

Dr. MANNAR RAM MAURYA

Current position: Professor & Dean of Faculty Affair

Professor of Inorganic Chemistry

Former Head of the Department of Chemistry

Indian Institute of Technology Roorkee, Roorkee 247 667 (U.K.)

<https://www.iitr.ac.in/~CY/rkmanfcy>



General information

Date of Birth (D/M/Y):	21.07.1958
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Current Residence	54/2 Amod Path, IIT Roorkee Campus
Native Residence	Vill. Kalandarpur, Zafarabad, Jaunpur 247 667 (U.P.)

Academic Profile

- Ph.D.(1987) – Kurukshetra University (NIT Kurukshetra), Kurukshetra
- M.Sc. (1981) – Bundelkhand University, Jhansi
- B.Sc. (1979) – Gorakhpur University

Post-Doctoral Experience: 5.5 years

Sept. 1987 – August 1989	Post-doctoral Fellow	Loyola University of Chicago, USA
Sept. 1989 – August 1991	Post-doctoral Fellow	Iowa State University, Ames, Iowa, USA
Nov. 1991 – June 1993	Pool officer (CSIR)	National Chemical Laboratory, Pune

Teaching Experience: About 27 years

Duration	Position	Institution
June 1993 – August 1996	Lecturer	University of Pune
August 1996 – May 12, 2004	Assistant Professor	Univ. of Roorkee/ I.I.T. Roorkee
May 13, 2004 – April 14, 2008	Associate Professor	I.I.T. Roorkee
April 15, 2008 – till date	Professor	I.I.T. Roorkee
January 2019 – till date	Professor in HAG pay	I.I.T. Roorkee

Research Interests

- Structural and functional models of haloperoxidase enzymes.
- Vanadium complexes relevant to biological systems.
- Vanadium and molybdenum complexes as catalysts in organic transformations.
- Catalytic applications of inorganic and organic polymer supported vanadium and molybdenum complexes for oxidation reactions and multicomponent one pot synthesis.

Research experience: More than 39 years

- As Junior and senior researcher: 5 years
- As Post-doctoral fellow: 4 years
- As Pool officer: 2 years
- As Independent researcher: 28 years

Administrative Experience /Posts & responsibilities held

S. No.	Post	Organization/ University	Duration		Experience (in year and month)
			From (Date)	To (Date)	
1.	Visitor's nominee	IISER Kolkata	October 2018	Continue	> 2 years
2.	Dean of faculty Affairs	IIT Roorkee	01.06.2020	Continue	> 1 year
3.	Member Senate	NIT Hamirpur	2018	Continue	> 2 years
4.	Member Senate	NIT Uttarakhand	2018	Continue	> 2 years
5.	Member Senate	IIT Roorkee	2006	Continue	> 14 years
6.	Member, Institute Faculty Assessment Committee (Ex- Officio)	IIT Roorkee	01.06.2020	Continue	> 1 year
7.	Member, Student Career Advancement Committee	IIT Roorkee	January 2016	Continue	> 4 years
8.	Member, House Allotment Committee (Ex-Officio)	IIT Roorkee	01.06.2020	Continue	> 1 year
9.	Member, Building & Works Committee (Ex-officio)	IIT Roorkee	01.06.2020	Continue	> 1 year
10.	Head of the Department	Chemistry Department IIT Roorkee	01.03.2016	31.03.2019	3 years 1 month
11.	Vice Chairman P.G. Admission (M. Sc., M. Tech. and Ph.D.)	IIT Roorkee	June 2010	May 2011	2 years
12.	Dy. Chief Sport Advisor (Finance and administration)	IIT Roorkee	January 2008	December 2010	3 years
13.	Staff Advisor, Kho- Kho	IIT Roorkee	1997	2005	8 Years
14.	Prof.-in-charge, Non-teaching (C & D) staff	IIT Roorkee	2001	2010	10 years
15.	Chairman, Academic Program Committee	Chemistry Department, IIT Roorkee	January 2009	December 2011	3 Years

16.	Chairman, Dept. Research Committee	Chemistry Department, IIT Roorkee	April 2015	July 2016	1 year 2 months
17.	Manager, School Management Committee, Sr. Secondary school	Campus School of IIT Roorkee	July 2012	June 2015	3 Years
18.	Associate Manager and member, School Management Committee, Sr. Secondary school	Campus School of IIT Roorkee	July 2009	June 2012	3 years
19.	Treasurer and Member, School Management Committee, Sr. Secondary School	Campus School of IIT Roorkee	July 2006	June 2009	3 Years

Participation and contribution in higher education to other institution

Activity	Organization	Area of specialization
Member, Board of Studies	Kurukshetra University	Chemistry (one term, 2 y)
Member, Board of Studies	Jamia Millia Islamia, New Delhi	Chemistry ((one term, 2 y)
Member, Board of Studies	Pt. Lalit Mohan Autonomous College, Rishikesh	Chemistry (4 terms, 2 years each)
Member, Board of Studies	Thaper Institute of Engineering and Technology	Chemistry (one term, 2 y)
Member, Research degree committee	Kumaun University, Nainital	Chemistry (2 terms, 2 year each)
Resource Person for Refresher course	Kumaun University, Nainital, 2012	Inorganic Chemistry
Resource Person for Refresher course	Amravati University, Amravati, 2012	Inorganic Chemistry
Resource Person for Refresher course	H.P. University, Shimla, 2011	Inorganic Chemistry
Resource Person for Refresher course	Jamia Millia Islamia, N. Delhi, 2009	Inorganic Chemistry
Resource Person	H.P. University, Shimla, 2008	Inorganic Chemistry
Resource Person	University of Pune, Pune, 2008	Inorganic Chemistry
Resource Person	Amravati University 2004	Inorganic Chemistry
Resource Person	Aligarh Muslim University, 2002	Inorganic Chemistry
Paper setter, NET exam	CSIR, New Delhi	Chemistry (2006-2018) (about 12 years)

Paper setter JEE (main)	NTA, G. Noida	Chemistry (one time)
Paper setter JEE (Adv.)	IITs	Chemistry (7 times)

Scholarly achievements

Guest Editorship to Journals (one special issue)	(i) Topics in Catalysis , 2018 (ii) Catalysis Today, 2019 (iii) Catalysis Today, 2020
Peer reviewer for International Journals	Few selected ones: Inorganic Chemistry, Dalton Trans, European Journal of Inorganic Chemistry, New Journal of Chemistry, RSC Advances, Coordination Chemistry Reviews, Polyhedron, Inorganic Chimica Acta, Journal of Molecular Catalysis, Applied catalysis A: General.

Research Projects: 11 (All as Principal Investigator **except No. 10**)

(i) Project Completed: 09

S. No	Total Cost (in Lacs)	Funding Agency	Duration of the project	Title of the project
1	3.5	CSIR, New Delhi	Aug. 1995- Feb. 1998	Ligand controlled synthesis of tungsten complexes, their reactivity and catalytic studies
2	4.6	CSIR, New Delhi	Dec. 98 - Nov. 2001	Oxoperoxo and dioxovanadium(V) complexes of polydentate ligands, their reactivity and catalytic activities
3	11.0	DST, New Delhi	June 2002- Nov. 2005	Coordination chemistry of vanadium as related to its biological functions
4	5.64	CSIR, New Delhi	Nov. 2002 - Oct. 2005	Towards the modeling of Vanadate dependent haloperoxidases: Synthesis, characterization and reactivity of oxo- and dioxovanadium(V) complexes
5	17.88	DST, New Delhi	Apr. 2006- Mar. 2009	Synthesis, reactivity and structural aspects of vanadium complexes
6	8.98	CSIR, New Delhi	Apr. 2006 - Mar. 2009	Coordination chemistry of vanadium: Synthesis, reactivity and catalytic aspects of vanadium complexes
7	16.76	CSIR, New Delhi	June 2011- June 2014	Heterogenization of vanadium complexes and their catalytic activities

8	40.0	DST, New Delhi	Feb. 2011- Aug. 2014	Synthesis, reactivity, structural investigation and catalytic aspects of vanadium complexes
9	31.9	SERB-DST New Delhi	Sept. 2015- Sept 2018	Synthesis, characterization, reactivity and catalytic aspects of vanadium complexes

(ii) Project Ongoing: 02

S. No.	Total Cost (in Lacs)	Funding Agency	Duration of the project	Title of the project
10	24.0	Michigan Diagnostics, USA	May 2018 – Aug. 2020	Synthesis of platinum complexes relevant to anticancer activity
11.	19.8	SERB(DST) New Delhi	March 2019 -March 2022	Vanadium complexes of higher nuclearity, their characterization, reactivity and catalytic activity

Research Collaborations

- **Prof. Dr. Dieter Rehder**, University of Hamburg, on model vanadium(V) complexes relevant to biological systems.
- **Prof. Dr. J. Costa Pessoa**, Centro Química Estrutural, Instituto Superior Técnico-TU Lisbon, Av. Rovisco Pais 1049-001, Lisboa, Portugal, on model vanadium(V) complexes relevant to biological systems.
- **Prof. Dr. Fernando Avecilla**, Departamento de Química Fundamental, Universidade da Coruña, Campus de A Zapateira, 15071 A Coruña, Spain, on crystal structures.
- **Prof. Amir Azam**, Jamia Millia Islamia, on antiamebic activities of metal complexes.
- **Prof. Rupam Dinda**, National Institute of Technology, Rourkela, Odisha. on Vanadium chemistry
- **Prof. Symal Chakrabarti**, University College of Science, Kolkata, West Bengal, on Molybdenum and vanadium chemistry

Honors

- Star performer (Good researcher) for the year 2003-04, 2004-05 & 2005-06 of IIT Roorkee (as recognized by the institute).
- Best teacher award by Institute (IITR), 2013
- 8 Best paper awards in Conferences/ Symposia.

Affiliation to scientific society

- Life member, Indian Chemical Society, India.
- Life member, Institution of Chemists, India.
- Life member, Indian Council of Chemists, India.
- Life member, Indian Science Congress.
- Life member, Catalysis Society of India.
- Life member, Chemical Research Society of India.
- Former member, American Chemical Society, U.S.A.

Ph. D. theses supervised: 26 + (5 on going)

Ph.D. degree awarded: 25

S. No.	Name	Co-supervisor If any	Year	Title of the thesis
1	Shilpa Khurana	-	2002	Studies of oxo-, dioxo- and oxoperoxo vanadium(V) complexes of polydentate ligands
2	Salam Titinchi	Sri Chand Chem Engg	2004	Synthesis and catalytic activities of zeolite encapsulated metal complexes
3	Saha Raj Ali	Kamaluddin Chemistry	2004	Role of metal cyanogens complexes as prebiotic catalyst
4	Amit Kumar	-	2006	Studies on the coordination chemistry of vanadium relevant to biological systems
5	Shalu Agarwal	-	2006	Vanadium complexes, their therapeutic and catalytic potentiality
6	Sweta	-	2007	Catalytic activities of polymer-anchored metal complexes
7	Umesh Kumar	-	2007	Immobilized vanadium complexes and their catalytic role in oxidation reactions
8	Anil Kumar Chandraker	Shri Chand Chem Engg	2007	Catalytic activities of metal complexes immobilized in zeolite-Y
9	Maneesh Kumar	-	2008	Polymer-anchored metal complexes as catalyst for some oxidation reactions
10	Aarti	Kamaluddin Chemistry	2009	Catalytic aspects of immobilized metal complexes
11	Aftab A. Khan	-	2010	Synthesis, characterization and potential application of vanadium complexes
12	Manisha Bisht	-	2011	Synthesis, reactivity, structural and catalytic aspects of vanadium complexes
13	Priyanka Saini	-	2012	Catalytic activities of vanadium, manganese and copper complexes immobilized in zeolite-Y

14	Chanchal Halder	-	2012	Synthesis, reactivity and catalytic activity of metal complexes
15	Maninder Singh	P. Kumar Civil Engg	2013	Strength characteristics of modified bitumen with various Aggregates
16	Nikita Chaudhary	-	2014	Catalytic role of immobilized vanadium complexes in oxidation reaction
17	Naveen Kumar	-	2015	Synthesis and catalytic performance of immobilized vanadium and molybdenum complexes
18	Sarita Dhaka	-	2015	Synthesis, characterization and catalytic aspects of dioxomolybdenum(VI) complexes
19	Neeraj Saini	-	2016	Synthesis, reactivity and catalytic applications of molybdenum complexes
20	Bhawna Uprety	-	2016	Synthesis, characterization and bio-catalytic activity of vanadium & molybdenum complexes
21	Bithika Sarkar	-	2017	Complexes of vanadium, their reactivity and catalytic application
22	Lata Rana	-	2017	Synthesis, reactivity and catalytic activity of molybdenum complexes
23	Bekele Mangesa	-	2019	Synthesis, characterization and catalytic applications of dioxidomolybdenum(VI) and dioxidouranium(VI) complexes.
24	Mukesh Poddar	A.K. Sinha IIP DDn	2019	Hydro processing of biomass derived oils to transportation fuels.
25	Nancy Jangra	-	2020	Synthesis, reactivity and catalytic applications of molybdenum and vanadium complexes
26	Reshu Tomar	-	2020	Synthesis, reactivity and catalytic activity of vanadium and molybdenum complexes

Ph.D. degree ongoing: 05

27	Shailendra Kr. Maurya	Aug. 2017	Synthesis, reactivity and catalytic activity of vanadium and molybdenum complexes
28	Abhilasha Chauhan	Jan. 2018	Metal complexes and catalytic transformations
29	Ved Prakash	Aug. 2019	Vanadium complexes of higher nuclearity
30	Devesh Singh	Jan. 2019	Medicinal aspects of coordination complexes
31	Naveen Kumar	Jan. 2020	Catalytic potential of molybdenum and vanadium

			complexes
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M. Tech. Thesis supervised: 11

S. No.	Name	Year	Title of the thesis
1	Neelam Bharati	1998	Studies on vanadium(V), molybdenum(VI) and tungsten(VI) dioxo and peroxy complexes of polydentate ligands
2	Neeraj Agarwal	1999	Thermal and spectral studies of metal complexes of methylene bridged hexadentate tetraanionic ligands
3	Indu Jain	2000	Coordination polymer based on bridging methylene group: synthesis and characterization
4	Neha Singh	2001	Physico-chemical studies on dioxomolybdenum(VI) and dioxouranium(VI) complexes of amidate ligands
5	Maneesh Kumar	2002	Metal complexes encapsulated in zeolite-Y: Synthesis, spectroscopic and catalytic studies
6	Himani Saklani	2003	Synthesis and catalytic activity study of metal complexes encapsulated in zeolite-Y
7	Baljit Singh	2007	Zeolite-Y encapsulated copper complexes and their catalytic activities
8	Pullai Naidu Kamiseti	2012	Copper(II) and Zinc(II) complexes of reduced Schiff bases and their catalytic activities
9	Naveen Kumar Rawat	2015	Synthesis, characterization and catalytic applications of alkaline earth metal (Ca, Mg, Sr) complexes derived from amino benzoic acids
10	Gaurav Kumar	2017	Synthesis and applications of β - functionalized metalloporphyrinoids
11	Richa Bharadwaj	2020	

M. Sc. Project supervised: More than 40

(Details not provided)

Invited talks delivered

National

1. 19th Indian Council of Chemists, Kuvempu University, Shimoga, Karnataka, December 2000.
2. Chemical Sciences Section of Indian Science Congress, Ahmedabad, January, 2005.
3. 21st Indian Council of Chemists, R.D. University, Jabalpur, 2002.
4. 40th Annual Convention of Chemists, Bundelkhand University, Jhansi, 2003.
5. 23rd Conference of Indian Council of Chemists, K.C. College, Mumbai, 2004.
6. Modern Trends in Inorganic Chemistry XI, IIT Delhi, December 2005.
7. National Symposium, Kurukshetra University, October 2006.
8. National Symposium, Nagpur University, February 2007.
9. 26th Indian Council of Chemists, Sagar University, February 2008.
10. Thaper University, Patiala, May 2008.
11. Modern Trends in Inorganic Chemistry XIII, IISC, Bangalore, December 2009.
12. Asian Conference in Coordination Chemistry, New Delhi, November 2011.
13. National conference on emerging trends in chemistry-biology interface, Kumaun University, Nainital, November 2011.
14. 48th Annual Convention of Chemists, University of Allahabad, December 2011.
15. International Conference on Global Trends in Pure and Applied Chemical Sciences, Udaipur, March, 2012
16. National Symposium on Global Challenges: New Frontiers in Chemical Sciences, Kurukshetra University, September 2012.
17. National Conference on Advances in Chemical Sciences, M.D. University, Rohtak, March 2013.
18. National Interdisciplinary Science Conference on Recent Research Trends in Chemical and Environmental Sciences, Sri Pratap College Srinagar, August 2015
19. National Seminar on Recent Innovations in Chemical Science and Technology, Sri Aurobindo College, New Delhi, March 03-04, 2017.
20. Workshop on Molecules and Materials Technology: Interface with R&D and Industries, National Institute of Technology, Kurukshetra, March 2017.
21. National conference on Molecules and Materials Technology, NIT Kurukshetra, 17th February, 2018.
22. National Conference on Recent Advances on Materials for Sustainable Energy, IIT Dhanbad, March 03-05, 2018.

International

1. Fifth International Vanadium symposium, Francisco, U.S.A., September 10-14, 2006.

2. Sixth International Vanadium Symposium, Lisbon, Portugal, July 17-19, 2008.
3. Seventh International Vanadium Symposium, Toyoma, Japan, October 06-09, 2010.
4. Eighth International Vanadium Symposium, Washington DC, USA, August 15-18, 2012.
5. Ninth International Vanadium Symposium, Padova, Italy, June 29-July 02, 2014.
6. 2nd International Conference on Global Trends in Pure & Applied Chemical Sciences” Hong Kong, October 02-06, 2014.
7. Tenth International Vanadium Symposium: Chemistry, Biological Chemistry, & Toxicology at Taipei, Taiwan November 6 - 9, 2016.
8. 2nd International Conference on Catalysis and Chemical Engineering, France, February 19-21, 2018.
9. Eleventh International Vanadium Symposium: Chemistry, November 5-8, 2018
10. 3rd International Conference on Catalysis and Chemical Engineering, Houston, Texas, USA February 25-27, 2019.
11. 4th International Conference on Catalysis and Chemical Engineering, Los Angeles, USA, February 24-26, 2020

Research Interests

- Structural and functional models of vanadate-dependent haloperoxidases
- Molybdenum and tungsten complexes and their catalytic study
- Coordination polymers and their catalytic study
- Metal complexes encapsulated in zeolite cages and their catalytic study
- Polymer-anchored metal complexes and their catalytic study
- Medicinal aspects of coordination compounds: Antiamoebic activity

Review articles/Research Papers Published: (10 + 155)

Review Articles: 10

1. A. Syamal and **M.R. Maurya**, Coordination chemistry of Schiff base complexes of molybdenum, *Coord. Chem. Rev.*, **95**, 183-238 (1989).
2. **M.R. Maurya** and R.C. Maurya, Coordination chemistry of Schiff base complexes of uranium, *Rev. Inorg. Chem.*, **15**, 1-107 (1995).
3. **M.R. Maurya**, Development of the coordination chemistry of vanadium through bis(acetylacetonato)oxovanadium(IV): Synthesis, reactivity and structural aspects, *Coord. Chem. Rev.*, **237**, 163-181 (2003).

4. **M.R. Maurya**, A. Kumar and J. Costa Pessoa, Vanadium complexes immobilized on solid supports and their use as catalysts for oxidation and functionalization of alkanes and alkenes, *Coord. Chem. Rev.*, **255**, 2315-2344 (2011).
5. **M.R. Maurya** and J. Costa Pessoa, Polymer-bound metal complexes as catalysts: Synthesis, characterization, reactivity and catalytic activity in E-H bond activation, *J. Organometal. Chem.*, **696**, 244–254 (2011).
6. **M.R. Maurya**, Catalytic applications of polymer-supported molybdenum complexes in organic transformations, *Curr. Org. Chem.*, **16**, 73–88 (2012).
7. **M.R. Maurya**, Structural and functional models of vanadate-dependent haloperoxidases (VHPO), *Asian J. Chem.*, **24**, 5441 – 5446 (2012).
8. J. Coata Pessoa and **M. R. Maurya**, Vanadium complexes supported on organic polymers as sustainable systems for catalytic oxidations, *Inorg. Chim. Acta*, **455**, 415–428 (2017).
9. **M.R. Maurya**, Vanadium complexes based polymer supported catalysts: A brief account of research from our group, *Topics Catal.*, **61**, 1500–1513 (2018).
10. **M.R. Maurya**, Probing the synthetic protocols and coordination chemistry of oxido-, dioxido-, oxidoperoxido-vanadium and related complexes of higher nuclearity, *Coord. Chem. Rev.*, **383**, 43–81 (2019).

Research Papers: 155

11. A. Syamal and **M.R. Maurya**, Dioxomolybdenum(IV) heterochelates, *Indian J. Chem.*, **23A**, 950-951 (1984).
12. A. Syamal and **M.R. Maurya**, Ligand effects on molybdenum-oxygen stretching frequencies in dioxomolybdenum(VI) complexes, *Trans. Met. Chem.*, **10**, 45-47 (1985).
13. A. Syamal and **M.R. Maurya**, Synthesis and characterization of new dioxomolybdenum(VI) mixed chelate complexes, *Synth. React. Inorg. Met. -Org. Chem.*, **15**, 663-679 (1985).
14. A. Syamal and **M.R. Maurya**, Salicylaldehyde-2-furoic acid hydrazide as a chelating ligand: Complexes with Ni(II), Co(II), Cu(II), Zn(II), MoO(V) and UO₂(VI), *Indian J. Chem.*, **24A**, 836-840 (1985).
15. A. Syamal and **M.R. Maurya**, Synthesis and characterization of Ni(II), Co(II), Cu(II), Mn(II), Zn(II), Zr (IV), MoO(V) and UO₂(VI) complexes of Schiff base derived from salicylaldehyde and thiophene-2-carboxylic acid hydrazide, *Synth. React. Inorg. Met. -Org. Chem.*, **16**, 39-60 (1986).
16. A. Syamal and **M.R. Maurya**, New dioxomolybdenum(VI) complexes with tridentate dibasic ONO donor Schiff bases derived from o-aminobenzyl alcohol and salicylaldehyde or 2-hydroxy-1-naphthaldehyde, *Synth. React. Inorg. Met. -Org. Chem.*, **16**, 857-869 (1986).
17. A. Syamal, S. Ahmed and **M.R. Maurya**, Molybdenum complexes of bio inorganic interest: MoO(V) complexes with ONS and ONO tridentate Schiff bases derived from pyridoxal and various amines, *Indian J. Chem.*, **25A**, 683-686 (1986).

18. A. Syamal and **M.R. Maurya**, Dioxotungsten(VI) complexes with tridentate dibasic ONO donor Schiff bases derived from *o*-aminophenol and salicylaldehydes, *Indian J. Chem.*, **25A**, 934-938 (1986).
19. A. Syamal and **M.R. Maurya**, Synthesis and characterization of Ni(II), Co(II), Mn(II), Zn(II), Zr(IV), MoO₂ (VI) and UO₂(VI) complexes of Schiff bases derived from salicylaldehyde and 5-methylpyrazole-3-carbohydrazide, *Trans. Met. Chem.*, **11**, 172-176 (1986).
20. A. Syamal and **M.R. Maurya**, Synthesis and characterization of Ni(II), Co(II), Mn(II), Zn(II), Zr(IV), MoO₂ (VI) and UO₂(VI) complexes of ONO donor Schiff base derived from 2-benzothiazole carbohydrazide and salicylaldehyde or 2-hydroxy-1-naphthaldehyde, *Trans. Met. Chem.*, **11**, 201-205 (1986).
21. A. Syamal and **M.R. Maurya**, Dioxomolybdenum(VI) complexes with tridentate dibasic Schiff bases derived from various hydrazides, *Trans. Met. Chem.*, **11**, 235-238 (1986).
22. A. Syamal and **M.R. Maurya**, Synthesis and characterization of new dioxomolybdenum(VI) complexes of ONS donor Schiff bases derived from thiosemicarbazide, S-methyldithiocarbonylhydrazide, S-benzylthiocarbonylhydrazide and *o*-hydroxyaromatic aldehyde / ketones, *Trans. Met. Chem.*, **11**, 255-258 (1986).
23. D.P. Singh, **M. R. Maurya**, and V.B. Rana, Binuclear Pd(II) and Pt(II) chelates with tridentate Schiff bases derived from acetylacetonate and aromatic diamines, *Indian J. Chem.*, **25A**, 972-973(1986).
24. A. Syamal and **M. R. Maurya**, New dioxomolybdenum(VI) complexes with tridentate dibasic Schiff bases, *Indian J. Chem.*, **25A**, 1152-1155 (1986).
25. A. Syamal and **M. R. Maurya**, Diammoniumpentachlorooxomolybdate(V), *Inorg. Synth.*, **26**, 36-39 (1988).
26. A. Syamal and **M. R. Maurya**, Lanthanide(III) complexes of ONO donor Schiff bases derived from salicylaldehyde and *o*-hydroxybenzylamine or *o*-aminobenzylalcohol, *Indian J. Chem.*, **27A**, 357-359 (1988).
27. R.C. Maurya, R. Shukla, D.C. Gupta and **M.R. Maurya**, Synthesis and characterization of some mixed ligand cyanonitrosyl- $\{CrNO\}^5$ complexes of chromium with some potentially mono-, bi- and tridentate ligands, *J. Chem. Engg. Data*, **33**, 215-(1988).
28. **M. R. Maurya** and S.K. Verma, New dioxouranium(VI) complexes of tridentate Schiff bases derived from *o*-cresotic acid hydrazide and various aldehydes / ketones, *Synth. React. Inorg. Met. -Org. Chem.*, **19**, 923-930 (1989).
29. **M.R. Maurya**, A simple and convenient method to prepare hydrogen chloride gas, *J. Chem. Educ.*, **67**, 974 (1990).
30. L.K. Woo, **M.R. Maurya**, C.J. Tolpi, R.A. Jacobson, S. Yang and E. Rose, Synthesis and characterization of new bis-alanyl appended porphyrin and its mononuclear Cu(II), Ni(II) and Zn(II) complexes. Crystal structure of the Ni(II) complex, *Inorg. Chim. Acta*, **182**, 41-48 (1991).

31. **M.R. Maurya**, E.J. Zeluzac, S.F. Pavcovic and A.W. Herlinger, Alkaline-earth metal complexes of 1,4,8,11-tetraazacyclotetradecane-1,4,8,11-tetraacetic acid, H₄TETA. Crystal and molecular structure of H₄TETA.6H₂O and MgH₂TETA(H₂O)₄.4H₂O, *Inorg. Chem.*, **30**, 3657-3662 (1991).
32. L.K. Woo and **M.R. Maurya**, Rational design of linear trinuclear metal complexes, *Inorg. Chem.*, **30**, 4671(1991).
33. L.K. Woo, **M.R. Maurya**, R.A. Jacobson, S. Yang and S.L. Ringrose, Mono and dinuclear complexes of a new binucleating porphyrin, α,α -5,15-bis(o-(nicotinoylamino)phenyl) - 2,8,12,18 - tetraethyl - 3,7,13,17 - tetramethyl porphyrin. Crystal structure of a mononuclear Ni(II) and a binuclear Cu(II)-Pt(II) complex, *Inorg. Chem.*, **31**, 913(1992).
34. L.K. Woo, **M.R. Maurya**, R.A. Jacobson, S. Yang and S.L. Ringrose, A comparison of two forms of α,α -5,15-bis(o-nicotinoylamidophenyl)-2,8,12,18-tetraethyl-3,7,13,17-tetramethylporphyrinNi(II) complex, *Inorg. Chim. Acta*, **193**, 143-147 (1992).
35. L.K. Woo, **M.R. Maurya**, R.A. Jacobson and S.L. Ringrose, Synthesis, characterization and X-ray crystal structure of trimetallic porphyrin complexes, *Inorg. Chim. Acta*, **212**, 337-340 (1993).
36. **M.R. Maurya**, S. Gopinathan, C. Gopinathan and R.C. Maurya, Reactivity of bis(acetylacetonato)dinitrosylmolybdenum(0) towards Schiff bases derived from salicylaldehyde or *o*-vanillin and benzoyal hydrazide or nicotinoyl hydrazide, *Polyhedron*, **12**, 159-163 (1993).
37. **M.R. Maurya** and C. Gopinathan, A convenient method for the synthesis of dinitrosylmolybdenum(0) complexes of heterocyclic acids, *Polyhedron*, **12**, 1039—1041 (1993).
38. **M.R. Maurya**, D.C. Antony, S. Gopinathan and C. Gopinathan, Dioxomolybdenum(VI) complexes of new binucleating Schiff bases derived from methylene- or dithiobis(salicylaldehyde) and various amines, *Polyhedron*, **12**, 2731-2736 (1993).
39. **M.R. Maurya** and C. Gopinathan, Synthesis and spectral properties of dinitrosylmolybdenum(0) and dioxomolybdenum(VI) complexes, *Bull. Chem. Soc. Japan*, **66**, 1979-1983 (1993).
40. **M.R. Maurya**, D.C. Antony, S. Gopinathan and C. Gopinathan, Dioxomolybdenum(VI) complexes of flexibly-bridged hexadentate tetraanionic Schiff bases derived from methylene- or dithiobis(salicylaldehyde) and S-methyldithiocarbamate or S-benzoyldithiocarbamate, *Bull. Chem. Soc. Japan*, **68**, 554-558 (1995).
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My Strength

Satisfactory teaching as well as research is my primary strength. This is shown by getting appreciation letters/ outstanding teacher award by highest authority of the institute. Successful completion of 10 Research projects and two under progress reflect my research strength. Further, I have successfully guided 26 Ph. D. students and 11 M. Tech. students in addition to helping at least two PG students every year for their projects for last 23 years. Various administrative posts like Head of the Department, Dean of Faculty Affairs and Deputy Chief sport advisor, have fetched me handling administrative work. Manager and Treasurer of the Sr. Secondary school of the campus provided good knowledge of administration as well as finance and planning. Other administrative experience includes: Vice-chairman of PG admission, Deputy Chief Sport advisor etc.
