

DR.HENA PAUL

Assistant Professor
Department of Chemistry,
Krishna Chandra College,
Hetampur, Birbhum-731124, WB

Date of Birth : 20/10/1984

Educational Qualification : B.Sc. (Chemistry in 2005), M.Sc (Inorganic Chemistry

In 2007). Ph.D (12.09.2019)

Additional Qualification :GATE (Chemical Sci. in 2007), NET (JRF-CSIR in 2007)

Languages Known : Bengali, English & Hindi

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Computer Skill : Basic

Date of Joining: 01/04/2010

Area of Teaching : Inorganic Chemistry

Teaching Experience: Total teaching experience ~14 YEARS

Research Interest : Synthesis, characterization of new coordination

complexes and study of their various properties

including biological properties.

Research Experience : 14 years

Awards & Achievements

1. Gold Medal in MSc. In Chemistry from Jadavpur University.

2. Occupy 1st position in oral presentation in the "Golden Jubilee National Seminar on Chemistry Today" organized by Department of Chemistry, The University of Burdwan, Burdwan held on 18–20th March,2010.

List of Research Papers in National/International Journal

- 1. Synthesis, characterization, crystal structure, and DNA-binding of ruthenium(II) complexes of heterocyclic nitrogen ligands resulting from abenzimidazole-based quinazoline derivative; H. Paul, T. Mukherjee, M.G.B.Drew & P. Chattopadhyay, *Journal of Coordination Chemistry*, 2012, 65:8, 1289-1302.
- 2. Ruthenium(II) complexes of pyrrol-azoligands: cytotoxicity, interaction with calf thymus DNA and bovine serum albumin; H. Paul, T. Mukherjee, M. Mukherjee, T.K.Mondal, A.Moirangthem, A.Basu, E.Zangrando & P.Chattopadhyay; *Journal of Coordination Chemistry*, 2013, 66:15,2747-2764.
- 3. Synthesis, characterization, redox behavior, DNA and protein binding and antibacterial activity studies of ruthenium(II) complexes of bidentate Schiff bases; H.Paul, B.Sen, T.K.Mondal and P.Chattopadhyay; *Nucleosides, Nucleotides and Nucleic Acids*, 2017,36,520 542.
- 4. Understanding the Differencein Photophysical Properties of Cyclometalated Iridium(III) and Rhodium(III) Complexes by Detailed TDDFT and FMO Supports; S.Pal, S.Joy, H.Paul, S.Banerjee, A.Maji, E.Zangrando and P.Chattopadhyay; *J.Phys.Chem.C*, DOI:10.1021/acs.jpcc.7b01573.
- 5. Synthesis, characterization and crystal structure of copper(II) complexes of tetradentate N2S2donor ligands, S.Sarkar, H.Paul, M.G.B.Drew, E.Zangrando, P.Chttopadhyay, *J.Mol.Struct.*, 933, 2009, 126.
- 6. A new resin functionalized with 2-methoxy-1-imidazolyl azobenzene for determination of lead(II) and iron(III), S. Pramanik, S. Sarkar, H. Paul, P.Chattopadhyay, *Indian J. Chem. Sec A*, 48A, 2009, 30.
- 7. Copper(II) complex of tridentate N donor set: synthesis, characterization, crystal structure, reactivity and DNA binding studies, S.Dey, S.Sarkar, H.Paul, E.Zangrando, P. Chattopadhyay, *Polyhedron*, 2010, 29, 1583-1587.
- 8. Synthesis of ruthenium(II) complexes with carboxamide derivatives: spectroscopic characterisation and studies on DNA and BSA interaction, H. Paul, R. Chakraborty and P. Chattopadhyay, RASĀYAN J. Chem., Vol. 15, No.1, 2022, 452-460.
- 9. Challenges faced by first generation learners in chemistry learning at lower secondary level in India: analysis through case study and finding a possible solution through natural science teaching, H. Paul, P. Chattopadhyay, R. Chakraborty, Research and Reflections on Education, Vol. 21 No. 2, 2023.
- 10. A brief sketch of strategies and planning for plant metabolic pathway moderation, Hena Paul, *Science and Culture*, 89 (11–12): 427-431 (2023).

Book chapter in edited volume

1. Development of Ruthenium Complexes as Anticancer Agents: **Dr. Hena Paul in** 'Recent Trends in Multidisciplinary Research (Vol-6)' *Edited by:* Dr. Dilipkumar A. Ode and Dr. Vatsala Tomar, RED'SHINE PUBLICATION, Stockholm, Sweden, First Edition: August, 2023, **ISBN: 978-91-89764-34-7**

National/International Seminar/Conferences/Workshops Attended

- 1. National seminar on "Recent advances in chemical sciences" held on $15-17^{th}$ March , 2012, organized by Department of Chemistry, The University of Burdwan, Burdwan.
- 2. UGC sponsored national seminar on "Journey of Chemistry through Life" held on23- 25th Feb, 2012, organized by Department of Chemistry, Dr. B. N. Dutta Smriti Mahabidyalaya, Hatgobindapur, Burdwan in collaboration with M.P. Birla Institute of Fundamental Research, Kolkata.
- 3. UGC sponsored national seminar on "Recent advances in chemical sciences and related areas" held on 18 19th Nov, 2011, organized by Department of Chemistry, Sreegopal Banerjee College, Bagati, Mogra, Hooghly in collaboration with Hooghly Women's College, Hooghly. I presented a poster in this seminar.
- 4. UGC and State DST sponsored national seminar on "Design, Synthesis, Interaction, Chemical and Biochemical activities of different functional molecules" held on 15–17th March, 2011, organized by Department of Chemistry, The University of Burdwan, Burdwan.
- 5. UGC sponsored national seminar on "Global Warming and Climate Change: Issues and Challenges in 21stCentury India" held on 20 21 Nov, 2010, organized by IQAC, Suri Vidyasagar College, Suri, Birbhum.
- 6. National seminar on "Chemistry: A Pathway To Biological Processes" held on 24 25 Sep, 2010, organized by Department of Chemistry, Hooghly Mohsin College, Chinsurah, Hooghly in collaboration with Department of Chemistry, Bidhannagar College, Salt Lake, Kolkata.
- 7. University Golden Jubilee National seminar on "Chemistry Today" held on 18 –20th March, 2010, organized by Department of Chemistry, The University of Burdwan, Burdwan. I delivered a lecture in this seminar.
- 8. 2nd UGC sponsored national seminar on "Advanced Spectroscopy, Theoretical Chemistry, Synthesis, Reactivity and Structure Evaluation" held on 20 22ndFeb ,2009, organized by Department of Chemistry, The University of Burdwan, Burdwan.
- 9. UGC sponsored State Level Seminar on "Application of Spectroscopy: Atomic to Molecular Systems" held on 20 21stMarch, 2009, organized by Department of Chemistry, Vivekananda Mahavidyalaya, Burdwan.

- 10. International Webinar on "Recent Advances of Bio-sensing for COVID-19 Kits and Spectroscopic Tools for Detection of Toxic Metals" organized by Department of Chemistry and IQAC, Asansol Girls' College on June 30, 2020.
- 11. International Webinar on "Chemistry and Biology: Sustainable Progress of Human Civilization" organized by Department of Chemistry, P. K. College, Contai, WB, India in collaboration with Indian Chemical Society, India on June 29-30, 2020.
- 12. International Webinar on "New Horizons of Chemistry" organized by Department of Chemistry, B. C. College, Asansol, WB, India on June 19, 2020.
- 13. Webinar on "Recent Trends in Chemical Sciences: Basics, Applications and Prospects" organized by Department of Chemistry and IQAC, Narasinha Dutta College, Kolkata, WB, India on June 18, 2020.
- 14. Webinar on "Impact of COVID-19 on Education System and Students" organized by National Academy of Sciences India in collaboration with Local Chapter, Kolkata, WB, India on January 29, 2021.
- 15. National Web Seminar on "Exploration of Insight in Innovative Research of Chemical Science in Modern Epoch" organized by Department of Chemistry, Krishna Chandra College, Hetampur, Birbhum, WB, India on January 22-24, 2021.
- 16. Webinar on "Recent Trends in Science and Technology" organized by Department of Botany, Chemistry, Physiology and Zoology and IQAC, Netaji Nagar Day College, Kolkata, WB, India on July 17, 2020.
- 17. International Webinar on "Recent Advances in Chemistry" organized by Department of Chemistry and IQAC, Vivekananda Mahavidyalaya, Burdwan, West Bengal, India on July 15, 2020.
- 18. International Webinar on "Recent Trends and Prospects of Chemistry" organized by Department of Chemistry, Krishna Chandra College, Hetampur, Birbhum, West Bengal, in collaboration with Indian Chemical Society, India on July 05, 2020.
- 19. International Seminar on "Recent Developmental Trends in Biological Research", organized by Department of Botany, Department of Zoology and IQAC, Acharya Prafulla Chandra College, New Barrackpore, Kolkata, on 15th July, 2023.
- 20. International Conference on "Opportunities and Challenges in Biological Sciences and Sports Sciences" organized by IQAC, Gushkara Mahavidyalaya on 5-6th March, 2023.
- 21. International Conference on "Nonlinear Dynamics and its Applications in Physical and Biological Sciences (NDAPBS-23)" Organized by The Department of Physics & Department of Mathematics, Durgapur Govt. College, Durgapur, WB, INDIA, on March 16-18, 2023

Faculty Development Courses or Programmes Attended

Sl. No.	Course	Sponsoring Agency	Institutions	Period/Date
1	101 st Orientation Programme (OP)	UGC	Academic Staff College, The University of Burdwan, India.	17 th Nov,2015to14 th Dec, 2015
2	Refresher Course (RC) in Environmental Sciences	UGC	Academic Staff College, Jadavpur University, India	02 nd Jan,2017 to 21 st Jan, 2017
3	Refresher Course in Chemistry (New Trends of Teaching and Research in Chemistry)		HRDC, PRSU, Raipur, Chhattisgarh, India.	14.09.2020 to 26.09.2020
4	FDP on Learning Management System and Open Educational Resources	IQAC, K. C. College, Hetampur	Krishna Chandra College, Hetampur, Birbhum, West Bengal.	04.11.2020 to 10.11.2020
5	Short Term Course in E-Content Development using ICT	UGC	HRDC, Ranchi University, Ranchi.	21.09.2022 to 27.09.2022
6	Short Term Course in Yoga and Wellness	UGC	HRDC, Ranchi University, Ranchi.	02.11.2023 to 08.11.2023

Extracurricular/AdministrativeActivities

- 1. Acted as Coordinator of U.G.C. sponsored Entry into services Scheme from 01.11.2014 to 31.10.2015.
- 2. Acted as Teaching Council Secretary (TCS) for the session 2016-17.
- 3. Acted as coordinator of Career counselling cell for the session 2016–17, 2017–2018, 2018-2019.
- 4. Acted as member of different Sub-Committees of our college.

Other Academic Activities

- 1. Acting as the Answer Scripts Evaluator (Chemistry) at U.G. level under the University of Burdwan, India.
- 2. Acting as reviewer in chemistry under the University of Burdwan.
- 3. Acting as the Convener, External Examiner/Internal Examiner to conduct the Practical Examinations (Chemistry) at U.G. level under the University of Burdwan, India.

