

Accepted Manuscript

Title: Poly(vinylidene fluoride) based mixed matrix membranes comprising metal organic frameworks for gas separation applications

Author: Elahe Ahmadi Feijani Hossein Mahdavi Ahmad Tavasoli



PII: S0263-8762(15)00042-8
DOI: <http://dx.doi.org/doi:10.1016/j.cherd.2015.02.009>
Reference: CHERD 1785

To appear in:

Received date: 3-12-2014
Revised date: 10-2-2015
Accepted date: 14-2-2015

Please cite this article as: Feijani, E.A., Mahdavi, H., Tavasoli, A., Poly(vinylidene fluoride) based mixed matrix membranes comprising metal organic frameworks for gas separation applications, *Chemical Engineering Research and Design* (2015), <http://dx.doi.org/10.1016/j.cherd.2015.02.009>

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.

Highlights

- The four MOFs, CuBTC, CuBDC, MIL-53(Al) and NH₂-MIL-53 were used to fabricate MMMs with PVDF.
- Gas performance of MMMs with NH₂-MIL-53(Al) was better than with MIL-53(Al) due to more compatibility of NH₂-MIL-53(Al) with PVDF.
- The CO₂/CH₄ selectivity enhancements of 118.7 and 109.3% were obtained for MMMs comprising CuBTC and CuBDC compared to the pure PVDF membrane.

Accepted Manuscript

Download English Version:

<https://daneshyari.com/en/article/7007407>

Download Persian Version:

<https://daneshyari.com/article/7007407>

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