



**UNIVERSITY OF CALCUTTA**  
**FACULTY ACADEMIC PROFILE /CV**

**Full name of the faculty member:** Dr. Animesh Pramanik

**Designation:** Professor of Chemistry

**Specialisation:** Organic Chemistry



**Contact information:** Department of Chemistry, University of Calcutta,  
92, A. P. C. Road, Kolkata-700 009, West Bengal, India.

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**Academic qualifications:**

College/university	Degree	Results
1. St. Xavier's College, Kolkata	H.S. (10+2, Science)	1 <sup>st</sup> Division
2. Presidency College (C.U.)	B. Sc. (Chemistry Hons)	1 <sup>st</sup> Class, 1Q
3. University of Calcutta	M. Sc.(Org. Chem. Special)	1 <sup>st</sup> Class, Rank-1 <sup>st</sup>
4. UGC-CSIR (NET)	CSIR-JRF	Among Top 5% Candidates
5. Indian Institute of Science (I. I. Sc), Bangalore	Ph. D.	March, 1994

## Post doctoral research:

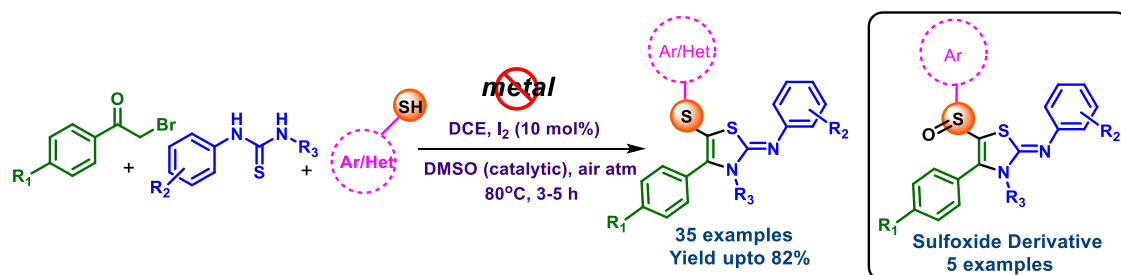
- (i) From March 1994-July 1997, with Professor P. Balaram, I. I. Sc. Bangalore.
- (ii) From July 2000-June 2001, University of Münster, Germany.

## Positions held/holding:

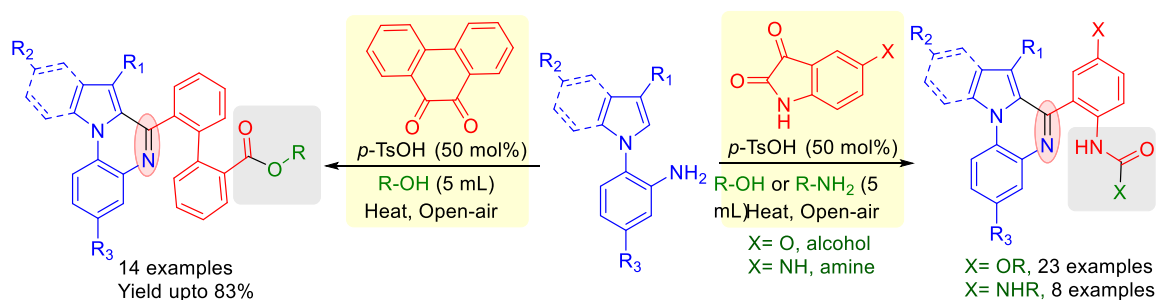
- i. Joined as a *Lecturer* to the Department of Chemistry, University of Calcutta, 1<sup>st</sup> September 1997.
- ii. Promoted as *Reader* in 2005.
- iii. Promoted as *Associate Professor* in 2008.
- iv. Promoted as *Professor* on 16<sup>th</sup> September, 2011.

## Research interests and recent publications:

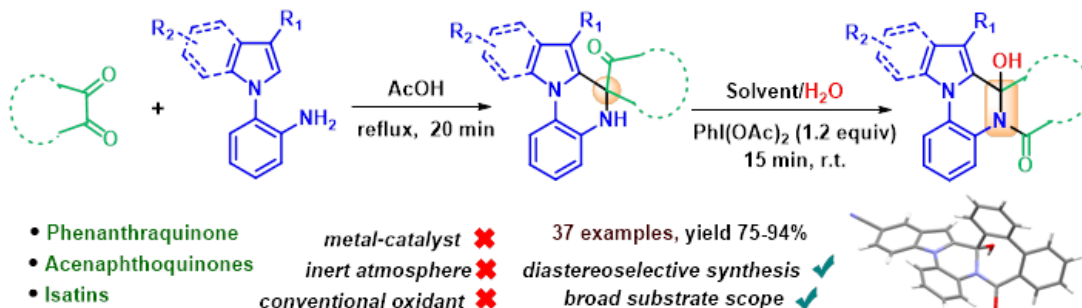
### (i) Development of New Methodologies & Synthesis of Heterocyclic Compounds



*Journal of Organic Chemistry*, 2019, 84(11), 7265-7278



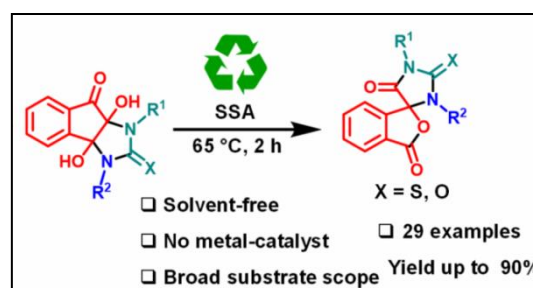
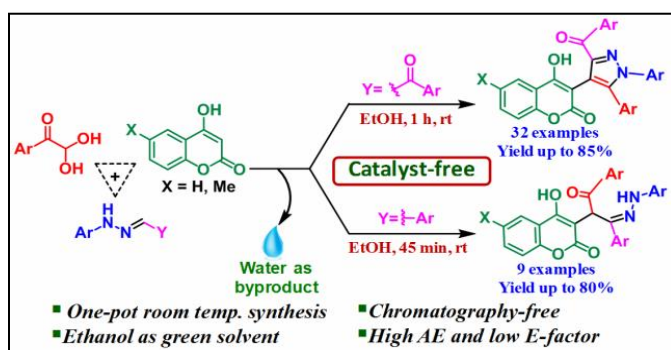
*Journal of Organic Chemistry*, 2021, 86(7), 5047-5064



*Journal of Organic Chemistry*, 2022, 87(14), 9282–9295

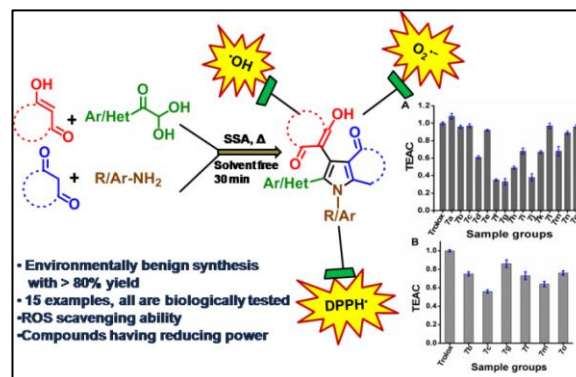
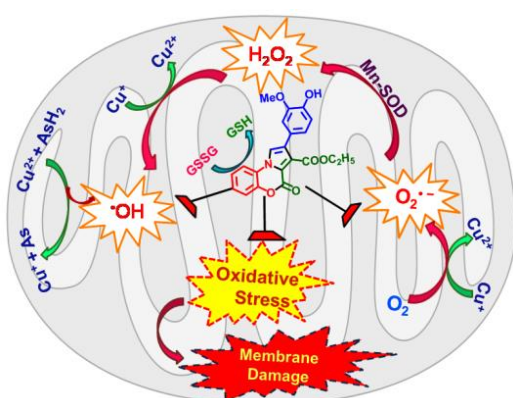
*J. Org. Chem.*, 2019, 84 (2), 1053-1063; *J. Org. Chem.*, 2021, 86(7), 5213-5226

### (ii) Development of Green Synthetic Methodologies, Catalysts & Reagents



*ACS Sustainable Chemistry & Engineering*, 2020, 8(1) 403-414; *Green Chemistry*, 2020, 22, 4304-4310; *Tetrahedron*, 2020, 76 (2), Article 130817; *ChemistrySelect*, 2018, 3, 1537-1544; *Applied Organometallic Chemistry*, 2019, e4702; *ACS Omega*, 2021, 2021, 6, 33805-33821

### (iii) Design, Synthesis & Evaluation of Antioxidant Property of Complex Heterocycles

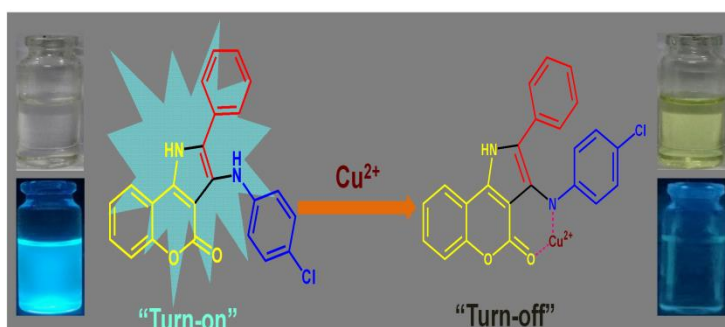
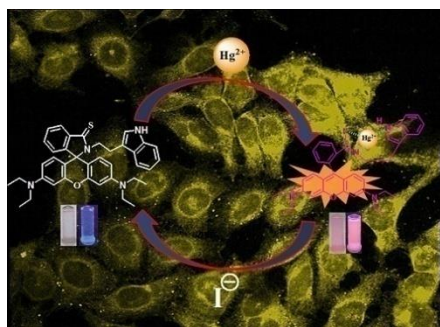


*Journal of Medicinal Chemistry (ACS)*, 2019, 62, 13, 6315-6329

*Bioorganic Chemistry*, 2020, Vol. 98, Article 103734

*Bioorganic Chemistry*, 2022, Vol.124, Article 105830

#### (iv) Design & Synthesis of Heterocycle based Fluorescence Chemosensors



*J. Photochem. Photobiol. A*, 2018, Vol. 364, 635-644

*Analytical and Bioanalytical Chemistry*, 2019, 411(6), 1143-1157

#### Research guidance:

##### List of researchers awarded Ph. D. degrees:

- (1) Dr. Sandip Kumar Kundu (2004)
- (2) Dr. Suven Das (2007)
- (3) Dr. (Mrs.) Anita Dutt (2008)
- (4) Dr. (Mrs.) Arpita Dutta (2010)
- (5) Dr. (Mrs.) Sudeshna Kar (2011)
- (6) Dr. Pradyot Koley (2012)
- (7) Dr. Sudipta Pathak (2015)
- (8) Dr. Subhendu Maity (2015)
- (9) Dr. Ashis Kundu (2016)
- (10) Dr. Kamalesh Debnath (2017)
- (11) Dr. Chandan Bodhak (2020)
- (12) Dr. Sayan Mukherjee (2022)
- (13) Dr. Chandan Kumar Mahato (2022, jointly with TCG Lifesciences Pvt Ltd.)

##### List of researchers pursuing Ph. D.:

- (1) Mr. Subhro Mandal (Will submit thesis within August, 2022)
- (2) Mrs. Tania Kundu (Thesis submitted in June, 2022)
- (3) Mr. Arun Dhurey (SRF, UGC)
- (4) Ms. Aditi Dutta (jointly with TCG Lifesciences Pvt Ltd, Kolkata)

##### List of post-doctoral fellows (DSKothari):

- (1) Dr. Priyabrata Roy (September 2012-March 2015)
- (2) Dr. Soumen Sarkar (July 2015-June 2017)
- (3) Dr. Subhenjit Hazra (Sept. 2016-Aug. 2019)
- (4) Dr. Anupam Jana (Feb. 2018-Nov.2020)
- (5) Dr. Nirmal Das Adhikari (Sept. 2017- Oct. 2021)
- (6) Dr. Saheli Sarkar (Joined Sept. 2021, -----)

**Number of M. Sc. project students supervised:** 49 (till 2022)

### **Membership of Learned Societies:**

- Member of *American Chemical Society* (Awarded).
- Life member of *Indian Chemical Society*.
- Life member of *Indian Peptide Society*.
- Founder and life member of *Chemical Biology Society (Estd. 2013)*.
- Life member of *Indian Association for the Cultivation of Science (IACS)*, Jadavpur, Kolkata-700 0032.
- Fellow of *West Bengal Academy of Science and Technology (FAScT)*, 2016.

### **Publications in peer-reviewed journals: 117**

117. “Synthesis of Hydroxylated Polycyclic Pyrrolo/indolo[1,2-*a*]quinoxaline Fused Lactam Derivatives via  $\text{PhI}(\text{OAc})_2$  Promoted 1,2-Bond Migration and Solvent Insertion”, S. Mandal and A. Pramanik, *J. Org. Chem.*, 2022, 87(14), p.9282–9295 (DOI:org/10.1021/acs.joc.2c01008).

116. “Convenient synthesis and evaluation of antioxidant property of functionalized spiro indolinone-dihydroquinazolinones”, T. Kundu and A. Pramanik, *Bioorganic Chemistry*, 2022, Vol. 124, Article 105830 (DOI. org/10.1016/j.bioorg.2022.105830).

115. “Efficient synthesis of functionalized 2-iminothiazolines by ultrasonication under solvent-free conditions and access to 5-aryl-2-iminothiazolines”, C. Bodhak, S. Mandal, P. Dey, S. K. Mukherjee and A. Pramanik, *Results in Chemistry*, 2022, 4, 100301 (DOI: org/10.1016/j.rechem.2022.100301).

114. “Diaryliodonium salt as oxidant in  $\text{sp}^3$  C-H activation and synthesis of quinazolin-4(3H)-ones”, N. Das Adhikary, S. Mandal, A. Jana and A. Pramanik, *Results in Chemistry*, 2022, 4, 100270 (DOI: org/10.1016/j.rechem.2021.100270).

113. “Mild and Expeditious Synthesis of Sulfenyl Enaminones of L- $\alpha$ -Amino Esters and Aryl/Alkyl Amines through NCS-Mediated Sulfenylation”, S. Mukherjee and A. Pramanik, *ACS Omega*, 2021, 6, 49, p.33805-33821 (DOI. org/10.1021/acsomega.1c05058).

112. “Asymmetric 1,4-Michael Addition in Aqueous Medium Using Hydrophobic Chiral Organocatalysts”, C. K. Mahato, S. Mukherjee, M. Kundu, V. P. Vallapure and A. Pramanik, *J. Org. Chem.*, 2021, 86(7), p.5213-5226 (DOI: org/10.1021/acs.joc.1c00124).

111. “Three-Component Synthesis of Pyrrolo/indolo[1,2-*a*]quinoxalines Substituted with *o*-Biphenylester/*N*-arylcabamate/*N*-arylurea: A Domino Approach Involving Spirocyclic Ring

Opening”, S. Mandal and A. Pramanik, *J. Org. Chem.*, 2021, 86(7), p.5047-5064 (DOI: org/10.1021/acs.joc.0c02973).

110. “Garphene oxide (GO) catalysed MW-assisted one-pot synthesis of densely substituted furan”, A. Jana, N. D. Adhikary and A. Pramanik, *Green Chemistry*, 2020, **22**, 4304-4310 (DOI.org/10.1039/D0GC00723D).

109. “Expeditious and eco-friendly synthesis of new multifunctionalized pyrrole derivatives and evaluation of their antioxidant property”, T. Kundu and A. Pramanik, *Bioorganic Chemistry*, 2020, Vol. 98, Article 103734 (DOI. org/10.1016/j.bioorg.2020.103734).

108. “Catalyst-free One-pot Three-component Synthesis of 4-Hydroxy-3-pyrazolylcoumarins in Ethanol at Room Temperature: Enolisable Aroylhydrazones as Efficient Ambident Nucleophile”, S. Mukherjee and A. Pramanik, *ACS Sustainable Chemistry & Engineering*, 2020, 8, 1, p.403-414 (DOI. org/10.1021/acssuschemeng.9b05682).

107. “Facile synthesis of phthalidyl fused spiro thiohydantoin through silica sulfuric acid induced oxidative rearrangement of ninhydrin adducts of thioureas”, S. Mandal and A. Pramanik, *Tetrahedron*, 2020, Vol. 76, Issue 2, Article 130817 (DOI. 10.1016/j.tet.2019.130817).

106. “Synthesis and Biological Assessment of Pyrrolobenzoxazine Scaffold as a Potent Antioxidant”, T. Kundu, B. Bhattacharjee, S. Hazra, A. K. Ghosh, D. Bandyopadhyay, and A. Pramanik, *J. Med. Chem. (ACS)*, 2019, 62, 13, p.6315-6329 (DOI.org/10.1021/acs.jmedchem.9b00717).

105. “One-pot Three Component Synthesis of 5-sulfenyl-2-iminothiazolines by Cross Dehydrogenative C-S Coupling Using I<sub>2</sub>/DMSO in Open Air”, C. Bodhak and A. Pramanik, *J. Org. Chem.*, 2019, 84(11), p.7265-7278 (DOI: 10.1021/acs.joc.9b00785).

104. “A novel tryptamine-appended rhodamine-based chemosensor for selective detection of Hg<sup>2+</sup> present in aqueous medium and its biological applications”, S. Hazra, C. Bodhak, S. Chowdhury, D. Sanyal, S. Mandal, K. Chattopadhyay and A. Pramanik, *Analytical and Bioanalytical Chemistry*, 2019, 411(6), p.1143-1157. (DOI: 10.1007/s00216-018-1546-0).

103. “Expeditious synthesis of diverse spiro fused quinoxaline derivatives using magnetically separable core-shell CoFe<sub>2</sub>O<sub>4</sub>@SiO<sub>2</sub>-SO<sub>3</sub>H nanocatalysts under ultrasonication”, S. Mandal, S. Hazra, S. Sarkar, C. Bodhak and A. Pramanik, *Applied Organometallic Chemistry*, 2019, e4702 (DOI: 10.1002/aoc.4702).

102. “Pyrrolidine-oxadiazolone Conjugates as Organocatalysts in Asymmetric Michael Reaction”, C. K. Mahato, S. Mukherjee, M. Kundu and A. Pramanik, *J. Org. Chem.*, 2019, 84 (2), p.1053-1063 (DOI: 10.1021/acs.joc.8b02393).

101. "Graphene oxide: An efficient carbocatalyst for the facile synthesis of isoindolo[2,1-*a*]quinazoline-5,11-diones via domino condensation under solvent-free conditions", C. Bodhak, S. Hazra and A. Pramanik, *ChemistrySelect*, 2018, 3, p.7707-7712 (DOI: 10.1002/slct.201801322).
100. "A Novel Pyrrole fused Coumarin based Highly Sensitive and Selective Fluorescence Chemosensor for Detection of Cu<sup>2+</sup> Ions and Applications Towards Live Cell Imaging", S. Mukherjee, S. Hazra, S. Chowdhury, S. Sarkar, K. Chattopadhyay and A. Pramanik, *J. Photochem. Photobiol. A*, 2018 (1 Sept.), Vol. 364, p.635-644 (DOI: 10.1016/j.jphotochem.2018.07.004).
99. "A Sustainable Synthesis of Functionalized Pyrrole Fused Coumarins under Solvent-Free Conditions Using Magnetic Nanocatalyst and a New Route to Polyaromatic Indolocoumarins", S. Mukherjee, S. Sarkar and A. Pramanik, *ChemistrySelect*, 2018, 3, p.1537-1544 (DOI: 10.1002/slct.201703146).
98. "Solvent free, fast and asymmetric Michael additions of ketones to nitroolefins using chiral pyrrolidine-pyridone conjugate bases as organocatalysts", C. K. Mahato, M. Kundu and A. Pramanik, *Tetrahedron: Asymmetry*, 2017, Vol. 28, p.511-515 (DOI:10.1016/j.tetasy.2017.03.002).
97. "Excited state intramolecular proton transfer involving a four-membered system: Photophysical exploration of an isoindole fused imidazole system", S. Sen, A. Pramanik and N. Guchhait, *J. Lumin.*, 2017, Vol. 187, p.78-84 (DOI:10.1016/j.jlumin.2017.02.064).
96. "Synthesis of amino ester embedded benzimidazoles: A one-pot sequential protocol under metal-free neutral conditions", P. Roy, C. Bodhak and A. Pramanik, *Molecular Diversity*, 2016, Vol. 21, p.89-100 (DOI: 10.1007/s11030-016-9701-z).
95. "A new and efficient synthesis of pyrazole-fused isocoumarins on the solid surface of magnetically separable Fe<sub>3</sub>O<sub>4</sub>@SiO<sub>2</sub>-SO<sub>3</sub>H nanoparticles", S. Mukherjee, A. Kundu and A. Pramanik, *Tetrahedron Letters*, 2016, Vol. 57, p.2103-2108 (DOI: 10.1016/j.tetlet.2016.04.002).
94. "Facile one-pot three-component synthesis of diverse 2,3-disubstituted isoindolin-1-ones using ZrO<sub>2</sub> nanoparticles as a reusable dual acid-base solid support under solvent-free conditions", K. Debnath, S. Mukherjee, C. Bodhak and A. Pramanik, *RSC Advances*, 2016, 6, p.21127-21138 (DOI:10.1039/C6RA00870D).
93. "Synthesis of multi-functionalized benzofurans through the condensation of ninhydrin and phenols using SSA as a recyclable heterogeneous acid catalyst", A. Kundu and A. Pramanik, *Molecular Diversity*, 2016, 20, p.619-626 (DOI: 10.1007/s11030-016-9661-3).

92. "Synthesis of a new class of pyrazole embedded spirocyclic scaffolds using magnetically separable  $\text{Fe}_3\text{O}_4@\text{SiO}_2\text{-SO}_3\text{H}$  nanoparticles as recyclable solid acid support", A. Kundu, S. Mukherjee and A. Pramanik, *RSC Advances*, 2015, 5, p.107847-107856 (DOI: 10.1039/C5RA23599E).
91. "ZrO<sub>2</sub> nanoparticles as a reusable solid dual acid-base catalyst for facile one-pot synthesis of multi-functionalized spirooxindole derivatives under solvent free condition", C. Bodhak, A. Kundu and A. Pramanik, *RSC Advances*, 2015, 5, p.85202-85213 (DOI:10.1039/C5RA16259A).
90. "Modulation of Excited State Proton Transfer Dynamics of a Lactim-Lactam Tautomeric System in Different Block Copolymer-Surfactant Aggregates", D. Ray, A. Pramanik and N. Guchhait, *J. Phys. Chem. B*, 2015, 119 (6), p.10114-10123 (DOI: 10.1021/acs.jpcc.5b02363).
89. "Synthesis of biologically important, fluorescence active 5-hydroxy benzo[g]indoles through four-component domino condensations and their fluorescence "Turn-off" sensing of Fe(III) ions", S. Maity, A. Kundu and A. Pramanik, *RSC Advances*, 2015, 5, p. 52852-52865 (DOI: 10.1039/c5ra05780a ).
88. "Magnetically separable  $\text{Fe}_3\text{O}_4\text{-SO}_3\text{H}$  nanoparticles as an efficient solid acid support for the facile synthesis of two types of spiroindole fused dihydropyridine derivatives under solvent free conditions", K. Debnath, K. Singha and A. Pramanik, *RSC Advances*, 2015, 5, p.31866-31877 (DOI: 10.1039/C5RA00737B).
87. "Novel synthesis of a series of spiro 1,3-indanedione-fused dihydropyridines through the condensation of a tetrone with *N*-aryl/alkylenamines in presence of solid support silica sulfuric acid", A. Kundu and A. Pramanik, *Molecular Diversity*, 2015, 19, p.459-471 (DOI: 10.1007/s11030-015-9582-6).
86. "Heterogeneous bimetallic  $\text{ZnFe}_2\text{O}_4$  nanopowder catalysed facile four component reaction for the synthesis of spiro[indoline-3,2'-quinoline] derivatives from isatins in water medium", K. Debnath, and A. Pramanik, *Tetrahedron Letters*, 2015, Vol. 56, Issue 13, p.1654-1660 (DOI: 10.1016/j.tetlet.2015.02.030).
85. "Synthesis of 4-hydroxyindole fused isocoumarin derivatives and their fluorescence "Turn-off" sensing of Cu(II) and Fe(III) ions", S. Pathak, D. Das, A. Kundu, S. Maity, N. Guchhait and A. Pramanik, *RSC Advances*, 2015, 5, p.17308-17318 (DOI: 10.1039/C5RA01060H ).
84. "Slow proton transfer dynamics of a four member intramolecular hydrogen bonded isoindole fused imidazole system: A spectroscopic approach to photophysical properties", D. Ray, A. Pramanik and N. Guchhait, *J. Photochem. Photobiol. A*, 2015, Vol. 302, p.42-50.



83. "An efficient and recyclable chitosan supported copper(II) heterogeneous catalyst for C-N cross coupling between aryl halides and aliphatic diamines", C. Bodhak, A. Kundu and A. Pramanik, *Tetrahedron Letters*, 2015, Vol. 56, Issue 2, p. 419-424 (DOI:10.1016/j.tetlet.2014.11.120).
82. "Exploring the interaction of a micelle entrapped biologically important proton transfer probe with the model transport protein Bovine Serum Albumin", D. Ray, A. Kundu, A. Pramanik, N. Guchhait, *J. Phys. Chem. B*, 2015, 119 (6), p.2168-2179 (DOI: 10.1021/jp504037y).
81. "Electron donating group stimulated aggregation induced emission enhancement of oligophenylenevinylene-cored luminogens", P. Roy, D. Jana, A. Kundu and A. Pramanik, *RSC Advances*, 2014, 4, p. 62684-62688 (DOI: 10.1039/c4ra08663e).
80. "Synthesis of 2-pyrolyl-2-hydroxy-2-cyanoacetamide through FeCl<sub>3</sub>-TBHP mediated hydroxylation of captodative stabilized radical intermediate", S. Maity and A. Pramanik, *Tetrahedron Letters*, 2014, Vol. 55, Issue 41, p. 5676-5679 (DOI: 10.1016/j.tetlet.2014.08.074).
79. "Synthesis of different isoindolone embedded heterocycles with phenolic subunits from a common intermediate, 3-(2'-hydroxyaroyl)-2, 3-dihydroisoindol-1-ones", A. Kundu and A. Pramanik, *Tetrahedron Letters*, 2014, Vol. 55, Issue 32, p.4466-4474 (DOI:10.1016/j.tetlet.2014.06.064).
78. "Substituted benzo[*a*]carbazoles and indole acetic acids from arylglyoxals and enamines through domino condensation and thermal cyclization and aromatization", S. Maity, S. Pathak and A. Pramanik, *Eur. J. Org. Chem.*, 2014, p. 4651-4662 (DOI: 10.1002/ejoc.201402085).
77. "Facile cyclization in the synthesis of highly fused diaza cyclooctanoid compounds using retrievable nano magnetite-supported sulfonic acid catalyst", S. Pathak, K. Debnath, Md. Masud Rahaman Mollick and A. Pramanik, *RSC Advances*, 2014, 4, p. 23779-23789 (DOI: 10.1039/C4RA03384A).
76. "Facile synthesis of 3*H*, 3'*H*-spiro[benzofuran-2,1'-isoindole]-3, 3'-diones using monobromomalononitrile (MBM) as an efficient organo-brominating agent", A. Kundu, S. Pathak, K. Debnath and A. Pramanik, *Tetrahedron Letters*, 2014, Vol. 55, Issue 29, p. 3960-3968 (DOI:10.1016/j.tetlet.2014.04.027).
75. "Differential modulation of lactim-lactam tautomerism process of an isoindole fused imidazole system in three different micellar assemblies of varying surface charge: A Spectroscopic approach to various photophysical properties", D. Ray, A. Pramanik and N. Guchhait, *RSC Advances*, 2014, 4(20), p. 13256-13265 (DOI: 10.1039/C3RA47322H).

74. "Monobromomalononitrile: An efficient regioselective mono brominating agent towards active methylene compounds and enamines under mild condition", S. Pathak, A. Kundu and A. Pramanik, *RSC Advances*, 2014, 4(20), p.10180-10187(DOI: 10.1039/C3RA46687F).
73. "Silica sulfuric acid: An efficient reusable heterogeneous solid support for the synthesis of 3H, 3'H-spiro[benzofuran-2,1' isobenzofuran]-3,3'-diones under solvent-free condition", K. Debnath, S. Pathak, and A. Pramanik, *Tetrahedron Letters*, 2014, Vol. 55, Issue 10, p.1743-1748 (DOI: 10.1016/j.tetlet.2014.01.109).
72. "pH-sensitive morphological transition from nanowire to nanovesicle of a single amino acid based water soluble molecule", P. Koley and A. Pramanik, *Journal of Material Science*, 2014, 49, p. 2000-2012 (DOI: 10.1007/s10853-013-7887-3).
71. "Lactim-lactam tautomerism through four member hydrogen bonded network in isoindole fused imidazole system: A combined Spectroscopic and Theoretical approach to photophysical properties", D. Ray, A. Pramanik and N. Guchhait, *J. Photochem. Photobiol. A*, 2014, Vol. 274, 30, p.33-42.
70. "Silica sulfuric acid: a reusable solid catalyst for one pot synthesis of densely substituted pyrrole-fused isocoumarins under solvent-free condition", S. Pathak, K. Debnath and A. Pramanik, *Beilstein J. Org. Chem.*, 2013, 9, p.2344-2353 (DOI:10.3762/bjoc.9.269).
69. "Synthesis and fluorescence properties of isatin based spiro compounds: Switch off Chemosensing of Cu(II) Ion", A. Kundu, S. Pathak and A. Pramanik, *Asian J. Org. Chem.*, 2013, Vol. 2, Issue 10, p. 869-876 (DOI: 10.1002/ajoc.201300153).
68. "Synthesis of 1,2-diaryl-6,6-dimethyl-5,6-dihydro-1H-indole-4,7-diones from arylglyoxals and enamines through domino condensation and allylic hydroxylation", S. Maity and A. Pramanik, *Synthesis*, 2013, 45(20): p. 2853-2860 (DOI: 10.1055/s-0033-1339651).
67. "One-pot sequential synthesis of 1,2-disubstituted benzimidazoles under metal-free conditions", P. Roy and A. Pramanik, *Tetrahedron Letters*, 2013, Vol. 54, Issue 38, p. 5243-5245(DOI: 10.1016/j.tetlet.2013.07.083).
66. "Facile synthesis of ninhydrin and isatin based hydrazones in water using PEG-OSO<sub>3</sub>H as a highly efficient and homogeneous polymeric acid surfactant combined catalyst", K. Debnath, S. Pathak, and A. Pramanik, *Tetrahedron Letters*, 2013, Vol. 54 Issue 31, p. 4110-4115 (DOI: 10.1016/j.tetlet.2013.05.105).
65. "Diastereospecific Synthesis of Isoindole Fused Diazacyclooctindenones from Spirochromenes through Domino Reactions with Aliphatic 1,2-Diamines", S. Pathak and A. Pramanik, *Eur. J. Org. Chem.*, 2013, p. 4410-4417 (DOI: 10.1002/ejoc.201300096).

64. "Synthesis of biologically important phthalazinones, 2,3-benzoxazin-1-ones and isoindolinones from ninhydrin and their antimicrobial activity", S. Pathak, K. Debnath, Sk T. Hossain, S. K. Mukherjee and A. Pramanik, *Tetrahedron Letters*, 2013, Vol. 54, Issue 24, p. 3137-3143 (DOI: dx.doi.org/10.1016/j.tetlet.2013.04.015).
63. "Microwave assisted synthesis of 2,3-diaryl-6,7-dihydro-5H-pyrrolo[1,2-a]imidazoles through direct condensation of aryl 1,2-diketones and L-proline under solvent-free condition", S. Maity, S. Pathak, and A. Pramanik, *Tetrahedron Letters*, 2013, Vol. 54, Issue 20, p.2528-2532 (DOI: 10.1016/j.tetlet.2013.03.017).
62. "Synthesis of 1,2-diaryl-1H-indol-4-ols and 7-ethoxy-1,2-diaryl-1,5,6,7-tetrahydro-indol-4-ones from arylglyoxals and enamines through domino reactions", S. Maity, S. Pathak and A. Pramanik, *Eur. J. Org. Chem.*, 2013, p.2479-2485 (DOI: 10.1002/ejoc.201201616).
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1. "Pi-facial selectivities in cycloadditions to norbornyl- and nornornenyl- fused *p*-benzoquinones", G. Mehta, S. Padma, V. Pattabhi, A. Pramanik and J. Chandrasekhar, *J. Am. Chem. Soc.*, 112, 1990, p.2942.

## Projects:

Completed Projects:

- a. **UGC Major Research Project, Sanctioned on 22 Feb., 2007, Completed on 31<sup>st</sup> March, 2010 (Rs. 6, 93, 100/-):** Title of the project: *Amyloid fibrils and various*



*nanostructures through self-assembly of designed synthetic peptides and model studies of neurodegenerative diseases.*

- b. **CSIR Major Research Project, Sanctioned on 15 Dec., 2011, Completed on 15<sup>th</sup> Jan, 2015 (Rs. 22,00,000/-):** Title of the project: *Synthesis of biologically active and spectroscopically important heterocycles and dendrimeric compounds from ninhydrin.*

### **Invited lectures delivered:**

- Fourth CRSI (Kolkata Chapter) symposium, August 04, **2006**, University of Kalyani. Talked on “*Indane 1,3-dione as a precursor for synthesis of various heterocyclic compounds*”.
- Acharya Prafulla Chandra Ray and Chemistry Today (**2007**), The Indian Chemical Society and Department of Chemistry, CU, 02-03 August, 2007. Talked on “*Synthesis of heterocycles and cage molecules from indane-1,3-dione and fluorescence studies of isoindolo-imidazoles*”.
- Sixth CRSI (Kolkata Chapter) symposium, August 02, **2008**, North Bengal University (NBU). Talked on “*Supramolecular chemistry of designed synthetic peptides*”.
- Symposium on “Recent Trends in Peptide Research” organized by Indian Peptide Society (IPS) and Bose Institute, Kolkata, January 08, **2010**. Talked on “*Nanomaterials through self-assembly of peptides and modified peptides*”.
- One day national Seminar entitled “Emerging Frontiers in Chemistry-Series I” organized by St. Xavier’s College (Autonomous), Arts & Science Department, on 5<sup>th</sup> March, **2010**. Talked on “*Molecules to Materials through self-assembly of synthetic peptides*”.
- Two days national Symposium on “Molecules to Materials” organized by Department of Chemistry, Haldia Govt. College, WB, on 16-17 March, **2011**. Talked on “*Nano Materials through Self-Assembly of Peptides*”.
- Delivered talk on “*Peptides as building blocks of Bionanomaterials*” at the Department of Chemistry, Vidyasagar University on 22<sup>nd</sup> June, **2011**.
- Delivered talk on “*Design of peptides and pseudopeptides for generation of amyloid-like fibrils and nanovesicles, nanotubes and gels for drug delivery*” on 20 Oct. 2011 in four days (18-21 Oct., **2011**) national workshop on “In silico Approaches for Designing Bioactive Peptides” organized by Institute of Microbial Technology (IMTECH), Chandigarh.
- Delivered talk on “*Organic molecule based nanomaterials and their applications*” on 27 June, 2012, in a Summer School on Frontiers of nano materials, structures and devices (nanoMASTD-12) during June 20-July 10, **2012**, organized by the Department of Radio Physics and Electronics, University of Calcutta.
- Delivered talk on “*Design of peptide based nano bio-materials and their applications*” on March 16, **2016**, in National Seminar of “Chemistry of Functional Materials of Current Interest (CFMCI-2016)”, organized by Department of Chemistry, Jadavpur University.

## **Other notable activities:**

### **(a) Teaching Assignments in the Department of Chemistry, CU:**

#### **Theoretical Courses:**

- (i) Organic Photochemistry and Radicals in Organic Synthesis (M.Sc. 2nd Semester)
- (ii) Green Chemistry (M.Sc. 3rd Semester, CBCC)
- (iii) Bioorganic Chemistry (M.Sc. 4th Semester)
- (iv) Green Chemistry (M.Sc. 4th Semester)

#### **Practical and Projects:**

- (v) Practical: Organic Preparations (M.Sc. 2nd and 3rd Semester)
- (vi) Supervision of Project and Review (M.Sc. 4th Semester)

### **(b) Ph. D. Committee:**

- (i) Member of Ph. D. Committee (Organic Chemistry Section, CU): 2010-2022
- (ii) Convener of Ph. D. Committee (Organic Chemistry Section, CU): 2014-2018

### **(c) As Examiner of Ph. D. Thesis and Viva Voce:**

- (i) Acted as Ph. D. thesis and Viva Voce examiner of several Institutes (IACS-Kolkata, IICB-Kolkata, IMTECH-Chandigarh, IISER-Kolkata, IEST-Shibpur) and Universities (Jadavpur University, Jawaharlal Nehru University, Visva-Bharati University, Vidyasagar University, Gauhati University, BITS Pilani (Goa University), Bharathidasan University, University of Madras, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad)

### **(d) Organization of Symposium, Conference and Courses:**

- (i) Joint Course coordinator of **Refresher Course in Chemistry, 2002**, UGC-Academic Staff College, University of Calcutta.
- (ii) Joint convener of the International Symposium on “**Frontiers of Functional Materials**” organized by Department of Chemistry, University of Calcutta, during 6-7 January, **2009**.
- (iii) Joint Course coordinator of Special Summer School on “**Science & Technology: Biomedical, Engineering and Environmental issues**”, 12 June-02 July, **2014**, UGC-Academic Staff College, University of Calcutta.
- (iv) Joint Course coordinator of 120<sup>th</sup> **Orientation Program (OP)**, 1-30 Dec., **2015**, UGC-Academic Staff College, University of Calcutta.

### **(e) Acted as Reviewer of Journals:**

- (i) Acted as reviewer for several international journals of ACS, RSC, Wiley, Elsevier, Springer and Taylor & Francis