



**Name** : Dr. A. Saravanapriya  
**Designation** : Assistant Professor  
**Department** : Physics  
**Qualification** : Ph. D  
**Experience** : Teaching - 10 Years 6 Months  
**Research** : 8 Years  
**Area of Specialization(s)** : Molecular Quantum Mechanics, Plasma Physics  
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#### Academic Qualifications

Degree	Branch	Institution/University Name	Year of Graduation
Ph.D.	Physics	PSGR Krishnammal College for Women	2023
M. Phil.	Physics	Bharathiar University	2015
M.Sc.	Physics	Bharathiar University	2013
B.Sc	Physics	LRG Government Arts College for Women	2011

#### Research Publications (Indexed)

1. DFT study on the electronic and structural properties of M-Salen and M-Salphen electrocatalysts towards effective HER, Saravanapriya A, Abiram A and Praveena G, **Journal of the Indian Chemical Society**, Volume 101, Issue 11, **2024**.
2. Effect of boron halogenation on dihydrogen bonds: A quantum mechanical approach Saravanapriya A, Abiram A and Praveena G, **J Chem Sci** 136, 28 **2024**.
3. Molecular Insights on the Dihydrogen Bond Properties of Metal Borohydride Complexes upon Ammoniation Saravanapriya A, Abiram A and Praveena G, **ECS Journal of Solid State Science and Technology**. (10), **2021**
4. A. Saravanapriya and G. Praveena. Impact of Electronegativity on the dihydrogen bond formation in MH...NH complexes, Saravanapriya A and Praveena G, **Advances in applied Research**. Vol.13, 13-17, **2021**

## Acted as a Resource Person

- Academic Committee Member, Regional Level Youth Astronomy and Space Science Congress – Organized by TASS, Indian Institute of Astrophysics (IIA), Bengaluru and Institute of Mathematical Sciences (IMSc), Chennai; held at Vellalar College for Women, Erode, July 27, 2025.
- Project Evaluator, State Level South Indian Science Fair – Organized by Tamil Nadu School Education Department; held at Hindusthan College of Arts and Science, Coimbatore, December 05, 2025.
- Invited skywatch session as Resource Person – Perk's Matriculation School, Coimbatore, February 28, 2023.

## Paper Presentations in Conference

### National

- Electronic and Structural properties of Graphitic Carbon Nitride derivatives : A DFT approach, Indo-South Korea – Thailand 5<sup>th</sup> International Conference on Nanoscience and Nanotechnology for Energy, Environment and Biomedical Applications (iNEEBA 2025), Vinayaka Mission's Kirupananda Variyar Arts and Science College, Salem, 13-14 - Oct-2025.
- Theoretical investigation on Redox properties of Antimony based electrocatalyst, ICONN – 2023(Virtual Conference), SRM Institute of Science and Technology, Kattankulathur, 27-29 – Mar – 2023.
- First principle study on dihydrogen bond interaction in metal hydrides, International virtual conference on advanced materials for sustainable energy and environment, PSGR Krishnammal College for Women, Coimbatore, 16-18 Feb-2022.
- Dihydrogen Bonding in complex hydrides – Abinitio Study, International Conference on Nanoscience and Nanotechnology, SRM Institute of Science and Technology, Kattankulathur, 1-3-Feb-2021.
- Effect of Ammoniation on Dihydrogen bonded AMB...MB Complexes, National Conference on Molecular Modeling and Simulation Methods, PSGR Krishnammal College for Women, Coimbatore, 17 & 18-Feb-2020.
- Dihydrogen bonds and coordination chemistry of metal hydrides, DAE-CCS symposium, Chemical Engineering group, Bhabha Atomic Research Centre, Mumbai, 7-9-Nov-2019.
- Study of Dihydrogen bond in ammoniated metal borohydride complexes, International conference on Advanced Chemical and Structural Biology, PRIST Deemed to be university, Thanjavur, 19-21-Feb-2019.

### Participation in Workshop

- Physics Teachers Training Programme (PTTP) 2025 by Azim Premji University & PTTS at Benagluru Campus, 30<sup>th</sup> June – 4<sup>th</sup> July 2025.
- Workshop on State Level Youth Astronomy & Space Science Congress 2025 by TASS at The Institute of Mathematical Sciences, Chennai, 15<sup>th</sup> & 16<sup>th</sup> February 2025.
- CSIR NET/SET Problem Solving Workshop on Quantum Mechanics, Sri Ramakrishna Mission Vidyalaya, Coimbatore, 23.09.2024.

### Conference/Seminar/Workshop Organized

- Organized Sunspot observation event at PSGRKCW, 25<sup>th</sup> Feb 2025
- Organized Stargazing event at GRG main hostel, 24<sup>th</sup> Jan 2025.
- CSIR NET/SET Workshop on Physical Sciences at PSGRKCW, 12<sup>th</sup> – 13<sup>th</sup> August 2024.
- CSIR NET/SET Workshop on Physical Sciences at PSGRKCW, 31<sup>st</sup> July & 1st August 2023.

### Grants

S.NO.	Project title	Name of the agency	Amount (in Lakhs)	Status
1	DFT Study on Metal-Decorated Graphitic Carbon Nitride for Reduced Overpotential in HER	GRG – Trust Project	0.90	Completed

### Indexing and Citations

Overall Citation: 2 H- Index = 1