

Accepted Manuscript

Title: Water-driven Stabilization of Cadmium Sulphide Nanoparticles

Authors: Navendu Goswami, P. Sen

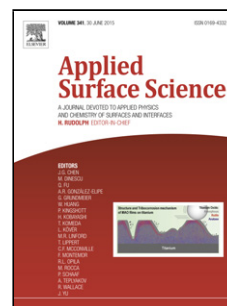
PII: S0169-4332(17)32061-5
DOI: <http://dx.doi.org/doi:10.1016/j.apsusc.2017.07.071>
Reference: APSUSC 36605

To appear in: *APSUSC*

Received date: 28-2-2017
Revised date: 5-7-2017
Accepted date: 9-7-2017

Please cite this article as: Navendu Goswami, P.Sen, Water-driven Stabilization of Cadmium Sulphide Nanoparticles, Applied Surface Science <http://dx.doi.org/10.1016/j.apsusc.2017.07.071>

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.

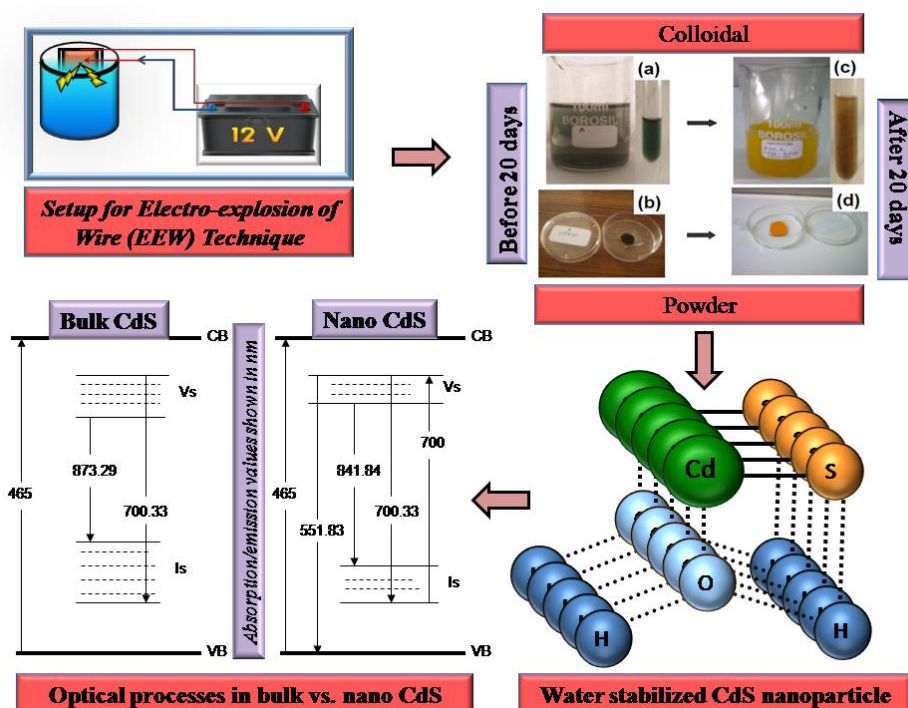


Title: Water-driven Stabilization of Cadmium Sulphide Nanoparticles**Authors names and affiliations:** Navendu Goswami ^{1*}, P. Sen ²

1. Department of Physics and Material Science and Engineering, Jaypee Institute of Information Technology, A-10, Sector-62, Noida-201307, U.P., India.

2. School of Physical Sciences, Jawaharlal Nehru University, New Delhi-110067, India.

* **Corresponding author:** navendugoswami@gmail.com

Graphical abstract**Highlights**

- Demonstration of water driven stabilization of CdS nanoparticles prepared by EEW based novel synthesis approach
- Variation in stoichiometry of CdS nanoparticles at respective stages of transformation, assist in explaining the structural transformation.
- Alterations in the oxidation state and energies of the nanoparticle constituents, as determined through line shape analysis of XPS spectra, unravel intricacies of structural transformation.
- XPS analysis, in concomitant with XRD interpretations, vividly decipher the stabilization of CdS nanoparticles in aqueous environment.
- Optical processes correlated with structural transformation were illustrated through schematic.

Download English Version:

<https://daneshyari.com/en/article/5347379>

Download Persian Version:

<https://daneshyari.com/article/5347379>

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