

Profile

DR. RACHANA RASTOGI

Address: Krishak Nagar, Raipur, Chhattisgarh 492012

E-mail : rachanarastogi1966@gmail.com

Mobile No.: 94242-25628

Educational Qualification

Examination passed	Subject	Year	Division	Board / University
Ph.D.	Chemistry	1992	Awarded	Jiwaji University, Gwalior
M.Sc.	Chemistry	1988	I st	Jiwaji University, Gwalior
B.Sc.	Chem. Zool & Bot.	1986	I st	Jiwaji University, Gwalior
HSSC	Chemistry, Physics & Biology	1983	I st	MP Board of Secondary Education, Bhopal

Teaching Experience: 26 years

Aug 2006 to date	GEC, Raipur	BE Classes
1999 to Aug 2006	GEC, Raipur Presently NIT, Raipur since Dec. 2005	BE & PG Classes
1996-97 to 1998-99	SOS in Chemistry, Pt. Ravishankar Shukla University, Raipur	PG Classes

Research Experience :

Duration	Fellowships awarded	Awarded by	Nature of work
1994-1999	RA	CSIR, New Delhi	Epoxidation, oxidation, hydroxylation reactions catalyzed by metal porphyrins and Schiff base complexes Analysis of pollutants
1992-1994	SRF	CSIR, New Delhi	Epoxidation, oxidation, hydroxylation reactions catalyzed by metal porphyrins and

			Schiff base complexes
1989-1991	JRF	UGC, New Delhi	Epoxidation of olefins catalyzed by metal complexes

Courses Handled :

1. Chemistry A000211(011)
2. Ecology & Environmental Sciences
3. Physical Chemistry
4. Organic Chemistry
5. Natural Products of Chemistry
6. Instrumental methods

LIST OF RESEARCH PAPERS PUBLISHED

1. Epoxidation of olefins using (ACPHTRIN) Cl/PhIO system.
R. Jain and R. Rastogi
(Presented at XXVIII International Conference on Co-ordination Chemistry held at Jena, Germany, Aug. 13-18. 1990, Abstract Vol.-2).
2. Studies on oxidation of cyclohexene using CrO_3 /70% Tert-butyl hydroperoxide TBHP system.
D.D. Agarwal, R. Rastogi and Laxmi Sharma
J.I.C.S., 1991, 68, 566.
3. Oxidation of alkenes using RuCl_3 /PhIO system.
D.D. Agarwal, R. Jain, A. Chakravorty and R. Rastogi
Polyhedron, 1992, 11, 463.
4. Olefin epoxidation using Iron (III) schiffbase complexes as catalyst.
D.D. Agarwal, R. Jain, Rachana Rastogi and V. Agarwal
Ind. J. Chem., 1992, 31(A), 785.
5. Epoxidation of alkenes using Mn III(SAP) NCS as catalyst.
D.D. Agarwal, R. Rastogi and Laxmi Sharma
Ind. J. Chem. 1992, 31(B), 128.
6. Ligand nature control epoxidation stereochemistry.

- D.D. Agarwal, R. Jain, R. Rastogi and V. Agarwal
Ind. J. Chem., 1993, 32(B), 303.
7. Ruthenium trichloride-70% tert. butylhydroperoxide : A simple catalytic system for the oxidation of alcohol to carbonyl compounds.
D.D. Agarwal, R. Jain, Praveen Sangha and Rachana Rastogi
Ind. J. Chem., 1993, 32(B), 381.
8. Ruthenium (III) schiffbase catalysed epoxidation : Possible involvement of carbocation intermediate.
D.D. Agarwal and R. Rastogi
Ind. J. Chem., 1994, 33(B), 787.
9. Epoxidation of olefins using $O = V^{IV}(L)/70\%$ TBHP system.
D.D. Agarwal, R. Rastogi and P.K. Sangha
Ind. J. Chem. 1995, 34(B), 254.
10. Synthesis, characterization and oxidative behaviour of Dioxo-Ruthenium (VI) complexes.
D.D. Agarwal and R. Rastogi
Ind. J. Chem., 1995, 34(A), 661.
11. Olefin epoxidation catalysed by Manganese (III) schiffbase complexes : Evidence of oxomanganese (IV) formation.
D.D. Agarwal, R. Jain, R. Rastogi and V. Agarwal
J. Ind. Chem. Soc., 1996, 73, 580.
12. Catalyzed oxidation of olefins, alcohols and benzylic compounds with dioxoruthenium (VI) formation.
D.D. Agarwal and Rachana Rastogi
Ind. J. Chem., 1997, 36(A) 164.
13. A simple and sensitive Spectrophotometric method for the determination of iodine in environmental samples.
R. Kesari, R. Rastogi and V.K. Gupta
Chem. Anal. (Warsaw), 1998, 43, 201.
14. Determination of m-, p- and o- nitroanilines using spectrophotometric method and thermal gradient chromatographic methods.
Rachana Rastogi and V.K. Gupta

- J. Ind. Chem. Soc., 1998, 75, 267.
15. Synthesis and characterization of porphyrin complexes of iron (III) and Manganese (III).
V. Krishnan, D.D. Agarwal, G. Bayrappa and Rachana Rastogi
Ind. J. Chem., 1998, 37(A), 918.
16. A sensitive colorimetric method for determination of chloroform.
A.K. Pillai, R. Rastogi and V.K. Gupta
Ind. J. Chem. Tech., 1999, 6, 294.
17. A new spectrophotometric method for determination of trichloroacetic acid in air and environmental samples.
A.K. Pillai, R. Rastogi and V.K. Gupta
J. Ind. Chem. Soc., 1999, 76, 467.
18. Olefin epoxidation catalyzed by Dioxo tungsten(VI) Schiff bases complexes.
D.D. Agarwal, Rachana Rastogi, V.K. Gupta and S. Singh
Ind. J. Chem., 1999, 38(A), 369.
19. Synthesis and characterization of Ruthenium (III) Schiff base and macrocyclic complexes.
D.D. Agarwal and Rachana Rastogi
Ind. J. Chem., 1999, 38(A), 377.
20. Simple and sensitive spectrophotometric method for the determination of benzene in environmental samples.
A. Asthana, Rachana Rastogi and V.K. Gupta
J. Ind. Chem. Soc., 2002, 79, 633.
21. A simple spectrophotometric method for the determination of Nicotine in environmental samples.
A. Asthana, R. Rastogi, G. Sunita and V.K. Gupta
J. of Chinese Chem. Soc., 2004, 51, 949.
22. Catalytic behaviour of Iron (III) and Manganese (III) porphyrin complexes.
V. Krishnan, D.D. Agrawal, R. Rastogi and G. Bayrappa
Ind. J. Chem. (Communicated).

CONFERENCE AND WORKSHOP

Number of Research Papers published (enclosed)	:	21
Number of Research Papers submitted	:	01
Papers presented / accepted in conference	:	10

a. Papers Presented :

1. Epoxidation of olefins using Fe(AcPh- TRIEN) Cl/PhIO. (Twenty-eightth international conference on coordination chemistry, held at Jena, Germany, Aug 1990).
2. Synthesis characterization and catalytic behavior or dioxo Ruthenium (VI) Complexes), (Eightieth session of Indian Science Congress : Young Scientist Award Programme, held at Goa, Jan 1993).
3. Synthesis, Characterization and Catalytic behavious of Ruthenium (III) Complexes. (Ninth MP Young Scientist Congress, held at Sagar, Feb. 1994).
4. A new simple and sensitive spectrophotometric method for the determination of benzene. (National seminar on modern trends in environmental chemistry, held at Raipur, Nov. 1997).
5. Spectrophotometric determination of iodine in pharmaceutical and environmental samples. (Eighty-fifth session of Indian Science Congress, held at Hyderabad, Jan. 1998).
6. Synthesis, characterization and catalytic behavior of dixoxo-tugsten (VI) complexes. (Thirteenth MP Young Scientist Congress, held at Gwalior, March 1998).
7. A new simple and sensitive spectrophotometric method for the determination of benzene. (National Science Day held at Raipur, Feb 1998).

b. Papers Accepted :

1. Expoxidation of olefins using RuCl₃/PhIO system. Twenty-sixth annual convention of chemists, held at Indore, 1989.
2. Epoxidation of olefins catalysed by oxovanadium (IV) Schiff base complexes. Eighty-first Session of Indian Science Congress, held at Jaipur, Jan. 1994.
3. Synthesis, characterization and catalytic behavior of Mn(OBP)Cl, Fe(OBP)Cl and Fe (OCOBP)Cl. Thirty-fourth annual convention of chemists, held at Delhi, Dec. 1997.

Conference Attended :

1. Attended 10th MP Young Scientist Congress, held at Bilaspur, March 1995.

2. Symposium on “Teaching and Learning Orientation for Engineering Teachers”, held at Raipur, Nov. 16-19, 2005.

Workshop Attended :

1. National Workshop on “Fundamental and Analytical Aspects of Self Organizing Systems”, held at Raipur, Aug 4-6, 1997.
2. “Techno-millennium Workshop” held at Raipur, February 26-27, 2000.
3. Workshop on “Redefining Technical Education in the context of Global, National and Local Needs”, CSVTU, Bhilai, July 2-3, 2005.
4. Workshop on “Industry Institute Linkage Policy”, organized by Department of Technical Education and Manpower Planning, Govt. of Chhattisgarh held at Raipur during Dec. 19-21, 2006.
5. Workshop on “Faculty Mentor on Induction Programme for New Students,” Oct 2017.
6. Workshop on “Climate Change and Government Strategies,” Nov 25, 2019.
7. National Seminar on “Consultancy in Chemical Sciences: Opportunities and Challenges,” Feb 27, 2022.

Webinar Attended :

1. Webinar on “Importance of Gender Equality in present society”, June 25, 2020.
2. Webinar on “Ethics in Engineering Education”, Aug 24, 2020.
3. Faculty development programme on “Renewable Energy.....challenges”, Sept 8- 12, 2020.
4. National webinar on “COVID-19 Pandemic and Waste Management”, Sept 26, 2020.

13. Short term course attended :

1. “Alternative fuels and advances in engines” held at Raipur, October 16-20, 2004.
2. “Project Management” held at Raipur, January 27-29, 2005.
3. “Basic Pedagogy Skills”, conducted by NITTR, Bhopal, 13-17 Jan. 2014.

ACHIEVEMENTS

1. MP Young Scientist Award, MPCOST (1994)
2. Fellowship for training of young scientist, MPCOST (1994)

Additional Responsibilities

1. Asstt. Superintendent Exam., GEC, Raipur – till the date
2. Cultural Committee- Member, GEC, Raipur
3. Plantation Committee- member, GEC, Raipur
4. Literary Committee- member ,GEC, Raipur
5. Member, Women Harassment Committee ,IIM Raipur
6. In-charge – Cultural Committee, GEC, Raipur (From Aug 2006 to Nov 2016)
7. Nodal Officer, Weak students, GEC, Raipur (From Aug 2006 to Nov 2016)
8. Asstt. Coordinator, AICTE affiliation committee, GEC, Raipur
9. Member, Anti-ragging Committee, GEC, Raipur (From Aug 2006 to Nov 2016)
10. In-charge – Teaching and Administrative activities of Deptt. Of Chemistry, Physics, Math and English, GEC, Raipur. (From Aug 2006 to Nov 2016)
11. Chairman, Women Harassment Committee, GEC, Raipur. (From Aug 2006 to Nov 2016)