Accepted Manuscript

Title: The effects of viscosity of carboxymethyl cellulose on aggregation and transport of nanoscale zerovalent iron

Author: Jing Li Sourjya Bhattacharjee Subhasis Ghoshal

PII: S0927-7757(15)30010-8

DOI: http://dx.doi.org/doi:10.1016/j.colsurfa.2015.05.023

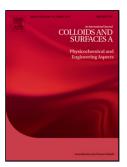
Reference: COLSUA 19929

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

Received date: 8-2-2015 Revised date: 9-5-2015 Accepted date: 26-5-2015

Please cite this article as: Jing Li, Sourjya Bhattacharjee, Subhasis Ghoshal, The effects of viscosity of carboxymethyl cellulose on aggregation and transport of nanoscale zerovalent iron, Colloids and Surfaces A: Physicochemical and Engineering Aspects http://dx.doi.org/10.1016/j.colsurfa.2015.05.023

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

The effects of viscosity of carboxymethyl cellulose on aggregation and transport of nanoscale zerovalent iron

by

Jing Li[†], Sourjya Bhattacharjee, Subhasis Ghoshal*

Department of Civil Engineering,

McGill University, Montreal, Canada H3A 2K6

- Viscosity of unbound carboxymethyl cellulose reduced nanoparticle Brownian motion.
- Both adsorbed and unbound cellulose reduced iron nanoparticle aggregation.
- Increasing cellulose molecular weight enhanced iron nanoparticle transport.
- 3 g/L iron nanoparticles efficiently transported by 700K carboxymethyl cellulose.

Abstract

[†]Current address: Qihe Green-spring Environmental Technology Company, Shandong Province, China.

^{*}Corresponding author, Department of Civil Engineering, McGill University, 817 Sherbrooke Street West, Montreal, QC, Canada H3A 2K6, e-mail: subhasis.ghoshal@mcgill.ca
Highlights

Download English Version:

https://daneshyari.com/en/article/6979010

Download Persian Version:

https://daneshyari.com/article/6979010

<u>Daneshyari.com</u>