

“Noble metal doped semiconductor WO_3 thin film gas sensors prepared by Langmuir-Blodgett technique for selective NO_2 detection at room temperature”

A Dissertation for

Credits: 16

Submitted in partial fulfilment of Masters of Science Degree

In Chemistry

Ms. MANSI MARUTI HARKARE

Roll No: 22P0490038

ABC ID: 477-254-511-679

PR No: 201911466

Under the Supervision of

Internal Guide

Dr. Rohan Kunkalekar

Assistant Professor

School of Chemical Sciences

Goa University



External Guide

Dr. Sipra Choudhury

Scientific Officer (G)

Chemistry Division

BARC (Mumbai)



Examined By:

Seal of the school



[Signature]
3/5/2024

[Signature]
03/5/24

[Signature]
03/05/2024

[Signature]
03/05/2024

[Signature]
03/05/2024

[Signature]
03/05/2024

DECLARATION BY STUDENT

I hereby declare that the data presented in this Dissertation report entitled, "Noble metal doped semiconductor WO_3 thin film gas sensors prepared by Langmuir-Blodgett technique for selective NO_2 detection at room temperature" is based on the results of investigations carried out by me in the Material Science at the Bhabha Atomic Research Centre (Mumbai), Chemistry Division under the Supervision of Dr Sipra Choudhury (Scientific Officer G) and the same has not been submitted elsewhere for the award of a degree or diploma by me. Further, I understand that Goa University or its authorities will be not be responsible for the correctness of observations / experimental or other findings given the dissertation.

I hereby authorize the University to upload this dissertation on the dissertation repository or anywhere else as the UGC regulations demand and make it available to any one as needed.


Miss Mansi Maruti Harkare

22P0490038

Inorganic Chemistry

School of Chemical Sciences

Date:

Place: Goa University

COMPLETION CERTIFICATE

This is to certify that the dissertation report, **"Noble metal doped semiconductor WO₃ thin film gas sensors prepared by Langmuir-Blodgett technique for selective NO₂ detection at room temperature"** is a bonafide work carried out by Ms. Mansi Maruti Harkare under my supervision in partial fulfilment of the requirements for the award of the degree of Master of Science in the Discipline Inorganic Chemistry at the Chemistry Division, BARC (Mumbai).



31/5/2024

Internal Guide

Dr Rohan Kunkalekar

Assistant Professor in Inorganic Chemistry

School of Chemical Sciences

Goa University

Date:



Prof. V.M.S Verenkar

Dean

School of Chemical Sciences

Date: 03/05/2024

Place: Goa University

External Guide

Dr Sipra Choudhury

Scientific Officer (G)

Chemistry Division

BARC (Mumbai)

Date:

Dr, N Choudhury

Head

Chemistry Division

Date:

Place: BARC, Mumbai