Murshidabad University

FACULTY ACADEMIC PROFILE/ CV

Full name of the faculty member: DR SANDIP KUMAR RAJAK

Designation: ASSOCIATE PROFESSOR

Contact information:9474310832/ sandip1ku@gmail.com

Academic qualifications:

College/University from which the degree was obtained	Abbreviation of the degree
University of Kalyani	B.Sc with Hons
University of Kalyani	M.Sc
University of Kalyani	Ph.D

Positions held/ holding: ASSOCIATE PROFESSOR in Dumkal College

Research interests: Theoretical Chemistry

Research guidance: NIL

Projects: NIL

Select list of publications (Only number):

a) Journals:06
b) Books/ book chapters:01
c) Conference/ seminar volumes:01

Membership of Learned Societies:

Invited lectures delivered:

Awards:

Other notable activities:

List of Journal Publication/ Conference Papers: (Last ten years)

1. Sandip Kumar Rajak, QSAR study in terms of conceptual density functional theory based descriptors in predicting toxicity of nitrobenzenes towards *Tetrahymena pyriformis,* **Indian Journal of Chemical Technology**, Vol. 28, July 2021, pp. 467-472
2. Prabhat Ranjan, Shayeri Das, Poonam Yadav, Hiteshi Tandon, Shalini Chaudhary, Babita Malik, Sandip Kumar Rajak, Vandana Suhag, Tanmoy Chakraborty, Structure and electronic properties of [AunV]λ (n = 1–9; λ = 0, ± 1)nanoalloy clusters within

density functional theory framework, **Theoretical Chemistry Accounts** (2021), 140:59, https://doi.org/10.1007/s00214-021-02772-7

3. Shalini Chaudhary, Abhay Chaudhary, Sandip Kumar Rajak, Savaş Kaya, Mustafa Elik, Tanmoy Chakraborty, Theoretical computation of normalised radii, density and global hardness as a function of orbital exponent, **Journal of Mathematical Chemistry**, (2021) 59:1014–1028, https://doi.org/10.1007/s10910-021-01224-8

4. Hiteshi Tandon, Sandip Kumar Rajak, Tanmoy Chakraborty, Vandana Suhag , A relationship between magnetizability and chemical potential**,** **Chemical Papers**(75)6:2331-2337,2021, DOI 10.1007/s11696-020-01458-x

5. Sandip Kumar Rajak ,Probing the reactive center for site selective protonation in carbonyl sulphide in terms of conceptual density functional based site selectivity descriptors, **J. Indian Chem. Soc**, Vol. 97, No. 11b, November 2020, pp. 2391-2396

6. Sandip Kumar Rajak, Nazmul Islam and Dulal C. Ghosh , Evaluation of The Protonation Energy of Molecules using Conceptual Density Functional Theoretical Reactivity Descriptors, **Current Physical Chemistry**, 2017,7,126-132

Publication in the Book Chapter

1. Sandip Kumar Rajak and Dulal C. Ghosh ,The Evaluation of Protonation Energy of Molecules in Terms of Quantum Theoretical Descriptors, Theoretical and Computational Research in the 21st century , **Apple Academic Press, Canada,** 2014

Publication in the seminar proceedings

Nanotechnology A new Environmental Hazards, proceedings for UGC sponsored national seminar 'Education For Sustainable Development(ESD) in 21st Century', U.C.T.College,Berhampore,2015, ISBN:978-81-925536-0-3