

Accepted Manuscript

Title: Growth of Gallium Nitride Nanowires on Sapphire and Silicon by Chemical Vapor Deposition for Water Splitting Applications

Authors: Loganathan Ravi, Kuppulingam Boopathi, Puspamitra Panigrahi, Baskar Krishnan



PII: S0169-4332(18)30331-3
DOI: <https://doi.org/10.1016/j.apsusc.2018.01.306>
Reference: APSUSC 38445

To appear in: *APSUSC*

Received date: 2-11-2017
Revised date: 23-1-2018
Accepted date: 31-1-2018

Please cite this article as: Loganathan Ravi, Kuppulingam Boopathi, Puspamitra Panigrahi, Baskar Krishnan, Growth of Gallium Nitride Nanowires on Sapphire and Silicon by Chemical Vapor Deposition for Water Splitting Applications, Applied Surface Science <https://doi.org/10.1016/j.apsusc.2018.01.306>

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.

Growth of Gallium Nitride Nanowires on Sapphire and Silicon by Chemical Vapor Deposition for Water Splitting Applications

Loganathan Ravi^{1,2}, Kuppulingam Boopathi², Puspamitra Panigrahi¹ and Baskar Krishnan²

¹Centre for Clean Energy and Nano Convergence, Hindustan Institute of Technology and Science, Chennai, India

²Crystal Growth Centre, Anna University, Chennai, India

*Corresponding Author details:

Dr. R. Loganathan

SERB-National Post-Doctoral Fellow

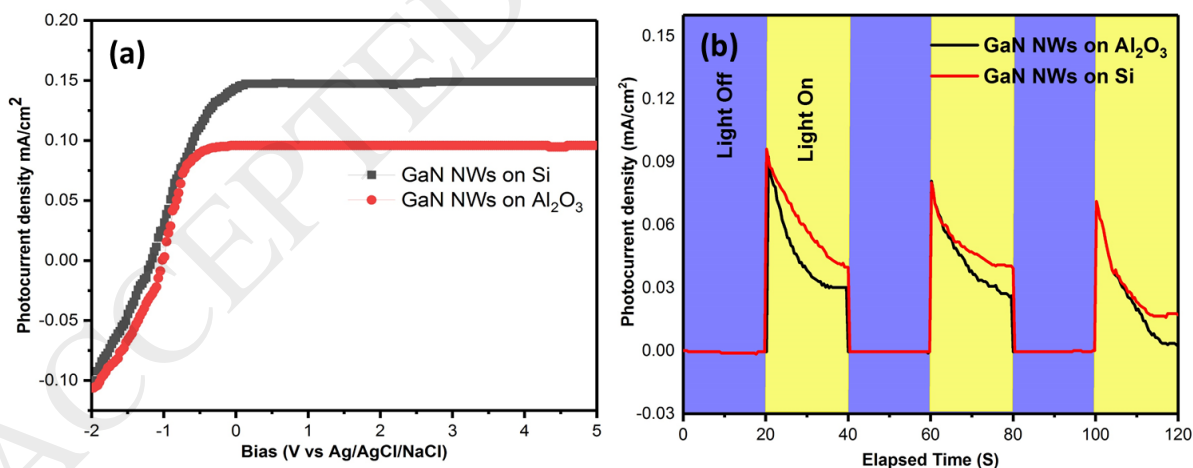
Clean Energy and Nano Convergence Centre (CENCON)

Hindustan Institute of Technology and Science

Padur, Chennai-603103

E-Mail: logu73511@gmail.com

Graphical Abstract



Highlights

- GaN nanowires were grown on sapphire and Silicon by CVD method.
- Grown GaN nanowires is high crystalline, smooth and without any impurity.
- GaN nanowires are suitable material for photoanode used in water splitting.
- The saturated photocurrent density increased in GaN/Si NWs than GaN/Al₂O₃ NWs.

Download English Version:

<https://daneshyari.com/en/article/7833641>

Download Persian Version:

<https://daneshyari.com/article/7833641>

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