

Accepted Manuscript

Facile pyrolysis preparation of rosin-derived biochar for supporting silver nanoparticles with antibacterial activity

Jian-Fei Huang, Qing-Shan Shi, Jin Feng, Ming-Jie Chen, Wen-Ru Li, Liang-Qiu Li



PII: S0266-3538(16)31941-8

DOI: [10.1016/j.compscitech.2017.03.042](https://doi.org/10.1016/j.compscitech.2017.03.042)

Reference: CSTE 6727

To appear in: *Composites Science and Technology*

Received Date: 10 December 2016

Revised Date: 21 March 2017

Accepted Date: 31 March 2017

Please cite this article as: Huang J-F, Shi Q-S, Feng J, Chen M-J, Li W-R, Li L-Q, Facile pyrolysis preparation of rosin-derived biochar for supporting silver nanoparticles with antibacterial activity, *Composites Science and Technology* (2017), doi: 10.1016/j.compscitech.2017.03.042.

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.

Facile pyrolysis preparation of rosin-derived biochar for supporting silver nanoparticles with antibacterial activity

Jian-Fei Huang ^{a,b}, Qing-Shan Shi ^{a,*}, Jin Feng ^a, Ming-Jie Chen ^{a,c}, Wen-Ru Li ^a and Liang-Qiu Li ^a

^a *State Key Laboratory of Applied Microbiology Southern China, Guangdong Provincial Key Laboratory of Microbial Culture Collection and Application, Guangdong Institute of Microbiology, Guangzhou, 510070, China*

^b *Department of Pharmacy, University of Copenhagen, Copenhagen, DK-2100, Denmark*

^c *State Key Laboratory of Pulp and Paper Engineering, South China University of Technology, Guangzhou, 510640, China*

* Corresponding author

E-mail: shiqingshan@hotmail.com (Q-S. Shi)

ABSTRACT

The incorporation of metallic nanoparticles (NPs) into a biomass-based matrix has been intensively investigated because the obtained nanocomposites exhibited effective antibacterial activity to intractable resistance of bacteria. However, the nanocomposites present limitations, such as a multi-step preparation process and a low loading capacity of

Download English Version:

<https://daneshyari.com/en/article/5022146>

Download Persian Version:

<https://daneshyari.com/article/5022146>

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