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Air Oxidation of Ferrous Iron in Water[#]

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Abstract: Air oxidation of ferrous iron in water was studied. It was worked at three different values of pH and concentration. Oxidation was firstly carried out at stationary atmosphere. Thereafter, the experiment was successively repeated by blowing air to the solution without and with inert packing. Lastly, the catalytic effect of ferric hydroxide was investigated. While the maximum yield of 86 % is catalytically achieved by blowing air at a neutral medium, the oxidation was almost completed in an alkaline solution even at stationary atmosphere. The reaction was first order with respect to Fe^{2+}.

Keywords: Iron, water pollution, oxidation

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