

Abha Sharma

Present Address:

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Educational Qualification:

B.S. (Biological Sciences)	Jiwaji University, Gwalior, MP (India)	07/1998
M.S. (Organic Chemistry)	Jiwaji University, Gwalior, MP (India)	07/2000
Ph.D. (Chemistry)	Jiwaji University, Gwalior, MP (India)	06/2006

Qualified M.P State Level Eligibility Exam (SLET)

Research Experience:

- **National institute of pharmaceutical education & Research** 4 Feb 2020-Till Date
- **Associate Professor**
- **National institute of pharmaceutical education & Research** 08/17- 3 Feb 2020
- **Assistant Professor**
- **National institute of pharmaceutical education & Research** 07/10- 08/17
- Lecturer**
- **Indian Institute of Toxicology Research, Lucknow, UP** 09/06 - 06/10

Project Associate

Research Area:

Alzheimer Disease
Molecular Probe

Publications

1. **Abha Sharma**, Amit Saxena Beer Singh, Mamta Sharma, MVS Suryanarayana, K Ganeshan, K Sekhar & K K Dwivedi Development and evaluation of modified whetlerite, an adsorbent material for in-situ degradation of sulphur mustard, **Carbon**, 44, (2006) 907-912.
2. In-Situ degradation of sulphur mustard and its simulants on the surface of impregnated carbon systems, **Abha Sharma**, Amit Saxena, Beer Singh, Mamta Sharma, MVS Suryanarayana, RP Semwal, K Ganeshan and K Sekhar, **Journal of Hazardous materials**, B 133, (2006) 106-112.
3. Kinetics of adsorption of sulphur mustard on Al₂O₃ nanoparticles with and without impregnants. Amit Saxena, **Abha Sharma**, Avani Kumar Srivastava, Beer Singh*, Pranav Kumar Gutch and Rajendra Prasad Semwal, **Journal of Chemical Technology & Biotechnology**, 84/12, (2009) 1860-1872.

4. In-situ degradation of sulphur mustard using (1R)-(-)-(camphorylsulphonyl) oxaziridine impregnated adsorbents. **Abha Sharma**, Amit Saxena and Beer Singh, **Journal of Hazardous materials**, 172, (2009) 650–653.
5. Kinetics of adsorption of 2-chloroethylethylsulphide on Al₂O₃ nanoparticles with and without impregnants. Amit Saxena, Avani Kumar Srivastava, **Abha Sharma** and Beer Singh **Journal of Hazardous Materials**, 169/1-3, (2009) 419-427.
6. Polyoxometalate impregnated carbon systems for the in-situ degradation of sulphur mustard, **Abha Sharma**, Beer Singh & Amit Saxena **Carbon**, 47, (2009) 191 1–1915.
7. Amit Saxena, Beer Singh, **Abha Sharma**, Vinita Dubey, Rajendra Prasad Semwal, Malladi Venkata Satya Suryanarayana, Vepa Kameswara Rao, Krishnamurthy Sekhar, Adsorption of dimethyl methylphosphonate on metal impregnated carbons under static conditions, **Journal of Hazardous materials**, 134, (2006) 104-111.
8. Amit Saxena, **Abha Sharma**, Beer Singh, MVS Suryanarayana, Mamta Sharma, RP Semwal, AK Gupta and K Sekhar, Kinetics of degradation of nerve agent simulants and sarin on carbon with and without impregnants *Carbon Science*, 6(3), (2005) 158-165. Now *Carbon Letters* (Springer)
9. Chetananda Patel, Ashima Thakur, Gavin Pereira, and **Abha Sharma**, "Gluconic acid promoted cascade reactions of 2-phenylimidazo[1,2-a] pyridine-3-carbaldehyde with cyclohexane-1,3-dione to create novel fused bisheterocycles. *Synthetic Communications*, 2019, 49(14), 1836-1846. **Impact Factor: 1.4**
10. Amit Kumar, Chetananda Patel, Pooja Patil, Shivam Vyas, and **Abha Sharma** "Chemoselective synthesis of bis (indolyl) methanes using sulfonic acid functionalized chitosan". *Chemical Papers*, 2019, 73(12), 3095-3104.
11. Pooja Patil, Ashima Thakur, Abha Sharma & SJS Flora Natural product and their derivatives as a multifunctional ligand against Alzheimer's disease. *Drug Development and Research*, 2019, 1-19.
12. Chetananda Patel, Amit Kumar, Pooja Patil and **Abha Sharma** Efficient Synthesis of Medicinally Important Benzylidene-indolin-2-one Derivatives Catalyzed by Biodegradable Amino Sugar "Meglumine" *Letters in Organic Chemistry*, 2019, 16(7),600-605.
13. Chetananda Patel, Amit Kumar and **Abha Sharma**. Recyclable Mixed Addenda Polyoxometalate: An Efficient Catalyst for the Synthesis of 1, 8-dioxo- octahydroxanthenes in Water. *Current Green Chemistry*, 2017, 4 (3), 144-150.
14. Nityanand Rai, **Abha Sharma** Chemoselective synthesis of 1,1-diacetates under solvent-free condition using efficient heterogeneous ecofriendly catalyst-P₂O₅/Kaolin. *IJC-B*, 2018, 57(B), 340-344.
15. **Abha Sharma**, S. J. S. Flora "Nutritional management may assist a significant role in alleviation of arsenicosis" *Journal of Trace Elements in Medicine and Biology*, 2018, 45, 11-20.
16. **Abha Sharma**, Javed Ahmad, S.J.S. Flora Application of advanced oxidation processes and toxicity assessment of transformation products", *Environmental Research*, 2018,167, 223-233.
17. **Abha Sharma**, Keerti Jain and S. J. S. Flora "Vitamins Based Novel Target Pathways/Molecules as Possible Emerging Drug Targets for management of Tuberculosis" *Medicinal Chemistry*, 14, 2018, 212-224.
18. **Abha Sharma**, Illa Siva Kalyani, and Anam Fatima. Bio-based material as medium, mild and reusable catalyst for Paal–Knorr pyrrole synthesis with and without ultrasonic irradiation. *Letters in Organic Chemistry*, 15, 2018, 226-232.
19. **Abha Sharma**, Vidhu Pachauri and S. J. S. Flora Advances in Multi-Functional Ligands and the Need for Metal-Related Pharmacology for the Management of Alzheimer Disease *Frontiers in Pharmacology* 2018, 9, 1247.
20. Ashima Thakur, Alka Sharma, and **Abha Sharma**. Efficient synthesis of xanthenedione derivatives using cesium salt of phosphotungstic acid as a heterogeneous and reusable catalyst in water. *Synth. Commun.*, 2016, 46, No. 21, 1766–1771.

21. Ashima Thakur, Gavin Pereira, Chetananda Patel, Vinita Chauhan, Ram Kumar Dhaked, Abh Sharma, Design, one-pot green synthesis and antimicrobial evaluation of novel imidazopyridine bearing pyran bis-heterocycles. *Journal of Molecular Structure* 1206 (2020) 127686. Impact Factor:2.4
22. Pal, T., Bhimaneni, S., Sharma, A. & Flora, S. J. S. Design, synthesis, biological evaluation and molecular docking study of novel pyridoxine-triazoles as anti-Alzheimer's agents. *RSC Adv.*10, 26006–26021 (2020).
23. Pal, T., Patil, P., & Sharma, A. Synthesis, molecular docking and spectroscopic studies of pyridoxine carbamates as metal chelator. *Journal of Molecular Structure*, (2020) 1223, 128837.
24. Patwa, J., Thakur, A., Sharma, A., & Flora, S. J. S. (2020). Monoisoamyl DMSA reduced copper-induced neurotoxicity by lowering 8-OHdG level, amyloid beta and Tau protein expressions in Sprague-Dawley rats. *Metallomics*, 12(9), 1428-1448.
25. Thakur, A., Patil, P., Sharma, A., & Flora, S. (2020). Advances in the development of reactivators for treatment of organophosphorus inhibited cholinesterase. *Current Organic Chemistry*, 24
26. Dheeraj Pandey, Tiyas Pal, Abha Sharma* and SJS Flora (2021). Potential Epigenetic Targets for Combating Alzheimer's Disease. *Mini review in medicinal chemistry*, 21(12):1527-1540
27. Ashima Thakur, Jayant Patwa, Abha Sharma* and S.J.S. Flora (2020). Synthesis, Molecular Docking, Bovine Serum Albumin, and in-vitro reactivation study of imidazopyridine oxime against paraoxon inhibited acetylcholinesterase. *Medicinal Chemistry*
28. Dnyaneshwar Baswar, Abha Sharma, Awanish Mishra (2021) In silico screening of pyridoxine carbamates for Anti-Alzheimer's activities. *Central Nervous System Agents in Medicinal Chemistry*, 21, 39-52
29. Ashima Thakur, Jayant Patwa, Suyash Pant, Abha Sharma*and SJS Flora Monoisoamyl 2, 3-Dimercaptosuccinic Acid interaction with Bovine Serum Albumin: Biophysical Approach and Molecular Docking. *Scientific Reports*, 11(1), 1-14.
30. Muskan Gori¹, Ashima Thakur¹, Abha Sharma^{1*} and SJS Flora. Organic molecules based fluorescent chemosensor for nerve agents and organ phosphorus pesticide. *Topics in current chemistry* 2021 Aug 4;379(5):33

Book Chapter

1. S.J.S. Flora and Abha Sharma, In Handbook of "Biomarkers" (Editor R.C. Gupta), Vol II, Chapter Elsevier/Academic Press, pp 529-549, 2019.
2. Thakur A, & Sharma A (2021). Synthesis of Dendrimers In N. K. Mehra & K. Jain (Eds.), *Dendrimers Nanomedicine: Concept, Theory and Regulatory Perspectives*. CRC Press. (In- Press).

Symposium/Workshop/Conference organized

- 9th NIPER (RBL)-CSIR-CDRI Symposium on "Empowering Drug Discovery by Pharmaceutical and Clinical Research" 24-25 March 2017
- 10th NIPER-R Symposium on "Nano Based Therapy for Neurodegenerative Diseases" 27-28 March, 2018
- Workshop on "scientific writing and research ethics" October 31, 2019.
- Webinar on RNA-based Nanotherapeutics: Current Updates and Future Directions, 6th July 2020.

- Webinar on Induced Pluripotent Stem Cells: A Tool for Disease Modelling and Drug Discovery, 10th July 2020
- 12th NIPER–R symposium on Translational Research & Drug Delivery System, February 15-16, 2021.