

## Wet air oxidation and ultrasound for the removal of linear alkylbenzene sulfonates from wastewater: the beneficial role of catalysis

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The wet air oxidation (WAO) and ultrasound irradiation of sodium dodecylbenzene sulfonate in water was investigated. Heterogeneous catalysts such as a mixed copper-zinc oxide and noble metals, namely platinum, palladium and ruthenium, generally improved the efficiency of the respective uncatalysed process. The performance of sonochemical treatment, although less effective than WAO at high organic concentrations, may improve by a Fenton-like reaction mechanism on the addition of ferrous ions.

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