## **Extinction Bend Contours in Electron Microscopy of Clay-Size Mica-Vermiculites**\*

M. Gal<sup>†</sup> and C. I. Rich

Agronomy Department, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061, U.S.A.

\* Support for this work by a grant (GA-18053) from the National Science Foundation is gratefully acknowledged.

† Present address: Department of Soil Science, Faculty of Agriculture, the Hebrew University of Jerusalem, Rehovot, Israel.

**Abstract:** Extinction bend contours, observed in Cs-treated mica-vermiculites by transmission electron microscopy, give information on the morphology and crystal orientation and continuity in individual particles of clay size. Interlayer Cs apparently stretches that part of the silicate sheet in closest proximity and when exchange by Cs is incomplete, warping of the particle occurs. Warping favors the appearance of bend contours in transmission electron microscopic images of the particles. These contours terminate at crystal boundaries within a particle. A specimen tilting stage is useful in bringing the contours into view and in "exploring" individual particles.

Clays and Clay Minerals; August 1972 v. 20; no. 4; p. 207-210; DOI: <a href="https://doi.org/10.1346/CCMN.1972.0200404">10.1346/CCMN.1972.0200404</a> © 1972, The Clay Minerals Society (<a href="https://www.clays.org">www.clays.org</a>)