Profile of Dr. Satyajit Dey

1. Name: DR SATYAJIT DEY

2.**Designation: Associate Professor**

3. **Name of the Department: Chemistry**

4. E-mail ID: satyajit@tmv.ac.in

5. WEB Page, if any: https://vidyan.inflibnet.ac.in/profile/218100

6. **Educational Qualifications (Graduation onwards):**

Examination	Name of the University/Institution	Year of Passing	Subject
B. Sc.	Midnapore College, Vidyasagar University	1996	Chemistry
M. Sc.	Vidyasagar University	1998	Organic Chemistry

7. Research Degree(s):

Degree	Name of the Degree Awarding Institution	Date of Award	Title
Ph. D.	IIT, Kharagpur	2006	Synthetic Organic Chemistry

8. Teaching Experience (in Years): More than 22 years

9. Specialization/Expertise/Teaching Area: Organic Reaction Mechanisms, Organic Synthesis, Pericyclic reactions

10. Courses Taught: Organic Chemistry (CC), Green Chemistry (DSE) and Pharmaceutical Chemistry (SEC).

11. Major/Minor Research Project(s) Undertaken/Completed (during last 5 years):

Completed project: UGC Sponsored Minor Research Project completed. Title: Synthesis of novel Schiff-base based fluorescent chemo sensors for rapid detection of biologically significant metal ions. Duration of the project: February,2015-Feb,2017. Amount: 3,47,000.00

12. Publications and Others:

A] Books Published:

1. Book: S Dey & N K Hazra, Pericyclic Reactions and Organic Photochemistry through solved problems, October-2019, Techno World, Calcutta, ISBN No.-978-93-88347-18-1.

B] Research Papers in International/National Journals: Published in SCI Listed Journals

1. Bhriguram Das, Avijit Ghosh, Dorothy Priyanka Dorairaj, Malay Dolai, Ramasamy Karvembu, Subhabrata Mabhai, Hyunsik Im, Satyajit Dey*, Atanu Jana*, Ajay Misra*; Multiple ion (Al^{3+}, Cr^{3+}, Fe^{3+}, and Cu^{2+}) sensing using a cell-compatible rhodamine-phenolphthalein-derived Schiff-base probe; Journal of Molecular Liquids; 354 (2022) 118824; DOI: https://doi.org/10.1016/j.molliq.2022.118824

2. Subhabrata Mabhai, Malay Dolai, Surya Kanta Dey, Sujata Maiti Choudhury, Bhriguram Das, Satyajit Dey*, Atanu Jana* and Deb Ranjan Banerjee*; A naphthalene-based azo armed molecular framework for selective sensing of Al^{3+}; *New J. Chem.*, 2022, 46, 6885–6898; DOI: 10.1039/d1nj05869j

3. Bhriguram Das, Avijit Ghosh, Sabina Yesmin, Sk Jahir Abbas, Malay Dolai, Subhabrata Mabhai, Atanu Jana,* Satyajit Dey*, Ajay Misra*; A cell-compatible phenolphthalein-aminophenol scaffold for Al^{3+} sensing assisted by CHEF phenomenon, Journal of Molecular Structure, Volume 1253, 5 April 2022, 132295; DOI: https://doi.org/10.1016/j.

4. Bhriguram Das, Malay Dolai, Anamika Dhara, Subhabrata Mabhai, Atanu Jana*, Satyajit Dey*, Ajay Misra*, Aetate ion augmented fluorescence sensing of Zn^{2+} by Salen-based probe, AIE character, and application for picric acid detection, Anal Sci Adv. 2021; pp. 1–17. DOI: 0.1002/ansa.202000165.

5. Bhriguram Das, Malay Dolai, Anamika Dhara, Avijit Ghosh, Subhabrata Mabhai, Ajay Misra*, Satyajit Dey* Atanu Jana*. Solvent-Regulated Fluorimetric Differentiation of Al^{3+} and Zn^{2+} Using an AIE-Active Single Sensor. *The Journal of Physical Chemistry A* **2021,** *125* (7), 1490-1504. https://doi.org/10.1021/acs.jpca.0c10518

6. Subhabrata Mabhai, Malay Dolai, Surya Kanta Dey, Anamika Dhara, Sujata Maiti Choudhury, Bhriguram Das, Satyajit Dey*, Atanu Jana*, Deb Ranjan Banerjee*, A cell-compatible red light-emitting multianalyte chemosensor via three birds, one stone strategy, Journal of Photochemistry & Photobiology, A: Chemistry Vol. 404 (2021) 112889. https://doi.org/10.1016/j.jphotochem.2020.112889

7. Bhriguram Das, Anamika Dhara, Subhabrata Mabhai and Satyajit Dey, Solvato(fluoro)chromism, investigation of quenching mechanism and thermodynamic binding parameter of two azine based chemosensor for Cu^{2+} ion, application in onsite detection**,** *J. Indian Chem. Soc*., Vol. 97, No. 9b, 2020, pp. 1498-1506.

8. Subhabrata Mabhai, Malay Dolai, Surya Kanta Dey, Anamika Dhara, Sujata Maiti Choudhury, Bhriguram Das, Satyajit Dey*, Atanu Jana*, Rhodamine-azobenzene based single molecular probe for multiple ions sensing: Cu^{2+}, Al^{3+}, Cr^{3+} and its imaging in human lymphocyte cells, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 2019, 219, ISSN: 1386-1425. Pp. 319-332. DOI: 10.1016/j.saa.2019.04.056

9. Bhriguram Das, Atanu Jana, Ananya Das Mahapatra, Debprasad Chattopadhyay, Anamika Dhara, Subhabrata Mabhai, Satyajit Dey*, Fluorescein derived Schiff base as fluorimetric zinc (II) sensor via 'turn on' response and its application in live cell imaging; *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, Jan-2019, 212, ISSN: 1386-1425, pp. 222-231. DOI: 10.1016/j.saa.2018.12.053

10. Subhabrata Mabhai, Malay Dolai, Satyajit Dey*, Anamika Dhara, Bhriguram Das and Atanu Jana*, A novel chemosensor based on rhodamine and azobenzene moieties for selective detection of Al^{3+} ions, *New J. Chem.,* 2018, 42, ISSN No.:- Print + online 1144-0546, Online: ISSN: 1369-9261, pp. 10191-10201. https://doi.org/10.1039/C8NJ00436F

11. Bhriguram Das, Satyajit Dey*, Guru Prasad Maiti, Ankita Bhattacharjee, Anamika Dhara and Atanu Jana*, Hydrazinopyrimidine derived novel Al^{3+} chemosensor: molecular logic gate and biological applications, ***New J. Chem.***, 2018, **42**, ISSN No.:- **Print + online** 1144-0546, **Online:** ISSN: 1369-9261, pp. 9424-9435. https://doi.org/10.1039/C7NJ05095J.

12. Atanu Jana, Bhriguram Das, Sushil K. Mandal, Subhabrata Mabhai, Anisur R. Khuda-Bukhsh and Satyajit Dey*, Deciphering the liaison of CHEF-PET-ESIPT mechanism in a Zn^{2+}chemosensor and its applications in cell imaging study, ***New J. Chem.***, 2016, **40**, ISSN -1144-0546, pp. 5976-5984. https://doi.org/10.1039/C6NJ00234J

13. Subhabrata Mabhai, Atanu Jana and Satyajit Dey, A Novel Rhodamine based colorimetric and fluorometric chemosensor for selective detection of Al^{3+} ion in CH_3CN-H_2O solvent, *J. Indian chem. soc.,* 2015, Vol-92, ISSN -0019-4522, pp. 1647-1656.

14. Mal, D.; Dey, S., Synthesis of chlorine-containing angucycline BE-23254 and its analogs, *Tetrahedron* 2006, *62*, ISSN -0040-4020, pp. 9589-9602. DOI: 10.1016/j.tet.2006.07.090

15. S. Dey, D. Mal, Total synthesis of BE-23254, a chlorinated angucycline antibiotic, *Tetrahedron Lett*. 2005, *46*, ISSN-0040-4039, pp 5483-5486.
DOI: 10.1016/j.tetlet.2005.06.062

16. S. Khapli, S. Dey; D. Mal., Burgess Reagent in organic synthesis, *J. Indian Inst. Sci.* 2001, *81*, ISSN: 0970-4140, pp. 461-76.

17. A. Usman, I. Razak, S. Chantrapromma, H. Fun, S. Dey, D. Mal, G. Nigam, 2-Bromobenz[*a*]anthrecene-5,6,7,12-tetralone-5-dimethylketal, *Acta. Cryst.* 2001, ISSN: 1600-5368, pp 825-826.

13. Conference Papers:

A) National Conference/Seminar:

1. Paper presented in the UGC sponsored one day national seminar on "recent trends in research in chemical sciences" organized by the Department of Chemistry, Ghatal Rabindra Satabarsiki mahavidyalaya on 30th August 2016. Satyajit Dey & Subhabrata Mabhai; "*fluorosis the health hazards of fluoride toxicity*."

2. Paper presented in the UGC Sponsored two-day national Seminar on "Wetland Bio-resource Management: Problems and Prospects" organized by the Department of Zoology, Tamralipta Mahavidyalaya, East Midnapore in Collaboration with Gourav Guin Memorial College, Chandrakona Road, Paschim Medinipur; 26th & 27th February, 2016. Title of the Paper: Heavy Metal pollution in aquatic Ecosystems by urban stromwater runoff and its phytoremediation using wetland plants.

3. Poster presented in the UGC Sponsored two-day national Seminar on "Environment Friendly Biodegradable Polymers: Present & Future", organized by the Department of Chemistry, Mugberia Gandadhar Mahavidyalaya, Purba Medinipur in Collaboration with Department of Chemistry, Hijli College, Kharagpur, 9th & 10th September, 2015.Title of the Poster: "*Application of Biodegradable Polymers in Clinical Use*", Satyajit Dey & Subhabrata Mabhai.

4. Paper Presented in the U.G.C. Sponsored National Seminar on Organocatalysis: New Methodologies for Sustainable Chemistry, organized by the Dept. of Chemistry,

Prabhat Kumar College, Contai; 23rd and 24th March, 2013. Title of the Paper: "*Gold-catalyzed nucleophilic addition to C-C multiple bonds and its application in organic synthesis*".

5. Paper presented in the UGC Sponsored two-day national Seminar on "Modern Trends in Research on Medicinal Plants and Pharmaceuticals", organized by Egra Sarada Shashi Bhusan College, Paschim Medinipur in Collaboration with Belda College, Paschim Medinpur; 14th & 15th March, 2012. Title of Paper: "*The Chemistry and Biology of Bioactive Natural Products*".

6. Paper Presented in the fourth one day National Symposium in Chemistry organized by the Dept. of Chemistry, Indian Institute of Technology, Kharagpur on 17th January, 2004.

B) State Level Conference/Seminar:

1. Paper Presented in State Level Seminar on Educationist Asutosh and His Humanistic Approaches, organized by Charakona Vidyasagar Mahavidyalaya, Chandrakona, Paschim Medinipur; 23rd and 21st December, 2013. Title of the Paper: "*Sir Asutosh Mookerjee's fight against modern british Education in India*".
2. Paper presented in the State Level Seminar on "Educational Technology" organized by B. Ed. Department, Tamralipta Mahavidyalaya; 28th January, 2009. Title of the paper: "*Application of Computer Based for Chemistry education in Undergraduate Level*".

C) Orientation Programme/Refresher Course/Short Term Course Completed:

1. UGC sponsored Refresher Course at Academic Staff College; Calcutta University, from16.08.2013 to 06.09.2013.

2. UGC sponsored Refresher Course at Academic Staff College; Calcutta University, from17.08.2009 to 05.09.2009.

3. UGC sponsored Orientation Course at Department of Geography and Environment Management, Vidyasagar University, from03.11.2003 to 28.11.2003.

D) Articles Published in Magazines/College journals:

1. Satyajit Dey*, Subhabrata Mabhai & Atanu Jana, "FMO Theory: A practical tool for studying chemical reactivity and stereospecificity", *Patachittra,* July-2016, Vol-2, No-1, 23-31. ISSN -2349-9257.

2. Jnanojjwal Chanda, Satyajit Dey & Goutam Mahata, "STUDY OF ADULTERANTS IN COMMON FOOD-STUFFS & THEIR DETECTION", *Tamralipta Mahavidyalaya Research Review*, Vol-1, 2016, 37-41. ISSN: 2456-1681.

3. Satyajit Dey, Goutam Mahato & Jnanojjwal Chanda, Organocatalysis: Enamines of (S)-proline in Asymmetric Aminocatalysis, *Academia: GMGC,* 2014, Vol-1, Issue-1, 29-36. ISSN- 2348-7054.

4. Satyajit Dey & Subhabrata Mabhai, Genetically Modified Foods: Safe or unsafe, *Patachittra,* 2014, Vol-1, Issue-1, 137-141. ISSN -2349-9257.

14. Awards and Recognitions:

Obtained Silver Medal from Vidyasagar University as stood Second in 1998 M. Sc. (Chemistry) Batch.