University of Delhi

DAULAT RAM COLLEGE

Faculty Detail Proforma

Name	Manoj Trivedi	
Designation	Assistant Professor	
Department	Chemistry	
Email	manojtrivedi@dr.du.ac.in	

Educational Qualification

Degree	Institution	Year
B.Sc	Chhatrapati Shahu Ji Maharaj University, Kanpur	1998
M.Sc.	Chhatrapati Shahu Ji Maharaj University, Kanpur	2000
M.Tech.	Harcourt Butler Technical Institute, Kanpur	2002
Ph.D.	Awadhesh Pratap Singh University, Rewa, Madhya Pradesh, India-486003	2007

Full Time Research Experience

Designation	Institute	Time period	Nature of Appointment
Post Doctoral Fellow	Institute of Organic Chemistry and Biochemistry, Czech Republic	April 2008 to July 2008	Contractural
Dr. D.S. Kothari Post Doctoral Fellow	University of Delhi, Delhi-110007, India	November 2008 to November 2011	Temporary
Post Doctoral Fellow	Pusan National University, Busan, South Korea	March 2012 to May 2012	Contractural
DST Young Scientist	University of Delhi, Delhi-110007, India	June 2012 to June 2015	Temporary
Post Doctoral Fellow	IST, Europe	September 2015 to June 2016	Contractural
Research Associate	University of Delhi, Delhi-110007, India	February 2019 to June 2019	Temporary

Full time Teaching Experience

S. No	Designation	Institution	Time Period	Nature of Appointment
1.	Assistant Professor	SGT University, Gurgaon, Gurugram, Haryana	July 2016 to December 2016	Adhoc
2.	Assistant Professor	University of Delhi, Delhi-110007, India	January 2017 to April 2018	Adhoc
3.	Assistant Professor	Rajdhani College, University of Delhi, Delhi 110015	August 2018 to May 2020	Guest/Adhoc
4.	Assistant Professor	Sri Venkateswara College, University of Delhi, Delhi-110021	November 2020 to Octber 2022	Adhoc

Administrative Assignments

Name of Institute	Designation	Status	Time period	Experience
Sri Venkateswara College, University of Delhi, Delhi-110021	Assistant Professor	Adhoc	2021-2022	Special Categories Admission Enabling Committee (2021-2022) as EWS Observer.
Sri Venkateswara College, University of Delhi, Delhi-110021	Assistant Professor	Adhoc	2021-2022	Chemical Society

Areas of Interest:

Inorganic Chemistry

Subjects Taught

S.No	Course	Subject Taught	Semester	Year
1.	B.Sc. (P) Life sciences	Chemistry	I, IV, V	2019 to present
2.	B.Sc. (H) chemistry	Chemistry	I, IV, V	2019 to present

Research Guidance

Name of student	Gender	Degree for which guidance given	Date of Registration	Supervisor/ Cosupervisor	University	Title of Thesis	Date of submission of thesis	Date of Award of Degree

Research Projects

S.No	Name of Research Project	Funding Agency	National/International	Duration	Amount Sanctioned	Amount Received

Research projects Completed

S. No.	Name of Research Project	Funding Agency	National/International	Duration	Amount Sanctioned	Amount Received
1.	New ether and its alkyl-functionalized bis-carbene complexes of silver(I) and palladium(II) : Synthesis, characterization and applications in cross-coupling reactions.	SERB, DST, New Delhi	National	03 Years	28 Lakhs	28 Lakhs

Publications:

1. Purification and Properties of the Raw Starch Degrading α-amylase of Mutant strain: Bacillus cereus 1306, M. Trivedi, S.K. Mandal, *Mapana Journal of Sciences* 2 (2), 46-54, **2004**.
2. Mononuclear hydridocarbonyl ruthenium complexes incorporating N_2O_2 bis chelating ligands, M. Trivedi, M. Chandra, D.S. Pandey, M.C. Puerta, P. Valerga, *Journal of Organometallic Chemistry*, 689, 879-882, **2004** (Citations: 18).(Impact Factor:**2.10**)
3. New luminescent *piano-stool* complexes incorporating 1-(4-cyanophenyl)-imidazole: Synthesis, Spectral and Structural studies", S.K. Singh, M. Trivedi, M. Chandra, A.N. Sahay, D.S. Pandey, *Inorganic Chemistry*, 43, 8600-8608, **2004** (Citations: 48). (Impact Factor: **4.30**)
4. Cationic ruthenium complexes based on planar polypyridyl ligand 2,4,6-tris (2-pyridyl)-1,3,5- triazine, S. Sharma, M. Trivedi, M. Chandra, D. S. Pandey, *Indian Journal of Chemistry Section A*, 43A, 2573-2577, **2004** (Citations: 10). (Impact Factor: **0.489)**
5. Rhodium (III) pentamethyl cyclopentadienyl complexes incorporating 1-(4-cyanophenyl)-imidazole: Role of solvent in ligand substitution reactions, S.K. Singh, M. Trivedi, M. Chandra, D.S. Pandey, *Journal of Organometallic Chemistry*, 690, 647-652, **2005** (Citations: 20). (Impact Factor: **2.10**)
6. Effect of the counter anion and Solvate on structure, stability and spectral properties of a ruthenium(II) complex containing group 15 donors and 2, 2': 6', 2"-terpyridine, M. Trivedi,

S.K. Singh, D.S. Pandey, M.C. Puerta, P. Valerga, *Transition Metal Chemistry*, 30, 861-868, **2005** (Citations: 21). (Impact Factor: **1.60**)

7. Synthesis and characterization of some cationic ruthenium(II) complexes based on polypyridyl Ligand, S. Sharma, M. Trivedi, D.S. Pandey, *Indian Journal of Chemistry Section A*, 44A, 1571-1575, **2005** (Citations: 05). (Impact Factor: **0.489**)
8. Synthetic, spectral and structural studies on some luminescent homo and hetero binuclear arene ruthenium(II) polypyridyl complexes, A. Singh, S.K. Singh, M. Trivedi, D.S. Pandey, *Journal of Organometallic Chemistry*, 690, 4243-4251, **2005** (Citations: 21). (Impact Factor: **2.10**)
9. Nickel and copper complexes based on tridentate nitrogen donor ligand 2,6-bis-(1-phenyliminoethyl) pyridine: Synthesis, spectral and structural characterization, M. Trivedi, D.S. Pandey, Q. Xu, *Inorg. Chim. Acta*, 360, 2492-2498, **2007** (Citations: 21). (Impact Factor: **2.70**)
10. Synthetic, spectral and structural studies of ruthenium(II) compounds based on 2,6-diacetylpyridinemonoxime, M. Trivedi, S.K. Singh, D.S. Pandey, R.-Q. Zou, M. Chandra, Q. Xu, *Journal of Molecular Structure*, 886,136-143, **2008** (Citations: 22). (Impact Factor:**4.00**)
11. Novel Rh(III) pentamethylcyclopentadienyl and Ru(II) cyclopentadienyl complexes containing 1,3,5-triazine-2,4,6-trithiol in trinucleating mode, M. Trivedi, D.S. Pandey, R.-Q. Zou, Q. Xu, *Inorganic Chemistry Communications*, 11, 526-530, **2008** (Citations: 37).(Impact Factor:**4.40**)
12. Molybdenum(VI) cis-Dioxo complex containing 2-Oxo-1,2-dihydro-pyridin-3-ol, M. Trivedi, D.S. Pandey, N.P. Rath, *Acta Cryst. E*, E-64, m595-m596, **2008** (Citations: 10). (Impact Factor:**0.347**)
13. Binuclear copper and zinccomplexes based on polypyridyl ligand 2,3,5,6-tetra(2-pyridyl)pyrazine (tppz): Synthesis, spectral and structural characterization, M. Trivedi, D.S. Pandey, N.P. Rath, *Inorg. Chim. Acta*, 362, 284-290, 2009 (Citations: 28). (Impact Factor: **2.70**)
14. catena-Poly[[(pyridine-κN)copper(II)]-μ_3-pyridine-2,6-dicarboxylato- $\kappa^3O^2:O^{2'},N,O^6:O^{6'}$], M. Trivedi, D.S. Pandey, N.P. Rath, *Acta Cryst. E*, E-64, m303-m304, **2009** (Citations: 13). (Impact Factor:**0.347**)
15. A New Single Pot Synthesis of μ-bis(oxido)bis{oxovanadium(V)} Dipicolinato Complex with 2-aminopyridinium as counter cation: Spectroscopic, Structural, Catalytic and Theoretical Studies, M. Trivedi, R. Nagarajan, A. Kumar, N.P. Rath, *Journal of Organometallic Chemistry*, 695, 1722-1728, **2010** (Citations: 30). (Impact Factor: **2.10**)
16. Synthetic, spectral and structural study of Mono bis(pyridine)dichloro bis(dimethyl sulfoxide-S) ruthenium(II) complex, [$RuCl_2$ $(py)_2$ $(dmso\text{-}S)_2$] and its reactivity with nitrogen donor bases in polar and non-polar solvent, M. Trivedi, Y.K. Sharma, R. Nagarajan, N.P. Rath, *Journal of Molecular Structure*, 975, 335-342, **2010** (Citations: 21). (Impact Factor: **4.00**)
17. Cis- and trans-Chlorobis(triphenyl phosphine/triphenyl arsine)-Dipicolinato Ruthenium^{III} Complexes: Synthesis, Structure, Spectral, Catalytic and Calculated Non-Linear Optical Properties, M. Trivedi, R. Nagarajan, A. Kumar, N.P. Rath, *Journal of Molecular Structure*, 994, 29-36, **2011** (Citations: 30). (Impact Factor: **4.00**)
18. A new centrosymmetric polymorph of trans-Dichloridobis(triphenylphosphine-κP)- palladium(II) at 100(2)K, M. Trivedi, R. Nagarajan, N.P. Rath, *Global Journal of Inorg. Chem.*, 2, 85-91, **2011** (Citations: 0).
19. A combined experimental and computational investigation on Tetrakis-μ-acetato-bis(acetamido)dicopper(II) and its application as a single source precursor for copper oxide,

M. Trivedi, R. Nagarajan, A. Kumar, K.C. Molloy, G. Kociok-Köhn, A.L. Sudlow, *Inorg. Chem. Commun.*, 14, 920-924, **2011** (Citations: 14). (Impact Factor: **4.40**)

20. Application of π extended ferrocene with varied anchoring groups as photosensitizers in TiO_2 based dye-sensitized solar cells (DSSCs), R. Chauhan, M. Trivedi, L. Bahadur, A. Kumar, *Chemistry an Asian Journal*, 6, 1525-1532, **2011** (Citations: 44). (Impact Factor:**3.50**)
21. Synthesis, characterization, crystal structures and photophysical properties of copper(I) complexes containing 1,1'-bis(diphenylphosphino)ferrocene (B-dppf) in doubly-bridged mode, M. Trivedi, R. Nagarajan, A. Kumar, P. Valerga, N.P. Rath, *Inorg. Chim. Acta*, 376, 549-556, **2011** (Citations: 30). (Impact Factor: **2.70**)
22. New pentamethylene-bridged bis-carbene ligands and their palladium(II) complexes: Synthesis, Characterization, and Catalysis, M. Trivedi, R. Nagarajan, N.P. Rath, A. Kumar, K.C. Molloy, G. Kociok-Kohn, *Inorg. Chim. Acta*, 383, 118-124, **2012** (Citations: 21). (Impact Factor: **2.70**)
23. Imidazole containing Palladium(II) complexes as efficient pre-catalyst systems for Heck and Suzuki Coupling Reaction: Synthesis, Structural Characterization and Catalytic Properties, M. Trivedi, G. Singh, R. Nagarajan, N.P. Rath, *Inorg. Chim. Acta*, 394, 107-116, **2013** (Citations: 38). (Impact Factor: **2.70**)
24. Thiocyanato-Bridged Copper(I) Cubane Complex and its application in low loading Palladium-Catalyzed Sonogashira Coupling of Aryl halides, M. Trivedi, G. Singh, A. Kumar, N.P. Rath, *Dalton Trans.*, 42, 12849-12852, **2013** (Citations: 45). (Impact Factor: **3.50**) **(Listed Top 20 Articles in scientific domain)**.
25. Synthesis, Characterization and Light Harvesting Properties of Nickel(II) Diimine Dithiolato Complexes, A. Kumar, S.A. Auvinen, M. Trivedi, R. Chauhan, M. Alatalo, *Spectrochimica Acta Part A*, 115, 106-110, **2013** (Citations: 26). (Impact Factor:**4.30**)
26. Synthesis, spectral and structural studies of silver and gold(I) complexes containing some symmetrical diphosphine ligands, M. Trivedi, Bhaskaran, G. Singh, A. Kumar, N.P. Rath, *Journal of Organometallic Chemistry*, 758, 9-18, **2014** (Citations: 23). (Impact Factor: **2.10**)
27. Synthesis and Characterization of tris(triphenylphosphane)copper(I) nitrate Dimer and its Applications as Precursor of Copper Oxide Nanorods, M. Trivedi, P. Kant, K.C. Molloy, G. Kociok-Köhn, A. Kumar, *Inorg. Chim. Acta*, 411, 102-105, **2014** (Citations: 10). (Impact Factor: **4.40**)
28. 1,2-bis(diphenylphosphino)ethane Nickel(II)dithiocarbamate as Potential Precursor for Nickel Sulfide: Effect of Counter Anion on Phase and Morphology, R. Chauhan, M. Trivedi, J. Singh, U.P. Mulik, D.P. Amalnerkar, *Inorg. Chim. Acta*, 415, 69-74, **2014** (Citations: 40). (Impact Factor: **2.70**)
29. Cyano-bridged copper(II)-copper(I) mixed-valence coordination polymer as source for copper oxide nanoparticles with catalytic activity in C-N, C-O and C-S cross-coupling reactions, M. Trivedi, S.k. Ujjain, R. K. Sharma, G. Singh, A. Kumar, N.P. Rath, *New J. Chem.*, 38, 4267-4274, **2014** (Citations: 30). (Impact Factor: **2.70**)
30. A fast and selective probe for monitoring Pd^{2+} in aqueous medium *via* the dual-optical readout, A. Kumar, M. Chhatwal, A.K. Singh, V. Singh, M. Trivedi, *Chem. Commun.*, 50, 8488-8490, **2014** (Citations: 25). (Impact Factor:**4.30**)
31. 9,10-Dihydro-8H-11-oxa-cyclohepta[α]naphthalen-7-one:Crystallographic, Computational and Hirshfeld Surface Analysis, A.S. Adity, M. Trivedi, A. Kumar, *J. Chem. Crystallogr.*, 44, 360-367, **2014** (Citations: 11). (Impact Factor:**0.40**)
32. Syntheses, Characterization, and Structural studies of Copper(I) complexes containing 1,1′-

bis(di-*tert*-butylphosphino) ferrocene (dtbpf) and their Application in Palladium-Catalyzed Sonogashira Coupling of Aryl halides, M. Trivedi, G. Singh, A. Kumar, N.P. Rath, *Dalton Trans.*, 43, 13620-13629, **2014** (Citations: 23). (Impact Factor: **3.50**)

33. Cyano and end-to-end azido bridged 3D copper(II)-copper(I) mixed-valence coordination polymer and its transformation to copper nitride nanoparticles, M. Trivedi, G. Singh, A. Kumar, N.P. Rath, *RSC Advances*, 4, 34110-34116, **2014** (Citations: 31). (Impact Factor: **3.90**)
34. Syntheses, Characterization, and Electrochemistry of Compounds Containing 1-Diphenylphosphino-1′-(di-*tert*-butylphosphino)ferrocene (dppdtbpf), M. Trivedi, S.K. Ujjain, G. Singh, A. Kumar, S.K. Dubey, N.P. Rath, *Journal of Organometallic Chemistry*, 772-773, 202-209, **2014** (Citations: 16). (Impact Factor: **2.10**)
35. Light harvesting properties of ferrocenyl based sensitizer with sulfur rich dithiocarabamates and xanthate as anchoring group, R. Chauhan, S. Auvinen, A.S. Aditya, M. Trivedi, R. Prasad, M. Alatalo, D.P. Amalnerkar, A. Kumar, *Solar Energy*, 108, 560-569, **2014** (Citations: 32). (Impact Factor:**6.00**)
36. Phenylmercury(II) methylferrocenyldithiocarbamate functionalized dye-sensitized solar cells with Hydroxy as an Anchoring Group, R. Chauhan, G. Kociok-Köhn, M. Trivedi, S. Singh, A. Kumar, D.P. Amalanerkar, *Journal of Solid State Electrochemistry*, 19, 739-747, **2015** (Citations: 22). (Impact Factor:**2.60**)
37. New Single-source Precursor for Bismuth Sulfide and its Use as Low-Cost Counter Electrode Material for Dye-Sensitized Solar Cells, R. Chauhan,J. Chaturvedi, M. Trivedi, J. Singh, G. Kociok-Köhn, D.P. Amalnerkar, A. Kumar, K.C. Molloy, *Inorg. Chim. Acta*, 430,168-175, **2015** (Citations: 28). (Impact Factor: **2.70**)
38. Dye-Sensitized Solar Cells with Biferrocenyl Antenna having Quinoxaline Spacers, R. Chauhan, M. Shahid, M. Trivedi, D.P. Amalnerkar, A. Kumar, *Eur. J. Inorg. Chem.*, 3700-3707, **2015** (Citations: 34). (Impact Factor:**2.20**)
39. 1,1′-bis(di-tert-butylphosphino) ferrocene copper(I) complex catalyzed C-H activation and carboxylation of terminal alkynes, M. Trivedi, G. Singh, A. Kumar, N.P. Rath, *Dalton Trans.*, 44, 20874-20882, **2015**. (Citations: 32). (Impact Factor: **3.50**).
40. New Ni(II) 1,2-bis(diphenylphosphino)ethane dithiolates: Crystallographic, computational and Hirshfeld surface analyses, Reena Yadav, M. Trivedi, Gabriele Kociok-Kohn, Rajendra Prasad and Abhinav Kumar, *CrystEngComm*, 17, 9175-9184, **2015**. (Citations: 51). (Impact Factor: **2.60**).
41. Silver(I) complexes as efficient source for silver oxide nanoparticles with catalytic activity in A^3 coupling reactions, M. Trivedi, G. Singh, A. Kumar, N.P. Rath, *Inorg. Chim. Acta*, 438, 255-263, **2015**. (Citations: 31). (Impact Factor: **2.70**)
42. Synthesis, characterization and light harvesting properties of Sb(III) and Bi(III) ferrocenyl dithiocarbamate complexes Ratna Chauhan, M. Trivedi, Reena Yadav, Abhinav Kumar, Dinesh P. Amalnerkar, Suresh W. Gosavi, Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy 150, 652-656, 2015. (Citations: 20). (Impact Factor: **4.30**)
43. The interplay of Thiophilic and Hydrogen Bonding Interactions in the Supramolecular Architecture of Phenylmercury Dithiocarbamate, R.P. Gokula, R. Yadav, R. Prasad, M. Trivedi, G. Kociok-Köhn, A. Kumar, *Journal of Molecular Structure*, 1103, 265-270, **2016**. (Citations: 10). (Impact Factor: **4.00**)
44. Ferrocenyl Dithiocarbamate Based d^{10} Transition-Metal Complexes as Potential Co-Sensitizers in Dye-Sensitized Solar Cells, Reena Yadav, M. Trivedi, Gabriele Kociok-Köhn, Ratna Chauhan, Abhinav Kumar, Suresh W. Gosavi, *Eur. J. Inorg. Chem.*, 1013-1021, **2016**.

(Citations: 38). (Impact Factor:**2.20**)

45. Metal-organic framework MIL-101 supported bimetallic Pd-Cu Nanocrystals as an efficient catalyst for Chromium Reduction and Conversion of Carbon Dioxide at Room Temperature, M. Trivedi, Bhaskaran, Akshay Kumar, G. Singh, A. Kumar, N.P. Rath, *New J. Chem.*, 40, 3109-3118, **2016**. (Citations: 67). (Impact Factor: **2.70**).
46. Silver(I) and Palladium(II) Complexes of New Pentamethylene-Functionalized Quasi-Pincer Bis-carbene ligands and its application in Heck and Suzuki-Miyaura coupling reaction, M. Trivedi, G. Singh, Abhinav Kumar, Nigam P. Rath, *Inorg. Chim. Acta*, 449, 1-8, **2016**. (Citations: 20). (Impact Factor: **2.70**).
47. Supramolecular architecture of organotin(IV) 4-hydroxypiperidine dithiocarbamates: crystallographic, computational and Hirshfeld surface analyses, Reena Yadav, M. Trivedi, Gabriele Kociok-Köhn, Ratna Chauhan, Abhinav Kumar, *Inorg. Chim. Acta*, 450, 57-68, **2016**. (Citations: 24). (Impact Factor: **2.70**).
48. Ferrocenyl chalcones with phenolic and pyridyl anchors as potential sensitizers in dye-sensitized solar cells, Ratna Chauhan, Reena Yadav, Ashish Kumar Singh, M. Trivedi, Gabriele Kociok-Köhn, Abhinav Kumar, Suresh Gosavi, Sunit Rane, *RSC Advances*, 6, 97664-97675, **2016**. (Citations: 24). (Impact Factor: **3.90**).
49. Synthetic, spectral and structural studies of a Schiff base and its anticorrosive activity on mild steel in H_2SO_4, Akshay Kumar, M. Trivedi, Bhaskaran, R.K. Sharma and G. Singh, *New J. Chem.*, 41, 8459-8468, **2017**. (Citations: 20). (Impact Factor: **2.70**).
50. Molecular structure, supramolecular association and anion sensing by chlorodiorganotin(IV) methylferrocenyldithiocarbamates, Reena Yadav, Mahendra Kumar Awasthi, Amita Singh, Gabriele Kociok-Köhn, M. Trivedi, Rajendra Prasad, Mohammad Shahid, Abhinav Kumar, *Journal of Molecular Structure*, 1145, 197-203, **2017**. (Citations: 21). (Impact Factor: **4.00**).
51. *cis*-1,2-bis(diphenylphosphino)ethylene copper(I) catalyzed C-H activation and carboxylation of terminal alkynes, M. Trivedi, Jacob R. Smreker, G. Singh, Abhinav Kumar, Nigam P. Rath, *New J. Chemistry*, 41, 14145-14151, **2017** (Citations: 17) (Impact Factor: **2.70**) **(Selected for Cover Page Journal)**.
52. Fabrication of a new metal-organic framework for sensitive sensing of nitroaromatics and efficient dye adsorption, Wei-Ping Wu, Jian Wu, Jian-Qiang Liu, M. Trivedi, Abhinav Kumar, *RSC Advances*, 7, 54522-54531, **2017** (Citations: 20) (Impact Factor: **3.90**).
53. Supramolecular architecture of organotin(IV) N-methyl ferrocenyl N-ethanol dithiocarbamates: crystallographic and computational studies,Abhinav Kumar, Reena Yadav, Suryabhan Singh, Gabriele Kociok-Köhn, and M. Trivedi, *Inorg. Chem. acta*, 471, 234-243, **2018**. (Citations: 44) (Impact Factor: **2.70**).
54. A ternary Fe(II)-terpyridyl complex-based single platform for reversible multiple-ion recognition, A.K. Singh, G. Pandey, K. Singh, A. Kumar, M. Trivedi, V. Singh, *Dalton Trans.*, 47, 6386-6393, **2018** (Citations: 20) (Impact Factor: **3.50**).
55. The utilization of a stable 2D bilayer MOF for simultaneous study of luminescent and photocatalytic properties: experimental studies and theoretical analysis, X. Wu, X. Shen, S. Fan, M. Trivedi, B. Li, A. Kumar, J. Liu, *RSC Adv.*, 8, 23529-23538, **2018** (Citations: 22) (Impact Factor: **3.90**).
56. 1,1′-Bis(diphenylphosphino)ferrocene-appended nickel(II) dithiolates as sensitizers in dye-sensitized solar cells, A. Singh, P. Singh, G. Kociok-Köhn, M. Trivedi, A. Kumar, R. Chauhan, S.B. Rane, C. Terashima, S.W. Gosavi, A. Fujishima, *New J. Chem.*, 42, 9306-9316, **2018** (Citations: 17) (Impact Factor: **2.70**).

57. Copper(I) tertiary phosphine xanthate complexes as single source precursors for copper sulfide and their application in OER Amita Singh, M. Trivedi, Pooja Singh, Gabriele Kociok-Köhn, Uday Pratap Azad, Ashish Kumar Singh, Abhinav Kumar, *New J. Chem.*, 42, 18759-18764, **2018** (Citations: 55) (Impact Factor: **2.70**).
58. Syntheses of nickel sulfides from 1,2-bis(diphenylphosphino)ethane nickel(II)dithiolates and their application in the oxygen evolution reaction, A. Singh, R. Yadav, Gabriele Kociok-Köhn, M. Trivedi, Uday Pratap Azad, Ashish Kumar Singh, Abhinav Kumar, International Journal of Hydrogen Energy, 43, 5985-5995, **2018**. (Citations: 60) (Impact Factor: **8.10**).
59. A 3D metal-organic framework with isophthalic acid linker for photocatalytic properties, Y. Pan, W. Liu, D. Liu, Q. Ding, J. Liu, M. Trivedi, A. Kumar, *Inorg. Chem. Commun.*, 100, 92-96, **2019**. (Citations: 28) (Impact Factor: **4.40**)
60. A new 3D 10-connected Cd(II) based MOF with mixed ligands: A dual photoluminescent sensor for nitroaroamatics and ferric ion, J. Wang, J. Wu, F. Chen, L. Lu, W.-P. Wu, A.-Q. Ma, P. Singh, M. Trivedi, and Abhinav Kumar, *Frontiers in Chemistry*, 7, 1-5, **2019**. (Citations: 42) (Impact Factor: **3.80**)
61. Ferrocenylethenyl-substituted oxadiazoles with phenolic and nitro anchors as sensitizers in dye sensitized solar cells, Amita Singh, Gabriele Kociok-Köhn, M. Trivedi, Ratna Chauhan, Abhinav Kumar, Suresh S. Gosavi, Chiaki Terashima and Akira Fujishima, *New J. Chem.*, 43, 4745-4756, **2019**. (Citations: 30) (Impact Factor: **2.70**).
62. Photocatalytic degradation of organic dyes by infinite one dimensional coordination polymer based on Zn(II) in water, W.-P. Wu, Q. Ding, X.-R. Wu, Y.-J. Huang, C. Gong, H. Huang, M. Trivedi, A. Kumar, *Bull. Chem. Soc. Ethiop.* 33(1), 51-60, **2019**. (Citations: 05) (Impact Factor: **0.765**).
63. Spectral, Structural and Catalytic activity of infinite 3-D and 2-D Copper(II) Coordination Polymers for Substrate Size-Dependent Catalysis for CO2 Conversion, M. Trivedi, Abhinav Kumar, Girijesh Kumar, Ahmed Hussain, Nigam P. Rath, *Dalton Trans.*, 48, 10078-10088, **2019** (Citations: 12) (Impact Factor: **3.50**).
64. Photocatalytic and Ferric Ion Sensing Properties of a New Three-Dimensional Metal-Organic Framework Based on Cuboctahedral Secondary Building Units, Q. Ding, Y. Pan, Y. Luo, M. Zhou, Y. Guan, B. Li, M. Trivedi, A. Kumar, J. Liu, *ACS Omega*, 4, 10775-10783, **2019** (Citations: 61) (Impact Factor: **3.70**).
65. Design of Metal-Organic Frameworks for pH-Responsive Drug Delivery Application, Xin Shen, Ying Pan, Zhihao Sun, Dong Liu, Hongjia Xu, Qian Yu, M. Trivedi, Abhinav Kumar, and Jianqiang Liu, *Mini-Reviews in Medicinal Chemistry*, 19, 1644-1665, **2019** (Citations: 12) (Impact Factor: **3.30**).
66. Solvothermal synthesis, structural characterization, DFT and magnetic studies of a dinuclear paddlewheel Cu(II)-metallamacrocycle, G. Kumar, M.M.Turnbull,V. Thakur, S. Gupta, M. Trivedi, R. Kumar, A. Husain, *Journal of Molecular Structure*, 1201, 127193, **2020**. (Citations: 10). (Impact Factor: **4.00**)
67. Recent developments on luminescent coordination polymers: Designing strategies, sensing applications and theoretical evidences, Jian-Qiang Liu, Zhi-Dong Luo, Ying Pan, Ashish Kumar Singh, M. Trivedi, Abhinav Kumar, *Coordination Chemistry Reviews*, 406, 213145, **2020** (Citations: 307) (Impact Factor: **20.3**).
68. A highly active copper catalyst for the hydrogenation of Carbon Dioxide to formate under ambient conditions, Karan Chaudhary, M. Trivedi, D.T. Masram, Abhinav Kumar, Girijesh Kumar, Ahmad Husain, and Nigam P. Rath, *Dalton Trans.*, **2020**, 49, 2994-3000 (Citations:

15) (Impact Factor: **3.50**).

69. New main group ferrocenyldithiocarbamates and conversion to ferrocene oxazolidine-2-thione and -2-one, R. Yadav, S. Singh, M. Trivedi, G. Kociok-Köhn, N.P. Rath, Randolf D. Köhn, Abhinav Kumar, *New J. Chem.*, **2020**, 44, 3268-3277 (Citations: 25) (Impact Factor: **2.70**). .
70. A new 1D coordination polymer of triphenyl lead hydrosulfide: Synthesis and insights into crystal architecture and Hirshfeld surface analyses, A. Dutta, M. Trivedi, Abdullah Alarifi, Abhinav Kumar, Mohd. Muddassir, *Journal of Molecular Structure* 1207, 127801, **2020** (Citations: 15) (Impact Factor: **4.00**).
71. Tertiary phosphine-appended transition metal ferrocenyl dithiocarbamates: Syntheses, Hirshfeld surface, and electrochemical analyses, A. Singh, A. Dutta, A.K. Singh, M. Trivedi, G. Kociok-Köhn M. Muddassir, A. Kumar, *Applied Organometallic Chemistry*, 34, e5897, **2020** (Citations: 10) (Impact Factor: **3.70**).
72. Luminescent Cd^{II} Metal-Organic Frameworks based on Isoniazid using Mixed Ligand Approach, A. Husain, P. Rani, Alisha, A. Sharma, T. Mondal, S.K. Saha, K.K. Bhasin, M. Trivedi, Girijesh Kumar, *CrystEngComm*, 22, 5980-5986, **2020** (Citations: 10) (Impact Factor: **2.60**).
73. Copper(I) Complexes Containing PCP Ligand Catalyzed Hydrogenation of Carbon Dioxide to Formate under Ambient Conditions, M. Trivedi, Abhinav Kumar, Ahmad Husain, Nigam P. Rath, *Inorganic Chemistry*, 60, 4385-4396, **2021** (Citations: 10) (Impact Factor: **4.30**) **(Selected for Cover Page Journal)**.

❖ **CAS, a division of the American Chemical Society, has recently identified novel compounds from my scientific publishing (DOI: 10.1021/acs.inorgchem.0c01937), resulting in a unique CAS Registry Number® being added to the CAS Content Collection™ Dated 10 May 2023.**

74. Transition Metal Complexes of Group 12 with 1,1′-Bis(phosphino)ferrocene Ligands, Karan Chaudhary, M. Trivedi, D.T. Masram, Nigam P. Rath, *ACTA C77*,240-248, **2021**(Citations: 05) (Impact Factor: **0.70**).
75. New Mercury(II) Complexes with Ferrocene Functionalized thiazolidine-2-thiones: Crystallographic and Computational Analyses, A. Singh, A. Singh, M. Trivedi, G. Kociok-Köhn, A. Kumar, *Applied Organometallic Chemistry*, 35, e6299, **2021** (Citations: 10) (Impact Factor: **3.70**).
76. Structural diversity in four Zn(II)/Cd(II) coordination polymers tuned by flexible pentacarboxylate and N-donor coligands as photocatalysts for enhanced degradation of dyes,G.-L. Wang,J. Wang, X. Wang, M. Zhou, S.-H. Zhou, L. Lu, M. Trivedi, Abhinav Kumar, *Dyes and Pigments*, 195, 109695, **2021**. (Citations: 10) (Impact Factor: **4.10**).
77. Acid-assisted hydrogenation of CO_2 to methanol using Ru(II) and Rh(III) RAPTA-type catalysts under mild conditions, M. Trivedi, Pooja Sharma, Indresh Kumar Pandey, Abhinav Kumar, Sanjay Kumar and Nigam P. Rath, *Chem. Commun.* 57, 8941, **2021** (Citations: 10) (Impact Factor:**4.30**).
78. Ru(II)- and Ru(IV)-dmso complexes catalyze efficient and selective aqueous-phase nitrile hydration reactions under mild conditions, M. Trivedi, Santosh Kumar Dubey, Gurmeet Kaur and Nigam P. Rath, *New J. Chem.* 45, 17339, **2021** (Citations: 02) (Impact Factor: **2.70**).
79. Ferrocenyl thiazolidine-2-thione ornamented 1D coordination polymers derived from coinage metal halides and pseudohalides, Ayushi Singh, Manoj Trivedi, Gabriele Kociok-Köhn, Ashish Kumar Singh, Mohd. Muddassir and Abhinav Kumar, *CrystEngComm*, 23, 7794, **2021**

(Citations: 0) (Impact Factor: **2.60**).

80. Biomedical applications of metal-organic framework (MOF)-based nano-enzymes, Y. Qiu, G. Tan, Y. Fang, S. Liu, Y. Zhou, Abhinav Kumar, M. Trivedi, D. Liud and J. Liu, *New J. Chem.*, 45, 20987, **2021** (Citations: 38) (Impact Factor: **2.70**).
81. Manganese complexes and manganese-based metal-organic frameworks as contrast agents in MRI and chemotherapeutics agents: Applications and prospects, R. Zheng J. Guo, X. Cai, L. Bin, C. Lu, A. Singh, Manoj Trivedi, Abhinav Kumar, Jianqiang Liu, *Colloids and Surfaces B: Biointerfaces* 213 112432, **2022** (Citations: 36) (Impact Factor: **5.40**).
82. Syntheses and structural and serum protein protecting activity of ruthenium(II)-DMSO complexes containing a mercapto ligand, S.K. Dubey, S. Khatkar, M. Trivedi, S. Gulati, S. Kumar, N.P. Rath, S. Kumar, R. Lakhia, Neera Ragav and S. Kaur, *New J. Chem.*, 46, 11669-11675, **2022** (Citations: 0) (Impact Factor: **2.70**).
83. Metal organic frameworks as efficient adsorbents for drugs from wastewater, M. Zheng, J. Chen, L. Zhang, Y. Cheng, C. Lu, Y. Liu, A. Singh, M. Trivedi, A. Kumar, J. Liu, *Materialstoday communications* 31, 103514, **2022** (Citations: 87) (Impact Factor: **3.70**).
84. Bismuth ferrite ($BiFeO_3$) perovskite-based advanced nanomaterials with state-of-the-art photocatalytic performance in water cleanup, S. Gulati, K. Goyal, A. Arora, S. Kumar, M. Trivedi, S. Jain, *Environmental Science: Water Research & Technology*, 8, 1590-1618, **2022** (Citations: 03) (Impact Factor: **3.50**).
85. Recent progress, synthesis, and application of chitosan-decorated magnetic nanocomposites in remediation of dye-laden wastewaters, S. Gulati, A. Baul, S. Kumar, R. Wadhwa, M. Trivedi, R.S. Varma, A. Amar, *New Journal of Chemistry* 46 (36), 17114-17139, **2022**(Citations: 01) (Impact Factor: **2.70**).
86. Recent advances in the application of metal-organic frameworks (MOFs)-based nanocatalysts for direct conversion of carbon dioxide (CO_2) to value-added chemicals, S. Gulati, S. Vijayan, Mansi, S. Kumar, Bharath, Harikumar, M. Trivedi, R.S. Varma, *Coordination Chemistry Reviews* 474, 214853, **2023** (Citations: 14) (Impact Factor: **20.3**).
87. Synthetic, spectral, structural and catalytic activities of 3-D metal formats/acetates framework materials for CO_2 conversion, M Trivedi, G Singh, RK Sharma, N Rath, A Husain, *New J. Chem.* 47, 10585-10592, **2023**. (Citations: 0) (Impact Factor: **2.70**) **(Selected for Cover Page Journal)**.
88. Synthesis, characterization, crystal structures and photophysical properties of pillar-layer nickel metal-organic frameworks based on 2-aminoterepthalic acid and 5-aminoisopthalic acid, S.K. Dubey, S. Khatkar, M. Trivedi, S. Sharma, N.P. Rath, Y. Dwivedi, S.C. Sahoo, *Inorganica Chimica Acta* 568, 122072, **2024** (Citations: 0) (Impact Factor: **2.70**).
89. A new 3D Zn(II)-based coordination polymer with kgd topology as potent photocatalyst for antibiotic degradation, L.-L. Bao, T.-T. Tan, Y.-N. Li, M. Muddassir, W. Zhong, S. Srivastava, M. Trivedi, A. Kumar, J.-C. Jin, *Applied Organometallic Chemistry*, 38, e7597, **2024** (Citations: 0) (Impact Factor: **3.70**).
90. A new 3D Pb(II)-based MOF as highly sensitive selective fluorescent probe for naked-eye detection of furazolidone, G. Li, Y. Miao, C.-Y. Liu, M. Afzal, A. Alarifi, M. Trivedi, M.R. Jayswal, A. Kumar, J.-C. Jin, *Journal of Molecular Structure* 1321, 140053, **2025** (Citations: 0) (Impact Factor: **4.00**).
91. Synthesis, characterization, crystal structures and catalytic activity of hydrogen bond mediated 2D and 3D-copper(II) coordination networks based on 2-aminoterepthalic acid and 5-aminoisopthalic acid, S. Khatkar, S.K. Dubey, M. Trivedi, S. Kumar, R.K. Sharma, N.P.

Rath, V.K. Yadav, *Journal of Molecular Structure* 1321, 140142, **2025** (Citations: 0) (Impact Factor: **4.00**).

Books

S.No	Details	Publisher	Date of publishing	Authored/Edited	ISBN No

Book Chapters/Articles

S. No.	Details	Date of publishing	Authored/Edited	ISBN No
1.	Strategy of Marine Viruses in Global Ecosystem	08/07/2013	A. Singh, M. Trivedi, P. Chandra, and R.N. Goyal	978-3-527-33327-1
2.	Recent Trends of Metal-Organic Frameworks in Heterogeneous Catalysis	18/02/2022	M. Trivedi, S. Kumar, A. Arora, K. Goyal	10.1007/978-981-16-7959-9
3.	Concluding Remarks About Metal-Organic Frameworks (MOFs): From Properties to Potential Applications	18/02/2022	S. Kumar, A. Arora, K. Goyal, S. Gulati, M. Trivedi	10.1007/978-981-16-7959-9
4.	Potential of Chitosan-Based Nanocomposites for Biomedical Application in Gene Therapy	02/10/2022	M. Trivedi, S. Kumar	10.1007/978-981-19-5338-5
5.	Conclusion and Future Prospects of Chitosan-Based Nanocomposites	02/10/2022	S. Kumar, A.S. Gogoi, S. Shukla, M. Trivedi, S. Gulati	10.1007/978-981-19-5338-5

E- Modules

S.No	Details	Publisher details	Date of publishing	Authored/Edited	Link

Conference Proceedings publication

S. No.	Details	Date of Publishing	Name of conference	Venue of conference	ISBN No

Conference Attended and Paper presentation

S.No.	Type of Event	Name of Event	Venue of conference	Date of conference	Attended	paper presented	No of papers presented
1.	International	Sixth National Symposium in Chemistry	IIT Kanpur	February 6-8, 2004	Yes	Mononuclear hydridocarbonyl ruthenium complexes incorporating N_2O_2 bischelating ligands: Synthetic, Spectral and Structural aspects	01
2.	National	Current Trends in Inorganic Chemistry	CUSAT, Kochi, Kerala, India	March 15-17, 2004	Yes	Reactivity of Some Ruthenium Complexes Imparting Peculiar Ligand Exhibiting TICT & Crystal Structure of $[(C_{10}H_{14})RuCl(PPh_3)(CPI)]BF_4$	01
3.	National	Recent Trends in Chemistry	Department of Chemistry, A.P.S. University, Rewa (M.P.), India	March 30-31, 2004	Yes	HPLC as an Inevitable Tool for Research and Development	01

4.	National	Forty First Annual Convention of Chemists, Organized by Indian Chemical Society, Kolkata	University of Delhi, Delhi, India	December 23-27, 2004	Yes	Mononuclear hydridocarbonyl ruthenium complexes incorporating N_2O_2 bischelating ligands	01
5.	International	7Th National Symposium in Chemistry	IACS, KolKata	February 4-6, 2005	Yes	Rhodium(III) pentamethyl cyclopentadienylcomplexes incorporating 1-(4-cyanophenyl)-imidazole: Role of solvent in ligand substitution reactions	01
6.	National	Royal Society of Chemistry Western Section	National Chemical Laboratory, Pune, India	November 24-26, 2005	Yes	New luminescent piano-stool complexes incorporating 1-(4-cyanophenyl)-imidazole: Synthesis, Spectral and Structural studies	01

7.	International	11th Symposium on Modern Trends in Inorganic Chemistry (MTIC-XI)	Department of Chemistry, IIT Delhi, New Delhi 110016, India	December 8-10, 2005	Yes	Effect of the counter anion and solvate on structure, stability and spectral properties of a ruthenium(II) complex containing group 15 donors and 2,2':6',2"-terpyridine	01
8.	International	HALCHEM-VI	Department of Inorganic & Physical Chemistry, Indian Institute of Science, Bangalore, India	December 8-11, 2012	Yes	Imidazole containing Palladium(II) complexes as efficient pre-catalyst systems for Heck and Suzuki Coupling Reaction: Synthesis, Structural Characterization and Catalytic Properties	01

9.	International	15th CRSI National Symposium in Chemistry	Department of Chemistry, Faculty of Science, Banaras Hindu University, Varanasi, India	February 1-3, 2013	Yes	Novel cyanide-bridged two-dimensional (2-D) copper(II)-copper(I) mixed-valence coordination polymers and its conversion into copper oxide nanoparticles with good catalytic activity in C-N, C-O, and C-S Cross-Coupling Reactions	01
10.	International	5th Asia-Oceania Conference on Green and Sustainable Chemistry (AOC-5 GSC)	India Habitat Centre, Lodhi Road, New Delhi, India	January15-17, 2015	Yes	Immobilization of bimetallic Pd-Cu NCs inside the pores of metal-organic frameworks as an efficient catalyst for chromium reduction using formic acid	01

Resource Person (Conference/seminar/ workshop/training programme/ educational trips)

S.No	Type of Event	Name of Event	Venue	Date of Event	State your role: Convener/Member organizing committee/ Speaker/ Coordinator	Duration of Activity	No of participant in the programme

Awards Won

S.No	Name of Award	Awarding Agency	Government/ NGO/ International/Private	Recognition area	Date of award	Type of Honor received

Extension Activity (Community related program)

S.No	Type of Activity	Centre and Venue	Title of Event	Role in the event	Date/period of Event	No of members of the community/students /Faculty benefitted

Membership of Professional Bodies:

	Type of Membership	Organisation,	Year of Membership
1.	Life membership	Chemical Research Society of India, Bangalore	2004
2.	Life membership	National Magnetic Resonance Society of India, Bangalore	2005