## Accepted Manuscript

Title: Synthesis of a novel nanosilica-supported poly  $\beta$ -cyclodextrin sorbent and its properties for the removal of dyes from aqueous solution

Authors: Jianxin Chen, Yunping Pu, Zhongbin Wang, Jian

Han, Yunlong Zhong, Kaili Liu

PII: \$0927-7757(17)31055-5

DOI: https://doi.org/10.1016/j.colsurfa.2017.11.048

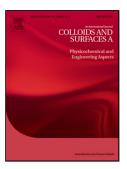
Reference: COLSUA 22095

To appear in: Colloids and Surfaces A: Physicochem. Eng. Aspects

Received date: 14-8-2017 Revised date: 12-11-2017 Accepted date: 16-11-2017

Please cite this article as: Jianxin Chen, Yunping Pu, Zhongbin Wang, Jian Han, Yunlong Zhong, Kaili Liu, Synthesis of a novel nanosilica-supported poly  $\beta$ -cyclodextrin sorbent and its properties for the removal of dyes from aqueous solution, Colloids and Surfaces A: Physicochemical and Engineering Aspects https://doi.org/10.1016/j.colsurfa.2017.11.048

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

Synthesis of a novel nanosilica-supported poly  $\beta$ -cyclodextrin sorbent and its properties for the removal of dyes from aqueous solution

Jianxin Chen<sup>a, b\*</sup>, Yunping Pu <sup>b</sup>, Zhongbin Wang <sup>c</sup>, Jian Han <sup>a, \*</sup>, Yunlong Zhong <sup>b</sup>, Kaili Liu <sup>a</sup>

- <sup>a</sup> School of Marine Science and Engineering, Hebei University of Technology, Tianjin 300130, PR China
- <sup>b</sup> School of Chemical Engineering, Hebei University of Technology, Tianjin 300130, China
- <sup>c</sup> School of Chemical Engineering and Technology, Tianjin University, Tianjin 300072, China
- \*Corresponding author. E-mail address: chjx2000@126.com (J Chen), superhj@hebut.edu.cn (J Han)

#### Graphical abstract:



**Abstract**:  $\beta$ -cyclodextrin, a type of molecule with a cavity structure and large number of hydroxyl groups, has great potential in water treatment, attributing to its highly adsorption ability. In this work, silica nanoparticles coated with  $\beta$ -cyclodextrin (SiO<sub>2</sub>@ $\beta$ -CD) as adsorbent have been successfully synthesized via distillation-

### Download English Version:

# https://daneshyari.com/en/article/6978021

Download Persian Version:

https://daneshyari.com/article/6978021

<u>Daneshyari.com</u>