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Illitization of smectite as biomineralogical process

Krinari G., Khramchenkov M. Kazan Federal University, 420008, Kremlevskaya 18, Kazan, Russia

Abstract

The analyzed data of 3D structure investigation for the most low-temperature illite indicate that in smectite illitization at least two mechanisms can be involved, from which one is associated with biota activity and doesn't require temperature increasing. In this case in the somewhat later initiated 'dissolution-reprecipitation' process involved are as smectite packages as well secondary mica packages, this being reflected in the reaction kinetics and its products structure.