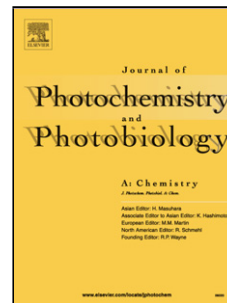


Accepted Manuscript

Title: FeO_x , SiO_2 , TiO_2/Ti composites prepared using plasma electrolytic oxidation as photo-Fenton-like catalysts for phenol degradation

Authors: M.S. Vasilyeva, V.S. Rudnev, A.A. Zvereva, A.Yu. Ustinov, O.D. Arefieva, V.G. Kuryavyi, G.A. Zverev



PII: S1010-6030(17)31623-4
DOI: <https://doi.org/10.1016/j.jphotochem.2017.12.007>
Reference: JPC 11044

To appear in: *Journal of Photochemistry and Photobiology A: Chemistry*

Received date: 7-11-2017
Revised date: 30-11-2017
Accepted date: 5-12-2017

Please cite this article as: M.S.Vasilyeva, V.S.Rudnev, A.A.Zvereva, A.Yu.Ustinov, O.D.Arefieva, V.G.Kuryavyi, G.A.Zverev, FeO_x , SiO_2 , TiO_2/Ti composites prepared using plasma electrolytic oxidation as photo-Fenton-like catalysts for phenol degradation, *Journal of Photochemistry and Photobiology A: Chemistry* <https://doi.org/10.1016/j.jphotochem.2017.12.007>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

FeO_x,SiO₂,TiO₂/Ti composites prepared using plasma electrolytic oxidation as photo-Fenton-like catalysts for phenol degradation

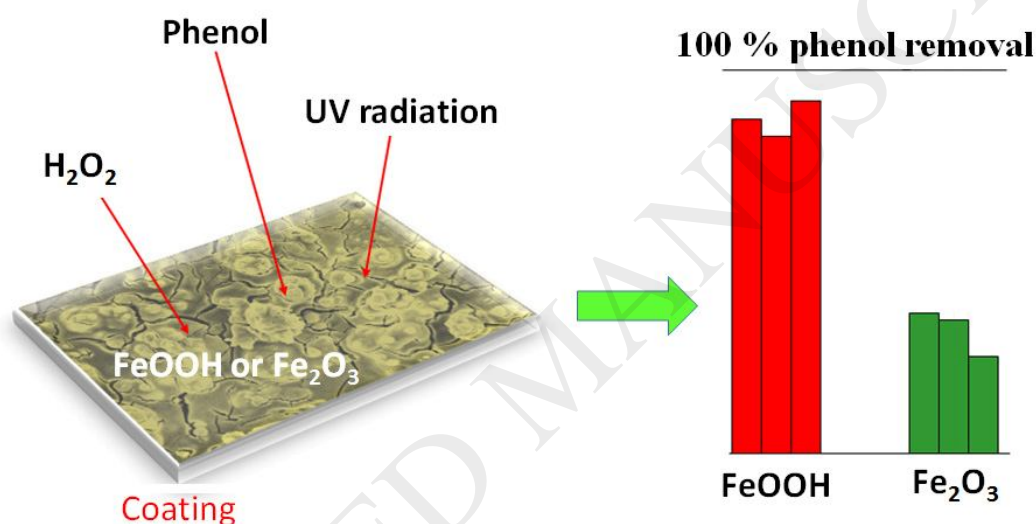
M.S. Vasilyeva^{a,b}, V.S. Rudnev^{a,b,*}, A.A. Zvereva^{a,b}, A.Yu. Ustinov^{a,b}, O.D. Arefieva^a, V.G. Kuryavyi^{a,b}, G.A. Zverev^b

^aFar Eastern Federal University, Vladivostok, Russia

^bInstitute of Chemistry, Far-Eastern Branch, Russian Academy of Sciences, Vladivostok, Russia

*Corresponding author: rudnevvs@ich.dvo.ru

Graphical Abstract:



Highlights

- FeO_x,SiO₂,TiO₂/Ti photo-Fenton like catalysts were formed by PEO and impregnation.
- FeOOH-containing layers are more active than those containing Fe₂O₃.
- In the presence of coatings containing FeOOH the phenol removal reaches 98%.
- The mechanism of phenol degradation is discussed.

Download English Version:

<https://daneshyari.com/en/article/6492633>

Download Persian Version:

<https://daneshyari.com/article/6492633>

[Daneshyari.com](https://daneshyari.com)