



Janki Devi Bajaj Government Girls College Kota

FACULTY PROFILE

Name : Dr. (Mrs.) Vijay Devra

Designation: Associate Professor

Department: Chemistry

Educational Qualification:



Level	Name of University/Board	Year	Title/ Remark/ Medal
B.Sc.	University of Rajasthan, Jaipur	1987	I st Division
M.Sc.	M.D.S University, Ajmer	1989	I st Division
Ph.D.	University of Rajasthan, Jaipur	1992	Mechanism of Oxidation of Amino acids- A Kinetic study

Experience: Teaching / Research

UG	25	PG	23	Research	25
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Membership (Academic Bodies):

1. Life Member of Indian Chemical Society, Calcutta, LF No.-5581.
2. International Congress of Chemistry & Environment has been awarded Fellow Membership (FICCE) - Fellow No.F-5018
3. Life Member of Indian Council of Chemists.
- Life Fellow No.LF-1312.
4. International Scientific research organization for science, Engineering and technology has been awarded fellow membership-FM-1073
5. Life Member of Rajasthan Science Congress

Awards Received:

1. **Best paper** presented award in third International Conference on “Advance Trends in Engineering, Technology and Research (ICATETR-2014) Kota (Raj.)
2. Certificate of Appreciation for special achievement in **District Level Ceremony (Independence Day 2016)**.

3. **Certificate of merit** awarded by Government of Rajasthan in event Rajasthan Green-A-Thon on IT Day organized on March 19th- 21st, 2018 at Jaipur.
4. Awarded **Nation Builder Award** by Rotary Club Kota North on Teacher's Day 5 September 2015
5. Awarded '**Special 26**' by Rajasthan Patrika on 26 January (district level)

Academic Courses Attended:

Course	Place	Sponsoring Agency	Duration
Orientation Course	ASC, University of Rajasthan Jaipur.	UGC	16 May -11 June 1999 (27 Days)
Refresher Course-(2001) ASC MDS University Ajmer.	ASC, MDS University Ajmer.	UGC	1-21 September 2001 (21 Days)
Refresher Course-(2004).	ASC, HP University Shimla, HP	UGC	2-21 August 2004 (21 Days)
Good Governance Training	Regional Training Centre, Kota (Raj.)	Government of Rajasthan	21-24 March 2006
"ICT" Training	J.D.B.Govt.Girls P.G.College, Kota (Raj.)	Commissionerate College Education, Jaipur	30 January-19 February 2009
Workshop on "Research Methodology"	J.D.B.Govt.Girls P.G.College, Kota (Raj.)	under the XI plan of U.G.C	10-13 January 2011
National Academic workshop on "Organic reaction mechanism and analytical techniques used in chemical sciences"	University of Kota, Kota (Raj.)	University of Kota, Kota (Raj.)	21-25 October 2013
Participated in Workshop for improvement in teaching and learning methodology organized by "Higher Education Advance Research and Training cell"	Govt. Dungar College, Bikaner	Commissionerate College Education,, Jaipur	2 February, 2016
Training of Trainers Program on Intellectual Property Rights	Gyan Vihar University, Jaipur, Raj.	Rajasthan Council of Science and Technology, Department of Science and Technology, Government of Rajasthan	19-21 February 2018

Training /workshop on Advance Patent Search	MNIT, Jaipur	Department of Science and Technology, Government of Rajasthan	2-3 July 2018
Microsoft Office Training	J.D.B Govt. Girls P.G.College, Kota (Raj.)	Commissionerate College Education, Jaipur	8-12 October 2018
Participated in “Peer Group Training for revised NAAC Framework “	University of Jaipur, Raj	Commissionerate college Education, Jaipur, Rajasthan	25 February 2019
Short term training programme	TTC,LRDC,Jodhpur	“National Institute Of Technical Teachers Training And Research, Bhopal	30 September-04 October 2019
Advance IPR Workshop	IIT Jodhpur, Jodhpur (Raj.)	Patent information Centre, department of Science and Technology	16-18 January 2020
Online course on: Health GIS:Geoinformatics for Covid 19”	J.D.B. Govt.Girls College,Kota,Raj.	Indian Institute of Remote sensing (IIRS),ISRO, Dehradun	15-19 June 2020
Online short term training programme on “Environmental impacts of COVID-19 pandemic”	Purnima Institute of Technology, Jaipur(Raj.)	ISTC sponsored	27-31 July 2020
E National Workshop on “ Analytical Instruments	Dr C V Raman University, Kota,Bilaspur	Association With Toshvin Instruments and Shimadzu Analytical, India	15-17 June 2020
Training workshop on “SEVOTTAM PROJECT”	HCM RIPA RTC Kota	Government of Rajasthan	12 March 2021

F.D.P (Faculty Development Programme) attended

Course	Place	Sponsoring Agency	Duration
“Faculty Development Programme.”	Rajasthan Consultancy Organization LTD. (RAJCON) Jaipur	Department of Science and Technology (DST) Ministry of Science and Technology, Government of India, New Delhi	1-14 February 2017
Online “Faculty Development Programme”	IIT Jodhpur, Jodhpur, Raj.	TISC and DST Govt. of Rajasthan	15-27 February 2021

Seminar/ Conference attended:

Name of Seminar/ Conference	International/ National/ Regional	Paper Presented	Title of Paper	Date
38 th Annual Convention of Chemists-2001” organized by Jai Narayan Vyas University, Jodhpur (Raj.)	National	Presented	“Kinetics and Mechanism of oxidation of Alanine by Cerium(IV) in presence of Ag(I) as catalyst”	26-29 December 2001
Symposium on “Dynamics & Reaction mechanism of Electron Transfer Reaction “organized by University of Rajasthan, Jaipur (Raj.)	National	Presented	Dynamics and Reaction mechanism of oxidation of Threonine by Ce(IV)”	29-31 July 2002
40 th Annual Convention of Chemists” organized by Bundelkhand University, Jhansi (U.P.)	National	Presented	“Kinetics and mechanism of Ag(I) catalyzed oxidation of Glycine by Ce(IV) in Acid Perchlorate Medium”	23-27 December 2003
Symposium on “Recent Advances in Chemical Research” Organized by University of Rajasthan, Jaipur (Raj.)	National	Presented	“Kinetics and Mechanism of oxidation of neutral amino acid by Cerium (IV) in Perchloric acid medium”	28-29 March 2005
Conference of “Environmental issues and sustainable development” organized by Govt. P.G. College, Kota (Raj.)	National	Presented	Eco-Safe management Tactics of Soybean pests	15-17 October 2005
Conference of “Environmental Pollution and its Control” organized by Engineering College, Kota (Raj).	National	Presented	Assessment of Dispersion of Ambient Suspended Particulate Matter and Meteorological Conditions near Kota Thermal Power Station	25-26 March 2006
Seminar on “Recent Advances in the field of Applied Chemistry” organized by J.D.B. Govt. Girls P.G. College, Kota (Raj.)	National	Presented	Spatial distribution of eco-safe management and Tactics	2-3 December 2006

43 rd Annual Convention of Chemists organized by Dr. Baba Sahib Ambedkar Marathwara University, Aurangabad (Maharashtra)	National	Presented	Kinetics and mechanism of electron transfer reactions in aqueous solution -Silver (I) catalyzed oxidation of amino acid by cerium (IV) in Perchloric acid medium	23-27 December 2006
Symposium on "Recent Trends in chemistry" organized by M.P.Govt. P.G. College, Chittorgarh (Raj.)	National	Presented	Seasonal variability of anionic of dry precipitation at industrial city Kota	10 January 2007
Seminar on "Chemical Aspects of Environmental Challenges & their Management "organized by Agarwal P.G.College, Jaipur (Raj.)	National	Presented	"Correlation analysis of characteristic parameters and water quality of Chambal River"	27-28 February 2007
-44 th Annual Convention of Chemists "organized by Mahatma Gandhi Institute of Applied Science, Jaipur (Raj.)	National	Presented	"Physico Chemical study of water quality parameters of Chambal River"	23-27 December 2007
Conference on Globalization and Dynamics of Higher Education "organized by J.D.B. Govt. Girls P.G. College, Kota (Raj.)	National	Presented	"Globalization in Higher Education: Special reference to India"	21-22 January 2008
Conference on 'Recent advances in Chemical sciences' organized by Govt. Dungar College Bikaner, (Raj.)	National	Presented	"An assessment of water pollution of Chambal River by natural and Anthropogenic sources in Kota city"	3-5 October 2008
46 th Annual Convention of Chemist - organized by Vellore Institute of Technology, Vellore (Tamilnadu).	National	Presented	"Kinetics and Mechanism of catalyzed oxidation of by amino acid in Acid Perchloric medium"	2-6 December 2009
National Seminar on "Biotechnology" Organized by Govt. P.G.College, Kota (Raj.)	National	Presented	"Kinetics and Mechanism of electron transfer in aqueous acid medium"	11-12 December 2009
National Conference on Environment Health and Hazards -Organized by Govt. P.G.J.D.B. Girls	National	Presented	"Adsorptive removal & Kinetics of some dyes on treated fly ash & Modified Low organic	17-18 December 2009

College, Kota (Raj.)			matter clays”	
National Seminar on “Analytical Electrochemistry” Organized by J.N.V. University of Jodhpur (Raj.)	National	Presented	“Kinetics and Mechanism of uncatalyzed and catalyzed oxidation of Glycine in acid medium”	8-10 February 2010
National Seminar on “Sustainable Management and Conservation of Water Resources” Organized by Rajasthan Technical University, Kota (Raj.)	National	Presented	“Correlation analysis of different parameters and water quality”	12-13 March 2010
National Conferences on “Emerging views in advanced Chemistry” Organized by M.L.V. Govt. College, Bhilwara. (Raj.)	National	Presented	“Nitric acid treated fly ash Catalyst highly active & selective for synthesis of Salol	17-19 December 2010
Symposium on “Recent Advances in Chemical Sciences” Organized by University of Kota, Kota (Raj.)	National	Presented	“Influence of Solid Catalyst on the rate of oxidative organic Transformation”	7-8 January 2011
Conference on Renewable energy Organized by University of Rajasthan, Jaipur (Raj.)	International	Presented	“Synthesis of effective adsorptive catalyst from fly ash & clay for the Removal of some dyes”	17-21 January 2011
Indo-Swedish symposium on “Strategic Knowledge on Climate change” Jointly organized by University of Kota, Kota (Rajasthan) and Linköping University, Sweden	International	Attended	Research findings on Strategic knowledge on climate change	9 October 2012
Annual Research Seminar Organized by J.D.B. Govt. Girls College, Kota (Raj.)	Regional	Presented	“Electron Transfer Reactions in Aqueous Acid Medium”	2 March 2013
1 st Rajasthan Science Congress Organized by Tagore International School Jaipur (Raj.)	State	Presented	“Kinetics and mechanism of Uncatalyzed and silver (I) catalyzed oxidation of Hydroxy Lysine by Cerium (IV) in acid medium”	11-13 May 2013

Conference on Advance Trends in Engineering and Technology. Organized by Arya College of Engineering and Information Technology, Jaipur (Raj.)	International	Presented	Environment Benign Route for the Utilization of Fly Ash as Heterogeneous Catalyst”	19-20 December 2013
Annual Research Seminar. Organized by J.D.B. Govt. Girls College, Kota (Raj.)	Regional	Presented	“Kinetics and Mechanism of Oxidation of Organic Compounds” -	23 January 2014
“Chemistry for sustainable Development: Indian Perspective” organized by Indian Council of Chemists held at Dubai, UAE	International	Presented	“Removal of Dyes by the Synthesize Adsorptive Catalyst from Fly Ash and Clay”.	11-14 June 2014
Conference on “Advance Trends in Engineering, Technology and Research(ICATETR-2014) organized by Bal Krishna Institute of Technology, Kota (Rajasthan)	International	Presented	“Kinetics and Mechanism of Oxidation of L-valine by Osmium (VIII) in aqueous Alkaline medium”	22-24 December 2014
102 nd session of the Indian Science Congress Association organized by University of Mumbai, Mumbai (Maharashtra)	International	Presented	“Correlation analysis of water quality of Kota city”	3-7 January 2015
Annual Research Seminar organized by J.D.B. Govt. Girls College, Kota (Raj.)	Regional	Presented	“Kinetics and Mechanism of oxidation of fluoroquinolones antibacterial”	30 January 2015
Conference on “Advance Trends in Engineering, Technology and Research” (ICTETR-2015) organized by Bal Krishna Institute of Technology, Kota (Rajasthan)	International	Presented	“Synthesis of Copper Nanoparticles and Their Catalytic Application in Oxidation Reaction”	23-24 December 2015
Organized by UGC-DAE Consortium for Scientific Research DAVV Indore	National	Presented	“Biosynthesis and Characterization of Nanoparticles and their catalytic Application”.	3-6 November 2016

Conference on "Innovative Research in Science, Technology and Management" Organized by Modi institute of Management and Technology, Kota, Rajasthan, India.	International	Presented	"Catalytic Oxidation of Levofloxacin by Hexacyanoferrate (III) in Aqueous Alkaline Medium: A Kinetic Study."	22-23 Jan 2017
7th international science community association Held at Phentschlong, Bhutan	International	Presented	"Synthesis of copper nanoparticles and their catalytic activity in oxidation of threonine."	08-09 December 2017
Conference on environmental changes and their impact on plants and human health. Organized by St. Wilfred's P. G. College, Jaipur.	International	Presented	A kinetic study of oxidation of Fluoroquinolone drug- An Environmental Pollutant."	15-17 January 2018
Conference on "Recent trends in Engg. Science and management" Organized by Vedanta College of Engineering & Technology, Bundi, Rajasthan.	International	Presented	"Application of Copper Nanoparticles in the degradation of Methyl Orange in aqueous medium."	21-22 January 2018
Conference on "Innovation and Strategies to Face the Integrated Development and Environmental Challenges" Organized by Raj Rishi College, Alwar.	International	Presented	"An Environmental Pollutant- antibacterial drug catalytic oxidative degradation by Hexacyanoferrate(III) in Aqueous Alkaline Medium"	9-10 March 2018
Conference on "Recent Innovation in Engineering, Technology, Management and Research" Organized by Organized by Bal Krishna Institute of Technology, Kota Rajasthan, India.	International	Presented	"Green Synthesis of Zero Valent Iron Nanoparticles"	24-25 December 2018
Conference on "Innovative research in Science Technology Management " at Modi Institute of Management & Technology, Kota (Raj)	International	Presented	" Kinetic and Mechanistic study of Cefuroxime in aqueous alkaline medium"	20-21 April 2019
Conference on "Current research on Biodiversity, Environment and Plant Resources" Organized by	International	Presented	"Green synthesis of nanomaterials using plant extract and their environmental	25-26 November 2020

J.D.B. Govt Girls College, Kota, Raj			applications	
E-Conference on "Management of Forest and Wildlife Under Changing Climate Scenario" organized by J. D. B. Government Girls College, Kota in Collaboration of National Museum of Natural History, Ministry of Environment, Forest and Climate Change, New Delhi.	International	Presented	ANALYSIS OF CHARACTERISTIC PARAMETERS AND WATER QUALITY OF KOTA CHAMBAL RIVER	19-20 November 2020

Organizing Sec./Convener/Coordinator of conference/seminar/webinar:

Conference/Seminar/Webinar	Date
Convener of the National Seminar on "Recent Advances in the Field of Applied Chemistry" -Sponsored by U.G.C. Bhopal at Govt. P.G. J.D.B. Girls College, Kota,Raj	2-3 December 2006
Coordinator of "Annual Research Seminar" organized at J.D.B. Govt. Girls College, Kota, Raj.	22 February 2019
Coordinator of workshop on "Intellectual Property Rights (Patent)" in collaboration of Regional Office Department of Science & Technology, Rajasthan at J.D.B. Girls College Kota(Raj).	30 March 2019
Convener of National Workshop on "Intellectual Property Rights and Awareness" organized at J.D.B. Govt. Girls College, Kota, Raj.	19 February 2020
Convener of International E- Seminar on "Recent trends in Environmental Research for Sustainable Development" Organized by J.D.B. Govt. Girls College, Kota, Raj.	28 October 2020
Coordinator of National E-Seminar on" National Accreditation process: Opportunities and Challenges" organized by J.D.B. Govt. Girls College, Kota, Raj.	9 November 2020
Convener and Speaker of International E- Seminar on "Copyright and plagiarism issues in academics" Organized by Intellectual Property Rights cell of J.D.B. Govt. Girls College, Kota, Raj.	14 December 2020
Coordinator of National E-Seminar on "Entrepreneurship Development: Opportunities and Challenges" organized by J.D.B. Govt. Girls College, Kota, Raj.	18 December 2020

Resource Person:

A)In training Programme	Date
Two Lecture delivered in Refresher course for the faculty of polytechnic college of Rajasthan organized by TTC (LRDC) Jodhpur, Rajasthan,	6 August 2020 and 10 August 2020
Invited speaker in Gyan Ganga program, state level online training organized by Dungar College, Bikaner,Raj.	21 January 2021
Invited speaker in Gyan Ganga program, state level online training organized by Govt. college, Kota, Rajasthan.	4 February 2021
B) In conferences/Seminars (Invited Speaker/Chair/Co-Chair of Session)	
Chair the Session in the International Conference of Indian Chemical Society held at JECRC University, Jaipur, Raj.	27-29 December 2015
Invited Speaker in International Conference on “Recent Trends in Chemical Sciences, Indian Chemical Society” Organized by Govt. Engineering College Bikaner.	12-13 January 2017
Invited Speaker in International Workshop and Symposium on Green Chemistry and Technology at Dungar College Bikaner, Bikaner, Raj.	15-17 October 2018
Invited Speaker in national Workshop on "Geographical Indication Application filling Awareness Programme” Sponsored by Department of Science & Technology Jaipur, Rajasthan. Organized by Lal Bahadur Institute of Technology & Science, Ranpur, Kota (Raj.)	27 March 2019
Invited speaker in National Seminar on “Aspects of Geographical Indications for Sustainable Development” organized by Department of Science & Technology Jaipur, Rajasthan at University of Kota, Kota(Raj).	28-29 March 2019
Invited speaker and Chairperson in International Conference on “Emerging challenges, their solutions and recent Advances in Science” at Government Science College, Sikar, Rajasthan.	4-5 October 2019
Invited speaker and Chairperson in International Conference on “Recent trends in Chemical sciences” Organized by Indian Chemical society held at Pt. Ravishanker Shukla University ,Raipur, Chattishgarh	14-16 November 2019
Certificate of Chaired a technical Session in International E-Conference on “Green Chemistry for Sustainable Development” organized by Janardan Rai Nagar Rajasthan Vidapeeth.Udaipur in association with Royal Society of Chemistry, London(WIS)	25-26 June 2020

Research Publications

Title of Paper	Name of Journal	Volume and No. with Year	Citation Index	Impact Factor	ISSN NO.
Stoichiometry and Kinetics of the Oxidation of Hydrozoic Acid with N-Chlorotoluene-p-sulfonamide (Chloramine-T) in Acid Perchlorate Medium.	Journal of Chemical Research(S), (Royal society of Chemistry)	140, 962-979 (1993).		0.697	0308-2342
Kinetics and Mechanism of Oxidation of Glycine, Alanine and Threonine Fluoride Co-ordinated Bismuth (V) in Aqueous HClO ₄ .HF Medium.	International Journal of Chemical Kinetics. (John Wiley & Sons)	26 (5), 577-585 (1994).		1.736	0538-8066
“Kinetics and Mechanism of Electron Transfer Reactions in Aqueous Solutions: Silver (I) Catalyzed Oxidation of Aspartic Acid in Acid Perchlorate Medium.”	International Journal of Chemical Kinetics. (John Wiley & Sons)	27(4), 311-319 (1995)		1.736	0538-8066
“Kinetics and Mechanism of Electron Transfer Reactions in Aqueous Solutions: Silver (I) Catalyzed Oxidation of Glycine by Cerium (IV) in Acid Perchlorate Medium.”.	Oxidation Communications	17 (4) 245-254(1994).		.507	0209-4541
“Kinetics and Mechanism of Electron Transfer Reactions in Aqueous Solutions: Silver (I) Catalyzed Oxidation of Glutamic Acid by Cerium (IV) in Acid Perchlorate Medium.”	Oxidation Communications	19(2) 242-250 (1996)		.507	0209-4541
“Kinetics and Mechanism of Oxidation of Formic Acid by Bismuth (V) in Aqueous Phosphoric Acid Medium.”	International Journal of Chemical Kinetics. (John Wiley & Sons)	32 (8), 491-497 (2000).	1	1.736	0538-8066
“Kinetics and Mechanism Silver (I) Catalyzed Oxidation of Alanine by Cerium (IV) in Perchloric Acid Medium”	Journal of Indian Chemical Society	82, 290-294, (2005)	15	0.25	0019-4522
“Kinetics and Mechanism of Uncatalyzed and silver (I) Catalyzed Oxidation of Lysine by Cerium (IV) in acid Perchlorate Medium.”	Journal of Indian Chemical Society	86, 600-604, (2009).	10	0.25	0019-4522

“Kinetics and Mechanism of Ag (I) Catalyzed Oxidation of L-leucine by Ce (IV) in Acid Perchlorate Medium.”	Physical Chemistry an Indian Journal, (Trade Science Inc.)	4(1), 21-26, (2009)		2.693	0974-7524
. Kinetics and Mechanism of Ag (I) Catalyzed Oxidation of Valine by Ce (IV) in Acid Perchlorate Medium.”	Indian Journal of Chemistry	49 A, 442-447, (2010).	10	0.63	0975-0983
“Mechanistic aspects of Oxidation of Alanine by Os (VIII) in aqueous alkaline Medium, A kinetic model”	Journal of Indian Chemical Society	87, 823-827, (2010).		0.25	0019-4522
“Kinetics and Mechanism of Osmium (VIII) Catalyzed Oxidation of Valine by Hexa-cyanoferrate (III) in Alkaline Medium.”	Rasayan Journal of Chemistry	5 (1) 67-73 (2012)	14	1.220	0974-1496
Oxidation of Mechanism of Catalyzed Oxidation of Valine by Ce (IV) in acid Aqueous Medium.”	Oxidation Communications	35(2), 378-388 (2012)		0.507	0209-4541
“Modification in properties of fly ash through mechanical and chemical activation”	American Chemical Science Journal. (Science Domain International)	2(4), 177-187, (2012)	36	7.97	2249-0205
A Novel synthesis Process for Making Nickel Oxide Nanoparticles”	International research Journal of Pure and applied Chemistry. (Science Domain International)	3(2), 111-117, (2013)	19	2.5	2231-3443
“Synthesis of Nano sized Titania by Sol-Gel Route”	Indian Journal of Applied Research	3 (4), 49-50, (2013)	2	6.03	2249-555X
Pure Silica Extraction from Perlite: Its Characterization and Affecting Factors”	International Journal of innovative research in Science, Engineering and Technology	2 (7), 2936-2942, (2013)	32	1.68	2319-8753
“Kinetics and Mechanism of Uncatalyzed and Ag (I) Catalyzed Oxidation of Hydroxylysine by Cerium (IV) in Acid Medium.”	Journal of Physical Chemistry and Biophysics	3(5), (2013).	11	0.75	2161-0398
“Fly Ash Supported Perchloric acid (PAFA): A Green, Highly efficient and Recyclable Heterogeneous Catalyst for Series of Esterification”	International Journal of innovative research in Science, Engineering and Technology	3(1), 8607-8619 (2014)	2	1.68	2319-8753

“Fly Ash Supported Vanadia catalyst: An Efficient Catalyst for Vapour Phase Partial Oxidation of Toluene in Micro-reactor”	Fuel Processing Technology (Elsevier)	121, 1-8, (2014)	25	5.128	0378-3820
“Environmental Benign Route for the Utilization of Fly Ash as Heterogeneous Acid Catalyst for Various Organic Transformations”	International Journal of invention in Research, Engineering Science and Technology,	1(1),73-75 (2014)		1.786	2348-7399
“Experimental Investigation on the Synthesis of Copper Nanoparticles By Chemical Reduction Method”	International Journal of Scientific and Engineering Research	5(11),973-978 (2014)		3.8	2229-5518
“Kinetic Analysis of Oxidation of Ofloxacin by Permanganate Ion In Sulphuric Acid Medium: A Mechanistic Approach”	World Journal of Pharmaceutical Research,	4(1), 963-967 (2014)		8.084	2277-7105
“Kinetics and Mechanism of Chromium (VI) oxidation of Threonine in Aqueous Perchloric Acid Medium”	International Journal of innovative research in Science, Engineering and Technology	3(11), 17468-17474 (2014)		1.68	2319-8753
Correlation analysis of Physico chemical parameters and water quality of Chambal river: A case study of Kota city.”	International Journal of Engineering, Research and technology, (IJERT)	52-55 (2014).			2278-0181
A Facile Method for Production of Amorphous Silica from Perlite under Microwave Irradiation.”	International Journal of IT, Engineering and Applied Sciences Research	4(1), 18-24,(2015)	5	1.38	2319-4413
“Oxidation of Leucine by Cerium (IV) in Presence of Manganese (II) as a Catalyst in Sulphuric Acid Medium”	International journal of Research in Physical Chemistry	5(2),11-16 (2015)		0.798	2320-3919
Kinetics and mechanism of uncatalyzed and Ag (I) catalyzed oxidation of serine by cerium (IV) in acid medium	International Journal of Research in Physical Chemistry	5 (1),1-6 (2015)	5	0.798	2320-3919
“A Kinetic and Mechanistic Study of Palladium (II) Catalyzed Oxidation of Arginine by Cerium (IV) in acid medium”	International journal of Innovative Research in Science, Engineering and Technology	4 (7), 5283-5291(2015)	2	1.68	2319-8753
‘Kinetics and mechanism of Permanganate Oxidation of Ciprofloxacin in Aqueous Sulphuric Acid Medium’	International Journal of Pharma. Science & Drug research.	7 (2), 205-210 (2015)	1	1.359	0975-248X

“A Kinetic study on Copper Nanocatalysis in the oxidation of serine by Peroxomonosulphate.”	International journal of Advanced Research in Engineering and Applied Sciences	4(2), 1-16(2015)	2	4.817	2278-6252
Synthesis and size control of copper nanoparticles and their catalytic application.”	Transactions of nonferrous metal Society of china (Elsevier)	25, 3995-4000(2015)	44	2.615	1003-6326
“Mn (II) catalyzed oxidation of Alanine by cerium (IV) in Sulphuric acid medium: A kinetic and mechanistic study.”	International Journal of innovations in biological and chemical sciences (Whites Science)	6, 23-27 (2015)	1	3.2	2047-9093
.Kinetics and Mechanism of the Reaction of Valine with Ceric Ion in the Presence of Palladium (II) Catalyst in Acid Medium”	International Journal of innovations in biological and chemical sciences (Whites Science)	6, 60-66 (2015)		3.2	2047-9093
“Kinetic and Mechanistic Study of Oxidation of Serine by Cerium (IV) in presence of Manganese (II) as catalyst in aqueous acid medium”	International Journal of Current Research in Chemistry and Pharmaceutical Science	2(11), 1-8 (2015)	1	6.988	2348-5221
“Synthesis and characterization of highly efficient copper nanoparticles and their catalytic application in oxidative kinetic study	Advances in applied Science Research. (Pelagia Research Library)	6(6), 171-180 (2015)	15	3.52	0976-8610
.Synthesis, Characterization and Catalytic Application of Copper nanoparticles on Oxidation of Alanine in Acid Aqueous Medium.	International Journal of Current Engineering and Technology	5(2), 966-973(2015)	1	7.151	2277-4106
“Oxidation of levofloxacin by acidic permanganate: A Kinetic and mechanistic study”	International Journal of Research in Pharmacy and Science	5(4), 1-8. (2015)	1	1.012	2249-3522
Oxidation of Lysine by Chromium (VI) in Acid Perchlorate Medium: A Kinetic Study”	International journal of Chemical Sciences (Sadguru Publications)	13(2), 641-649 (2015)		1,6	0972-768X
Copper nanoparticles catalyzed oxidation of threonine by peroxomonosulphate.”	Journal of Saudi Chemical Society, (Elsevier).	21, 803–81 (2016)	6	3.517	1319-6103
Synthesis and Characterization of Silver Nano-Particles via Green Route”	The Korean Journal of Chemical Engineering (Springer)	33(10), 2990-2997 (2016)	7	2.450	1975-7220
. “Synthesis, Characterization of Copper Nanoparticles and their catalytic Application”	International Journal of Advance Research in Science and Engineering	6 (1). (2017)		1.142	2319-8354

. “Kinetics and mechanism of permanganate oxidation of Nalidixic acid in aqueous alkaline medium.”	Journal of Applied Pharmaceutical Science	7 (01), 135-143. (2017)	2	0.537	2231-3354
Catalytic Oxidation of Levofloxacin by Hexacyanoferrate (III) in Aqueous Alkaline Medium: A Kinetic Study.”	International Journal of Advance Research in Science and Engineering	6(01), (2017)		1.142	2319-8354
“Oxidation of Ciprofloxacin by Hexacyanoferrate (III) in the Presence of Cu (II) as a Catalyst: A Kinetic Study	International Journal of Chemical Kinetics (John Wiley)	49(7), 534–542 (2017)	6	1.187	1097-4601
.“Oxidative degradation of levofloxacin by water-soluble manganese dioxide in aqueous acidic medium: a kinetic study.”	Chemical Papers (Springer)	71, 1749-1758(2017)	4	1.680	1336-9075
“Kinetics and mechanism of permanganate oxidation of Enrofloxacin in aqueous alkaline medium.	Journal of Pharmaceutical and Scientific Innovation	6(4), 79-87(2017)	2	4.986	2277-4572
Activation of peroxodisulfate and peroxomonosulphate by green synthesized copper nanoparticles for Methyl Orange degradation: A kinetic study.	Journal of Environmental Chemical Engineering (Elsevier)	5, 5793-5800 (2017)	12	4.020	2213-3437
.“Preparation of colloidal manganese Dioxide and their application in Degradation of antibacterial drug.”	International Journal of Advance Research in Science and Engineering	7(02),416 (2018) .		6.1	2319-8354
Application of Copper Nanoparticles in the Degradation of Methyl Orange in aqueous medium.”	International Journal of Advance Research in Science and Engineering	7(02), 433 (2018)		6.1	2319-8354
“Synthesis of copper nanoparticles and their catalytic activity in oxidation of threonine.”	Research Journal of Recent Sciences	7(03), 1-6 (2018)		1.650	2277-2502
Oxidative degradation of Orange G by Peroxomonosulphate in presence of Biosynthesized Copper Nanoparticles – A Kinetic Study.”	Environmental Technology & Innovation (Elsevier)	2018, 10, 281-289.	7	3.030	2352-1864
“Kinetics and Mechanism of Electron-Transfer Reactions: Oxidation of Nalidixic Acid by Diperoxydicuprate (III) in Aqueous Alkaline Medium.”	International Journal of Pharmacy and Pharmaceutical Research	2018, 11(4), 231-247		6.64	2349-7203
.Green synthesis and characterization of copper nanoparticles using Azadirachta indica leaves”	Materials Chemistry and Physics (Elsevier)	2018, 213, 44-51.	77	3.408	0254-0584
Kinetic and Mechanistic Study of ciprofloxacin in Aqueous Alkaline Medium.”	Research Journal of Recent Sciences	7(04), (2018)		1.650	2277-2502

A kinetic study on the degradation and biodegradability of silver nanoparticles catalyzed Methyl Orange and textile effluents”	Heliyon (Elsevier)	5 (2019) e01356.	13	1.650	2405-8440
Textile Dyes degradation from Activated Peroxomonosulphate by Green synthesise Silver Nanoparticles: A Kinetic Study”	Journal of Inorganic and Organometallic Polymers and Materials (Springer Nature)	29,1645–1657(2019)	2	1.670	1574 -1451
Kinetic study of uncatalyzed and Cu(II) catalyzed oxidation of Ofloxacin in aqueous alkaline medium and their mechanistic aspects”	SN Applied Sciences (Springer Nature)	1, 729 (2019)	1	1.014	2523-3971
.Green Synthesis of Iron Nanoparticles and their environmental application in degradation of colorants”	Accent J. of economic ecology and engineering	Vol.4. April 2019.		7.198	2456-1032
."Kinetic and Mechanistic study of cefuroxime by hexacyanoferrate (III)in aqueous alkaline medium.	Accent J. of economic ecology and engineering	vol.4. April 2019		7.198	2456-1032
Soluble Colloidal Manganese Dioxide: Formation ,Characterization and application in Oxidative Kinetic study of Ciprofloxacin”	Bulletin of Chemical Reaction Engineering & Catalysis	15(1) ,2020	1	1.6	1978-2993
Kinetics and mechanism of electron transfer reactions: Oxidative degradation of fluoroquinolone drugs in aqueous acidic/alkaline medium”	J. Indian Chem. Soc.	96, 1287-1295, 2019.		0.150	00194522
Oxidative degradation of Orange G by Peroxomonosulphate in presence of biosynthesized Iron Nanoparticles.	International Journal of Research and Analytical Reviews	7 (2),965-972, 2020		3.215	2349-5138
Analysis of Characteristic parameters and water quality of Kota Chambal river	International Journal of Research and Analytical Reviews	7 (4)1-3 2020		3.215	2349-5138

Research Projects:

Title of the Project	Year	Name of funding agency	Fund available / utilized	Present status
“Minor Research Project)” S.No. F-No.4-62(3)/2000-(MRP/CRO) date-31-3- 2000	2000-2002	University Grants Commission, Bhopal.	20000	Completed
“Minor Research Project” S.No. F-No.4S-09/2005-06-(MRP/CRO)/302043 date-7-2-06	2006-2008	University Grants	60000	Completed

		Commission, Bhopal.		
“Minor Research Project” S.No. F-No.MS-505/32045/08-09/CRO) date-31-3-2009	2009-2011	University Grants Commission, Bhopal.	175,0000	Completed
Co-coordinator of ‘FIST’ Programme of D.S.T. New Delhi- SR/FST/CSI- 0303/12/01/2009.	2009-2014	D.S.T. New Delhi	34.75 Lakh	Completed

Research Supervision:

Basic Field of specialization: Nanomaterials, Chemical Kinetics

Name of Student	Title of thesis	Present status	Year of Award
Manju Bala Yadav	“Oxidation of amino acid by cerium (IV) Osmium (VIII)”.	Awarded	2010
Anita Sharma	“Synthesis of green, efficient & recyclable solid acids from Coal Fly ash catalyzing industrially important organic transformations”.	Awarded	2014
Khusboo Srivastava	“Oxidative kinetic study of organic compounds on Supported metal & metal oxide”.	Awarded	2015
Renu Hada	“Synthesis of fly ash supported & non supported Metal Oxide nanoparticles: characterizations catalytic Application”	Awarded	2015
Shanu Mathur	“Mechanistic study of uncatalyzed & Catalyzed Oxidation of Amino Acids in Aqueous acid Medium”	Awarded	2016
Shikha Jain	“Metal nanoparticles catalyzed oxidation of Amino acids in aqueous solutions: A Kinetic study ”	Awarded	2017
Ankita Jain	“Oxidative kinetic study of Fluoroquinolone Pharmaceuticals in acidic/basic aqueous solutions”	Awarded	2017
Niharika Nagar	” “Synthesis of Metal Nanoparticles and Their Application in Degradation of Textile Dyes by Advanced Oxidation Process”	Awarded	2019
Gajala Tazwar	“Kinetic and Mechanistic study of Oxidative Degradation of Fluoroquinolone Antibacterial Agents in Aqueous Medium”	Awarded	2019

Mahima Sharma	“Kinetics and Mechanism of Electron Transfer Reaction: Oxidation of Antibacterial Drugs in Aqueous Acidic/Alkaline Medium”	Registered	2018
Ajay Rathore	“Experimental Investigation on Green Synthesis of Zero Valent Metal Nanoparticles and Their Role in Degradation of Organic Colorants”	Registered	2018
Nimish Kumar	Kinetics of Degradation of Some Organic pollutants catalyzed by Metal Nanoparticles Synthesized Using Greener Approaches	Registered	2019
Preeti Bairwa		Registered	2020

Monograph/ Book / Chapter (in Edited Book)/ Chapters in study material of Open Universities

Title of Book	ISBN/ ISSN No.	Publisher with Place	Year of Publication
“Nanotechnological Applications in Cancer Treatment”	ISBN No.-81-8220-275-2		2008
Physical Chemistry for B.Sc. Part III	ISBN No.-81-8142-148-5	RBD, Jaipur & New Delhi	2016-17
Physical Chemistry for B.Sc. Part III	ISBN No.-81-8142-148-5	RBD, Jaipur & New Delhi	2017-18
Physical Chemistry for B.Sc. Part III	ISBN No.-81-8142-148-5	RBD, Jaipur & New Delhi	2018-19
Physical Chemistry for B.Sc. Part III	ISBN No.-81-8142-148-5	RBD, Jaipur & New Delhi	2019-20
Agri-waste and Microbes for production of sustainable nanomaterials- Chapter-2 “Synthesis of Metal Nanoparticles by Microbes and Biocompatible Green Reagents ”	ISBN NO.-978-0-12-823575-1	Elseiver,London, England	2021
Agri-waste and Microbes for production of sustainable nanomaterials - Chapter-3”Plant and Agri-waste mediated synthesis of Metal Nanoparticles”	ISBN NO.-978-0-12-823575-1	Elseiver,London, England	2021

Extra-Curricular Activities:

- Worked as NSS officer of unit III at J.D.B. Govt. Girls College Kota in 2008.
- Worked as Academic Counselor of IGNOU, New Delhi guided students and shared subject content for various courses.
- Contributed as nodal officer conducted Online Undergraduate Admission for session 2014-2015, 2015-2016, 2019-2020, 2020 -2021.
- Worked as NAAC In-house member of Inspection team for Govt. college,Baran on 8-9 February 2016 and Govt.Girls college, Baran on 30 January 2017as per order of Commissionerate college education Rajasthan, Jaipur
- Worked as Coordinator of study center for students of Vardhman Kota Open University of Kota at J.D.B. Govt.Girls college, Kota

- Worked as Convener of Inspection team, University of Kota, Kota for Inspection of Mata Bhagawati Devi Dev Sanskriti Women College, Siswali – Baran.
- As Coordinator of IPR cell conducted lectures, seminars and awareness programme.
- Contributed as Incharge in Institutional Governance responsibilities like Prospectus, PFMS and BIO-Metric Committee etc.

Other Relevant Information/Contributions

- Member of Core committee in joint project of Centre for Climate Sciences & policy Research, Linköping University, Sweden and University of Kota, Kota (Raj.)
- Reviewed different research articles for reputed International journals such as Elsevier, Springer, etc
- Guided and mentored students to prepare proposal for selection in Summer Research Fellowship programme, sponsored by DST Rajasthan under KARYA programme, IISC Bengaluru etc.
- Articles Published in Danik Bhaskar Newspaper on “Application of Nanoparticles in Industries” and analysis report on air and water pollution