

Accepted Manuscript

Title: Synthesis of FC-supported Fe through a carbothermal process for immobilizing uranium

Authors: Lingjun Kong, Huimin Zhang, Kaimin Shih, Minhua Su, Zenghui Diao, Jianyou Long, Li'an Hou, Gang Song, Diyun Chen



PII: S0304-3894(18)30423-0
DOI: <https://doi.org/10.1016/j.jhazmat.2018.05.067>
Reference: HAZMAT 19434

To appear in: *Journal of Hazardous Materials*

Received date: 15-11-2017
Revised date: 15-4-2018
Accepted date: 30-5-2018

Please cite this article as: Kong L, Zhang H, Shih K, Su M, Diao Z, Long J, Hou L, Song G, Chen D, Synthesis of FC-supported Fe through a carbothermal process for immobilizing uranium, *Journal of Hazardous Materials* (2018), <https://doi.org/10.1016/j.jhazmat.2018.05.067>

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.

Synthesis of FC-supported Fe through a carbothermal process for immobilizing uranium

Lingjun Kong^{1,2}, Huimin Zhang^{1,†}, Kaimin Shih², Minhua Su¹, Zenghui Diao³,
Jianyou Long¹, Li'an Hou¹, Gang Song¹, Diyun Chen^{1*}

¹ Guangdong Provincial Key Laboratory of Radionuclides Pollution Control and Resources, School of Environmental Science and Engineering, Guangzhou University, Guangzhou 510006, China

² Department of Civil Engineering, The University of Hong Kong, Pokfulam Road, Hong Kong, P. R. China

³ South China Sea Institute of Oceanology, Chinese Academy of Sciences, Guangzhou, 510301, P. R. China

* Corresponding author (s): cdy@gzhu.edu.cn (DY Chen).

Author Contributions

[†]These authors contributed equally.

Highlights

- Synthesis of flour carbon supported iron materials by carbothermal process.
- Well dispersed nano flake on the carbon surface overcomes its aggregation.
- Reduction of U(VI) to U(IV) contributes to immobilize mechanism.
- High removal rate for uranium immobilization being ascribed to reduction.

Download English Version:

<https://daneshyari.com/en/article/6968089>

Download Persian Version:

<https://daneshyari.com/article/6968089>

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