Dr. Sapna Nehra
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Experience

Nirwan University Jaipur **2022 March'26 – Present**

Assistant Professor (Chemistry)

Assistant Professor (Chemistry)

Key Deliverables

- To design the course for graduates and post graduate's courses.
- To design the CO, PO, and PSO in the courses.
- To deliver the lecture to the graduates and post-graduates students.
- To deliver the lecture on research publication ethics to the Ph.D. scholars.
- To supervise the Ph.D. scholars.
- Preparation of minutes of board of studies meetings.

Accomplishment

- Contributed more than 20 publications in reputed publishing houses like ACS, Elsevier, and Springer with reputed indexing as SCI, SCIE, and Scopus.
- Published one authored book.
- Published one book and two edited books in pipeline in CRC Press in Taylor & Francis.

Additional Roles and Responsibilities

Additional Controller of Examination **2024 Nov'8– 2025 Dec'10**

Key Deliverables

- Ensure the smooth and timely conduct of university examinations, including pre-examination preparation, coordination with affiliated institutions, and implementation of examination protocols.
- Managed the entire process of result declaration, ensuring accuracy, transparency, and adherence to academic timelines and university regulations.
- Ensured compliance with university policies, regulatory requirements, and statutory norms, maintaining integrity and confidentiality in examination processes.
- Coordinated with academic departments, IT teams, and external stakeholders to resolve examination-related issues effectively.

- Supervised examination staff and contribute to continuous improvement in examination systems and practices.

OSD Examination **2024 June'24 – 2024 Nov' 8**

Key Deliverables

- To conduct the RPMC examination at NUJ center.
- Heading the charge of ABC nodal office.
- Handle the examination secrecy work.

Research Coordinator **2022 March'23 – 2024 June'24**

Key Deliverables

- To design the policies to promote the research culture among the faculty members and scholars.
- Preparation of ordinances, notesheets, research policies, code of ethics policy, and other research and development committees.
- Preparation of research board meeting minutes and notices.
- To conduct entrance exams, coursework classes, and preparation of time schedules.
- To issue letters like synopsis approval, guideship, co-supervisors, and any other required letters by the research scholars.
- To design the research projects to procure grants from government agencies.

Accomplishment

- Implementation of research incentive policy to raise the quantity as well quality of publication.
- Conducted 27 Final Ph.D. Viva Voce examination.

NAAC Criteria (3) In charge **March'23 – June'24**

Key Deliverables

- To sensitize the faculty members about their role in the NAAC accreditation process of the University.
- To ensure the code of ethics and plagiarism in research.
- To conduct NAAC workshops.

Dr. K. N. Modi University **2020 Jan'20 – 2022 March'24**

Research Coordinator

Key Deliverables

- To manage and provide the criteria 3 data in SSR, DVV NAAC process.
- To manage the complete research department from admission to final viva voce examination of theses.

Accomplishments

- Represented the research department at the time of NAAC Peer Team Visit.
- Conducted three final Ph.D. thesis viva Voce examinations.
- Conducted ten pre-submissions of theses.
- Conducted five final submissions of theses.
- Contributed the 14 book chapters in reputed publishing houses like Elsevier, CRC Wiley, etc.
- Submit the research project for SRG grant in DST- SERB

Achievements

- Resource Person in FDP entitled "Research Methodology" (2024) held at Jaipur National University, Jaipur.
- Award of Excellence for promoting research and innovation in an international conference entitled "Convergence of technology & with engineering, management, social sciences, and agriculture for better productivity & sustainability" (2023) held at NMIET Bhubaneswar, Odisha.
- Editor of the book entitled "Advanced Materials for Batteries: Advantage, Disadvantage, and Future Applications" in CRC Press Taylor & Francis Group.
- Reviewer of various reputed journals like ACS Books Symposium Series volume tentatively titled "Metal-Organic Frameworks and Derivatives, Journal of Springer Nature Applied Sciences, Chemosphere, Scientific Reports Nature, Journal of Polymers and the Environment and reviewed more than 30 manuscripts.

Organized Conferences, Workshops and FDPS

- Organizing Secretary of the conference entitled "International Conference on Environment, Climate Change & Development A Quest for Regional Cooperation" October 2023 held at Nirwan University Jaipur.
- Organizing Secretary of Workshop on "Research Methodology" October 2023 held at Nirwan University Jaipur.
- Convenor "Five Days Faculty Development Programme" October 2023 held at Nirwan University Jaipur.
- Convenor of the conference entitled "International Conference on Environment, Agriculture and Human Welfare: A Review of Sustainable Goals – 2030" (2023) held at Nirwan University Jaipur.
- Organized a "Workshop on Quality Management System of Higher Education: An Exposition of NAAC Accreditation Process in Association with NAAC Bengaluru (2022) held at Nirwan University Jaipur.

Cumulative Research Publications (85), Citations – 610, h-Index -14, i10 Index-15

Published Research Papers (18)

1. Sreeja P C, Sapna Nehra, (2026), Impact of Western Ghats Geography, Drying Methods and Solvent Polarity on Phytochemical Composition and Antioxidant Activity of Baccaurea courtallensis Fruit Rind Extract, *Journal of Pharamaceutical Research and Innovation*, ISSN 2583-0023,6(2)
2. Sreeja P C, Preethu Prakash, Sapna Nehra, (2026), GC–MS Characterization of Volatile Compounds and Anti-Inflammatory Activity of the Fruit Rind of Baccaurea courtallensis, an Endemic Species of the Western Ghats, *Journal of Pharamaceutical Research and Innovation*, ISSN 2583-0023, 6(2)
3. Sapna Nehra, Kritika S. Sharma, Mohd Ubaidullah, Anuj Kumar, Abdullah M. Al-Enizi, Ahsok Kumar, Kuldeep Sharma and Dinesh Kumar. Advanced zirconium hydroxide graphene hydrogel for simultaneous fluoride and arsenic(III) removal: A multicomponent

modeling approach, *Next Materials*, ISSN: 2949-8228, **Indexing: Scopus (Cite Score =1.9)**

4. Anusha Srinivas, and **Sapna Nehra***. Metalation of Hibiscus-derived chlorophyll: Spectroscopic elucidation of a cobalt–porphyrin complex, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 2026, 360, 127912, ISSN: 1386-1425, **Indexing: Scopus (IF =4.6)**
5. Rekha Sharma, Kritika S. Sharma, **Sapna Nehra** and Dinesh Kumar, Development of paper-based detection methods for aqueous Cr(III) utilizing label-free plasmonic AgNPs, *International Journal of Phytoremediation,* Taylor & Francis, 2026, 28, 7, 1378–1392, ISSN: 1549-7879, Indexing**: Scopus (IF =3.1)**
6. Saumya Srivastava, Upasana Rani, Monika Rani, Y. Toual , Anusha Dubey, Naincy Pandit , Ajay Singh Verma, **Sapna Nehra**, Peeyush Kumar Kamlesh, Computational investigation of CaZnGe and CaZnSn half-heusler compounds: Potential candidates for thermoelectric devices, *Next Materials*, 2025, 8, 100724, ISSN: 2949-8228, **Indexing: Scopus (Cite Score =1.9**)
7. Anusha Srinivas, and **Sapna Nehra***. Development of HPTLC method for simultaneous determination of quercetin and kaempferol in leaf extract of Hibiscus mutabilis. *Journal of Chromatography B*. 2024, 1246, pp, 124277, ISSN: 1873-376X, **Indexing: SCIE (IF =2.8**)
8. **Sapna Nehra,** Ankita Dhillon, Rekha Sharma, Manjula Nair, Dinesh Kumar, Water–dispersible magnetite montmorillonite encapsulated cellulose beads for fluoride removal and their kinetics and mechanism, *Environmental Nanotechnology, Monitoring & Management*. 2022, 18, pp. 100690, ISSN: 2215-1532, **Indexing: Scopus (Cite Score =16.0**)
9. **Sapna Nehra**, Sapna Raghav, and Dinesh Kumar. Biomaterial Functionalized Cerium Nanocomposite for Removal of Fluoride using Central Composite Design Optimization Study. *Environmental Pollution*, 2020, 258, pp. 113773, ISSN: 1873-6424. **Indexing: SCI (IF= 7.3**)
10. **Sapna Nehra**, Manjula Nair, and Dinesh Kumar. Hydrothermally Shape-Controlled Synthesis of TiO_2/Graphene for Fluoride Adsorption Studies. *Journal of Chemical Engineering Data*, 2019, 64, pp. 5373–5384, ISSN: 1520-5134. **Indexing: SCOPUS (IF= 2.1**)
11. **Sapna Nehra**, Sapna Raghav, and Dinesh Kumar. Rod-shaped Ca Zn@Chitin Composite for Fluoride Removal Studies by Adsorption and Statistical Experiments, *Environmental Nanotechnology, Monitoring & Management*, 2019, 12, pp. 100264, ISSN: 2215-1532. **Indexing: SCOPUS (Cite Score =16.0**)
12. **Sapna Nehra**, Ankita Dhillon, and Dinesh Kumar. Freeze-dried synthesized bifunctional

biopolymer nanocomposite for efficient fluoride removal and antibacterial activity, *Journal of Environmental Sciences*, 2020, 92, pp. 52-63, ISSN: 1001-0742. **Indexing: SCI (IF= 6.3)**

13. **Sapna**, Sapna Raghav, Manjula Nair, and Dinesh Kumar. Trimetallic oxide entrapped in alginate polymeric matrix employed for adsorption studies of fluoride. *Surfaces and Interfaces*, 2018, 13, pp.112–132, ISSN: 2468-0230. **Indexing: SCOPUS (IF= 6.3)**
14. Sapna Raghav, **Sapna**, and Dinesh Kumar, Cubical–shaped rods of pectin-hydroxyapatite composite for adsorption studies of fluoride by statistical method and adsorption experiments. *ACS Omega*, 2018, 3, pp. 9675–9688, ISSN: 2470-1343, **Indexing: SCI (IF= 4.3)**
15. Sapna Raghav, **Sapna**, and Dinesh Kumar, Biopolymer scaffold of pectin and alginate for the application of health hazardous fluoride removal studies by equilibrium adsorption, kinetics and thermodynamics. *Journal of Molecular Liquids*, 2019, 284, 203–214, ISSN:1873-3166, **Indexing: SCI (Cite Score =10.5)**
16. Sapna Raghav, **Sapna**, and Dinesh Kumar, Adsorptive removal studies of fluoride in the aqueous system by bimetallic oxide incorporated in cellulose, *Process Safety, and Environmental Protection*, 2019, 127, 211–225, ISSN: 1744-3598**, Indexing: SCOPUS (IF= 7.8)**
17. Ankita Dhillon, **Sapna** and Dinesh Kumar, Dual adsorption behavior of fluoride from drinking water on Ca–Zn $(OH)_2CO_3$ adsorbent. *Surfaces and Interfaces*, 2017, 6, pp 154–161, ISSN: 2468-0230. **Indexing: SCOPUS (IF= 6.3)**
18. Ankita Dhillon, **Sapna**, Banwari Lal Choudhary, Dinesh Kumar, and Surender Prasad, Excellent disinfection and fluoride removal using bifunctional nanocomposite. *Chemical Engineering Journal*, 2018, 337, pp 193–200, ISSN: 1873-3212. **Indexing: SCOPUS (IF= 13.2)**

Published Review Paper (01)

1. Kritika S. Sharma, Rekha Sharma, **Sapna Nehra**, Naresh A. Rajpurohit, Kaushalya Bhakar, Dinesh Kumar. COVID-19: Consequences on pregnant women and neonates. Health Sciences Review, 2022, 4, pp 100044, ISSN:2772-6320.

Authored Book (01)

1. Sapna Nehra, Emerging Trends in Environmental Preservation, Nirwan University Jaipur In association with Inspira Publications, ISBN: 978-93-91932-77-0, PP, 1-167, 2024, DOI: https://doi-ds.org/doilink/03.2024-76989166/10.2024.

Edited Book (03)

1. Dinesh Kumar, **Sapna Nehra**, Supercapacitor: Fundamentals, Materials, and Devices, ISBN: 9781032880099, ***CRC Press Taylor & Francis,*** 2026,
2. Dinesh Kumar, Rekha Sharma, **Sapna Nehra**, Advanced Materials for Batteries: Advantage, Disadvantage, and Future Applications (1st ed.). ***CRC Press Taylor & Francis,*** ISBN: 9781032631370, 2024, https://doi.org/10.1201/9781032631370
3. **Sapna Nehra**, Ravikant Modi, New Research in Sustainable Development, ***Nirwan University Jaipur,*** ISBN: 978-81-975412-4-7. 2024, https://doi.org/10.62823/NUJ/2024/9788197541247

Published Book Chapters (62)

1. Anusha Srinivas, **Sapna Nehra**, Applications of Supercapacitors in Energy Storage, "Supercapacitor Fundamentals, Materials, and Devices" ***CRC Press,*** ISBN: 9781032880099, 2026, PP-20, DOI: https://doi.org/10.1201/9781003535836
2. Anusha Srinivas, Ramesh K Chandran, P C Sreeja, **Sapna Nehra**, Electrolytes for Supercapacitors, "Supercapacitor Fundamentals, Materials, and Devices" ***CRC Press,*** ISBN: 9781032880099, PP-26, 2026, DOI: https://doi.org/10.1201/9781003535836
3. Anusha Srinivas, Ramesh K Chandran, P C Sreeja, **Sapna Nehra**, Challenges and Future Directions in Supercapacitor Research, "Supercapacitor Fundamentals, Materials, and Devices" ***CRC Press,*** ISBN: 9781032880099, PP-16, 2026, DOI: https://doi.org/10.1201/9781003535836
4. Sreeja P.C., **Sapna Nehra**, Ionic Liquid Electrolytes for Supercapacitors, "Supercapacitor Fundamentals, Materials, and Devices" ***CRC Press,*** ISBN: 9781032880099, PP- 22, 2026, DOI: https://doi.org/10.1201/9781003535836.
5. Sreeja P.C., **Sapna Nehra**, Rekha Sharma and Dinesh Kumar, Halloysite nanotubes as a green alternative for functional organic/inorganic nanohybrids-I, "Smart Halloysite Nanotubes" ***Elsevier,*** ISBN: 978-0-443-15912-1, PP 175-195 2026, DOI: https://doi.org/10.1016/B978-0-443-15912-1.00010-0.
6. Manisha Rawat, **Sapna Nehra**, Rekha Sharma, Dinesh Kumar. Selection of hybrid halloysite nanotubes based on guest molecules, "Smart Halloysite Nanotubes" ***Elsevier,*** ISBN: 978-0-443-15912-1, PP 111-123, 2026, DOI: https://doi.org/10.1016/B978-0-443-15912-1.00022-7
7. Pragati Chauhan, Mansi Sharma, **Sapna Nehra**, Nirmala Kumari Jangid, Rekha Sharma, Surface modification of metal oxides and their applications, "Surface Modifications of

Nanomaterials for Energy, Environmental and Biomedical Applications" ***Elsevier,*** **ISBN: 978-0-443-28838-8,** PP 109-130, 2026, DOI: https://doi.org/10.1016/B978-0-443-28838-8.00007-6

8. K. Ramesh Chandran, **Sapna Nehra,** Fabrication and Applications of 2D Layered Hydroxides (LDHs), "2D Materials" Springer ***Nature,*** ISBN: 978-981-96-8586-82025, pp 135–160, 2025, DOI: 10.1007/978-981-96-8586-8_6.
9. Anusha Srinivas, K Ramesh Chandran, P C Sreeja, and **Sapna Nehra**, Microplastics An Overview, "Microplastics Detection, Extraction, Remediation Techniques, and Future Perspectives", ***CRC Press,*** ISBN: 9781003486947, pp 20, 2025, DOI: 10.1201/9781003486947-1.
10. P.C. Sreeja, K. Ramesh Chandran, Rekha Sharma, and Sapna **Nehra**, Bio-nanomaterials: Hazard, Toxicity, and Monitoring Standards, "Bio-Nanomaterials in Environmental Remediation" ***Wiley,*** ISBN: 9783527848546, pp 255-272, 2024, DOI: 10.1002/9783527848546.ch10.
11. Anusha Srinivas, K. Ramesh Chandran, **Sapna Nehra**, and Dinesh Kumar, Future Aspects in the Field of Bio-nanomaterials Toward Environmental Assessment, "Bio-Nanomaterials in Environmental Remediation" ***Wiley,*** ISBN: 9783527848546, pp 295-317, 2024, DOI:10.1002/9783527848546.ch12.
12. **Sapna Nehra**, Rekha Sharma, Ramesh Chandran K., and Dinesh Kumar, Mixed Metal Oxide-Based Materials for Potassium-Ion Batteries, "Advanced Materials for Batteries: Advantage, Disadvantage, and Future Applications (1st ed.)". ***CRC Press***. ISBN: 9781032631332, 2024, DOI: 10.1201/9781032631370.
13. Mansi Sharma, Rekha Sharma, **Sapna Nehra**, Hari Shanker Sharma, and Dinesh Kumar, Metal Chalcogenides for Potassium-Ion Batteries, "Advanced Materials for Batteries: Advantage, Disadvantage, and Future Applications (1st ed.)". ***CRC Press***. ISBN: 9781032631332, 2024, DOI: 10.1201/9781032631370.
14. Rekha Sharma, **Sapna Nehra**, Mansi Sharma, Hari Shanker Sharma, and Dinesh Kumar, Phosphorous-Based Materials for Potassium-Ion Batteries, "Advanced Materials for Batteries: Advantage, Disadvantage, and Future Applications (1st ed.)." ***CRC Press***. ISBN: 9781032631332, 2024, DOI: 10.1201/9781032631370.
15. **Sapna Nehra**, Rekha Sharma, Anusha Srinivas, and Dinesh Kumar, Zinc-Air Batteries: An Approach Towards Basics and Recent Advances, "Advanced Materials for Batteries: Advantage, Disadvantage, and Future Applications (1st ed.)." ***CRC Press***. ISBN: 9781032631332, 2024, DOI: 10.1201/9781032631370.

16. **Sapna Nehra**, Rekha Sharma, Anusha Srinivas, and Dinesh Kumar, Advanced Organic Materials for Zinc Batteries, "Advanced Materials for Batteries: Advantage, Disadvantage, and Future Applications (1st ed.)." ***CRC Press***. ISBN: 9781032631332, 2024, DOI: 10.1201/9781032631370.
17. Pragati Chauhan, Rekha Sharma, **Sapna Nehra**, Hari Shanker Sharma, and Dinesh Kumar, Advanced Materials for Nickel-Cadmium Batteries, "Advanced Materials for Batteries: Advantage, Disadvantage, and Future Applications (1st ed.)." ***CRC Press***. ISBN: 9781032631332, 2024, DOI: 10.1201/9781032631370.
18. P C Sreeja, Rekha Sharma and **Sapna Nehra**, Divergent Applications of Hydrotalcite-Based Materials, Bentham Science, ISBN: 978-981-5256-11-6, 2024, DOI: 10.2174/9789815256116124010005.
19. **Sapna Nehra**, Rekha Sharma, Dinesh Kumar, Indexes to assess their biodegradation, Ajay Kumar Mishra and Chaudhery Mustansar Hussain, ***Elsevier***, ISBN: 978-0-323-95199-9, pp- 255-26, 2024, DOI: 10.1016/B978-0-323-95199-9.00004-4.
20. Manisha Rawat, Nirmala Kumari Jangid, **Sapna Nehra** and Rekha Sharma, Chemistry and Design of Nanofillers, "Handbook of Nanofillers", ***Springer Nature***, ISBN978-981-99-3516-1, pp 1–25, 2023, DOI: 10.1007/978-981-99-3516-1_6-1
21. Ramesh Chandran K and **Sapna Nehra,** Water Resource Management: Challenges and Opportunities for Sustainable Development, "New Research in Sustainable Development", ***Nirwan University Jaipur*****,** ISBN: 978-81-975412-4-7, pp 1-37, 2024, DOI: https://doi.org/10.62823/nuj/2024/9788197541247
22. Anusha Srinivas, Ramesh Chandran K, Sreeja P C and Sapna Nehra, Potential of Nanocellulose as A Sustainable Replacement of CNTs in Water Purification Methods, "New Research in Sustainable Development", ***Nirwan University Jaipur*****,** ISBN: 978-81-975412-4-7, pp 38-60, 2024, DOI: https://doi.org/10.62823/nuj/2024/9788197541247
23. Sreeja P C and Sapna Nehra, Renewable Energy Technologies for Sustainable Development, "New Research in Sustainable Development", ***Nirwan University Jaipur*****,** ISBN: 978-81-975412-4-7, pp 61-92, 2024, DOI: https://doi.org/10.62823/nuj/2024/9788197541247
24. **Sapna Nehra**, Three-dimensional (3D) materials for gas sensing and biosensing applications, "Emerging Trends in Environmental Preservation", ***INSPIRA*****,** ISBN: 978-93-91932-77-0, pp-1-39, 2024, DOI: 10.62823/2024/978-93-91932-77-0
25. **Sapna Nehra**, Green sol-gel coatings for corrosion prevention, "Emerging Trends in Environmental Preservation", ***INSPIRA*****,** ISBN: 978-93-91932-77-0, pp 40-70, 2024,

DOI: 10.62823/2024/978-93-91932-77-0

26. **Sapna Nehra**, Ionic-liquid based water remediation technologies, "Emerging Trends in Environmental Preservation", ***INSPIRA*****,** ISBN: 978-93-91932-77-0, pp 71-103, 2024, DOI: 10.62823/2024/978-93-91932-77-0
27. **Sapna Nehra**, Amorphous silicon solar cells, "Emerging Trends in Environmental Preservation", ***INSPIRA*****,** ISBN: 978-93-91932-77-0, pp 104-138, 2024, DOI: 10.62823/2024/978-93-91932-77-0
28. **Sapna Nehra,** Recovery of critical metals from water, "Emerging Trends in Environmental Preservation", ***INSPIRA***, ISBN: 978-93-91932-77-0, pp 139-164, 2024, DOI: 10.62823/2024/978-93-91932-77-0
29. **Sapna Nehra**, Rekha Sharma, Dinesh Kumar, Remediation of Hazardous Pollutants via MXenes-Based Smart Materials, Age of MXenes, Volume 2. Applications in Diagnostics, Therapeutics, and Environmental Remediation, Durga Madhab Mahapatra, Lakhveer Singh, ***ACS Symposium Series***, eISBN: 9780841297098, pp- 169-191, 2023, DOI: 10.1021/bk-2023-1443.ch009.
30. **Sapna Nehra*,** Sayed Zenab Hasan, Rekha Sharma, and Dinesh Kumar, Advanced Carbon- Based Nanomaterials for Treatment of Water, "Applications of Advanced Nanomaterials in Water Treatment", (Eds.) Dinesh Kumar and Meena Nemiwal, ***CRC Press,*** ISBN: 9781032181165, 2022. pp- 2022, DOI: 10.1201/9781003252931.
31. **Sapna Nehra,** Rekha Sharma, and Dinesh Kumar, Fractal-Based Nanocomposites, "Nanocomposites" (Eds.) N. B. Singh, ***Jenny Stanford Publishing,*** ISBN: 978-981-4968-32-4, pp-21, 2022, DOI: https://doi.org/10.1201/9781003314479.
32. Rekha Sharma, **Sapna Nehra** and Dinesh Kumar, Core Shell Nanocomposites, "Nanocomposites" (Eds.) N. B. Singh, ***Jenny Stanford Publishing,*** ISBN: 978-981-4968-32-4, pp-25, 2022, DOI: https://doi.org/10.1201/9781003314479.
33. **Sapna Nehra,** Rekha Sharma, and Dinesh Kumar, Carbon Based Nanocomposites, "Nanocomposites" (Eds.) N. B. Singh, ***Jenny Stanford Publishing,*** ISBN: 978-981-4968-32-4, pp-22, 2022, DOI: 10.1201/9781003314479.
34. Sayed Zenab Hasan, **Sapna Nehra*,** Rekha Sharma, and Dinesh Kumar*, Recent Development in Nanofiltration Membrane for Water Purification, "Applications of Advanced Nanomaterials in Water Treatment", (Eds.) Dinesh Kumar and Meena Nemiwal, ***CRC Press,*** ISBN: 9781032181165, pp- 202, 2022.
35. Pragati Chauhan, **Sapna Nehra,** Rekha Sharma*, and Dinesh Kumar, Biopolymers supported nanomaterials for water treatment, "Applications of Advanced Nanomaterials

in Water Treatment", (Eds.) Dinesh Kumar and Meena Nemiwal, ***CRC Press,*** ISBN: 9781032181165, pp- 202, 2022.

36. Pragati Chauhan, Mansi Sharma, **Sapna Nehra**, Rekha Sharma* Dinesh Kumar, Dye Removal from Industrial Water Using Nanofiltration Membrane, "Nanofiltration Membrane for Water Purification". (Eds.) Akil Ahmad, Mohammed B. Alshammari, ***Springer Nature Singapore,*** ISBN: 9789811953156, pp- 83-117, 2022, DOI: https://link.springer.com/chapter/10.1007/978-981-19-5315-6_6.
37. Mansi Sharma, Pragati Chauhan, **Sapna Nehra**, Rekha Sharma* Kumar Dinesh Kumar, Volatile Organic Compounds Removal by Nanofiltration from Groundwater, "Nanofiltration Membrane for Water Purification". (Eds.) Akil Ahmad, Mohammed B. Alshammari, ***Springer Nature Singapore,*** ISBN: 9789811953156, pp-119-139, 2022, DOI: https://doi.org/10.1007/978-981-19-5315-6_7.
38. Mansi Sharma, Namonarayan Meena, Pragati Chauhan, **Sapna Nehra**, Ram Babu Pachwarya, Rekha Sharma* Dinesh Kumar, Desalination Through Nanofiltration Technique, "Nanofiltration Membrane for Water Purification". (Eds.) Akil Ahmad, Mohammed B. Alshammari, ***Springer Nature Singapore,*** ISBN: 9789811953156, pp-141-156, 2022, DOI: https://doi.org/10.1007/978-981-19-5315-6_8.
39. Pragati Chauhan, Mansi Sharma, **Sapna Nehra**, Ram Babu Pachwarya, Rekha Sharma* Dinesh Kumar, Modified Nanofiltration Membrane for Wastewater Treatment, "Nanofiltration Membrane for Water Purification". (Eds.) Akil Ahmad, Mohammed B. Alshammari, ***Springer Nature Singapore,*** ISBN: 9789811953156, pp- 157-183, 2022, DOI: https://doi.org/10.1007/978-981-19-5315-6_9.
40. **Sapna Nehra**, Rekha Sharma and Dinesh kumar, Heavy-metals chemistry in soils in "Applied Soil Chemistry". (Eds.) Inamuddin, Mohd Imran Ahamed, Rajender Boddula, Tariq A. Altalhi, ***Wiley***, ISBN: 9781119710189, 1119710189, pp- 276, 2022, DOI:10.1002/9781119711520.
41. **Sapna Nehra**, Rekha Sharma and Dinesh kumar, Environmental geochemistry in "Geochemistry: Concepts and Applications". (Eds.) Inamuddin, Mohd Imran Ahamed, Rajender Boddula, Tariq A. Altalhi, ***Wiley-Scrivener,*** ISBN: 9781119709978, 1119709970, pp- 197, 2021.
42. **Sapna Nehra**, Rekha Sharma, and Dinesh Kumar, Aerogel materials for applications in thermal energy storage, "Aerogels II Preparation, Properties and Applications" (Eds.) Eds. Inamuddin, Rizwana Mobin, Mohd Imran Ahamed and Tariq Altalhi, ***Materials Research Forums LLC, USA***, ISBN: 978-1-64490-128-1, pp- 194, 2021, DOI:

10.21741/9781644901298.

43. **Sapna Nehra**, Rekha Sharma, and Dinesh kumar, Nanocellulose in sensing application for water purification "Nanocellulose and Its Composites for Water Treatment Application" (Ed.) Dinesh Kumar, ***CRC press,*** ISBN: 9780367487331, pp- 248, 2021, DOI: https://doi.org/10.1201/9781003042556.
44. Rekha Sharma, **Sapna Nehra**, and Dinesh kumar, Nanocellulose based materials for the removal of inorganic toxicants, "Nanocellulose and Its Composites for Water Treatment Application" (Ed.) Dinesh Kumar, ***CRC press,*** ISBN: 9780367487331, pp- 248, 2021, DOI: https://doi.org/10.1201/9781003042556.
45. **Sapna Nehra**, Rekha Sharma, and Dinesh Kumar Microbial Cellulases Application in Production of Biofuels "Current status and future scope of microbial cellulases" (Eds.) Deepak K. Tuli Arindam Kuila, ***Elsevier,*** ISBN: 9780128218822, pp-414, 2021, DOI: 10.1016/C2019-0-04287-2.
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50. **Sapna Nehra** Rekha Sharma and Dinesh Kumar, Removal of air pollutants using graphene nanocomposites, "Environmental Remediation through Carbon Based Nano Composites" (Eds.) Akil Ahmad Ed, (Eds.) Jawaid M. J., Ahmad A. Ismail N., and Rafatullah Md. ***Springer Nature,*** ISBN: 978-981-15-6699-8, pp-XIII, 698, 2021,

DOI:10.1007/978-981-15-6699-8.

51. Rekha Sharma, **Sapna Nehra**, Kritika S. Sharma and Dinesh Kumar, NASICON electrodes for sodium-ion batteries in "Sodium-Ion Batteries Materials and Applications" ***Materials Research Foundations***, ISBN: 978-1-64490-082-676, pp-1-30, 2020, DOI: 10.21741/9781644900833-1,
52. Rekha Sharma, **Sapna Nehra**, and Dinesh Kumar, New generation materials for the adsorption of toxic metal ion from drinking water, "Drinking Water: Quality Control, Distribution Systems and Treatment" (Eds.) Cecile Marcil, ***NOVA Science Publishers***, ISBN: 978-1-53618-071-8, pp- 124, 2020.
53. Rekha Sharma, **Sapna** and Dinesh Kumar, Ti-based materials for K-ion batteries, "Potassium- ion Batteries: Materials and Applications", (Eds.) Dr. Inamuddin, ***Wiley-Scrivener***, ISBN: 9781119663249, 1119663245, pp- 357, 2020, DOI: doi.org/10.1002/9781119663287.ch14,
54. Rekha Sharma, **Sapna** and Dinesh Kumar, Environmental monitoring by removing air pollutants using nanocomposites materials, "Environmental Remediation through Carbon-Based Nano Composites", (Eds.) Ahmad, A., Jawaid, Md., Rafatullah, Md., and Ismail N., ***Springer Nature*** in series Green Energy and Technology, ISBN: 9789811566981, pp- 444, 2020.
55. **Sapna**, Sapna Raghav and Dinesh Kumar, Review Environmental implications of incineration of municipal solid waste and ash disposal, "Handbook of Research on Environmental and Human Health Impacts of Plastic Pollution" (Eds.) Wani K. A., Ariana, L., and Zuber S. M., ***IGI global***, ISBN13: 9781522594529, pp– 59-79, 2020, DOI: 10.4018/978-1-5225-9452-9.ch004.
56. **Sapna**, Rekha Sharma and Dinesh Kumar, Chitosan based membranes for wastewater desalination and heavy metal detoxification. "Nanoscale Materials in Water Purification" (Eds.) Thomas, S., Pasquini, D., Leu, S. Y., and Gopakumar, D. A. ***Elsevier***, ISBN: 978-0-12-813926-4 00037–9, 2019, DOI.org/10.1016/B978–0–12–813926–4. pp–799–814,
57. Rekha Sharma, **Sapna**, Ankita Dhillon and Dinesh Kumar, Biosorbents from Agricultural By– products: Updates After 2000s. "In Bio & Nanosorbent from Natural Resources" (Eds.) Bhardwaj Mishra S., and Kumar Mishra, A, ***Springer, Cham.*** ISBN: 978–3–319–68708–7, pp–1–20, 2018, DOI: https://doi.org/10.1007/978– 3–319–68708–7–1.
58. Parul Khurana, Sheenam Thatai, **Sapna** and Dinesh Kumar, Destruction of recalcitrant nanomaterials contaminants in industrial wastewater, "Emerging and Nanomaterial Contaminants in Wastewater Advanced Treatment Technologies" (Eds.) Kumar Mishra,

A., Anawar, Hossain M. D., and Drouiche N., ***Elsevier,*** ISBN: 9780128146736, pp-137-158, 2019, DOI: 10.1016/B978-0-12-814673-6.00006- 1.

59. **Sapna** and Dinesh Kumar, Role of new generation technology to remediate environmental pollution. Nanocomposites for Pollution Control. (Eds.) Mustansar Hussain, C., and Kumar Mishra, A. ***New York: Jenny Stanford Publishing***, ISBN: 9781315143682, pp–1–40, 2018, DOI: https://doi.org/10.1201/b22390.
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61. **Sapna** and Dinesh Kumar, Carbon nanomaterials-based nanocomposite as emerging field for pollution control, "Nanotechnology in Environmental Science" (Eds.) Mustansar Hussain, C., and Kumar Mishra, A. Wiley–VCH Publisher, USA, ISBN: 9783527808854, pp– 125–152, 2018, DOI: https://doi.org/10.1002/9783527808854.ch5.
62. **Sapna**, Rekha Sharma and Dinesh Kumar, Nanomaterials as an Emerging Opportunity to Procure safe drinking water using bio–polymeric materials, "Biopolymers: Structure, Performance and Applications" (Eds.) Mustansar Hussain, C., and Kumar Mishra, A. ***NOVA Science Publishers***, ISBN: 978–3–319–68708–7 DOI.org/10.1007/978–3–319–68708–7–1, pp– 67–94, 2018.

Paper Presented in Conferences and Workshops (22)

International Conferences (04)

1. Poster presentation on the Basic zirconium hydroxide graphene hydrogel used for the removal of fluoride and Arsenic (III) from the aqueous system using multicomponent isotherms and kinetic models, 2nd International Conference on Future Aspects of Sustainable Technologies (FAST 2.0), Department of Chemistry, Central Institute of Technology Kokrajhar (Deemed to be University MHRD, Govt. of India), Kokrajhar, Assam, India, on 20-21 October **2020** in Virtual Platform.
2. Paper presentation on Cubical–Shaped Rods of Pectin−Hydroxyapatite Composite for Adsorption Studies of Fluoride by Statistical Method and Adsorption Experiment, International conference on sustainable development (**2018**) held at Biyani Girls College
3. Paper presentation on Fluoride removal performance of Fe–Ca–Zr composite adsorbent from drinking water, International Seminar on Recent Trends in Chemical Sciences: Global

Prospective Progress (**2016**) held at Shri Govind Guru Government College Banswara, Rajasthan.

4. Poster presentation on Development of cubical ceria nanoadsorbent for the removal of fluoride in aqueous systems, international conference (**2016**) held at Biyani Girls College Jaipur, Rajasthan.

National Conferences (05)

1. Paper presentation on Trimetallic Oxide Entrapped in Alginate Polymeric Matrix Employed for Adsorption Studies of Fluoride, National conference on new frontier of research and education in chemical sciences (**2018**) held at Regional Institute of Education Ajmer, Rajasthan.
2. Poster presentation on removal of fluoride, National Conference on Recent Advances in Basic Science research (**NCRABSR –2018)** held at Banasthali Vidyapith, Rajasthan.
3. Poster presentation on removal of fluoride, National Seminar on Water quality management and its preservation **(July 2018)** held at Banasthali Vidyapith, Rajasthan.
4. Paper presentation on Defluoridation from aqueous system by using trimetallic Fe–La–Ce composite adsorbent, National Conference on "Ground Water Quality, Water Conservation, Management and Technology" (**NCGWCMT–2017**), held at Govt. R. R. (PG) Autonomous College, Alwar, Rajasthan
5. Paper presentation on Development of Fe–Ce–Ni oxide nanoporous adsorbent for fluoride removal from drinking water, National Conference on Sustainable Chemical and Material Science (**SCMS 2016**) held at S.S. Jain Subodh P.G. (Autonomous) College, Jaipur, Rajasthan.

Seminars and Workshops (16)

1. Participated in Research Methodology workshop "Building Foundations in Health Research Rigor" **(2025)** held at Nirwan University Jaipur.
2. Participated in National Seminar on "Use of Digital Media in Education, Opportunity and Challenges: Developed India 2047" **(2025)** held at Mahatma Gandhi College Mahwa, Dausa Rajasthan.
3. Participated in Symposia on "National Education Symposia" (**2024)** held at Central Sanskrit University Jaipur.
4. Participated in IPR awareness/training program under "National Intellectual Property Awareness Mission (NIPAM)" (**2023)** held at Nirwan University Jaipur.
5. Participated as criteria incharge in workshop on "NAAC Accreditation Process" **(2023)** held at Nirwan University Jaipur.

6. Participated in digital flag at Har Ghar Tiranga event AZADI KA AMRIT MAHOTSAV organized by ministry of culture **(2023)** held at Nirwan University Jaipur.
7. Participated in an awareness / training program under "National Intellectual Property Awareness Mission" organized by Intellectual Property Office, India **(2022)** held at Nirwan University Jaipur.
8. Participated in a workshop on "Quality Management System of) Higher Education: An Exposition of NAAC Accreditation System" **(2022)** held at Nirwan University Jaipur.
9. Participated in Rashtriya Ekta Diwas Quiz, organized by ministry of education **(2022)** held at Nirwan University Jaipur.
10. Participated in Intellectual Property Rights (IPR) (**2018**) held at Banasthali Vidyapith, Rajasthan.
11. Poster presentation on Dual Adsorption Behaviour of Fluoride from Drinking Water on Ca–Zn $(OH)_2CO_3$ Adsorbent, Environmental Sustainability in Wastewater Remediation: Current Status and Future Prospects (**2017**) held at Department of Chemistry, Sri Venkateswara College, Delhi.
12. Poster presentation on removal of fluoride, in Workshop Cum Awareness Programme on Water Remediation Technologies, (**2017)** held at Department of Chemistry, Banasthali Vidyapith, Rajasthan
13. Paper presentation on Fluoride Removal performance of Ce–La composite adsorbent from drinking water, National seminar on Innovative Green Technology for Sustainable Sanitation, Health and Environment (**IGTSHE–2016**), held at Poornima College of Engineering, Jaipur, Rajasthan.
14. Poster presentation on Adsorptive removal of fluoride from aqueous system by using Ce–Fe oxides, National seminar on instrumentation and characterization techniques **(NSICT–2016**) held at School of Physical Sciences Banasthali Vidyapith, Rajasthan.
15. Poster presentation on removal of fluoride, in Workshop Cum Awareness Programme on Water Remediation Technologies, **(2016)** held at Department of Chemistry, Banasthali Vidyapith, Rajasthan.
16. Participated in Sensitization Workshop on Technological Empowerment of Women organized by The National Academy of Sciences, India (NASI) **(2016)** held at Banasthali Vidyapith, Rajasthan.

Academic Qualifications

2015-2020 Doctor of Philosophy (Ph.D.) at Banasthali Vidyapith

Specialization: Inorganic Chemistry

	Title of Thesis: Bifunctional Biomaterials and Bionanomaterials for Fluoride Adsorption and Disinfection
	Supervisor: Prof. Dinesh Kumar (Inorganic Chemistry and Nanochemistry) School of Chemical Sciences Central University of Gujarat, Gandhinagar–382030
2012-2014	Master of Science (M.Sc.) at Banasthali Vidyapith **Specialization: Chemistry**
2008-2012	Bachelor of Science (B.Sc.) at Maharshi Dayanand University Rohtak **Specialization: CBZ**

I Sapna certify that all the information given above is true to the best of my knowledge.

Sapna