

# Accepted Manuscript

Cumulative effect of bimetallic alloy, conductive polymer and graphene toward electrooxidation of methanol: An efficient anode catalyst for direct methanol fuel cells

Ravi Arukula, Mohanraj Vinothkannan, Ae Rhan Kim, Dong Jin Yoo



PII: S0925-8388(18)33196-7

DOI: [10.1016/j.jallcom.2018.08.303](https://doi.org/10.1016/j.jallcom.2018.08.303)

Reference: JALCOM 47391

To appear in: *Journal of Alloys and Compounds*

Received Date: 4 May 2018

Revised Date: 10 August 2018

Accepted Date: 29 August 2018

Please cite this article as: R. Arukula, M. Vinothkannan, A.R. Kim, D.J. Yoo, Cumulative effect of bimetallic alloy, conductive polymer and graphene toward electrooxidation of methanol: An efficient anode catalyst for direct methanol fuel cells, *Journal of Alloys and Compounds* (2018), doi: 10.1016/j.jallcom.2018.08.303.

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.

1 **Cumulative effect of bimetallic alloy, conductive polymer and graphene toward**  
2 **electrooxidation of methanol: An efficient anode catalyst for direct methanol fuel**  
3 **cells**

4 **Ravi Arukula<sup>a,1</sup>, Mohanraj Vinothkannan<sup>a,1</sup>, Ae Rhan Kim<sup>b,\*</sup> Dong Jin Yoo<sup>a,c,\*\*</sup>**

5 <sup>a</sup> Graduate School, Department of Energy Storage/Conversion Engineering, Hydrogen and Fuel Cell  
6 Research Center, Chonbuk National University, Jeollabuk-do 54896, Republic of Korea.

7 <sup>b</sup> Department of Bioenvironmental Chemistry and R&D Center for CANUTECH, Business Incubation  
8 Center, Chonbuk National University, Jeollabuk-do 54896, Republic of Korea.

9 <sup>c</sup> Department of Life Science, Chonbuk National University, Jeollabuk-do 54896, Republic of Korea.

10

11

12

13

14

15

16

17

18

19

20

21

22 **\*Corresponding author.**

23 **\*\* Corresponding author.**

24 E-mail addresses: [canutech@hanmail.net](mailto:canutech@hanmail.net) (A.R. Kim); [djyoo@jbnu.ac.kr](mailto:djyoo@jbnu.ac.kr) (D.J. Yoo).

25 <sup>1</sup>The authors are contributed equally.

26

Download English Version:

<https://daneshyari.com/en/article/10142184>

Download Persian Version:

<https://daneshyari.com/article/10142184>

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