Accepted Manuscript

Title: In-situ Reduction of Ag Nanoparticles on Oxygenated

Mesoporous Carbon Fabric: Exceptional Catalyst for

Nitroaromatics Reduction

Author: Tuo Ji Long Chen Liwen Mu Ruixia Yuan Michael

Knoblauch Forrest Sheng Bao Jiahua Zhu

PII: S0926-3373(15)30150-8

DOI: http://dx.doi.org/doi:10.1016/j.apcatb.2015.09.024

Reference: APCATB 14275

To appear in: Applied Catalysis B: Environmental

Received date: 25-5-2015 Revised date: 8-9-2015 Accepted date: 11-9-2015

Please cite this article as: Tuo Ji, Long Chen, Liwen Mu, Ruixia Yuan, Michael Knoblauch, Forrest Sheng Bao, Jiahua Zhu, In-situ Reduction of Ag Nanoparticles on Oxygenated Mesoporous Carbon Fabric: Exceptional Catalyst for Nitroaromatics Reduction, Applied Catalysis B, Environmental http://dx.doi.org/10.1016/j.apcatb.2015.09.024

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.

ACCEPTED MANUSCRIPT

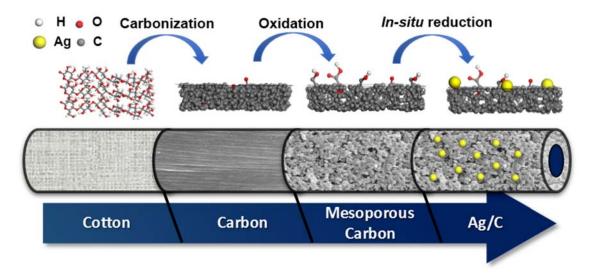
In-situ Reduction of Ag Nanoparticles on Oxygenated Mesoporous Carbon Fabric: Exceptional Catalyst for Nitroaromatics Reduction

Tuo Ji,^[a] Long Chen,^[a] Liwen Mu,^[a] Ruixia Yuan,^[a] Michael Knoblauch,^[a] Forrest Sheng Bao^[b] and Jiahua Zhu^{[a]*}

- [a] Intelligent Composites Laboratory, Department of Chemical and Biomolecular Engineering, The University of Akron, Akron, OH 44325 USA E-mail: <u>jzhu1@uakron.edu</u>
- [b] Department of Electrical and Computer Engineering. The University of Akron, Akron, OH 44325 USA
- * Corresponding author E-mail: <u>jzhu1@uakron.edu</u>

Keywords: Cotton biomass • mesoporous carbon fabric • Ag nanoparticles • hybrid catalyst • nitroaromatics reduction

Graphical Abstract



Highlights

- > Chemical-free conversion from cotton fabric to oxygenated mesoporous carbon fabric
- Ag size and distribution control *via* in-situ reaction over reactive carbon surface
- > Outstanding activity and stability of Ag/C catalyst in nitroaromatics reduction

Download English Version:

https://daneshyari.com/en/article/6499466

Download Persian Version:

https://daneshyari.com/article/6499466

<u>Daneshyari.com</u>