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# The Effect of Grinding on the Structure and Behavior of Bentonites\*

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\* Contribution from the Agricultural Research Organization, The Volcani Center, Bet Dagan, Israel. 1977 series, No. 177E.  
This work was supported in part by the United States-Israel Binational Science Foundation (BSF), Jerusalem, Israel.

**Abstract:** The structure and behavior of homoionic bentonites was markedly affected by a grinding procedure often applied to clays. The main changes observed on clay powders were the breakage of weakly bound large aggregates, the reduction in the tactoids' thickness by delamination, the reduction in the plates' area, and the formation of colloidal matter. The tendency of clays to form secondary aggregates in aqueous suspensions is probably due to the exposure of active broken edges following grinding.

The mild mechanical stress applied increased both the rate and the amounts of parathion sorbed by clays from an apolar solvent. The effect of grinding on parathion adsorption in aqueous clay suspensions seems to be a rate effect.

**Key Words:** Bentonite • Delamination • Grinding • Montmorillonite • Structure

*Clays and Clay Minerals*; August 1978 v. 26; no. 4; p. 299-307; DOI: [10.1346/CCMN.1978.0260408](https://doi.org/10.1346/CCMN.1978.0260408)  
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