

Accepted Manuscript

Title: Ethylenediaminetetraacetic acid mediated synthesis of palladium nanowire networks and their enhanced electrocatalytic performance for the hydrazine oxidation reaction

Author: Fumin Li Yigang Ji Shiman Wang Shuni Li Yu Chen

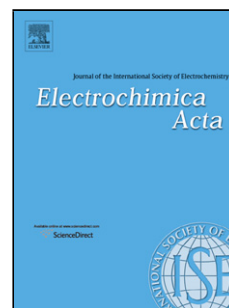
PII: S0013-4686(15)30061-X
DOI: <http://dx.doi.org/doi:10.1016/j.electacta.2015.06.149>
Reference: EA 25274

To appear in: *Electrochimica Acta*

Received date: 26-5-2015
Revised date: 22-6-2015
Accepted date: 30-6-2015

Please cite this article as: Fumin Li, Yigang Ji, Shiman Wang, Shuni Li, Yu Chen, Ethylenediaminetetraacetic acid mediated synthesis of palladium nanowire networks and their enhanced electrocatalytic performance for the hydrazine oxidation reaction, *Electrochimica Acta* <http://dx.doi.org/10.1016/j.electacta.2015.06.149>

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.



**Ethylenediaminetetraacetic acid mediated synthesis of palladium
nanowire networks and their enhanced electrocatalytic performance
for the hydrazine oxidation reaction**

Fumin Li ^{a,1}, Yigang Ji ^{b,1}, Shiman Wang ^c, Shuni Li ^{a,*}, Yu Chen ^c

^a Key Laboratory of Macromolecular Science of Shaanxi Province, School of Chemistry & Chemical Engineering, Shaanxi Normal University, Xi'an 710062, PR China

^b Department of Life Sciences and Chemistry, Jiangsu Second Normal University, Nanjing 210013, PR China

^c School of Materials Science and Engineering, Shaanxi Normal University, Xi'an 710062, PR China

* Corresponding author: Tel: +86 29 81530709.

E-mail address: lishuni@snnu.edu.cn (S. Li)

¹ Fumin Li and Yigang Ji equally contributed to this work.

ABSTRACT

Noble metal network nanostructures with three-dimensionally (3D) interconnected architectures are attracting much attention because of their unique catalytic, electrical, and optical properties. In this work, we report a facile ethylenediaminetetraacetic acid (EDTA) mediated chemical reduction route for the synthesis of high-quality palladium (Pd) nanowire networks (Pd-NWNWs). During the synthesis, EDTA interacts with PdCl₂ to generate EDTA-Pd^{II} complex, which efficiently decreases the

Download English Version:

<https://daneshyari.com/en/article/6610809>

Download Persian Version:

<https://daneshyari.com/article/6610809>

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