

## Accepted Manuscript

Title: Synthesis of glycerol carbonate from glycerol and dimethyl carbonate over DABCO embedded porous organic polymer as a bifunctional and robust catalyst

Authors: Yali Wan, Yizhu Lei, Guosong Lan, Dingfu Liu, Guangxing Li, Rongxian Bai



PII: S0926-860X(18)30276-X  
DOI: <https://doi.org/10.1016/j.apcata.2018.06.022>  
Reference: APCATA 16710

To appear in: *Applied Catalysis A: General*

Received date: 27-2-2018  
Revised date: 10-5-2018  
Accepted date: 5-6-2018

Please cite this article as: Wan Y, Lei Y, Lan G, Liu D, Li G, Bai R, Synthesis of glycerol carbonate from glycerol and dimethyl carbonate over DABCO embedded porous organic polymer as a bifunctional and robust catalyst, *Applied Catalysis A, General* (2018), <https://doi.org/10.1016/j.apcata.2018.06.022>

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.

# Synthesis of glycerol carbonate from glycerol and dimethyl carbonate over DABCO embedded porous organic polymer as a bifunctional and robust catalyst

Yali Wan <sup>a,c</sup>, Yizhu Lei <sup>a,\*</sup>, Guosong Lan <sup>a</sup>, Dingfu Liu <sup>c</sup>, Guangxing Li <sup>b,\*</sup>, Rongxian Bai <sup>b</sup>

<sup>a</sup> School of Chemistry and Materials Engineering, Liupanshui Normal University, Liupanshui, Guizhou 553004, PR China

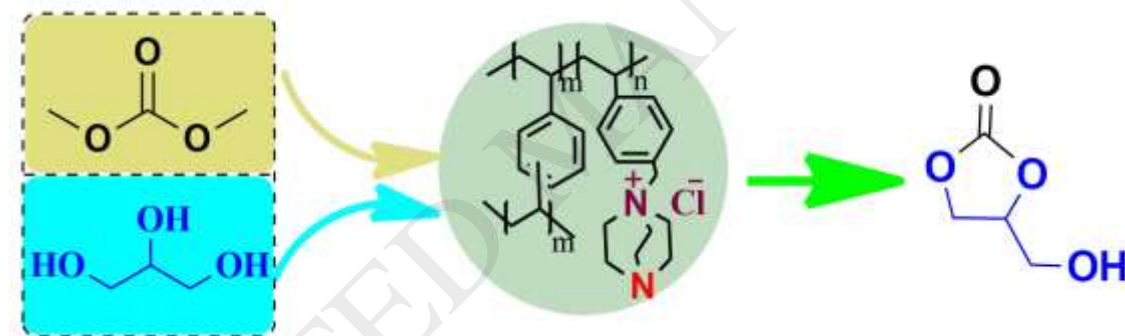
<sup>b</sup> School of Chemistry and Chemical Engineering, Huazhong University of Science and Technology, Wuhan, Hubei 430074, PR China

<sup>c</sup> School of Chemistry and Chemical Engineering, Guizhou University, Guiyang, Guizhou 550025, PR China

**\*Corresponding authors.**

E-mail addresses: yzleiabc@126.com (Y. Lei), ligxabc@163.com (G. Li).

## Graphical Abstract



## Highlights

- A bifunctional catalyst that contains base sites and hydrophilic units was prepared.
- The surface area, pore volumes and wettability can be adjusted.
- The catalyst exhibits high catalytic activity and excellent reusability.
- The amphiphilic and porous structure led to the superior performance.

## Abstract

A large surplus of glycerol from the rapidly growing biodiesel industry has led to the conversion of glycerol into higher value-added products being of great industrial

Download English Version:

<https://daneshyari.com/en/article/6496562>

Download Persian Version:

<https://daneshyari.com/article/6496562>

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