Resume

Dr. PAMPA GUHA, M.Sc., Ph.D.

❖ Personal Details

Sex- Female
Date of Birth: 10.10.1979
Nationality: Indian

Address:
102/1 Raja Rammohan Sarani, Kolkata-700009
West Bengal, India

Contact Details:
Mob No: +91 9163127468, Email ID: pampaguha@citycollegekolkata.org
pampaguha.guha@gmail.com

❖ Current Position:

Assistant Professor, Department of Chemistry, City College, 102/1 Raja Rammohan Sarani, Kolkata-700009. (Under Calcutta University).

❖ Membership details:

Member: HUMBOLDT CLUB, KOLKATA

Life Member: INDIAN CHEMICAL SOCIETY, KOLKATA

❖ Educational qualifications:

Course	University
B.Sc. (Subject, Hons.)	**Chemistry Hons.** Bethune College University of Calcutta Kolkata, India 1999–2002, 1st Class
M.Sc. in Subject with (special paper:)	**Specialization in Inorganic Chemistry** Dept. of Chemistry University College of Science and Technology University of Calcutta Kolkata, India 2002–2004, 1st Class
Ph.D., Subject, Thesis topic	**Ph.D. (Inorganic Chemistry)** Dept. of Chemistry University College of Science and Technology University of Calcutta

	Kolkata, India Advisor: Prof. Ashutosh Ghosh January 2006 - December 2009 **Thesis Title:** Studies on Multinuclear Transition Metal Complexes
Post Doctoral Experience	**Postdoctoral researcher** Dept. of Chemistry and Biochemistry Florida State University Tallahassee, Florida, USA Advisor: Dr. Lei Zhu March 2010 – July 2011 **Postdoctoral researcher (Alexander von Humboldt research fellow)** Institut für Anorganische Chemie Georg-August-Universität Göttingen, Göttingen, Germany Advisor: Prof. Franc Meyer August 2011- July2013 **Research associate** Dept. of Chemistry University College of Science and Technology University of Calcutta Kolkata, India Advisor: Prof. Ashutosh Ghosh August 2015- June 2016

- **Technical, workshop & Academic Training :**

Orientation Programme	*30th Orientation Course organized by UGC-HRDC, Mizoram University, 2020*
Refresher courses	*UGC Sponsored Refrsher Course Organized by UGC-HRDC, Gauhati University, 2020*
Faculty Development programme :	*One-week Faculty Development Program on "Online Academic Events and Examination Management" organized by Computer Centre in collaboration with IQAC, Vidyasagar University, 2022*
Workshop	*WORKSHOP ON UG CHEMISTRY HONOURS PRACTICAL OF SEM 3 (CBCS), CU organised by ASUTOSH COLLEGE, 2019* *WORKSHOP ON UG INORG CHEM PRACTICAL OF SEM 4 (CBCS, CU) organized by ST. PAULS COLLEGE, 2020* *WORKSHOP ON DBT-STAR PROJECT ORGANIZED BY LADY BRABOURNE COLLEGE, 2023*

❖ Previous working experience:

Sl. No.	Post	College, University and Organisation	Department	Duration
1	Assistant Professor	The Heritage College (affiliated to Calcutta University)	Chemistry	June 2016 – August 2017
2	Guest lecturer	Vidyasagar college for woman, Kolkata, India,	Chemistry	October 2004- March 2006

❖ Area of expertise and Research Interest:

Coordination Chemistry: Transition metal complexes of organic ligands based on Schiff base moiety, 1,2,3-triazole moiety (Click chemistry) and 1,3,5-triazine moiety; studies of intermolecular interactions; Single crystal X-ray diffraction study; UV/VIS spectroscopy; NMR (^{1}H, ^{13}C); fluorescence; mass spectrometry; TGA-DTA (TGA, thermogravimetric analysis; DTA, differential thermal analysis); dynamic light scattering (DLS); elemental analysis; XPS; cyclic voltammetry; FE-SEM, TEM, SAED, EDX, AFM and optical microscope; X-ray powder diffraction (XRPD); Simulated XRPD patterns from single-crystal data (using Hg software); Isothermal titration calorimetry (ITC); EPR etc

❖ Research Projects:

Ongoing Project: A project grant has been sanctioned by Government of West Bengal, Science & Technology and Biotechnology Department (WBDSTBT)

Title of the Project: Polynuclear Metal Complexes Based on Extended π-Conjugated Double and Triple Schiff Base Ligands – Syntheses, Characterization, and Properties
Sanction Letter No. with date: 1410 (Sanc.)/STBT – 11012(25)/44/2021-ST SEC. dt 25.3.2022

Amount Sanctioned : Rs. 7,85,000/-

Duration of the Project: March, 2022 to March, 2025

❖ **Publication:**

Papers:

1. Acidic pH-Triggered Live-Cell Lysosome Specific Tracking, Ratiometric pH Sensing, and Multicolor Imaging by Visible to NIR Switchable Cy-7 Dyes
A. Mukherjee, P. C. Saha, S. Kar, Dr. **P. Guha**, R. S. Das, T. Bera, Dr. S. Guha
ChemBioChem **2023**, 24, e202200641

2. Dependence of magnetic coupling on ligands at the axial positions of NiII in phenoxido bridged dimers: experimental observations and DFT studies
M. Mondal, S. Giri, **P. M.; Guha,** A. Ghosh

*Dalton Trans***. 2017,** 46, 697-708.

3. Deactivation of catecholase-like activity of a dinuclear Ni(II) complex by incorporation of an additional Ni(II)
Mondal, Monotosh; Guha, Pampa M.; Giri, Sanjib; Ghosh, Ashutosh

J. Mol. Catal. A: Chemical **2016**, 424, 54-64.

4. On the Mechanism of Copper(I)-Catalyzed Azide-Alkyne Cycloaddition
L. Zhu, C. J. Brassard, X. Zhang, **P. M. Guha**, R. J. Clark
THE CHEMICAL RECORD**, 2016**, 16, 1501–1517.

5. Structurally Diverse Copper(II) Complexes of Polyaza Ligands Containing 1,2,3-Triazoles: Site Selectivity and Magnetic Properties
P. M. Guha, H. Phan, J. S. Kinyon, W. S. Brotherton, K. Sreenath, J. T. Simmons, R. J. Clark, N. S. Dalal, M. Shatruk, and L. Zhu.

Inorg. Chem., **2012**, *51*, 3465-3477.

6. Experimental Investigation on the Mechanism of Chelation-Assisted, $Cu(OAc)_2$-Accelerated Azide-Alkyne Cycloaddition
G. -C. Kuang, **P. M. Guha**, W. S. Brotherton, J. T. Simmons, L. A. Stankee, B. T.

Nguyen, R. J. Clark, and L. Zhu

J. Am. Chem. Soc. **2011**, *133*, 13984-14001.

7. Tridentate complexes of 2,6-bis(4-substituted-1,2,3-triazol-1-ylmethyl)pyridine and its organic azide precursors: an application of the copper(II) acetate-accelerated azide–alkyne cycloaddition

W. S. Brotherton, **P. M. Guha**, H. Phan, R. J. Clark, M. Shatruk, L. Zhu
Dalton trans, **2011**, *40*, 3655-3665.

8. Spin-canted antiferromagnetic phase transitions in alternating phenoxo- and carboxylato-bridged Mn(III)-salen complexes
   P. Kar, **P. M. Guha**, M. G. B. Drew, T. Ishida, A. Ghosh

   Eur. J. Inorg. Chem. **2011**, 2075-2085.

9. Isolation of a novel intermediate during unsymmetrical to symmetrical rearrangement of
   a tetradentate Schiff base ligand in a Mn(III) complex: catalytic activity of the rearranged product towards alkenes epoxidation

   P. Mukherjee, P. Kar, S. Ianelli and A. Ghosh
   *Inorg. Chim. Acta***, 2011**, *365*, 318-324.

10. Existance of a very rare self-assembled ribbons of fused cyclic water pentamers encapsulated in a Cu(II) based metal-organic framework
    P. Mukherjee, M. G. B. Drew and A. Ghosh

    J. Indian Chem. Soc., **2011**, *88*, 1265-1271.

11. A very rare hydrogen bridged hexanuclear Cu(II) complex containing a triangular Cu_3O core capped by an unusual triply coordinated perchlorate anion

    D. Maity, **P. Mukherjee**, A. Ghosh, M.G.B. Drew, C. Diaz, G. Mukhopadhyay

    Eur. J. Inorg. Chem. **2010**, 807-813.

12. Solvent-assisted formation of vesicles by a self-assembling Ni_3-Schiff Base Complex
    P. Mukherjee, M. G. B. Drew, and A. Ghosh

    Inorg. Chem., **2009**, *48*, 2364-2370.

13. (Ni_2), (Ni_3) and (Ni_2 + Ni_3): A unique example of isolated and co-crystallized Ni_2 and Ni_3 complexes.
    P. Mukherjee, M. G. B. Drew, C.J. Gómez-García, and A. Ghosh

    Inorg. Chem. **2009**, *48*, 4817-4827.

14. The crucial role of polyatomic anions in molecular architecture: structural and magnetic versatility of five Ni(II) complexes derived from a N,N,O-donor Schiff base ligand

    P. Mukherjee, M. G. B. Drew, C. J. Gómez-García, and A. Ghosh

    Inorg. Chem **2009**, *48*, 5848-5860.

15. Anion directed template synthesis of Cu(II) complexes of a N,N,O donor mono-condensed Schiff base ligand: A molecular scaffold forming highly ordered H-bonded rectangular grids

    P. Mukherjee, O. Sengupta, M. G. B. Drew, A. Ghosh

    Inorg. Chim. Acta **2009**, *362*, 3285-3291.

16. A ferromagnetic linear trinuclear Ni(II)-Schiff base complex supported by phenoxo and cinnamato bridges.

    P. Mukherjee, M. G. B. Drew, V. Tangoulis, M. Estrader, C. Diaz and A. Ghosh

    Inorg. Chem. Commun **2009**, *12*, 929-932.

17. Facile strategies for the synthesis and crystallization of linear trinuclear Ni(II)-Schiff base complexes with carboxylate bridges: tuning of coordination geometry and magnetic properties

    P. Mukherjee, M. G. B. Drew, V. Tangoulis, M. Estrader, C. Diaz and A. Ghosh

    Polyhedron **2009**, *28*, 2989-2996.

18. Coordination-driven self-assembly of a novel carbonato-bridged heteromolecular neutral nickel(II) triangle by atmospheric CO_2 fixation

    P. Mukherjee, M. G. B. Drew, M. Estrader and A. Ghosh

    *Inorg. Chem.***, 2008**, *47*, 7784-7791.

19. Anion directed template synthesis and hydrolysis of mono-condensed Schiff base of 1,3- pentanediamine and o-hydroxyacetophenone in Ni(II) and Cu(II) complexes

    P. Mukherjee, M.G.B. Drew and A. Ghosh

    Eur. J. Inorg. Chem, **2008**, 3372-3381.

20. Influence of counter anions on the structures and magnetic properties of trinuclear Cu(II) complexes with a μ_3-OH core

    P. Mukherjee, M. G. B. Drew, M. Estrader , C. Diaz, A. Ghosh

Inorg. Chim. Acta, **2008,** *361*, 161-172.

21. A novel trinuclear nickel(II) complex of an unsymmetrical tetradentate ligand involving bridging oxime and acetylacetone functions.
    D. Maity, **P. Mukherjee**, A. Ghosh, M. G. B. Drew and G. Mukhopadhyay

    *Inorg. Chim. Acta***, 2008**, *361*, 1515-1519.

22. Incorporation of a sodium ion guest in the host of copper(II)-Schiff-base complexes: Structural characterization and magnetic study
    P. Mukherjee , M. G.B. Drew, A. Figuerola, A. Ghosh

    Polyhedron **2008**, *27*, 3343-3350.

23. Anion-directed synthesis of metal-organic frameworks based on 2-picolinate Cu(II) complexes: A ferromagnetic alternating chain and two unprecedented ferromagnetic fish backbone chains.
    C. Biswas, **P. Mukherjee**, M.G.B. Drew, C.J. Gómez-García, J.M. Clemente-

    Juan, A. Ghosh

    *Inorg. Chem.***, 2007**, *46*, 10771-10780.

24. Structural variations in Ni(II) complexes of salen type di-Schiff base ligands
    P. Mukherjee, C. Biswas, M. G. B. Drew, A. Ghosh

    Polyhedron, **2007**, *26*, 3121-3128.

Awards/Recognition/Honors (if Any)

2002	National fellowship for B.Sc
2004	Graduate Aptitude Test in Engineering **(GATE),** Indian Institute of Technology, India.
2005	State Level Elligibility Test (**SLET**), West Bengal, India
2005	**CSIR-UGC NET** for **Junior Research Fellowship** in Chemical Sciences, Council of Scientific and Industrial Research, India, Short-listed for **SPM** (Shyama Prasad Mukherjee) fellowship
2008	**CSIR-UGC NET** for **Senior Research Fellowship** in Chemical Sciences, Council of Scientific and Industrial Research, India,
2010	**Alexander von Humboldt (AvH) fellowship**

❖ **List of Participation in Seminar, Conference and Workshop**

Seminar/Symposium	Organized By	Date	Participated/Presented
National Seminar On Material Chemistry For Better Tomorrow	Asutosh College, Indian Chemical society	7.11.17	Poster Abstract
Fundamentals Of Chemistry	Bethune College, Science Academy	17.11.17-18.11.17	Participate
Recent Trends In Chemical Sciences:Issues And Challanges	Surendranath College, Science Academy	29.11.17-30.11.17	Participate
International Conference On Chemistry For Human Developement	Asima Chatterjee Foundation, Hit	8.1.18 – 10.1.18	Poster Abstract
Recent Trends In Macromolecular Chemistry	City College	10.1.18	Jt Convener
National Symposium On Emerging Trends In Chemical Science	Cu	28.3.18	Poster Abstract
Panel Discussion On Experiments In The New Syllabus Of Chemistry Under CBCS	Basanti Devi College	10.10.18	Participate
National Seminar On Modern Research Trends In Chemistry	St. Xaviers College	22.2.19 – 23.2.19	Lecture Abstract
National Conference On Future India – Science & Technology	City College, Indian Science Congress Association	27.2.19 – 28.2.19	Member Of Technical Committee
Workshop On UG Chemistry Honours Practical Of Sem 3 (Cbcs), CU	Asutosh College	29.7.19	Participate
International Seminar On Innovation, Expansion, Impacts, Challenges In Chemical And Biological Sciences	Surendranath College	8.1.20 – 9.1.20	Oral , Book Of Abstract
Workshop On Ug Inorg Chem Practical Of Sem 4 (Cbcs, Cu)	St. Pauls College	19.2.20	Participate

Online			
Ugc –Hrdc, Mizoram University Sponsored Orientation Programme	Mizoram University	28.7.20 – 17.8.20	Participate And Presented
UGC –HRDC, Gauhati University Sponsored Refresher Course	Gauhati University	7.10.20 – 20.10.20	Participate And Presented
International Webinar On Covid 19	City College, Botany Dept.	20.6.20 - 21.6.20	Participate
Thermonuclear Fission; Creating Star On Earth	The Heritage College	8.6.2020	Participate
International Webinar On Chemistry And Biology Sustainable Progress On Human Civilization	P.K. College, Contai	29.6.20 – 30.6.20	Paper Presentation Abstract
National Seminar On Chemistry Of Health And Welness	Dr. Meghnad Saha College	6.7.20	Participate
State Level Webinar On Administrative Affairs Thrusting Upon Promotion Of College Teachers /Librarians Under Cas	City College, Tc	11.7.20	Participate
State Level Webinar on আচার্য প্রফুল্লচন্দ্র রায়ের বিজ্ঞান ও সমাজচিন্তা	BKC College	2.8.20	Participate

- **Workshops/Events organized.**

Seminar/Symposium
Worked as **Jt. Convener of an international seminar RTMC-2018** held on 10th January 2018 at City College.
Jt. Convener of a National on-line seminar "Covid-19 Pandemic- Challenges and Conquest For Students" held on 26th June 2020 in collaboration with Department of Zoology, City College.
Member of technical committee of a national conference "Future India: Science and Technology" FIST-2019 held on 27-28th February 2019 at City College in collaboration with Indian Science Congress Association, Kolkata chapter.
Convenor of a seminar for National Science Day Celebration held on 25.02.22

Convenor of a 'ONE DAY SEMINAR ON BIOLOGICAL AND PHYSICAL SCIENCE' held on 29.03.2023
Organised 'Woollen Garment Distribution programme' for needy children on 24.12.21
Visited to 'Natun Ghar', a home for destitute women alongwith students on April 2022