Accepted Manuscript

Title: Adsorption of cesium from aqueous solution by raw and concentrated nitric acid —modified bamboo charcoal

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To appear in:

 Received date:
 8-11-2016

 Revised date:
 12-1-2017

 Accepted date:
 7-2-2017

Please cite this article as: Shahjalal Khandaker, Takahiro Kuba, Seiya Kamida, Yuji Uchikawa, Adsorption of cesium from aqueous solution by raw and concentrated nitric acid –modified bamboo charcoal, Journal of Environmental Chemical Engineering http://dx.doi.org/10.1016/j.jece.2017.02.014

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ACCEPTED MANUSCRIPT

Adsorption of cesium from aqueous solution by raw and concentrated nitric acid modified bamboo charcoal

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Abstract

The study is conducted to explore the potential of bamboo charcoal (BC) as an adsorbent to remove cesium from aqueous solution. Low temperature carbonized BC (500°C) is prepared and the surface of the BC is modified with 70% concentrated boiling nitric acid (BC-AC). Specific surface area, field emission scanning electron microscope (FESEM), fourier transform infra-red (FTIR) spectroscopy, and point of zero charge (pH_{pzc}) of BC and BC-AC have been investigated in this study. The results demonstrate that BC-AC is enriched with oxygen-containing functional groups but its porous structure and surface Download English Version:

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