

PARBATI BANDYOPADHYAY, Ph.D.

Present position

- Associate Professor, Department of Chemistry, Fergusson College, (Autonomous), Pune.

Contact Details



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Work Experience

- **Teaching: 15 years**
- **Research: 20 years**

Personal Profile

A passionate chemistry teacher who believes in learning through teaching.

Recognized research guide for Ph.D. programs of SPPU, Pune. Completed one minor research project funded by BCUD, SPPPU, Pune and one major research project funded by UGC, New Delhi. Participated in syllabus restructuring workshops at college and university level.

Course(s) Taught

1. Inorganic Chemistry I
2. Inorganic Chemistry II
3. Chemistry Practical I
4. Chemistry Practical II
5. Physical Chemistry I

Field of Specialization/Areas of Interests

- Inorganic Chemistry - Coordination Chemistry
- Cellulose based bio-adsorbent and Wastewater treatment

Education

- **Ph.D.** – Chemistry from 1997 to 2002

Title of the Thesis: Chemistry of Ruthenium Coordinated to Some NS, NO and NSO donor Ligands

Name of University / Institution: Jadavpur University [Indian Association for the Cultivation of Science (IACS), Kolkata]

Year of Award - January 2002

- **Master of Science** - Chemistry (Inorganic): 1997
University – Calcutta University, Kolkata, West Bengal

- **Bachelor of Science- (subject name):** Chemistry (Hons), Physics, Maths, English: 1995
College, University, Place – Krishnath College, Calcutta University, West Bengal

Fellowship/Awards/ Certifications/Achievements/Recognitions

M.Phil. and Ph.D. guideship

Member of College Committees/ Professional Bodies and Others

College Level
<ul style="list-style-type: none">• Mini Project Extra Credit Courses - Coordinator
<ul style="list-style-type: none">• Exam Committee, Member
<ul style="list-style-type: none">• NAAC Cycle – III Committee and IQAC Member (2013-2016)
Others
<ul style="list-style-type: none">• Departmental Magazine Report Committee Member
<ul style="list-style-type: none">• Departmental DBT Activities Coordinator
<ul style="list-style-type: none">• BOS, Chemistry, Member
<ul style="list-style-type: none">• Exam Committee, Member

Employment History

- 1) **Organization** : Southern Methodist University, Dallas, Texas, USA

Role : Post-Doctoral Fellow

Duration : 2002-2004

- 2) **Organization** : Indian Institute of Technology (IIT) Delhi

Role : Project Scientist

Duration : 2004-2006

3) **Organization** : Fergusson College (Autonomous), Pune

Role : Associate Professor

Duration : 2008 - till date

Responsibilities	• Teaching Chemistry to undergraduate students
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Research Projects

Title of the Project	Name of Funding Agency	Amount (Rs)	Duration (Year) (From To)	Type (Minor / Major)	Outcome
Synthesis, characterization, spectral and catalytic studies of transition metal complexes of some biologically important aroylhydrazone ligands	UGC	7,79,000	2012-2015	Major	Research Publication
Design and synthesis of some biologically important thiosemicarbazones and study their coordination behaviour towards transition metals	BCUD-SPPU	1,50,000	2011-2013	Minor	Poster presentation in National Conference

Research Publications in National and International Journals [Years 2001-2022, Total-22]

Recent Publications-

1. Jatinder Kaur, **Parbati Sengupta**, and Samrat Mukhopadhyay

Critical Review of Bioadsorption on Modified Cellulose and Removal of Divalent Heavy Metals (Cd, Pb, and Cu) (*ACS Ind. Eng. Chem. Res.* 2022, 61, 1921–1954.

doi.org/10.1021/acs.iecr.1c04583

2. Jatinder Kaur, Tanmayee Chikate, **Parbati Bandyopadhyay**, Soumya Basu, Rajeev Chikate

Cu(II) complexes of hydrazones–NSAID conjugates: synthesis, characterization and anticancer activity. *Journal of Coordination Chemistry* 2020, 73(23), 3186-3202.

doi.org/10.1080/00958972.2020.1843160

3. Jatinder Kaur, Madhura Damle, Hemant Mande, Prasanna Ghalsasi, Rajendra Kondedeshmush, **Parbati Bandyopadhyay**, Rajeev Chikate

Ruthenium(II) complexes of aroylhydrazones: structural, electrochemical and electrostatic interactions with DNA. *Journal of Coordination Chemistry*, 2017, 70(10), 1667-1682

doi.org/10.1080/00958972.2017.1307344

4. Rupam Dinda, Paresh Kumar Maji, **Parbati Sengupta**, Sagarika Pasayat, Saktiprosad Ghosh, Larry R. Falvello, Thomas C. W. Mak

Alkali metal (Na^+ and K^+)-mediated supramolecular assembly of oxovanadium (V) complexes: Synthesis and structural characterization *Polyhedron* 2010, 29, 248-253.

doi.org/10.1016/j.poly.2009.08.008

5. Rupam Dinda, **Parbati Sengupta**, Manas Sutradhar, Thomas C. W. Mak, Saktiprosad Ghosh

Solution study of a structurally characterized monoalkoxo bound Mono-oxo Vanadium (V) complex: Spontaneous Generation of the corresponding Oxo-bridged Divanadium (V,V) complex and its electroreduction to a mixed –valence species in solution *Inorganic Chemistry* 2008, 47, 5634-5640.

<https://doi.org/10.1021/ic702172p>

Participation in Conferences/Symposia/Workshop

1. Poster presented in National Symposium at NIST Chandigarh, February 2016.

Title of the poster - Synthesis and biological evaluation of hydrazone ligands and Ru(II) complexes as DNA cleaving agents.

2. Invited to participate in Resource generation camp for Chemistry Olympiad, HSC, HBCSE, TIFR Mumbai, August 2017.

Events Organized/Coordinated:

Sr. No	Name of the Event	Name of organizing Institute/ College/ University	Nature of contribution	Dates
1.	Workshop - Lab Management, Safety & Waste treatment under UGC Stride Component-I	Fergusson College, (Autonomous), Pune under UGC-STRIDE	Organizer	8 th – 13 th August 2022
2.	Hands on Training Programme under DBT Start College Scheme	Fergusson College, (Autonomous), Pune	Coordinator	9 th – 13 th March 2020
3.	Exhibition cum Poster Competition to celebrate International Year of Periodic Table (IYPT 2019)	Fergusson College, (Autonomous), Pune	Organizer	21 st – 22 nd August 2019
4.	Exhibition cum Poster Competition – Chemicon-II Spectroscopion	Fergusson College, (Autonomous), Pune	Organizer	22 nd – 23 rd August 2016