

Rational design of carbon supported noble metal based electrocatalysts for renewable energy applications

a thesis

submitted by

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for the award of the degree of

Doctor of Philosophy



School of Basic Sciences

Indian Institute of Technology Mandi, Mandi

Himachal Pradesh - 175005, INDIA

July, 2019

Dedicated to

The weaker section of the society

Thesis Certificate

This is to certify that the thesis titled “**Rational design of carbon supported noble metal based electrocatalysts for renewable energy applications**”, submitted by Mohammad Saquib to the Indian Institute of Technology Mandi, for the award of the degree of Doctor of Philosophy, is a bona fide record of the research work done by him under my supervision. The contents of this thesis, in either full or parts, have not been submitted to any other institute or university for the award of any diploma or degree.

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Declaration by the Ph.D. Scholar

I hereby declare that the entire work incorporated in this thesis are the result of investigations carried out by me in the School of Basic Sciences, Indian Institute of Technology Mandi, under the supervision of Dr. Aditi Halder and it has not been submitted elsewhere for the award of any diploma or degree. All the acknowledgments have been made wherever the work described the findings of other investigators.

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