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B. Sc. & M. Sc.: Himachal Pradesh University, Shimla
Ph.D.: Himachal Pradesh University, Shimla, 2008

Academic and Professional Experience: Thirteen Years

- Professor in Department of Chemistry under SoE&T at Central University of Haryana, Mahendergarh, Haryana (India), Sep. 2021 onwards
- Associate Professor in Department of Chemistry under SoE&T at Central University of Haryana, Mahendergarh, Haryana (India), Sep. 2018 to Sep. 2021
- Assistant Professor in School of Chemistry at Shoolini University, Solan (India), Dec. 2009-to-Sep. 2018
- Lecturer in Chemistry at Dolphin (PG) College, Chandigarh (India), Jul. 2008-to-Nov. 2009

Specialization: Biomaterials, Bio-polymer Mediated Nanomaterial Synthesis, Sensors, Drug Synthesis, Biological Applications

Publications: 32, **Book Chapters:** 03, **Ph.D. produced:** 8, **M.Phil. produced:** 12 and **M.Sc. Projects supervised:** 30, **Invited Lectures:** 06, **Oral Presentation:** 25

Average Impact Factor: 5.35

Awards / Honors:

- Travel Award Winner in EUPOC-2018 at Como, Italy by Journal "Polymers, and Applied Sciences"
- Summer Research fellowships-2014 at ICT Mumbai from Science Academies'
- Ms. Lucid Colloid Young Scientist Award - 2007 by Association of Carbohydrate Chemists and Technologists, India (ACCTI)
- Major research Projects with total grant of Rs 29,21,000/- from BRNS, Mumbai and SCST&E, HP
- Received more than eight awards in different research meets by Different National and International Associations

List of Publications

2018-2021

1. Poonam Singh, Ansu Kumari, **Kalpana Chauhan**, Chandrika Attri and Amit Seth, Nitrile hydratase mediated green synthesis of lactamide by immobilizing Rhodococcus pyridinivorans NIT-36 cells on N, N'-Methylene bis-acrylamide activated chitosan, International Journal of Biological Macromolecules, 161, 168–176 (2020). (ISSN No.: 0141-8130; Impact Factor: 6.953)
2. Kshipra Sen, Praveen Sharma, and **Kalpana Chauhan**, Chloroacetyl-Mediated Modification of Chitosan by Tannic Acid to Synthesize Economical Tanninate-Chitosan and Its use in Fluoride Ions Adsorption from Aqueous Solution, ChemistrySelect, 5, 2023-2034 (2020). (ISSN No.: 2365-6549; Impact Factor: 2.109)
3. Praveen Sharma, Kshipra Sen, Pankaj Thakur, Manoj Chauhan and **Kalpana Chauhan**, Spherically shaped pectin-g-poly(amidoxime)-Fe complex: A promising innovative pathway to tailor a new material in high amidoxime functionalization for fluoride adsorption, International Journal of Biological Macromolecules, 140, 78–90 (2019). (ISSN No.: 0141-8130; Impact Factor: 6.953)
4. Kshipra Sen, Praveen Sharma, Rakesh Kumar Singhal and **Kalpana Chauhan**, Bis-ureido starch as a practically feasible solution for fluoride detection and adsorption from aqueous solution, Trends in Carbohydrate Research, 11, 1-13 (2019). (ISSN No.: 0975-0304; Impact Factor: 0.28)
5. Bhawana Kumari, **Kalpana Chauhan**, Jalpa Trivedi, Varun Jaiswal, Shamsheer S. Kanwar, and Yuba Raj Pokharel, Benzothiazole-based-bioconjugates with improved antimicrobial, anticancer and antioxidant potential, ChemistrySelect, 3, 11326-11332 (2018). (ISSN No.: 2365-6549; Impact Factor: 2.109)
6. Prem Singh, Sumit Sharma, **Kalpana Chauhan**, and Rakesh Kumar Singhal, Fabrication of Economical Thiol-Tethered Bifunctional Iron Composite as Potential Commercial Applicant for Arsenic Sorption Application, ACS Industrial and Engineering Chemistry Research, 57(39), 12959–12972 (2018). (ISSN No.: 0888-5885 print/1520-5045 online; Impact Factor: 3.720)

2018-2015

7. Bhagat Ram, Ghanshyam S. Chauhan, Akshita Mehta, Reena Gupta and **Kalpana Chauhan**, Spherical nanocellulose-based highly efficient and rapid multifunctional naked-eye Cr(VI) ion chemosensor and adsorbent with mild antimicrobial properties, *Chemical Engineering Journal*, 349, 146-155 (2018). (ISSN No.: 1385-8947; Impact Factor: 13.273)
8. Divya Gautam, Sapana Kumari, Bhagat Ram, Ghanshyam S. Chauhan and **Kalpana Chauhan**, A new hemicellulose-based adsorbent for malachite green, *Journal of Environmental Chemical Engineering*, 6, 3889–3897 (2018). (ISSN No.: 2213-3437; Impact Factor: 5.909)
9. Kanchan Bala, Jagadeesh Suriyaprakash, Prem Singh, **Kalpana Chauhan**, Alberto Villa and Neeraj Gupta, Copper and Cobalt nanoparticles embedded in naturally derived graphite electrode for sensing of neurotransmitter Epinephrine, *New Journal of Chemistry*, 42, 6604-6608 (2018). (ISSN No.: 1369-9261; Impact Factor: 3.591)
10. Rahul Sharma, Prem Singh, Rohini Dharela, Ghanshyam Singh Chauhan and **Kalpana Chauhan**, Thiourea functionalized β -cyclodextrin as green reducing and stabilizing agent for silver nanocomposites with enhanced antimicrobial and antioxidant properties, *New Journal of Chemistry*, 41, 12645—12654 (2017). (ISSN No.: 1369-9261; Impact Factor: 3.591)
11. **Kalpana Chauhan**, Prem Singh, Bhawana Kumari and Rakesh Kumar Singhal, Synthesis of new benzothiazole Schiff base as selective and sensitive colorimetric sensor for arsenic on-site detection at ppb level, *RSC Analytical Methods*, 9, 1779-1785 (2017). (ISSN No.: 1759-9679; Impact Factor: 2.896)
12. Jyoti, K. Bhatia, **K. Chauhan**, C. Attri and A. Seth, Improving stability and reusability of *Rhodococcus pyridinivorans* NIT-36 nitrilase by whole cell immobilization using chitosan, *International Journal of Biological Macromolecules*, 103, 8–15 (2017). (ISSN No.: 0141-8130; Impact Factor: 6.953)
13. Tanisha Modgil, Prem Singh and **Kalpana Chauhan**, Algae Star Polymers with Poly(γ -amino acid) as Arms for Phosphate Scale Inhibition, *Trends in Carbohydrate Research*, 9, 52-63 (2017). (ISSN No.: 0975-0304; Impact Factor: 0.28)
14. **Kalpana Chauhan**, Rahul Sharma, Rohini Dharela, Ghanshyam Singh Chauhan and Rakesh Kumar Singhal, Chitosan-thiomer stabilized silver nanocomposites for antimicrobial and antioxidant applications, *RSC Advances*, 6, 75453–75464 (2016). (ISSN No.: 2046-2069; Impact Factor: 3.361)
15. Prem Singh, **Kalpana Chauhan**, Vishal Priya and Rakesh Kumar Singhal, A Greener approach for impressive removal of As(III)/As(V) from ultra-low concentration using highly efficient chitosan thiomer as a new adsorbent, *RSC Advances*, 6, 64946-64961 (2016). (ISSN No.: 2046-2069; Impact Factor: 3.361)
16. **Kalpana Chauhan**, Jasvinder Kaur, Prem Singh, Poonam Sharma, Praveen Sharma and Ghanshyam S. Chauhan, An Efficient and Regenerable Quaternary Starch for Removal of Nitrate from Aqueous Solutions, *ACS Industrial and Engineering Chemistry Research*, 55(9), 2507-2519 (2016). (ISSN No.: 0888-5885 print/1520-5045 online; Impact Factor: 3.720)
17. **Kalpana Chauhan**, Prem Singh, Rakesh K Singhal, New chitosan-thiomer: an efficient colorimetric sensor and effective sorbent for mercury at ultra-low concentration, *ACS Applied Materials & Interfaces*, 7(47), 26069-26078 (2015). (Web Edition ISSN No.: 1944-8252; Impact Factor: 9.229)
18. **Kalpana Chauhan**, Vishal Priya, Prem Singh, Ghanshyam S. Chauhan, Sapana Kumari and Rakesh Kumar Singhal, A green and highly efficient sulfur functionalization of starch, *RSC Advances*, 5, 51762-51772 (2015). (ISSN No.: 2046-2069; Impact Factor: 3.361)
19. **Kalpana Chauhan**, Jasvinder Kaur, Ankita Kumari, Anita Kumari and G.S. Chauhan, Efficient method of starch functionalization to bis-quaternary structure unit, *International Journal of Biological Macromolecules*, 80, 498–505 (2015). (ISSN No.: 0141-8130; Impact Factor: 6.953)

2010-2014

20. **Kalpana Chauhan**, Priyanka Patiyal, Ghanshyam S Chauhan and Praveen Sharma, Bio-inspired star-shaped polymers of alga core in inhibition and dissolution of silicate. *Water Research*, 56, 225–233 (2014). (ISSN No.: 0043-1354; Impact Factor: 11.236)
21. Medha Rana, Amita Kumari, Ghanshyam S. Chauhan and **Kalpana Chauhan**, Modified chitosan microspheres in non-aggregated amylase immobilization, *International Journal of Biological Macromolecules*, 66, 46–51 (2014). (ISSN No.: 0141-8130; Impact Factor: 6.953)
22. Shitika Sharma, Jasvinder Kaur, Garav Sharma, Kamal Kishor Thakur, Ghanshyam S. Chauhan and **Kalpana Chauhan**, Preparation and characterization of pH-responsive guar gum microspheres, *International Journal of Biological Macromolecules*, 62, 636–641 (2013). (ISSN No.: 0141-8130; Impact Factor: 6.953)
23. **Kalpana Chauhan**, Rajeev Kumar, Muneesh Kumar, Parveen Sharma and Ghanshyam S Chauhan. Modified pectin based polymers as green antiscalants for calcium sulphate scale inhibition. *Desalination*, 305, 31–37 (2012). (ISSN No.: 0011-9164; Impact Factor: 9.501)
24. **Kalpana Chauhan**, Ghanshyam S. Chauhan. Polycarboxylated biopolymers as stimuli sensitive carriers for insulin drug delivery. *Trends in Carbohydrate Research*, 3(4), 33-41 (2012). (ISSN No.: 0975-0304; Impact Factor: 0.28).

25. **Kalpana Chauhan**, Ghanshyam S. Chauhan, Separation of Uranyl Ions on Starch-Based Functional Hydrogels: Mechanism and Kinetics. *Separation Science and Technology*, 46, 172–178 (2011). (ISSN No.: 0149-6395 print/1520-5754 online; Impact Factor: 1.718).
26. **Kalpana Chauhan**, Ghanshyam S. Chauhan and J.-H. Ahn. Novel polycarboxylated starch based sorbents for Cu²⁺ ions. *ACS Industrial and Engineering Chemistry Research*, 49, 2548–2556 (2010). (ISSN No.: 0888-5885 print/1520-5045 online; Impact Factor: 3.720)

2006-2009

27. Kalpana Chauhan, Ghanshyam S. Chauhan and J.-H. Ahn. Synthesis and characterization of novel guar gum hydrogels and their use as Cu²⁺ sorbents. *Bioresource Technology*, 100, 3599-3603 (2009). (ISSN No.: 0960-8524; Impact Factor: 9.642)
28. Ravi Kumar, Amit Kumar, Kalpana Chauhan, Reena Gupta, J.-H. Ahn and Ghanshyam S. Chauhan. Removal of As(V) from water by pectin based active hydrogels following geochemical approach. *Bioresource Technology*, 100, 1474–1477 (2009). (ISSN No.: 0960-8524; Impact Factor: 9.642)
29. Ghanshyam S. Chauhan, Kalpana Chauhan, Sandeep Chauhan, Sunil Kumar and Anita Kumari. A study of adsorption of Cr⁶⁺ on functionalized total pine needles based hydrogels. *Carbohydrate Polymers*, 70, 415-421 (2007). (ISSN No.: 0144-8617; Impact Factor: 9.381)
30. Ghanshyam S. Chauhan, Sandeep Chauhan, Kalpana Chauhan and Usha Sen. Synthesis and characterization of acrylamide and 2-hydroxypropylmethacrylate hydrogels for specialty applications. *Journal of Applied Polymer Science*, 99, 3040-3049 (2006). (ISSN No.: 0021-8995 print/1097-4628 online; Impact Factor: 2.81)

Book Chapter

1. **Kalpana Chauhan**, Poonam Sharma and Ghanshyam S. Chauhan, Removal/ Dissolution of Mineral Scale Deposits, **Elsevier book** entitled *Mineral Scales and Deposits* edited by Kostas Demadis and Z Amjad, 2015 p 701-718 (ISSN No.: 0975-0304)
2. Nishant Verma, **Kalpana Chauhan**, Sumit Kumar, Benzofuran-3 (2H)-Ones Derivatives: Synthesis, Docking and Evaluation of Their in Vitro Anticancer Studies, **Springer Book** titled “Advances in Intelligent Systems and Computing, volume 1169” contains Proceedings of International Conference on Trends in Computational and Cognitive Engineering, 2020 p 317-325. Online ISBN 978-981-15-5414-8
3. Prem Singh and **Kalpana Chauhan**, Persistent Organic Pollutants (POPs) in Environment and its Health Impact, **Elsevier book** entitled “Management of Contaminants of Emerging Concern (CEC) in Environment” 2021 p 71-84. ISBN: 978-0-12-822263-8

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