

DECLARATION

I hereby declare that this thesis contains original research work carried out by me under the guidance of Prof. Barun Raychaudhuri, Professor, Department of Physics, Presidency University, Kolkata, India as part of the PhD programme.

All information in this document have been obtained and presented in accordance with academic rules and ethical conduct.

I also declare that, as required by these rules and conduct, I have fully cited and referenced all materials and results that are not original to this work.

I also declare that, this work has not been submitted for any degree either in part or in full to any other institute or University before.

Date: 24/01/2022

Presidency University, Kolkata



Santanu Roy

Department of Physics

Presidency University

Kolkata, India

Reg. No.: R-18RS09160151