a 22 O atom formula basis this converts to 0.672Fe³⁺ and only 0.034Fe²⁺. Hence, the Tschermak exchange (Si = 6.603) is almost wholly in terms of Mg²⁺.

REFERENCES CITED

- Baldelli, C., Franceschelli, M., Leoni, L., and Memmi, I. (1989) Ferrimuscovite and celadonite substitutions in muscovite from Fe³⁺-rich low-grade psammitic rocks (Northern Apennines, Italy). *Lithos*, 23, 201–208.
- Guidotti, C.V., Yates, M.G., Dyar, M.D., and Taylor, M.E. (1994) Petrogenetic implications of the Fe³⁺ content of muscovite in pelitic schists. *American Mineralogist*, 79, 793–795.
- Hoisch, T.D. (1989) A muscovite-biotite geothermometer. *American Mineralogist*, 74, 565–572.
- (1990) Empirical calibration of six geobarometers for the mineral assemblage quartz + muscovite + biotite + plagioclase + garnet. *Contributions to Mineralogy and Petrology*, 104, 225–234.