

*Dedicated  
To*

*My Family*

## Declaration by the Candidate

I hereby declare that the work embodied in the present thesis entitled “Study of heavy ion reactions with weakly bound nuclei” has been carried out by me under the supervision of Prof. Surjit Mukherjee. This work has been carried out in Physics Department, Faculty of Science, The Maharaja Sayajirao University of Baroda, India, approved by Council of Post-Graduate Studies and Research and in active collaboration with Bhabha Atomic Research Centre (BARC) and Tata Institute of Fundamental Research Centre (TIFR), Mumbai.

I have put in more than two years of attendance with the supervisor at the University. I further declare that to the best of my knowledge neither the thesis nor any part thereof has been submitted for any degree whatsoever.

Date:

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**Certificate from the Thesis Supervisor**

This is to certify that the thesis entitled “Study of heavy ion reactions with weakly bound nuclei” is a piece of work done by Ms. Dipikaben B. Patel, under my guidance and supervision for the degree of Doctor of Philosophy of The Maharaja Sayajirao University of Baroda, India and the candidate has put in an attendance of more than two years with me.

To the best of my knowledge and belief the Thesis

1. embodies the work of the candidate herself,
2. has duly been completed,
3. fulfills the requirements of the ordinance relating to the Ph. D. degree of the university and
4. is up to the standard both in respect to the content and language for being referred to examiner.

**Prof. S. Mukherjee**  
Thesis Supervisor