

FACULTY PROFILE



1. Name of the Faculty Member: Dr Goutam Mahata
2. Designation with Category (Substantive/SACT): Assistant Professor
3. Department: Chemistry
4. Educational and Professional Qualifications:

Name of the Institution	Name of the Affiliating Body	Degree/Diploma/Certificate Obtained	Specialization (if any)
Vidyasagar University	Vidyasagar University	M.Sc.	Organic Chemistry
IIT, Kharagpur	IIT, Kharagpur	Doctor of Philosophy	Supramolecular Chemistry

5. Teaching Experience (If applicable):

Name of the Institution	Position Held	From	To
Gokhale memorial Girls' College	Assistant Professor	02.09.2005	Till date

6. Research Experience (If applicable):

Name of the Institution	Nature of Work	Designation	From	To
IIT, Kharagpur	Crystal Engineering Studies on hydrogen and co-ordination bonded solids: Molecules containing sulphonic Acids, Phenols and Pyridine Functionalities	Research Fellow (full time)	2003	August, 2005
		Research Fellow (part time)	September, 2005	2011

7. Areas of Interest (Intra-disciplinary and/or Inter-disciplinary): Supramolecular Chemistry

8. Research Projects (if any): NA

9. Research Publications (if any):

- i) Biradha, K., Mahata, G., Enclathration of Aromatic Molecules by the O-H...N Supramolecular Adducts of Racemic bis- β -naphthol and 4,4'-bipyridine. *Cryst Growth & Des.*, **2005**, 5, 61.
- ii) Biradha, K., Mahata, G., A 3D-Honeycomb Network with Unique Encapsulation of Dimers of 1D-chains. *Cryst Growth & Des.*, **2005**, 5, 49.
- iii) Mahata, G., Biradha, K., Hydrogen bonded adducts of octamolybdate anions containing coordinately bound pyridiniumoxides. *Inorg. Chim Acta.*, **2007**, 360, 281.
- iv) Roy, S., Mahata, G., Biradha, K., Cocrystals and salts of 2,2',6,6'-Tetracarboxybiphenyl with Bispyridyl Derivatives: Eight-fold Diamondoid and Layered Networks. *Cryst Growth & Des.*, **2009**, 9, 5006.
- v) Mahata, G., Roy, S., Biradha, K., Separation of isomers of sulphophthalic acid by guest induced host framework formation with 4,4'-bipyridine. *Chem. Commun.* **2011**, 47, 6614.
- vi) Dey, S., Mahata, G., Chanda, J., Organocatalysis: Enamines of (S)-Proline in Asymmetric Catalysis, *ACADEMIA, GMGC*, **2014**, 1, 29-36.
- vii) Mahata, G., Dey, S., Chanda, J., Crystal Engineering: A Valuable Tool Towards Designing Pharmaceutical Solids with Desirable Physicochemical Properties. *American Journal of Drug Discovery*. **2014**, 1(1), 1-9.
- viii) Das, D., Mahata, G., Adhikary, A., Konar, S., Biradha, K., Structural Adaptation of Ni_4O_4 Units to form Cubanes, Open Dicubane, Dimeric Cubane, and One-Dimensional Polymeric Cubanes: Magnetostructural Correlation of Ni_4 clusters. *Cryst. Growth & Des.*, **2015**, 15, 4132.
- ix) Mahata, G., Cjanascajan (L) Millsp. A valuable medicinal plant. *ACADEMIA, GMGC*, **2016**, 3, 127.
- x) Mahata, G., Roy, S. K., Chanda, J., Euphorbia Tirucalli L.: A Review on its Potential Pharmacological Use in Chronic Diseases. *IJSR*, **2017**, 6 (8), 241.
- xi) Mahata, G., and Panja, A*, Iron(III) and cyano-bridged dinuclear copper(II) complexes: Synthesis, structures and magnetic property of the copper(II) complex *J. Chem. Sci.*, **2020**, 132, 102.
- xii) Mahata, G., and Panja, A*, Synthesis, crystal structure and supramolecular interactions in a bis(tetrachlorocatecholate) chelated manganese(III) complex. *J. Struct. Chem.*, **2020**, 61, 1551.
- xiii) Hazarika, S., Mahata, G., Pahari, P., Pramanik, N., Atta, A., A simple triazole-linked bispyrenyl-based xylofuranose derivative for selective and sensitive fluorometric detection of Cu^{2+} . *Inorg. Chim Acta.*, **2020**, 507, 119582.
- xiv) Mahata, G., and Roy, S. K., Structural Analysis of a Biologically Active Glucan Isolated from the Alkaline Extract of an Edible Mushroom *Pleurotussajor-caju*. *ISNA*, Vol-3, **2021**.

a) Books/Book Chapters: NA

b) Journal Articles:

- i) Biradha, K., Mahata, G., Enclathration of Aromatic Molecules by the O-H...N Supramolecular Adducts of Racemic bis- β -naphthol and 4,4'-bipyridine. *Cryst Growth & Des.*, **2005**, 5, 61.
- ii) Biradha, K., Mahata, G., A 3D-Honeycomb Network with Unique Encapsulation of Dimers of 1D-chains. *Cryst Growth & Des.*, **2005**, 5, 49.

- iii) Mahata, G., Biradha, K., Hydrogen bonded adducts of octamolybdate anions containing coordinately bound pyridiniumoxides. *Inorg. Chim Acta.*, **2007**, 360, 281.
- iv) Roy, S., Mahata, G., Biradha, K., Cocrystals and salts of 2,2',6,6' -Tetracarboxybiphenyl with Bispyridyl Derivatives: Eight-fold Diamondoid and Layered Networks. *Cryst Growth & Des.*, **2009**, 9, 5006.
- v) Mahata, G., Roy, S., Biradha, K., Separation of isomers of sulphophthalic acid by guest induced host framework formation with 4,4'-bipyridine. *Chem. Commun.* **2011**, 47, 6614.
- vi) Dey, S., Mahata, G., Chanda, J., Organocatalysis: Enamines of (S)-Proline in Asymmetric Catalysis, *ACADEMIA, GMGC*, **2014**, 1, 29-36.
- vii) Mahata, G., Dey, S., Chanda, J., Crystal Engineering: A Valuable Tool Towards Designing Pharmaceutical Solids with Desirable Physicochemical Properties. *American Journal of Drug Discovery*. **2014**, 1(1), 1-9.
- viii) Das, D., Mahata, G., Adhikary, A., Konar, S., Biradha, K., Structural Adaptation of Ni_4O_4 Units to form Cubanes, Open Dicumane, Dimeric Cubane, and One-Dimensional Polymeric Cubanes: Magnetostructural Correlation of Ni_4 clusters. *Cryst. Growth & Des.*, **2015**, 15, 4132.
- ix) Mahata, G., Cjanascajan (L) Millsp. A valuable medicinal plant. *ACADEMIA, GMGC*, **2016**, 3, 127.
- x) Mahata, G., Roy, S. K., Chanda, J., Euphorbia Tirucalli L.: A Review on its Potential Pharmacological Use in Chronic Diseases. *IJSR*, **2017**, 6 (8), 241.
- xi) Mahata, G., and Panja, A*. Iron(III) and cyano-bridged dinuclear copper(II) complexes: Synthesis, structures and magnetic property of the copper(II) complex *J. Chem. Sci.*, **2020**, 132, 102.
- xii) Mahata, G., and Panja, A.*, Synthesis, crystal structure and supramolecular interactions in a bis(tetrachlorocatecholate) chelated manganese(III) complex. *J. Struct. Chem.*, **2020**, 61, 1551.
- xiii) Hazarika, S., Mahata, G., Pahari, P. Pramanik, N., Atta, A., A simple triazole-linked bispyrenyl-based xylofuranose derivative for selective and sensitive fluorometric detection of Cu^{2+} . *Inorg. Chim Acta.*, **2020**, 507, 119582.
- xiv) Mahata, G., and Roy, S. K., Structural Analysis of a Biologically Active Glucan Isolated from the Alkaline Extract of an Edible Mushroom *Pleurotussajor-caju*. *ISNA*, Vol-3, **2021**

c) Course Materials:

d) Seminar/Conference Proceedings:

1. Biological Treatment of Industrial waste water containing toxic and hazardous heavy metals and chemicals, UGC Sponsored National Conference Environment Impacts on Health: Towards a Better Future organized by Bangabasi Morning College in collaboration with Das Research Centre and Clinical laboratory, Kolkata, 2015.

2 Eco-friendly mosquito repelling biologically active organic components in Lemon grass, UGC sponsored National Level seminar on Chemistry Today- Nanoworld to Macroworld organized by the Department of Chemistry, Sonamukhi College, 2016.

3. Eco-friendly mosquito repelling biologically active organic components in Lemon grass, UGC sponsored National Level seminar on Chemistry Today- Nanoworld to Macroworld organized by the Department of Chemistry, Sonamukhi College, 2016.

4. Use of Sulfonate-pyridinium system as a colorimetric indicator for the detection of aromatic guests: Organic cation and π - interactions, National Symposium on Recent Advances in Chemistry and Industry organized by the Indian Chemical Society, Kolkata, 2014.

5. Ethno-Medicinal and Pharmacological use of *Cajanus cajan* (L) Millsp. Plant in chronic diseases, National level Seminar on Modern Trends in Chemistry for Sustainable Development organized by the Department of Chemistry, Zoology, Botany and Physiology Garhbeta Collge, 2017.

6. UGC sponsored one-day workshop on Undergraduate Chemistry: Evolving Effective Methods of Teaching and Evaluation organized by the Prabhu Jagatbandhu College, Andul, 2015

10. Invited Talk/Special Lecture/Seminar/Conference Presentation:

1. Study of Supramolecular Interactions in newly synthesized bis-(tetrachlorocatecholate) chelated Manganese(III) complex, International Conference on Recent Trends in Chemical Sciences organized by The Indian Chemical Society, Kolkata 2019.

2. Potential Pharmacological Importance of *Flacourtia Indica* (Burn. L.) Merr. International seminar on Innovation, Expansion, Impacts and Challenges in Chemical and Biological Sciences organized by the Department of Chemistry Surendranath College, Kolkata, 2020

3. Synthesis and study of magnetic properties of discrete, open, dimeric and 1D polymeric Ni-cubanes of a tripodal chelating ligand, [3,5-bis(2-aminoethyl)-[1,3,5]triazinan-1-yl]-methanol in presence of different counter organic and inorganic anions, National level Seminar on Modern Trends in Chemistry for Sustainable Development organized by the Department of Chemistry, Vijoygarh Jyotish Roy Collge in Collaboration with Indian Chemical Society, 2020.

4. Ethno-Medicinal and Pharmacological use of *Cajanus cajan* (L) Millsp. Plant in chronic diseases, National level Seminar on Modern Trends in Chemistry for Sustainable Development organized by the Department of Chemistry, Zoology, Botany and Physiology Garhbeta Collge, 2017.

5. Eco-friendly mosquito repelling biologically active organic components in Lemon grass, UGC sponsored National Level seminar on Chemistry Today- Nanoworld to Macroworld organized by the Department of Chemistry, Sonamukhi College, 2016.

6. Influence of Aromatic Multidentate Pyridyl-Sulphonate Ligands to synthesize new Ag(I) Coordinated Complexes, National Symposium on RASAYAN-2017 organized by the Chirantan Rasayan Sanstha, Midnapore, 2017.

7. Use of Sulfonate-pyridinium system as a colorimetric indicator for the detection of aromatic guests: Organic cation and π - interactions, National Symposium on Recent Advances in Chemistry and Industry organized by the Indian Chemical Society, Kolkata, 2014.

8. Biological Treatment of Industrial waste water containing toxic and hazardous heavy metals and chemicals, UGC Sponsored National Conference Environment Impacts on Health: Towards a Better Future organized by Bangabasi Morning College in collaboration with Das Research Centre and Clinical laboratory, Kolkata, 2015.

9. Hydrogen bonded Supramolecular Networks of Octamolybdate Units containing co-ordinately bound Pyridinium Oxides, UGC sponsored State Level seminar on new generation biologically active

natural products and their importance organized by the Department of Chemistry of Egra S.S.B College and Belda College, Midnapore, 2015

10. Separation of isomers of sulphothalic acid by guest selective host framework with 4,4'-bipyridine, UGC sponsored and CSIR-aided International Symposium on Recent Trends of Research in Chemistry organized by the Department of Chemistry, Midnapore College, Midnapore, 2011.

11. Other Academic/Official Responsibilities(At College/University Level or for Any Other Body of Higher Education):

- i) H.O.D (Dept. of Chemistry), Gokhale Memorial Girls' College
- ii) Course Co-ordinator, Department of CND of Gokhale Memorial Girls' College
- iii) Member, IQAC, Gokhale Memorial Girls' College
- iv) Member, Academic Sub-Committee, Gokhale Memorial Girls' College
- v) Convenor, Leave and service Book Committee, Gokhale Memorial Girls' College
- vi) Member, NSS, Gokhale Memorial Girls' College
- vii) Member, Purchase Committee, Gokhale Memorial Girls' College
- viii) Member, E-pension, Gokhale Memorial Girls' College

12. Awards/Recognitions/Fellowships/Memberships (if any):

- i) Qualified National Eligibility Test (NET), Council of Scientific and Industrial Research(CSIR) for Lectureship and Fellowship, Govt. of India, 2002.
- ii) Qualified Graduate Aptitude test in Engineering (GATE) for Fellowship, 2002.

Membership:

- i) Member of Indian Chemical Society, India
- ii) Life Member of Indian Chemical Society
- iii) Life Member of Indian Science News Association

12. Social Responsibility Initiatives:

- i) As a Life Member of "Aranyanchal Prativa Vikash Udyog" our aim is to help the needy and poor talented students in all aspects to build their bright future.