GROWTH AND CHARACTERIZATION OF PbS THIN

FILMS

A PROJECT REPORT SUBMITTED TO

SAVITRIBAI PHULE PUNE UNIVERSITY, PUNE



FOR THE DEGREE OF BACHELOR OF SCIENCE IN PHYSICS

UNDER THE FACULTY OF SCIENCE

BY

Miss. Nikita Pradip Shinde Department of Physics, Arts, Commerce and Science College, Sonai

UNDER THE GUIDANCE OF

Prof. Shinde.R.S M. Sc., NET, SET

ASSISTANT PROFESSOR

DEPARTMENT OF PHYSICS, ARTS, COMMERCE AND SCIENCE COLLEGE, SONAI SONSI-414105

MARCH-2023

Seat No. 28047

SAVITRIBAI PHULE PUNE UNIVERSITY

BONAFIDE CERTIFICATE

This is to certify that the work incorporated in the project report entitled "Growth and Characterization of PbS Thin Films" submitted to Savitribai Phule Pune University, Pune, is benefited work of Miss. Nikita Pradip Shinde of T.Y.B.Sc. (Physics) during the academic year 2020-21, who carried out the project work under my supervision

Prof. Shinde R.S Guide Department of Physics Arts, Commerce and Science College Sonai-414105 Date-

Dr. Sadekar H.K.

Head Department of Physics Arts, Commerce and Science College, Sonai-414105

Internal Examiner

External Examiner

Mula Education Society's Arts,Commerce & Science College Sonai,Tal.Newasa,Dist.Ahmednagar(MH),Pin-414105

Date

ACKNOWLEDGEMENT

I wish to thank the Principal **Dr. Laxman Laware** of my college for permitting me to use all the facilities available in the institution for my project work. I would also like thank the Head of the Physics Department **Dr. Sadekar H.K.**, the teaching faculty and all the nonteaching staff of my college for their support in completing the work successfully.

I am grateful to my Guide **Prof. Shinde.R.S** for her encouragement, guidance and supervision of my project work during the year. I must acknowledge the financial support given to this project by my parent without which it would have been difficult to complete the work in time.

My classmates have been of great help to me the project work. My ideas were shaped and refined progressively through my discussions with them from time to time. I cannot miss to thank them all. There were some persons like **Prof. Darandale.A.A., Prof. Darandale.M.P** who were directly but indirectly involved in my preparatory/practical work. I appreciate their contribution and thank them too.

finderp Signature of Research Student

Miss. Nikita Pradip Shinde (T.Y.B.Sc. Physics)

Place: Sonai

Date: 30 11/2023