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|---|----|---------------------------------------|--------------|----------------------------|--|---|
| Title | Dr | First Name | Satish Kumar | Last Name | Awasthi | Photograph |
| Designation | | Professor | | | |  |
| Department | | Chemistry | | | | |
| Address (Campus) | | North Campus, Delhi University, Delhi | | | | |
| (Residence) | | D-6/8 Cavalary Lane | | | | |
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| 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

| | | | |
|--------------|--|---|--|
| <u>2018</u> | Inherent Flexibility vis-à-vis Structural Rigidity in Chemically Stable Antimalarial Dispiro N-Sulfonylpiperidine Tetraoxanes. | Chem Select 2018, 3 (6), 1629-1634. | C. Sharma, K. Sharma, J. K. Yadav, A. Agarwal, S. K. Awasthi |
| | In vitro antiplasmodial efficacy of synthetic coumarin-triazole analogs.. | Eur J Med Chem 2018, 145, 735-745. | N. Yadav, D. Agarwal, A.K. Dixit, R.D. Gupta, S.K. Awasthi |
| <u>2017</u> | Are antimalarial hybrid molecules a close reality or a distant dream? Antimicrob Agents Chemother | Antimicrob Agents Chemother 2017, 61 (5), e00249 | D. Agarwal, R.D. Gupta, S.K. Awasthi. |
| | An efficient cofriendly enantioselective organocatalytic ring-closing reaction of 2-hydroxychalcone via intramolecular oxamichael reaction | Chemistry Select 2017, 2 (34), 11160-11163. | A. K. Singh, S. Mangawa, A. Kumar, A. K. Dixit, S. K. Awasthi |
| | Experimental and Theoretical study of intramolecular O-O Interaction in Structurally Rigid β -Keto Carboxylic Ester. | RSC Advances 2016, 6, 91689-91693 | C. Sharma, A. K. Singh, J. Joy, E. D. Jemmis, Satish K Awasthi |
| <u>2016.</u> | Synthetic, Crystallographic, and Computational Studies of Extensively Hydrogen Bonded Bilayers in Thermally Stable Adamantane Hydroperoxides | Asian Journal of Organic Chemistry 2016, 5, 1398-1405 | C. Sharma, Jyothish Joy, M. Nethaji, E. D. Jemmis, Satish Kumar Awasthi |

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| 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, 6,75227 | A. Kumar, S. Kumar, J. Khazuria, Satish Kumar Awasthi |
| Aminoquinoline derivatives: Synthesis, in vitro & in vivo antiplasmodial activity against chloroquine-resistant parasites | Eur J Med Chem. 2016, 122, 394 | S. Singh, D. Agarwal, K. Sharma, M. Sharma, M. A Nielsen, M. Alifrangis, R. D Gupta, A. K Singh, S. 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 (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 hydrochloridedihydrate with serum albumin proteins, inputs from spectroscopic, molecular docking and X-ray diffraction studies | RSC Adv., 2015, 5, 85854 | S. Singh, K. Sharma, S. K. Awasthi |
| 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 | RSC Advances, 2015, 5, | M. Chhatwal, A. Kumar, |

| | | | |
|-------|--|--|---|
| | molecular computation using chemical input strings | 51678 | 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 single platform | Coordination Chemistry 2015 , 292, 30 | M. Chhatwal, V. Singh, A. Kumar, R. D. Gupta, S. K Awasthi |
| 2014. | 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 |
| | An efficient one pot method for synthesis of carboxylic acids from nitriles using recyclable ionic liquid[bmim]hSO4 | Tet. Letters 2014, 55, 3802 | S. Kumar, S. Dixit, S. K. Awasthi |

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| | 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 |
| 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 |
| 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 |
| | 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 Hetrocyclic Compounds. | Med Chem Research 17, 312-321 | A. Agarwal, S.K. Awasthi , P. K. Murthy |
| 2010 | Synthesis nad bioefficacy of new 3-substituted-3,4-dihydro-1,3-benzooxazine | J. of Environmental and public health part (B) 45,108-115 | N. A. Shakil, A.Pandey, M. K. Singh, J.Kumar, S. K. Awasthi , Pankaj, C. Shrivastava, M. Singh, R.P. Pandey |

Total Publication Profile

Patent

Satish K Awasthi, Arvind Kumar, Novel antimalarial dispiro-1, 2, 4, 5 tetraoxanes and one pot method of synthesis thereof. (Indian Patent filed 2016)

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. **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

6. **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)

Paper 2018

1. C. Sharma, K. Sharma, J. K. Yadav, A. Agarwal, **S. K. Awasthi**, Inherent Flexibility vis-à-vis Structural Rigidity in Chemically Stable Antimalarial Dispiro N-Sulfonylpiperidine Tetraoxanes. 2018, 3 (6), 1629-1634
2. N. Yadav, D. Agarwal, A. K. Dixit, R.D. Gupta, **S.K.Awasthi**. In vitro antiplasmodial efficacy of synthetic coumarin-triazole analogs. Eur J Med Chem. 2018, 145, 735-745

Paper 2017

3. D. Agarwal, R.D. Gupta, **S.K. Awasthi**. Are antimalarial hybrid molecules a close reality or a distant dream? Antimicrob Agents Chemother 2017, 61 (5), e00249
4. A. K. Singh, S. Mangawa, A. Kumar, A. K. Dixit, **S. K. Awasthi**. An efficient cofriendly enantioselective organocatalytic ring-closing reaction of 2-hydroxychalcone via intramolecular oxa-michael reaction Chemistry Select 2017, 2 (34), 11160-11163
5. N. Yadav , D. Agarwal , A. K. Dixit , R.D. Gupta , **S.K. Awasthi**. Synthesis and in vitro antiplasmodial efficacy of coumarin-triazole analogs. Eur J Med Chem. 2017

6. D. Agarwal, R.D. Gupta, **S.K. Awasthi**. Are antimalarial hybrid molecules a close reality or a distant dream? *Antimicrob Agents Chemother* 2017, 61:e00249-17.

Paper 2016

7. C. Sharma, A. K. Singh, J. Joy, E. D. Jemmis, **Satish K Awasthi**. Experimental and Theoretical study of intramolecular O-O Interaction in Structurally Rigid β -Keto Carboxylic Ester. *RSC Advances* 2016, 6, 91689-91693
8. C. Sharma, Jyothish Joy, M. Nethaji, E. D. Jemmis, **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, 1398-1405
9. K. Sharma, M. Pandey, **Satish K Awasthi**, The insight into the interaction of naturally occurring flavonoids with serum albumin; molecular modeling, spectroscopic and circular dichroism studies. (ms submitted)
10. 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 (under revision)
11. Megha Chatwal, R D Gupta, **Satish K Awasthi**, Sensing Ensembles for Nitroaromatics, *J Material Chemistry C*, 2016 (under revision)
12. S. Singh, D. Agarwal, K. Sharma, M. Sharma, M. A Nielsen, M. Alifrangis, R. D Gupta, A. K Singh, **Satish K Awasthi**. Aminoquinoline derivatives: Synthesis, in vitro & in vivo antiplasmodial activity against chloroquine-resistant parasites. *Eur J Med Chem*. 2016, 122, 394-407.
13. 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.
14. 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.
15. 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*, 2016, (under review)
16. V. Singh, K. Sharma, B. Shankar, Satish K Awasthi. R. D. Gupta. Heteroleptic Cu(II)-polypyridyl complexes as photonucleases. *New Journal of Chemistry*,
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.

Paper 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. Fluorescent probe 7-(prop-2-yn-1-yloxy)-2H-chromen-2-one): Experimental and DFT based approach to photophysical properties, N. Yadav, S. Singh, S. K. Mangawa, S. K. Dixit, U. Gupta, Y. Khajuriya, **Satish K. Awasthi**. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 2015, 148, 311-317.
25. s-Triazene based fluorous coupling reagent for direct amide synthesis, S. K Mangawa, S. K Bagh, K. Sharma, **Satish K. Awasthi**, *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**. *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**, (NH₄)₂Ce(NO₃)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 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**. AgNO₃ catalyzed synthesis of 5-substituted -1H 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 Heterogeneous 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

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45. C. Sharma, **Satish K Awasthi**. Unique trifurcated hydrogen 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
50. Manavendra K. Singh, Alka Agarwal, **Satish K. Awasthi**, Benzyl N-(3chloro-4-fluorophenyl)carbamate; *Acta Cryst E*. 67, 2011
51. Shailja Singh, Manavendra K. Singh, Alka Agarwal, F. Hussain, **Satish KAwasthi**, (2E)-1-(4-Aminophenyl)-3-(2,4-dichlorophenyl)prop-2-en-1-one, *Acta Cryst.* (2011). E67, o1616–o1617
52. Manavendra K. Singh, Alka Agarwal, **Satish K. Awasthi**, Benzyl N-(3chloro-4-fluorophenyl)carbamate; *Acta Cryst E*. 67, 2011
53. N. A Shakil, A. Pandey, M. K. Singh, J Kumar, **Satish K. Awasthi**, Pankaj, Chitra Srivastava, M. K. Singh, R. Pandey. Synthesis and Bioefficacy Evaluation of New 3-Substituted-3, 4-dihydro-1,3-benzoxazines. *J of Environ Sci & Health Part B*: 2010, 45, 108-115.

54. A. Agarwal, **Satish K. Awasthi**, P. K. Murthy, Novel Synthesis, Characterization and Antifilarial Activity of New Heterocyclic Compounds. *Med Chem Research*. 2011, 17, 312-321
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77. **Satish K. Awasthi**, V. Khanna, G. Watal and K. Mishra (1993) (2-Pyridyl)methyl, A Novel Reagent for O6 Protection of 2- Deoxyguanosine. *Indian J. Chemistry*, 32B, 916-919.
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Articles -

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

Conference Presentations :

1. **S. K Awasthi** , INSPIRE Programme at Invertis University, Bareilly April 20, 2016
2. **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.
3. **S. K. Awasthi**, Recent advances in antimalarial drug discovery, Indian Science Congress , University of Mysore, Mysore Jan. 5, 2016
4. **S. K. Awasthi**, Kumkum Sharma Rajasthan University, Jaipur International Academy of Physical Sciences, January 16-19, 2015, University of Rajasthan, Jaipur.
5. **S. K. Awasthi**. Orientation Programme. March 11, 2014. Jiwaji University, Gwalior, M. P.
6. **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.
7. Pavnesh Mani, **Satish K. Awasthi**, Overcoming the Bottlenecks in Drug Discovery and Development, March 20-21, 2014 held at DSIN/Ranbaxy Gurgaon, India.
8. Shrawan K. mangwa, **Satish K. Awasthi**, International Conference on Chemical Biology Disease Mechanisms and Therapeutics (ICCB-2014) Feb. 6-8, 2014. Hyderabad, India.
9. Kumkum Shram, **Satish K. Awasthi** New Dimension in Green Technology for Sustainable Development. 9 NCNDGS 2014) SKIT, Management and Gramotahn Jaipur, Feb 21-22, 2014
10. Kumkum Sharma, **Satish K. Awasthi**, 16th CSRI National Symposium in Chemistry, February 7-9, 2014 held at IITB, Bombay.
11. 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.

12. 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.
13. 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.
14. 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
15. 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.
16. **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
17. 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
18. 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
19. 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
20. 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 ISCB, 2009
21. 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.
22. Shailja Singh, **Satish K Awasthi**, Oral presentation in annual symposium on Frontiers in Biomedical Research 2008.
23. 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

24. **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.

25. 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.

viii) Executive Council (EC) Member, M J P University, Bareilly.

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 – 30-04-2017 (Rs 16,76,400.00)

Other Details

Ph. D. Awards : 19

Ph. D. Submitted : 02

M. Phil Awards : 03

Ph D under progress : 08

Summer Trainees : i) Two student from NIT, Ruorkela, India (2015-2016)

ii) One student from IISER Kolkata, India (2014)

iii) One student from IIT, Indore, India (2014)

iv) Two students (2006-2007, Bhashkara College, Delhi University)

v) Four students (2007-2008, two each from Bhashkara College and Chemistry Department, Delhi University)

vi) Two students (2008-2009, Bhashkara College, Delhi University)

vii) One student (2011, Ramjas College, University of Delhi)

viii) One Student (2012, Bhashkara College, Delhi University)

(Signature of Faculty Member)

(Signature & Stamp
of Head of the Department)