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## Thermal behaviour of organically modified clays

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The clay minerals were modified by two alkylammonium cations under sorption procedure. The X-ray powder diffraction and FT-IR spectroscopy were used to evaluate the intercalation process of organic cations into the clay structure. The organo-montmorillonites exhibited IR spectra giving evidence about sorption or intercalation of the alkylammonium cations. The enhancement of the basal spacing obtained by X-ray diffraction confirmed the intercalation process of cations into montmorillonite and vermiculite samples. Thermal behaviour of the modified clay minerals was investigated by simultaneous thermogravimetry and differential thermal analysis. The organically modified montmorillonites exhibited the higher values of temperatures related to the total melting. Also the temperatures of exotherm effects connected to recrystallization and transformation increased with the concentration of alkylammonium salts. The temperatures of dehydration and dehydroxilation decreased with concentration of alkylammonium cations. Vermiculite samples showed generally reducing of their thermal stability.

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