Accepted Manuscript

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PII: S1385-8947(16)31866-6
DOI: http://dx.doi.org/10.1016/j.cej.2016.12.094
Reference: CEJ 16259

To appear in: *Chemical Engineering Journal*

Received Date: 28 August 2016
Revised Date: 19 December 2016
Accepted Date: 20 December 2016

Please cite this article as: P. Xie, Y. Guo, Y. Chen, Z. Wang, R. Shang, S. Wang, J. Ding, Y. Wan, W. Jiang, J. Ma, Application of a Novel Advanced Oxidation Process using Sulfite and Zero-valent Iron in Treatment of Organic Pollutants, *Chemical Engineering Journal* (2016), doi: http://dx.doi.org/10.1016/j.cej.2016.12.094

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Abstract

A novel advanced oxidation process, combined zero-valent iron and sulfite (Fe^0/sulfite) system containing oxygen, was firstly developed to efficiently degrade organic pollutants at weak acidic and neutral conditions by selecting X-3B as a target compound. The removal of X-3B was attributed to the formed reactive radicals, such as $SO_4^{\bullet-}$, $SO_5^{\bullet-}$ and $HO^{\bullet}$, in the Fe^0/sulfite system, and $SO_4^{\bullet-}$ was evidenced as the principal reactive species. The quite low removal efficiency of X-3B (less than 5%)

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