

Accepted Manuscript

Title: Proton exchange membrane based on chitosan and solvent-free carbon nanotube fluids for fuel cells applications

Authors: Jie Wang, Chunli Gong, Sheng Wen, Hai Liu, Caiqin Qin, Chuanxi Xiong, Lijie Dong



PII: S0144-8617(18)30032-8
DOI: <https://doi.org/10.1016/j.carbpol.2018.01.032>
Reference: CARP 13182

To appear in:

Received date: 5-9-2017
Revised date: 10-1-2018
Accepted date: 10-1-2018

Please cite this article as: Wang, Jie., Gong, Chunli., Wen, Sheng., Liu, Hai., Qin, Caiqin., Xiong, Chuanxi., & Dong, Lijie., Proton exchange membrane based on chitosan and solvent-free carbon nanotube fluids for fuel cells applications. *Carbohydrate Polymers* <https://doi.org/10.1016/j.carbpol.2018.01.032>

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.

Proton exchange membrane based on chitosan and solvent-free carbon nanotube fluids for fuel cells applications

Jie Wang^a, Chunli Gong^b, Sheng Wen^b, Hai Liu^{b*}, Caiqin Qin^b, Chuanxi Xiong^a, Lijie

Dong^{a*}

^aSchool of Materials Science and Engineering, Wuhan University of Technology,

Wuhan, Hubei 430072, China

^bFaculty of Chemistry and Material Science, Hubei Engineering University, Xiaogan,

Hubei 432000, China

*Corresponding authors: Hai Liu, and Lijie Dong;

E-mail: liuhai_218@163.com (H. Liu); dong@whut.edu.cn (L. Dong). ‘

Graphical Abstract

Fx1

Highlights

- Solvent-free carbon nanotube fluids were prepared via an ion exchange method.
- CNT fluids were incorporated into a CS matrix to fabricate composite membranes.
- Electrostatic interactions generated between the CNT fluids and the CS matrix.
- CS/CNT fluid composite membranes were simultaneously reinforced and toughened.

متن کامل مقاله

دریافت فوری ←

ISIArticles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات