

**Evaluation of Opto-Electronic
Properties of Semiconductor
Nanomaterials**

THESIS SUBMITTED TO
UNIVERSITY OF PUNE

FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
IN
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CERTIFICATE

This is to certify that the work discussed in the thesis entitled “**EVALUATION OF OPTO-ELECTRONIC PROPERTIES OF SEMICONDUCTOR NANOMATERIALS**” by **USHA RAGHAVAN**, submitted for the degree of *Doctor of Philosophy in Physics* was carried out under my supervision at the *Department of Chemistry, University of Pune*. Such materials as have been obtained by other sources have been duly acknowledged in this thesis. To the best of my knowledge, the present work or any part thereof, has not been submitted to any other University for the award of any other degree or diploma.

Date:

Place: Pune

Dr. Murali Sastry

(Research Guide)

CERTIFICATE

This is to certify that the work discussed in the thesis entitled “**EVALUATION OF OPTO-ELECTRONIC PROPERTIES OF SEMICONDUCTOR NANOMATERIALS**” by **USHA RAGHAVAN**, submitted for the degree of *Doctor of Philosophy in Physics* was carried out under my joint supervision at the *Department of Chemistry, University of Pune*. Such materials as have been obtained by other sources have been duly acknowledged in this thesis. To the best of my knowledge, the present work or any part thereof, has not been submitted to any other University for the award of any other degree or diploma.

Date:

Place: Pune

Dr. Balaprasad G. Ankamwar

(Research Co-Guide)

DECLARATION

I hereby declare that the work incorporated in this thesis entitled “**EVALUATION OF OPTO-ELECTRONIC PROPERTIES OF SEMICONDUCTOR NANOMATERIALS**” submitted for the degree of *Doctor of Philosophy in Physics* has been carried out by me at the *National Chemical Laboratory, Pune* and the *Department of Chemistry, University of Pune, India* under the joint supervision of *Dr. Murali Sastry and Dr. Balaprasad G. Ankamwar*. Such materials as have been obtained by other sources have been duly acknowledged in this thesis. The work is original and has not been submitted in part or full by me for award of any other degree or diploma in any other University.

Date:

Place: Pune

Usha Raghavan

(Research Student)

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