



Weekly Seminar Program – (2023-24)

Department of Physics – Bharathiar University



Ms. Bhavadharini A

Research Scholar (I Year)
Molecular Quantum Mechanics Laboratory
Department of Physics, Bharathiar University

Speaks on

“Unlocking the Secrets of Atmospheric Chemistry through Electronic Structure Calculations”

Abstract:

Atmospheric chemical reactions are complex interactions between chemicals in the Earth's atmosphere. The study of atmospheric chemical reactions is crucial for the understanding of Earth's complex environmental systems and their impact on human and ecological health. By understanding atmospheric chemical reactions, scientists can develop strategies to mitigate their negative effects. This includes developing cleaner technologies, implementing regulations to reduce emissions, and monitoring air quality. Studying atmospheric chemical reactions also helps us better understand the Earth's climate and how it is changing over time. In recent years, quantum mechanics has emerged as a fundamental tool in elucidating the intricate molecular processes that govern these reactions. By using electronic structure calculations, researchers can study how molecules interact with each other and with their environment. This allows them to better understand the chemical processes that occur in our atmosphere. In this presentation, the fundamentals of electronic structure calculations, theories and methods that are used in the modelling of atmospheric chemical reactions will be explored.

About the Speaker:

Ms. Bhavadharini A is from Valparai, Coimbatore and has completed her undergraduate in Physics at PSGR Krishnammal College for Women, Coimbatore and her postgraduate in Physics at Bharathiar University, Coimbatore. Her broad field of research is centered on investigating atmospheric chemical reactions through electronic structure calculations. She is presently focussing on studying the mechanisms, thermochemistry, and kinetics involved in the degradation of organic air pollutants in the atmosphere.

Venue: Sir C.V. Raman Hall

Date: 03.10.2023

Time: 10.00 am

Kindly be seated by 10:00 am and switch off your mobile phone during the lecture.

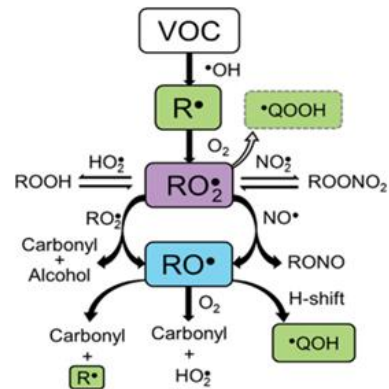
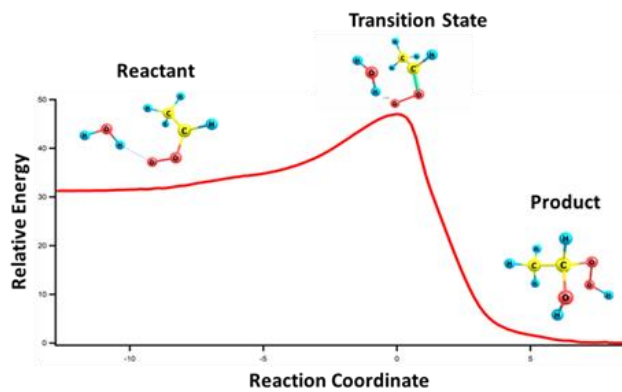
All are cordially invited.

Coordinator (General Seminar)

Head of the Department

Agenda

Time	Event	Name	Designation
10.00 am	குறள் வணக்கம்	Ms. Madhumitha. M	II M. Sc., (Physics)
10.05 am	Biography of Scientists	Mr. Kabilan. S	I M.Sc., (Physics)
10.10 am	Recent Physics News	Ms. Sujitha. K	II M. Sc., (Physics)
10.15 am	Seminar	Ms. Bhavatharani. A	Research scholar (1st yr), Molecular Quantum Mechanic Laboratory
10.45 am	பாரதியின் குரல்	Ms. Vidhya. A	I M.Sc., (Physics)



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Tea & Snacks at 11.00 am