

PHOTOCATALYTIC OXIDATION OF NO₂⁻ IONS AND NH₃ IN WATER

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ABSTRACT

The oxidation of NO₂⁻ and NH₃, has been investigated in a new photocatalytic reactor containing TiO₂ as photocatalyst. The disappearance of the inorganic species follows approximately a pseudo-first kinetic order according to the Langmuir-Hinshelwood model. NO₃⁻ ions have been identified as end product. The apparent rate constant of the oxidation under various experimental conditions was calculated from the kinetic data.