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**Degradation of diuron by chlorination and UV/chlorine process:
degradation kinetics and the formation of disinfection by-products**

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Abstract:

The degradation of diuron by chlorination and UV/chlorine process and the formation of disinfection by-products (DBPs) was investigated in this study. The degradation of diuron followed the pseudo first-order kinetics model. In UV/chlorine process, hydroxyl radical were proved to provide more contribution in the oxidation. The degradation kinetics increased with the increasing of chlorine dosage and the decreasing of natural organic matter (NOM) dosage. However, the degradation pathways were defined using high performance liquid chromatography coupled with a TSQ Quantum quadrupole mass spectrometer (HPLC-ESI/MS). The formation of

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