

CATALYTIC BEHAVIOR OF GOLD NANO PARTICLES
A COMPUTATIONAL STUDY

PROJECT REPORT

Submitted to the



DEPARTMENT OF APPLIED CHEMISTRY
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in partial fulfillment of the requirement for the award of degree of

MASTER OF TECHNOLOGY

in

INDUSTRIAL CATALYSIS

by

Mr. Madhu Mathew

Under the guidance of

Prof. B. Viswanathan

Carried out at



National Center for Catalysis Research
Indian Institute of Technology-Madras, Chennai

CERTIFICATE

This is to certify that Mr. Madhu Mathew worked on the project work entitled **CATALYTIC BEHAVIOR OF GOLD NANO PARTICLES-A COMPUTATIONAL STUDY**, from July 2013 to June 2014, in the, National Center for Catalysis Research, IIT Madras, Chennai in partial fulfilment of the requirements for the degree of *Master of Technology In Industrial Catalysis* of Cochin University of Science and Technology. This is the bonafide record of work done by him under my guidance.

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CERTIFICATE

This is to certify that project work entitled, **CATALYTIC BEHAVIOR OF GOLD NANO PARTICLES- A COMPUTATIONAL STUDY** is being submitted by Mr. Madhu Mathew is a bonafide work done by him in NCCR, IIT Madras under the guidance of Prof. B. Viswanathan from July 2013 to June 2014 in partial fulfillment for the award of the degree of *Master of Technology in Industrial Catalysis* of Cochin University of Science and Technology

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DECLARATION

I hereby declare that the project work entitled **CATALYTIC BEHAVIOR OF GOLD NANO PARTICLES- A COMPUTATIONAL STUDY** is a bonafide record of work carried out by me, in partial fulfillment for the award of the degree of Master of Technology in Industrial Catalysis, in National Center for Catalysis Research, IIT Madras, Chennai, and that it has not been submitted elsewhere for the award of any degree or diploma.

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