



Dr. Kiran Pradhan
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Research Interests

Organic Synthesis, Medicinal Chemistry, Water Chemistry, Green Chemistry, Heterocycles

Academic Memberships

Member of Green Chemistry Network Centre, New Delhi
Life member of Association of Chemistry Teachers, Mumbai

Education

- M.Sc (Distinction) from North Bengal University
- Ph.D. in Chemistry from North Bengal University awarded in 2013. Title of the Thesis: "Designing of Green Chemical Reaction conditions under thermal analysis" under the supervision of Dr. A.K. Nanda, Department of Chemistry, University of North Bengal.

Previous Positions

- Chemist at Hindustan Coca-cola Beverages Pvt. Ltd., Raninagar, Jalpaiguri from 2000-2003
- Assistant Professor of Chemistry, St. Joseph's College, Darjeeling from 2003-2009
- Associate Professor of Chemistry, St. Joseph's College, Darjeeling from 2009-2021

Administrative Responsibilities

- Programme Officer of National Service Scheme (NSS), St. Joseph's College, Darjeeling
- Coordinator, Organic Farming (Career Oriented Programme) at St. Joseph's College, Darjeeling
- Head of the Department of Chemistry, St. Joseph's College, Darjeeling

- IQAC Coordinator, St. Joseph's College, Darjeeling
- Member of the Governing Body of St. Joseph's College, Darjeeling
- Secretary, St. Joseph's College Employees Credit Cooperative Society

Fellowships and Awards

- Awarded a fellowship under Faculty Development Programme from UGC from March 2010 to September, 2012

List of publications including book/chapter

1. Kiran Pradhan, Kaliaperumal Selvaraj and Ashis K. Nanda, **A Convenient Approach to the Synthesis of Different Types of Schiff's Bases and Their Metal Complexes.** *Chem. Lett.*, 2010, 39 (10), 1078-1079.
2. Ruma Dey Ghosh, Satyajit Das, Avishek Ganguly, Kaushik Banerjee, Paramita Chakraborty, Avijit Sarkar, Mitali Chatterjee, Ashis Nanda, Kiran Pradhan and Soumitra K. Choudhuri, **An *in vitro* and *in vivo* study of a novel zinc complex, zincN-(2-hydroxyacetophenone) glycinate to overcome multidrug resistance in cancer.** *Dalton Trans.*, 2011, 40, 10873-10884.
3. Biprakash Kumar Tiwary, Ravi Kant Pathak, Kiran Pradhan, Ashis Kumar Nanda, Asim Kumar Bothra, Ranadhir Chakraborty, **Evaluation Of Drug Candidature Of Some Quinazoline- 4-(3h)-Ones As Inhibitor Of Human Dihydrofolate Reductase Enzyme: Molecular Docking And In Silico Studies.** *International Journal of Pharmacy and Pharmaceutical Sciences*, 2014, Vol 6, (2), 393-400
4. Biprakash Kumar Tiwary, Ravindra Kailasrao Zirmire, Kiran Pradhan, Ashis Kumar Nanda, Ranadhir Chakraborty, **PREPARATION AND SPECTROSCOPIC CHARACTERIZATION OF INCLUSION COMPLEX OF 2-PHENYL-4H-BENZO[d][1,3]OXAZIN-4-ONE AND β -CYCLODEXTRIN.** *International Journal of Pharmacy and Pharmaceutical Sciences*, 2014, Vol 6, (3), 176-179
5. K.B. Benzoni, Hema Tresa Varghese, C. Yohannan Panicker, Kiran Pradhan, Biprakash Kumar Tiwary, Ashis Kumar Nanda, C. Van Alsenoy, **Spectroscopic investigation (FT-IR and FT-Raman), vibrational assignments, HOMO-LUMO, NBO, MEP analysis and molecular docking study of 2-(4-hydroxyphenyl)-4,5-dimethyl-1H-imidazole 3-oxide,** *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 2015, 146, 307-322.

6. K.B. Benzon, Hema Tresa Varghese, C. Yohannan Panicker, **Kiran Pradhan**, Bipranch Kumar Tiwary, Ashis Kumar Nanda, C. Van Alsenoy, **Spectroscopic and theoretical characterization of 2-(4-methoxyphenyl)-4,5-dimethyl-1H-imidazole 3-oxide**, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 2015, 151, 965-979.
7. Bipranch Kumar Tiwary, **Kiran Pradhan**, Ashis Kumar Nanda and Ranadhir Chakraborty, **Implication of Quinazoline-4(3H)-ones in Medicinal Chemistry: A Brief Review**, *J Chem Biol Ther*, 2015, 1, 1-7
8. **Kiran Pradhan**, Bipranch Kumar Tiwary, Mossaraf Hossain, Ranadhir Chakraborty and Ashis Kumar Nanda, **A mechanistic study of carbonyl activation under solvent-free conditions: evidence drawn from the synthesis of Imidazoles**, *RSC Advances*, 2016, 6, 10743-10749
9. K.B. Benzon, Mary Y. Sheena, C. Yohannan Panicker, Stevan Armarkovic, Sanja J. Armarkovic, **Kiran Pradhan**, Ashis Kumar Nanda, C. Van Alsenoy, **Studies on the synthesis, spectroscopic analysis, molecular docking and DFT calculations on 1-hydroxy-2-(4-hydroxyphenyl)-4,5-dimethyl-imidazol 3-oxide**, *Journal of Molecular Structure*, 2017, 1130, 644-658.
10. K.B. Benzon, Y. Sheena Mary, Hema Tresa Varghese, C. Yohannan Panicker, Stevan Armarkovic, Sanja J. Armarkovic, **Kiran Pradhan**, Ashis Kumar Nanda, C. Van Alsenoy, **Spectroscopic, DFT, molecular dynamics and molecular docking study of 1-butyl-2-(4-hydroxyphenyl)-4,5-dimethyl-imidazole 3-oxide**, *Journal of Molecular Structure*, 2017, 1134, 330-344.
11. Mossaraf Hossain, **Kiran Pradhan**, Ashis Kumar Nanda, **An expeditious synthetic protocol for chlorination of imidazole N-oxide: Synthesis of 2-chloroimidazoles**, *Tetrahedron Letters*, 2017, 58, 3772-3776.
12. M. Smitha, Y. Sheena Mary, **Kiran Pradhan**, Dhiraj Brahman, Y. Shyma Mary, Renjith Thomas, Rani Pavithran, C. Van Alsenoy, **Synthesis, spectral characterization, quantum mechanical analysis and light harvesting properties of two azoimidazole analogues**, *Journal of Molecular Structure*, 2019, 1197, 45-55.
13. Veena S. Kumar, Y. Sheena Mary, **Kiran Pradhan**, Dhiraj Brahman, Y. Shyma Mary, Renjith Thomas, M.S. Roxy, C. Van Alsenoy, **Synthesis, spectral properties, chemical descriptors and light harvesting studies of a new bioactive azo imidazole compound**, *Journal of Molecular Structure*, 2020, 1199, 127035.
14. Veena S. Kumar, Y. Sheena Mary, **Kiran Pradhan**, Dhiraj Brahman, Y. Shyma Mary, Goncagul Serdaroglu, Ali Shokuhi Rad, M.S. Roxy, **Conformational analysis and quantum descriptors of two**

new Imidazole derivatives by experimental, DFT, AIM, molecular docking studies and adsorption activity on graphene, Heliyon, 2020, 6 (10), 2047-2065.

BOOK CHAPTERS

1. Kiran Pradhan, Hydrocarbon Pollution in Water: Schiff Base Metal Complex for Its Chemical Remediation, 2017, M/s Bishen Singh Mahendra Pal Singh Dehradun, India
2. Bipranch Kumar Tiwary, Kiran Pradhan, Ashis Kumar Nanda, Asim Kumar Bothra and Ranadhir Chakraborty, Basics of Computer-Aided Drug-design, 2013, P. D. Women's College, Jalpaiguri

Funded Research Project

Minor Research Project titled "Synthesis of Schiff Base-Metal Complexes and exploration of their use in hydrocarbon degradation processes in polluted water" funded by the UGC.(Status = Completed)
Amount sanctioned: Rs. 367000. Project duration: Feb, 2015- March, 2017.

Current Enrolled Research Students

- Munna Mukhia
- Yachna Rai
- Prashansa Rai