

Author's Accepted Manuscript

High-Throughput Production of Nanodisperse Hybrid Membranes on Various Substrates

Hongwei Fan, Linglong Shan, Hong Meng, Guojun Zhang



PII: S0376-7388(17)32744-8
DOI: <https://doi.org/10.1016/j.memsci.2018.01.042>
Reference: MEMSCI15896

To appear in: *Journal of Membrane Science*

Received date: 22 September 2017
Revised date: 2 December 2017
Accepted date: 18 January 2018

Cite this article as: Hongwei Fan, Linglong Shan, Hong Meng and Guojun Zhang, High-Throughput Production of Nanodisperse Hybrid Membranes on Various Substrates, *Journal of Membrane Science*, <https://doi.org/10.1016/j.memsci.2018.01.042>

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 galley proof before it is published in its final citable 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.

High-Throughput Production of Nanodisperse Hybrid Membranes on Various Substrates

Hongwei Fan^a, Linglong Shan^b, Hong Meng^{*a}, Guojun Zhang^{*b}

^aCollege of Chemical Engineering, Beijing University of Chemical Technology, Chaoyang District North Third Ring Road 15, Beijing 100029, PR China.

^bBeijing Key Laboratory for Green Catalysis and Separation, College of Environmental and Energy Engineering, Beijing University of Technology, 100 Ping Le Yuan, Chaoyang District, Beijing 100124, PR China.

menghong@mail.buct.edu.cn

zhanggj@bjut.edu.cn

Abstract:

Nanoparticle agglomeration in a polymer matrix is often an intractable issue for the advancement of nanohybrid membranes, and achieving scaled-up production also requires the development of simpler, more efficient and more environmentally friendly fabrication mechanisms than what are currently used. Herein, we report a high-throughput methodology for fabricating nanodisperse hybrid membranes by directly atomizing the oligomer (no solvent) and a crosslinker solution doped with

*Correspondence concerning this article should be addressed to H. Meng and G. Zhang at: (H. Meng), (G. Zhang), fax: +86-10-6739 2393.

Download English Version:

<https://daneshyari.com/en/article/7020045>

Download Persian Version:

<https://daneshyari.com/article/7020045>

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