

Weathering alteration of chlorite in greenschist

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X-ray powder diffraction(XRD), EPMA and other analyses of chlorite in fresh and weathered greenschist gave the following results. The XRD pattern of the weathered chlorite has a very strong 14.6A reflection and relatively weak high order ones accompanied by a weak 30A one. These reflections except 30A suggest that the weathered chlorite is similar to normal vermiculite. But the XRD after various treatments showed that the chlorite altered to interstratified chlorite/chlorite-vermiculite intergrade(14 intergrade). Iron and Mg were preferentially extracted from the hydroxide sheet of chlorite, whereas the Si content considerably increased and Ca,Na,K contents a little increased through the weathering,