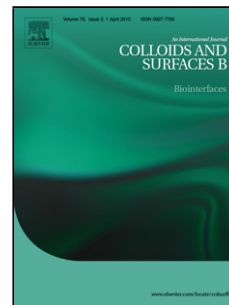


Accepted Manuscript

Title: Doxorubicin-loaded environmentally friendly carbon dots as a novel drug delivery system for nucleus targeted cancer therapy

Authors: Yifang Yuan, Bin Guo, Liying Hao, Na Liu, Yunfeng Lin, Wushuang Guo, Xiaoguang Li, Bin Gu



PII: S0927-7765(17)30443-5
DOI: <http://dx.doi.org/doi:10.1016/j.colsurfb.2017.07.030>
Reference: COLSUB 8693

To appear in: *Colloids and Surfaces B: Biointerfaces*

Received date: 11-4-2017
Revised date: 26-6-2017
Accepted date: 8-7-2017

Please cite this article as: Yifang Yuan, Bin Guo, Liying Hao, Na Liu, Yunfeng Lin, Wushuang Guo, Xiaoguang Li, Bin Gu, Doxorubicin-loaded environmentally friendly carbon dots as a novel drug delivery system for nucleus targeted cancer therapy, *Colloids and Surfaces B: Biointerfaces* <http://dx.doi.org/10.1016/j.colsurfb.2017.07.030>

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.

Doxorubicin-loaded environmentally friendly carbon dots as a novel drug delivery system for nucleus targeted cancer therapy

Yifang Yuan^{a, 1}, Bin Guo^{a, 1}, Liying Hao^b, Na Liu^a, Yunfeng Lin^b, Wushuang Guo^b,
Xiaoguang Li^a, Bin Gu^{a, *}

^a Institution of Stomatology, The General Hospital of China PLA, Beijing 100853, China

E-mail address: Yifang Yuan, yuanyf0331@sina.com; Bin Guo, guobin0408@126.com; Na Liu, liuna0206@163.com; Xiaoguang Li,

xiaopa3084@126.com

^b State Key Laboratory of Oral Diseases, National Clinical Research Center for Oral Diseases, West China Hospital of Stomatology, Sichuan University, Chengdu 610041, China

E-mail address: Liying Hao, haoliying2008163@163.com; Yunfeng Lin, yunfenglin@scu.edu.cn; Wushuang Guo, 477689315@qq.com

* Corresponding author at: Institution of Stomatology, The General Hospital of China PLA, Beijing 100853, China

E-mail address: gubmail@gmail.com

Address: No.28 Fuxing Road, Beijing, 100853, People's Republic of China

Tel: +86-10-66936879

¹ Author Contributions: As the co-first author, Yifang Yuan and Bin Guo contributed equally to this work.

Highlights

- Carbon dots (CDs) were fabricated by the green hydrothermolysis of milk
- The CDs were complexed with doxorubicin (DOX) with a view to targeted drug delivery
- The CD-DOX complexes displayed pH-dependent DOX release behavior
- Compared to free DOX, CD-DOX complexes were significantly more deadly to cancer cells
- Increased efficacy was based on localized drug release in the nuclei of cancer cells

Graphical

abstract

Download English Version:

<https://daneshyari.com/en/article/4982947>

Download Persian Version:

<https://daneshyari.com/article/4982947>

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