NATURE OF CLAY MINERALS OF SOME IRAQI SOILS

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ABSTRACT

Typic Chromoxerert and two Typic Torrifluvents soils were colleted from **three different** physiographic regions of Iraq.

X-ray diffreaction and chemical analysis showed high similarity in clay mineral components of the soils, which consisted of smectite, mica, chlorite, kaolinite and palygorskite. Smectite was dominant in fine and coarse clay and was also detected in silt fraction. It was suggested that smectite in the Chromoxerert soil formed pedogenically from mica weathering, while transportation was the main source of the mineral in Torrifluvents soil. Mica and chlorite were found in all soil fractions. True chlorite was present in the Chromoxerert soil, while Torrifluvents soil contained true and soil chlorite. Kaolinite was found in all soil fractions, whereas palygorskite was dtected only in fine clay fraction. Cation exchange capacity was correlated positively with the type of clay and negatively with the size of fractions.