
Methylation of Sepiolite and Palygorskite with Diazomethane

María C. Hermosín and Juan Cornejo

Centro de Edafología y Biología Aplicada del Cuarto, C.S.I.C. Apartado 1052 E.P., 41080 Sevilla, Spain

Abstract: The methylation of the fibrous clays, sepiolite and palygorskite, should be facilitated by their large content of surface silanol groups and the low acidity and inaccessibility of coordinated water molecules. Infrared spectroscopy showed that the reaction of diazomethane with these clays resulted in the methylation of their silanol surface groups. The grafting of CH₃ groups on the surfaces of these clays produced a decrease in the surface area due primarily to the lowering of the microporosity.

Key Words: Diazomethane • Methylation • Palygorskite • Porosity • Sepiolite • Silanol

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