

Mixing properties of amphiboles deduced from natural amphibole compositions in metabasic rocks

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Mixing properties of amphibole solid solution are investigated from natural compositions of amphiboles coexisting with epidote, plagioclase, chlorite (or garnet), quartz and fluid in the system $\text{SiO}_2\text{-Al}_2\text{O}_3\text{-Fe}_2\text{O}_3\text{-FeO-MgO-CaO-Na}_2\text{O-H}_2\text{O}$. 15 Margules parameters (regular solution model) were optimized by solving thermodynamic equilibrium in differential forms.