




Faculty Details proforma for DU Web-site

(PLEASE FILL THIS IN AND Email it to websiteDU@du.ac.in)

Title	Prof.	First Name	MARILYN	Last Name	MILTON	Photograph
Designation		Professor				
Address		North Campus, Department of Chemistry, Faculty of Science, University of Delhi, Delhi 110 007				
Phone No	Office	011-27667794/27666646 Extn. 140				
Residence		-				
Mobile		-				
Email		mdmilton@chemistry.du.ac.in				
Web-Page		-				
Educational Qualifications						
Degree		Institution			Year	
Ph.D. (Chemistry)		Indian Institute of Technology, Delhi			2002	
M.Sc. (Chemistry)		Indian Institute of Technology, Delhi			1997	
B.Sc. (H) Chemistry		Miranda House, University of Delhi			1995	
Career Profile						
<p>2013-till date: Professor, Department of Chemistry, University of Delhi. 2008-2013: Associate Professor, Department of Chemistry, University of Delhi. 2007-08: Reader, Department of Chemistry, University of Delhi. 2005-07: Assistant Professor, Department of Chemistry, Indian Institute of Technology, Kharagpur. 2005: Lecturer (ad-hoc), Miranda House, University of Delhi. 2004-05: Visiting Researcher, Department of Chemistry, Shiga University of Medical Sciences, Japan. 2004: Guest Research Associate, Department of Energy and Hydrocarbon Chemistry, Kyoto University, Japan. 2002-04: Monbukagakusho Research Fellow, Department of Energy and Hydrocarbon Chemistry, Kyoto University, Japan. 2002: Project Scientist, Department of Chemistry, Indian Institute of Technology, Delhi</p>						
Administrative Assignments						
<ol style="list-style-type: none"> Member of Managing Committee North Eastern Student's House for women (2019) Coordinator for the Centralized Evaluation Center for the M.Sc. (Chemistry) Examinations of the Department of Chemistry, University of Delhi (May/June 2019) Coordinator, DU Pre-Entrance Summer School Programme (2018) Convener of Departmental committee to combat Holi hooliganism (March 2017) 						

5. **Deputy Superintendent of Examinations** for M.Sc. Chemistry (Practical) Exams (*Nov-Dec 2016*)
6. **Observer**, M.Sc. (Chemistry) Entrance Exam (*2015*)
7. **Convener**, Organic Section (*2014-15*)
8. **Deputy Superintendent of Examinations** M.Sc. Chemistry (Theory) Exams (*May 2014*)
9. **Secrecy officer**, M.Sc. (Chemistry) Entrance Exam (*2014*)
10. **Convener**, Sexual Harassment Committee of Chemistry Department (*2013-14*)
11. **Secrecy officer**, M.Sc. (Chemistry) Entrance Exam (*2013*)
12. **Member**, The Jean and Ashit Ganguly Education Scholarship committee (*2013*)
13. **Deputy Superintendent** Ph.D. Chemistry Entrance Exam (*2010*)

Areas of Interest / Specialization

Design and synthesis of fluorescent sensors; design and synthesis of advanced materials, development of new methodologies for functional group transformations; synthesis of novel heterocyclic compounds and their applications, organocatalysis, transition-metal catalyzed cross-coupling reactions, development of multi-catalyst systems for organic transformations.

Subjects Taught

M.Sc. Courses Taught:

1. Organic Stereochemistry
2. Spectroscopy
3. Photochemistry
4. Supramolecular Chemistry and Carbocyclic Rings
5. Chemistry of Life Processes

M.Tech. CSPT Courses Taught:

1. Supramolecular Chemistry
2. Philosophy of Organic Synthesis

Pre-Ph.D. Course Taught:

1. Metal-catalyzed cross-coupling reactions

Time table of the subjects taught during the current semester

S.No.	Subject	Days	Time	Classroom
1.	Spectroscopy 202-A	Monday	10:50-11:45	Lecture Hall No-6
		Thursday	9:55-10:50	Lecture Hall No-6
2.	Organic Practical 204	Thursday	13:30-17:30	Lab No-5
		Friday	13:30-17:30	Lab No-4

1. Supervision of awarded Doctoral Thesis

- 1) “Design, synthesis and characterization of novel hydrophilic, unsymmetrically N, N-disubstituted benzimidazolium salts and their applications as organocatalysts, ligands in Heck Reaction and fluorescent Probes” **Amita (2015)**
- 2) “Synthesis of Novel Imidazolium Salts and their Applications in Metal-catalyzed C-C Bond Forming Reactions and Development of Novel Synthetic Methodologies for Metal-free C-N Bond Formation” **Parul Garg (2016)**
- 3) “Computational Modeling Approaches and Analysis of Ligands Involved in the Biochemical Pathways” **Nidhi Chadha (2016)** under Co-supervision of Dr. Anjani Kumar Tiwari, INMAS.
- 4) “Design and synthesis of novel peptidic and non-peptidic SPECT radiopharmaceuticals and MR contrast agents for imaging central nervous system” **Swarndeeep Kaur Sethi (2016)** under Co-supervision of Dr. Raunak, INMAS.
- 5) “Design, synthesis and characterization of some novel heterocyclic compounds and their applications” **Swati Bishnoi (2017)**
- 6) “Design, synthesis and characterization of some novel azoles and phenothiazine functionalized compounds and their applications” **Shweta Chaudhary (2018)**

2. Supervision of Doctoral Thesis, under progress

- 1) Ms. Tanisha Sachdeva
- 2) Ms. Shalu Gupta
- 3) Ms. Himshikha Sharma
- 4) Ms. Anshu Dandia under Co-supervision of Prof. S.M.S. Chauhan
- 5) Ms. Monika Lamoria
- 6) Ms. Reshma Kumari

Publications Profile

Research papers published in Refereed/Peer Reviewed Journals

1. Gupta, S.; **Milton; M. D.** “Design and synthesis of novel V-shaped AIEE active quinoxalines for acidochromic applications” *Dyes and Pigments* **2019**, *165*, 474-487. <https://doi.org/10.1016/j.dyepig.2019.02.038>
2. Sachdeva, T.; **Milton; M. D.** “Logic gate based novel phenothiazine-pyridylhydrazones: Halochromism in solid and solution state” *Dyes and Pigments* **2019**, *164*, 305-318. <https://doi.org/10.1016/j.dyepig.2019.01.038>
3. Chaudhary, S.; **Milton; M. D.** “Dicationic imidazolium salts as fluorescent probes for selective detection of Fe³⁺ ion in pure aqueous media” *J. Photochem. Photobiol. A* **2018**, *356*, 595-602. <https://doi.org/10.1016/j.jphotochem.2018.02.003>
4. Gupta, S.; **Milton; M. D.** “Synthesis of novel AIEE active pyridopyrazines and their applications as chromogenic and fluorogenic probes for Hg²⁺ detection in aqueous

- media” *New J. Chem.*, **2018**, 42, 2838-2849. <https://doi.org/10.1039/c7nj04573e>
5. Chaudhary, S.; Mukherjee, M.; Paul, T. K.; Bishnoi, S.; Taraphder, S.; **Milton, M. D.** “Novel phenothiazine-5-oxide based push-pull molecules: Synthesis and fine-tuning of electronic, optical and thermal properties” *ChemistrySelect* **2018**, 3, 5073-5081. <https://doi.org/10.1002/slct.201800131>
 6. Chaudhary, S.; Sharma, H.; **Milton; M. D.** “Novel 2-arylbenzothiazoles: Selective chromogenic and fluorescent probes for the detection of picric acid” *ChemistrySelect* **2018**, 3, 4598-4608. <https://doi.org/10.1002/slct.201800645>
 7. Sachdeva, T.; Bishnoi, S.; **Milton; M. D.** “Multi-stimuli response displaying novel phenothiazine-based non-planar D- π -A hydrazones: Synthesis, characterization, photophysical and thermal studies” *ChemistrySelect* **2017**, 2, 11307-11313. <https://doi.org/10.1002/slct.201702684>
 8. Bishnoi, S.; **Milton, M. D.**; Paul, T. K.; Pal, A. K.; Taraphder, S. “*Small non-planar phenothiazine-5-oxide-based molecules: structural characterization, photophysical, thermal and computational studies*” *ChemistrySelect* **2017**, 2, 3084-3092. <https://doi.org/10.1002/slct.201700279>
 9. Chaudhary, S.; **Milton; M. D.**; Garg, P. “A base- and metal-free protocol for the synthesis of 2-aryl/heteroaryl thiazolines” *ChemistrySelect* **2017**, 2, 650-654. <https://doi.org/10.1002/slct.201601553>
 10. Bishnoi, S.; **Milton, M. D.** “*Selective and sensitive novel benzimidazolium-based fluorescent probes for micromolar detection of Fe³⁺ ions in pure aqueous media*” *J. Photochem. Photobiol. A* **2017**, 335, 52-58. (*Invited feature article*) <https://doi.org/10.1016/j.jphotochem.2016.11.010>
 11. **Milton, M. D.**; Garg, P. “*Flexible, dicationic imidazolium salts for in situ application in palladium-catalyzed Mizoroki-Heck coupling of acrylates under aerial conditions*” *Applied Organomet. Chem.* **2016**, 30, 759-766. <https://doi.org/10.1002/aoc.3503>
 12. Varshney, R.; Sethi, S.; Rangaswamy, S.; Tiwari, A. K.; **Milton; M. D.**; Kumaran, S.; Mishra, A. K. “*Design, synthesis and relaxation studies of triazole linked gadolinium(III)-DO3A-BTbistriazaspirodecanone as a potential MRI contrast agent*” *New J. Chem.* **2016**, 40, 5846-5854. <https://doi.org/10.1039/c5nj03220b>
 13. Bishnoi, S.; **Milton, M. D.** “*Tunable phenothiazine hydrazones as colour displaying, ratiometric and reversible pH sensors*” *Tetrahedron Lett.* **2015**, 56, 6633-6638. <https://doi.org/10.1016/j.tetlet.2015.10.041>
 14. Chadha, N.; Tiwari, A. K.; Kumar, V.; Lal, S.; **Milton, M. D.**; Mishra, A. K. “*Oxime-dipeptides as anticholinesterase, reactivator of phosphorylated-serine of AChE catalytic triad: probing the mechanistic insight by MM-GBSA, dynamics simulations and DFT*”

- analysis” *Journal of Biomolecular Structure and Dynamics* **2015**, 33, 978-990. <https://doi.org/10.1080/07391102.2014.921793>
15. Chadha, N.; Tiwari, A. K.; Kumar, V.; **Milton, M. D.**; Mishra, A. K. “*In silico* thermodynamics stability change analysis involved in BH_4 responsive mutations in phenylalanine hydroxylase: QM/MM and MD simulations analysis” *Journal of Biomolecular Structure and Dynamics* **2015**, 33, 573-583. <https://doi.org/10.1080/07391102.2014.897258>
16. Garg, P.; Chaudhary, S.; **Milton; M. D.** “Synthesis of 2-aryl/heteroaryloxazolines from nitriles under metal and catalyst-free conditions and evaluation of their antioxidant activities” *J. Org. Chem.* **2014**, 79, 8668-8677. <https://doi.org/10.1021/jo501430p>
17. Lal, A. K.; **Milton, M. D.** “Designed benzimidazolium salts: Modulation of fluorescence response towards metal cations in pure aqueous media” *Sensors and Actuators B* **2014**, 202, 257-262. <http://dx.doi.org/10.1016/j.snb.2014.05.037>
18. Lal, A. K.; **Milton, M. D.** “Synthesis of new benzimidazolium salts with tunable emission intensities and their application as fluorescent probes for Fe^{3+} in pure aqueous media” *Tetrahedron Lett.* **2014**, 55, 1810-1814. <https://dx.doi.org/10.1016/j.tetlet.2014.01.127>
19. Sethi, S.; Varshney, R.; Rangaswamy, S.; Chadha, N.; Hazari, P. P.; Kaul, A.; K.; Chuttani, **Milton; M. D.**; Mishra, A. K. “Design, Synthesis and Preliminary Evaluation of a novel SPECT DTPA-bis-triazaspirodecanone Conjugate for D2 Receptor Imaging” *RSC Adv.* **2014**, 4, 50153-50162. <https://doi.org/10.1039/c4ra07004f>
20. Garg, P.; **Milton, M. D.** “Sodium carbonate mediated regioselective synthesis of novel N-(hydroxyalkyl)cinnamamides”. *Tetrahedron Lett.* **2013**, 54, 7074-7077. <https://dx.doi.org/10.1016/j.tetlet.2013.10.086>
21. Chadha, N.; Tiwari, A. K.; **Milton, M. D.**; Mishra, A. K.; “Perception into hypoxia selectivity and electronic features of symmetrically substituted bishiosemicarbazone ligands and their copper complexes: DFT and QM/MM docking” *Med. Chem. Commun.* **2013**, 4, 542-548. <https://doi.org/10.1039/c2md20333b>
22. Varshney; R.; Sethi, S. K.; Hazari, P. P.; Chuttani, K.; Soni, S.; **Milton, M.D.**; Mishra, A.K. “Synthesis of [DTPA-bis(D-ser)] chelate (DBDSC): An approach for the design of SPECT radiopharmaceuticals based on Technetium” *Curr. Radiopharm.* **2012**, 5, 348-355.
23. Inada, Y.; Yoshikawa, M.; **Milton, M. D.**; Nishibayashi, Y.; Uemura, S. “Ruthenium-catalyzed propargylation of aromatic compounds with propargylic alcohols” *Eur. J. Org. Chem.* **2006**, 4, 881-890. <https://doi.org/10.1002/ejoc.200500858>
24. Kumar, N.; **Milton, M. D.**; Singh, J. D.; Upreti, S.; Butcher, R. J. “Design, synthesis, and structural aspects of chalcogen-substituted pyridinedicarboxamide donors and their

reactions” *Tetrahedron Lett.* **2006**, *47*, 885-889.
<https://doi.org/10.1016/j.tetlet.2005.12.004>

25. Onodera, G.; Matsumoto, H.; **Milton, M. D.**; Nishibayashi, Y.; Uemura, S. “*Ruthenium-catalyzed formation of aryl(diphenyl)phosphine oxides by reactions of propargylic alcohols with diphenylphosphine oxide*” *Org. Lett.* **2005**, *7*, 4029-4032.
<https://doi.org/10.1021/ol0515311>
26. Nishibayashi Y.; **Milton, M. D.**; Inada, Y.; Yoshikawa, M.; Wakiji, I.; Hidai, M.; Uemura, S. “*Ruthenium-catalyzed propargylic substitution reactions of propargylic alcohols with oxygen-, nitrogen-, and phosphorus-centered nucleophiles*” *Chem. Eur. J.* **2005**, *11*, 1433-1451. <https://doi.org/10.1002/chem.200400833>
27. **Milton, M. D.**; Khan, S.; Singh, J. D.; Singh, S.; Maheshwari, M.; Mishra, V.; Khandelwal, B. L. “*A facile access to chalcogen and dichalcogen bearing dialkylamines and diols*” *Tetrahedron Lett.* **2005**, *46*, 755-758.
<https://doi.org/10.1016/j.tetlet.2004.12.035>
28. **Milton, M. D.**; Inada, Y.; Nishibayashi, Y.; Uemura, S. “*Ruthenium and gold catalysed sequential reactions: a straightforward synthesis of substituted oxazoles from propargylic alcohols and amides*” *Chem. Commun.* **2004**, 2712-2713.
<https://doi.org/10.1039/b411180j>
29. **Milton, M. D.**; Kumar, N.; Sokhi, S. S.; Singh, S.; Maheshwari, M.; Singh, J. D.; Asnani, M.; Butcher, R. J. “*Design and synthesis of organochalcogen (Se or Te) based multifunctional derivatives: structural determination and dynamic behavior of 2-chloro-4,6-bis(phenylselenoethyl)-amino-1,3,5-triazines*” *Tetrahedron Lett.* **2004**, *45*, 8941-8944. <https://doi.org/10.1016/j.tetlet.2004.09.132>
30. **Milton, M. D.**; Onodera, G.; Nishibayashi, Y.; Uemura, S. “*Double phosphinylation of propargylic alcohols: a novel synthetic route to 1,2-bis(diphenylphosphino)ethane derivatives*” *Org. Lett.* **2004**, *6*, 3993 -3995. <https://doi.org/10.1021/ol048347k>
31. **Milton, M. D.**; Singh, J. D.; Butcher, R. J. “*Synthesis of β -ketoenamine donors having O, N, Se/Te donor functionalities and their reaction chemistry with Pd (II) and Pt (II) metal ions*” *Tetrahedron Lett.* **2004**, *45*, 6745-6747. <https://doi.org/10.1016/j.tetlet.2004.07.057>
32. Kumar, N.; **Milton, M. D.**; Singh, J. D. “*An efficient synthesis and structural aspects of hexakis(arylseleno)benzenes and hexakis(arylselenomethyl)benzenes*” *Tetrahedron Lett.* **2004**, *45*, 6611-6613. <https://doi.org/10.1016/j.tetlet.2004.07.020>
33. **Milton, M. D.**; Kumar, N.; Sokhi, S. S.; Singh, S.; Singh, J. D. “*An efficient and facile one pot synthesis of structurally unique 2, 4, 6- tris(arylchalcogeno)-1,3,5-triazine and 1,3,5-tris(arylchalcogeno)-2,4,6-trimethylbenzene*” *Tetrahedron Lett.* **2004**, *45*, 6453-6455. <https://doi.org/10.1016/j.tetlet.2004.06.128>

34. Nishibayashi, Y.; Yoshikawa, M.; Inada, Y.; **Milton, M. D.**; Hidai, M.; Uemura, S. "Novel ruthenium- and platinum-catalyzed sequential reactions: Synthesis of tri- and tetrasubstituted furans and pyrroles from propargylic alcohols and ketones" *Angew. Chem.* **2003**, *115*, 2785-2788. <https://doi.org/10.1002/ange.200351170> ; *Angew. Chem. Int. Ed.* **2003**, *42*, 2681-2684. <https://doi.org/10.1002/anie.200351170>
35. **Milton, M. D.**; Singh, J.; Singh, J. D.; Khandelwal, B. L.; Butcher, R. J. "Design, synthesis and structural aspects of $NH_2(CH_2)_nE(CH_2)_nNH_2$ ($n = 2$ or 3 ; $E = Se$ or Te) N_2Se or N_2Te donors and its complexes with Group 12 metals" *Phosphorus, Sulfur and Silicon and the Related Elements* **2001**, *172*: 239-246. <https://doi.org/10.1080/10426500108046656>
36. **Milton, M. D.**; Singh, J. D.; Khandelwal, B. L.; Kumar, P.; Singh, T. P.; Butcher, R. J. "Design, synthesis and structural aspects of terdentate ($N,O,Se/Te$) donors and their competitive coordination behavior towards $Pt(II)$ " *Phosphorus, Sulfur and Silicon and the Related Elements* **2001**, *172*, 231-238. <https://doi.org/10.1080/10426500108046655>
37. Singh, J. D.; **Milton, M. D.**; Bhalla, G.; Khandelwal, B. L.; Kumar, P.; Singh, T. P.; Butcher, R. J. "Design, synthesis and structural aspects of acyclic N_3E_2 ($E = Se$ or Te) type donors and its complexes with Group 12 metals" *Phosphorus, Sulfur and Silicon and the Related Elements* **2001**, *172*, 223-230. <https://doi.org/10.1080/10426500108046654>
38. **Milton, M. D.**; Singh, J. D.; Butcher, R. J. "Design and synthesis of heteroatom bearing organoselenium donor and its reactivity towards platinum(II) metal" *Phosphorus, Sulfur and Silicon and the Related Elements* **2001**, *169*, 153-156. <https://doi.org/10.1080/10426500108546613>
39. Singh, J. D.; **Milton, M. D.**; Khandelwal, B. L.; Karthikeyan, S.; Singh, T. P. New acyclic chalcogen bearing ligands and their complexation reactions. *Phosphorus, Sulfur and Silicon and the Related Elements* **1998**, *136-138*: 299-304. <https://doi.org/10.1080/10426509808545955>

Patents:

1. Indian Patent no. 301082 Indian Patent no. 301082; Novel brominated phenothiazine scaffolds and methods thereof, (February, **2014**)

Publications in the Last one year

1. Gupta, S.; **Milton; M. D.** "Design and synthesis of novel V-shaped AIEE active quinoxalines for acidochromic applications" *Dyes and Pigments* **2019**, *165*, 474-487.
2. Sachdeva, T.; **Milton; M. D.** "Logic gate based novel phenothiazine-pyridylhydrazones: Halochromism in solid and solution state" *Dyes and Pigments* **2019**, *164*, 305-318.
3. Chaudhary, S.; Mukherjee, M.; Paul, T. K.; Bishnoi, S.; Taraphder, S.; **Milton, M. D.** "Novel phenothiazine-5-oxide based push-pull molecules: Synthesis and fine-tuning of

electronic, optical and thermal properties” *ChemistrySelect* **2018**, 3, 5073-5081.

4. Chaudhary, S.; Sharma, H.; **Milton; M. D.** “Novel 2-arylbenzothiazoles: Selective chromogenic and fluorescent probes for the detection of picric acid” *ChemistrySelect* **2018**, 3, 4598-4608.

Conference Organization/ Presentations (in the last three years)

1. **M. D. Milton**, T. Sachdeva, S. Gupta, “*Role of non-bonded interactions in designing mechanofluorochromic and aiee active push-pull molecules*” **Invited Lecture** at **Indo-German Workshop on Multivalent Macromolecular Architectures for Biomedical Applications** held from **5-6 April, 2019** at Department of Chemistry, University of Delhi, Delhi, India.
2. **S. Gupta** and M. D. Milton, “*Novel AIEE active twisted pyridopyrazines: Synthesis, photophysical properties and their applications as probes for Hg²⁺ detection in aqueous media*” **Poster** presented at **Indo-German Workshop on Multivalent Macromolecular Architectures for Biomedical Applications** held from **5-6 April, 2019** at Department of Chemistry, University of Delhi, Delhi, India.
3. **T. Sachdeva** and M. D. Milton, “*Novel phenothiazine based non-planar D-π-A hydrazones: Aggregation induced emission, Mechanofluorochromic and Acidochromic behaviour*” **Poster** presented at **Indo-German Workshop on Multivalent Macromolecular Architectures for Biomedical Applications** held from **5-6 April, 2019** at Department of Chemistry, University of Delhi, Delhi, India.
4. **M. D. Milton**, T. Sachdeva, S. Gupta, S. Chaudhary, S. Bishnoi, “*Design and synthesis of push-pull molecules based on phenothiazine and pyridopyrazine and their applications*” **Oral presentation** at **National Conference on Organic Molecules as Synthons and Reagents for Innovations (OMSRI-2019)** held from 08-10 February, 2019 at Indian Institute of Technology Roorkee, Roorkee, India.
5. **S. Gupta**, **M. Lamoria** and M. D. Milton, “*Novel AIEE active pyridopyrazines as fluorogenic and chromogenic chemosensors for selective Hg²⁺ detection in aqueous media*” **Poster** presented at **National Conference on Organic Molecules as Synthons and Reagents for Innovations (OMSRI-2019)** held from 08-10 February, 2019 at Indian Institute of Technology Roorkee, Roorkee, India.
6. **T. Sachdeva**, **R. Kumari**, M. D. Milton, “*Novel phenothiazine-based non-planar hydrazones as multi-stimuli responsive materials*” **Poster** presented at **National Conference on Organic Molecules as Synthons and Reagents for Innovations (OMSRI-2019)** held from 08-10 February, 2019 at Indian Institute of Technology Roorkee, Roorkee, India.
7. **H. Sharma**, S. Chaudhary and M. D. Milton, “*Synthesis of 2-arylbenzothiazoles and their application as fluorescent probes for selective sensing of picric acid*” **Poster** presented at **National Conference on Organic Molecules as Synthons and Reagents for Innovations**

(*OMSRI-2019*) held from 08-10 February, **2019** at Indian Institute of Technology Roorkee, Roorkee, India.

8. **S. Gupta** and M. D. Milton, “*Design and synthesis of pyridopyrazine based fluorogenic and chromogenic chemosensors for selective Hg²⁺ detection in aqueous media*” **oral Presentation** at **43rd International Conference on Coordination Chemistry (ICCC-2018)** held from 30 July - 4 August, **2018** at Sendai International Centre, Sendai, **Japan**.
9. **S. Gupta** and M. D. Milton, “*Novel AIEE active twisted pyridopyrazines: Synthesis, photophysical properties and their applications as probes for Hg²⁺ detection in aqueous media*” **Poster** presented at the **International Conferences on Advances in Analytical Sciences (ICAAS-2018)**, held from 15-17 March, **2018** at CSIR-Indian Institute of Petroleum, Dehradun, India.
10. **T.Sachdeva** and M. D. Milton, “*Novel phenothiazine-based non-planar D-π-A hydrazones: Aggregation induced emission, mechanofluorochromic and acidochromic behavior*” **Poster** presented at the **International Conferences on Advances in Analytical Sciences (ICAAS-2018)**, held from 15-17 March, **2018** at CSIR-Indian Institute of Petroleum, Dehradun, India.
11. **M. D. Milton**, “*Safe management of hazardous chemicals and chemical security*” **Invited Lecture** at **Miranda House organised by Chemical Society, Rasayanika** on 26th October **2017**.
12. **M.D. Milton** and S. Bishnoi, “*Synthesis of Novel Dibromophenothiazine-5-oxide scaffolds: Potential Building Blocks for OLED Materials*” **Paper** presented at the **International Conference on Material Science and Technology (ICMTECH 2016)**, held from 1-4 March, **2016** at the University of Delhi, India.
13. **S. Chaudhary**, P. Garg, M.D. Milton, “*A Convenient Synthesis of Biologically Important Thiazoline Scaffolds*” **Poster** presented at **22nd ISCB International Conference (ISCB 2016) on Recent trends in affordable and sustainable drug discovery developments** held from 6 - 8 February, **2016** at Uka Tarsadia University, Surat, India.
14. **T. Sachdeva**, S. Bishnoi, M. D. Milton “*Design and synthesis of phenothiazine hydrazones and their application as pH sensors*” **Poster** presented at **18th CRSI Nation Symposium in Chemistry** held from 5-7 February, **2016** at the Department of Chemistry, Punjab University, Chandigarh, India.

Research Projects (Major Grants/Research Collaboration)

- Principal Investigator of Project Titled “*Synthesis of novel water-soluble fluorescent probes for metal ions and anions in aqueous medium*” Funded by University of Delhi, 2015-16.
- Principal Investigator of Project Titled “*Synthesis of novel 2-aryloxazolines and study of their antioxidant activities*” Funded by University of Delhi, 2014-15.
- Principal Investigator of Project Titled “*Design and synthesis of novel, water-*

<p>soluble functionalized benzimidazole and imidazole compounds and their applications” Funded by University of Delhi, 2013-14.</p> <ul style="list-style-type: none"> • Principal Investigator of Project Titled “Synthesis of novel <i>N</i>-heterocyclic carbene (NHCs) ligands and their application in C-C bond forming reactions” Funded by University of Delhi, 2012-13. • Principal Investigator of Project Titled “Benzoin Condensation in Aqueous Medium By Novel <i>N</i>-Heterocyclic Carbene (NHCs) Ligands” Funded by University of Delhi, 2011-12. • Principal Investigator of Project Titled “Transition-metal catalyzed C-N bond forming reactions of aryl halides” Funded by University of Delhi, 2010-11. • Principal Investigator of SERC Fast Track Scheme for Young Scientists (DST) Titled “Transition-metal catalyzed activation of C(aryl)-Cl bond and its application in C-N, C-O and C-S bond forming reactions”, 2007-10.
Awards and Distinctions
<ol style="list-style-type: none"> 1. Selected to attend Global Chemists’ Code of Ethics Science and Technology Leadership Program, Melbourne, Australia; organised by the American Chemical Society (2017) 2. SERC Fast Track Young Scientist Project, Department of Science and Technology (2007) 3. Monbukagakusho (Japanese Government) Scholarship (2002-04) 4. Junior and Senior Research Fellowships (University Grants Commission) 1998-2001 5. Research Fellowship cum teaching assistantship (GATE) at IIT Delhi 1997-98
Association With Professional Bodies
<ol style="list-style-type: none"> 1. <i>Editing</i> 2. Reviewing Reviewer of international journals- Journal of Organic Chemistry, Sensors and Actuators B: Chemical, Dyes and Pigments, New Journal of Chemistry, RSC Advances, Tetrahedron Letters, ChemistrySelect, Synthesis, Analytical Methods, Current Organic Chemistry, Chemistry Central Journal, Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry Reviewer of national science magazine Resonance 3. <i>Advisory</i> 4. <i>Committees and Boards</i> 5. Memberships: Life membership of Chemical Research Society of India (CRSI) Member, American Chemical Society (Annual) 6. <i>Office Bearer</i>
Other Activities
Member of various committees in the Department of Chemistry

Signature of Faculty Member