

PROF. R. K. SHARMA

Address: Department of Chemistry, University of Delhi, Delhi-110007

Email: rksharmagreenchem@hotmail.com

Phone No: 91-11-27666250 (tel/fax) **Mobile No:** 9958313101

Web-Page: <http://greenchem.du.ac.in>



Education Qualifications

- **Ph.D.**, Chemistry Department, University of Delhi, Delhi, India, **1986**
- **M.Phil.**, Chemistry Department, University of Delhi, Delhi, India, **1982**

Carrier Profile

Organization	Designation	Duration	Role
Kumamoto University Japan & Institute of Medical Science University of Tokyo Japan	Japan Society for Promotion of Science (JSPS) Post-Doctoral Fellow	1998 2002	Research
University of Delhi	Reader	Oct 2004-Oct 2005	Research and Teaching
University of Delhi	Professor	26 th Oct 2005-contd.	Research and Teaching

Administrative Assignments

- Provost GWYER HALL, University of Delhi
- Convener Inorganic Section
- Secretary Staff Council
- Acted as a Member of various committees of the Department e.g. Bill Committee, Purchase Committee etc.

Areas of Interest / Specialization

- Green Chemistry
- Development of Green Analytical Methods
- Development of functionalized silica gel for their applications as scavengers, sensors and catalysts.
- Chemical Speciation and Molecular Modeling Studies for Designing of novel metal-chelating inhibitors of transcription factor NF- κ B-DNA binding.
- Clean Oxidation Process.
- Designing and Synthesis of Magnetite (Fe_3O_4) Silica Based Organic-Inorganic Hybrid Nanocatalysts.

Subjects Taught

More than twenty five years teaching experience of Post-graduate Classes

Courses taught:

- Bio-inorganic Chemistry
- Complexation in Analytical Chemistry
- Group Theory
- Metal ion Catalyzed Organic reactions
- Organometallic Chemistry
- d- & f- Block Metal Ions

Research Guidance

1. Supervision of awarded Doctoral Thesis - 21 (Nineteen)

- **Sherly Joseph, 1998**, Investigation on the Chelation Behaviour of anti-AIDS Chelators, **University of Delhi.**
- **Sachin Mittal, 2000**, Designing, Synthesis and Use of Chelating Resins for Separation and Preconcentration of Trace Metal Ions and their Uses in the Estimation of Metal Ions in Various Samples, **University of Delhi**
- **Aparna Rathi, 2001**, Studies on Advanced Oxidation Process for Photo degradation of Azo Dyes, **University of Delhi.**
- **Shallu Sachdeva, 2002**, Metal Ions-7,8-Dihydroxy-4-methyl Coumarin Antioxidant Interactions: Studies based on Chemical Speciation, Stability Constants and Molecular Modelling, **University of Delhi.**
- **S. Mary Celin Sandana, 2003**, Studies on Photodegradation of Nitro-Organic Explosives in aqueous phase, **University of Delhi.**
- **Ashu Goel, 2004**, Designing and Synthesis of Functionalized Polymers for Preconcentration and Determination of Trace Metal Ions: A Green Chemistry Approach, **University of Delhi.**
- **Shilpa Chopra, 2005**, Studies on the Interaction of Metal Ions with Potential NF- κ B-DNA Binding Inhibitors, **University of Delhi.**
- **Rajeev Goel, 2006**, Studies on Arsenic Remediation and Development of Arsenic Removal Kit Utilizing Various Adsorbents, **University of Delhi.**

- **Hament K. Rajor, 2007**, Chemical Speciation, Molecular Modeling and Antioxidant Activity Studies on Polyhydroxyphenols and their Metal Complexes, **University of Delhi.**
- **Shuchi Dhingra, 2009**, Designing and Synthesis of Functionalized Silica Gels and their Applications as Metal Scavengers, Sensors and Catalysts: A Green Chemistry Approach, **University of Delhi.**
- **Parul Pant, 2010**, Synthesis, Characterization and Applications of Functionalized Amberlite XAD-16 in Metal Ion Extraction and Catalysis, **University of Delhi.**
- **Chetna Sharma, 2011**, Synthesis, Characterization and Applications of silica immobilized Metal Complexes as Sustainable Heterogeneous Catalysts for Oxidative Bromination, Esterification and Condensation Reactions, **University of Delhi.**
- **Deepti Rawat, 2012**, Synthesis, Characterization and Applications of Silica Supported Metal Catalysts for Transesterification, Acetylation and Multicomponent Reactions, **University of Delhi.**
- **Amit Pandey, 2013**, Synthesis, Characterization and Applications of Silica Based Organic-Inorganic Hybrid Materials as Chelating Resins for Metal Ion Extraction and Catalysts for Various Organic Transformations, **University of Delhi.**
- **Shikha Gulati, 2013**, Synthesis, Characterization and Investigation of Catalytic activity of Metallophthalocyanines anchored on Silica gel for various Organic Transformations, **University of Delhi.**
- **Garima Gaba, 2014**, Studies on the interaction of metal ions with curcumin and its analogues: NF- κ B-DNA binding inhibitors, **University of Delhi.**
- **Anil Kumar Kalotra, 2015**, Synthesis, Characterization and Applications of Functionalized Silica Gel as Efficient Sorbent for the Selective Extraction and Determination of Cr(III), Cu(II), Ni(II) and Mo(VI) Ions, **University of Delhi.**
- **Aditi Puri, 2015**, Synthesis, Characterization and Applications of Functionalized Silica for Selective and Cyclic Recovery of Zn(II), Cu(II), Cd(II) and Pb(II), **University of Delhi.**
- **Yukti Monga, 2015**, Synthesis and characterization of silica-magnetite based organic-inorganic hybrid nanocatalysts for various organic transformations, **University of Delhi.**
- **Shivani Sharma, 2016**, Design, Synthesis and Application of Silica Nanospheres based Organic-Inorganic Hybrid Materials as Sensor for Copper ions and Catalysts for Oxidative Amination and Coupling reactions, **University of Delhi.**

- **Manavi Yadav, 2016, Design, Synthesis** and Application of Nano Magnetic Silica supported Transition Metal Catalysts for Cross-Coupling and Oxidation Reactions, **University of Delhi.**

2. Supervision of Doctoral Thesis, under progress - 8 (Eight)

3. Supervision of awarded M. Phil dissertations - 15 (Fifteen)

- ❖ **Sherly Joseph, 1994,** Metal-Tetracycline and Metal-Nalidixic Acid Interaction: Formation Constant, Chemical Speciation and Molecular Modelling Studies.
- ❖ **Parul, 1999,** Solid Phase Extraction and Estimation of Cadmium Using Glycine Immobilized Cellulose Chelating Resin.
- ❖ **Deepti Goel, 1999,** Metal-Cephalothin Interaction: Formation Constant, Lipophilicity Measurement, Chemical Speciation and Molecular Modelling Studies.
- ❖ **Reena Shrestha, 1999,** Metal-Pyridylcarboxypropanamide and Metal-Pyridylcarboxybenzamide Interactions: Stability Constant, Chemical Speciation and Molecular Modelling Studies.
- ❖ **Shilpa Chopra, 2000,** Chemical Speciation and Molecular Modeling Studies on Interaction of Metal Ions with a Quinolone Drug Analogue.
- ❖ **Hament K. Rajor, 2001,** Formation Constants, Chemical Speciation and Molecular Modeling Studies on Complexation Behaviour of Gallic Acid with Metal Ions present in Biological System.
- ❖ **Satyakam Patnaik, 2002,** Interaction of Metal Ions with Ciprofloxacin: Studies Based on Chemical Speciation and Molecular Modeling.
- ❖ **Chandan K. Singh, 2003,** Chemical Speciation and Molecular Modeling Studies on Complexation Behaviour of 5,7-Dihydroxy-4-Methyl Coumarin with Metal Ions Present in Biological System.
- ❖ **C. Chelladurai, 2005,** Synthesis, Spectroscopic and Molecular Modelling Studies on Ln(III)-Chrysin Complex.
- ❖ **Vineet Dua, 2006,** Designing and Synthesis of Aurin Tricarboxylic Acid Immobilized Silica Gel for Selective Determination of Al(III).

- ❖ **Deepti Rawat, 2006**, Synthesis and Characterization of Surface Modified Silica Supported Zn(II)Schiff Base Complex for use as Catalyst in Transesterification Reaction.
- ❖ **A.D. Tiwari, 2007**, Studies on Inhibition Mechanism of transcription factor NF- κ B-DNA binding by Pyrogallol red on the basis of their interaction with metal ions.
- ❖ **Gauri Ahuja, 2008**, Solventless Synthesis of Porphyrins and One Pot Synthesis of Nickel Porphyrin.
- ❖ **Kanika Sharma, 2009**, Solventless One-Pot Synthesis of Cobalt and Copper Carboxamide Phthalocyanine Complexes.
- ❖ **Seema Gautam, 2010**, Synthesis and Application of 2,2'-Dipyridyl Ketone (DPK) Immobilized Silica Gel for Analysis of Copper (II) Metal Ion.

Publication Profile

1. Books/Monographs (Authored/Edited)

- R. K. Sharma and R. Bandichhor, *Hazardous Reagent Substitution: A Pharmaceutical Perspective*, Royal Society of Chemistry, 2017, ISBN- 978-1-78262-050-1.
- Shivani Sharma, Sriparna Dutta and R. K. Sharma, Chapter 2, Recyclability of Reagents, In *Hazardous Reagent Substitution*, 2017, 18-52, <http://dx.doi.org/10.1039/9781782623847-00018>. Edited by: Rakesh Kumar Sharma, Rakeshwar Bandichhor.
- Manavi Yadav, Sriparna Dutta and R. K. Sharma, Chapter 8, New Directions from Academia, In *Hazardous Reagent Substitution*, 2017, 130-167, <http://dx.doi.org/10.1039/9781782623847-00130>. Edited by: Rakesh Kumar Sharma, Rakeshwar Bandichhor.
- R. K. Sharma, Manavi Yadav and Manoj B. Gawande, Chapter 1, Silica-Coated Magnetic Nano-Particles: Application in Catalysis, 2016, pp 1-38, Ferrites and Ferrates: Chemistry and Applications in Sustainable Energy and Environmental Remediation, Edited By: Virender K. Sharma, Ruey-an Doong, Hyunook Kim, Rajender S. Varma, Dionysios D. Dionysiou.
- R. K. Sharma, Manavi Yadav and Radhika Gupta, Chapter 5, Water Quality and Sustainability in India: Challenges and Opportunities, 2016, pp 183-206, Chemistry and Water, Edited By: Satinder Ahuja.
- R.K. Sharma, Shikha Gulati and Aditi Puri, Chapter 3, Green Chemistry Solutions to Water Pollution, 2014, pp 57-75, Elsevier Publications, Water Reclamation and Sustainability, Edited By: Satinder Ahuja.

- **R.K. Sharma and Shikha Gulati, Chapter 3**, Water Quality Issues and Solutions in India, vol. 1, 2014, pp 21-39, Elsevier Publications, Comprehensive Water Quality and Purification, Edited By: Satinder Ahuja.
- **R.K. Sharma, Garima Gaba, Anil Kumar and Aditi Puri, Chapter 6**, Functionalized silica gel as green material for metal remediation, 2013, pp 105-134, RSC Publications, Green Materials for Sustainable Water Remediation and Treatment, Edited By: James H Clark.
- **R.K. Sharma, Alok Adholeya, Manab Das and Aditi Puri, Chapter 2**, Green materials for sustainable remediation of metals in water, 2013, pp 11-29, RSC Publications, Green Materials for Sustainable Water Remediation and Treatment, Edited By: James H Clark.
- **R.K. Sharma, I.T. Sidhwani and M.K. Chaudhuri**, 2012, Green Chemistry Experiment: A monograph I.K. International Publishing House Pvt. Ltd. New Delhi. (ISBN 978-93-81141-55-7).
- **R.K. Sharma, A. Adholeya, A. Puri and M. Das**, Biomass Conversion: The Interface of Biotechnology, Chemistry and Materials Science, 2012, **Chapter 14**, Bioextraction: The Interface of Biotechnology and Green Chemistry, pp 435-456. Springer-Verlag, Heidelberg New York Dordrecht London.
- **R.K. Sharma and S. Dhingra**, 2011, Functionalized silica gel as metal scavenger, sensor and catalyst LAP Lambert academic, publishing GmbH & Co, ISBN 978-3-8443-1991-0.
- Prepared a monograph on Green Chemistry Experiments for undergraduate and postgraduate courses as a member of DST Green Chemistry monograph committee constituted by DST Green Chemistry Task Force.
<http://dst.gov.in/green-chem.pdf>
- **M.K. Chaudhuri, R.K. Sharma, and A. Sharma**, 2006, Edited collection of Green Chemistry articles written by World leaders in Green Chemistry from US and India in the form of a book as Proceedings of the Indo-US S & T Forum workshop on Green Chemistry published by NISCAIR (CSIR) and also written an article on Phyto-extraction of Heavy metals.
www.niscair.res.in/sciencecommunication/ScholarlyBooks/scholarlybooks.htm
- **R.K. Sharma**, 2005, “Photo-degradation of organic pollutants” in the book “Trends in Water Pollution Research” published by Nova Science Publishers, Inc. NY USA (2005).
http://novapublishers.com/catalog/product_info.php?products_id=1925
- Written a Bio-inorganic Chemistry E-book Module for National Science Digital Library (NSDL), a X Five Year Plan Network Project of the CSIR with the active collaboration of UGC, MHRD.
<http://nsdl.niscair.res.in/>

2. Complete list of Research papers published in Refereed/Peer Reviewed Journals

.....(Year 2018).....

1. **R.K. Sharma**, A. Sharma, S. Sharma and S. Dutta, Unprecedented Ester–Amide Exchange Reaction Using Highly Versatile Two-Dimensional Graphene Oxide Supported Base Metal Nanocatalyst, **Industrial & Engineering Chemistry Research**, 2018, 57(10), 3617-3627.
Impact Factor: 2.843
2. **R.K. Sharma**, R. Gaur, M. Yadav, A. Goswami, R. Zbořil and M. B. Gawande, An efficient copper-based magnetic nanocatalyst for the fixation of carbon dioxide at atmospheric pressure, **Scientific reports**, 2018, 8(1), 1901.
Impact Factor: 4.259
3. R. Gaur, M. Yadav, R. Gupta, G. Arora, P. Rana and **R.K. Sharma**, Aerobic Oxidation of Thiols to Disulfides by Silver-Based Magnetic Catalyst, **Chemistry Select**, 2018, 3(9), 2502-2508.

.....(Year 2017).....

4. G. Arora, M. Yadav, R. Gaur, R. Gupta and **R.K. Sharma**, A Novel and Template-Free Synthesis of Multifunctional Double-Shelled Fe₃O₄-C Nanoreactor as an Ideal Support for Confined Catalytic Reactions, **Chemistry Select**, 2017, 2, 10871-10879.
5. R. Gupta, M. Yadav, R. Gaur, G. Arora and **R.K. Sharma**, Straightforward one-pot synthesis of bioactive N-aryl oxazolidin- 2-ones via highly efficient Fe₃O₄@SiO₂-supported acetate-based butylimidazolium ionic liquid nanocatalyst under metal- and solvent-free conditions, **Green Chem.**, 2017, 19(16), 3801-3812.
Impact Factor: 9.125
6. S. Dutta, S. Sharma, A. Sharma and **R.K. Sharma**, Fabrication of Core–Shell-Structured Organic–Inorganic Hybrid Nanocatalyst for the Expedient Synthesis of Polysubstituted Oxazoles via Tandem Oxidative Cyclization Pathway, **ACS Omega**, 2, 2017, 2778–2791.

.....(Year 2016).....

7. **R.K. Sharma**, M. Yadav, R. Gaur, R. Gupta, A. Adholeya and M. B. Gawande, Synthesis of Iron Oxide Palladium Nanoparticles and Their Catalytic Applications for Direct Coupling of Acyl Chlorides with Alkynes, **ChemPlusChem**, 81, 2016, 1312-1319.
Impact factor: 2.797

8. **R.K. Sharma**, S. Dutta, S. Sharma, R. Zboril, R. S. Varma and M. B. Gawande, Fe₃O₄ (iron oxide)-supported nanocatalysts: synthesis, characterization and applications in coupling reactions, **Green Chemistry**, 18, 2016, 3184-3209.
Impact factor: 9.125
9. **R.K. Sharma**, M. Mishra, S. Sharma and S. Dutta, Zinc(II) complex immobilized on amine functionalized silica gel: a novel, highly efficient and recyclable catalyst for multicomponent click synthesis of 1,4-disubstituted 1,2,3-triazoles, **Journal of Coordination Chemistry**, 69, 2016, 1152–1165.
Impact factor: 1.795
10. **R.K. Sharma**, M. Yadav, Y. Monga, R. Gaur, A. Adholeya, R. Zboril, R. S. Varma and M. B. Gawande, Silica-Based Magnetic Manganese Nanocatalyst-Applications in the Oxidation of Organic Halides and Alcohols, **ACS Sustainable Chemical and Engineering**, 4 (3), 2016, 1123-1130.
Impact factor: 5.951
11. **R.K. Sharma**, S. Dutta and S. Sharma, Nickel(II) complex covalently anchored on core shell structured SiO₂@Fe₃O₄ nanoparticles: a robust and magnetically retrievable catalyst for direct one-pot reductive amination of ketones, **New Journal of Chemistry**, 40, 2016, 2089-2101.
Impact factor: 3.268
12. **R.K. Sharma**, S. Sharma, G. Gaba and S. Dutta, Coordinated copper(II) supported on silica nanospheres applied to the synthesis of α -ketoamides via oxidative amidation of methyl ketones, **Journal of Material Science**, 51, 2016, 2121-2133.
Impact factor: 2.371
.....(Year 2015).....
13. **R.K. Sharma**, R. Gaur, M. Yadav, A. K. Rathi, J. Pechousek, M. Petr, R. Zboril and M. B. Gawande, Maghemite-Copper Nanocomposites: Applications for Ligand-Free Cross-Coupling (C–O, C–S, and C–N) Reactions, **ChemCatChem**, 7, 2015, 3495-3502.
Impact factor: 4.803
14. **R.K. Sharma**, M. Mishra and S. Sharma, A highly efficient and recyclable silica supported organic-inorganic hybrid copper catalyst: Preparation, characterization and catalytic application in oxidative homocoupling of terminal alkynes, **International Journal of Chemistry**, 4(1), 2015, 49-64.
Impact factor: 1.438
15. **R.K. Sharma**, S. Sharma, S. Dutta, R. Zboril and M.B. Gawande, Silica-nanosphere-based organic–inorganic hybrid nanomaterials: synthesis, functionalization and applications in catalysis, **Green Chemistry**, 17, 2015, 3207-3230.

Impact factor: 9.125

16. **R.K. Sharma**, H. Kumar and A. Kumar, A highly efficient and magnetically retrievable functionalized nano-adsorbent for ultrasonication assisted rapid and selective extraction of Pd²⁺ ions from water samples, **RSC Advances**, 5, 2015, 43371-43380.

Impact factor: 3.108

17. **R.K. Sharma**, M. Yadav, R. Gaur, Y. Monga and A. Adholeya, Magnetically retrievable silica-based nickel nanocatalyst for Suzuki–Miyaura cross-coupling reaction, **Catalysis Science and Technology**, 5, 2015, 2728-2740

Impact factor: 5.773

18. M.B. Gawande, Y. Monga, R. Zaboril and **R.K. Sharma**, Silica-decorated Magnetic Nanocomposites for Catalytic Applications, **Coordination Chemistry Reviews**, 288, 2015, 118-143.

Impact factor: 13.324

19. **R.K. Sharma**, S. Dutta and S. Sharma, Quinoline-2-carboimine copper complex immobilized on amine functionalized silica coated magnetite nanoparticles: a novel and magnetically retrievable catalyst for the synthesis of carbamates via C–H activation of formamides, **Dalton Transactions**, 44, 2015, 1303-1316.

Impact factor: 4.029

.....(Year 2014).....

20. **R.K. Sharma**, S. Sharma and G. Gaba, Silica nanospheres supported diazafluorene iron complex: an efficient and versatile nanocatalyst for the synthesis of propargylamines from terminal alkynes, dihalomethane and amines, **RSC Advances**, 4, 2014, 49198-49211.

Impact factor: 3.108

21. **R.K. Sharma**, A. Puri, Y. Monga and A. Adholeya, Acetoacetanilide-functionalized Fe₃O₄ nanoparticles for selective and cyclic removal of Pb²⁺ ions from different charged wastewaters, **Journal of Materials Chemistry A**, 2, 2014, 12888-12898

Impact factor: 8.867

22. **R.K. Sharma**, Y. Monga and A. Puri, Magnetically separable silica@Fe₃O₄ core–shell supported nano-structured copper(II) composites as a versatile catalyst for the reduction of nitroarenes in aqueous medium at room temperature, **Journal of Molecular Catalysis A: Chemical**, 393, 2014, 84-95

Impact factor: 4.211

23. **R.K. Sharma**, A. Puri, Y. Monga and A. Adholeya, Newly modified silica-based magnetically driven nanoadsorbent: A sustainable and versatile platform for efficient and selective recovery of cadmium from water and fly-ash ameliorated soil, **Separation and Purification Technology**, 127, 2014, 121-130.

Impact factor: 3.359

24. **R.K. Sharma**, A. Puri, A. Kumar, Y. Monga, G. Gaba and A. Adholeya, Diacetylmonoxime Functionalized Silica Gel: An Efficient and Recyclable Organic Inorganic Hybrid Material for Selective Removal of Copper from Fly Ash Ameliorated Soil Samples, **Separation Science and Technology**, 49, 2014, 709-720.

Impact factor: 1.106

25. **R.K. Sharma** and S. Sharma, Silica nanosphere-supported palladium(II) furfural complex as a highly efficient and recyclable catalyst for oxidative amination of aldehydes, **Dalton Transactions**, 43, 2014, 1292-1304.

Impact factor: 4.029

.....(Year 2013).....

26. **R.K. Sharma**, Y. Monga, A. Puri and G. Gaba, Magnetite (Fe₃O₄) Silica Based Organic-Inorganic Hybrid Copper(II) Nanocatalyst: A Platform For Aerobic N-alkylation of Amines, **Green Chemistry**, 15, 2013, 2800-2809

Impact factor: 9.125

27. **R.K. Sharma**, Y. Monga and A. Puri, Zirconium(IV)-modified silica@magnetic nanocomposites: Fabrication, characterization and application as efficient, selective and reusable nanocatalysts for Friedel–Crafts, Knoevenagel and Pechmann condensation reactions, **Catalysis Communications**, 2013, 35, 110-114.

Impact factor: 3.330

28. **R.K. Sharma**, A. Puri, A. Kumar and A. Adholeya, Chemically modified silica gel with 1-{4-[(2-hydroxy-benzylidene)amino]phenyl}ethanone: synthesis, characterization and application as an efficient and reusable solid phase extractant for selective removal of Zn(II) from mycorrhizal treated fly-ash samples, **Journal of Environmental Sciences**, 2013, 25 (6), 1252-1261.

Impact Factor: 2.937

29. **R.K. Sharma**, S. Sharma, S. Gulati and A. Pandey, Fabrication of Novel Nano-composite carbon paste sensor based on silica-nanospheres functionalized with isatin thiosemicarbazone for potentiometric monitoring of Cu²⁺ ions in real samples, **Analytical Methods**, 2013, 5, 1414-1426.

Impact Factor: 1.900

30. **R.K. Sharma** and Y. Monga, Silica encapsulated magnetic nanoparticles supported Zn(II) Nanocatalyst: a versatile integration of excellent reactivity and selectivity for the synthesis of azoxyarenes, combined with facile catalyst recovery and recyclability, **Applied Catalysis A: General**, 2013, 454, 1-10.

Impact Factor: 4.339

31. **R.K. Sharma**, S. Gulati and A. Pandey, Polyfluorinated-Zinc(II)phthalocyanine complex immobilized on silica: A novel, highly selective and recyclable inorganic-organic hybrid

catalyst for the synthesis of biologically important 1,5-Benzodiazepines, **Inorganica Chimica Acta**, 2013, 397, 21-31.

Impact Factor: 2.002

32. **R.K. Sharma**, M. Otsuka, G. Gaba and S. Mehta, Inhibitors of transcription factor nuclear factor-kappa beta (NF- κ B)-DNA binding, **RSC Advances**, 2013, 3, 1282-1296.

Impact factor: 3.108

.....(Year 2012).....

33. **R.K. Sharma**, S. Gulati and A. Pandey, Porous silica supported Co^{2+} -tetrachlorophthalocyanine ($\text{CoPcCl-APTES@SiO}_2$): A novel and recyclable organic-inorganic hybrid catalyst for eco-friendly oxidation of secondary alcohols, **Journal of Porous Materials**, 2012, 20, 937-949.

Impact Factor: 1.624

34. **R.K. Sharma**, C. Sharma and Perna. An efficient and one pot synthesis of polysubstituted imidazoles catalyzed by BiCl_3 , **Indian Journal of Chemistry**, 2012, 51B, 1489-1493.

Impact Factor: 0.494

35. **R.K. Sharma** and S. Gulati, Manganese phthalocyanine immobilized on silica gel: Efficient and recyclable catalyst for single-step oxidative esterification of aldehydes with alcohols, **Journal of Molecular Catalysis A: Chemical**, 2012, 363-364, 291-303.

Impact Factor: 4.211

36. **R.K. Sharma**, S. Gulati and S. Mehta, Preparation of Gold Nanoparticles Using Tea: A Green Chemistry Experiment, **Journal of Chemical Education**, 2012, 89, 1316-1318.

Impact Factor: 1.419

37. **R.K. Sharma**, A. Pandey and S. Gulati, Silica supported molybdenum complex: A novel reusable organic-inorganic hybrid catalyst for eco-friendly oxidation of sulfides and olefins, **Polyhedron**, 2012, 45, 86-93.

Impact Factor: 1.926

38. **R.K. Sharma**, A. Pandey, S. Gulati and A. Adholeya, Silica modified with 2,6-diacetylpyridine-monosalicyloylhydrazone: A novel and selective organic-inorganic sorbent for separation of molybdenum ions in a newly designed reactor, **Chemical Engineering Journal**, 2012, 210, 490-499.

Impact Factor: 6.216

39. **R.K. Sharma**, S. Gulati, A. Pandey and A. Adholeya, Novel, efficient and recyclable silica based organic-inorganic hybrid Nickel catalyst for degradation of dye pollutants in a newly designed chemical reactor, **Applied Catalysis B: Environmental**, 2012, 125, 247– 258.

Impact factor: 9.446

40. **R.K. Sharma**, A. Pandey, S. Gulati and A. Adholeya, An Optimized procedure for preconcentration, determination and on-line recovery of palladium using Highly Selective Diphenyldiketone-monothiosemicarbazone modified Silica gel, **Journal of Hazardous Materials**, 2012, 209-210, 285-292.

Impact factor: 6.065

41. **R.K. Sharma**, A. Pandey and S. Gulati, Silica-supported palladium complex: An efficient, highly selective and reusable organic–inorganic hybrid catalyst for the synthesis of E-stilbenes, **Applied Catalysis A: General**, 2012, 431-432, 33-41.

Impact factor: 4.339

42. **R.K. Sharma**, D. Rawat and G. Gaba, Inorganic–organic hybrid silica based tin(II) catalyst: Synthesis, characterization and application in one-pot three-component Mannich reaction, **Catalysis Communications**, 2012, 19, 31–36.

Impact factor: 3.330

43. **R.K. Sharma** and D. Rawat, Silica immobilized nickel complex: An efficient and reusable catalyst for microwave-assisted one-pot synthesis of dihydropyrimidinones, **Inorganic Chemistry Communications**, 2012, 17, 58-63.

Impact factor: 1.640

44. **R.K. Sharma**, S. Gulati and S. Sachdeva, One pot and Solvent-free Synthesis of 2,9,16,23-tetrachlorometal(II)phthalocyanines, **Green Chemistry Letters and Reviews**, 2012, 5, 83-87.

Impact factor 1.729

.....(Year 2011).....

45. **R.K. Sharma** and C. Sharma, Zirconium (IV)-modified silica gel: Preparation, characterization and catalytic activity in the synthesis of some biologically important molecules, **Catalysis Communications**, 2011, 12, 327–331

Impact factor: 3.699

46. **R.K. Sharma** and D. Rawat, An Efficient and Recyclable Silica Based Inorganic–Organic Hybrid Zinc Catalyst for Transesterification of β -Ketoesters, **Journal of Inorganic and Organometallic Polymers and Materials**, 2011, 21, 619-626.

Impact factor: 1.577

47. **R.K. Sharma**, C. Sharma and I.T. Sidhwani, Solventless and One-Pot Synthesis of Cu (II) Phthalocyanine Complex: A Green Chemistry Experiment, **Journal of Chemical Education**, 2011, 88(1), 85-87

Impact factor 1.419

48. **R.K. Sharma** and C. Sharma, Efficient Oxidative Methyl Esterification of Aldehydes by Silica-supported Manganese Complex: Clean and Recyclable Catalyst, **Journal of Macromolecular Science, Part A: Pure and Applied Chemistry**, 2011, 48, 155–163
Impact factor: 0.963
.....(Year 2010).....
49. **R.K. Sharma** and D. Rawat, Modified Silico-Tungstate: An Easy and Efficient Catalyst for the Acetylation of Amines Under Solvent-Free Condition, **Journal of Inorganic and Organometallic Polymers**, 2010, 20, 698–705
Impact factor: 1.577
50. **R.K. Sharma** and C. Sharma, Oxidative bromination reaction using Cu^{2+} -perfluorophthalocyanine-immobilized silica gel catalyst under mild reaction conditions, **Tetrahedron Letters**, 2010, 51, 4415-4418
Impact factor: 2.193
51. **R.K. Sharma** and C. Sharma, A highly efficient synthesis of oxindoles using a functionalized silica gel as support for Indium(III) acetylacetonate catalyst in an aqueous-acetonitrile medium, **Journal of Molecular Catalysis A: Chemical**, 2010, 332, 53-58
Impact factor: 4.211
.....(Year 2009).....
52. **R.K. Sharma** and P. Pant, Preconcentration and determination of trace metal ions from aqueous samples by newly developed Gallic Acid modified Amberlite XAD-16 Chelating Resin, **Journal of Hazardous Materials**, 2009, 163, 295-301
Impact factor: 6.065
53. **R.K. Sharma** and P. Pant, Solid Phase Extraction and determination of metal ions in aqueous samples using Quercetin modified Amberlite XAD-16 chelating Polymer as Metal Extractant, **International Journal of Environmental Analytical Chemistry**, 2009, 89(7), 503-514
Impact factor 1.208
54. **R.K. Sharma**, G. Ahuja and I.T. Sidhwani, A New One-Pot Solvent-free Synthesis of Nickel porphyrin Complex, **Green Chemistry Letters and Reviews**, 2009, 2(2), 101-105.
Impact factor 1.729
.....(Year 2008).....
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Conference Organization/ Presentations

Working for the popularization of Green Chemistry in India. Following are the workshops organized and lectures delivered for the incorporation of Green Chemistry Principles in the laboratories of Universities and industries:

Workshops/ Conferences organized

1. First National Symposium on Green Chemistry held on 11-13 January 1999 at Department of Chemistry, University of Delhi.
2. IUPAC International Symposium on Green Chemistry on 10-13 January 2001 at Department of Chemistry, University of Delhi.
3. INDO-US Workshop on Green Chemistry in November 2003 under INDO-US S & T Forum at Department of Chemistry, University of Delhi.
4. ACS sponsored Second INDO-US Workshop on Green Chemistry in January 2006
5. DST sponsored Green Chemistry Education Workshop in March 2007
6. Third Indo-US S & T Forum Workshop on Green Chemistry in January 2008
7. DST, University of Delhi and RSC (London) sponsored Workshop on Green Chemistry in Real World Practice in May 2009
8. Industrial Green Chemistry International Workshop at Mumbai in December 2009
9. RSC London Sponsored Training Workshop on Green Chemistry Education : Necessity of a Sustainable Future in November 2010
10. ACS-Gii Sponsored International Workshop on Sustainability and Water Quality in January 2011
11. UCOST (Govt. of Uttarakhand) Sponsored Workshop on Green Chemistry Education : Necessity of a Sustainable Future at HNB Garhwal University Srinagar Uttarakhand in March 2011
12. Royal Society of Chemistry London sponsored meeting of all the Indian local Sections (June 25, 2011) at University of Delhi.
13. RSC London and Vigyan Prasar (Govt of India) Sponsored Training Workshop on Green Chemistry: Chemistry for Tomorrow's World in December 26, 2011 at University of Delhi

14. [International Conference on Green Chemistry](#) (7-9 December **2011**) jointly organized with Central University of Rajasthan at Jaipur
15. [International Workshop on Chemistry for a Sustainable Future](#) (10-12 December **2012**) organized jointly with MNIT Jaipur and Jaipur University at Chokhi Dhani Resort Jaipur
16. [International Workshop on Introduction to Gaussian: Theory and Practice](#) organized by Green Chemistry Network Centre (17-21 December **2012**) at Delhi.
17. [International Workshop on Green Initiatives in Energy, Environment & Health](#) (2-3 December, **2013**) jointly organized with GCCE, TERI & GBU at Hotel Maidens, Delhi.
18. ACS-Gii sponsored [Second International Workshop on Sustainability and Water Quality \(IWSWQ\) Remediation of Pesticides and Metals Contamination](#) (15-18 January **2014**) jointly organized with TERI at Hotel Maidens, Delhi.
19. The Energy and Resources Institute (TERI) and Green Chemistry Network Centre (GCNC) jointly organized [the 5th Asia-Oceania Conference on Green & Sustainable Chemistry \(5th AOC-GSC\)](#) on January 15-17, **2015** at New Delhi, India
20. [RSC ChemCareers](#) jointly organized with Hindu College, University of Delhi and RSC North India Section at Hindu College, University of Delhi on 8th August **2015**. Professor R K Sharma chaired the inaugural session and delivered a talk.
21. [Second National workshop on “Innovative Lab Practices Through Green Chemistry”](#) was jointly organized by GCNC Kanpur CSJM University of Kanpur and Royal Society of Chemistry North India Section on 9th September **2015**.
22. [International Workshop on “Chemistry for Tomorrow’s World”](#) sponsored by Royal Society of Chemistry London (North India Section) was jointly organized by Green Chemistry Network Centre, University of Delhi, Manav Rachna University, Faridabad, Shiv Nadar University, Greater Noida on 2-3rd December **2015**.
23. [National Workshop on “Green Chemistry and Water Treatment”](#) sponsored by Royal Society of Chemistry London (North India Section) jointly organized by Hindu College, University of Delhi & Green Chemistry Network Centre, University of Delhi on 17th October, **2016**.
24. [ChemCareers Delhi 2016](#) organized by RSC London North India Section and Green Chemistry Network centre, University of Delhi on 24th September **2016**.
25. [“National conference and workshop on Green Chemistry: Teaching and Technology”](#) organized by Faculty of Science, Mohanlal Sukhadia University in association with Royal Society of Chemistry London North India Section on 20th October, **2016**.

26. “Yusuf Hamied Inspirational Chemistry Programme” organized by Gargi College and sponsored by Royal Society of Chemistry on 24th-25th October, **2016**.
27. “Indo-UK Scoping Meeting on Water Quality Research in India and UK” jointly organised by Department of Science and Technology (GOI), the UK Natural Environment Research Council (NERC) and Engineering and Physical Sciences Research Council (EPSRC) with support from RCUK India on 17th-18th November, **2016**.
28. One day workshop on “Recent Advances in Chemistry and Biology” organized by Royal Society of Chemistry North India Section, Department of Chemistry, Shiv Nadar University & Green Chemistry Network Centre, University of Delhi 15th December, **2016**.
29. “National conference on Environmental Sustainability in Wastewater Remediation: Current Status and Future Prospects” organized by Sri Venkateswara College and sponsored by Royal Society of Chemistry London North India Section on 20th January, **2017**.
30. “Indo-UK Scoping Workshop On Development of Rural Biorefineries in India: From Waste to Wealth” organized by Green Chemistry Centre of Excellence, University of York, Green Chemistry Network Centre, University of Delhi and The Energy and Resources Institute (TERI) and sponsored by BBSRC Grand Challenges Research Fund on 20th February, **2017**.

Delivered lectures & Participated:

1. Delivered lecture in **DST Green Chemistry Task Force Workshop** at IIT Guwahati (25-26 February **2006**)
2. **Train the trainer workshop on Green Chemistry** conducted by American Chemical Society’s Green Chemistry Institute held in June 30, **2006** at Washington DC USA.
3. Delivered lecture in **Green Chemistry Symposium** organized by Schools from Delhi and Gurgaon at DAV School Gurgaon (November **2006**).
4. A green chemistry approach for the removal of heavy metal ions from industrial waste land Presented in **10th Annual Green Chemistry & Engineering Conference** in Washington DC on 26-30th June **2006**
5. Delivered lecture in **DST Green Chemistry Task Force workshop** at NEERI, Nagpur on February 13-14, **2007**
 - a. .
6. Delivered lecture in **DST Green Chemistry Task Force Sponsored Workshop** at Cotton College Guwahati on April 1-4, **2007**
7. Application of Chelating Resins as Metal Scavengers: A Green Chemistry Approach Presented in **11th Annual Green Chemistry & Engineering Conference in Washington DC** on 26-29th June **2007**

8. Preparation of Blue and Green luminescent tris (8-hydroxyquinolato) Al (III) complexes- an undergraduate experiment. Presented in 11th Annual Green Chemistry & Engineering Conference in Washington DC on 26-29th June 2007
9. Train the trainer workshop on Green Chemistry conducted by American Chemical Society's Green Chemistry Institute held in June 29, 2007 at Washington DC USA.
10. Delivered lecture in DST Green Chemistry Task Force workshop at NIPER (Mohali), on September 3-4, 2007
11. Delivered lecture in National Conference on Greener Aspect of Electrochemistry held at Jiwaji University Gwalior on December 7-9, 2007
12. Delivered lecture in National Symposium on Emerging Trends in Advanced Chemistry held at Jaipur University on March 8-10, 2008
13. Delivered Keynote address in UGC Sponsored National Seminar on Green Chemistry Education for a Sustainable Future of Humanity held at ADP College Nagaon on March 8-10, 2008.
14. Delivered lecture in National Conference on Recent Advances in Chemical Sciences held at Bikaner University on October 3-5, 2008
15. Invited to deliver a presentation on "Green Chemistry Networking in India" in 12th Annual Green Chemistry & Engineering Conference in Washington DC on 24-26th June 2008
16. Invited to deliver a presentation on "Green Chemistry Education: Facilitating transition to Green Technologies and Processes in India" in 13th Annual Green Chemistry & Engineering Conference in University of Maryland MD USA on 22-26th June 2009
17. Delivered lecture in National Symposium on Green Chemistry: Applications in Science & Engineering at Thapar University Patiala (5-6 February 2009)
18. Delivered lecture in DST Green Chemistry Task Force sponsored Workshop on Green Chemistry at JNTU Hyderabad (14-15 February 2009)
19. Delivered lecture in National Symposium on Emerging Trends in Chemical Analysis & Synthesis at Sant Longowal Institute of Engineering & Technology, Sangrur (12-13 March 2009)

20. Delivered opening lecture in Green Chemistry Education Train the Trainer Workshop at 13th ACS Green Chemistry & Engineering Conference held on 22-26 June 2009 at University of Maryland USA
21. Delivered lectures in Workshops and conferences organized by Catalysis Society MS University Baroda and Reliance Research Centre Vadodara (September, 2009).
22. Delivered Keynote address in All India Seminar on Engineering Systems and Alternatives for Reduction of Greenhouse Gases organized by Institution of Engineers Guwahati (October, 2009)
23. Delivered lectures in Workshop on Nano-materials and Technology in Chemistry & Green Chemistry organized by Sikkim MIT (October, 2009).
24. Delivered lecture in NOESIS 2009, The Annual Science Association Festival of Sri Venkateswara College, University of Delhi (November, 2009)
25. Delivered lecture in DST Green Chemistry Task Force Sponsored Green Chemistry Workshop at Jaipur (December 2009).
26. Delivered lecture in National Workshop on Green Chemistry organized by ANDNNM College CSJM University Kanpur (December 2009)
27. Delivered lecture in International Conference on Green Technologies for Greener Environment organized by CCS University Meerut (January 2010)
28. Delivered lecture in National Conference on Green and Sustainable Chemistry organized by BITS Pilani (February 2010).
29. Delivered lecture in All India Seminar on New Strategies for Reducing Carbon Foot Prints And Its Impact on Global Warming organized by Rajasthan College of Engineering for Women Jaipur Rajasthan (August 2010)
30. Delivered lecture in 'International Conference on Environmental Challenges - A Global Concern' organized by Kanya Maha Vidyalaya, Jalandhar (Punjab) (October 2010)
31. Delivered lecture on Green Chemistry in Education and Research in '4th INDO-ITALIAN Seminar on Green Chemistry and Natural Products' organized by Department of Chemistry, University of Delhi and Embassy of Italy, New Delhi (November 2010)
32. Delivered two lectures in Refresher Course organized by UGC-Academic Staff College, Kumaun University, Nainital (December 2010)

33. Delivered Lecture on Green Chemistry Education: Necessity of a Sustainable Future in **UGC sponsored Orientation Programme (OR64)** for College and University teachers at CPDHE University of Delhi (December **2010**)
34. Delivered Keynote Address in **National Conference on Role of Green Chemistry for Risk Free Environment** organized by Department of Chemistry, Poornima Group of Institutions Jaipur, Rajasthan (December **2010**)
35. Delivered Keynote Address in **National Seminar on New Trends in Green Chemistry** organized by D.A-V. College, KANPUR (December **2010**)
36. Delivered lecture in the inaugural session of **National Conference On Green Chemistry: “An approach to meet the challenges of sustainability”** organized by Department of Chemistry, MMH College, Ghaziabad (January **2011**)
37. Delivered Lecture on Green Chemistry in Education and Research in **National Workshop on Renewable Energy & Environment** organized by Ramjas College, University of Delhi (January **2011**)
38. Delivered lecture on **Green Chemistry in Education & Research** at Miranda House College Delhi University (February **2011**)
39. Delivered lecture in the **inaugural session of the National Science Day 2011** organized by Vigyan Prasar (VP) DST in collaboration with National Institute for Open Schooling (NIOS) under the theme “Science & Technology - Influencing Lives of Youth” (February **2011**)
40. Delivered lecture on **Green Chemistry in Education and Research** at Sri Venkateswara College, Delhi University (March **2011**)
41. Delivered two lectures in DST Green Chemistry **Task Force Sponsored Workshop** at IIT Guwahati (March **2011**)
42. Delivered two lectures on Green Chemistry education & research and demonstrated Green Chemistry Experiments at **UCOST sponsored Green Chemistry Workshop** at HNB central University Garhwal (22-23 March **2011**)
43. Delivered Keynote Address in **National Conference on Environmental Conservation, Sustainable Resource Management and Strategies for Regional Development** with reference to Uttarakhand organized by Department of Chemistry, DBS Postgraduate College, Dehradun (May **2011**).
44. Delivered Lecture as Chief Guest on “Green Chemistry and Sustainable Development” in **National Seminar on “Emerging Trends in Green Chemistry” and 11th National Convention**

of Chemistry Teachers (NCCT-2011) organized by Association of Chemistry Teachers (TIFR Mumbai) (October 15-17, 2011)

45. Delivered lecture in national symposium on “Chemistry Innovations for Human Well Being” organized by Department of Chemistry, Himachal Pradesh University, Shimla for celebrating International Year of Chemistry-2011 on 21st and 22nd October, 2011
46. Delivered lecture in International Conference on Chemistry of Phytopotentials: Health, Energy and Environmental perspectives organized by Department of Chemistry, Faculty of Science, Dayalbagh Educational Institute, Agra on 4th-6th November, 2011
47. Delivered lecture on Green Chemistry in the Celebrations of International Year of Chemistry-2011 organized by Govt. Kamla Raja Girls Autonomous Postgraduate College, Gwalior (M.P.) on 5th November 2011
48. Delivered Keynote Address in UGC Sponsored National Seminar on Green Chemistry organized by Department of Chemistry, S.N. College Thiruvananthapuram, Kerala (15-16 December, 2011).
49. Delivered Inaugural lecture and conducted workshop on “Experiments on Green Chemistry” in Workshop on Recent Trends in Green Chemistry organized by Department of Chemistry, Dulat Ram College, University of Delhi (January 11-13, 2012)
50. Delivered lecture in the National Science Festival organized by St. Stephen's College, University of Delhi from, 20 January 2012 to, 22 January 2012.
51. Delivered lecture on Green Chemistry for Sustainability and Environmental in National Symposium On Global Trends in Research in Chemical Sciences” organized by Department of Chemistry, Pt. L.M.S. Govt. Autonomous College, Rishikesh (January 2-3, 2012)
52. Delivered lecture on Green chemistry for a sustainable future in International Symposium on Recent Advances in “Green Chemistry” and “Chromatography Sciences” organized by IOCL Faridabad and ISAS Delhi Chapter at Manav Rachna International University, Faridabad (12-14 January, 2012)
53. Delivered Inaugural lecture and conducted workshop on “Demonstration of Green Chemistry Experiments” in organized by Department of Chemistry, MMH College, Ghaziabad (February 19, 2012)
54. Delivered Keynote address in “National Conference on New Methods and Technologies for Water Conservation & Purification” organized by Poornima Institute of Engineering & Technology, Jaipur (March 2012)

55. Delivered Lecture in **International Conference on Global Trends in Pure and Applied Chemical Sciences**", organized by Asian Journal of Chemistry, on March 3-4, **2012** in Udaipur.
56. Delivered lecture and conducted a workshop on "Experiments on Green Chemistry" in **National Seminar on Recent Trends in Chemistry** organized by Department of Chemistry, Sri Venkateswara College, Delhi Univ. (March 20, **2012**)
57. Delivered Keynote address in "**National Seminar on "Carbon Emission Versus Go Green, Is There A Midway!"**" organized by Rajasthan Institute of Engineering & Technology Jaipur (March 18, **2012**)
58. Delivered lecture on "**Water Quality Issues in India due to Environmental Pollution**" in **ACS meeting on Sustainability and Water Reclamation** on 25th March **2012** at Hotel Hilton, San Diego, USA
59. Delivered Keynote address in "**National Conference on Sustainable Development and Role of Technologies NCSVRT-2012**" on 18th May, **2012** organized by Rajasthan College of Engineering for Women, Jaipur.
60. Presented "Initiatives taken by Green Chemistry Network Centre for promoting Green Chemistry Education and Research in India" in the **Session "Going Global: Green Chemistry in China and India"** at the ACS 16th Annual Green Chemistry & Engineering Conference held on June 18-20, **2012**.
61. Delivered invited Lecture in student **workshop for NSF supported and pre-registered students** in ACS 16th Annual Green Chemistry & Engineering Conference held on June 21, **2012**.
62. Delivered Inaugural lecture and conducted **workshop on "Demonstration of Green Chemistry Experiments"** at Manav Rachna College of Engineering, Faridabad (July 9, **2012**)
63. Delivered lecture on Green Chemistry in Education as a mentor at Kanya Mahavidyala Jalandhar (Punjab) on 18th August **2012** in **INSPIRE camp to encourage students for research and higher studies in basic Science sponsored by DST**.
64. Delivered invited lecture in a two day **National Conference on Green Chemistry** on 18th and 19th September **2012** (NCGC12) organized by SRM University, NCR Campus, Modinagar, UP.
65. Delivered an invited lecture on "Research and Educational Activities of Green Chemistry Network Centre " in the **National Seminar "Recent Advancements in Chemistry"**, RAC 2012 held from Sept 29 to Sept 30, **2012** organized by Department of Chemistry, CCS University, Meerut.

66. Delivered Keynote presentation and chaired session in “**First National Convention on Climate Change and Water**” organized by Suresh Gyan Vihar University on Oct-10, **2012**, Jaipur.
67. Delivered invited lecture on "Green Chemistry in Education and Research" at the **national seminar on "Green Chemistry for Greener Environment"** held on 26-27th Nov. **2012** at Mizoram University (MZU), Aizawl.
68. Delivered invited lecture and chaired a session in “**National Conference on Environmental Conservation and Management for Sustainable Era**” held on December 20-22, **2012** and organized by S.S. Jain Subodh P.G. College, Jaipur.
69. Delivered Keynote address on Green Chemistry in Education and Research in **National Conference on “Green Technologies for Green Environment”** on 18th February **2013** organized by Chemistry Department of GVM Girls College, Sonapat.
70. Honored by Central University of Gujarat for the contribution in Green Chemistry and delivered invited lecture in **International Conference on Emerging Trends in Chemical Sciences** (14th-15th March, **2013**).
71. Delivered an invited lecture on “Green Chemistry: Chemistry for a Sustainable Future” on 23rd March in a **Symposium on Modern Trends in Chemistry** organized by M. S. University, Vadodara.
72. Delivered invited lecture on 1st April **2013** in **science innovation camp** sponsored by Department of Science & Technology, New Delhi and organized by Thapar University, Patiala.
73. Presented “Green chemistry education, networking and outreach activities of Indian Green Chemistry Network Centre” at the **ACS 17th Annual Green Chemistry & Engineering Conference** held on June 18, **2013** at the Bethesda North Marriott Hotel & Conference Center, Maryland 20852 USA.
74. Presented “Green Chemistry Network Centre (GCNC) developing a roadmap for Green Chemistry Education in India” at the **ACS 17th Annual Green Chemistry & Engineering Conference** held on June 20, **2013** at the Bethesda North Marriott Hotel & Conference Center, Maryland 20852 USA.
75. Delivered an invited lecture on “Green Chemistry: Chemistry for a Sustainable Future” on 8th August **2013** in a **National Seminar on Current Trends in Chemical Education** organized by Department of Chemistry DDU Gorakhpur University.

76. Delivered invited lecture as opening speaker in the **national seminar on “Green technologies in Unit operations”** jointly organized by the Gujarat pollution control board and Nandesari Industry Association at Vadodara Gujarat on 16th August, **2013**.
77. Delivered keynote lecture in **4th Asia-Oceania conference on Green and Sustainable Chemistry (AOC-4 GSC)** held on 3-6 November **2013** in New Tapei City, Taiwan.
78. Delivered talk on the “Green Chemistry: A safer approach on nanomaterials”, on 22nd November **2013** in **Education Programme course on “Nanotoxicity-concern and safety measures”** organized by CFEES DRDO Delhi.
79. Delivered an invited lecture on “Green Chemistry” in a non-profit Science Outreach activity organized by research scholars of **Cambridge University for the motivation of high school students towards pursuing career in science**, on 12th Dec **2013** at IIT Delhi.
80. Invited to take a session with demonstration in the **INSPIRE Internship Program** at Amity University Noida Campus on 20-24th January **2014**.
81. Delivered a keynote address in the **National Seminar on “Chemistry and Applied Sciences for Sustainable Development”** (CASSD 2014), organized by Govt. L.P. Post Graduate College, Morar, Gwalior, M.P. on 15th-16th February **2014**.
82. Delivered a keynote lecture in a DST Sponsored **National Conference on “New Dimensions in Green technology for Sustainable Development”** (NCNDGS-2014) on 21st February **2014** at Swami Keshvanand Institute of Technology, Management & Gramothan, Jagatpura, Jaipur.
83. Delivered an invited lecture in on “Green technologies: Need for the Future” in the **National Conference on “Recent Trends in Research in Chemical Sciences”** sponsored by Science & Engineering Research Council (SERC) Department of Science & technology, Govt. of India on 22nd February **2014** at Department of Chemistry, Manipal University, Jaipur.
84. Invited as a speaker by Deakin University, Australia for an Indo-Australia **Workshop supported by Department of Science & Technology (DST)**, Govt. of India and Department of Industry Innovation, Science, Research and Tertiary Education, Govt. of Australia on 12th - 13th March **2014** in Deakin University, Australia.
85. Delivered an invited lecture in the ISCA Haridwar Chapter **National Conference on “Innovations in Science & technology for Inclusive Development”** at Chaudhary Charan Singh University, Meerut on 22-23th March **2014**.
86. Invited as Chief Guest and delivered a lecture in the **workshop “Environmental Protection and Green Technology (EPGT)”** organized by Green Chemistry, Club of Chemistry Department, FET, Manav Rachna International University, Faridabad on 26th March **2014**.

87. Invited to Present "Wealth from waste through green chemistry: GCNC contribution towards few real world cases in India" at the ACS 18th Annual Green Chemistry & Engineering Conference held on 17-19th June 2014 at the Bethesda North Marriott Hotel & Conference Center, Maryland 20852 USA.
88. Invited to deliver a talk in Faculty Development Programme (FDP) under TEQIP-II on 8th August 2014 on the topic "Contribution of Green Chemistry for Health, Environment & Nanotechnology" at Dr. SSBUI CET Auditorium, Panjab University, Chandigarh.
89. Delivered Inaugural lecture on 11th September 2014 at Miranda House for "Green Chemistry and Environment" add on course.
90. Acted as a mentor in DST Sponsored INSPIRE camp 2014 at ISF College of Pharmacy Moga from 27th to 31st October 2014.
91. Invited by Indo-US Science & Technology Forum as expert to take part in round table discussion in U.S.-India Technology Summit: Roundtable on Water Challenges on 19th November 2014 at India Expo Centre, Greater Noida, Delhi-NCR
92. Invited by Director NIT Patna to deliver lecture on its foundation day 28th January 2015 at department of Chemistry NIT Patna.
93. Invited to deliver Plenary lecture in National Conference on Recent Advances in Chemical & Environmental Sciences on 27-28th February 2015 at Arya P.G. College, Panipat, Haryana, India.
94. Invited to deliver keynote address in UGC Sponsored National Seminar on 'Recycling Methodology- The Need of the Hour' organized by R.R Bawa DAV College for Girls, Batala on 27th April 2015.
95. Invited to act as the Panelist in the session: World class scientific papers: Can India take the lead? during 5th edition of India Association Congress (IAC) held on 21st -22nd August 2015 at Bengaluru, India.
96. Invited as keynote Speaker on Green Chemistry and its future prospects on 30th September 2015 at Govt.V.Y.T.PG. Autonomous College Durg, Chhattisgarh, India
97. Invited to deliver inaugural lecture as Chief Guest of National Seminar in Chemistry Department entitled "Green Chemistry" on 28-29th October 2015 at Bhilai Mahila Mahavidyalaya, Bhilai Distt. Durg (Chhattisgarh)

98. Delivered Keynote address in Multidisciplinary National Seminar on “Recent Advances in Science and Technology” organized by Shanti Devi Arya Mahila College, Dinanagar, Gurdaspur on 14th November 2015.
99. Invited to deliver lecture in a three-day national workshop on “Green Chemistry” (15th to 17th October 2015) on 15th October 2015 organized by Department of Chemistry, SRM University NCR Campus (Modinagar).
100. Invited to deliver lecture in a national conference on “Environmental pollution, Health hazards and prevention” on 11-12th December 2015 organized by Department of Chemistry, M.S.J. Govt. College, Bharatpur (Raj).
101. Invited to act as Chief Guest and deliver a lecture in the TEQIP II sponsored short term course on “Recent Trends in Green Chemistry and Technology” at NIT Patna during 27th-28th November, 2015.
102. Delivered keynote address in the “National Conference on Modern Trends in Chemical Sciences” organized by Department of Chemistry, Faculty of Science, Mohanlal Sukhadia University, Udaipur Rajasthan on 30th January, 2016.
103. Invited to deliver plenary lecture and Chair the valedictory session as Guest of Honor and also green chemistry session in 6th International Conference on “Technology, innovation and management for sustainable development” from 11 to 13th February 2016 organized by ITM University, Gwalior.
104. Delivered lecture in the "National Workshop on The Growing Trends in Green Chemistry" at Department of Chemistry, Daulat Ram College, Delhi University on 26th February 2016.
105. Delivered lecture in “RASTANTRUM” organized by SHIVA JI college Delhi University on 17th March 2016.
106. Delivered keynote address in one-day Workshop on "Green Chemistry Practices in Teaching, Research & Industry: Essential Commitment for the Next Generation" organized by Chemistry department of autonomous Pt. L. M. S. Govt. Post Graduate College, Rishikesh on 30th March 2016.
107. Delivered Keynote address in “National Workshop in Green Chemistry” organized by Lingya’s University Faridabad on 8th April , 2016.
108. Invited as a panelist in “ACS Industry symposium on “Recent Advances in Drug Development” on 11-12 November, 2016 at Hyderabad, India
109. Delivered Keynote address in a “National Conference on “Recent Advances Environmental Sciences and Engineering Technologies” organized by Jodhpur Institute of Engineering and Technology, Jodhpur on 21st-22nd November, 2016.

110. Delivered lecture in “International Conference on Green Trends in Environmental Sustainability” organized by St. Ann’s College for Women, Hyderabad, India on 16th-17th December, 2016.
111. Invited as the guest of honour in “National conference on Environmental Sustainability in Wastewater Remediation: Current Status and Future Prospects” by Sri Venkateswara College in association with Royal Society of Chemistry London North India Section on 20th January, 2017.
112. Delivered lecture on “National Seminar Sponsored by Department of Science and Technology on “A paradigm shift towards empowerment of women” organized by Department of Sciences of Kalindi College, University of Delhi on February 3-4, 2017.
113. Delivered keynote address in “National Conference on Clean & Green Energy: The Chemical & Environmental Aspects” organized by Department of Chemistry, Bhaskaryacharya College of Applied Sciences on 16th-17th Feb, 2017.
114. Delivered lecture in “National Seminar on Recent Innovations in Chemical Science & environmental technology” sponsored by UGC and organized by Sri Aurobindo College on 3rd & 4th March, 2017.
115. Delivered plenary lecture in “6th National Conference on Chemical & Environmental Sciences, Emerging Dimensions and challenges ahead (NCCES-2017)” organized by Arya P. G. College, Panipat in collaboration with ISCA (Kurukshetra Chapter) IOCL, Panipat Refinery on 1st April, 2017.
116. Delivered lecture (invited speaker) in National Workshop on “Celebrating Earth Day: A step towards Nurturing Nature” organized by School of Engineering, G. D. Goenka University (GDGU), Gurgaon and National Environment Science Academy (NESA), Delhi on 28th April, 2017.
117. Delivered lecture on Green Chemistry Network Centre (GCNC) at University of Delhi: Making Green Chemistry an essential component of Chemical Education in India in “21st Annual Green Chemistry & Engineering Conference (GC&E)” hosted by the ACS Green Chemistry Institute® at Reston, Virginia on June 13-15, 2017.

Research Projects (Major Grants/Research Collaboration)

- DST-WTI sponsored project on “Designing and synthesis of highly stable functionalized silica based organic-inorganic hybrid materials/nanomaterials for the online and selective recovery of various metals from different charged wastewater” (2017-2020). **Funding: Rs 31, 46, 000.**
- TERI sponsored project on “Dendrimer-Lipid Complexation: Host-Guest Interactions” (2013-2016) **Funding: Rs.15,10,560**

- Synthesis of biofuels and value added chemicals from lignocellulosic biomass (2012-2015 Council of Scientific and Industrial Research) **Funding: Rs 15,75,000**
- Preparation, characterization and application of metal/metal oxide nanoparticle materials for industrial catalysis (2011-2014 University Grant Commission) **Funding: Rs 7,11,800**
- Vigyan Prasar (DST) Govt. of India sponsored Project on developing Resource material on Green Chemistry for school & college students and teachers. (2012)
- Designing of metal selective functionalized silica gels and their applications in Development of specific resins for Cr and Fe followed by scale up of method of extraction of metals by developing bioreactor. (Industry-DU-DST Purse Grant) **Funding: Rs. 9.00 Lakhs**
- IUPAC CHEMRAWN GCI-DEN Grant Award for the years 2005, 2006 and 2007 consecutively with the funding of US\$ 25,000 by American Chemical Society's Green Chemistry Institute for Green Chemistry Networking in India. (2005-2008)
- Study on Moradabad based Metal Handicraft Industry related to Raw material, electroplating waste and their impact on Environment and Strengthening of Existing Laboratory for Research & Development, Standardization, Training and Certification of Metal Handicrafts under the scheme of Research & Development (Ministry of Textiles, Govt. of India) **Funding: Rs. 79.47 Lakhs**
- One-pot and solventless synthesis of metallo-porphyrins: A green chemistry approach (2009-2011 University Grants Commission) **Funding: Rs. 9.328 Lakhs**
- Designing and validating Green Chemistry Experiments as Member of DST Green Chemistry Experiment monograph committee constituted by DST Green Chemistry Task Force (2008 Department of Science & Technology) **Funding: Rs. 1.0 Lakh**
- Bio-extraction of chromium from plants and microbes and formulation development of useful microbes as bio-package for cleaning and reclamation: field demonstration of the bio-package on tannery effluent affected sites. (2004-2007 Department of Biotechnology) **Funding: Rs. 36 Lakhs approx.**
- Designing of metal selective chelating polymers for use in explosive. (2004 – 2005 Ministry of Defence DRDO) **Funding: Rs. 10.5 Lakhs approx.**
- Molecular modeling and chemical speciation studies on interaction of dihydroxycoumarins with metal ions for designing a potent anti-oxidant. (2002-2005 Council of Scientific and Industrial Research) **Funding: Rs. 7.0 Lakhs approx.**

- Recoveries & recycling of heavy metals from electroplating waste (2002-2005 requirement reality organization) Funding: Rs. 2.5 Lakhs approx.
- Development of chelating polymer based sensors for detection of toxic metals in effluents. (2000-2003 Ministry of Defence DRDO)
- Interaction of metal ions with quinolone drugs and their structural analogs: molecular modeling, chemical speciation and structure-activity relationship. (1999-2002 University Grants Commission New Delhi)
- Designing of anti-aids chelators (awarded by royal society of chemistry (London)(1998))
- Major research project entitled, "Computer modeling and formation studies of ternary complexes containing two different metal ions and the implication for metal-metal stimulation phenomena in vivo & environment." (1999-2001 Awarded by University Grants Commission New Delhi)
- Major research project entitled, "Chelating polymers and related support for separation/pre-concentration of toxic and trace metals in environmental samples" (1993-1996 Awarded by University Grants Commission New Delhi.)

Awards and Distinctions

- 2017: Invited to be the part of interview panel as Expert Member for assisting recruitment process for Department of Amity School of Applied Sciences at Amity University, Gurgaon.
- 2017: Nominated by DST to act as a member of Expert Committee to review ongoing/completed projects supported under Water Technology Initiative.
- 2017 Editorial board member of the journal "Nanotechnology for Environmental Engineering" published by Springer.
- 2016 Fellow of Royal Society of Chemistry London.
- 2016 Nominated by Chairman UGC to act as member of Expert Committee that has been constituted by the UGC to evaluate the proposals received under Indo-German Partnerships in Higher Education Programme (IGP).
- 2014-15 Nominated by Chairman UGC and DST to act as a Member of Committees for evaluation of Major Research Projects funded by UGC and DST.
- 2015 Provost of Gwyer Hall (<http://gwyerhall.du.ac.in/>) which is the oldest and most prestigious men's Hostel in the Delhi University.
- 2015 Member of the Board of Interdisciplinary Programmes constituted by Vice-Chancellor Delhi University for a term of three years as per provisions of Ordinance XV-A.
- 2015 Invited as expert to assess the technical progress of the projects awarded under DST-UKIERI joint schemes on 21st and 22nd September at Hotel Lalit Delhi.

- **2015** Invited officially by American Chemical Society to present work on “Silica decorated magnetically retrievable base metal nanocatalysts for various organic transformation reactions” at the ACS 19th Annual Green Chemistry & Engineering Conference held on July 14-16, 2015 at the Bethesda North Marriott Hotel & Conference Center, Maryland 20852 USA.
- **2014** Invited by Royal Society of Chemistry and the UK Science & Innovation Network to attend the following events in Durban, South Africa from August 17-22, 2014:
 - **August 17-21:** 5th IUPAC international conference on green chemistry as speaker and chair of a session.
 - **August 21-22:** UK-India-Brazil-Africa workshop on the use of green chemistry for the sustainable production of biofuels
- **2014** Invited by American Chemical Society to present “Wealth from waste through green chemistry: GCNC contribution towards few real world cases in India” at the ACS 18th Annual Green Chemistry & Engineering Conference held on June 17-19, 2014 at the Bethesda North Marriott Hotel & Conference Center, Maryland 20852 USA.
- **2013** Honored by Professor Y.K. Alagh, former Union Minister of State for Science and Technology, former VC of the Jawaharlal Nehru University for his contribution for the popularization of Green Chemistry in India during inaugural function of International Conference on Emerging Trends in Chemical Sciences on 14th March, 2013 organized by Central University of Gujarat at Gandhi Nagar.
- **2013** Invited by American Chemical Society to present “Green chemistry education, networking and outreach activities of Indian Green Chemistry Network Centre” at the ACS 17th Annual Green Chemistry & Engineering Conference held on June 18, 2013 at the Bethesda North Marriott Hotel & Conference Center, Maryland 20852 USA.
- **2012** Invited by Royal Society of Chemistry (London) to attend the Royal Society of Chemistry General Assembly and International Delegate Day 2012 on 8 - 10 November, Birmingham Hilton Metropole, UK as International Representative for India
- **2012** Member Royal Society of Chemistry London International Steering Group
- **2012** Invited by American Chemical Society’s Green Chemistry Institute to deliver lecture on International Green Chemistry at post conference students workshop for NSF scholars and pre-registered students on 21st June 2012 (16th ACS Green Chemistry & Engineering Conference held on 18-20 June 2012) at Washington DC USA <http://acswebcontent.acs.org/gcande/pdf/Student%20Workshop%20Agenda.pdf>
- **2010** Indian National Science Academy-Japan Society for the Promotion of Science (JSPS) award
- **2010** Nominated to visit Mauritius under 4th UGC-TEC Consortium Agreement 2007-2010
- **2009** Member of DST International Division Project Assessment Committee for International Projects.
- **2009** Invited by American Chemical Society’s Green Chemistry Institute to deliver opening lecture in Green Chemistry Education Train the Trainer Workshop at 13th ACS Green

Chemistry & Engineering Conference held on 22-26 June 2009 at University of Maryland USA

- **2008** Honorary Secretary Royal Society of Chemistry, London (North India Section)
- **2008** Invited by Royal Society of Chemistry (London) to attend the Royal Society of Chemistry General Assembly 2008 as International Representative for India in London, United Kingdom on November 12-14th 2008.
- **2008** Member of DST Green Chemistry Experiment monograph committee constituted by DST Green Chemistry Task Force for preparing Green Chemistry Experiments Manual
- **2007** IUPAC CHEMRAWN GCI-DEN Grant Award of US\$ 5,000 by American Chemical Society's Green Chemistry Institute for Green Chemistry Networking in India.
- **2006** IUPAC CHEMRAWN GCI-DEN Grant Award of US\$ 10,000 by American Chemical Society's Green Chemistry Institute for Green Chemistry Networking in India.
- **2005** IUPAC CHEMRAWN GCI-DEN Grant Award of US\$ 10,000 by American Chemical Society's Green Chemistry Institute for Green Chemistry Networking in India.
- **2003** Member DST Evaluation Committee for JSPS (Japan) Award headed by Prof. S.K. Joshi Ex- DG CSIR
- **2002** Indian National Science Academy-Japan Society for the Promotion of Science (JSPS) award
- **2001** Incharge International Chapter of The American Chemical Society –Green Chemistry Institute
- **2001** Chaired a session on “Clean Water and Air through Green Chemistry” in IUPAC CHEMRAWN XIV World Conference on Green Chemistry: University of Colorado at Boulder, June 9-13, 2001.
- **1999** World Green Award
- **1998** Research Grant Award by Royal Society of Chemistry London
- **1998** Japan Society For The Promotion Of Science (JSPS) Post Doctoral Award
- **1995** Indo-German Cultural Exchange Programme Award nominated by UGC
- **1995** UGC National Research Scientist “B” equivalent to Reader

Association with Professional Bodies

- Member American Chemical Society
- Member Royal Society of Chemistry, LONDON
- Member Green Chemistry Network RSC London
- Life member of Indian Chemical Society, Calcutta.
- Life member of Indian Society of Analytical Scientist, Bombay.
- Life member of Indian Association of Nuclear Chemists & Allied Scientists, BARC, Bombay.
- Life member of Indian Science Congress Bombay
- Member Indo-US Green Chemistry Network

Other Activities

- Member of DRC, Department of Chemistry, University of Delhi.
- Editorial board member of the journal "Nanotechnology for Environmental Engineering" published by Springer.
- Chancellor's nominee on the selection committees in Chemistry for M D University Rohtak and member of selection committees for various Universities and Institutes including Central University Rajasthan, Dayal Bagh University Agra, BITS MESRA, Ministry of Textiles, Thapar University, ITM University, NIT Patna, CSIR-TKDL Unit, K M College Delhi University, Hansraj College Delhi University, Deshbandhu College Delhi University, Deen Dayal Upadhyaya College Delhi University, Dyal Singh College Delhi University, Maitreyi College Delhi University, Miranda House College Delhi University, Zakir Husain College, Rajdhani College, ARSD College Delhi University, etc. Chaired various selection committees held for the appointment of Assistant Professors in Zoology, History, Political Science, Hindi etc. at Dyal Singh College Delhi University.
- Invited as Expert in interview Board at Uttarakhand Public Service Commission, Gurukul Kangari, Haridwar, Near Gurukul Kangari University, Haridwar for Lecturer, Chemistry (General Branch) in Govt. Colleges of Uttarakhand.
- Invited as subject expert in the promotion for the post of Professors in Department of Chemistry, D.D.U. Gorakhpur University.
- Nominated by the Vice-Chancellor as one of the expert in selection committee for the applicants of the Faculty Training Programme run by the University of Delhi. In this programme, young college teachers are fully sponsored by the University of Delhi to do one year Master's course in their allied areas of specialization at the universities in UK which are the members of the Universitas 21 Network of Higher Education
- UGC member of Governing body of Autonomous Pt. L.M.S. Autonomous Govt. Post Graduate College Rishikesh.
- Member Governing body and treasurer of Dyal Singh College Delhi University
- Member Governing body Ramanujan College Delhi University
- Member Board of Studies in Chemistry for Universities (Guru Jambheshwar University of Science & Technology, Hisar, Gautam Buddha University, Greater Noida, Manav Rachna Faridabad, Mizoram University, Lingaya's University Faridabad, Dayalbagh Educational Institute, Dayalbagh, Agra)
- Member of Research Degree committee (RDC) in the discipline of Applied Science (Chemistry) of Punjab Technical University etc.
- Member panel for HRD Selection Committee for Government Scholarship 2015-16 which is scheduled to be held on 17-02-2015.
- UGC nominee in the advisory committee for the S.A.P. granted to Department of Chemistry, Lucknow University.
- Member Chemistry Syllabus designing committee of Central University Rajasthan for designing Green Chemistry Syllabi.
- Editorial Advisory Board Member of the journal Current Microwave Chemistry published by Bentham Science Publishers

Reviewer for the journals (Journal of Chemical Education, Inorganic Chemistry Communications, Current Catalysis, Separation Science and Technology, Applied Catalysis A: General, Applied Catalysis B: Environmental, Reactive and Functional Polymers, Journal of Heterocyclic Chemistry,

Toxicological & Environmental Chemistry, The International Nano Letters, Journal of the Brazilian Chemical Society, Indian Journal of Chemistry Sec A, Journal of Hazardous Materials, Applied Water Science, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy, Marine Chemistry, Journal of the Electrochemical Science and Engineering, Phosphorus, Sulfur, and Silicon and the Related Elements, Applied Water Science, Journal of Polymers and the Environment, International Journal of Environmental Analytical Chemistry, Catalysis Communications, Springer Journal Research on Chemical Intermediates, Food Analytical Methods, Industrial & Engineering Chemistry Research, Green Chemistry Letters and Reviews, Clean - Soil, Air, Water, Separation and Purification Technology, Chemical Engineering Journal, Water, Air, & Soil Pollution, Talanta, Environmental Technology, Journal of Molecular Structure, Canadian Journal of Chemistry, International Journal of Thermal Sciences, Environmental Science & Technology, Analytica Chimica Acta, Chemosphere, Journal of Chemical Sciences, Mini-Reviews in Medicinal Chemistry, Current Medicinal Chemistry, ACS and RSC journals such as New Journal of Chemistry, Catalysis Science & Technology, Green Chemistry, RSC advances etc.)

Editorial board member of the journal “Nanotechnology for Environmental Engineering” published by Springer.

Patents

1. A. Adholeya and **R.K. Sharma** (2010), Patent: **CBR 4171 1146/del/2010**
2. **R.K. Sharma**,* A. Adholeya*, CBR/11584, Registration No.-**3461/DEL/2012**
3. **R.K. Sharma**,* A. Adholeya*, Anil kumar, Registration No.- **3287/DEL/2013**
4. **R.K. Sharma**,* A. Adholeya*, Registration No.- **3288/DEL/2013**