University of Calcutta

Faculty Academic Profile / CV

Name of the faculty : Dr. Pinaki Chaudhury

Name of the Department : Chemistry

Designation : Professor

Contact Information:

Department of Chemistry,
University of Calcutta,
92, A. P. C. Road, Kolkata - 700009,
West Bengal, INDIA
E-mail:
pinakc@rediffmail.com ; pcchem@caluniv.ac.in

Academic Qualifications:

College/ Institute/University	Degree
Presidency College, Kolkata	B.Sc.(Hons)
Indian Institute of Technology, Kanpur	M.Sc.
Indian Association for the Cultivation of Science	Ph. D.

Position held/holding:

Professor, Dept. of Chemistry, University of Calcutta 15/7/ 2014 onwards Associate

Professor, Dept. of Chemistry, University of Calcutta 15/7/ 2011 – 14/7/2014

Reader, Dept. of Chemistry, University of Calcutta 15/7/ 2008 – 14/7/2011

Lecturer, Dept. of Chemistry, University of Calcutta 05/10/ 2005– 14/7/2008

Lecturer & Sr. Lecturer, Dept. of Chemistry, R.K. Mission Vidyamandira 15/7/ 1999– 4/10/2005

Research Interests:

Stochastic Optimization based study of Atomic and Molecular Clusters. Optimal

Control in Quantum Dynamics of Molecules.

Stochastic study of chemical kinetic processes.

Research guidance:

Number of researchers awarded Ph.D. degree: 6

Number of researchers pursuing Ph.D. : 4

Projects:

Completed project:

UGC Major Research Project titled " Stochastic Optimization Based Approach

Towards Optimal Control in Dissociative Dynamics of Small Molecules"

Select list of publications:

Structure elucidation and construction of isomerisation pathways in small to moderate-sized (6–27) MgO nanoclusters: an adaptive mutation simulated annealing based analysis with quantum chemical calculations ;
Kuntal Ghosh, Rahul Sharma, Pinaki Chaudhury ;
Phys.Chem.Chem.Phys.; 22 (2020) 9616-9629

Controlling the isomerisation dynamics of iodide acetonitrile dimer complex by optimally designed electromagnetic field: a wave packet based approach;
Pulak Naskar, Srijeeta Talukder, Subhasree Ghosh and Pinaki Chaudhury ;
Int. J. Quant. Chem.; 119 (2019) e25927

Role of the vibrational contribution in Coulomb explosion in dicationic neon gas clusters: a parallel tempering based study;
Sankar Ghorai, Pulak Naskar and Pinaki Chaudhury;
Phys.Chem.Chem.Phys.; **20** (2018) 22379-22386

An adaptive mutation simulated annealing based investigation on coulombic explosion and identification of dissociation patterns in $(CO_2)_n^{+2}$ cluster ;
Pulak Naskar, Srijeeta Talukder and Pinaki Chaudhury ;
Phys.Chem.Chem.Phys.; **19 (2017)** 9654 - 9668

Structural and spectroscopic studies of iodine dimer radical anion hydrated clusters : An approach using a combination of stochastic and quantum chemical method'
Pulak Naskar and Pinaki Chaudhury;
RSC Advances ; 6 (15), (2016) 12315-12325

Membership of Learned Societies:

Life member IACS Kolkata

Invited lectures delivered:

i) Indian Chemical Society, July, 2020

ii) Jadavpur University; March, 2018

iii) Visva Bharati ; March, 2017

iv) University of Hyderabad; December, 2016