

**Curriculum vitae of
Archana Nishant Inamdar
Research Student**



Department of Applied Physics, Faculty of Technology and Engineering,
The M. S. University of Baroda, Vadodara.

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OBJECTIVE

To obtain a position for carrying out research on Material Science, Condensed Matter Physics and Nanomaterial by material simulations and analysis using Density functional theory based on first principles calculation utilizing relevant knowledge and research experience.

Personal Details

Residential Address:	P 7/8, Sangath Society, Opp. Avsar Hall, B/H MGVCCL, Sama-Savli Road, Vadodara 390024.
Husband Name:	Nishant V. Inamdar
D.O.B:	17/09/1992
Nationality:	Indian

Research Interest

- Structural, Electronic, Dynamical and Mechanical properties of materials using First Principles Calculations.
- Computational works and Programming.

Research Skills

- Familiar with Windows10 and Ubuntu.
- Familiar with Excel, Word, PowerPoint Template, LibreOffice, Origin, etc.
- Experienced with the First Principles Calculations tool like Quantum Espresso and Gaussian09.

Research Experiences and Achievements

- Awarded second prize in poster presentation of paper "*A study of basal plane activity of HfSe₂ through vacancy engineering using first-principles calculations*" in AMSCO-2021.
- Opportunity to present a poster on the paper entitled "*Study of Hydrogen Evolution Reaction of SnSe₂ through formation of various intrinsic defects*" in ICCMDP-2021.

- Opportunity to present a poster on the paper entitled “*DFT Insights into Ozone Depletion Potential of CH₃X (X= Br, Cl), CH₂BrCl and CCl₄*” in ICDEMA-2021.
- Opportunity to present a poster on the paper entitled “*Hydrogen evolution and oxygen evolution reactions of pristine and alkali metal doped SnSe₂ monolayer*” in IGWMWE-2019.
- Qualified PET (Ph.D Entrance Test) of The M. S. University of Baroda, Vadodara.

Conference and Workshop Attended

- Advances in Materials Science: Challenges and Opportunities (AMSCO-2021) organized by Maharaja Krishnakumarsinhji Bhavnagar University, Bhavnagar Gujarat (2021).
- International Conference on Condensed Matter and Device Physics organized by PDEU, Gandhinagar Gujarat (2021).
- International Conference on Diverse Emerging Materials and their Applications organized by University of Lucknow, Lucknow Uttar Pradesh (2021).
- Indo-German joint Scientific Workshop on Membranes for Water and Energy organized by CSIR-Central Salt and Marine Chemicals Research Institute, Bhavnagar Gujarat (2019).

Education Detail

Degree	School/Institution	Year of passing	Class
M.Sc. (Physics)	School of Science, Ahmedabad, Gujarat	April 2015	Distinction
B.Sc. (Physics)	Xavier's University, Ahmedabad, Gujarat	March 2013	Distinction
12 th	GLS Secondary and Higher Secondary School, Ahmedabad	March 2010	Second class
10 th	GLS Secondary and Higher Secondary School, Ahmedabad	June 2008	Distinction

Publications

1. “Hydrogen evolution and oxygen evolution reactions of pristine and alkali metal doped SnSe₂ monolayer” *International Journal Of Hydrogen Energy* (2020).
2. “In Situ defect engineering of HfS₂, HfSe₂ and Janus HfSSe for highly efficient hydrogen evolution reaction: an ab initio study” - In Communication.
3. “Enhanced HER activity of 1T- SnSe₂ by defect engineering: a DFT study” - In Communication.
4. “Ab initio investigation of 2D niobium trisulfide: a potential candidate as electrocatalyst for water splitting” - In Communication.

Reference

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I hereby declare that information given above is correct to the best of my knowledge.

Date: 16/10/2023
Place: Vadodara


(Archana Nishant Inamdar)