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Photoelectrochemical Degradation of PCP on TiO₂ Film Electrode

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摘要 An investigation of photoelectrochemical degradation of pentachlorophenol (PCP) on a TiO₂ film electrode was presented. The TiO₂ film electrode was prepared by anodisation of titanium metal in sulfuric acid solution and its photoelectrocatalytic performance was studied. The destruction of PCP follows approximately the first-order kinetics. The reaction constant decreases slightly from $2.6 \times 10^{-5} \text{ s}^{-1}$ to $2.0 \times 10^{-5} \text{ s}^{-1}$ as the initial PCP concentration is increased from 0.1 mmol/L to 1.0 mmol/L under the experimental condition.

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