

FERRATES AS A DEGRADATION TOOL FOR POLLUTANTS

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The demand for clean environment and water has persuasively risen in the last decades. In order to deal with the worldwide problem of present pollutants in the water, novel technologies for water treatment are investigated. In this work we investigated the use of potassium ferrate as a tool for various organic pollutants degradation, including benzene, toluene, and chlorobenzene. Potassium ferrate is considered to be a green oxidant, which means it itself creates no harmful by-products and it is safe to use. Moreover, ferrates work also as coagulants. The concentration of ferrate anion used in the experiments varied from 1 mg/L to 10 mg/L. We tried to also use the equimolar amount of ferrate in regard to the original pollutant (0,5 mM). The highest degree of degradation was achieved for toluene when applying 5 mg/L of ferrate anion (78.4 %).