Curriculum vitae

Dr. Manish Kumar

Personal Details

Designation:	Associate Professor
Address:	Department of Environmental Sciences, School of Earth & Environmental Sciences Central University of Himachal Pradesh, Shahpur Parisar, Kangra-176206
Telephone (M):	8219659912, 9418353485
E-mail:	manishssu26@gmail.com, manishssu26@hpcu.ac.in
Citizenship	Indian

Professional Qualifications

S. No	Degree	University	Year of Passing
1	Ph.D.	Himachal Pradesh University Shimla	2014
2	M.Sc.	Guru Nanak Dev University Amritsar	2008
3	B.Sc.	Himachal Pradesh University Shimla	2004

Employment History

1. Associate Professor, Department of Environmental Science, CUHP, Dharamshala since 21 April 2025.
2. Assistant Professor, Department of chemistry and Chemical Sciences, CUHP, Dharamshala (16 Jan 2020-21 April 2025)
3. Assistant Professor, Department of Chemistry and Biochemistry, College of Basic Sciences, CSKHPKV, Palampur (28 Jan 2019-15 Jan 2020).
4. Assistant Professor, Department of chemistry, Sri Sai University, Palampur. (3 Oct 2016- 28 Jan 2019).

Personal Distinctions

1. Qualified CSIR-JRF: June 2010.
2. Qualified CSIR-NET: Dec 2009.
3. Qualified CSIR-NET: Dec 2010
3. Qualified State Eligibility Test (SET): 2008
4. Qualified Graduate Aptitude Test in Engineering (GATE)-2010

Invited Seminars and Invited Conference Presentations (last 5 years)

1. Invited speaker in two day National training and webinar on Application of nanotechnology in crop pest management organised by 'Centre for Advanced Agricultural Science and Technology (CAAST) on Protected Agriculture and Natural Farming (PANF)' funded to CSKHPKV by ICAR, New Delhi held on 14-

15 October 2022.

2. Delivered Lecture in the Dr Ambedkar Centre of Excellence, CUHP on 27 & 31 March 2023.
3. Delivered Lecture in the Dr Ambedkar Centre of Excellence, CUHP on 13-14 March 2024.

Professional Contributions (last 5 years)

1. Review Editor of Frontiers in Nanotechnology.
2. Reviewer of Advanced Functional Materials, Journal of molecular Liquids, Scientific Reports, Chemistry select, Water, Air & Soil Pollution etc.
3. Deputy Superintendent, End Term Examination held on June 2024.
4. Member of organizing committee for a "National Conference on Frontiers in Chemical Sciences (NCFCS- 2022)"by CUHP in collaboration Indian Society of Analytical Scientists- Delhi Chapter with w.e.f. 04-05 Nov, 2022 at CUHP, Shahpur (HP).
5. Co-Organizing Secretary of two day "National Conference on Frontiers in Chemical and Biological Sciences (NCFCS- 2024)" held on 29-30 May, 2024 at CUHP, Shahpur (HP).
6. Member of organizing committee for a National Conference on Nurturing Young Minds For Scientific Innovations- 2025 (NYMSI - 2025) held on May 15-16, 2025 at CUHP Shahpur Campus.
7. Co-Convener in a Two day "National Conference on Environmental Sustainability, Climate Adaptability & Disaster Management -2025 held on June 5-6, 2025 at CUHP Shahpur Campus.
8. Member of BOS, SSU Palampur.
9. Life member of "The Indian Thermodynamics Society".LM-170
10. Life member of "Him Science Congress Association"
11. Life member of Himalayan Life science society.

Teaching

1. Environmental Nano and Polymer Science.
2. Spectroscopic techniques.
3. Literature Review.
4. Environmental Chemistry.

Doctoral Thesis Supervision

Ph.D. Supervision
Ph.D Supervised: 01
Ph.D Supervising: 04

M.Sc Dissertation Supervision

M.Sc Dissertation Supervised: 40

M.Sc Dissertation Supervising: 05

University Administration

1. Member of Proctorial board of Shahpur campus.
2. Teacher representative of University Anti Ragging committee.
3. Member of University Research and development Cell.
4. Assistant Director Placement cell CUHP.
5. DSC member of Environmental Sciences.(Oct 21-Oct 24)

Publications

Papers Published in UGC / Peer Reviewed Journals (Last 5 years)

1. Pankaj Kumar, Sonali Khanal, Isha Soni, Pooja Shandilya, **Manish Kumar**, Dinesh Kumar, Tejwant Singh Kang, Vinay Chauhan (2025). Ionic liquid-mediated solid–liquid extraction and separation processes for essential oils: modern trends. *Green Chemistry.* **27**, 12538-1257. **(Impact factor = 9.2**)

2. Pooja Kumari, **Manish Kumar**, Deepika Kaushal, Vinay Chauhan, Anu Kumar, Sunny Dhiman, Nazimuddin Ahmmed (2025). Dual-functional TiO2 incorporated gum acacia hydrogel nanocomposites with enhanced photocatalytic and antibacterial properties. *International Journal of Biological Macromolecules*. 148007. **(Impact factor = 8.5**)

3. Tabassum Nike, Deepika Kaushal, Vinay Chauhan, Pooja Shandilya, **Manish Kumar** (2025). Development of guar gum-sodium alginate based hydrogel for sustainable and efficient removal of crystal violet dye from wastewater. *International Journal of Biological Macromolecules*. 148122. **(Impact factor = 8.5**)

4. Vikas Choudhary, Kusham Lata**, Manish Kumar**, Ajay Sharma, Raman Kumar, Vivek Sheel Jaswal (2025). Antibacterial Application of Heterogeneous CuO–NiO–ZnO Metal Oxides Nanocomposites. Catalysis Letters.155(12) 399. **(Impact factor = 2.2**)

5. Pankaj Kumar, Isha Soni, Pooja Shandilya, **Manish Kumar**, Deepak Kumar, Vinay Chauhan (2025). Exploring the role of ionic liquids in biopolymer films for sustainable food packaging: A review. *International Journal of Biological Macromolecules*. 147283. **(Impact factor = 8.5**)

6. Isha Soni, Pankaj Kumar, Pooja Shandilya, **Manish Kumar**, Vinay Chauhan (2025). Surfactant-Assisted Modification of Adsorbents for Optimized Dye Removal. *ACS Omega.* **(Impact factor = 4.3**)

7. Umisha Kalia, Pooja Shandilya, Deepika Kaushal, Vinay Chauhan, Tabassum Nike, **Manish Kumar*** (2025). Recent advances in Covalent Organic Framework-based photocatalysts: From molecular design to hydrogen evolution. ***Journal of Environmental Chemical Engineering.*** 118856. (**Impact factor = 7.2**)

8. Neha Singh, **Manish Kumar***, Divya Thakur, Sanjana Gupta, Deepak Dabur, RaviKant Bhatia and Maheshwar S. Thakur (2025). Engineered Zirconia-Cobalt Oxide Nanoceramics for Cell Lysis and Antibacterial Activity. *Chemistry Select*. 10,1-6. **(Impact factor = 2.0)**

9. Divya Thakur, Maheshwar Singh Thakur, Neha, Ravi Kant Bhatia, **Manish Kumar*** (2025). Wolframite-type copper molybdate nanostructures: a green approach for bacterial inhibition and dye removal. *Chemical Papers.* 1-18. **(Impact factor = 2.5)**
10. Garima, Ashif Choudhary, **Manish Kumar**, Ajay Sharma, Raman Kumar, Vivek Sheel (2025). Enhanced Supercapacitor Performance using Graphene based Bismuth-Niobium Nanocomposites: A Review. *Materials Chemistry and Physics.* 346, 131311. **(Impact factor = 4.7)**
11. Ashif Choudhary, **Manish Kumar,** Ajay Sharma, Raman Kumar, Vivek Sheel (2025). Recent trends in fabrication of oxides/sulfide of vanadium, molybdenum and their graphene based nanocomposite for energy applications. *Inorganic Chemistry Communications.* 180, 114972 **(Impact factor = 5.4)**
12. Shabnam Sambyal, Rohit Sharma, Aashish Priye, **Manish Kumar**, Vinay Chauhan, Pooja Shandilya (2025). Nanocellulose supported ZnWO4/SrTiO3/MoO3 heterojunction: Highly efficient visible light photocatalyst for ciprofloxacin degradation. Chemical Engineering Journal. 516,164167. **(Impact factor = 13.4)**
13. Divya Thakur, Maheshwar Singh Thakur, Ravi Kant Bhatia, **Manish Kumar*** (2025). Untangling Antibacterial and Dye Removal Potential of Wolframite-Type Zinc Molybdate Nanostructures. Catalysis Letters. 155(6), 1-15. **(Impact factor = 2.3)**
14. Harsh Kumar, Tabassum Nike, Amit Kumar, Deepika Kaushal, Vinay Chauhan, **Manish Kumar***(2025). Recent advances in photoelectrochemical potential improvement of $CuBi_2O_4$: Energy applications. *Inorganic Chemistry Communication.* 178,114584 **(Impact factor = 5.4)**
15. Preeti Raina, Tabassum Nike, Deepika Kaushal, Vinay Chauhan, Pooja Shandilya, **Manish Kumar*** (2025). A review on stannate perovskites-based heterojunctions and their applications in the development of sustainable technologies and materials. *Materials Science in Semiconductor Processing*. 188, 109224 **(Impact factor = 4.6**)
16. Pooja Kumari, Deepika Kaushal, Vinay Chauhan, Pooja Shandilya, **Manish Kumar*** 2025. Synthesis of gum acacia-cl-acrylic acid-co-itaconic acid hydrogels for efficient removal of toxic dye rhodamine-B: A step for sustainable environment. *International Journal of Biological Macromolecules*. 292, 139296 **(Impact factor = 8.5**)
17. Sandeep Kumar, **Manish Kumar**, Vinay Chauhan, Deepika Kaushal (2025). Recent trends in the Plant based Metal Oxide Nanoparticles and their Application in Biomedical and Waste Water Remediation-A Review. *Hybrid Advances.*10, 100475.
18. Neha, **Manish Kumar***, Divya Thakur, Sanjana Gupta, Deepak Dabur, Ravi Kant Bhatia, Maheshwar S Thakur (2025). Fabrication of NiO-ZrO2 nanoceramics: a prospective nanomaterial for protein harvesting from microbial cells. *Applied Nanoscience*. 15(1), 1-8.
19. Shabnam Sambyal, Rohit Sharma, Parteek Mandyal, Vinay Chauhan, Aashish Priye, **Manish Kumar**, Pooja Shandilya (2025).. Nanocellulose-Supported Dual S-Scheme SnWO4/Cu2O/Ag2WO4 Heterojunction for Enhanced Photodegradation of Amoxicillin. *ACS Omega.* 10, 3, 2472–2487 **(Impact factor = 4.3**)
20. Pankaj Kumar, Krister Holmberg, Isha Soni, Nasarul Islam, **Manish Kumar**, Pooja Shandilya, Mika Sillanpa, Vinay Chauhan (2024). Advancements in ionic liquid-

based corrosion inhibitors for sustainable protection strategies: from experimental to computational insights. *Advances in Colloid and Interface Science.* 333, 103303. https://doi.org/10.1016/j.cis.2024.103303 **(Impact factor = 19.3**)

21. Tabassum Nike, Pooja Kumari, Deepika Kaushal, Vinay Chauhan, Amit Kumar, **Manish Kumar*** (2024). Titanates and tantalates perovskites-based heterojunctions for visible light-powered photocatalytic environmental detoxification and energy application. *Materials Today Sustainability.* 27, 100910. https://doi.org/10.1016/j.mtsust.2024.100910 **(Impact factor = 7.9**)
22. Tanika Thakur, **Manish Kumar**, Abhishek Walia, Deepika Kaushal (2024). Plant Mediated Synthesis of ZnO Nanoparticles Using Butea monosperma Plant Extract and Their Antibacterial Applications. *MatSci Express.*
23. Anu Dadwal, Pooja Kumari, Tabassum Nike, Vinay Chauhan, Rajender Kumar, Deepika Kaushal, Vivek Sheel Jaswal, Aditi Koundal, **Manish Kumar***(2024). Green Synthesis of Titanium dioxide Nanoparticles by utilizing *Marchantia polymorpha* and their Application in Methylene Blue Dye Removal. *Catalysis Lett*ers. 154, 4228-4241. https://doi.org/10.1007/s10562-024-04690-2 **(Impact factor = 3.0**)
24. Pooja Kumari, **Manish Kumar***, Rajender Kumar, Deepika Kaushal, Vinay Chauhan, Sourab Thakur, Pooja Shandilya, Prem P. Sharma (2024). Gum acacia based hydrogels and their composite for waste water treatment: A review. *International Journal of Biological Macromolecules.* 262, 129914. **(Impact factor = 8.5**) https://doi.org/10.1016/j.ijbiomac.2024.129914
25. Parteek Mandyal, Rohit Sharma, Shabnam Sambyal, Nasarul Islam, Aashish Priye, **Manish Kumar**, Vinay Chauhan , Pooja Shandilya (2024). Cu2O/WO3: A promising S-scheme heterojunction for photocatalyzed degradation of carbamazepine and reduction of nitrobenzene. *Journal of Water Process Engineering*, 59,115008. **Impact factor = 6.7**) https://doi.org/10.1016/j.jwpe.2024.105008
26. Rohit Sharma, Shabnam Sambyal, Parteek Mandyal, Nasarul Islam, Aashish Priye, Itika Kainthla , **Manish Kumar**, Vinay Chauhan , Pooja Shandilya (2024). Unveiling the potential of NiFe layered double hydroxide (LDH)/CuWO4 S-scheme heterojunction for sulfamethoxazole photodegradation and nitrobenzene photoreduction to aniline. ***Journal of Environmental Chemical Engineering*, 12, 112203.** (**Impact factor = 7.7**) https://doi.org/10.1016/j.jece.2024.112203
27. Rohit Sharma , Nasarul Islam , Aashish Priye , Deepak Kumar, Jay Singh, **Manish Kumar**, Prem P. Sharma, Vinay Chauhan , Pooja Shandilya (2024). Fabrication of dual S-scheme based CuWO4/NiFe/WO3 heterojunction for visible-light-induced degradation and reduction applications. ***Journal of Environmental Chemical Engineering,*** 12, 112126. (**Impact factor = 7.7**) https://doi.org/10.1016/j.jece.2024.112126
28. Jyotsnamayee Nayak, Seshu Vardhan P., Suban K. Sahoo, **Manish Kumar**, Vinod Kumar Vashistha & Rajender Kumar (2023). Computational insight of antioxidant and doxorubicin combination for effective cancer therapy. Journal of Biomolecular Structure and Dynamics. (**Impact factor = 4.3**) https://doi.org/10.1080/07391102.2023.2242507

29. Atul Soni, Minaxi S. Maru, Parth Patel, Jagriti Behal, Deepika Kaushal, **Manish Kumar**, Maheshwar S. Thakur, Sunil Kumar (2023). Fe-doped nano-cobalt oxide green catalysts for sulfoxidation and photo degradation. **Clean Technologies and Environmental Policy**. (**Impact factor = 4.4**) https://doi.org/10.1007/s10098-023-02611-2
30. Vinay Chauhan, **Manish Kumar**, Isha Soni, Pooja Shandilya, Sukhprit Singh (2023). Synthesis, physical properties and cytotoxic assessment of ester-terminated gemini imidazolium surfactants. ***Journal of Molecular Liquids***. 387, 122645. (**Impact factor = 6**) https://doi.org/10.1016/j.molliq.2023.122645
31. **Manish Kumar***, Shashi Kant, Deepika Kaushal, Abhishek Thakur, Vivek Sheel Jaswal, Dharmvir Singh, Sunil Kumar and Vinay Chauhan (2023). Temperature dependent volumetric, viscometric and conductance studies of barium chloride in aqueous solution of citric acid: an insight into molecular interactions. 237(6): 765–776. ***Zeitschrift für Physikalische Chemie***. **(Impact factor = 3.2)** https://doi.org/10.1515/zpch-2022-0124
32. Sotirios Baskoutas Roshan Gul, Priyanka Sharma, Raman Kumar, Ahmad Umar, Ahmed A. Ibrahim, Mohsen A. M. Alhamami, Vivek Sheel Jaswal, Ashutosh Dixit, **Manish Kumar** (2023). A sustainable approach to the degradation of dyes by fungal species isolated from industrial wastewaters: Performance, parametric optimization, kinetics and degradation mechanism. **Environmental Research (Impact factor=8.3)** https://doi.org/10.1016/j.envres.2022.114407
33. Atul Soni, Deepika Kaushal, **Manish Kumar**, Anjna Sharma, Inderesh Kumar Maurya, Sunil Kumar **(2022).** Synthesis, Characterizations and antifungal activities of copper oxide and differentially doped copper oxide nanostructures. *Material Today Proceedings*. https://doi.org/10.1016/j.matpr.2022.09.133
34. Maheshwar S. Thakur, Neha Singh, Arti Sharma, Rohit Rana, A.R. Abdul Syukor, M. Naushad, Sunil Kumar, **Manish Kumar**, Lakhveer Singh **(2022).** Metal coordinated macrocyclic complexes in different chemical transformations. Coordination Chemistry Reviews. **(Impact factor = 24.833)** https://doi.org/10.1016/j.ccr.2022.214739
35. Vikas Bharti, Deepika Kaushal, Sunil Kumar, Abhishek Thakur, Dilbag Singh Rana, **Manish Kumar***, Shashi Kant **(2022)**. Molecular interaction studies on the binding ability of hydrated Zinc sulphate with aqueous solution of Ascorbic acid at different temperatures. *Zeitschrift für Physikalische Chemie.* **(Impact Factor = 4.315)** https://doi.org/10.1515/zpch-2021-3054
36. Abhishek Thakur, Shashi Kant Sharma, **Manish Kumar (2022).** Limiting apparent molar volumes, limiting apparent molar isentropic compressions, transfer parameters and transition state theory for ternary mixtures of Gly-Gly-Gly in aqueous solutions of ascorbic acid at temperatures between (298.15 and 318.15) K, *Journal of Molecular Liquids*, 351, 118653. **(Impact Factor = 6.633)** https://doi.org/10.1016/j.molliq.2022.118653
37. Dixit Sharma, Sunil Kumar, Ankita Sharma, Rakesh Kumar, Ranjit Kumar, Mahesh Kulharia & **Manish Kumar (2022).** Functional assignment to hypothetical proteins in *Orientia tsutsugamushi* strain Ikeda, *Bioinformation,* 18(3): 188-195. **(Impact Factor = 1.9)** 10.6026/97320630018188

38. **Manish Kumar***, Shashi Kant and Deepika Kaushal **(2021).** Molecular interaction investigation of some alkaline earth metal salts in aqueous citric acid at various temperatures by physiochemical studies, *Zeitschrift für Physikalische Chemie,* 236(3), 387–403. **(Impact Factor = 4.315)** https://doi.org/10.1515/zpch-2020-1766

Chapters in Books (Last 5 years)

39. Divya Thakur, Vandna Thakur, Neha Singh, **Manish Kumar**, Maheshwar S.Thakur. Graphene-Based Efficient Photocatalytic Materials for Hydrogen Generation, ACS, 2024.
40. **Manish Kumar**, Surinder Paul, Vivek Sheel Jaswal, Kusham Lata. Quantification and Identification Tools of Major Bioactive Moieties in Spices, Jenny Stanford Publishing Ltd, 2024.
41. Divya Thakur, Deepika Kaushal, Rajender Kumar, Vinay Chauhan, **Manish Kumar**. Nano Biocomposite in Wound Healing, CRC Press, 2024.
42. Pooja Kumari, Tabassum Nike, Deepika Kaushal, Vivek Sheel Jaswal, Vinay Chauhan, **Manish Kumar**. Polymer-based bio nanocomposites: smart adsorbent for detection and removal of metal contaminants from water, CRC Press, 2024.
43. Samjeet Singh Thakur, Alpana, **Manish Kumar,** Pankaj Thakur, Sunil Kumar, Carbon nanotubes: a tool for sustainable environment, LAP LAMBERT Academic Publishing (2019). ISBN: 978-620-0-45627-4.

Total Number of Publications: 56