CURRICULUM VITAE

Dr. TOSHIKEE YADAV

Address:

"Sahitya-Kutir"

Tikari- Para,

Gandai Pandariya

Dist-Rajnandgaon (CG), 491888

Email: yadavtoshikee@gmail.com

Contact No.- 7828666279



Eduational Qualifications:

| EXAM | YEAR OF | SUBJECT | DIVISION | Marks | Board/University | |
|---------|---------|---------------------|----------|-------|-----------------------------|--|
| PASSED | PASSING | | | (%) | | |
| Ph.D. | 2017 | Chemistry | - | - | Pt. Ravishankar Shukla | |
| | | | | | University Raipur, C.G. | |
| M. Phil | 2013 | Chemistry | I | 70.20 | Pt. Ravishankar Shukla | |
| | | | | | University Raipur, C.G. | |
| M.Sc. | 2012 | Organic Chemistry | I | 63.54 | Pt. Ravishankar Shukla | |
| | | | | | University Raipur, C.G. | |
| B.Sc. | 2010 | Chemistry, Botany, | I | 62.33 | Pt. Ravishankar Shukla | |
| | | Zoology, FC | | | University Raipur, C.G. | |
| Hr.SSC | 2007 | Physics, Chemistry, | I | 78.80 | Chhattisgarh Board of | |
| | | Biology | | | Secondary Education Raipur, | |
| | | | | | C.G. | |
| HSSC | 2005 | All compulsory | I | 81.83 | Chhattisgarh Board of | |
| | | | | | Secondary Education Raipur, | |
| | | | | | C.G. | |

Research Experience

| S. No. | PROJECT TITLE | DESIGNATION | DURATION | PLACE |
|--------|---------------------------|----------------|-------------|-------------------------|
| 1. | Micellar, Interfacial and | Project Fellow | 15.01.2016 | School of Studies in |
| | Spectroscopic Studies of | | to | Chemistry, |
| | Antidepressant -Drug- | | 31.03.2017 | Pt. Ravishankar Shukla |
| | Surfactant Systems | | | University Raipur, C.G. |
| 2. | Synthesis and Study of | Visiting PhD | 01.05.17 to | Department of Chemistry |
| | Biodegradable | Fellow | 30.09.2017 | and Biotechnology, |
| | Functionalized | | | Tallinn University of |
| | Surfactants | | | Technology, Tallinn, |
| | | | | Estonia |

Teaching Experience

| S. No. | NAME OF INSTITUTE | DESIGNATION | DURATION | |
|--------|----------------------------|---------------|------------|------------|
| | | | From | То |
| 1. | Center for Basic Sciences, | Assistant | 29.08.2018 | 30.04.2019 |
| | Pt. Ravishankar Shukla | Professor | | |
| | University, Raipur, CG | (Contractual) | | |

Achievements and Awards

- Recipient of 2nd prize in poster presentation in National conference on Recent Trends in Chemical Sciences (NCRTCS) held at School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur, during 23-25th Jan. 2014.
- 2. Recipient of Best Poster Presentation Award in 17th National Conference on Surfactants, Emulsions & Biocolloids (NATCOSEB XVII) held at Pt. Ravishankar Shukla University, Raipur, (CG) during 4th – 6th Nov, 2015.
- 3. Recipient of 2nd Prize in oral presentation in National Seminar on Green Chemistry held at

- Bhilai Mahila Mahavidyala, Bhilai Nagar, (CG) during $28^{th} 29^{th}$ Nov, 2015.
- 4. Recipient of Prof. S. T. Nandibewoor Young Scientist Award from Indian Chemical Society at 53rd Annual Convention of Chemists, Indian Chemical Society held at GITAM University, Visakhapatnam, Andhra Pradesh during Dec 27th -29th, 2016.

Grants and Fellowships

- 1. Scholarship Holder in M.Phil at Pt. Ravishankar Shukla University, Raipur, CG
- 2. Scholarship Holder in PhD at Pt. Ravishankar Shukla University, Raipur, CG
- 3. Travel Fellowship from Centre for International Co-operation in Science (CICS), Chennai for attending the 4th International Conference on Application & Management in Chemical Sciences of Indian Council of Chemists held at Tashkent, Uzbekistan during 13th-15th June, 2015.
- 4. Travel Fellowship from Chhattisgarh Council of Science and Technology, Raipur, CG for attending the 4th International Conference on Application & Management in Chemical Sciences of Indian Council of Chemists held at Tashkent, Uzbekistan during 13th-15th June, 2015.
- 5. Travel Fellowship from Pt. Ravishankar Shukla University, Raipur, CG for attending 18th International Conference on Chemical, Biochemical and Process Engineering organized by World Academy of Science, Engineering & Technology held at Singapore during Jan 7th -8th, 2016.
- 6. Awarded for **Dora Plus Scholarship** (Visiting PhD Fellow) by Department of Chemistry and Biotechnology, Tallinn University of Technology, Tallinn, Estonia in 2017.

List of Publications

- Study of Solubility Efficiency of Polycyclic Aromatic Hydrocarbons in Single Surfactant System.
 Lakra, D. Tikariha, T. Yadav, M. L. Satnami, K. K. Ghosh, J. Surf. Det. 2013, 16, 957-966.
 (Impact Factor: 1.450)
- 2. Mixed Micellization of Gemini & Cationic Surfactants: Physicochemical Properties & Solublization of Polycyclic Aromatic Hydrocarbons. J. Lakra, D. Tikariha, T. Yadav, S. Ghosh,

- M. L. Satnami, K. K. Ghosh, *Colloids Surf. A: Physicochem Eng. Aspects*, **2014**, 451, 56-65. (Impact Factor: 2.714)
- **3.** Physicochemical and Self-assembling Properties of Some Gemini Surfactants. D. Tikariha, J. Lakra, S. D. Roy, **T. Yadav**, K. K. Ghosh, *J. Ravishankar University, Raipur-Part-B*, **2014**, 27, 32-40.
- **4.** Surface Properties of Amphiphilic Drugs in Presence of Cationic surfactants. **T. Yadav**, D. Tikariha, J. Lakra, A. K. Tiwari, S.K. Saha, K. K. Ghosh, *J. Surf. Sci. Technol.*, **2014**, 30, 1-19. (**Impact Factor : 0.17**)
- **5.** Solubilization of Polycyclic Aromatic Hydrocarbons in Structurally Different Gemini and Monomeric Surfactants: A Comparative Study. **T. Yadav**, D. Tikariha, J. Lakra, M.L. Satnami, A.K. Tiwari, S. K. Saha, K. K Ghosh, *J. Mol. Lig.*, **2015**, 204, 216-221. (**Impact Factor : 3.648**)
- 6. Investigation on the Solubilization of Toxic Polycyclic Aromatic Hydrocarbons in the presence of Gemini Surfactants, T. Yadav, D. Tikariha, J. Lakra, K.K. Ghosh, *Toxicol. Lett.*, 2015, 238S, S99. (Impact Factor: 3.858)
- 7. Interaction of Bovine Serum Albumin with Cationic Monomeric and Dimeric Surfactants: A Comparative Study. S Sinha, D. Tikariha, J. Lakra, T. Yadav, S. Kumari, S. K. Saha, K. K. Ghosh, *J. Mol. Liq.*, 2016, 218, 421-428. (Impact Factor: 3.648)
- 8. Biophysical Studies on the Interactions between Antidepressant Drugs and Bile Salts.
 T. Yadav, D. Tikariha, S. Sinha and K. K. Ghosh, *J. Mol. Liq.*, 2017, 233, 23-28. (Impact Factor: 3.648)
- 9. Degradation of Organophosphate Pesticides Using Pyridinium Based Functional Surfactants.R. Sharma, B. Gupta, T. Yadav, S. Sinha, A. K. Sahu, Y. Karpichev, N. Gathergood, J. Marek, K. Kuka and K. K. Ghosh, ACS Sust. Chem. Eng., 2016, 4(12), 6962-6973. (Impact Factor: 5.951)
- 10. A Comparative Study on The Effect of Imidazolium-Based Ionic Liquid on Self-Aggregation of Cationic, Anionic and Nonionic Surfactants Studied by Surface Tension, Conductivity, Fluorescence and FTIR Spectroscopy. M. K. Banjare, R. Kurrey, T. Yadav, S. Sinha, M. L. Satnami, K. K. Ghosh, *J. Mol. Liq.*, 2017, 241, 622-632. (Impact Factor: 3.648)
- **11.** Imidazolium-Based Ionic Liquid as Modulator of Physicochemical Properties of Cationic, Anionic, Nonionic, and Gemini Surfactants. A. Kumar, M. K. Banjare, S. Sinha, **T. Yadav**, R.

Sahu, Manmohan L. Satnami, K. K. Ghosh, *J. Surf. Det.*, **2018**, 21 (3) 355-366. (Impact Factor: **1.450**)

12. Antidepressant Drug-Protein Interactions Studied by Spectroscopic Methods based on Fluorescent Carbon Quantum Dots. Reshma, S.K. Vaishanav, T. Yadav, S. Sinha, S, Tiwari, M. L. Satnami, K. K. Ghosh, *Heliyon*, 2019, 5 e01631. (Impact Factor: 0.634)

List of Paper Presented at National / International Conferences

- Attended and presented seminar on "Chemistry in Lives" in International Year of Chemistry 2011
 Celebration Day 5th March 2011 organized by Department of Chemistry, Kalyan Post Graduate
 College, Sector 7, Bhilai Nagar, Chhattisgarh, India.
- Attended "National Seminar on Recent Trends in Chemical Sciences and Future Prospects" during October 11-12, 2011 organized by Department of Chemistry, Govt. V. Y. T. P. G. Autonomous College, Durg, Chhattisgarh, India.
- 3. Attended "National Conference on Importance of Medicinal Plants in Toxicology and Reproductive Endocrinology: A Perspective" during January 20-21, 2012 organized by department of Zoology, Bhilai Mahila Mahavidyalaya, Bhilai Nagar, Durg, Chhattisgrh, India.
- **4.** Attended a workshop on "Prospection & sustainable use of Medicinal Plants of Chhattisgarh" during September 10-11, 2012 organized under the auspices of National Centre for Natural Resources (NCNR) at Pt. Ravishankar Shukla University, Raipur (C.G.).
- **5.** Attended International Symposium on Environmental-Analytical & Toxicological Issues of Speciation in Atmospheric Organic Aerosols, 6-7 Dec. 2012 at Pt. Ravishankar Shukla University, Raipur (C.G.).
- 6. Attended and presented a poster entitled "Surface Tension Studies of Additive Effects on Physicochemical Properties of Amphiphilic Drugs" on 5th Asian Conference on Colloid and Interface Science, November 20-23, 2013 organized by The Asian Society for Colloid and Surface Science and Department of Chemistry, University of North Bengal, Darjeeling, India.
- 7. Attended and presented paper entitled "A Study on Solubilization of Tricyclic Antidepressant Drugs by Cationic Surfactants" on 50th Annual Convention of Chemist, Punjab University, Chandigarh, 04-07th Dec. 2013.
- **8.** Attended and presented poster entitled "Physicochemical Behavior of Some Gemini and Monomeric Surfactants by Fluorescence Measurement" on National conference on Recent

- Trends in Chemical Sciences (NCRTCS) held at School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur, during 23-25th Jan. 2014. And got **2**nd **prize in poster presentation.**
- **9.** Attended and presented a poster entitled "Solubilization of Polycyclic Aromatic Hydrocarbons in aqueous Micellar Solutions of Some Gemini and Monomeric Surfactants" at 16th CRSI national Symposium (NSC-16), held at IIT, Mumbai, during February 6-9th 2014.
- **10.** Attended and presented a paper entitled "Solubilization of PAH Mixtures by Some Bile Salts and Cationic Gemini Surfactant" on 51th Annual Convention of Chemist, Kurukshetra University, Kurukshetra, Haryana, 9-12th Dec. 2014.
- **11.** Attended and presented a paper entitled "Interactions of Gemini and Bio-Surfactants with Antidepressant Drugs" at 17th CRSI national Symposium (NSC-16), held at CSIR-NCL, Pune, during February 5-8th 2015.
- **12.** Attended and presented a paper entitled "Solubilization of Polycyclic Aromatic Hydrocarbons by Some Cationic Gemini Surfactants" at National Conference on Innovation and Advancement in Chemical Science & Technology, St. Thomas College, Bhilai during February 10-11th, 2015.
- 13. Attended and presented a paper entitled "Biophysical Studies on The Interactions between Antidepressant Drugs and Bio-Surfactants" on 13th Chhattisgarh Young Scientists Congress, Indira Gandhi Agriculture University, Raipur during 28th Feb- 1st March 2015.
- **14.** Attended and presented a poster entitled "Studies on Binding Interaction of Antidepressant Drugs with Gemini Surfactant and Bile Salts" on 4th International Conference of Indian Council of Chemists during 13th 15th June, 2015, Tashkent, Uzbekistan.
- **15.** Attended and presented a poster entitled "An Investigation on Binding Interaction of Antidepressant Drugs with Gemini Surfactant and Bile Salts" on 17th National Conference on Surfactants, Emulsions & Biocolloids (NATCOSEB XVII) during 4th 6th Nov, 2015, Pt. Ravishankar Shukla University, Raipur, (CG) and got **Best Poster Presentation Award.**
- 16. Attended and presented a paper entitled "Studies on Solubilization of Hydrophobic Organic Compounds by Gemini Surfactants" on National Seminar on Green Chemistry during 28th 29th Nov, 2015, Bhilai Mahila Mahavidyala, Bhilai Nagar, (CG) and got 2nd Prize in oral presentation.

- **17.** Attended and presented a paper entitled "Spectroscopic Studies on Solubilization of Polycyclic Aromatic Hydrocarbons in Structurally Different Gemini Surfactants" on 18th International Conference on Chemical, Biochemical and Process Engineering, Jan 7th -8th, 2016, Singapore organised by World Academy of Science, Engineering & Technology.
- **18.** Attended and presented a poster entitled "Competitive Solubilization of Polycyclic Aromatic Hydrocarbons Mixture in Bile Salts and Cationic Gemini Surfactant" on 18th CRSI National Symposium in Chemistry during Feb 4th 7th, 2016, Panjab University, Chandigarh, Panjab.
- **19.** Attended and presented a paper entitled "Spectroscopic Studies on the Interaction of Antidepressant Drugs with Bovine Serum Albumin" on 14th Chhattisgarh Young Scientists Congress during Feb 28th 29th, 2016, Bilaspur University, Bilaspur.
- **20.** Attended and presented a paper entitled "Mixed micellization of gemini surfactant with pluronic block copolymer and their interaction with tricyclic antidepressants" on National Conference on Sustainable Development and Climate Change during Nov 18th, 2016 organized by Amity University, Gwalior, MP.
- 21. Attended and presented a paper entitled "Enhanced aqueous solubility of phenothiazine by cationic gemini surfactants" on 53rd Annual Convention of Chemists, Indian Chemical Society, during Dec 27th -29th, 2016, GITAM University, Visakhapatnam, Andhra Pradesh and got **Prof.** S. T. Nandibewoor Young Scientist Award.
- **22.** Attended and presented a paper entitled "Interaction of Desipramine and Chlorpromazine with Cationic Gemini Surfactants: A Comparative Study" on 15th Chhattisgarh Young Scientist Congress-2017, during February 28-March 1, 2017 held at CSVTU, Newai, Bhilai.
- 23. Attended and presented a paper entitled "Pluronic Block Copolymer-Gemini Surfactant; Mixed Micellization and Interaction with Tricyclic Antidepressants" on National Conference on Advances in Environmental & Chemical Sciences, during March 17th- 18th, 2017 held at School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur.
- **24.** Attended the 1st CHAOS (C-H Activation in Organic System) Summer Training School in Flow Chemistry, NMR and Green Chemistry during 22th -25th August 2017 at Tallinn University of Technology, Tallinn, Estonia.

25. Attended and presented a paper entitled "Solubilization of Polycyclic Aromatic Hydrocarbons

(PAHs) by Functionalized Surfactants" on 22nd CRSI National Symposium in Chemistry (CRSI-

NSC - 22) February 2nd – 4th, 2018 held at Pt. Ravishankar Shukla University, Raipur, CG.

26. Participated in 3-weeks Refresher Course in Chemistry, Theme "Sustainable Chemistry: Frontier

and Challenges" held from September 6th - 26th, 2018 at Pt. Ravishankar Shukla University,

Raipur, CG.

27. Attended a lecture workshop on "Functional Material and their Application" (FMA-2019) held on

January 11th -12th, 2019 at Department of Chemistry, National Institute of Technology, Rourkela,

Odisha.

Membership

Life Member of Chemical Research Society of India, Bangalore

Membership No. – LM 2024

Life Member of Indian Society for Surface Science and Technology, Kolkata

Membership No. - L/M-Y-3

Accolades

Secured 1st Rank in Indian and Western Group Song in 2008, Youth Festival organized by Pt.

Ravishankar Shukla University, Raipur.

Selected in Zonal Youth Festival held at BIT, Ranchi, Jharkhand in 2008.

Secured 1st Rank in District level Group Song Competition in 2011 held at Durg organized by

Government of Chhattisgarh.

Secured 1st Rank in State level Group Song Competition in 2011 organized by Government of

Chhattisgarh.

Selected in National Youth Festival held at Shri Venkteshwara University, Tirupati in 2011.

Place: Raipur

Dr. Toshikee Yadav

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