

A

Thesis entitled

"SYNTHESIS AND CHARACTERIZATION OF PLAIN AND HIERARCHICAL NANOSTRUCTURES OF MOLYBDENUM SYSTEMS AND THEIR SPANKING APPLICATIONS"

Submitted to

Bharati Vidyapeeth Deemed University

For award of degree of

Doctor of Philosophy

In

NANOSCIENCE AND NANOTECHNOLOGY ENGINEERING
Under the Faculty of
ENGINEERING & TECHNOLOGY

By

MISS. NILAM MEHMOOD QURESHI

Under the Guidance of Dr. Anand. Bhalerao Dr. Dinesh. Amalnerkar

BHARATI VIDYAPEETH UNIVERSITY COLLEGE OF ENGINEERING, KATRAJ-DHANKAWADI, PUNE-411043

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This is to certify that the work incorporated in the thesis entitled "Synthesis and characterization of plain and hierarchical nanostructures of molybdenum systems and their spanking applications" for the degree of 'Doctor of Philosophy' in the subject of Nanoscience And Nanotechnology Engineering under the faculty of Engineering & Technology has been carried out by Miss. Nilam Mehmood Qureshi in the Department of Engineering & Technology at Bharati Vidyapeeth Deemed University, Katraj, Pune during the period from 2013 to 2017 under the guidance of Dr. Anand Bhalerao and Dr. Dinesh Amalnerkar.

Place: Pune

Date: 03/05/17

(Signature of Head of the Institute with seal)

Principal / Director

Seal PRINCIPAL

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CERTIFICATION OF GUIDE

This is to certify that the work incorporated in the thesis entitled "Synthesis and characterization of plain and hierarchical nanostructures of molybdenum systems and their spanking applications" Submitted by Miss Nilam Mehmood Qureshi for the degree of 'Doctor of Philosophy' in the subject of Nanoscience And Nanotechnology Engineering under the faculty of Engineering & Technology has been carried out in the Department of Engineering & Technology, Bharati Vidyapeeth's Deemed University, Katraj, Pune during the period from 2013 to 2017, under my direct supervision/ guidance.

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Prof. Dr. Anand Bhalero
(Principle & Dean of BVDU, Pune)

Place: Pune

Date :03 05 17

(Signature of Research Guide)
Dr. Dinesh Amalnerkar
(Brain pool scientist of S. Korea &
Former Executive Director of
C-MET, Pune)

DECLARATION BY THE CANDIDATE

I hereby declare that the thesis entitled "Synthesis and characterization of plain and hierarchical nanostructures of molybdenum systems and their spanking applications" submitted by me to the Bharati Vidyapeeth University, Pune for the degree of Doctor of Philosophy (Ph.D.) in Nanoscience and Nanotechnology Engineering under the Engineering & Technology is original piece of work carried out by me under the supervision of Prof. Dr. Anand Bhalerao and Dr. Dinesh Amalnerkar. I further declare that it has not been submitted to this or any other university or Institution for the award of any degree or Diploma.

I also confirm that all the material which I have borrowed from other sources and incorporated in this thesis is duly acknowledged. If any material is not duly acknowledged and found incorporated in this thesis, it is entirely my responsibility. I am fully aware of the implications of any such act which might have been committed by me advertently or inadvertently.

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Date : 03/05/17

Name & signature of

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