



Faculty Details proforma for DU Web-site

Titl e	Professor	Diwan	S	Rawat	Photograph
Designation		Professor			
Address		Department of Chemistry, University of Delhi, Delhi-110007			
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Residence		Provost Lodge, Jubilee Hall, University of Delhi, Delhi-110007			
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Web-Page		http://www.du.ac.in/faculty_member_details.htm?id=1799			
Educational Qualifications					
Degree	Institution			Year	
Ph.D.	Central Drug Research Institute, Lucknow, UP/Kumaun University, Nainital, UK			1998	
M.Phil. / M.Tech.	NA				
PG	Kumaun University, Nainital, UK			1993 (First Position in the University)	
UG	Kumaun University, Nainital, UK			1991	
Any other qualification					
Career Profile					
<ul style="list-style-type: none"> • Professor, Department of Chemistry, University of Delhi, Delhi, 110007, India (March 2010-Till Date). • Associate Professor, Department of Chemistry, University of Delhi, Delhi, 110007, India (July 2006-March 2010). • Reader, Department of Chemistry, University of Delhi, Delhi, 110007, India (July 2003-July 2006). • Assistant Professor, Department of Medicinal Chemistry, National Institute of Pharmaceutical Education and Research (NIPER), Mohali, Punjab, India (Nov 2002-July 2003). • National Institute of Health (NIH) Postdoctoral Fellow, Department of Medicinal Chemistry and Molecular Pharmacology, Purdue University, West Lafayette, IN, USA (Sept 2001-Nov 2002). • American Cancer Society (ACS) Postdoctoral Fellow, Department of Chemistry, Indiana University, Bloomington, IN, USA, (Nov 1999-Sept 2001). • Scientist, R & D Department, Lupin Laboratories Ltd. Mandideep, M.P., India (Sept 1998-Nov 1999). Involved in the process and development of Lisinopril, quinalapril based antihypertensive drugs, and handled reaction on 50 kg scale. 					

- R & D Executive, **Panchsheel Org. Ltd. MP, India.** (Aug 1997- Sept 1998). Process and development of Loperamide hydrochloride, promethazine hydrochloride, and triclosan. Handled reaction on 50 kg scale.
- Research Fellow, **Central Drug Research Institute, Lucknow, India,** (April 1994- Aug 1997).

Administrative Assignments

- **Coordinator, M. Tech.** (Chemical Synthesis and Process Technologies), Department of Chemistry, University of Delhi (**December 2010 – Till Date**).
- **Provost, Jubilee Hall,** University of Delhi, Delhi (**May 2012 – Till Date**).
- **OSD, University Press, and Head, Graphic Art Centre,** University of Delhi, Delhi (**January 2011 - Till Date**).
- **Chairman, Governing Body,** Shaheed Rajguru College, University of Delhi, Delhi (**2011-2012**).
- **Treasurer, Governing Body,** Swami Shraddhanand College, University of Delhi, Delhi (**2011-2012**).
- **Treasurer, Delhi University Students Union (DUSU),** University of Delhi, Delhi (**2012-Till Date**).
- **Warden, Jubilee Hall,** University of Delhi (**September 2003 – May 2012**).

Areas of Interest / Specialization

Organic Synthesis, Medicinal Chemistry (synthesis of biologically active compounds: anticancer, antiviral, antibacterial, antifungal, and antimalarial), Natural and Marine Natural Products (bioactivity guided isolation of natural/marine natural products). Process development of drugs/drug intermediates.

Subjects Taught

- Stereochemistry
- Reactive intermediates (Reaction mechanism)
- Spectroscopy
- Chemistry of natural products
- Metal catalyzed reactions
- Name reactions

Research Guidance

List against each head (If applicable)

1. Supervision of awarded Doctoral Thesis

- **Dr. Mukesh C. Joshi,** Title of thesis: "Synthesis and Biological Evaluation of Cyclic and Acyclic Enediynes" Degree awarded: **2008**.
- **Dr. Gopal S. Bisht,** Title of thesis: Designing, synthesis and characterization of antimicrobial peptides and study of their biological activity. Degree awarded: **2008**.
- **Dr. Penny Joshi,** Title of thesis: Synthesis of Phidolopin and Cyanuric Acid Analogues as Biodynamic Agents. Degree awarded: **2008**
- **Dr. Ritu Mangain,** Title of thesis: Synthesis and antimicrobial activity evaluation of substituted coumarins and coumarin-triazole conjugates. Degree awarded: **2009**.
- **Dr. Himanshu Aethaya,** Title of thesis: Design, synthesis and characterization of

modified tetraoxanes and tetraoxane-aminoquinolines as antimalarial agents, *Degree awarded: 2009.*

- **Dr. Mukul Sharma**, *Title of thesis: Synthesis and characterization of biologically relevant natural product analogues and nitrogen heterocycles, Degree awarded: 2010.*
- **Dr. Nitin Kumar**, *Title of thesis: Synthesis and biological evaluation of tetraoxane and curcumin analogues, Degree awarded: 2011.*
- **Dr. Beena Negi**, *Title of thesis: Synthesis and Biological Activity Evaluation of Cyclohexane-1,2-diamine, Metronidazole, Curcumin and Thymol Derivatives, Degree awarded: 2012.*
- **Dr. Sunny Manohar**: *Title of thesis: Design, Synthesis and Biological Activity Evaluation of hybrid molecules based on 4-Aminoquinoline, Curcumin, Chalcon and Cyclohexyldiamine, Degree awarded: 2013.*
- **Dr. Seema Joshi**: *Title of thesis: Antimicrobial Peptides and peptidomimetics: Design, synthesis and Biological evaluation, Degree awarded: 2013.*
- **Dr. Rini Joshi**: *Title of thesis: Studies on protein acetyltransferase function of calreticulin, Degree awarded: 2013.*
- **Dr. Deepak Kumar**, *Title of thesis: A Library of aryls, alkyl aryls and heteroaryls as biodynamic agents. Degree awarded: 2014.*

2. Supervision of Doctoral Thesis, under progress

- **Registered PhD students:** Anuj Thakur, U. Chinna Rajesh, Mohit Tripathi, P. Linga Reddy, Satya V Pawan, Rohit Kholia, Shamseer K. Kandi, Shiv Shyam Maurya.

3. Supervision of awarded M.Phil dissertations

- Nisha Agarwal; Sunny Manohar

Publications Profile

List against each head (If applicable) (as Illustrated with examples)

1. Books/Monographs (Authored/Edited)

- **Bioactive Marine Natural Products:** Dewan S. Bhakuni and **Diwan S. Rawat**, ISBN: 1-4020-3472-5 (2005), Publishers: Springer, New York, USA, and Anamaya Publisher, New Delhi, India. **Citations: Over 91.**
- Book was forwarded by **Sir Derek Barton**, Noble Laureate.
- Book was reviewed by **Journal of American Chemical Society**, and comments were published in **J. Am. Chem. Soc.** 128, 4494 (2006).
- Book chapter entitled "**Organometallic and Organosulphur Compounds**" e-book on "Organic Chemistry" published by **National Science Digital Library**, [<http://nsdl.niscair.res.in/dspace/handle/123456789/179/items-by-author?author=Rawat%2C+Diwan+S>], 2008.
- Book chapter entitled "**Synthetic and Clinical Status of Marine Derived Anticancer Peptides**" in a book series **Compendium of Bioactive Natural Products**, Volume 7, Chapter 1, **M/S. Studium Press LLC , USA; Authros: Diwan S.Rawat,* Ram Singh, Nitin Kumar, Mukul Sharma, and M. S. M. Rawat P. 1-28 (2010).**

- **Science and Life:** Foundation Course under FYUP, University of Delhi (Co-Author, 2013).
- Book chapter entitled "Marine Natural Alkaloids as Anti-Cancer Agents" on *Opportunity, Challenge and Scope of Natural Products in Medicinal Chemistry* Authors: Deepak Kumar, and Diwan S Rawat*, PP 213-268 (2011); ISBN: 978-81-308-0448-4 (<http://www.trnres.com/ebookcontents.php?id=95>).
- Reviewed a book entitled "Natural Products Chemistry" to be published by Elsevier (June 2007).
- Reviewed a book entitled "Organic Reaction Mechanism" to be published by Macmillan India Ltd (June 2008).
- Edited especial issues of Anti-Cancer Agents in Medicinal Chemistry (*Published by Bentham*).

2. Research papers published in Refereed/Peer Reviewed Journals

2014

1. Anthwal, A.; Singh, K.; Rawat, M.S.M.; Tyagi, A. K.; Aggarwal, B. B.; Rawat, DS*, 2014, C5-curcuminoid-dithiocarbamate based molecular hybrids: Synthesis, anti-inflammatory and anti-cancer activity evaluation. *RSC Adv* 4, 28756 – 28764.
2. Thakur, A.; Manohar, S.; Vélez Gerena, C. E.; Zayas, B.; Kumar, V.; Malhotra, S. V.; Rawat, DS*, 2014, Novel 3,5-bis(arylidene)-4-piperidone based monocarbonylanalogs of curcumin: Anticancer activity evaluation and mode of action study, *Med. Chem. Commun.* 5, 576 – 586.
3. Thakur, A.; Khan, S. I.; Rawat, DS*, 2014, Synthesis of piperazine tethered 4-aminoquinoline-pyrimidine hybrids as potent antimalarial agents. *RSC Adv.* 4, 20729 – 20736.
4. Rajesh, U. C.; Kholiya, R.; Pavan, V. S.; Rawat, DS*, 2014, Catalyst free, ethylene glycol promoted one-pot three component synthesis of 3-amino alkylated indoles *via* Mannich-type reaction, *Tetrahedron Letters*, 55, 2977 – 2981.
5. Tripathi, M.; Reddy, P.L.; Rawat, DS*, 2014, Noscapiene and its analogues as anti-cancer agents, *Chem Biol Interface* 4, 1 – 22.
6. Anthwal, A.; Rajesh, U. C.; Rawat, M. S. M.; Kushwaha, B.; Maikhuri, J. P.; Sharma, V. L.; Gupta, G.; Rawat, DS*, 2014, Novel metronidazole-chalcone conjugates with potential to counter drug resistance in *Trichomonas vaginalis*, *Eur. J. Med. Chem.* 79, 89 – 94.
7. Mangain, R.; Atheaya, H.; Khan, S. I.; Manohar, S. Rawat, DS*, 2014, Synthesis of novel 1,2,3-triazole incorporated quinoline derivatives *via* click chemistry and evaluation of their antimalarial activity, *J. Ind. Chem Soc. Accepted (2014), Invited article for Professor KC Joshi Birthday Commemoration Issue.*

8. Beena, Kumar, D.; Kumbukgolla, W.; Jayaweera, S.; Bailey, M. A.; Alling, T.; Ollinger, J.; Parish, T.; **Rawat, DS***, 2014, Antibacterial activity of adamantyl substituted cyclohexane diamine derivatives against methicillin resistant *Staphylococcus aureus* and *Mycobacterium tuberculosis*, **RSC Adv.** 4, 11962 – 11966.
 9. Rajesh, U. C.; Gupta, A.; **Rawat, DS***, 2014, Approaches to the total synthesis of natural quinolizidine alkaloid (+)-epiquinamide and its isomers: An overview, **Curr. Org. Synth. Accepted (2014)**.
 10. Manohar, S.; Thakur, A.; Khan, S. I.; Ni, N.; Wang, B.; **Rawat, DS***, 2014, Synthesis of unsymmetrical C5-curcuminoids as potential anticancer and antimalarial agents. **Lett. Drug Des. Discov.** 11, 138 – 149.
 11. Manohar, S.; Tripathi, M.; **Rawat, DS***, 2014, 4-Aminoquinoline based molecular hybrids as antimalarials: An Overview, **Curr. Top. Med. Chem. Accepted (2014)**.
 12. Kumar, D.; Raj, K.K.; Malhotra, S. V.; **Rawat, DS***, 2014, Synthesis and anticancer activity evaluation of resveratrol-chalcone conjugate. **Med. Chem. Commun.** 5, 528 – 535.
 13. Kumar, D.; Beena, Khare, G.; Kidwai, S.; Tyagi, A. K.; Singh, R.; **Rawat, DS***, 2014, Synthesis of novel 1,2,3-triazole derivatives of isoniazid and their *in vitro* and *in vivo* antimycobacterial activity evaluation, **Eur. J. Med Chem.** 81, 301 – 313.
 14. Manohar, S.; Pepe, A.; Vélez Gerena, C. E.; Zayas, B.; Malhotra, S. V.; **Rawat, DS***, 2014, Anticancer activity of 4-aminoquinoline-triazine based molecular hybrids, **RSC Adv.** 4, 7062 – 7067.
 15. Beena, Kumar, D.; Bailey, M. A.; Parish, T.; **Rawat, DS***, 2014, Synthesis and antituberculosis activity evaluation of cyclohexane-1,2-diamine derivatives, **Chem Biol Interface**, 4, 23-36.
 16. Joshi, P.; Tripathi, M.; **Rawat, DS***, 2014, Synthesis and characterization of novel 1,2,3-triazole-linked theophylline and coumarin s-triazines. **Ind. J. Chem.** 53B, 311 – 318.
 17. Arya, K.; Tomar, R.; **Rawat, DS***, 2014, Greener synthesis and photo-antiproliferative activity of novel fluorinated benzothiazolo[2, 3-b]quinazolines. **Med. Chem. Res.** 23, 896 – 904.
- 2013**
18. Rajesh, U. C.; Manohar, S.; **Rawat, DS***, 2013, Hydromagnesite as an efficient novel recyclable heterogeneous solid base catalyst for the synthesis of flavanones, flavanols and 1,4-dihydropyridines in water. **Adv. Synth. Catal.** 355, 3170 – 3178.
 19. **Rawat, DS***, Singh, R.; 2013, Plant derived secondary metabolites as anti-cancer agents. **Anti-Cancer Agents-Med. Chem.** 13, 1551.
 20. Thakur, A.; Tripathi, M.; Rajesh, U. C.; **Rawat, DS***, 2013, Ethylenediammonium-difformate (EDDF) in PEG₆₀₀: An efficient amphiphilic novel catalytic system for the one-pot synthesis of 4H-pyrans *via* Knoevenagel condensation. **RSC Adv.** 3, 18142 – 18148.

21. Kumar, N.; Kapoor, E.; Singh, R.; Kidwai, S.; Kumbukgolla, W.; Bhagat, S.; **Rawat, DS***, 2013, Synthesis and antibacterial/antitubercular activity evaluation of symmetrical *trans*-cyclohexane-1,4-diamine derivatives. *Ind. J. Chem. Sect B.* **52**, 1441 – 1450.
22. Joshi, R.; Kumar, A.; Manral, S.; Sinha, R.; Arora, S.; Goel, S.; Kalra, N.; Chatterji, S.; Dwarakanath, B. S.; **Rawat, D. S.**; Saluja, D.; Parmar, V. S.; Prasad, A. K.; Raj, H. G.; 2013, Calreticulin transacetylase mediated upregulation of thioredoxin by 7,8-diacetoxy-4-methylcoumarin enhances the antioxidant potential and the expression of vascular endothelial growth factor in peripheral blood mono nuclear cells, *Chemico-Biological Interactions*, 206, 327 – 336.
23. Manohar, S.; Khan, S. I.; Kandi, S. K.; Raj, K. K.; Sun, G.; Yang, X.; Molina, A. D. C.; Ni, N.; Wang, B.; **Rawat, DS***, 2013, Synthesis and cytotoxic potential of new monocarbonyl analogues of Curcumin. *Bioorg. Med. Chem. Lett.* **23**, 112-116.
24. Sharma, M.; Rajesh, U. C. **Rawat, DS***, 2013, Improved synthesis of natural ester Sintenin and its analogues *via* Wittig reaction. *J. Ind. Chem. Soc.* **90**, 1853 – 1860.
25. Beena, . **Rawat, DS***, 2013, “Antituberculosis drug research: A critical overview” *Med. Res. Rev.* **33**, 693–764 (**ranked #1 among the medicinal chemistry journals**).
26. Kumar, N.; Sun, G.; Ni, N.; Chen, W.; Molina, A. D. C.; Wang, B.; . **Rawat, DS***, 2013, “Synthesis and cytotoxicity evaluation of C5-curcuminoids” *Chem. Biol. Interface*, **3**, 164-186.
27. Manohar, S.; Khan, S. I.; **Rawat, DS***, 2013, 4-Aminoquinoline-triazine based hybrids with improved *in-vitro* antimalarial activity against CQ-sensitive and CQ-resistant strains of *P. falciparum*. *Chem. Biol. Drug Des.* **81**, 625-630.
28. Beena, Kumar, D.; **Rawat, DS***, 2013, Synthesis and antioxidant activity of thymol and carvacrol based Schiff bases, *Bioorg. Med. Chem. Lett.* **23**, 641-645.
29. Kumar, D.; Raj, K. K.; Bailey, M. A.; Alling, T.; Parish, T.; **Rawat, DS***, 2013, Antimycobacterial activity evaluation and time-kill kinetic and 3D QSAR study of C-(3-aminomethyl-cyclohexyl)-methylamine derivatives, *Bioorg. Med. Chem. Lett.* **23**, 1365-1369.

2012

30. Manohar, S.; Rajesh, U. C.; Khan, S. I.; Babu, L. T.; **Rawat, D. S.*** 2012. Novel 4-aminoquinoline-pyrimidine based hybrids with improved *in vitro* and *in vivo* antimalarial activity. *ACS Med. Chem. Lett.* **3**, 555-559.
31. Arya, K.; Rajesh, U. C.; **Rawat, D. S.*** 2012. Proline confined FAU zeolite: Hybrid heterogeneous catalyst for one pot synthesis of spiroheterocycles via mannich type reaction. *Green Chem.* **14**, 3344-3351.
32. Joshi, S.; Bisht, G. S.; **Rawat, D. S.**; Maiti, S.; Pasha, S. 2012. Comparative mode of action of novel hybrid peptide CS-1a and its rearranged amphipathic analog CS-2a. *FEBS Journal.* **279**, 3776 – 3790.

33. Joshi, S.; Dewangan, R. P.; Yadav, S.; **Rawat, D. S.**; Pasha, S. 2012. Synthesis, antibacterial activity and mode of action of novel linoleic acid-dipeptide-spermidine conjugates. *Org. Biomol. Chem.* **10**, 8326-8335.
34. Beena.; Joshi, S.; Kumar, N.; Kidwai, S.; Sing, R.; **Rawat, D. S.*** 2012. Synthesis and antitubercular activity evaluation of novel unsymmetrical cyclohexane-1,2-diamine derivatives. *Arch. Pharm. Chem. Life Sci.* **345**, 896-901.
35. Arya, K.; **Rawat, D. S.**; Dandia, A.; Sasai, S. 2012. Zeolite supported Bronsted-acid ionic liquids: an eco approach for synthesis of spiro[indole-pyrido[3,2-e]thiazine] in water under ultrasonication. *Green Chem.* **14**, 1956-1963.
36. Arya, K.; **Rawat, D. S.**; Dandia, A.; Sasai, H. 2012. Brønsted acidic ionic liquids: green, efficient and reusable catalyst for synthesis of fluorinated spiro [indole- thiazinones / thiazolidinones] as antihistamic agents. *J. Fluorine Chem.* **137**, 117-122.
37. Kumar, N.; Singh, R.; **Rawat, D. S.*** 2012. Tetraoxanes: Synthetic and medicinal chemistry perspective. *Med. Res. Rev.* **32**, 581-610.
38. Kumar, N.; Khan, S. I.; **Rawat, D. S.*** 2012. Synthesis and antimalarial activity evaluation of tetraoxane-triazine hybrids and spiro[piperidine-4,3'-tetraoxanes]. *Helv. Chim. Acta* **95**, 1181-1197.
39. Sharma, M.; Manohar, S.; **Rawat, D. S.*** 2012. Lewis acid catalyzed synthesis of 1-aryl-1,2-dihydro-naphtho[1,2-e][1,3]oxazin-3-ones under solvent free conditions: A mechanistic approach. *J. Heterocyclic Chem.* **49**, 589-595.
40. Joshi, M. C.; **Rawat, D. S.**; 2012. Recent development in enediyne chemistry. *Chemistry and Biodiversity* **9**, 459-498.

2011

41. Kumar, D.; Rohilla, R. K.; Roy, N.; **Rawat, D. S.*** 2011. Synthesis and antibacterial activity evaluation of unsymmetrically substituted cyclohexane-1,2-diamine derivatives. *Chem. Biol. Interface.* **1**, 263-278.
42. Kumar, N.; Khan, S. I.; Atheaya, H.; Mangain, R.; **Rawat, D. S.*** 2011. Synthesis and *in vitro* antimalarial activity of tetraoxane-amine/amide conjugates. *Eur. J. Med. Chem.* **46**, 2816-2827.
43. Kumar, N.; Sharma, M.; **Rawat, D. S.*** 2011. Medicinal chemistry prospective of trioxanes and tetraoxanes. *Curr. Med. Chem.* **18**, 3889-3928.
44. Manohar, S.; Khan, S. I.; **Rawat, D. S.*** 2011. Synthesis of 4-aminoquinoline-1,2,3-triazole and 4-aminoquinoline-1,2,3-triazole-1,3,5-triazine hybrids as potential antimalarial agents. *Chem. Biol. Drug Des.* **78**, 124-136.
45. Sharma, M.; Joshi, M. C.; Kumar, V.; Malhotra, S. V.; **Rawat, D. S.*** 2011. Synthesis and anticancer activity of 13-membered cyclic enediynes. *Arch. Pharm. Chem. Life Sci.* **344**, 564-571.

46. Sharma, M.; Joshi, P.; Kumar, N.; Joshi, S.; Rohilla, R. K.; Roy, N.; **Rawat, D. S.*** 2011. Synthesis, antimicrobial activity and structure activity relationship study of *N,N*-dibenzyl-cyclohexane-1,2-diamine derivatives. *Eur. J. Med. Chem.* **46**, 480-487.

2010

47. Joshi, S.; Bisht, G. S.; **Rawat, D. S.;** Kumar, A.; Kumar, R.; Maiti, S.; Pasha, S. 2010. Interaction studies of novel cell selective antimicrobial peptides with model membranes and *E. coli* ATCC11775. *BBA-Biomembranes* **1798**, 1864-1875.
48. Kumar, D.; Joshi, S.; Rohilla, R. K.; Roy, N.; **Rawat, D. S.*** 2010. Synthesis and antibacterial activity of benzyl-[3 (benzylamino-methyl)-cyclohexylmethyl]-amine derivatives. *Bioorg. Med. Chem. Lett.* **20**, 893-895.
49. Manohar, S.; Khan, S. I.; **Rawat, D. S.*** 2010. Synthesis and antimalarial activity and cytotoxicity of 4-aminoquinoline-triazine conjugates. *Bioorg. Med. Chem. Lett.* **20**, 322-325.

2009

50. Kumar, N.; Khan, S. I.; Beena, Rajalakshmi, G.; Kumaradhas, P.; **Rawat, D. S.*** 2009. Synthesis, antimalarial activity and cytotoxicity of substituted 3,6-diphenyl-[1,2,4,5]tetraoxanes. *Bioorg. Med. Chem.* **17**: 5632-5638.
51. Kumar, N.; Khan, S. I.; Sharma, M.; Aethaya, H.; **Rawat, D. S.*** 2009. Iodine-catalyzed one-pot synthesis and antimalarial activity evaluation of symmetrically and asymmetrically substituted 3,6-diphenyl [1,2,4,5]tetraoxanes. *Bioorg. Med. Chem. Lett.* **19**: 1675-1677.
52. Agarwal, N.; Kumar, R.; Dureja, P.; **Rawat, D. S.*** 2009. Schiff's bases as potential fungicides and nitrification inhibitors. *J. Agric. Food Chem.* **57**: 8520-8525.
53. Beena, Kumar, N.; Rohila, R. K.; Roy, N.; **Rawat, D. S.*** 2009. Synthesis and antibacterial activity evaluation of metronidazole-triazole conjugates. *Bioorg. Med. Chem. Lett.* **19**: 1396-1398.
54. Mamgain, R.; Singh, R.; **Rawat, D. S.*** 2009. DBU-catalyzed three-component one pot synthesis of highly functionalized pyridines in aqueous ethanol. *J. Heterocyclic Chem.* **46**: 69-73.

2008

55. **Rawat, D. S.;** Krzysiak, A. J.; Gibbs, R. A. 2008. Synthesis and biochemical evaluation of 3,7-disubstituted farnesyl diphosphate analogs. *J. Org. Chem.* **73**: 1881-1887.
56. Aethaya, H.; Khan, S. I.; Mamgain, R.; **Rawat, D. S.*** 2008. Synthesis, thermal stability, antimalarial activity of symmetrically and asymmetrically substituted tetraoxanes. *Bioorg. Med. Chem. Lett.* **18**: 1446-1449.

57. Sharma, M.; Agarwal, N.; **Rawat, D. S.*** 2008. Barium nitrate catalyzed one pot synthesis of 1,4-dihydropyridines under solvent free conditions at room temperature. *J. Heterocyclic Chem.* **45**: 737-739.
58. **Rawat, D. S.***, 2008, Recent advances in cancer chemotherapy-part II, *Anti-Cancer Agents-Med. Chem.* **8**: 240. Editorial
59. Singh, R.; Sharma, M.; Joshi, P.; **Rawat, D. S.*** 2008. Clinical status of anti-cancer agents derived from marine sources. *Anti-Cancer Agents-Med. Chem.* **8**: 603-617.
60. Singh, R.; Sharma, M.; Mangain, R.; **Rawat, D. S.*** 2008. Ionic liquids: A versatile medium for Palladium catalyzed reactions. *J. Braz. Chem. Soc.* **19**: 357-379.
61. **Rawat, D. S.*** 2008. Recent advances in cancer chemotherapy-part I, *Anti-Cancer Agents-Med. Chem.* **8**: 122 (Editorial).
62. **Rawat, D. S.*** 2008. Target directed enediynes: Chemical and biological significance. *J. Indian Chem. Soc.* **85**: 130-141 (Prof. D. P. Chakraborty 60th Birth Anniversary Commemoration Award).

2007

63. Krzysiak, J.; **Rawat, D. S.**; Scott, S.; Pais, J.; Harrison, M.; Fierke, C.; Gibbs, R. A. 2007. Combinatorial modulation of protein prenylation. *ACS Chemical Biology* **2**: 385-389.
64. Bisht, G. S.; **Rawat, D. S.**; Kumar, A.; Kumar, R.; Pasha, S. 2007. Antimicrobial activity of rationally designed amino terminal modified peptides. *Bioorg. Med. Chem. Lett.* **17**: 4343-4346.
65. Joshi, M. C.; Bisht, G. S.; **Rawat, D. S.*** 2007. Syntheses and antibacterial activity of phendioxo substituted cyclic enediynes. *Bioorg. Med. Chem. Lett.* **17**: 3226-3230.

2006

66. Singh, R.; Sharma, R.; Tewari, N.; Geetanjali, **Rawat, D. S.** 2006. *Chemistry and Biodiversity* **3**: 1279-1287.
67. Joshi, M. C.; Joshi, P.; **Rawat, D. S.*** 2006. Microwave assisted synthesis of symmetrically and asymmetrically substituted acyclic enediynes. *Arkivoc*, **XVI**: 65-74.
68. **Rawat, D. S.***; Joshi, M. C.; Joshi, P.; Aethaya, H. 2006. Clinical status of marine derived anticancer peptides, *Anti-Cancer Agents-Med. Chem.* **6**: 33-40.

2005

69. Avasthi, K.; Aswal, S.; Kumar, R.; Yadav, U.; **Rawat, D. S.**; Maulik, P. R. 2005. Fine tuning of folded conformation by change of substituents: ¹H NMR and crystallographic evidence for folded conformation due to arene interactions in pyrazolo[3,4-d]pyrimidine core based 'propylene linker' compounds. *J. Mol. Str.* **750**: 191-197.

2004

70. **Rawat, D. S.;** Zaleski, J. M. 2004. Geometric and electronic control of thermal Bergman cyclization. *Synlett* 393-421.
71. McFarland, M. J.; Porter, A. C.; Rakhshan, F. R.; **Rawat, D. S.;** Gibbs, R. A.; Barker, E. L. 2004. A Role for caveolae/lipid rafts in the uptake and recycling of the endogenous cannabinoid anandamide. *J. Biol. Chem.* 279: 41991-41997.

2003

72. Benites, P. J.; Holmberg, R. C.; **Rawat, D. S.;** Kraft, B. J.; Klein, L. J.; Peters, D. G.; Thorp, H. H.; Zaleski, J. M. 2003. Metal-ligand charge-transfer-promoted photoelectronic Bergman cyclization of copper metalloenediynes: Photochemical DNA cleavage via C-4' H-atom abstraction. *J. Am. Chem. Soc.* 125: 6434-6446.
73. Avasthi, K.; Farque, F. A.; **Rawat, D. S.;** Sharon, A.; Maulik, P. R. 2003. A stacked pyrazolo[3,4-d]pyrimidine based flexible molecule: The effect on stacking of a bulky isopropyl group in comparison with methyl and ethyl group. *Acta Cryst C59: o523-o524.*

2002

74. **Rawat, D. S.;** Gibbs, R. A. 2002. Synthesis of 7-substituted farnesyl diphosphate analogues. *Org. Letts.* 4: 3027-3030.
75. **Rawat, D. S.;** Zaleski, J. M. 2002. A convenient method for the synthesis of 1,8-bis(pyridin-3-oxy)oct-4-ene-2,6-diyne. *Synth. Commun.* 32: 1489-1494.
76. Avasthi, K.; Tewari, A.; **Rawat, D. S.;** Sharon, A.; Maulik, P. R. 2002. A stacked pyrazolo[3,4-d]pyrimidine based flexible molecule: The effect of a bulky group on intermolecular stacking in comparison with methyl and ethyl group. *Acta Cryst C58: o494-o495.*
77. Avasthi, K.; **Rawat, D. S.;** Chandra, T.; Sharon, A.; Maulik, P. R. 2002. Isomeric pyrazolo[3,4-d]pyrimidine-based molecules: Disappearance of dimerization due to interchanged substitutions. *Acta Cryst C58: o311-o313.*
78. Avasthi, K.; **Rawat, D. S.;** Sarkhel, S.; Maulik, P. R. 2002. A dimeric layered structure of a 4-oxo-4,5-dihydropyrazolo[3,4-d]pyrimidine compound. *Acta Cryst. Sec C58: o325-o327.*

2001

79. **Rawat, D. S.;** Zaleski, J. M. 2001. Mg²⁺-Induced thermal enediyne cyclization at ambient temperature. *J. Am. Chem. Soc.* 123: 9675-9676.
80. **Rawat, D. S.;** Benites, P. J.; Incarvito, C.; Rheingold, A. L.; Zaleski, J. M. 2001. The contribution of ligand flexibility to metal center geometry modulated thermal cyclization of conjugated pyridine and quinoline metalloenediynes of Copper(I) and Copper(II). *Inorg. Chem.* 40: 1846-1857.

81. Avasthi, K.; **Rawat, D. S.**; Maulik, P. R.; Sarkhel, S.; Broder, C. K.; Howard, J. A. K. 2001. ¹H NMR and X-ray crystallographic analysis of 1,2-bis(4,6-diethylthio-1*H*-pyrazolo[3,4-*d*]pyrimidin-1-yl)ethane and its 'propylene linker'-analog: Molecular recognition versus crystal engineering. *Tetrahedron Letters*, **42**: 7115-7117.
82. Maulik, P. R.; Avasthi, K.; Sarkhel, S.; Sharon, A.; **Rawat, D. S.**; Bal, C. 2001. 1,3-Bis(8-Chlorotheophyllin-7-yl)propane: A molecule with no intramolecular staking. *Acta Crystallogr., Sect. E: Struct. Rep. Online*. **C57**: o1163-o1165.

2000

83. Benites, P. J.;* **Rawat, D. S.**;* Zaleski, J. M. 2000. Metalloenediynes: Ligand field control of thermal Bergman cyclization reactions. *J. Am. Chem. Soc.* **122**: 7208-7217.
84. **Rawat, D. S.**; Zaleski, J. M. 2000. Syntheses and thermal reactivities of symmetric and asymmetric enediynes: Steric control of Bergman cyclization reactions. *Chem. Commun.* **2493-2494**.
85. Maulik, P. R.; Avasthi, K.; Sarkhel, S.; Chandra, T.; **Rawat, D. S.**; Logsdon, B.; Jacobson, R. A. 2000. Disappearance of intramolecular stacking due to one atom movement or increment of a propylene linker in pyrazolo[3,4-*d*]pyrimidine-based flexible models. *Acta Cryst C56*: 1361-1363.

1998

86. Maulik, P. R.; Avasthi, K.; Biswas, G.; Biswas, S.; **Rawat, D. S.**; Sarkhel, S.; Chandra, T.; Bhakuni, D. S. 1998. A stacked pyrazolo[3,4-*d*]pyrimidine based flexible molecules", *Acta Cryst C54*: 275-277.
87. Avasthi, K.; **Rawat, D. S.**; Chandra, T.; Bhakuni, D. S. 1998. Synthesis of stacked compounds based on pyrazolo[3,4-*d*]pyrimidines as new flexible models for studying intramolecular aromatic π - π interaction. *Indian J. Chem.* **37B**: 754-759.
88. Avasthi, K.; Chandra, T.; **Rawat, D. S.**; Bhakuni, D. S. 1998. Synthesis and high resolution proton NMR studies on isomeric N-1/N-2-,5,7- trisubstituted, -4,6- dioxo-4,5,6,7-tetrahydropyrazolo[3,4-*d*]pyrimidines. *Indian J. Chem.* **37B**: 1228-1233.

1996

89. Avasthi, K.; Chandra, T.; **Rawat, D. S.**; Bhakuni, D. S. 1996. Convenient synthesis of phidolopin and analogs and their biological activities. *Indian J. Chem.* **35B**: 437-440.

3. Other publications (Patents, Book reviews, etc.)

Patents:

- **Diwan S Rawat***, Sunny Manohar, U. Chinna Rajesh, Amino-quinoline based hybrids and uses thereof, Indian Patent Application 661/DEL/2012.
- **Diwan S Rawat***, Binghe Wang, Nitin Kumar, Sunny Manohar, Xiaochuan Yang, Guojing Sun, Curcumin analogues and methods of making and using thereof, US

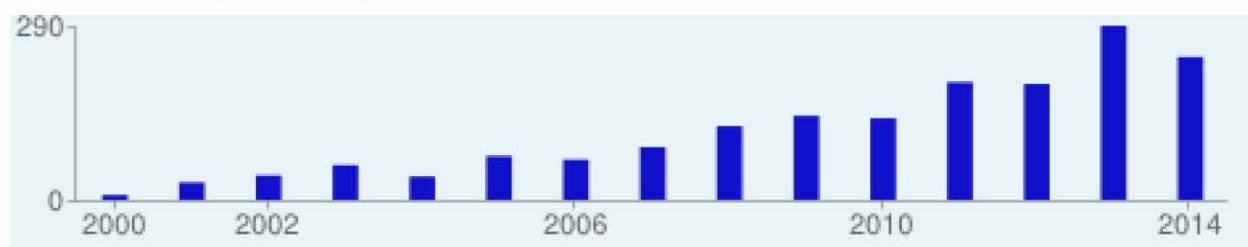
Patent Application USSN 61/679,233 (2012).

- **Diwan S Rawat***, Sunny Manohar, Ummadisetty Chinna Rajesh, Deepak Kumar, Anuj Thakur, Mohit Tripathi, Panyala Linga Reddy, Shamseer Kulangara Kandi, Satyapavan Vardhini, Kwang-Soo, and Chun-Hyung Kim, Amino-quinoline based hybrids and uses thereof, PCT/US2013/28329 (February 28, 2013)
- **Diwan S. Rawat,*** Mukul Sharma, Nilanjan Roy, Rajesh K. Rohilla, Substituted cyclohexane-1,2-diamine derivatives and related compounds as antimicrobial agents. Indian Application No: 1462/DEL/2008.
- **Diwan S. Rawat,*** Nitin Kumar, Mukul Sharma, Symmetrically and asymmetrically substituted tetraoxane compounds, methods of preparation and uses thereof. Indian Application No: 2103/DEL/2008.
- Jeffrey M. Zaleski; **Diwan Singh Rawat**, Eneidyne compounds and methods related thereto. US Patent No: US 7,211,603 B1 (2007).
- Jeffrey M. Zaleski; **Diwan Singh Rawat**, Compounds, compositions, and methods for photodynamic therapy. US Patent No: US 6,828,439 B1 (2004).

Book review/editing:

- Review of the book was published in *Journal of American Chemical Society (J. Am. Chem. Soc. 128, 4494, 2006)*.
- Reviewed a book entitled "Natural Products Chemistry" to be published by Elsevier (June 2007).
- Reviewed a book entitled "Organic Reaction Mechanism" to be published by Macmillan India Ltd (June 2008).
- Edited especial issues of Anti-Cancer Agents in Medicinal Chemistry (Published by Bentham).

Citations to my articles (July 4, 2014)



Citation indices

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Citations	1748	1198
h-index	25	21
i10-index	49	39

Conference Organization/ Presentations (in the last three years)

List against each head(If applicable)

1. Organization of a Conference

2. Participation as Paper/Poster Presenter

1. **Diwan S Rawat**, "Aminoquinoline pharmacophore: It's impossible to abandon!" Him Science Congress Association, 2nd Annual National Conference - Science: Emerging Scenario & Future Challenges, Shimla, **17-18 May, 2014**.
2. **Diwan S Rawat**, "Discovery of lead antimalarial through rational drug design" International conference on Drugs for Future: Infectious Diseases, NIPER Hyderabad, **March 27-28, 2014**.
3. **Diwan S Rawat**, "NMR Spectroscopy and its Role in Structure Determination" M.J.P ROHILKHAND UNIVERSITY, February 21, 2014.
4. **Diwan S Rawat**, "**Drug Discovery: Long Road with Complete Uncertainty**", Gautam Budha University, Noida, *Science Day Celebration*, February 28, 2014.
5. **Diwan S Rawat**, "History of chemical and nano sciences" UGC-SAP National Symposium on recent trends in chemical and nano sciences. Shivaji University, Kolhapur, **January 17-18, 2014 (Address as a Chief Guest)**.
6. **Diwan S Rawat**, "Aminoquinoline based molecular hybrids as potential antimalarials" UGC-SAP National Symposium on recent trends in chemical and nano sciences. Shivaji University, Kolhapur, **January 17-18, 2014 (Key Note Address)**.
7. **Diwan S Rawat**, "Identification of lead antimalarial through virtual screening" 8th Uttarakhand Science and Technology Congress" Doon University, Dehradun. **December 26-28, 2013 (Lead Lecture)**.
8. **Diwan S Rawat**, "Discovery of Aminoquinoline Based Hybrids as Potential Antimalarial" National Conference on Recent Trends in Chemistry Education" Department of Chemistry, Sir Sayyed College of Arts, Commerce and Science, Aurangabad. **December 13-14, 2013**.
9. **Diwan S Rawat**, "Recyclable catalysis in Organic Synthesis: One Step towards Green processes" Workhardt Research Centre, Aurangabad. **December 13, 2013**.
10. **Diwan S Rawat**, "Medicinal Chemistry: Basics to Drug Discovery-DST INSPIRE Camp, HNB Garhwal Central University, Srinagar **December 11, 2013**.
11. **Diwan S Rawat**, "Medicinal Chemistry: An Ever Green Area with Complete Uncertainty" University Institute of Pharmaceutical Sciences, Punjab University, Chandigarh, **November 18 – 21, 2013**.
12. **Diwan S Rawat**, "NMR Spectroscopy: Basic Introduction to Structure Determination" CPDHE Refresher Course, Jamia Millia Islamia University, Delhi, **November 26, 2013**.
13. **Diwan S Rawat**, "Heterogeneous catalysis in organic synthesis: One step towards green processes" International symposium on advanced materials, Japan Advanced Institute of Science and Technology (JAIST), **October 17-18, 2013**.

14. **Diwan S Rawat**, "Drug Discovery: Excitement and Agony, Alwar Institute of Engineering and Technology, Alwar-DST INSPIRE Camp, **August 8, 2013**.
15. **Diwan S Rawat**, "Antimalarial Lead Identification through Rational Drug Design" 5th NIPER (Rbl)-CDRI Symposium on Chemical and Biological Approaches in Drug Development and Delivery Strategies, CDRI, Lucknow, **March 21-23, 2013**.
16. **Diwan S Rawat**, "Antimalarial Drug Development From Simple in vitro Screening to Lead Identification" 19th ISCB International Conference (ISCBC-2013), **Recent Advances and Current Trends in Chemical and Biological Sciences**, Department of Chemistry, Mohanlal Sukhadia University, Udaipur, Rajasthan, **March 2-5, 2013**.
17. **Diwan S Rawat**, "Development of Tetraoxane and Aminoquinoline Based Antimalarials through Rational Drug Design" **Emerging trends in the Development of Drugs and Devices**, Department of Chemistry, University of Delhi, Delhi-110007, **January 21-23, 2013**.
18. **Diwan S Rawat**, "Interesting story about aspirin and famous Indian scientist" **Centre for Environmental Management of Degraded Ecosystem**, University of Delhi, Delhi-110007, **January 12, 2013**.
19. **Diwan S Rawat**, Inspiring Young Minds: Biographies of Great Indian Scientist, **DST-INSPIRE Camp**, Asian Institute, Patiala, **January 5, 2013**.
20. **Diwan S Rawat**, Nuclear Magnetic Spectroscopy: Basic Principle to Structure Determination, **Centre for Professional Development in Higher Education**, University of Delhi, **January 3, 2013**.
21. **Diwan S Rawat**, Spectral Problems: A Puzzle!, Thiagarajar College, Madurai Kamraj University, Madirai, **26th December 2012**.
22. **Diwan S Rawat**, Malaria: How to take it?, Thiagarajar College, Madurai Kamraj University, Madirai, **26th December 2012**.
23. **Diwan S Rawat**, Nuclear Magnetic Resonance: Introduction to structure elucidation, National Workshop on Advance Analytical Techniques in Research and Development, **Amity Institute of Applied Sciences, Amity University, Noida, 20-21 December 2012**.
24. **Diwan S Rawat**, Catalysis in organic synthesis: Some trends and applications, "International Conference on Chemistry and Materials: Prospects & Perspectives" **Babasaheb Bhimrao Ambedkar University (A Central University)**, Lucknow, **14-16 December, 2012**.
25. **Diwan S Rawat**, Aspirin: From tree bark to Bayer's drug for the ages. Workshop on Microbial Biotechnology, **Ramjus College, University of Delhi, Delhi, December 10, 2012 (KEY NOTE ADDRESS)**.
26. **Diwan S Rawat**, "Aminoquinoline and tetraoxane based antimalarials: Lead identification through reversed genomics approach" 3rd Biennial International Conference on New Developments in Drug Discovery from Natural Products and Traditional Medicines, **NIPER, Mohali, November 22-24, 2012**.

27. **Diwan S. Rawat**, "Library of small organic molecules and their medicinal potential" Swami Shradhanand College, University of Delhi, Delhi, April 11, 2012.
28. **Diwan S. Rawat**, "Spectroscopy: Why it is so important" Centre for Professional Development in Higher Education, Banaras Hindu University, March 23, 2012.
29. **Diwan S. Rawat**, "Spectrum to structures" Centre for Professional Development in Higher Education, Banaras Hindu University, March 23, 2012.
30. **Diwan S Rawat**, "Is ¹H NMR spectroscopy is more important than other spectroscopic techniques" 150th Years celebration of Lucknow Christian College, Lucknow, February 25, 2012.
31. **Diwan S Rawat**, "Nitrogen and oxygen heterocycles: Synthesis and antimalarial activity evaluations", 4th NIPER (Rbl)-CDRI Symposium on Medicinal Chemistry and Pharmaceutical Sciences, CDRI, Lucknow, February 23-25, 2012.
32. **Diwan S Rawat**, "Cyclohexane diamine based small molecular library: Synthesis and biological evaluation", National Seminar on Recent Trends in Chemical and Biological Sciences" Holker Science College, Indore, January 13-15, 2012.
33. **Diwan S Rawat**, "Tetraoxane and aminoquinoline scaffolds as antimalarials", Chemical Research Society of India, South Zonal Meeting, Pondicherry University Pondicherry, December 16-17, 2011.
34. **Diwan S Rawat**, "Natural product inspired biologically active compounds: Synthesis and biological evaluation", National Symposium on Traditional Indian Medicinal Plants in the International Year of Chemistry, National Academy of Chemistry and Biology, Lucknow, NBRI, Lucknow, December 17-18, 2011.
35. **Diwan S Rawat**, "Exploring structural diversity in tetraoxanes and amino-quinolines for the development of novel antimalarials, 48th Annual Convention of Chemist and Celebration of the International Year of Chemistry, Allahabad University, Allahabad, December 3-7, 2011.
36. **Diwan S Rawat**, "Cyclohexane diamine based compounds: Synthesis and biological activity evaluation", Challenges in Drug Discovery and Development (CDDD-2011), Central Drug Research Institute, Lucknow, December 9-10, 2011.
37. **Diwan S Rawat**, "Synthesis and anti-bacterial activity evaluation of cyclohexane diamine based compounds, National Conference on Chemistry-Biology Interface, Kumaun University, Nainital, November 3-6, 2011.
38. **Diwan S Rawat**, Spectral data to molecular structure, Centre for Professional Development in Higher Education, University of Delhi, Delhi, February 24, 2011.
39. **Diwan S. Rawat**, Synthesis and Biological Activity Evaluation of Cyclohexane Diamine Derivatives, International Conference on Advances in Applied Chemical Sciences and Innovative Materials, Indian Institute of Technology, Delhi, August 10-12, 2011.

40. **Diwan S Rawat**, Synthesis and antimicrobial activity evaluation of cyclohexane-1,2-and 1,3-diamine derivatives and metronidazole-triazole conjugates, **15th ISCB International Conference (ISCBC-2011), Chemical biology for discovery: Perspectives and challenges**, Saurashtra University, Rajkot, Gujrat, February 4th – 7th 2011.
41. **Diwan S Rawat**, Tetraoxane and aminoquinoline based molecules as potential antimalarial agents, One day seminar on “Recent trends on chemical biology, **Central Institute of Aromatic and Medicinal Plants, Lucknow, UP, January 28, 2011.**
42. **Diwan S Rawat**, “Tetraoxanes, and tetraoxane based hybrids as potential antimalarial agents” **14th National Organic Symposium Trust (NOST), Goa, December 4th - 8th, 2010.**
43. **Diwan S. Rawat**, “Natural products as a source of drug molecules” **Centre for Professional Development in Higher Education, Kumaun University, Delhi, December 17, 2010.**
44. **Diwan S. Rawat**, “Spectral data to molecules structure” **Centre for Professional Development in Higher Education, Kumaun University, Delhi, December 17, 2010.**
45. **Diwan S Rawat**, “Tetraoxanes, tetraoxane-aminoquinoline/triazine conjugates as potential antimalarial agents” **National Seminar of Recent Advances in Chemical Sciences, Rewa University, Rewa, MP. May 2010.**
46. **Diwan S Rawat**, “Synthesis and antimalarial activity evaluation of tetraoxanes, tetraoxane-aminoquinoline/triazine conjugates” **14th ISCB International Conference (ISCBC-2010), Chemical biology for discovery: Perspectives and challenges**, Central Drug Research Institute, Lucknow, Lucknow, January 15th-18th, 2010 (*Young scientist award lecture, News Published by Indian Express: http://www.expressindia.com/story_print.php?storyId=569055*).
47. **Diwan S. Rawat**, “Design, synthesis and antimalarial activity evaluation of oxygen and nitrogen heterocycles” **T3D International Symposium on Trends in Drug Discovery and Development, University of Delhi, Delhi, January 5th-8th 2010.**
48. **Diwan S. Rawat**, “Drug discovery: Excitement and agony” **KEME 2009, Hans Raj College, University of Delhi, Delhi, 17th December 2009.**
49. **Diwan S. Rawat**, “Development of tetraoxane, aminoquinoline and triazine based antimalarials” **4th Uttrakhand State Science and Technology Congress 2009, GB Pant University of Agriculture and Technology, Pantnagar 10-12 November 2009 (KEY NOTE ADDRESS).**
50. **Diwan S. Rawat**, “Natural product chemistry: Opportunities and challenges” **Centre for Professional Development in Higher Education, Jamia Millia University, Delhi, August 31, 2009.**
51. **Diwan S. Rawat**, “Bioprospecting for secondary metabolites” **Centre For Environmental Management of Degraded Ecosystem, University of Delhi, Delhi-110007, March 21, 2009.**
52. **Diwan S. Rawat**, “Endoperoxides: Synthesis and Antimalarial Activity Evaluations” **Indo-Denish Seminar on Bioorganic Chemistry, University of Delhi, Delhi-110007, India; 2nd**

March 2009.

53. **Diwan S. Rawat**, "Tetraoxanes as Artemisinin Mimics: Synthesis and Antimalarial Activity Evaluations" **13th ISCBC International Conference on Interplay of Chemical and Biological Sciences: Impact on Health and Environment**, University of Delhi, Delhi-110007, India; **26th-1st March 2009**.
54. **Diwan S. Rawat**, "Natural product and organic spectroscopy" **Centre for Professional Development in Higher Education**, University of Delhi, Delhi-110007, **January 27, 2009**.
55. **Diwan S. Rawat**, "Tetraoxanes and enediynes: Synthesis and biological activity evaluations" **Centre for Professional Development in Higher Education**, University of Delhi, Delhi-110007, **January 15, 2009**.
56. **Diwan S. Rawat**, Enediyne Reactivity: Chemical and Biological Significance. "**International Seminar on Recent Advances in Organic Chemistry**" Department of Chemistry, Andhra University, Visakhapatnam, **December 12-13, 2008**.
57. **Diwan S. Rawat**,* Nitin Kumar, S. I. Khan, Mukul Sharma, Ritu Mangain, Himanshu Atheaya, Symetrically and Asymmetrically Substituted Tetraoxanes: Synthesis Tetraoxanes as Artemisinin Mimics: Synthesis and Antimalarial Activity Evaluation, "**INDO-Italian Seminar on Green Chemistry and Natural Products**", Department of Chemistry, University of Delhi, **5-6 December 2008**.
58. **Diwan S. Rawat**, Natural Product Chemistry: Opportunity and Challenges. "**Eight National Convention of Chemistry Teachers NCCT-2008 and National Conference on Chemistry: Emerging Trends in Chemistry**" Department of Chemistry, HNB Garhwal University, Srinagar, Garhwal, Uttrakhand, **November 8-9, 2008**.
59. **Diwan S. Rawat**, Symetrically and Asymmetrically Substituted Tetraoxanes: Synthesis and Antimalarial Activity Evaluations, "**National Conference on Recent Advances in Chemical Sciences**", PG Department of Chemistry, Government Dungar College, University of Bikaner, **October 3-5, 2008**.
60. **Diwan S. Rawat**, Natural Products and Natural Product Mimics: A Medicinal Chemistry Prospectives, "**National Conference on Increasing Production and Productivity of Medicinal and Aromatic Plants through Traditional Practices**, G. B. Pant University of Agriculture and Technology, Pantnagar, Uttrakhand, **September 18-20, 2008**.
61. **Diwan S. Rawat**, Himanshu Atheaya, Ritu Mangain, S. I. Khan, Synthesis, characterization, thermal stability and antimalarial activity of symmetrically and asymmetrically substituted tetraoxanes, "**12th ISCB Conference, International Conference on the Interface of Chemistry-Biology in Biomedical Research**" BITS, Pillani, **February 22-24, 2008**.
62. **Diwan S. Rawat**, "Bioprospecting for natural products of therapeutic values: Opportunities and challenges" **Centre For Environmental Management of Degraded Ecosystem**, University of Delhi, Delhi-110007, **February 2, 2008**.
63. **D. S. Rawat**, "Target-directed enediynes: Chemical and biological significance" **44th Annual Convention of Chemists held at Mahatma Gandhi Institute of Applied Sciences, Jaipur**,

December 23-27 (2007) (*Prof. D. P. Chakraborty 60th Birth Anniversary Commemoration Award Lecture*).

64. **Diwan S. Rawat**, "Natural product chemistry: Opportunities and challenges". **Centre for Professional Development in Higher Education**, University of Delhi, Delhi-110007. **December 29, 2007.**
65. **Diwan S. Rawat**, Mukesh Chandra Joshi and Penny Joshi "Synthesis, characterization and thermal reactivity of cyclic/acyclic enediynes" **93rd Indian Science Congress** Acharya N. G. Ranga Agricultural University Rajendranagar, Hyderabad A P, **January 3rd to 7th 2006.**
66. **Diwan S. Rawat** "Bergman cyclization: Old reaction-New developments" G. B. Pant University of Agriculture and Technology, Pant Nagar, UA. **December 23, 2005.**
67. **Diwan S. Rawat** "Synthesis and Biological Significance of Natural Product Analogues". **National Seminar on Chemistry-Industry Interface**, ARSD College, University of Delhi, **8-9 December 2005.**
68. **Diwan S. Rawat** "Attended Eleventh NOST Symposium" Goa, **October 25-29, 2005.**
69. **Diwan S. Rawat** "Metal Induced Bergman Cyclization: A New Approach for the Development of Enediyne Based Anticancer Agents" Ranbaxy Laboratories Limited, Gurgaon. **13 August, 2004.**
70. **Diwan S. Rawat**, and Richard A Gibbs, "Design and Syntheses of Substituted Farnesyl Pyrrophosphates: A New Class of Anticancer Agents". **IUPAC Conference on Biodiversity and Natural Products: Chemistry and Medical Applications.** Department of Chemistry, University of Delhi, Delhi. **26-31 January 2004.**
71. **Diwan S. Rawat**, "Enediynes: Reactivity Modulation by the use of Metals". Central Drug Research Institute, Lucknow, India **February 25, 2003.**
72. **Diwan S. Rawat**, "Design and Synthesis of Genotoxic Enediynes. **Centre for Professional Development in Higher Education**, University of Delhi, Delhi-110007. **September 11, 2003.**
73. **Diwan S. Rawat**, Jeffrey M. Zaleski and Richard A. Gibbs, "Design, Synthesis, and Biological Evaluation of Genotoxic and Non-genotoxic agents". Department of Chemistry, Kumaun University, Nainital, India. **November, 2002.**
74. **Diwan S. Rawat** and Richard A. Gibbs, "Synthesis and Biological Evaluation of Farnesyl Transferase Inhibitors". Department of Medicinal Chemistry and Molecular Pharmacology, Purdue University, West Lafayette, IN, USA, **September, 2002.**
75. **Diwan S. Rawat** and Jeffrey M. Zaleski, "Design, Synthesis and DNA Cleavage Activity of Metalloenediynes". Department of Chemistry, Indiana University, Bloomington, IN, USA., **July, 2001.**
76. **Diwan S. Rawat** and Jeffrey M. Zaleski, "Ligand Field Control of Thermal Bergman Cyclization Reactions, Department of Chemistry, Kumaun University, Nainital, India. **September, 2001.**

- Merit Certificate (**MSc Topper**), Kumaun University, Nainital, UK, India, **1993**.
- Chemical Research Society of India (CRSI) **Young Researcher Award 2007**.
- **Prof. D. P. Chakraborty 60th Birth Anniversary Commemoration Award 2007** (Awarded by Indian Chemical Society).
- **Elected Life Member**, The National Academy of Sciences, Allahabad **2007**.
- Indian Society of Chemist and Biologist (**ISCB**), **Young Scientist Award 2010**.
- **VC's Pratik Chinha Samman**, Kumaun University Nainital, **November, 2011**.
- **Executive Member**: Indian Society of Chemist and Biologist 2013-2015).
- Invited Speaker, **14th National Organic Symposium Trust (NOST)**, Goa, **December 4th - 8th, 2010**.
- **13th ISCB International Conference on Interplay of Chemical and Biological Sciences: Impact on Health and Environment**. University of Delhi, Delhi, **26th February – 1st March 2009** (**Best poster award**).
- **National Conference on Green and Sustainable Chemistry (NCGSC-2010)**, Chemistry Group, Birla Institute of Technology and Science, Pillani, Rajasthan, **February 19th-21st, 2010** (**Best poster award**).
- **14th ISCB International Conference (ISCBC-2010)**, Chemical biology for discovery: Perspectives and challenges, Central Drug Research Institute, Lucknow, Lucknow, **January 15th-18th, 2010** (**Best poster award**).
- **21st National Symposium on Catalysis for Sustainable Development (CATSYMP-21)**, CSIR-IICT, Hyderabad, Andhra Pradesh, India, **February 11-13, 2013** (**Best Poster Award**).
- **19th ISCB International Conference (ISCBC-2013)**, **Recent Advances and Current Trends in Chemical and Biological Sciences**, Mohanlal Sukhadia University, Udaipur, India, **March 2-5, 2013** (**Best Poster Award**).

Association With Professional Bodies

1. **Editing**: Edited especial issues of Anti-Cancer Agents in Medicinal Chemistry, Published by Bentham (**2008, 2013**).
Indian Journal of Chemistry (Section B, **2009**).
2. **Reviewing**: Reviewer for ACS, Royal Society, Elsevier, Wiley, and many other international and national research journals.

Committees and Boards Memberships:

Selection Committees:

- **Member selection committees (Professor/Lecturers/Assistant Professor/Associate Professors/Scientist)**: National Institute of Technology (NIT), Jalandhar; National Institute of Pharmaceutical Education and Research (NIPER), Rai Barielly; Sant Longwal Institute of Engineering and Technology (MHRD), Sangrur, Punjab; Kumaun University, Nainital; G. B. Pant Institute of Himalayan Environment and Development, Kosi Katarmal, Almora; Council for Scientific and Industrial Research (CSIR), New Delhi; Forest Research Institute, Dehradun; Kanahiya Lal DAVPG College, Roorkee; Dolphin (PG) Institute of Biomedical and Natural Sciences, Dehradun; Central Council for Research in Ayurveda and Siddha, Janakapuri, Delhi; Hansh Raj College, University of Delhi; St. Stephens' College, University of Delhi; Zakir Hussain College; Acharya Narendra Dev College, University of Delhi; Panipat Institute of Engineering Technology, Panipat; DAV University, Jalandhar; KM College, DU; All India Institute of

Medical Sciences (AIIMS), New Delhi;

Expert-Funding Agencies:

- **Member project evaluation committee**, Uttarakhand State Council for Science and Technology (UCOST), Dehradun, Uttarakhand (2007 – on wards).
- **UGC-Nominee, SAP Programme**, Department of Chemistry, Shivaji University, Kolhapur (2013 - 2018).
- **Project Advisory Committee (PAC)**, International Cooperation Division (ICD), Department of Science & Technology (DST), New Delhi (2014 – 2016).

Board of Higher Studies/Advisory Committee/ Committee of Courses:

- Member, Board of Studies (Chemistry), HNB Garhwal University, Srinagar, Srinagar (Garhwal), UA (2012-2014).
- Member, Board of Studies (Chemistry), Kumaun University, Srinagar, Nainital, UA (2012-2015).
- Member advisory committee, University Science Instrumentation Center-Central Instrument Facility (USIC-CIF), University of Delhi, July 2010 – June 2013.
- Member Committee of Courses, University of Delhi, Delhi, Since March 2010.
- Co-ordinator, CPDHE Refresher course, University of Delhi, February 15th to March 9, 2010.
- Member research advisory committee, HNB Garhwal University, Srinagar, Srinagar (Garhwal), UA (2005-2009).
- Member, Project Review Committee, Department of Scientific and Industrial Research (DSIR), Delhi.
- Member young scientist award committee, Uttarakhand State Council for Science and Technology (UCOST), Dehradun, Uttarakhand (2007 – on wards).

Member Governing Body/University Nominee:

- Member Governing Body, Hansraj College, University of Delhi, Delhi, (2010-2011; 2011-2012).
- Member Governing Body, Swami Shradhanand College, University of Delhi, Delhi, (2011-Till Date).
- University nominee, Governing Body, Shaheed Rajguru College, University of Delhi, Delhi, (2010-2011; 2011-2012).
- University nominee, Governing Body, Ramjus College, University of Delhi, Delhi, (2012 – Till Date).
- University nominee, Higher Secondary School, Maurice Nagar, University of Delhi, Delhi, (2010-2011; 2011-2012).
- SGTB Khalsa Colleges, University of Delhi, Delhi, (July 2013 to Till Date).

Development of Teaching Materials/Review of Text Books:

- Member, Development of In-service Teacher Training Material through Interactive Audio Visual Presentation in Chemistry for Hr. Sec. Stage (Chemistry, NCERT), November 24-28, 2008.
- Member, Development of need based package for the orientation of master trainers in Science for Hr. Sec. Stage (Chemistry, NCERT), December 26-29, 2011
- Member, Quick Review of NCERT Textbooks for Higher Secondary Stage (Chemistry-

Practical), August-September 2007.

- Member, Quick Review of NCERT Textbooks for Higher Secondary Stage (Chemistry), August-September 2006.
- Member, Quick Review of NCERT Textbooks for Secondary Stage (Science and Technology), October 2004.
- Member curriculum development committee for BSc courses, M. Tech in Chemical Synthesis and Process Technologies, University of Delhi.
- Member, Bureau of Indian Standards, New Delhi.

University Elections:

- Chief Returning officer, DUSU Election, University of Delhi, **2012 and 2013.**
- Member, various task force committees constituted by Vice-Chancellor, University of Delhi.
- Returning officer, DUSU Election, University of Delhi, **2011-2012.**

Conferences and Symposia:

- **Joint Secretary**, Trends in Drug Discovery and Development, International conference held at University of Delhi, 2010.
- **Joint Secretary**, 13th ISCB International conference held at University of Delhi, 2009.
- **Session Chairman**, International Conference on Chemistry and Materials: Prospects & Perspectives” Babasaheb Bhimrao Ambedkar University (A Central University), Lucknow, **14-16 December, 2012.**
- **Session Chairman**, 4th NIPER (Rbl)-CDRI Symposium on Medicinal Chemistry and Pharmaceutical Sciences, CDRI, Lucknow, **February 23-25, 2012**
- **Session Chairman**, National Seminar on Recent Trends in Chemical and Biological Sciences” Holker Science College, Indore, **January 13-15, 2012.**
- **Session Chairman**, 48th Annual Convention of Chemist and Celebration of the International Year of Chemistry, Allahabad University, Allahabad, **December 3-7, 2011.**
- **Session Chairman**, T3D International Symposium on Trends in Drug Discovery and Development, University of Delhi, Delhi, **January 5th-8th 2010.**

Examination:

- Lucknow University; Kumaun University; H. N. B. University, Garwal, Srinagar; G. B. Pant University of Agriculture and Technology, Pant Nagar; RML Avadh University Faizabad; Pune University; Jammu University; Jammia Millia Islamia University; Kanpur University; Rohilkhand University; Jamia Hamdard University; Banaras Hindu University; Allahabad University; Panjab University; Guru Nanak Dev University; Jawaharlal Nehru University; Indian Institute of Technology, Delhi; Periyar University, Selam; Rajasthan University; Central Drug Research Institute (CDRI), Lucknow; Kurukshetra University; National Institute of Pharmaceutical Education and Research (NIPER), Mohali; Periyar University, Salem.

Other Activities

MEMBER INTERNATIONAL EDITORIAL BOARD:

- **Associate Editor**

- ❖ Journal of the Indian Chemical Society (Organic Section) 2011 – 2013.
- ❖ International Journal of Drug Discovery, Published by Bioinfo Publications, <http://www.bioinfo.in/contents.php?id=24&page=editorial> (2010-Till Date).

➤ **Member International Editorial Board**

- ❖ Anti-Cancer Agents in Medicinal Chemistry Published by Bentham, <http://www.benthamscience.com/cmca/EBM.htm> (2007-Till Date) **Impact Factor 3.14.**
- ❖ Marine Drugs <http://www.mdpi.org/marinedrugs/editors.htm> [2005-Till Date] **Impact Factor 3.854.**
- ❖ Clinical Cancer Drugs, Published by Bentham, <http://benthamscience.com/ccand/EBM.htm> (2012-Till Date).
- ❖ Research and Reports in Medicinal Chemistry, Published by Dove Medical Press, <http://www.dovepress.com/honorary-editorial-board-research-and-reports-in-medicinal-chemistry-edboard133> (2011-Till Date).
- ❖ Journal of Pharmaceutics, <http://www.hindawi.com/39402737/> (2012-Till Date).
- ❖ The Open Catalysis Journal, Published by Bentham, <http://www.benthamscience.com/open/tocatj/EBM.htm> (2009-Till Date).
- ❖ International Journal of Biological and Chemical Sciences (2007-Till Date).
- ❖ Chemistry and Biology Interface, Published by ISCB (2011-Till Date).
- ❖ ARKIVOC http://www.arkatusa.org/ark/ARKIVOC/arkivoc_referees.aspx

Guest Editor for Special Journal Issues:

- Anti-Cancer Agents in Medicinal Chemistry (Impact Factor 3.14; 2013); <http://benthamscience.com/cmca/Special-Issues.htm>.
- Anti-Cancer Agents in Medicinal Chemistry (Impact Factor 3.14; Two issues, 2008).
- Indian Journal of Chemistry-Section B (Impact Factor 0.66; 2009).