A Continuous Flow Technique for Measuring Sorption-Desorption Kinetics of Herbicides on Soils. M.A. BALL*, T.H. CARSKI, M.J. DUFFY, and D.L. SPARKS, E.I. du Pont de Nemours & Co., Inc., Newark, DE and Univ. of Delaware.

The study of sorption-desorption kinetics of pesticides on soil is typically done on a time scale of hours. Batch equilibrium techniques, which are relatively simple methods, can be used to measure the rate of sorption occurring in the first few hours. However, flow techniques are often superior because they typically yield results which give more accurate predictions of behavior under field conditions. The development of a flow technique using a differential volume reactor packed with soil to measure sorption-desorption kinetics of herbicides on soils will be presented. Uniform dispersion of solution into the soil column by use of radial channels in the reactor makes this an improved flow method over those previously described.

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