## **Accepted Manuscript**

Title: The Remarkable Role of Metal Promoters on the Catalytic Activity of Co-Cu Based Nanoparticles for Boosting

Hydrogen Evolution: Ammonia Borane Hydrolysis

Authors: Bilge Coşkuner Filiz, Aysel Kantürk Figen, Sabriye

Pişkin

PII: S0926-3373(18)30638-6

DOI: https://doi.org/10.1016/j.apcatb.2018.07.031

Reference: APCATB 16853

To appear in: Applied Catalysis B: Environmental

Received date: 17-4-2018 Revised date: 4-7-2018 Accepted date: 9-7-2018

Please cite this article as: Filiz BC, Figen AK, Pişkin S, The Remarkable Role of Metal Promoters on the Catalytic Activity of Co-Cu Based Nanoparticles for Boosting Hydrogen Evolution: Ammonia Borane Hydrolysis, *Applied Catalysis B: Environmental* (2018), https://doi.org/10.1016/j.apcatb.2018.07.031

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.



## ACCEPTED MANUSCRIPT

The Remarkable Role of Metal Promoters on the Catalytic Activity of Co-Cu Based Nanoparticles for Boosting Hydrogen Evolution: Ammonia Borane Hydrolysis

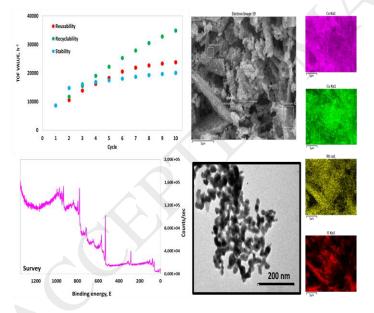
Bilge Coşkuner Filiz\*, Aysel Kantürk Figen, Sabriye Pişkin

Department of Chemical Engineering, Yıldız Technical University, İstanbul 34210, Turkey

**Corresponding author\*:** Dr. Bilge Coşkuner Filiz, bilgecoskuner@gmail.com.tr, Address: Department of Chemical Engineering, Yıldız Technical University, İstanbul 34210, Turkey.

#### **Graphical Abstract**

Rh promoted CoCu ternary metal nanoparticles for  $H_2$  evolution  $NH_3BH_3 + 4H_2O \rightarrow 3H_2 + NH_4B(OH)_4$ 



#### **Highlights**

- Metal promoted CoCu TMNPs were developed for NH<sub>3</sub>BH<sub>3</sub> hydrolysis
- Rh promoting provided the best activity for hydrogen evolution over TMNPs
- Kinetic and thermodynamic assessment were carried out

### Download English Version:

# https://daneshyari.com/en/article/6498059

Download Persian Version:

https://daneshyari.com/article/6498059

<u>Daneshyari.com</u>