E2-08 : PHOTODEGRADATION OF CHLOROAROMATIC COMPOUNDS

B P U Piyasiri, R M G Rajapakse, O A Illeperuma,
Dept. of Chemistry, University of Peradeniya.

Photodegradation of chloroaromatic compounds on illuminated semiconductor particles is described. The extent of photodegradation of 2,4- dichlorophenoxyethanoic acid on illuminated Iron Oxide colloidal particles is determined by measuring the photogenerated chloride ions in the solution. Potentiometry is used as an analytical technique. Conductometric measurements indicate the formation of ions in the solution being photolysed. The light source used was Hg arc lamp (125 W, Applied Photophysics Ltd.). The percentage degradation of 2, 4 - dichlorophenoxyethanoic acid after five hours of continuous illumination was 0.15%.