STUDY OF CALCITE DISTRIBUTION USING STAINS & ACETATE PEELS

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ABSTRACT

Few studies have been carried out on the process of decalcification of glacial till, during post-glacial soil development, and redistribution of calcium carbonate down into the soil profiles. Contemporary and post-decalcification of a glacial till and redistribution of calcite within the soil matrix was investigated by thin-section study, under the optical microscope, using stain (alizarin red-S) and acetate peels. The stain was found to be very selective and sharply defined. Only calcite grains stained pink to deep red while dolomite remained colourless. The paper describes and illustrates the application and evaluation of micro-chemical staining to study the distribution of calcite in thin-sections, from profiles developed on calcareous till, as a means of recognising the pedogenic processes involved.