Dr. Mrityunjay Kumar Tiwari

Designation: Assistant Professor, Sage University Bhopal
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Educational Qualification

PhD: CSIR – National Chemical Laboratory, Pune (2018)
MSc: Indian Institute of Technology Bombay (2009)
BSc: Institute of Science, Banaras Hindu University (2007)

Total Experience: 5 years
Academic: 1 yr | Research: 4 yrs

Areas of Interest: Computational Catalysis, Noncovalent Interactions

Brief Profile: I got my Ph.D. in Computational and Theoretical Chemistry from CSIR – National Chemical Laboratory (NCL), Pune. My M.Sc. is from the Indian Institute of Technology (IIT) Bombay, and my B.Sc. is from Banaras Hindu University.

After my Ph.D., I worked as a postdoctoral fellow at the Indian Institute of Science Education and Research (IISER) Bhopal. I have qualified for IIT JAM – 2007, CSIR-JRF (three times), and GATE – 2009. Currently, I am an assistant professor of chemistry at Sage University, Bhopal. I also worked as a chemistry lecturer for Jnana Marga Technologies Pvt. Lmt. for a brief period.

My research interest includes computational catalysis, organometallic chemistry, and noncovalent interactions. Apart from teaching and research, I also have a keen interest in poetry and story writing/recitation. I have been a member of the editorial team of student magazines throughout my college years.

Research publications in International Journal:

M. K. Tiwari, R. K. Murarka, Interaction Strength of Osmolytes with the Anion of a Salt-bridge Determines its Stability, Phys. Chem. Chem. Phys, 2021, 23, 5527-5539. (Impact factor: 3.6, Citation: 1)

A. Mukherjee, S. S. Ghule, **M. K. Tiwari**, K. Vanka, Unraveling the Hidden Role of the Counter Anion in “Cation in a Cage” Systems, J. Phys. Chem. A 2020, 124, 8040−8049. (Impact factor: 2.72, Citation: 1)

Y. Yadav, **M. K. Tiwari**, D. Chand, A. Pundle, S. Ramasamy, Dissection of the Catalytic Site of Crucial Gut Microbiome Enzyme: Bile Salt Hydrolase, bioRxiv, 714493.

M. K. Tiwari, Computational Studies of Noncovalent Interactions in Understanding and Designing New Systems of Biological and Chemical Significance, CSIR-National Chemical Laboratory, Pune.

M. K. Tiwari, K. Vanka, Exploiting directional long range secondary forces for regulating electrostatics dominated noncovalent Interactions, Chemical Science, 2017, 8, 1378-1390. (Impact Factor = 9.45, Citation: 15)

M. K. Tiwari,† A. K. Jana,† K. Vanka, N. Sengupta, Unraveling Origins of the Heterogeneous Curvature Dependence of Polypeptide Interactions with Carbon Nanostructures, Phys. Chem. Chem. Phys., 2016, 18, 5910- 5924; († represent equal authorship). (Impact factor: 3.6, Citation: 19)

K. K. Singh, **M. K. Tiwari**, B. B. Dhar, K. Vanka, S. S. Gupta; Mechanism of Oxygen Atom Transfer from FeV (O) to Olefins at Room Temperature, Inorg. Chem., 2015, 54, 6112-6121. (Impact factor: 4.97, Citation: 40)

K. K. Singh, **M. K. Tiwari**, M. Ghosh, C. Panda, A. Weitz, M. P. Hendrich, B. B. Dhar, K. Vanka, S. S. Gupta, Tuning the Reactivity of FeV(O) toward C–H Bonds at Room Temperature: Effect of Water, Inorg. Chem., 2015, 54, 1535-1542. (Impact factor: 4.97, Citation: 27)

H. Chand, **M. K. Tiwari**, A. Bhattacharya, Glycal Mediated Synthesis of Fagomine, 4-epifagomine, 2- Deoxynojirimycin and an Advance Intermediate Iminoglycol, manuscript communicated.

Total Citation Index: 102 (h-index: 4, i10-index: 4)

Papers presented in International Conferences: NA

Papers presented in National Conferences: NA

Patents: NA

International/National Conference & Workshops Attended: over two dozen

FDP Attended: 6

National Awards: CSIR – JRF and CSIR – SRF

Workshops/Seminars/Conference Organized: was part of the organizing team for the International Conferences on “Recent Advances in Sciences and Engineering”, held at SAGE University Bhopal, India, on 23rd April 2022.

Membership of Professional Bodies: NA

Other Achievements: Editor-in-chief of CSIR-NCL’s student magazine, 'Dhwani,' for 2012 and 2013.

Editor of the IISER Bhopal student magazine, 'Uday,' for 2020.

Laboratory coordinator of School of Sciences, Sage University, Bhupal

Students’ activity coordinator, Sage University, Bhopal