Surface Reactions of Parathion on Clays¹

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¹ Contribution from the Agricultural Research Organization, The Volcani Center, Bet Dagan, Israel. 1977 Series, No. 216-E.

Abstract: The adsorption-catalyzed degradation of parathion on clay surfaces is a hydrolysis process, proceeding either directly or through a rearrangement step. The rate and mechanism of degradation are dependent on the nature of the clay, its hydration status, and saturating cation. A mechanism for parathion degradation at adsorption sites on clay surfaces, in the absence of a liquid phase, is proposed.

Key Words: Adsorption • Catalysis • Hydrolysis • Insecticide • Parathion

Clays and Clay Minerals; February 1979 v. 27; no. 1; p. 72-78; DOI: 10.1346/CCMN.1979.0270109
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