

BIODATA

1. Name and full correspondence address: **Dr. Nidhi Gupta, Assistant Professor in Chemistry, Department of Chemistry, Punjabi University, Patiala-147002, Punjab.**
2. Email(s) and contact number(s): drnaveenabs@gmail.com; 07986223549
3. Institution: **Punjabi University, Patiala.**
4. Date of Birth: **19th September 1977**
5. Category: **General**
6. Academic Qualification(Undergraduate Onward):

S.No.	Degree	Year	Subject	University/ Institution	% of marks
1.	M.Sc.	2001	Chemistry	Jamia Milia Islamia, New Delhi	75.14
2.	Ph.D.	2006	Chemistry	Delhi University ,New Delhi.	

7. Ph.D thesis Title: **“Template synthesis and Spectroscopic studies on transition metal complexes with polydentate macrocyclic ligands”.**

Guide'S Name: **Prof. Sulekh Chandra**

Delhi University, New

Delhi. Year of Award: **2006**

8. Work Experience(in Chronological order)

S.No.	Position Held	Name of the Institute	From	To	Pay Scale
1.	Assistant Professor	Punjabi University, Patiala.	July 2006 (Adhoc)	July 2012	15600-39100 Grade pay;6000
2.	Assistant Professor	Punjabi University, Patiala.	July 2012	Till Date	15600-39100 Grade Pay:7000

9. Professional Recognition/ Award/Prize/ Certificate, Fellow ship received by the applicant.

i) **UGC-NET in October 2002.**

i) **Outstanding Faculty in Science-2017 (Venus International Foundation)**

10. Publication (List of paper published , in year wise ascending order)

1. Biologically Relevant Macrocyclic Complexes of Copper. Spectral, Magnetic, Thermal and Antibacterial Approach. Sulekh Chandra, **Nidhi Gupta**, Rachna Gupta and Sukhwant Singh Bawa, Transition Metal Chemistry. (2006), 31(5), 696 (Impact factor -1.223).

2. Magnetic, electronic and electrochemical studies of mono and binuclear Cu (II) complexes using novel macrocyclic ligands. **Nidhi Gupta**, Rachna Gupta, Sulekh Chandra, S.S. Bawa, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy (2005), 61(6), 1175. (Impact factor-1.566).

3. EPR, UV–vis, magnetic, spectral studies and electrochemical behavior of mononuclear transition metal complexes derived from novel hexa-aza-macrotricyclic ligand. Sulekh Chandra, **Nidhi Gupta**, Rachna Gupta, Sukhwant Singh Bawa *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* (2005), 62, 552. (Impact factor-1.566).
4. Novel copper (II) homobinuclear macrocyclic complexes: Cyclic voltammetry, biological properties and spectral studies. Sulekh Chandra, **Nidhi Gupta**, Rachna Gupta, *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* (2006), 63, 587 (Impact factor -1.566).
5. X-ray Powder Diffraction and spectral studies of Transition Metal Complexes using Novel Tetra dentate Macrocyclic Ligand. Sulekh Chandra, Rachna Gupta, **Nidhi Gupta** and S.S.Bawa, *Synthesis and Reactivity in Inorganic, Metal-Organic and Nano-Metal Chemistry*, (2005), 35, 683.(Impact factor- 0.699).
6. Synthesis and EPR Spectral studies of mono and binuclear cobalt (II) and Nickel (II) complexes with new 20-membered dithiatetraazamacrocyclic [N4S2] ligand. **Nidhi Gupta**, Lokesh Gupta and Sulekh Chandra. *Synthesis and Reactivity in Inorganic, Metal-Organic and Nano -Metal Chemistry*. (2004), 34(5), 919 (Impact factor-0.699).
7. Mononuclear complexes constructed by first series transition metal and 2, 6 di substituted pyridine Glutaramide ligand; Structure, electrochemical and biological properties. Rachna Gupta and **Nidhi Gupta**. *Asian Journal of research in chemistry*. (2013), 6, 11.
8. Designing of some novel homobinuclear macrocyclic Ni complexes: Synthesis, Characterization and pharmacological studies. **Nidhi Gupta** and Rachna Gupta. *Life sciences Leaflet*. (2014), 2, 42.
9. Synthesis of macrocyclic complexes and their spectroscopic and thermal investigation. **Nidhi Gupta**. *International Journal of scientific research*. (2015), 4(10) 23-25.
10. Synthesis and characterization of Macrocyclic Ligands and their Ni (II), Co (II) Complexes. **Nidhi Gupta**. *International J. of Engg. Science and Technology*. (July 2017).
11. Electronic, Magnetic and biological properties of mono and homobinuclear Co (II) Complexes. **Nidhi Gupta**. *International J. of Research in Engg. and Applied Sciences*. (June 2017), 7, 288-293.
12. Synthesis and spectroscopic studies of Trivalent 3d metals using Macrocyclic Ligands. **Nidhi Gupta**. *International J. of Engg. Science and Technology*. (July 2017).
13. Synthesis and EPR Spectral studies of Homobinuclear Cobalt (II) and Nickel (II) Complexes with New 20-membered Dithiatetraazamacrocyclic [N4S2] Ligand. **Nidhi Gupta**. *International J. of Innovative Research and Advanced Studies*. (July 2017).
14. X-Ray Powder Diffraction of Transition Metal Complexes with Macrocyclic Ligand. **Nidhi Gupta**. *International J. of Innovative Research and Advanced Studies*. (2017), 4(6).
15. Spectroscopic methods (IR, EPR and Electronic) for characterization of Homobinuclear 3d Complexes. **Nidhi Gupta**. *Asian J. of Research in Chemistry*, (2017), 10(4), 520-522.

16. Antimicrobial and spectroscopic characterization of two new pyridine based 16-membered N hexadentate ligands their Cu (II) metal Complexes. **Nidhi Gupta**. Bulletin of pure and Applied Sciences, (2017), 36(1), 9-15.

17. A review on the use of carbon matrix incorporated with macrocyclic metal complexes as counter electrodes for platinum free dye sensitized solar cells. Kaur, K., Patyal, M., & **Gupta, N.** (2021). *Journal of Coordination Chemistry*, 74(4-6), 543-562.

18. Characterization of reduced graphene oxide/macrocyclic Fe (II) complex nanocomposite as the counter electrode in Pt-free dye-sensitized solar cells. Kaur, K., Patyal, M., & **Gupta, N.** (2021). *Journal of Coordination Chemistry*, 74(14), 2427-2441.

19. Nanoscale synthesis, structural elucidation, DFT, and biological activity of amide appended transition metal (II) macrocyclic complexes in drug delivery system. Patyal, M., Kaur, K., Sharma, P., **Gupta, N.**, Malik, A. K., & Paul, K. (2022) *Journal of Coordination Chemistry*, 1-15.

20. A Comparative Study of Macrocyclic Mn(II) Nanocomplex Synthesized Using Sonication-Assisted and Conventional Methods for Biomedical Applications, Patyal, M, **Gupta, N**, Malik, A., August 2022 Asian Journal of Chemistry 34(9) DOI: 10.14233/ajchem.2022.23975

21. Kaur, K., Patyal, M., **Gupta, N.**, Kumar, A., & Khanuja, M. (2023). Graphene/macrocylic Yb nanocomposite as counter electrode in dye sensitized solar cell. *Optical Materials*, 139, 113831.

22. Patyal, M., Kaur, K., **Gupta, N.**, Kaur, R., & Malik, A. K. (2023). Optical and Antimicrobial Activity of Nanostructured Mn (II) and Cu (II) Macrocyclic Complexes Derived from Aspartic Acid. *Protection of Metals and Physical Chemistry of Surfaces*, 1-10.

23. Patyal, M., Kaur, K., **Gupta, N.**, & Malik, A. K. (2023). Innovative Lanthanide Complexes: Shaping the future of cancer/tumor Chemotherapy. *Journal of Trace Elements in Medicine and Biology*, 127277.

24. Patyal, M., Verma, D., **Gupta, N.**, & Malik, A. K. (2023). Development of a novel green catalyzed nanostructured Cu (II) macrocyclic complex-based disposable electrochemical sensor for sensitive detection of bisphenol A in environmental samples. *Environmental Pollution*, 122420.

Books: 1 Book Published

PAPER PRESENTED IN INTERNATIONAL CONFERENCE:

1. One Pot-templete synthesis, electronic, magnetic and biological properties of mono and homobinuclear Co (II) and Cu (II) complexes". Oct 2004 Delhi University.
2. Template synthesis and characterization of macrocyclic complexes using diamines.(2011) Feb 11-12 Prof. Ram Chand Phul International conference on emerging trends in chemistry. Dept of chemistry and advanced studies in chemistry. Punjab University Chandigarh.
3. Synthesis ,spectral and antibacterial studies of Mn(II),tetraaza macrocyclic complexes.2014 sept 19-20,HETIS-2014,Punjab University Chandigarh

4. Synthesis and Spectroscopic studies of transition metal complexes with macroscopic Ligands. ICRAET -2016, feb23 -24, Sri Guru Granth Sahib World University Fatehgarh sahib.

NATIONAL SEMINAR / CONFERENCES ATTENDED

1. X-ray diffraction, spectral and electrochemical studies of cobalt II macrocyclic complexes (oral)(2009). National Symposium on Emerging Trends in Chemical Analysis & Synthesis (ETCAS-09) held at SLIET, Longowal on March 12-13, PUNJAB
2. Synthesis, characterization, spectroscopic and electrochemical studies of two novel tetraaza macrocyclic ligated octahedral mononuclear Co (II) complexes. (Poster) 2009. National Symposium on Green Chemistry: Applications in Science & Engineering at Thapar University, Patiala on February 5-6
3. 2009 (Jan., 21-22): National Seminar on Recent Trends in Chemistry, Department of Chemistry, Punjabi University, Patiala
4. Synthesis and characterization of mononuclear transitional metal complexes using noval tetraaza macrocyclic ligands (oral) .2010 2nd National conference on recent advances in chemical and environmental sciences RACES-2010 Jan 22-23, MM Modi College Patiala.
5. Magnetic, spectroscopic and electrochemical studies of cobalt II macrocyclic complexes (poster) 2010. Feb 15 -16 .National symposium on emerging trends in chemistry (NSTEC-2010) Dept of Chemistry, Punjabi University Patiala.
6. Macrocyclic complexes of Cu and their antibacterial properties. RACES-2013 NOV 13-14, MM Modi College Patiala.
7. Template synthesis, spectral and characterization of macrocyclic complexes.2014, NFCS-01 Nov15, Dept. of Chemistry .Khalsa college Patiala.
8. Synthesis, characterization and electrochemical properties of macrocyclic ligand and their transitional metal complexes.2015, SACOS-Feb19-20.Dept of chemistry Punjabi University, Patiala.
9. Synthesis of Macrocyclic Complexes and their Spectroscopic and thermal investigation. NCASH-2015 Oct 10. National conference on Recent Innovations in Applied Sciences and Humanities, Rawal Institute of Engineering and Technology, Faridabad.
10. National workshop on Green Chemistry at SRM University, Delhi NCR Campus, Department of chemistry, Ghaziabad 15 -17 oct, 2015.
11. Template synthesis and spectroscopic studies of new class of macrocyclic complexes of bivalent manganese. 2016, New paradigm in chemical sciences: Synthetic and analytical perspectives. 4-5 Feb. Dept. of chemistry, Punjabi University, Patiala.
12. Transition Metal Complexes: Synthesis and Characterisation.RACES-2016 feb19 -20, Multani Mal Modi College, Patiala.
13. Spectroscopic Methods for characterization of Homobinuclear Copper(II) Complexes , National conference on Role of Science and Technology Towards Make in India YMCA University of Science and Technology, Faridabad march 5 -7, 2016.
14. Synthesis and Characterisation of macrocyclic complexes. NCETTS- 2016 March25 -26, Aggarwal College Ballabgarh, Faridabad (Haryana), India.
15. Full bright-Nehru Fellowship Opportunities for Research and Professional Development in USA on

5th April, 2016 organized by Research and Skill Development Centre, Punjabi University, Patiala.

16. Synthesis and Spectral Studies of Transition Metal Complexes, NSETB- 2016 Nov- 12, M.M.Modi College, Patiala.

17. Use of Scientific and Technical Terminology in Science. Organized by Commission for Scientific and Technical Terminology at G.G.D.S.D College Palwal. Sep 23- 24, 2016.

18. Tetraaza Macrocyclic Complexes of Monovalent Chromium as Antifungal Agents. 2017, New paradigm in chemical sciences: Synthetic and analytical perspectives. 9-10 Feb. Dept. of chemistry, Punjabi University, Patiala.

19. One week short term course "Repair and Maintenance of Electronic measuring Instruments", organized by NITTTR Chandigarh from 9th- 13th Jan 2017 conducted by Deptt. Of Electronic, Punjabi University, Patiala.

20. Macrocyclic Complexes of monovalent Manganese as antifungal Agents in the 10th National conference Chemical and Environmental Sciences: Innovations and Advances-2018 organized by Department of Chemistry, Punjabi University, Patiala on Feb 15-16, 2018.

21. Chaired a technical session in 10th National conference on Chemical and Environmental Sciences: Innovations and Advances on Feb-15-16, 2018. Deptt. Of chemistry, Punjabi university, Patiala.

22. Participated in one day workshop on "New Age Teaching: Teachers Need to Unlearn" held at senate Hall, Punjabi University, Patiala on 22nd Feb, 2018.

23. Synthesis and characterization of macrocyclic complexes: IR, UV, Electronic studies, National seminar on Science and Technology for sustainable future (NSD-2018) organized by University School of Sciences, Rayat-Bahra University, Mohali(Punjab) on 27th Feb 2018.

24. Synthesis and spectroscopic studies of Macrocyclic complexes using 4f Metals in National conference on Sustainability of new and renewable energy-A present scenario(SUNREAPS-II) on March 15-16th, 2018 organized by Department of chemistry (UIS), Chandigarh University, Mohali, Punjab.

25. Presented a paper in 11th National Conference on Recent Trends in Chemical and Environmental Sciences (RTCES-2019), Dept. of Chemistry, Punjabi University, Patiala, Feb-7-8, 2019.

26. Presented a paper in 10th National conference on Recent Advances in Chemical and Environmental Sciences (RACES, 2019) Multani Mal Modi College, Patiala, April 11-12, 2019.