




University Faculty Details Page on DU Web-site

Title	Prof.	First Name	Satish Kumar	Last Name	Awasthi	Photograph
Designation	Professor					
Department	Chemistry					
Address (Campus)	North Campus, Delhi University, Delhi					
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Web-Page						
Education						
Subject	Institution		Year		Details	
D Phil	Allahabad University		1991		Thesis topic: Synthetic Studies on Some Oligonucleotides	
M Sc	Kanpur University		1985		Subjects: Chemistry	
B Sc	Lucknow University		1983		Subjects: Chemistry, Zoology, Botany	
Career Profile						
Organisation / Institution		Designation		Duration		Role
University of Delhi, Delhi, India		Professor		Jan. 1, 2009-continue		Research & Teaching
University of Delhi, Delhi, India		Associate Professor		Jan. 1, 2000-Dec. 31, 2008		Research & Teaching
University of Delhi, Delhi, India		Reader		Dec 28, 2001		Research & Teaching
U Mass Medical School, USA		Post doctoral fellow		Feb. 1, 2001-Dec. 27, 2001		Research
University of Copenhagen, Denmark		Post doctoral fellow		Oct.1997- Jan 31, 2001		Research
Research Interests / Specialization						
Drug Discovery, Parallel Peptide-nucleic acid (PNA) /peptide synthesis, peptide chemistry (Boc and Fmoc), peptidomimetic synthesis, Peptide-nucleic acid (PNA), combinatorial synthesis, synthesis of kinase inhibitor and screening, synthesis of heterocyclic compounds. Synthesis and characterization of nucleobases, development of new protecting group for nucleobases, cell culture, cellular uptake, PNA-peptide conjugation						
Teaching Experience (Subjects/Courses Taught)						
Teaching organic Chemistry since 2002. i) Reaction Mechanism and Intermediates. ii) Stereochemistry.						

- iii) Terpenes and steroids.
- iv) Amino acids, Proteins and peptides.

Honors & Awards :

International Awards

- i) "The International Postgraduate Course in Chemistry and Chemical Engineering" Tokyo Institute of Technology (TIT) - UNICEF Fellowship Award 1997
- ii) ICMR International Fellowships for Young Bio-medical Scientist 2008-2009, India (Department of Cellular and Molecular Medicine, University of Copenhagen, Denmark) (Period Feb.1, 2009 - July 31 2009)
- iii) INSA Visiting Scientist Ruhr -University Bochum Germany. (February 1, 2010-April 30, 2010)
- iv) Commonwealth Academic Fellowship UK (Feb 1, 2013- April 30, 2013)

National Fellowship Awards: DBT Research Associate, MBU. IISC Bangalore

Publications (LAST FIVE YEARS)

Books / Monographs

In Indexed/ Peer Reviewed Journals

2017	Are antimalarial hybrid molecules a close reality or a distant dream?	Antimicrobial Agents and Chemotherapy 2017, 61(5)	D. Agarwal, R. D Gupta S. K. Awasthi
	Versatility of Peptide Nucleic Acids(PNAs) : Role in Chemical Biology, Drug Discovery and Origins of Life	Chemical Biology and Drug Design 2017, 89(1), 16-37	C. Sharma, S. K. Awasthi
<u>2016</u>	Virtual Screening and docking studies of synthesized chalcones: potent anti-malarial drug	International Journal of Drug Development & Research 2016, 8(1), 49-56	P. Singh, K. Kumari, R. Chandra, Satish K Awasthi
	Synthetic, Crystallographic and Computational Studies of Extensively Hydrogen Bonded Bilayers in Thermally Stable Adamantane Hydroperoxides	Asian Journal of Organic Chemistry 2016, 5(11), 1398-1405	C.Sharma, J.Joy, M.Nethaji, E.D.Jemmis, Satish Kumar Awasthi
	Aminoquinoline derivatives: Synthesis, in vitro & in vivo antiplasmodial activity against chloroquine-resistant parasites	Eur J Med Chem. 2016, 122, 394-407	S. Singh, D. Agarwal, K. Sharma, M. Sharma, M. A Nielsen, M. Alifrangis, R. D Gupta, A. K Singh, S. K. Awasthi.

Experimental and theoretical study of intramolecular O...O interaction in structurally rigid β -keto carboxylic esters	RSC Advances 2016, 6(94), 91689-91693	C.Sharma, Ashawani k., J. Joy, E.D.Jemmis, Satish Kumar Awasthi
Design, synthesis and biological evaluation of ciprofloxacin tethered bis-1,2,3-triazole conjugates as potent antibacterial agents	European Journal of Medicinal Chemistry 2016. 124, 218-228	R. Kant, V. Singh, G.Nath, Satish Kumar Awasthi
A comparative study between heterogeneous stannous chloride loaded silica nanoparticles and homogeneous stannous chloride catalyst in the synthesis of 5-substituted 1H-tetrazole	RSC Advances (2016), 6(79), 75227-75233	A. Kumar, S. Kumar, J. Khazuria, Satish Kumar Awasthi
A Pyrene-based electropolymerized film as a solid state platform for multi-bit memory storage and fluorescence sensing of nitroaromatics in aqueous solution.	J Material Chemistry C, 2016, 4 (19), 4129	M. Chhatwal, A. Kumar, R. D. Gupta, S. K. Awasthi
Gold nanocomposite assemblies using functionalized Ru (II)-polypyridyl complexes	RSC Advances 6 (60), 55507	N. Vilvamani, M. Chhatwal, I. Bhowmick, R. D. Gupta, S. K. Awasthi
Heteroleptic Cu(II)-polypyridyl complexes as photonucleases	New J. Chem., 2016, 40, 5906	V. Singh, K. Sharma, B. Shankar, S. K. Awasthi , R. D. Gupta
An electroactive metallo-polypyrene film as a molecular scaffold for multi-state volatile memory devices.	J. Phys. Chem. C, 2016, 120 (4), 2335	M. Chhatwal, A. Kumar, S. K. Awasthi , M. Zharnikov, R. D. Gupta
Molecular logic operations based on optical detection of sulfur mustard simulant using pyridine appended Mg-porphyrine complex Sens.	Actuators. B-Chem., 2016, 227, 85	Neelam, V. Singh, B. Shankar, R. Shanmugam, S. K. Awasthi , R. D. Gupta
Synthesis of newer 1,2,3-Triazole linked chalcone and flavone hybrid compounds and evaluation of their antimicrobial and cytotoxic activities.	Eur. J. Med. Chem., 2016, 113, 34	R. Kant, D. Kumar, D. Agarwal, R. D. Gupta, R. Tilak, S. K. Awasthi , A. Agarwal
<u>2015.</u> The interaction of the (7-chloroquinolin-4-yl)-(2,5-dimethoxyphenyl)-amine	RSC Adv., 2015, 5, 85854	S. Singh, K. Sharma, S. K. Awasthi

hydrochloridedihydrate with serum albumin proteins, inputs from spectroscopic, molecular docking and X-ray diffraction studies		
Design and synthesis of s-triazene based asymmetric organocatalyst and its application in enantioselective alkylation	RSC Advances, 2015, 5, 61144	S. K. Mangawa, A. K. Singh, S. K. Awasthi
A pyrene-based optical probe capable of molecular computation using chemical input strings	RSC Advances, 2015, 5, 51678	M. Chhatwal, A. Kumar, R. D. Gupta, S. K. Awasthi
Expedient and efficient one pot synthesis of trifluoroethyl ethers from metal free 2,4,6-tris-(2,2,2-trifluoro-ethoxy)-[1,3,5] triazene	RSC Advances 2015, 5, 35042	S. K. Mangawa, C. Sharma, A.K. Singh, S. K. Awasthi
Fluorescent probe 7-(prop-2-yn-1-yloxy)-2H-chromen-2-one): Experimental and DFT based approach to photophysical properties	Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 2015, 148, 311	N. Yadav, S. Singh, S. K. Mangawa, S. K. Dixit, U. Gupta, Y. Khajuriya, S. K. Awasthi
s-Triazene based fluororous coupling reagent for direct amide synthesis	Teterahderon Letter 2015, 56, 1960	S. K Mangawa, S. K Bagh, K. Sharma, S. K. Awasthi
Ru(II)-polypyridyl complexes grafted silica nanohybrids: Versatile hybrid materials for Raman spectroscopy and photocatalytic activity	RSC advances 5, 13451-461, 2015	N. Vilvamani, R Gupta, S. K. Awasthi
Synthetic application of gold nanoparticles and auric chloride for the synthesis of 5-substituted 1-H tetrazoles	RSC Advances 2015, 5, 21651	S. Kumar, A. Kumar, A. Agarwal, S. K. Awasthi
A Chromogenic Homo-Dinuclear Ruthenium(II) Monolayer as a Tunable Molecular Memory Module for Multibit Information Storage	J. Phy. Chem. C, 2015, 119, 5138	A. Kumar, M. Chhatwal, D. Cristaldi, S. K. Awasthi , R. Gupta, A. Gulino
In vitro synergistic effect of fluoroquinolone analogs in combination with artemisinin against Plasmodium falciparum; their antiplasmodial action in rodent malaria model.	Malaria Journal, 2015, 14:48.	D. Agarwal, M. Sharma, S. K Dixit, R. K Dutta, A. K. Singh, R. D Gupta , S. K. Awasthi
Chemically-driven “molecular processor” based on osmium chromophore with resettable multiple readout	RSC Advances, 2015, 5, 5217	Anup Kumar, Megha Chhatwal, Rinkoo D. Gupta, S. K. Awasthi
Addressing of multiple-metal ions on a	Coordination Chemistry	M. Chhatwal, V. Singh, A. Kumar, R. D. Gupta,

	single platform	2015 , 292, 30	S. K Awasthi
2014.	Binding study of Naturally Occuring Flavonoids with Bovine Serum Albumin, A Fluorescence Quenching Study	Int. J. Pharm. Sci. Rev. Res., 2014, 25(1), 86-89	S. K Awasthi , M.Pandey, S.Singh
	Surface confined heteroleptic Copper(II)-polypyridyl complexes for photo-nuclease activity	Chem. Com. 2014 50, 11848	V. Singh, P. C.Mondal, A. Kumar, Y L. Jeyachandran, S. K Awasthi , R.D.Gupta, M. Zharnikov
	(NH ₄) ₂ Ce(NO ₃) ₆ as an inexpensive, eco-friendly, efficient catalyst for synthesis of 5- substituted 1- <i>H</i> tetrazoles from nitriles	Tet. Lett. 2014	S. Kumar, S. Dubey, N.saxena, S.K.Awasthi
	Synthesis and antibacterial activity of novel fluoroquinolone analogs	Med. Chem. Res. 2014, 23, 5237	S. K Dixit, N Yadav, S. Kumar, L. Good, S. K. Awasthi
	Hydrogen Bonding Patterns in Solid State of <i>tert</i> -butyl-N-(4-acetylphenyl)carbamate and (E)-1-(4-aminophenyl)-3-[4-(dimethylamino)phenyl]prop-2-en-1-one	J Chem Crystallogr ,2014, 44:421–434	R.Kant, B.Maity, S.K.Awasthi , A.Agarwal
	An efficient one pot method for synthesis of carboxylic acids from nitriles using recyclable ionic liquid[bmim]HSO ₄	Tet. Letters 2014, 55, 3802	S. Kumar, S. Dixit, S. K. Awasthi
	Thermal and crystallographic studies of 1-(2-fluoro-4-nitrophenyl)-4-(pro-2-yn-1-yl) piperazine single Crystal	Proc. Natl. Acad. Sci .India. 2014, 84(1). 19-25	S.K.Awasthi , C.Sharma M.Yadav, G.Pandey
	AgNO ₃ catalyzed synthesis of 5-substituted -1H tetrazole via [3+2] cycloaddition of nitriles and sodium azide	Tetrahedron Letters 2014, 55, 1879-1882	P. Mani, A. K Singh, Satish K. Awasthi
	Efficient heterogeneous silver nanoparticles catalyzed one-pot synthesis of 5-substituted 1H-tetrazoles	J Mol.Catalysis A 392, 150-156,	P Mani, C. Sharma, S. Kumar, S. K. Awasthi
	Bottom-up molecular-assembly of Ru(II)polypyridyl complex-based hybrid nanostructures decorated with silver nanoparticles: Effect of Ag nitrate concentration	RSC Adv 4, 20024-20030, 2014	Vilvamani, T Gupta, R D Gupta, Satish K. Awasthi
	Diversifications in the synthesis of antimalarial trioxane and tetraoxane analogs	RSC Adv 2014, 4, 5469	N. Yadav, C. Sharma, S. K. Awasthi
2013	Design, synthesis and antimicrobial activity of novel benzothiazole analogs	Eur J Med Chem 63, 635	M. K. Singh, R Tilak, G Nath, S. K. Awasthi , A. Agarwal

	Introducing Nanocrystalline CeO ₂ as Heterogeneous Environmental Friendly Catalyst for the Aerobic Oxidation of Para-Xylene to Terephthalic Acid in Water	J Materials Chemistry A. 2013, 1, 7091	K. Deori, D. Gupta, B. Saha, Satish K. Awasthi , S. Deca
2012	Synthesis and In Vitro Antiplasmodial Activities of Fluoroquinolone Analogs Synthesized via Click Chemistry	Eur J Med Chem 51, 52	S.K Dixit, N.Mishra, M.Sharma, S. Singh, A.Agarwal, S.K. Awasthi , V. K. Bhasin
	Unique trifurcated hydrogen bonding in a pseudopolymorph of tricyclohexane triperoxide (TCTP) and its thermal studies	Tetrahedron Letter 2012, 53(5),6067-6070	C. Sharma, Satish K Awasthi
	Antimalarial activity of newly synthesised chalcone derivatives <i>in vitro</i> .	Chemical Biology and Drug Design 80, 340	N.Yadav,S.k.Dixit, A.Bhattacharya, L.C. Mishra, M. Sharma, S.K. Awasthi , V.K. Bhasin
2011	Benzyl N-(-3chloro-4-fluorophenyl)carbamate	Acta Cryst E. Vol 67	M. K. Singh,A. Agarwal, S. K. Awasthi
	(2E)-1-(4-aminophenyl)-4-(2,4-dichlorophenyl) prop-2-en-1-one	Acta Cryst E. Vol 67	S.Singh,M.K.Singh , A. Agarwal, S.K. Awasthi
	2-(di-Prop-2-ynyl-amino)-phenyl]-carbamic acid-tert-butyl- ester	Acta Cryst E. Vol 67	M.K.Singh, A.Agarwal, C.Maha war, S. K. Awasthi
	Novel Synthesis, Characterization and Antifilarial Activity of New Heterocyclic Compounds.	Med Chem Research	A. Agarwal, S.K. Awasthi , P. K. Murthy
Total Publication Profile			
Book chapter			
1. Chiranjeev Sharma, Satish K. Awasthi , Natural Products to Synthetic Antimalarial Peroxides: The Paradigm Shift" ebook "Malaria"			
2. Shrawan K. Mangawa, Satish K. Awasthi "Recent advances in guanidine based organocatalyst in stereoselective organic transformations reactions". ebook INTECH Open Access Press, 2016			
3. Chiranjeev Sharma, Satish K. Awasthi , Recent Advances in Antimalarial Drug Discovery: Challenges and			

Opportunities, ebook

4. Chiranjeev Sharma ,Neupane and **Satish K. Awasthi** "Synthetic Quinolones: Emerging Antimalarial Agents". (2013), Ed. A. Pandey, Indian Press. Delhi, India
5. C. Sharma and **Satish K. Awasthi**, Natural Products to Synthetic Antimalarial Peroxides: The Paradigm Shift, Intech Open Sciences Publishing, 2015
6. **Satish K. Awasthi** and P. E. Nielsen. Synthesis of PNA-Peptide Conjugates: (2002) Page 43-52 Peptide Nucleic Acid: Methods and Protocol Edited by P. E. Nielsen, Horizon Press, NJ, USA
7. **Satish K. Awasthi** and P. E. Nielsen, (2002) Parallel Synthesis of PNA-peptide Conjugates Libraries. Page 53-57, Peptide Nucleic Acid: Methods and Protocol Edited by P. E. Nielsen, NJ, USA

In Indexed/ Peer Reviewed Journals (Total Publications)

Publications 2017

1. A.Kumar, D. Agarwal, R.D.Gupta, **Satish K Awasthi** , Molybdenum trioxide catalyzed widely applicable one-pot synthesis of newer mixed N-Benzoyl piperidine dispiro-1,2,4,5-tetraoxane analogs with their in vitro antimalarial activity. (under revision)
2. D.Agarwal, L.Good, **Satish K Awasthi** , Insights into Peptide Nucleic Acid (PNA) based Antimalarial Strategy. (ms submitted)
3. D.Agarwal, S.Singh, R.D.Gupta, A.K.Dixit, **Satish K Awasthi**, In vitro synergistic interaction of 4-aminoquinolines in combination with dihydroartemisinin against Plasmodium falciparum. Antimicrobial agents and Chemotherapy (under revision)
4. K. Sharma, M. Pandey, **Satish K Awasthi**, The insight into the interaction of naturally occurring flavanoids with serum albumin; molecular modeling, spectroscopic and circular dichroism studies. (ms submitted)
5. D.Agarwal, R. D Gupta, **Satish K Awasthi**, Are antimalarial hybrid molecules a close reality or a distant dream? Antimicrobial Agents and Chemotherapy, 2017 61(5), e00249-17/1-e00249-17/12
6. Chiranjeev Sharma, **Satish K Awasthi**, "Versatility of Peptide Nucleic Acids (PNAs): Role in Chemical Biology, Drug Discovery and Origins of Life, Chemical Biology and Drug Design, 2017, 89(1), 16-37

Publications 2016

7. P. Singh, K. Kumari, R. Chandra, **Satish K Awasthi**, Virtual Screening and docking studies of synthesized chalcones: potent anti-malarial drug. International Journal of Drug Development & Research, 2016, 8(1), 49-56
8. C.Sharma, J.Joy, M.Nethaji, E.D.Jemmis, **Satish Kumar Awasthi**. Synthetic, Crystallographic, and Computational Studies of Extensively Hydrogen Bonded Bilayers in Thermally Stable Adamantane Hydroperoxides. Asian Journal of Organic Chemistry, 2016, 5(11), 1398-1405
9. C.Sharma, Ashawani k., J. Joy, E.D.Jemmis, **Satish Kumar Awasthi**. Experimental and theoretical study of intramolecular O...O interaction in structurally rigid β -keto carboxylic esters. RSC Advances , 2016, 6(94), 91689-91693
10. R. Kant, V. Singh, G.Nath, **Satish Kumar Awasthi**, A. Agarwal. Design, synthesis and biological evaluation of ciprofloxacin tethered bis-1,2,3-triazole conjugates as potent antibacterial agents. European Journal of

Medicinal Chemistry, 2016, 124, 218-228

11. A. Kumar, S. Kumar, J. Khazuria, **Satish Kumar Awasthi**. A comparative study between heterogeneous stannous chloride loaded silica nanoparticles and homogeneous stannous chloride catalyst in the synthesis of 5-substituted 1H-tetrazole. *RSC Advances* 2016, 6(79), 75227-75233
12. Megha Chatwal, R D Gupta, **Satish K Awasthi**, Sensing Ensembles for Nitroaromatics, *J Material Chemistry C*, 2016
13. S. Singh, D. Agarwal, K. Sharma, M. Sharma, M. A Nielsen, M. Alifrangis, R. D Gupta, A. K Singh, **Satish K Awasthi**. 4-Aminoquinoline derivatives: Synthesis, in vitro & in vivo antiplasmodial activity against chloroquine-resistant parasites. *Eur J Med Chem.* 2016, 122, 394-407.
14. M Chhatwal, A Kumar, R. D. Gupta, **Satish K. Awasthi**, A Pyrene-based electropolymerized film as a solid state platform for multi-bit memory storage and fluorescence sensing of nitroaromatics in aqueous solution. *J Material Chemistry C*, 2016, 4, 4129-4133.
15. N. Vilvamani, M. Chhatwal, I. Bhowmick, R. D. Gupta, **Satish K Awasthi**, Gold nanocomposite assemblies using functionalized Ru(II)-polypyridyl complexes, *RSC Advances* 6 (60), 55507.
16. V. Singh, K. Sharma, B. Shankar, Satish K Awasthi. R. D. Gupta. Heteroleptic Cu(II)-polypyridyl complexes as photonucleases. *New Journal of Chemistry*, 2016, 40(7), 5906-5913
17. M. Chhatwal, A. Kumar, **S. K. Awasthi**, M. Zharnikov, R. D. Gupta An electroactive metallo-polypyrene film as a molecular scaffold for multi-state volatile memory devices. *J. Phys. Chem. C*, 2016, 120, 2335-2342.
18. Neelam, V. Singh, B. Shankar, R. Shanmugam, **S. K. Awasthi**, R. D. Gupta Molecular logic operations based on optical detection of sulfur mustard simulant using pyridine appended Mg-porphyrine complex. *Sens. Actuators. B-Chem.*, 2016, 227, 85-91
19. R. Kant, D. Kumar, D. Agarwal, R. D. Gupta, R. Tilak, **S. K. Awasthi**, A. Agarwal Synthesis of newer 1,2,3-Triazole linked chalcone and flavone hybrid compounds and evaluation of their antimicrobial and cytotoxic activities. *Eur J Med Chemistry* 2016, 2016, 113, 34.

Publications 2015

20. Shailja Singh, Kumkum Sharma, **Satish K. Awasthi** The interaction of the (7-chloroquinolin-4-yl)-(2,5-dimethoxyphenyl)-aminehydrochloridedihydrate with serum albumin proteins, inputs from spectroscopic, molecular docking and X-ray diffraction studies. *RSC Advances* 2015,5,85854
21. Shrawan K. Mangawa, Ashawani K. Singha and **Satish K. Awasthi** Design and synthesis of s-triazene based asymmetric organocatalyst and its application in enantioselective alkylation.. *RSC Advances*, 2015, 5, 61144-61147.
22. M. Chhatwal, A. Kumar, R. D. Gupta, **Satish K. Awasthi** A pyrene-based optical probe capable of molecular computation using chemical input strings.. *RSC Advances*, 2015, 5, 51678-52681.
23. S. K. Mangawa, C. Sharma, A.K. Singh, **Satish k. Awasthi**. Expedient and efficient one pot synthesis of trifluoroethyl ethers from metal free 2,4,6-tris-(2,2,2-trifluoro-ethoxy)-[1,3,5] triazene. *RSC Advances* 2015, 5, 35042-35045.
24. N. Yadav, S. Singh, S. K. Mangawa, S. K. Dixit, U. Gupta, Y. Khajuriya, **Satish K. Awasthi**. Fluorescent probe 7-(prop-2-yn-1-yloxy)-2H-chromen-2-one): Experimental and DFT based approach to photophysical properties, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 2015, 148, 311-317.
25. S. K Mangawa, S. K Bagh, K. Sharma, **Satish K. Awasthi**, s-Triazene based fluororous coupling reagent for

direct amide synthesis, *Tetrahedron Letter* 2015, 56, 1960-1963.

26. N. Vilvamani, R Gupta, **Satish K Awasthi** Ru(II)-polypyridyl complexes grafted silica nanohybrids: Versatile hybrid materials for Raman spectroscopy and photocatalytic activity" *RSC advances* 5, 13451-461, 2015
27. Satyanand Kumar, Arvind Kumar , Alka Agarwal, **Satish K Awasthi**, Synthetic application of gold nanoparticles and auric chloride for the synthesis of 5-substituted 1-H tetrazoles . *RSC Advances* 2015, 5, 21651-21658.
28. Anup Kumar, Megha Chhatwal, Domenico Cristaldi, **Satish K. Awasthi**, Rinkoo Gupta, Antonino Gulino. A Chromogenic Homo-Dinuclear Ruthenium(II) Monolayer as a Tunable Molecular Memory Module for Multibit Information Storage" *J. Phy. Chem. C*, 2015, 119, 5138-5145.
29. Drishti Agarwal, Manish Sharma, Sandeep K Dixit, Roshan K Dutta, Ashok K Singh, Rinkoo D Gupta , **Satish K Awasthi**; In vitro synergistic effect of fluoroquinolone analogs in combination with artemisinin against Plasmodium falciparum; their antiplasmodial action in rodent malaria model. *Malaria Journal*, 2015, 14:48.
30. Anup Kumar, Megha Chhatwal, Rinkoo D. Gupta, **Satish K. Awasthi** ; Chemically-driven "molecular processor" based on osmium chromophore with resettable multiple readout" *RSC Advances*, 2015, 5, 5217-5220.
31. Megha Chhatwal, Vikram Singh, Anup Kumar, R D Gupta, **Satish K Awasthi**. Addressing of multiple-metal ions on a single platform, *Cordination Chemistry* **2015** , 292, 30-55

Publications 2014

32. **Satish K Awasth**, Meenakshi Pandey , Shailja Singh, Binding study of Naturally Occuring Flavonoids with Bovine Serum Albumin, A Fluorescence Quenching Study. *Int. J. Pharm. Sci. Rev. Res.*, 2014, 25(1), 86-89.
33. Surface confined heteroleptic Copper(II)-polypyridyl complexes for photo-nuclease activity . V. Singh, P. C.Mondal, A. Kumar, Y L. Jeyachandran, **Satish K. Awasthi**, R. D. Gupta, M. Zharnikov, *Chem. Com.* 2014 *50*, 11848.
34. S. Kumar, S. Dubey, N. Saxena, **Satish K. Awasthi**, $(\text{NH}_4)_2\text{Ce}(\text{NO}_3)_6$ as an inexpensive, eco-friendly, efficient catalyst for synthesis of 5- substituted 1-H tetrazoles from nitriles . *Tet. Lett.* 2014 , 55, 6034-6038.
35. S. K Dixit, N. Yadav, S. Kumar, L. Good, **S. K. Awasthi** Synthesis and antibacterial activity of fluoroquinolone analogs. *Med Chem Res.* 2014,23,5237-5249
36. Hydrogen Bonding Patterns in Solid State of *tert*-butyl-N-(4-acetylphenyl)carbamate and (E)-1-(4-aminophenyl)-3-[4-(dimethylamino)phenyl]prop-2-en-1-one. Ramakant, B. Maity, **S. K. Awasthi** , A. Agarwal . *J Chem Crystallogr* ,2014, 44:421–434
37. Pavnesh Mani, Chiranjeev Sharma, **Satish K Awasthi**, Efficient heterogeneous silver nanoparticles catalyzed one-pot synthesis of 5-substituted 1H-tetrazoles. *J Mol. Catalysis A* 392, 150-156, 2014.
38. **S. K. Awasthi**, C. Sharma, M. Yadav, G Pandey , Thermal and crystallographic studies of 1-(2-fluoro-4-nitrophenyl)-4-(pro-2-yn-1-yl) piperazine single crystal. *Proc. Natl. Acad. Sci. India.* 2014, 84(1). 19-25
39. P. Mani, A. K Singh, **Satish K. Awasthi**. AgNO_3 catalyzed synthesis of 5-substituted 1-H tetrazole via [3+2] cycloaddition of nitriles and sodium azide. *Tetrahedron Letters* 2014, 55, 1879-1882
40. S. Kumar, S. K Dixit, **Satish K. Awasthi** ; An efficient one pot method for synthesis of carboxylic acids from nitriles using recyclable ionic liquid [bmim]HSO₄ *Tetrahedron Letter* 35, 3802-3804, 2014

41. Vilvamani, T Gupta, R D Gupta, **Satish K. Awasthi**, Bottom-up molecular-assembly of Ru(II)polypyridyl complex-based hybrid nanostructures decorated with silver nanoparticles: Effect of Ag nitrate concentration. *RSC Adv* 4, 20024-20030, 2014

42. N. Yadav, C. Sharma, **Satish K Awasthi**, Diversifications in the synthesis of antimalarial trioxane and tetraoxane analogs. *RSC Adv* 2014, 4, 5469.

Publications 2013

43. K. Deori, D. Gupta, B. Saha, **Satish K. Awasthi**, S. Deca. "Introducing Nanocrystalline CeO₂ as Hetrogeneous Environmental Friendly Catalyst for the Aerobic Oxidation of Para-Xylene to Terephthalic Acid in Water". *J Materials Chemistry A*. 2013, 1, 7091

44. M. K Singh, R. Tilak, G. Nath, **Satish K Awasthi**, A. Agarwal. Design synthesis, and antimicrobial activity of novel benzothiazole analogs *Eur. J. Med. Chem.* 2013. 63,635-644

Publication 2012

45. C. Sharma, **Satish K Awasthi**. Unique trifurcated hydrogenin bonding in a pseudopolymorph of tricyclohexane triperoxide (TCTP) and its thermal studies. *Tetrahedron Letter* 2012, 53(5),6067-6070.

46. Sandeep K Dixit, Nidhi Mishra, Manish Sharma, Shailja Singh, Alka Agarwal, **Satish K. Awasthi**, V. K. Bhasin Synthesis and In Vitro Antiplasmodial Activities of Fluoroquinolone Analogs Synthesized via Click Chemistry. *Eur J Med Chem* 2012, 51, 52-59.

47. Antimalarial activity of newly synthesised chalcone derivatives *in vitro*. Neesha Yadav, Sandeep Kumar Dixit, Amit Bhattacharya, Lokesh C. Mishra, Manish Sharma, **Satish K. Awasthi**, Virendra K. Bhasin. *Chemical Biology and Drug Design* 2012, 80, 340-347.

Publications 2010-2011

48. Shailja Singh, M. Singh, Alka Agarwal, **Satish K Awasthi**, 2-(4-Chlorophenyl)- chromen-4-one., *Acta Cryst. E*, 2011, e508-509

49. Manavendra Singh, Alka Agarwal, Suryabhan Singh, S. Bhattacharya, **Satish K. Awasthi**, Benzothiazol-2-yl-prop-2-ynyl-amine, *Acta Cryst.* (2011). E67, o2637–o2638

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Articles -

Article review comments, Nature (India) 2009, issue April, 13, 2009

Invited Talk

1. **S. K Awasthi**, 20th International conference of International Academy of Physical Sciences (CONIAPS XX) on Recent Advances in Physical Sciences and Future Challenges, Hyderabad, July 14-16, 2017
2. **S. K Awasthi**, Recent Success in Antimalarial Drug Discovery, The Indian Science Congress, S.V. University, Tirupati, Jan 3-7, 2017
3. **S. K Awasthi** , INSPIRE Programme at Invertis University, Bareilly April 20, 2016
4. **Satish K. Awasthi**, Sustainable Engineering Application of Material Science and Physico-Chemical Innovations at Department of Chemistry, Sami Keshvanand Institute of Technology, Management and Gramothan, Jaipur, Feb. 26-27, 2016.
5. **S. K. Awasthi**, Recent advances in antimalarial drug discovery, Indian Science Congress , University of Mysore, Mysore Jan. 5, 2016
6. **S. K. Awasthi**, Kumkum Sharma Rajasthan University, Jaipur International Academy of Physical Sciences, Januray 16-19, 2015, University f Rajasthan, Jaipur.

7. **S. K. Awasthi**. Orientation Programme. March 11, 2014. Jiwaji University, Gwalior, M. P.
8. **S. K. Awasthi**. XVI International Conference on International Academy of Physical Science on Physical Science and Technology for Sustainable Development. March 20- 22, 2014. PDPM IIIT Design and Manufacturing, Jabalpur, M.P.

Conference Presentations :

9. Pavnesh Mani, **Satish K. Awasthi**, Overcoming the Bottlenecks in Drug Discovery and Development, March 20-21, 2014 held at DSIN/Ranbaxy Gurgaon, India.
10. Shrawan K. mangwa, **Satish K. Awasthi**, International Conference on Chemical Biology Disease Mecahnisms and Therpeutcis (ICCB-2014) Feb. 6-8, 2014. Hyderabad, India.
11. Kumkum Sharma, **Satish K. Awasthi** New Dimension in Green Technology for Sustainable Development. 9 NCNDGS 2014) SKIT, Management and Gramotahn Jaipyr, Feb 21-22, 2014
12. Kumkum Sharma, **Satish K. Awasthi**, 16th CSRI National Symposium in Chemistry, February 7-9, 2014 held at IITB, Bombay.
13. C. Sharma, A. K. Singh, **Satish K. Awasthi**, Intramolecular 1,5-closed shell type O...O interactions, 16th CSRI National Symposium in Chemistry, February 7-9, 2014 held at IITB, Bombay.
14. A. K. Singh, C. Sharma Neupane, **Satish K. Awasthi** "Crystallographic and thermal studies of 2,2-Bis(ethoxycarbonyl)vinylaniline (BECVA) derivatives". Lecture workshop/ conference on "Emerging Trends in Development of Drugs and Devices (ETDDD)" held from 21-23 January, 21-23, 2013, University of Delhi, Delhi, India.
15. P. Mani, K. Sharma, **Satish K. Awasthi** "Synthesis, characterization of bis and tris-benzoimidazolyl derivatives" Lecture workshop/ Conference on "Emerging Trends in Development of Drugs and devices" January 21 - 23, 2013, at the University of Delhi, Delhi, India.
16. Neesha Yadav, Chiranjeev Sharma, Gunjan Pandey, **Satish Kumar Awasthi** 'Synthesis & Antimalarial Activity of Novel Tetraoxane Derivatives'. 14th International Conference (CONIAPS-XIV) on Physical Science Interface with Humanity. Dec 22 –Dec 24, 2011. SV National Institute of Technology, Surat
17. Shrawan Kumar Mangawa, Pavnesh mani, **Satish K. Awasthi*** 'Design, Synthesis and Characterization of Cyanuric Chloride Derivatives' 14th International Conference (CONIAPS-XIV) on Physical Science Interface with Humanity. Dec 22 –Dec 24, 2011. SV National Institute of Technology, Surat.
18. **Satish K. Awasthi**, 13th international conference of the International Academy of Physical Sciences (CONIAPS XIII), held from June 14-16, 2011 on "Emerging Interference of Physical Sciences and Technology" in University of Petroleum and Energy Studies Dehradun, India
19. A. Agarwal, C. Mahawar, **Satish K. Awasthi** " Synthesis of Some Carbazole-Amino acid conjugates" 4th International symposium entitled "Current Trends in Drug Discovery Research" (CTDDR-2010) Feb. 17, 2010 - Feb. 21, 2010, CDRI Lucknow. UP India
20. Neesha Yadav, S.K. Dixit, A. Bhattacharya, L. C. Mishra, V. K. Bhasin, **S. K. Awasthi**. Synthesis and antimalarial activities of substituted chalcones. 5th J-NOST Conference. IIT Kanpur. Dec. 4-7, 2009

21. Brajesh Kumar, Rajkamal, Shailja Singh, Sandeep K Dixit, N Yadav, **Satish K Awasthi**. "Design, synthesis and characterization of Antimicrobial peptides". 13th ISCB International Conference on Interplay of Chemical and Biological Sciences: Impact on Health and Environment, (page 54), 26th Feb.-1st March, 2009. University of Delhi-110007
22. Shailja Singh, Brajesh Kumar, Meenakshi Pandey, Sandeep K. Dixit, Neesha Yadav **Satish K. Awasthi**. 13th ISCB International Conference on Interplay of Chemical and Biological Sciences: Impact on Health and Environment on Peptide-Benzothiazole Conjugates and their use as anticancer agents in ISCBC, 2009
23. A. Pandey, M. K. Singh, N.A. Shakil, J. Kumar, C. Srivastava and **S. K. Awasthi** (2009). Synthesis and IGR activity of substituted benzoxazines. Poster presentation in 13th ISCB International Conference on Interplay of Chemical and Biological Sciences: Impact on Health and Environment, PP No. 77. 26th Feb - 1st Mar 2009, New Delhi, India.
24. Shailja Singh, **Satish K Awasthi**, Oral presentation in annual symposium on Frontiers in Biomedical Research 2008.
25. Shailja Singh, Nidhi Mishra, Brajesh Kumar, Rajkamal, **Satish K. Awasthi**, Antiplasmodial activity of 1,3-Diphenyl propenone in DAE-BRNS Symposium on Emerging Trends in Separation Science and Technology, 2008
26. **Satish K. Awasthi**, Antimalarial and Antiviral Compounds: First INDO-DANISH DU-SDU Seminar on "Emerging Trends in Interfacial Areas of Chemical, Biological and Environmental Sciences. March 17-18, 2008, Delhi, India.
27. Shailja Singh, Brajesh Mishra, Meenakshi Pandey, Rajkamal, Nisha Yadav, **Satish K. Awasthi**. Antiplasmodial activity of 1, 3-diaryl propenone. First INDO-DANISH DU-SDU Seminar on "Emerging Trends in Interfacial Areas of Chemical, Biological and Environmental Sciences. March 17-18, 2008, Delhi, India.

Public Service / University Service / Consulting Activity

- i) Deputy Superintendent, M. Sc Chemistry (Theory) Examination, 2008
- ii) Superintendent, Chemistry Department Center for MBA examination, conducted by Faculty of Management Studies, DU. 2007
- iii) Warden, D. S. Kothari Hostel, Delhi University, Delhi
- iv) University Examination observer in the University Examination since 2005
- v) Member, Departmental Research Committee (DRC) 2010
- vi) Member of Board of Research, University of Delhi, Delhi, 2011.
- vii) Member of Science Faculty, University of Delhi, Delhi, 2011.

Professional Societies Memberships

Life time member of International Academy of Physical Sciences, Allahabad, India.
Life Member of Indian Science Congress, Kolkata, India

Projects (Major Grants / Collaborations)	
1. University Grant Commission, New Delhi	
“Inhibition of HIV-1 Replication: Design, Synthesis and Characterization of Small Molecule Libraries:”	
Period 01.04.2004 to 31.03.2007, Rs 9, 50,100.00	
2. Department of Science and Technology, Govt. of India, India	
Title: “Inhibition of Gene Expression in HIV-1 Using Peptide Libraries and Nucleobase Analogues”	
Period 3 years, Rs 23, 82, 000.00 (Aug 12, 2004- Aug. 12, 2009)	
3. University Grant Commission, New Delhi	
Title: Structure Activity Relationship studies of Marine Natural Products Apratoxins	
Period: 2004-2007, Rs 4.6 lakhs	
4. University Grant Commission, New Delhi	
Title: “Design, Synthesis and Antimicrobial Activity of Small Molecules”	
Period: February 1, 2010 - January 31, 2012 (Rs 5,42,800.00)	
5. Department of Science and Technology, Govt. of India, India	
Title: “New trioxane & tetraoxane derivatives and their in vitro and in vivo antiplasmodial studies”	
Period: 2016 - 2019 (Rs 25,00,000.00)	
6. DST- UKIERI (British Council, UK)	
Title: “Enhance delivery of newly modified nucleic acid mimetics in bacteria”	
Period: 01-05-2015 – 30-10-2017 (Rs 16,76,400.00)	
Other Details	
Ph. D. Awards	: 13
Ph. D. Submitted	: 03
M. Phil Awards	: 03
Ph D under progress	: 08
Summer Trainees	: i) Two student from NIT, Jalandhar, India (2017)
	ii) Three student form IISER Kolkata, India (2016)
	iii) Two student from NIT, Raurkela, India (2015-2016)

- iv) One student from IISER Kolkata, India (2014)
- v) One student from IIT, Indore, India (2014)
- vi) Two students (2006-2007, Bhaskaracharya College, Delhi University)
- vii) Four students(2007-2008), two each from Bhaskaracharya College and Chemistry dept
Delhi University)
- viii) Two student (2008-2009, Bhaskaracharya College, Delhi University)
- ix) One student (2011, Ramjas College, University of Delhi)
- x) One Student (2012, Bhaskaracharya College, Delhi University)