

Accepted Manuscript

Title: Hierarchical flower-like NiAl-layered double hydroxide microspheres encapsulated with black Cu-doped TiO₂ nanoparticles: Highly efficient visible-light-driven composite photocatalysts for environmental remediation

Authors: Wan-Kuen Jo, Yeong-Gyeong Kim, Surendar Tonda

PII: S0304-3894(18)30376-5
DOI: <https://doi.org/10.1016/j.jhazmat.2018.05.038>
Reference: HAZMAT 19405

To appear in: *Journal of Hazardous Materials*

Received date: 2-3-2018
Revised date: 12-5-2018
Accepted date: 14-5-2018

Please cite this article as: Jo W-Kuen, Kim Y-Gyeong, Tonda S, Hierarchical flower-like NiAl-layered double hydroxide microspheres encapsulated with black Cu-doped TiO₂ nanoparticles: Highly efficient visible-light-driven composite photocatalysts for environmental remediation, *Journal of Hazardous Materials* (2018), <https://doi.org/10.1016/j.jhazmat.2018.05.038>

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.



Hierarchical flower-like NiAl-layered double hydroxide microspheres encapsulated with black Cu-doped TiO₂ nanoparticles: Highly efficient visible-light-driven composite photocatalysts for environmental remediation

Wan-Kuen Jo, Yeong-Gyeong Kim, Surendar Tonda*

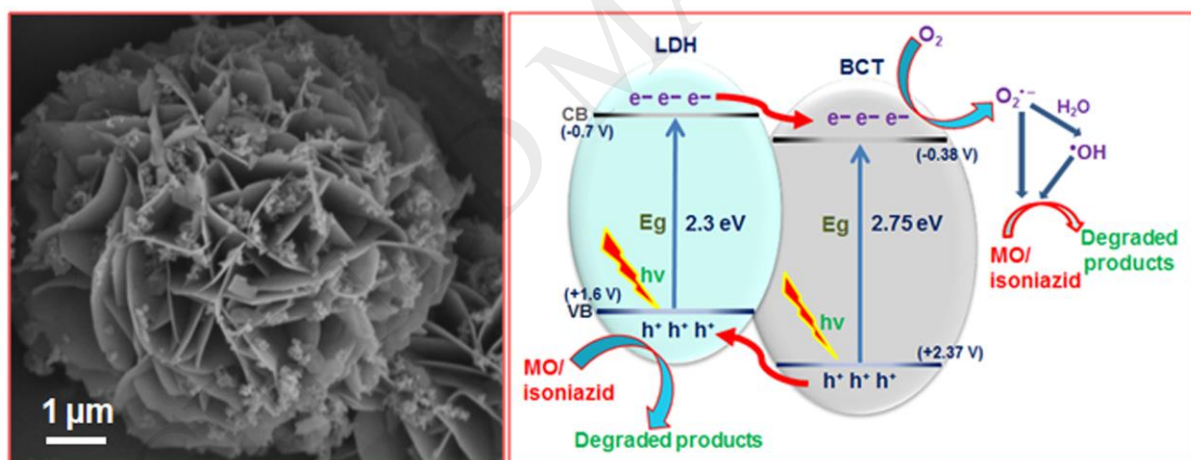
Department of Environmental Engineering, Kyungpook National University, Daegu 702-701, South Korea.

*Corresponding Author:

Surendar Tonda, E-mail: surendar.t86@gmail.com; surendart@knu.ac.kr

Contact No.: +82 53 950 6584.

Graphical abstract



Highlights

- Novel and highly efficient black Cu-doped TiO₂/NiAl-LDH composites were fabricated.
- Both components in the composite system exhibited strong visible-light absorption.
- Composite system showed excellent performance for MO and isoniazid photodegradation.
- Rapid charge transfer at the interface contributed to remarkable photo-activity.

Download English Version:

<https://daneshyari.com/en/article/6967974>

Download Persian Version:

<https://daneshyari.com/article/6967974>

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