Particle Arrangements in Kaolin

Peter Smart

Cambridge University Engineering Laboratory

Abstract: An ambiguity in interpretation of electron micrographs of replicas of fracture surfaces of dry clay samples is illustrated, and a method of making ultra-thin sections described. Micrographs of ultra-thin sections of remoulded, consolidated, and sheared kaolin specimens are shown. In unconsolidated specimens random arrangements of particles, or of small groups of particles, were found. In failure zones, in sheared samples, the preferred orientation was parallel to the zone, with, in some cases, a subsidiary zone in which particles were inclined to the main zone. Interparticle contacts were mainly edge-to-edge or face-to-face.

Clays and Clay Minerals; 1967 v. 15; no. 1; p. 241-254; DOI: 10.1346/CCMN.1967.0150128
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