

BIO-DATA

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H-Index: 45



Prof. D.P. Rao is a Fellow of the Royal Society of Chemistry (FRSC), London. He has completed twenty-three years of working in different capacities as a professor, associate professor, and assistant professor in these years. **He accomplished a sponsored trip to Shenzhen, China, in November 2011 and Athens, Greece, in July 2014 by UGC New Delhi, India.** He has completed 04 Research Projects along with 02 ongoing major research projects, which have been expeditious to the uplift of society in a well-defined manner. **He has 10 patents to his credit, of which 06 are UK and 04 are Indian.** At present, he is serving as **Editor-in-Chief** of GRS Journal of Multidisciplinary Research and Studies, International Research Journal of Scientific Reports and Reviews, and Journal of Medical Studies and Applied Sciences. He has been awarded as **Best Researcher by CSJM University, Kanpur, India** and an **Honorary D.Sc. degree from Central University of America.** He published 80 research papers with a **cumulative JCR Impact Factor of 195.2** in journals, like 20 papers in Q1, 24 in Q2, 12 in Q3 and 04 in Q4 journals respectively.

RSC Membership	: https://credentials.recognition.rsc.org/credentials/effc2199-0769-4cc1-beb2-f9a073b86497?preview=1
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Scopus ID	: http://www.scopus.com/authid/detail.url?authorId=35119371500
Vidwan ID	: https://vidwan.inflibnet.ac.in/profile/298588
Google Scholar ID	: https://scholar.google.com/citations?user=kTIZj3IAAAAJ&hl=en
ResearchGate	: https://www.researchgate.net/profile/Devendra-Rao-2
ResearchIDs	: rid31372 and devendraprataprao
Web page	: https://www.davcollegekanpur.ac.in/departments/chemistry/prof-devendra-pratap-rao

CAREER

From	To	Post	Institute
01/11/2021	Till date	Professor	D.A-V. (P.G.) College, Kanpur, U.P.
17/03/2018	30/10/2021	Associate Professor	D.A-V. (P.G.) College, Kanpur, U.P.
21/07/2006	16/03/2018	Assistant Professor	D.A-V. (P.G.) College, Kanpur, U.P.
17/03/2006	20/07/2006	Assistant Professor	S.H.K. P.G. College, Basti, U.P.
20/03/2003	16/03/2006	Lecturer	Govt. J. Inter College, Gorakhpur U.P.
1999	1999	Project Associate	N.P.L. New Delhi

LIST OF PUBLICATIONS

1	Enhanced Photodegradation of Ciprofloxacin by Cu-doped Spinel Ferrite Nanoparticles: Synthesis, Characterization and Mechanistic Insights C. Celik, A.A. Kadhem, M.M. Mehdi, D. Sur, S. Ballal, B. Purohit, S. Ray, N.C. Talniya, D.P. Rao* , A.M. Salamatullah, M. Yasar
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	<i>Journal of Sol-Gel Science and Technology</i> , ISSN: 09280707, 118:57, 2026, IF 3.2 Indexing: SCIE, Scopus Q2 DOI: https://doi.org/10.1007/s10971-026-07129-9
2	Cyclometalated Ir(III) and Pt(II) complexes as vapochromic and luminescent chemosensors for amines and alkaloids: Fundamentals and prospects for illicit drug detection Q. Abuhassan, G. Oriquat, O.S. Waleed, P.B. Raj, S. Ganesan, S. Ray, M. Latipova, F. Jalilov, R. Siddikov, S.J.S. Kalra, D.P. Rao* <i>Polyhedron</i> , ISSN: 1873-3719, 296, 118215, 2026, IF 2.6 Indexing: SCIE, Scopus Q2 DOI: https://doi.org/10.1016/j.poly.2026.118215
3	Synthesis and Anticancer Evaluation of Methoxy-Substituted Chalcone Hybrids: DFT, Molecular Docking, and ADME Studies A.K. Gautam, S. Kumar, M. Mishra, P. Mishra, S. Parveen, M. Banerjee, M. Ansari, H. Khanam, R.K. Maurya, M. Prashant, H.K. Maurya, Y. Gautam, D.P. Rao , A.K. Gautam, A.K. Gupta <i>ChemistrySelect</i> , ISSN: 23656549, 1-14, 11:e07217, 2026, IF 2.0 Indexing: SCIE, Scopus Q3 DOI: https://doi.org/10.1002/slct.202507217
4	Reusable Biochar Adsorbent from Forestry Waste for Aqueous Dye Remediation: Isotherms, Kinetics, and Regeneration G.B. More*, Akshay, B.C. Choudhary, D.P. Rao <i>Chemistry and Ecology</i> , ISSN: 02757540, 1-27, 2026, IF 1.8 Indexing: SCIE, Scopus Q2 DOI: https://doi.org/10.1080/02757540.2026.2636294
5	Recent advances in miniaturized electrochemical sensors based on carbon nanomaterials for heavy metals in aqueous environments: Nanoarchitectonics and application challenges H. AlMohamadi, P. Rodrigues, F.M.A. Altalbawy, S. Shomurotova, A.J. Khalaf, S.A. Ansari, M.S. Iqbal, H.I. Sakr, D.P. Rao* , Chou-Yi Hsu <i>Microchemical Journal</i> , ISSN: 10959149, 224 (2026), 117497, 2026, IF 5.1 Indexing: SCIE, Scopus Q1 DOI: https://doi.org/10.1016/j.microc.2026.117497
6	Targeting Reactive Astrocytes with Flavonoids to Alleviate Neuroinflammation and Promote Synaptic Function D.P. Rao* , A.K. Hammad, H.R.A.K. Al-Hetty, A.K. Kareem, A. Hjazji, I. Ahmad, Z. Abbas, R.Y. Albaz, Y.F. Mustafa, M.A.Z. Abdulmoaty <i>Molecular Neurobiology</i> , ISSN: 15591182, 63(414), 2026, IF 4.8 Indexing: SCIE, Scopus Q1 DOI: https://doi.org/10.1007/s12035-026-05670-w
7	Therapeutic studies of the dioxomolybdenum (VI) compounds of Schiff base Siddharam, Nidhi, A.K. Gautam, D.P. Rao* <i>Oriental Journal of Chemistry</i> , ISSN: 22315039, 41(6), 1979-1990, 2025, IF 0.6 Indexing: ESCI DOI: http://dx.doi.org/10.13005/ojc/410612
8	Rapid synthesis of pyrimidine derivatives using a reproducible catalyst based on triflate anion E.A.M. Saleh, M.M. Moharam, F.F. Seed, R. Roopashree, S. Ray, K. Jaybalan, R. Sharma, A. Sinha, I.B. Sapaev, D.P. Rao* <i>Chemical Papers</i> , ISSN: 25857290, 80, 2293-2306, 2025, IF 2.5 Indexing: SCIE, Scopus Q2 DOI: https://doi.org/10.1007/s11696-025-04516-4
9	Thiophenyl azanylidene pentadamine molybdenum compounds and their antibacterial effects Siddharam, Nidhi, K. Gautam, D.P. Rao* <i>Letters in Applied NanoBioScience</i> , ISSN: 22846808, 14(4), 248, 2025, Scopus Q3 DOI: https://doi.org/10.33263/LIANBS144.248
10	Exploring advancements and emerging trends in nanozyme engineering to enhance dual-mode analysis of bacterial pathogens: A comprehensive review F.M.A. Altalbawy, C.-Yi Hsu, M.Y.H. Al-Shamri, Z.K.A. Al-Khafaji, A.K. Kareem, S. Shomurotova, D.P. Rao* , Y.F. Mustafa, W. Nabil, Z. I. Al-Mashhadani <i>Talanta</i> , ISSN: 18733573, 298(2026), 129042, 2025, IF 6.1 Indexing: SCIE, Scopus Q1 DOI: https://doi.org/10.1016/j.talanta.2025.129042
11	Carbon cone-shaped anodes for sodium and potassium-ion batteries: a theoretical study C.Y. Hsu, A.B.M. Ali, V. Jain, A.M.A. Mohamed, D.P. Rao* , S. Shomurotova, M.H. Najm, Z.S.A. Madhi, H.M. Alkahtani <i>Journal of Energy Storage</i> , ISSN: 23521538, 141(2026), 119301, 2025, IF 9.8 Indexing: SCIE, Scopus Q1 DOI: https://doi.org/10.1016/j.est.2025.119301
12	A computer-based study on the potential flutamide drug biosensor based on transition metal modified BN nanocage O.A. Khadhair, A.Y. Ahmed, G. P. Priya, S. Ray, A. Pal, V. Arora, O. Mukhitdinov, L. Safarova, D.P. Rao* , A. Smerat, S.O. Rab <i>Microchemical Journal</i> , ISSN: 10959149, 219 (2025), 115823, 2025, IF 5.1 Indexing: SCIE, Scopus Q1 DOI: https://doi.org/10.1016/j.microc.2025.115823
13	Dinitrogen fixation by Cyanobacteria V. Gupta, K. Kumar, V.K. Dubey, D.P. Rao , P. Gupta, A. Kushwaha, S.K. Singh, P. Mishra, V. Saxena, G.P. Gupta <i>International Journal of Environmental Sciences</i> , ISSN: 22297359, 11(22), 633-652, 2025, Scopus Q3 DOI: https://theaspd.com/index.php

14	<p>Electrodeposition of stacked CFZN metallic oxide nanosheets as high-performance bifunctional electrocatalyst for HER and supercapacitor C. Hsu, K.H. Thamir, Z.A. Rejab, H.A. Abbood, A. Ved, S. Saydaxmetova, U. Raheja, A.M.A. Mohamed, H.M. Alkahtani, D.P. Rao* <i>Journal of the Taiwan Institute of Chemical Engineers</i>, ISSN: 18761070, 176(2025), 106299, 2025, IF 6.3, Indexing: SCIE, Scopus Q1 DOI: https://doi.org/10.1016/j.jtice.2025.106299</p>
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16	<p>Synthesis, Crystallographic, Spectroscopic, Quantum Chemical Studies and Anticancer Activity of Novel Pyrazoline Derivative H. Khanam, S. Parveen, A.K. Gautam, Akshay, A.K. Gupta, M. Banerjee, J. Pandey, M. Singh, D.P. Rao, R.K. Maurya, A.K. Gautam, H.K. Maurya, Y. Gautam <i>Journal of Molecular Structure</i>, ISSN: 00222860, 1342(2025), 142742, 2025, IF: 4.7, Indexing: SCIE, Scopus Q1 DOI: https://doi.org/10.1016/j.molstruc.2025.142742</p>
17	<p>Discovery of a novel 4-Pyridyl SLC-0111 Analog Targeting Tumor-Associated Carbonic Anhydrase Isoform IX Through Tail-Based Design Approach with Potent Anticancer Activity H. Hashem, S. Abdelfattah, H. Hassan, A. Al-Eman, M. Alqarni, G. Alotaibi, I.T. Radwan, K. Kaur, D.P. Rao*, S. Brase, A. Alkhamash <i>Frontiers in Chemistry</i>, ISSN: 22962646, 13, 1571646, 2025, IF 4.2, Indexing: SCIE, Scopus Q1 DOI: https://doi.org/10.3389/fchem.2025.1571646</p>
18	<p>Reaction mechanism chemistry of chain scission, crosslinking, and other product formation in γ-ray irradiated PET polymer using molecular spectroscopy S.G. Prasad, C. Lal, K.C. Verma, D.P. Rao <i>Chemistry Africa</i>, ISSN: 25225758, 8, 2409-2420, 2025, IF 2.6, Indexing: ESCI, Scopus Q2 DOI: https://doi.org/10.1007/s42250-025-01253-9</p>
19	<p>The ability of ZnO and MgO nanocages for adsorption and sensing performance of anticancer drug detection. M.J. Saadh, A.B.M. Ali, Z.A. Hanoon, V. Jain, P.K. Pathak, A. Kumar, A.A. Almehezia, D.P. Rao* <i>Journal of Molecular Graphics and Modelling</i>, ISSN: 18734243, 137(2005), 109003, 2025 IF 3.0 Indexing: SCIE, Scopus Q2 DOI: https://doi.org/10.1016/j.jmgm.2025.109003</p>
20	<p>Coordination engineering of transition metal doped in B2CN3 electrocatalyst to enhance efficient carbon dioxide reduction reaction W.H. Hassan, A. Kumar, G.V.S. Prasad, B. Juneja, M.S. Merza, A.A. Almehezia, D.P. Rao*, Chou-Yi Hsuh <i>Sustainable Chemistry and Pharmacy</i>, ISSN 23525541, 44(2025), 101951, 2025, IF: 5.8, Indexing: SCIE, Scopus Q1 DOI: https://doi.org/10.1016/j.scp.2025.101951</p>
21	<p>An insight into the therapeutic impact of quinoxaline derivatives: Recent advances in biological activities (2020–2024) Aly M. Waseem, R.M. Elmagzoub, M.M.M. Abdelgadir, A.A. Bahir, N.S. Abd EL-Gawaad, A.S. Abdel-Samea, D.P. Rao*, K. Kossenias, S. Brase, H. Hashem <i>Results in Chemistry</i>, ISSN 22117156, 13(2025), 101989, 2024, IF: 4.2, Indexing: ESCI, Scopus Q2 DOI: https://doi.org/10.1016/j.rechem.2024.101989</p>
22	<p>Schiff bases and their possible therapeutic applications: A review Nidhi, Siddharam, D.P. Rao*, A.K. Gautam, A. Verma, Y. Gautam <i>Results in Chemistry</i>, ISSN 22117156, 13(2025), 101941, 2024, IF: 4.2, Indexing: ESCI, Scopus Q2 DOI: https://doi.org/10.1016/j.rechem.2024.101941</p>
23	<p>In-situ engineering of 3D amorphous/crystalline NiFeP/NiMoP/NF composite for improved hydrogen evolution. B. Meia, Ali B.M. Ali, M. Al-Yasiri, A. Kumar, P. Sharma, M. Chahar, M. Ravi Kumar, S. Islam, D.P. Rao*, S.M. Irshad <i>International Journal of Hydrogen Energy</i>, ISSN 03603199, 97(2025), 130-139, 2024, IF: 8.3, Indexing: SCIE, Scopus Q1 DOI: https://doi.org/10.1016/j.ijhydene.2024.11.425</p>
24	<p>1,4-Bis(pyridin-1-ium)benzene trifluoroacetate coordinated to chloropropyl functionalized SiO₂-nano-NiFe₂O₄ (BPBTCSF): as a novel and effectual mesoporous bi-functional magnetic catalyst for the synthesis pyrido[2,3-d:6,5-d']dipyrimidines. C.Y. Hsu, M.Y. Alshahrani, Y. Jadeja, E.F. Oghenemaro, D. Nathiya, P. Kaur, D. Aulakh, D.P. Rao, A.M.H. Wais, F.A. alzhara <i>Journal of Molecular Structure</i>, ISSN 00222860, 1323(2025), 140671, 2024, IF: 4.7, Indexing: SCIE, Scopus Q1 DOI: https://doi.org/10.1016/j.molstruc.2024.140671</p>
25	<p>In-silico designing and synthesis of small molecule potential inhibitors of Plasmodium falciparum plasmepsin I based on HEA and Piperazine moieties. A.K. Gautam, R. Boyina, A. Verma, S.G. Prasad, Y. Gautam, D.P. Rao*</p>

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26	Antibacterial effects of Mo(VI) macrocyclic compounds S. Katiyar, Siddharam, D.P. Rao* , S.G. Prasad <i>Oriental Journal of Chemistry</i> , ISSN: 22315039, 40(5), 1356-1366, 2024 IF 0.8 Indexing: ESCI DOI: http://dx.doi.org/10.13005/ojc/400518
27	Indole Derivatives: A versatile scaffold in modern drug discovery- An updated review on their multifaceted therapeutic applications (2020–2024) Xingyou Mo, D.P. Rao , K. Kaur, R. Hassan, A.S. Abdel-Samea, S.M. Farhan, S. Bräse, H. Hashem <i>Molecules</i> , ISSN: 14203049, 29, 4770, 2024 IF: 4.6 , Indexing: SCIE, Scopus Q1 DOI: https://doi.org/10.3390/molecules29194770
28	An Efficient and Green Strategy for the Synthesis of Graphene with Aqueous Polyphenol Extracts of Orchid Flower (Dendrobium Anosmum) for Charge Storage. I. Ruti, V. Kaliyaperuma, D. P. Rao , S. Kumar <i>Materials Letters</i> , ISSN: 0167577X, 376, 137131, 2024 IF 2.7 , Indexing: SCIE, Scopus Q2 DOI: https://doi.org/10.1016/j.matlet.2024.137131
29	Saffron: A Comprehensive Review of It's Cancer-Preventive and Curative Properties in Different Types of Cancer Y. Gautam, M. Srivastav, P. Mishra, M. Singh, H. Kausar, D. P. Rao , A. Srivastav, L. Kumari, R.P.S. Chauhan, N. Verma <i>Oriental Journal of Chemistry</i> , ISSN: 22315039, 40(3), 646-659, 2024 IF 0.8 Indexing: ESCI DOI: http://dx.doi.org/10.13005/ojc/400303
30	Adsorptive removal of cadmium electroplating wastewater using hybrid composite of thiol-grafted seed gum of Tamarindus indica and Teff hay biocarbon. D. P. Rao , V.D. Krishnasamy, M. Selvaraju*, V.P. Sundramurthy, S.R. Kandavalli, M.S. Chitra, N. Sivasamy, P. Thirumoorthy <i>Zeitschrift für Physikalische Chemie</i> , (International Journal of Research in Physical Chemistry and Chemical Physics), ISSN: 21967156, 239 (5), 633-654, 2025 IF 3.2 , Indexing: SCIE, Scopus Q2 DOI: https://doi.org/10.1515/zpch-2024-0715
31	Correlation coefficient for physico-chemical parameters to assess the quality of tannery effluents at Kanpur. R. Saxena, D.P. Rao* , A.K. Gautam, M. Gautam, G.P. Gupta, S. Kumar, V. Saxena, C.P. Singh, V. Shankar, Y. Gautam <i>Letters in Applied NanoBioScience</i> , ISSN: 22846808, 13(1), 47, 1-12, 2024, Scopus Q3 DOI: https://doi.org/10.33263/LIANBS131.047
32	A review in curcuminoids: Chemistry, anticancer activity and future prospects P. Mishra, M. Srivastava, Y. Gautam, M. Singh, N. Verma, D. S. Kapkoti, S. P. Singh, A. K. Singh, D. P. Rao <i>Indian Drugs</i> , ISSN: 0019462X, 61(5), 7-23, 2024, Scopus Q4 DOI: https://doi.org/10.53879/id.61.05.14041
33	Pure and doped graphene as a suitable material for the detection of hazardous gases. R. Zainul, A. T. Ahmed, M. Kaur, R. Sharma, L. H. Saleh, A.A. Mahmood, D. P. Rao* , M. A. Hasan, S. Islam <i>Journal of Organometallic Chemistry</i> , ISSN: 0022328X, 1014, 123196, 2024, IF 2.4 , Indexing: SCIE, Scopus Q2 DOI: https://doi.org/10.1016/j.jorganchem.2024.123196
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35	Physico-chemical analyses to assess the quality of distillery effluents at Unnao. R. Saxena, D.P. Rao* , A.K. Gautam, M. Gautam, G.P. Gupta, S. Kumar, V. Saxena, C.P. Singh, V. Shankar, Y. Gautam <i>Biointerface Research in Applied Chemistry</i> , ISSN: 20695837, 14(2), 38, 1-12, 2024, Scopus Q2 DOI: https://doi.org/10.33263/BRIAC142.038
36	Aniline-naphthylamine copolymer integrated with aluminum terephthalate-based metal organic framework for efficient hydrogen evolution from seawater. Y. Jazaa, R. Abdulkareem, L.M.F. Fiallos, S.K. Saraswat, S. Abdullaev, R.M.T. Castillo, D.P. Rao , Z.H. Mahmoud, A.A. Rajhi <i>Journal of Materials Engineering and Performance</i> , ISSN 10599495, 34, 960-967, 2025 IF 2.3 Indexing: SCIE, Scopus Q2 DOI: https://doi.org/10.1007/s11665-024-09175-2
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39	Evaluating ammonia sensors based on two-dimensional pure and silicon decorated biphenylene using DFT calculations. M.J. Saadh, S.A. Jasim, M.G. Veloz, A. Kumar, S.M. Mekkey, M.A. Guadalupe, M. Nora, D.P. Rao* , Y. Elmasry <i>Inorganic Chemistry Communications</i> , ISSN 13877003, 160, 111918, 2024 IF 5.4 Indexing: SCIE, Scopus Q1 DOI: https://doi.org/10.1016/j.inoche.2023.111918
40	Thermolysis and their kinetics of Cu(II) perchlorate complex with isopropylamine and water. A. Sing, C.P. Singh, A.K. Srivastava, D.P. Rao* <i>European Chemical Bulletin</i> , ISSN: 20635346, 12(sp. 13), 1166-1173, 2023 DOI: https://www.eurchembull.com/uploads/paper/c2abfa0c31c9ebcacb8d98f455e40833.pdf
41	Design and evaluation of the chemical functionalized BxCyNz (x=z=1, y=2) nanotube as an anticancer drug delivery vehicle. M.J. Saadh, H.A. Mohammad, R.S. Alazragi, S.F. Jawad, A.H. Shather, D.P. Rao , A.J.A. Saheb, S. Sharma, Z.T. Abed <i>Inorganic Chemistry Communications</i> , ISSN 13877003, 157, 111321, 2023 IF 5.4 Indexing: SCIE, Scopus Q1 DOI: https://doi.org/10.1016/j.inoche.2023.111321
42	Half-sandwich arene metal complexes bearing ferrocenyl-pyridine azine Schiff Base: Anticancer, antibacterial, DNA binding and in vitro cytotoxicity studies. Sheetal, D.P. Rao* , V. Singh, S. Srivastava, S. Kumar, R. Singh <i>Chemistry Africa</i> , ISSN: 25225758, 6(6), 2983-2993, 2023 IF 2.6 Indexing: ESCI, Scopus Q2 DOI: https://doi.org/10.1007/s42250-023-00706-3
43	Synthesis of mesoionic 1-aryl-4-(phenyl/p-chlorophenyl)imidazo[2,1-b]thiazol-4-ones and study of their monoamine oxidase, succinate dehydrogenase inhibitory, anti-convulsant and anti-bacterial activity. S.K. Srivastava, D.P. Rao* , S.P. Singh <i>Letters in Applied NanoBioScience</i> , ISSN: 22846808, 12(3), 90, 2022, Scopus Q3 DOI: https://doi.org/10.33263/LIANBS123.090
44	Central Nervous System Activity of 1-aryl-2-(thiomethylene benzimidazol-2-yl)-4-(phenyl/p-chlorophenyl)-imidazoles and 1-aryl-2-sulphono-[benzimidazol-2-yl]-methyl-4-(phenyl/p-chlorophenyl)-imidazoles. S.K. Srivastava, S.P. Singh, D.P. Rao* <i>Letters in Applied NanoBioScience</i> , ISSN: 22846808, 12(3), 73, 2022, Scopus Q3 DOI: https://doi.org/10.33263/LIANBS123.073
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48	Molybdenum(VI) complexes with Schiff base containing N-hetero atom. C.P. Singh, H.S. Yadav, D.P. Rao* <i>Letters in Applied NanoBioScience</i> , ISSN: 22846808, 10(1), 1816-1824, 2021, Scopus Q3 DOI: https://doi.org/10.33263/LIANBS101.18161824
49	Synthesis and studies of some cis-MoO ₂ (VI) complexes with nitrogen donor macrocyclic ligands. R.K. Gautam, C.P. Singh, R. Saxena, D.P. Rao* <i>European Chemical Bulletin</i> , ISSN: 20635346, 8(12), 387-393, 2019 DOI: http://dx.doi.org/10.17628/ecb.2019.8.387-393
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51	New insights into the chemistry of cis-dioxomolybdenum(VI) Schiff base complexes with macrocyclic ligands.

	R.K. Gautam, C.P. Singh, D. Kumar, D.P. Rao* <i>Chemical Science Transactions</i> , ISSN: 22783458, 8(4), 467-476, 2019 DOI: https://doi.org/10.7598/cst2019.1594
52	Synthesis and antibacterial activity of novel molybdenum complexes with macrocyclic Schiff base derived from furanylethanedione. R.K. Gautam, C.P. Singh, R. Saxena, D.P. Rao* <i>Asian Journal of Chemistry</i> , ISSN: 09707077, 31(11), 2607-2612, 2019, Scopus Q4 DOI: https://doi.org/10.14233/ajchem.2019.22242
53	Thermal decomposition and their kinetics of mercury(II) perchlorate complex with 4-aminopyridine and water. C.P. Singh, A. Singh, D.P. Rao* <i>Letters in Applied NanoBioScience</i> , ISSN: 22846808, 8(3), 649-653, 2019, Scopus Q3 DOI: https://doi.org/10.33263/LIANBS83.649653
54	New Insights into the Chemistry of oxovanadium(IV) Schiff base complexes with nitrogen donor. A.K. Yadava, H.S. Yadav, D.P. Rao* <i>Journal of Science</i> , ISSN: 22773290, 5(11), 1086-1090, 2015
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56	Synthesis, characterization and antibacterial evaluation of five MoO ₂ (VI) complexes coordinated by Schiff derivatives. D.P. Rao <i>Biointerface Research in Applied Chemistry</i> , ISSN: 20695837, 4 (4), 793-797, 2014, Scopus Q2 https://publons.com/wos-op/publon/56118938/
57	Enhancement of seed germination and plant growth of wheat, maize, peanut and garlic using multiwalled carbon nanotubes. D.P. Rao* , A. Srivastava <i>European Chemical Bulletin</i> , ISSN: 20635346, 3(5), 502-504, 2014 DOI: https://doi.org/10.17628/ECB.2014.3.502
58	<i>cis</i> -Dioxomolybdenum(VI) complexes with symmetrical tetradentate Schiff bases and their antibacterial activity. D.P. Rao* , H.S. Yadav, A. Srivastava <i>Biointerface Research in Applied Chemistry</i> , ISSN: 20695837, 4(1), 678-684, 2014, Scopus Q2 https://publons.com/wos-op/publon/56118929/
59	New insights into the chemistry of dioxomolybdenum(VI) complexes with Schiff base. D.P. Rao <i>Biointerface Research in Applied Chemistry</i> , ISSN: 20695837, 4(1), 671-677, 2014, Scopus Q2 https://publons.com/wos-op/publon/56118930/
60	Physico-Chemical analysis and pollution level of one of the distillery effluents in-Unnao, India. A.P. Singh, R. Saxena, D.P. Rao* <i>European Chemical Bulletin</i> , ISSN: 20635346, 2(12), 1060-1064, 2013 DOI: https://eurchembull.com/uploads/paper/39752895117f3ae39949f75a17c7704d.pdf
61	New insights into the chemistry of <i>cis</i> -dioxomolybdenum (VI) complexes with symmetrical tetradentate Schiff bases and their antibacterial activity. D.P. Rao <i>Biointerface Research in Applied Chemistry</i> , ISSN: 20695837, 3(4), 606-612, 2013, Scopus Q2 DOI: https://publons.com/wos-op/publon/56118934/
62	<i>In-situ</i> synthesis and antibacterial activity of novel macrocyclic complexes of <i>cis</i> -dioxomolybdenum(VI). D.P. Rao* , H.S. Yadav <i>Biointerface Research in Applied Chemistry</i> , ISSN: 20695837, 3(2), 533-540, 2013, Scopus Q2 DOI: https://publons.com/wos-op/publon/56118932/
63	Assessment of tannery effluent: a case study of Kanpur in India. A.P. Singh, D.P. Rao* <i>European Chemical Bulletin</i> , ISSN: 20635346, 2 (7), 461-464, 2013 DOI: https://doi.org/10.17628/ECB.2013.2.461
64	Synthesis and spectral characterization of some novel macrocyclic complexes of oxovanadium(IV) with 1,1'-oxalyldiimidazole.

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65	New insights into the chemistry of oxovanadium(IV) complexes with tetradentate macrocyclic ligands. S. Singh, H.S. Yadav, A.K. Yadava, D.P. Rao* <i>Biointerface Research in Applied Chemistry</i> , ISSN: 20695837, 3 (1), 484-490, 2013, Scopus Q2 DOI: https://publons.com/wos-op/publon/56118935/
66	Synthesis, structure and characterization of oxovanadium(IV) Schiff base complexes with tetradentatemacrocyclic ligands. A.K. Yadava, H.S. Yadav, U.S. Yadava, D.P. Rao* <i>Biointerface Research in Applied Chemistry</i> , ISSN: 20695837, 2(5), 424-431, 2012, Scopus Q2
67	New insights into the chemistry of oxovanadium(IV) complexes with N ₄ coordinating ligands. A.K. Yadava, H.S. Yadav, U. S. Yadava, D.P. Rao* <i>ISRN Inorganic Chemistry</i> , ISSN: 2314470X, ID 871640, 5 Pages, 2013 DOI: https://doi.org/10.1155/2013/871640
68	Synthesis of oxovanadium(IV) complexes with tetraaza coordinating ligands. S. Singh, H.S. Yadav, A.K. Yadava, D.P. Rao* <i>Journal of Chemistry</i> , ISSN: 20909071, ID 947325, 5 Pages, 2013, IF 3.241 Indexing: SCIE, Scopus Q1 DOI: http://dx.doi.org/10.1155/2013/947325
69	Synthesis and characterization of <i>cis</i> -dioxomolybdenum(VI) complexes having furil as precursor molecule. D.P. Rao* , H.S. Yadav, A.K. Yadava, S. Singh, U.S. Yadav <i>Journal of the Serbian Chemical Society</i> , ISSN: 03525139, 77 (9), 1-10, 2012, IF 1.10 Indexing: SCIE, Scopus Q3 DOI: https://doi.org/10.2298/JSC111110020R
70	Synthesis and characterization of some novel Schiff base complexes of oxovanadium(IV) cation. A.K. Yadava, H.S. Yadav, U.S. Yadav, D.P. Rao* <i>Journal of Chemistry</i> , ISSN: 20909071, ID 689518, 5 Pages, 2013, IF 3.241 Indexing: SCIE, Scopus Q1 DOI: http://dx.doi.org/10.1155/2013/689518
71	Synthesis and structural characterization of novel square pyramidal oxovanadium(IV) complexes with ligands having N and O- donor atoms. A.K. Yadava, H.S. Yadav, U.S. Yadav, D.P. Rao* <i>Turkish Journal of Chemistry</i> , ISSN: 13000527, 36 (4), 624-630, 2012, IF 1.4 Indexing: SCIE, Scopus Q3 DOI: https://doi.org/10.3906/kim-1201-54
72	Synthesis and characterization of oxovanadium(IV) macrocyclic complexes with ligands derived by condensation of furil with 1,4-diaminobenzene or 3,4-diaminopyridine and their reactions with β -diketones. S. Singh, H.S. Yadav, A. K. Yadava, D.P. Rao* <i>International Journal of ChemTech Research</i> , ISSN: 09744290, 3(4), 1863-1869, 2011, Scopus Q4 DOI: http://www.scopus.com/inward/record.url?eid=2-s2.0-84055191972&partnerID=MN8TOARS
73	Syntheses and spectroscopic studies on macrocyclic complexes of dioxomolybdenum(VI) with furil as precursor. D.P. Rao* , H.S. Yadav, A.K. Yadava, S. Singh, U.S. Yadav <i>E-Journal of Chemistry</i> , ISSN: 09734945, 9(2), 497-503, 2012, IF 3.241 Indexing: SCIE, Scopus Q1 <i>Journal of Chemistry</i> , vol. 9, Article ID 205123, 7 pages, 2012 DOI: https://doi.org/10.1155/2012/205123
74	Synthesis and characterization of oxovanadium(IV) complexes with tetradentate Schiff-base ligands having thenil as precursor molecule. S. Singh, D.P. Rao* , A.K. Yadava, H.S. Yadav <i>Current Research in Chemistry</i> , ISSN: 19965052, 3(2), 106-113, 2011 DOI: https://doi.org/10.3923/crc.2011.106.113
75	In-situ preparation of macrocyclic complexes of dioxomolybdenum(VI) involving heterocyclic precursor. D.P. Rao* , H.S. Yadav, A.K. Yadava, S. Singh, U. S. Yadav <i>Journal of Coordination Chemistry</i> , ISSN: 00958972, 64(2), 293-299, 2011, IF 2.2 Indexing: SCIE, Scopus Q3 DOI: https://doi.org/10.1080/00958972.2010.544037
76	Role of nanoparticles in drug delivery.

	D.P. Rao* , S.K. Srivastav, C. Prasad, R. Saxena, S. Asthana <i>International Journal of Nanotechnology and Applications</i> , ISSN: 0973631X, 4(1), 45-49, 2010
77	Toxic load of tannery industries situated in Kanpur. D.P. Rao* , R. Saxena, V. Saxena, A. Singh <i>International Journal of Applied Environmental Sciences</i> , ISSN: 09736077, 4(3), 327-335, 2009 DOI: http://www.scopus.com/inward/record.url?eid=2-s2.0-70449107421&partnerID=MN8TOARS
78	Correlation studies of chemical characterization of distillery effluents. D. P. Rao* , R. Saxena, V. Saxena <i>International Journal of Applied Environmental Sciences</i> , ISSN: 09736077, 4(2), 161-168, 2009 DOI: http://www.scopus.com/inward/record.url?eid=2-s2.0-70449119654&partnerID=MN8TOARS
79	Isolation & characterization of per-oxidases from the leaves of <i>Ricinus Communis</i> . P. Kumar, M. Kamle, J. Singh, D. P. Rao* <i>International Journal of Biochemistry and Biotechnology</i> , ISSN: 09732691, 4(4), 283-292, 2008

Book(s) published				
S. No.	Book Title	Type of Authorship	ISSN/ ISBN No.	Publisher
1.	A text book of Spectroscopy, Total Pages 128, 2013	Single	978-81-8378-113-8	Sahitya Ratnalay, Kanpur
2.	Inorganic Chemistry: An Introduction, Total Pages 186, 2015	Single	978-81-8378-130-5	Sahitya Ratnalay, Kanpur
3.	Organic Chemistry: An Introduction, Total Pages 154, 2017	Single	978-81-8378-131-2	Sahitya Ratnalay, Kanpur
4.	DCEBCH-106 Spectroscopy, Total Pages 164, 2022	Editor	978-93-94487-48-2	Uttar Pradesh Rajarshi Tandon Open University

Patents

Book Chapter Published			
S. No.	Title with page nos.	Book Title, editor & publisher	ISBN No.
1	Plant Growth Promoting Rhizobacteria (PGPR): Mechanism, role in crop improvements and sustainable agriculture. Page No. 386-397, 2017	Advances in PGPR Research, CAB International-2017, U.K.	9781786390325 https://lccn.loc.gov/2017016222
2	Particulate Matter and its Impact on Plant Biochemical and Morphological Changes. Page No. 175-196, 2022	Advances in Plant Science, LAP LAMBERT Academic Publishing	9786205498545
3	Indoles: A Potential Drug Development Scaffold. Page No. 63-84, 2024	Multidisciplinary Approach and Applications of Material Science, Thanuj International Publishers, Tamil Nadu	9789394638815
4	Discovery of a novel 4-pyridyl SLC-0111 analog targeting tumor-associated carbonic anhydrase isoform IX through tail-based design approach with potent anticancer activity Page No. 119-136	Recent advances in synthetic organic chemistry at the biomedical interface: honoring Professor Iwao Ojima on the occasion of his 80th birthday Frontiers in Chemistry, Switzerland	9782832570838 https://doi.org/10.3389/978-2-8325-7083-8
5	Role of Microbes in Ecosystem Processes and Environmental Management Page No. 39-58, 2026	Microbial contributions to carbon cycling and sequestration Academic Press, Elsevier, London	978-0-443-34272-1 https://doi.org/10.1016/B978-0-443-34272-1.00014-8

Sl. No.	Title of Patent	Detail of Patent
1.	An approach for modelling and rationalizing organometallic chemistry with computation	Indian Patent / Publication No. 202311023189 / Publication Type- Ordinary / Date of Filing- 29-03-2023 / Publication Date- 19-05-2023
2.	Distillation Apparatus	Indian Design / Design No. 382985-001 / Date of Filing- 04-04-2023 / Issue Date- 27-06-2023
3.	Distillation Apparatus	UK Design / Design No. 6285031 / Date of Filing- 23-05-2023 / Grant Date- 06-07-2023
4.	Digital Viscometer	UK Design / Design No. 6294265 / Date of Filing- 04-07-2023 / Grant Date- 11-07-2023
5.	Novel Drug Delivery System Technique	Indian Copyright / Class of Work: Literary/ Dramatic / Diary Number: 12269/2024-CO/L / Date of Filing- 20-04-2024 / ROC Number: L-150341/2024
6.	Nanotechnology Based Device for Removing Heavy Metals from Juice	Indian Design / Design No. 427711-001 / Date of Filing- 21-08-2024 / Issue Date- 28-11-2024
7.	Advanced Rotary Evaporator	UK Design / Design No. 6403095 / Date of Filing- 08-11-2024 / Grant Date- 07-01-2024
8.	Portable Nano Water Purifier Bottle	Indian Patent / Publication No. 202511003240 / Publication Type- Ordinary / Date of Filing- 14-01-2025 / Publication Date- 31-01-2025
9.	Biochemistry Analyser	UK Design / Design No. 6421943 / Date of Filing- 06-02-2025 / Grant Date- 20-02-2025
10.	Fitness Water Bottle Usable as a Dumbbell for Resistance Training	UK Design / Design No. 6466513 / Date of Filing- 19-08-2025 / Grant Date- 01-09-2025

Research Projects

1. <i>Small molecular scaffold as potential therapeutic against Plasmodium falciparum malaria</i> sponsored by CST UP Lucknow, India, 2025 (ongoing) CST/CHEM/D-1320 Dated: 27/08/2025, Dated 27-08-2025 Sanctioned Amount: 16.86 Lakh (INR)
2. <i>Catalytic and industrial application of multivalent molybdenum complexes as a bonafide chelating complex</i> sponsored by CST UP Lucknow, India, 2023 (ongoing) CST/CHEM/D-1426 Dated: 25/10/2023 Sanctioned Amount: 16.86 Lakh (INR)
3. <i>Bonafide chelating complexes of multivalent molybdenum</i> sponsored by CSJMU Kanpur, India, 2024 (completed) F. No. CSJMU/P&C/CVR/316/2024 Dated 07-MARCH-2024 Sanctioned Amount: 60K (INR)
4. <i>New Insights into the Chemistry of Dioxomolybdenum(VI) Complexes with Macrocyclic Ligands</i> sponsored by DHE UP Prayagraj, India 2021 (completed), Letter/RHEO / 208-09 /Development/ 2020-21 Date 19-04-2021 Sanctioned Amount: 3.0 Lakh (INR)
5. <i>Physico-chemical Studies of Wastewater and Distillery Effluents</i> sponsored by DHE UP Prayagraj, India, 2021 (completed), Letter/RHEO / 208-09 /Development/ 2020-21 Date 19-04-2021 Sanctioned Amount: 3.0 Lakh (INR)
6. <i>Synthesis and Characterization of Dioxomolybdenum(VI) Complexes with Different Compounds Involving Hetero Atoms and their Biological Importance</i> Sponsored by UGC, New Delhi, India, 2011-2014 (completed) Project F. No. 39 - 740/2010 (SR) Dated 06-JAN-2011 Sanctioned Amount: 2.26 Lakh (INR)

Professional Recognition/ Award/ Prize/ Certificate, Fellowship received by the applicant

S. No	Name of Award	Awarding Agency	Year
1.	Travel Grant	UGC, New Delhi	2011
2.	Travel Grant	UGC, New Delhi	2014
3.	Bharat Ratna Abdul Kalam Gold Medal	GEPR, New Delhi	2019
4.	Best Researcher	Scifax, New Delhi	2024
5.	Singhania Best Researcher Award	CSJMU Kanpur	2024

6.	D.Sc. Award	University of Central America	2024
7.	Consistent Research Performance Award	CSJMU Kanpur, India	2025

Journal as Editor-in-Chief / Editorial Board Member			
S. No.	Name of Journal	Role	Link
1.	GRS Journal of Multidisciplinary Research and Studies ISSN: 3049-0561	Editor-in-Chief	https://grspublisher.com/journal-details/GRSJMR
2.	International Journal of Chemical Research ISSN: 0975-3699	Associate Editor	https://www.bioinfopublication.org/pages/journal.php?id=BPJ0000219&pg=editorial
3.	New Emerging Techniques in Pharmaceutics	Editorial Board Member	https://pharmaceutics.stripejournals.com/editorial-board/
4.	International Research Journal of Scientific Reports and Reviews ISSN: 3108-1711	Editor-in-Chief	https://irjsrr.com/index.php/IRJSRR/about/editorialTeam
5.	Journal of Medical Studies and Applied Sciences	Editor-in-Chief	https://journal.kalpsquadgroup.com/index.php/ajs3/about/editorialTeam
6.	Science Journal of Chemistry ISSN: 2330-0981	Senior Editor	https://www.sciencepg.com/journal/125/editorial-team#Senior_Editor

Ph.D. Guidance:

Awarded : 02

Ongoing : 05

Organized Seminars

- Organized a National Seminar on *Ganga Pollution: Analysis and Remedies* sponsored by UGC New Delhi dated 07-08 Oct. 2016
- Organized a National Seminar on *Food Chemistry, Processed Food & Toxicology* sponsored by Management dated 25-26 Sept. 2019
- Organized a National Seminar on *Waste Management: Role of Chemistry* sponsored by U.P. D.H.E, Prayagraj dated 22-23 Jan. 2020

Paper presented in International Conferences Abroad 02

Paper presented in International Conferences 04

Paper presented in National Conferences 32

Invited Lectures in National Conferences 10

Reviewer of the following Journals:

1. Journal of Coordination Chemistry
2. Synthesis and Reactivity in Inorganic, Metal-Organic, and Nano-Metal Chemistry
3. Oriental Journal of Chemistry
3. Journal of Chemistry
4. Arabian Journal of Chemistry

Technical Editor of the following Journals:

1. Journal of Applied Sciences
2. Trends in Applied Sciences Research
3. Asian Journal of Applied Sciences
4. International Journal of Chemical Technology
5. Current Research in Chemistry
6. Associate Editor of International Journal of Chemical Research

MEMBERSHIP OF PROFESSIONAL BODIES

S. No.	Name / Nature of the Activity	Membership No.	Duration	Organization Institution / University
1	Life Membership	LM 072	19/09/2008	Vigyan Bharti
2	Life Membership	LM 757	08/09/2010	Association of Chemistry Teachers
3	Life Membership	L 16442	09/10/2010	Indian Science Congress
4	Life Membership	LM 498	07/02/2011	Society for Materials Chemistry
5	Life Membership	100257	09/04/2011	APCCBEES
6	Life Membership	85909D097	21/07/2017	Int. Journal of Chemical Research
7	Life Membership	http://asianpgpr.com/lifetime-Members.php	01/02/2022	Asian PGPR Society for Sustainable Agriculture
CAREER ADVANCEMENT COURSES				
1	Orientation Programme		29 th Aug.-25 th Sept. 2009	ASC, DDU Gorakhpur University
2	Refresher cum Workshop		16-22 Aug. 2010	STEP-HBTI, Kanpur
3	Refresher Course		8-28 Nov. 2010	ASC, University of Allahabad
4	Short Term Course		9-15 Oct. 2014	ASC, DDU Gorakhpur University
5	Refresher Course		2-23 Feb. 2015	ASC, University of Lucknow
6	FDP		20-25 June 2016	UPTTI, Kanpur
7	Short Term Course		7-13 Oct. 2017	ASC, University of Lucknow

Others:

1. Mentor in **State Child Science Exhibition**, 2004, at Govt. Jubilee Inter College, Gorakhpur, U.P.
2. Mentor in **State Child Science Exhibition**, 2004, on Nov. 19-23, 2004, at M.S.I. Inter College, Gorakhpur, U.P.