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# Experimental Transformation of 2M Sericite into a Rectorite-Type Mixed-Layer Mineral by Treatment with Various Salts

Katsutoshi Tomita

Institute of Earth Sciences, Kagoshima University, Kagoshima, Japan

**Abstract:** Some dehydroxylated sericites were boiled with solutions of various salts. A rectorite-like regular mixed-layer was formed when 2M sericite was treated with solution containing salts such as  $\text{NaNO}_3$ ,  $\text{Na}_2\text{SO}_4$ ,  $\text{CaSO}_4$ ,  $\text{CaCl}_2$ ,  $\text{MgCl}_2$  and  $\text{MgSO}_4$  respectively. A random mica/montmorillonite mixed-layer was formed from 1M sericite. In order to change the 2M sericite into a regularly interstratified mineral, they are heated to the temperature range of dehydroxylation. The formation of a regularly interstratified mineral from 2M sericite can be explained by the change in the (OH) bond direction after the extraction of the potassium ion.

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