

## Synthesis, Morphology, Phase Transition and Characterization of Bi<sub>2</sub>O<sub>3</sub>

## Nanostructure for Photocatalytic Hydrogen Production and Degradation of

## **Organic Pollutants**

A project submitted to the

University of Mysore

in fulfilment of the requirement for the degree of

**Master of Science** 

in Physics

by Othman Ali Hussein

Research supervisor

Prof. Lokanath N. K.

Department of Studies in Physics
University of Mysore
Manasagangotri, Mysuru - 570 006

Dr. Lokanath N. K. Professor

Department of Studies in Physics

University of Mysore, Manasagangotri Mysuru 570006, India

Tel: +91-821-2419610

Email: lokanath@physics.uni-mysore.ac.in

CERTIFICATE

This is to certify that Othman Ali Hussein, student of M.Sc. in Department of Studies in Physics, Manasagangotri, Mysore University, has completed and submitted the project work entitled Synthesis, Morphology, Phase Transition and Characterization of Bi<sub>2</sub>O<sub>3</sub> Nanostructure for Photocatalytic Hydrogen Production and Degradation of Organic Pollutants under the guidance of Prof. Lokanath N. K., in the fourth semester of Master's Degree in Physics, during the period March-September 2021.

Prof. N.K. Lokanath

Place: Mysuru

Date:

Dr. M. S. Chandrashekara Professor and chairman Department of Studies in Physics

University of Mysore, Manasagangotri Mysuru 570006, India Tel: +91-821-2419601602

CERTIFICATE

We hereby certify that this project report submitted by Othman Ali Hussein is based on the investigations carried out at the National Single Crystal Diffractometer Facility, Department of Studies in Physics, University of Mysore, Mysuru-570 006, under my supervision. The subject matter has not previously formed the basis for the award of any other degree, diploma, fellowship or other similar titles.

Chairman 8 110 kg

Department of Studies in Physics University of Mysore, Manasagangoiri MYSURU-570 006, India.

Place: Mysuru

Date: