



Meenu

Assistant Professor
Department of Chemistry
Maharaja Ranjit Singh Punjab Technical University
Dabwali Road
Bathinda - 151 001

e-mail ID : meenu.chem@gmail.com
chemmeenu@mrsptu.ac.in
Contact Number : +91-9872728259,
Vidwan-Id 208527

Academic Qualification ; M. Sc., Ph.D

- **Research Experience:** 16 years
- **Teaching Experience:** PG: 14 Years UG: 4 ½ Years
- **Publications:** 12
- **Book Chapter:** 02
- **Project:** 01
- **Conferences/Science Fair Conducted:** 11
- **Conference/Seminar/Symposiums Presentation:** 18
- **ePG modules developed:** 05
- **Refresher Courses Attended:** 01 **Orientation Program Attended:** 01
- **FDP/STC Attended:** 03
- **Invited lectures:** 07
- **Teaching Interest:** Inorganic Chemistry on topics like Group Theory, Coordination

Institutional responsibilities: Coordinator: National Service Scheme
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Research Contributions

Ph.D. Dissertation Title: Synthesis and Structures of some metal-ligand based self-assembled materials

List of Publications

Articles Published/Under Review: 12, Book Chapter: 02

- **Syntheses and crystal structures of three novel Cu(II) coordination polymers of different dimensionality constructed from Cu(II) carboxylates (carboxylate = malonate (mal), 2 acetate (ac), fumarate (fum)) and conformationally flexible 1,4-bis(imidazole-1-yl-methylene)benzene (IX).**
S.K. Chawla, M. Arora, Kalle Nättinen, K. Rissanen and J.V. Yakhmi,
Polyhedron, 23 (2004) 3007. (IF = 2.108)
- **Unique copper ion catalyzed hydrolytic cleavage of C–N(2) bond of thiosemicarbazide.**
S.K. Chawla, M. Arora, K. Nättinen and K. Rissanen,
Polyhedron, 25(2006) 627. (IF = 2.108)
- **Reversible dehydration polymerization of terephthalate bridged $[\{Cu_2(2,2'-bpy)_2(tp)(H_2O)_3(NO_3)\} \cdot H_2O \cdot NO_3]_2$**
Sukhvinder K Chawla, Meenu Arora, Kalle Nättinen, Kari Rissanen, Jatinder V Yakhmi
Mendelev Commun., 16, (2006) 20. (IF = 1.405)
- **A new isomer of $[\{Zn(IX)_2(NO_3)_2\} \cdot 2.5H_2O]_n$ [IX = 1,4-bis(imidazole-1-methylene)benzene] as a rare example of topological isomerism in coordination polymers.**
Sukhvinder K Chawla, Meenu Arora, Kalle Nättinen, Kari Rissanen
Mendelev Commun., 16, (2006) 88. (IF = 1.405)
- **Role of soil physicochemical characteristics on the present state of arsenic and its adsorption in alluvial soils of two agri-intensive region of Bathinda, Punjab, India.** Kumar, R., Kumar, R., Mittal, S., Arora, M. and Babu, J.N. *Journal of Soils and Sediments*, (2015). pp.1-16. (IF=2.14)
- **In situ reductive regeneration of zerovalent iron nanoparticles immobilized on cellulose for atom efficient Cr (vi) adsorption.** A.K. Sharma, R. Kumar, S. Mittal, S. Hussain, M. Arora, R.C. Sharma, and J.N. Babu, *RSC Advances*, 2015, 5(109), 89441-89446. (IF=3.84)
- **Synthesis, crystal structure determination of two-dimensional supramolecular co-ordination polymer of silver(I) with 1,2-Bis(phenylthio)ethane and its Hirshfeld surface analysis**
Journal of Chemical Sciences 127, 849–856, 2015. (IF=1.298)
- **1, 3-Bis (cyanomethoxy) calix [4] arene capped CdSe quantum dots for fluorogenic sensing of fluorine** R. Kumar, M. Arora, A. K. Jain and J. N. Babu *RSC Advances*, 2017, 7, 14015–14020. (IF=3.84)
- **Cu(II) ion based 1D coordination polymer: Its thermal, fluorescence properties, Hirshfeld surface analysis and theoretical calculations** Meenu Arora, Amanpreet Kaur Jassal, Sukhvinder Kaur Chawla Rahul Kumar Mudsainiyan, *Molecular Crystals and Liquid Crystals*, 2018, 664, 142-155
- **Anion-controlled geometrically different Cu(II) ion-based coordination polymers and green synthetic route for copper nanoparticles: a combined experimental and computational insight.**
Meenu Arora, Amanpreet Kaur Jassal, Sarvesh Kumar Pandey, Sukhvinder Kaur Chawla & Rahul Kumar Mudsainiyan, *Journal of Coordination Chemistry*, <https://doi.org/10.1080/00958972.2018.1483077>. (IF=1.795)
- **Study of Antibacterial Activity of Chenopodium album Leaves Extract,** Kaur M, Sharma S, Garg S, Arora M, *International Journal of Pharmacognosy and Phytochemical Research* 2018; 10(1); 1-4
- **Reductive-Co-Precipitated Cellulose Immobilized Zerovalent Iron Nanoparticles in Ionic Liquid/Water for Cr(VI) Adsorption,** Archana K. Sharma, R. Devan, M. Arora, R. Kumar, Y.-R. Ma and J. N. Babu *Cellulose*, 25, pages 5259–5275 (2018)
- **Book Chapters**
- **Protect yourself even at indoor places** Rajeev Sharma and Meenu *Environment Education* chapter 15 pp. 107-119
- **Use of agricultural wastes as adsorbents,** S. Nag, A. Bhardwaj, P. Pandey, M. Arora and J. N. Babu, *Organic Pollutants in Wastewater-I*, Edited by Inamuddin, A. M. Asiri, A. Mohammad, 2018, Chapter 4, pp. 88-122.

Project: 01

Title of project: Pharmaceutical and personal care products(PPCP's) in sewage water of district Bathinda, its transport in environmental compartment and adsorptive removal using metal organic framework

Funding agency: DST

Cost of project: 5002060/-

**Awards/Recognition**

MRSPTU Budding Researcher Award awarded by MRSPTU Bathinda in 2021

Work Experience

S. No.	Institution Served	Time Served
1.	DAV College Bathinda.	4 months
2.	K.M.V Jalandhar	4 Months
3.	Bhutta College of Engineering and Technology, Ludhiana	1 Year 6 Months
4.	Multani Mal Modi College, Patiala	9 Years 4 Months

Contributions to Institution

- Organized four Science Fair in 2010, 2011, 2014 and 2015
- Member of Organizing Committee of National Level Seminars **RACES-2009 (PRO)**
- Member of Organizing Committee of National Level Seminars **RACES-2012 (Organizing Secretary)**
- Member of the Organizing Committee of National Level Seminar **RACES-2013 (Organizing Secretary)**
- Member organizing committee for NITTTR Chandigarh sponsored **FDP on Curriculum Development in 2017(Coordinator)**
- Organized workshop on **milk adulteration** in 2017

- Organized **Inter Institutional Science fair** in 2019
- Member organizing committee for AICTE-ATAL sponsored FDP on **Sensors Technology** in 2021 (Coordinator)