




**DESHBANDHU COLLEGE
(UNIVERSITY OF DELHI)
KALKAJI, NEW DELHI - 110019**

Faculty details proforma for College Website

Title	Dr.	First Name	Umesh	Last Name	Kumar	
Designation		Assistant Professor				
Address		Department of Chemistry, Deshbandhu College, University of Delhi, Kalkaji, New Delhi-110 019, India				
Phone No	Office					
Residence	Mobile	09599219634				
Email	Web-Page	ukumar@db.du.ac.in https://www.deshbandhucollege.ac.in/				
Educational Qualifications						
Degree	Institution			Year		
Ph.D.	University of Delhi, Delhi			2010		
M.Phil.	University of Delhi, Delhi			2005		
PG	B. R. A. Bihar University Muzaffarpur			2001		
UG	B. R. A. Bihar University Muzaffarpur			1998		
Any other qualification						
Career Profile						
<ul style="list-style-type: none"> ■ Assistant Professor (Guest) at Department of Chemistry, Bhaskaracharya College of Applied Sciences, University of Delhi, Delhi-110 007 (Aug 2010–Nov 2010). ■ Assistant Professor (Guest) at Department of Chemistry, Kirorimal College, University of Delhi, Delhi-110 007 (Nov 2010–Feb 2011). ■ Assistant Professor (Ad-hoc) at Department of Chemistry, Deshbandhu College, University of Delhi, Delhi-110 019 (Since Feb 2011– Oct 2014). ■ <u>Project Scientist</u> at Department of Chemistry, Indian Institute of Technology Delhi, Delhi-110 016 (19.07.2012–18.07.2015) under <u>Fast Track Young Scientist Scheme</u> awarded by DST New Delhi. ■ Assistant Professor at Department of Chemistry, Deshbandhu College, University of Delhi, Delhi-110 019 (Since Oct 2014–till date). 						
Administrative Assignments						
<p>Member of various committees in Deshbandhu College University of Delhi, Delhi-110 019, India</p> <ul style="list-style-type: none"> ■ Member, Placement Cell, Since December 2014 to till date. ■ Member, Union advisory Committee, 2015-16, 2016-17. ■ Member, Financial Assistance Committee, 2015-16, 2017-18. ■ Member, Purchase Committee, 2016-17, 2017-18. ■ Member, Extension Lecture Committee, 2018-19. ■ Member, Building and Furniture Committee, 2018-19. 						



Areas of Interest / Specialization
Coordination Chemistry, Organometallics, Supramolecular Chemistry, Materials Chemistry, and Catalysis
Subjects Taught:
ALL AREA OF INORGANIC CHEMISTRY FOR B.Sc(H) AND B.Sc(Prog) COURSES
Research Guidance:
<p><i>List against each head(If applicable)</i></p> <ol style="list-style-type: none"> 1. Supervision of awarded Doctoral Thesis 2. Supervision of Doctoral Thesis, under progress: 02 3. Supervision of awarded M.Phil dissertations 4. Supervision of M.Phil dissertations, under progress
Publications Profile
<p><i>List against each head(If applicable) (as Illustrated with examples)</i></p> <ol style="list-style-type: none"> 1. Books/Monographs (Authored/Edited): Nil 2. Research papers published in Refereed/Peer Reviewed Journals <ol style="list-style-type: none"> 1. Acridine Based (S,N,S) Pincer Ligand: Designing of Silver(I) Complexes for the Efficient Activation of A³(Aldehyde, Alkyne and Amine) Coupling. Prakash, O.; Joshi, H.; Kumar, U.; Sharma, A. K. ; Singh, A. K. <i>Dalton Trans.</i> 2015, <i>44</i>, 1962–1968. (RSC Publication, ISSN: 1477-9226; Impact Factor: 4.097). 2. Sterically Hindered Selenoether Ligands: Palladium(II) Complexes as Catalytic Activators for Suzuki-Miyaura Coupling. Kumar, U.; Dubey, P.; Singh, V. V.; Prakash, O.; Singh, A. K. <i>RSC Adv</i> 2014, <i>4</i>, 41659–41665. (RSC Publication, ISSN: 2046-2069; Impact Factor: 3.708). 3. Shape Dependent Catalytic Activity of Nanoflowers and Nanospheres of Pd₄S Generated via One Pot Synthesis and Grafted on Graphene Oxide for Suzuki Coupling. Singh, V. V.; Kumar, U.; Tripathi, S. N.; Singh, A. K. <i>Dalton Trans.</i> 2014, <i>43</i>, 12555–12563. (RSC Publication, ISSN: 1477-9226; Impact Factor: 4.097). 4. Mole Ratio Dependent Formation of Mononuclear versus Pentanuclear Zinc(II) Pivalate Complexes and the 'Carboxylate Shift' Process. Kumar, U.; Singh, M.; Thirupathi, N. <i>Polyhedron</i> 2013, <i>55</i>, 233–240. (ELSEVIER Publication, ISSN: 0277-5387; Impact Factor: 2.068). 5. 3,5–Lutidine Coordinated Zinc(II) Aryl Carboxylate Complexes: Precursors for Zinc(II) Oxide. Kumar, U.; Thomas, J.; Nagarajan, R.; Thirupathi, N. <i>Inorg. Chim. Acta</i> 2011, <i>372</i>, 191–199. (ELSEVIER Publication, ISSN: 0020-1693; Impact Factor: 2.041). 6. Effect of Steric/Basic Properties of Lewis Bases on the Degree of Aggregation of Zinc(II) Pivalate Complexes. Kumar, U.; Thomas, J.; Agarwal, M.; Thirupathi, N. <i>Inorg. Chim. Acta</i> 2011, <i>370</i>, 122–131. (ELSEVIER Publication, ISSN: 0020-1693; Impact Factor: 2.041). 7. Factors Dictating the Nuclearity/Aggregation and Acetate Coordination Modes of Lutidine-Coordinated Zinc(II) Acetate Complexes. Kumar, U.; Thomas, J.; Thirupathi, N. <i>Inorg. Chem.</i> 2010, <i>49</i>, 62–72. (ACS Publication, ISSN: 0020-1669; Impact Factor: 4.857).

- a) Research papers published in Academic Journals other than Refereed/Peer Reviewed Journals
 - b) Research papers published in Refereed/Peer Reviewed Conferences
 - c) Research papers Published in Conferences/Seminar other than Refereed/Peer Reviewed Conferences
3. Other publications (Edited works, Book reviews, Festschrift volumes, etc.)

Conference Organization/ Presentations :

List against each head(If applicable)

1. Organization of a Conference: Two

-  **Convener**, “Indo-Portuguese Workshop on Emerging Trends of Nanotechnology in Chemistry and Biology (INCB-2016)” organized by Department of Chemistry, Deshbandhu College & Department of Chemistry, Hansraj College, University of Delhi, Delhi-110 019, India *In Association with* Centro de Química da Madeira, University of Madeira, Portugal. **12th & 13th February 2016**.
-  **Member of Organizing Committee**, “Two days national workshop on Skill Development to Build a Clean India” organized by Deshbandhu College, University of Delhi, Delhi-110 019, India. **07th & 08th June 2018**.

2. Participation as Paper/Poster Presenter: 13

 **Oral Presentation in National/International Conferences**

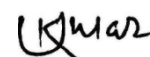
1. Delivered an oral presentation entitled “**Bioinspired ‘Carboxylate Shift’ Process in Zinc(II) Carboxylate Complexes: An Analytical Study**” in an international conference “**International Conference on Advances in Analytical Science (ICAAS – 2018)**” jointly organized by Indian Society of Analytical Scientists (ISAS)-Delhi Chapter and CSIR-Indian Institute of Petroleum Dehradun. **15th to 17th March 2018**.
2. Delivered an oral presentation entitled “**Chalcogenated Schiff’s base ligated palladium(II) complexes for Suzuki-Miyaura C–C coupling reactions**” in a national conference “**Clean & Green Energy: The Chemical & Environmental Aspects**” (NCGE – 2017) organized by Department of Chemistry Bhaskaracharya College of Applied Sciences (University of Delhi), New Delhi. **16th & 17th February 2017**.
3. Delivered an oral presentation entitled “**Silver(I) Complexes of Acridine Based (SNS) Pincer Ligand: Catalytic Activity for A³ of Aldehyde, Alkyne, and Amine**” in an international conference “**The 5th Asia-Oceania Conference on Green and Sustainable Chemistry (AOC-5 GSC)**” jointly organized by The Royal Society of Chemistry London, North India Section-Green Chemistry Network Centre Delhi University and The Energy and Resources Institute (TERI) New Delhi at India Habitat Centre, New Delhi. **15th to 17th January 2015**.
4. Delivered an oral presentation entitled “**Sterically Hindered Di/Tridentate Thio/Selenoether Ligated Palladium(II) Complexes: Effective Catalysts for Suzuki-Miyaura C–C Coupling Reactions**” in ‘**National Symposium on Chemistry at the Interface of Innovative Researches in Science and Technology (CIIRST-14)**’ organized by Department of Chemistry, University of Allahabad, Allahabad. **27th-28th February 2014**.
5. Delivered an oral presentation entitled “**Factors that Influence the Nuclearity/Aggregation and Carboxylate Coordination Modes in Lewis Base Coordinated Zinc(II) Carboxylate Complexes**” in ‘**International Conference on Emerging Trends in Chemical Sciences (ICETCS–2013)**’ organized by School of Chemical Sciences, Central University of Gujrat,

Gandhinagar. 14th-15th March 2013. (Best Oral Presentation Award).

 Poster Presentation in National/International Conferences

6. Presented a poster entitled ***“Removal of toxic metal ions from water using metal sulfide ion exchangers”*** Robin Kumar and **Umesh Kumar*** in an international conference **‘International Conference on Sustainable Initiatives in Water Management (SIWM–2018)’** organized by Manav Rachna University Faridabad, India. **06th March 2018**.
7. Presented a poster entitled ***“Facile method to synthesize silver-sulfide nanoparticles for their photocatalytic activity for the degradation of methylene blue”*** Pratyaksh Arora and **Umesh Kumar*** in a symposium **‘Innovation Coclave-2016’** organized by Acharya Narendra Dev College (University of Delhi), New Delhi, India. **25th & 26th October 2016**.
8. Presented a poster entitled ***“One pot synthesis of silver sulfide nanoparticles for their catalytic and biomedical applications”*** Annesha Baruah, Rohit Kumar Singh and **Umesh Kumar*** in a national symposium **‘National Symposium on Nanobiotechnology (BIOTIKOS 2016)’** organized by Department of Biotechnology, TERI University, New Delhi, India. **31st March & 1 April 2016**.
9. Presented a poster entitled ***“Efficient Reduction of Oximes Catalyzed by Magnetic Fe₃O₄ Nanoparticles using Sodium Borohydride”*** Pratibha Kumari and **Umesh Kumar*** in **‘9th National Conference on Solid State Chemistry and Allied Area (ISCAS–2015)’** organized by Bhaskaracharya Collge of Applied Sciences, University of Delhi, Delhi in association with Indian Association of Solid State Chemists and Allied Scientists. **8th-10th May 2015**.
10. Presented a poster entitled ***“Influence of pH of the Medium and Solvent of Crystallization upon the Nuclearity of 4–Dimethylaminopyridine Coordinated Zinc(II) Pivalate Complexes”*** Umesh Kumar, Monika Singh, and Natesan Thirupathi, in **‘3rd Asian Conference on Coordination Chemistry (ACCC–III)’** jointly organized by Department of Chemistry, Indian Institute of Technology, Kanpur & Department of Chemistry, Indian Institute of Technology, Delhi, at India Habitat Center, New Delhi. **17th to 20th October 2011**.
11. Presented a poster entitled ***“Synthesis and Structural Characterization of Lewis Base Coordinated Zinc(II) Pivalate Complexes”*** Umesh Kumar, Jency Thomas, Monika Agarwal, and Natesan Thirupathi, in **‘Modern Trends in Inorganic Chemistry (MTIC–XIII)’** organized by Department of Inorganic and Physical Chemistry, Indian Institute of Science, Bangalore–560 012, India. **7th to 10th December 2009**.
12. Presented a poster entitled ***“Influence of Steric and Electronic Properties of Lewis Base on the Degree of Aggregation of Lewis Base Ligated Zinc(II) Carboxylate Clusters”*** Umesh Kumar, Jency Thomas, and Natesan Thirupathi, in **‘International Conference on Coordination and Organometallic Chemistry (ICOC–2009)’** organized by Department of Chemistry, School of Chemical Sciences, Bharathiar University, Coimbatore–641 046, India. **19th and 20th March 2009**.
13. Presented a poster entitled ***“Reactions of N,N,N’-Trisubstituted Guanidines with Chlorophosphines”*** Brijesh Rathi, Umesh Kumar, and Natesan Thirupathi. **‘Modern Trends in Inorganic Chemistry (MTIC–XI)’** organized by Department of Chemistry, Indian Institute of Technology Delhi, New Delhi–110 016, India. **8th to 10th December 2005**.

Research Projects (Major Grants/Research Collaboration)				
S. No.	Title of the projects	Funding agency	Amount (Rs. in Lakh)	Status
1	Homo/heterometallic pincer complexes: Catalytic activity and materials aspects (SR/FT/CS-79/2011)	DST, New Delhi, India	25.8	Completed
2	Silver chalcogenide nanoparticles for their catalytic and biomedical applications (DBC-303/2015-16)	University of Delhi, New Delhi, India	05	Completed
3	Ni(II)/Co(II) complexes with O-/N-donor ligands for their supramolecular architectures and catalytic activities.	UGC, New Delhi, India	06	Ongoing
Awards and Distinctions				
<ul style="list-style-type: none"> ■ Recipient of the 'Best Oral Presentation' award in 'International Conference on Emerging Trends in Chemical Sciences (ICETCS–2013)' organized by School of Chemical Sciences, Central University of Gujrat, Gandhinagar. 14th-15th March 2013. ■ Recipient of the 'Fast Track Young Scientist' award from Science and Engineering Research Board (SERB), Department of Science and Technology, New Delhi (# SR/FT/CS-79/2011) (December 2011). ■ Recipient of the 'Senior Research Fellowship (SRF)' by Council of Scientific and Industrial Research (CSIR), New Delhi, India, sponsored project (# 01/2076/06/EMR–II) (December 2006–May 2010). ■ University Rank holder for M.Sc. 				
Association With Professional Bodies				
<ul style="list-style-type: none"> • <i>Editing</i> • <i>Reviewing</i> • <i>Advisory</i> • <i>Committees and Boards</i> • <i>Memberships</i> <ul style="list-style-type: none"> ■ Member of Royal Society of Chemistry (No. 564992) ■ Life Member of Indian Society of Analytical Scientist(ISAS)-Delhi Chapter (LM-16) • <i>Office Bearer</i> 				
Other Activities				



Signature of Faculty Member.