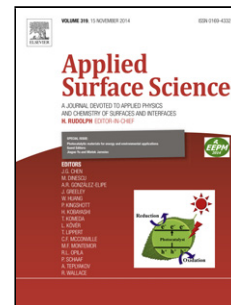


## Accepted Manuscript

Title: Direct Growth of Cerium Oxide Nanorods on Diverse Substrates for Superhydrophobicity and Corrosion Resistance

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PII: S0169-4332(15)00454-7  
DOI: <http://dx.doi.org/doi:10.1016/j.apsusc.2015.02.138>  
Reference: APSUSC 29818

To appear in: *APSUSC*

Received date: 2-1-2015  
Revised date: 21-2-2015  
Accepted date: 21-2-2015

Please cite this article as: Y.J. Cho, H. Jang, K.-S. Lee, D.R. Kim, Direct Growth of Cerium Oxide Nanorods on Diverse Substrates for Superhydrophobicity and Corrosion Resistance, *Applied Surface Science* (2015), <http://dx.doi.org/10.1016/j.apsusc.2015.02.138>

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# Direct Growth of Cerium Oxide Nanorods on Diverse Substrates for Superhydrophobicity and Corrosion Resistance

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**Key Words:** Cerium oxide, Nanowire, Growth, Superhydrophobicity, Corrosion resistance

## ABSTRACT

Superhydrophobic surfaces with anti-corrosion properties have attracted great interest in many industrial fields, particularly to enhance the thermal performance of offshore applications such as heat exchangers, pipelines, power plants, and platform structures. Nanostructures with hydrophobic materials have been widely utilized to realize superhydrophobicity of surfaces, and cerium oxide has been highlighted due to its good corrosion resistive and intrinsically hydrophobic properties. However, few studies of direct growth of cerium oxide nanostructures

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