

Name: Dr. Raj Kaushal

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Degree	Year of passing	College/ institution/university
B.Sc	1999	MCM DAV College Kangra, HPU, Shimla
M.Sc	2001	HPU, Shimla
M.Phil.	2002	HPU, Shimla
Ph.D.	2007	HPU, Shimla
Cert. Course in German	2005	HPU, Shimla
Joint CSIR-UGC (NET) for JRF	December, 2001	CSIR, New Delhi
SLET for lectureship in Dec. 2001.	December, 2001	HPPSC, Shimla

Research Supervision

Programme Name	Scholar Name	Research Topic	Status	Year	Co-Supervisor
Ph.D	Mr. Nitesh Kumar	Synthesis , characterization, biological evaluation and computational study of Titanium Complexes	Awarded	2015	Dr Pamita Awasthi
	Ms. Sheetal	Synthesis , characterization and biological evaluation of titanium and ruthenium complexes with biologically important ligands		2016	N/A
	Archana Thakur	Titanium –Indole complexes and their biological Applications	Submitted	2020	N/A
	Mandeep Kaur	Chalcone based vanadium complexes, their antibacterial and antidiabetic studies	ongoing	-	N/A
M.Sc.	Neha Kumari	Computational chemistry and type 2 Diabetes melletus	Completed	2017	-
	Shaifali Sharma	Cobalt chalcone complexes and their in silico alpha glucosidase inhibition		2018	-
	Akanksha Katoch	Synthesis of mixed ligand complexes of titanium using indole and substituted phenols		2018	-

	Vikrant Taliyan	Synthesis of alkoxo phenoxo titanium (IV) complexes and their ct-DNA cleavage study using Agarose gel electrophoresis		2019	-
	Ajay	Organotin(IV) complexes of aminoacid Schiff bases and their ct-DNA interactions		2019	-
	Harish Kumar Harit	Synthesis, spectroscopic characterization and ct-DNA ligation of vanadium(IV) indole complexes		2019	-
	Arun	Preparation, Characterization and α -Amylase Inhibition Assay of Vanadium Azo-Chalcone Complex		2020	-
	Hemant Kumar	Calf thymus DNA binding, Antioxidant and α -Amylase inhibition activities of some Ruthenium (III) Hydroxamate complexes		2020	-

Research Projects

Role	Project Type	Title	Funding Agency	From	To	Status	Co-Investigator
PI	Extramural research Grant	Designing, preparation, characterization and antiproliferative activity of titanium based drugs	SERB, DST, New Delhi	2016	2018	Completed	N/A

Teaching Experience

Position held	Name of Institute / Universities	From	To
Assistant Professor	National Institute of Technology, Hamirpur (HP)	30-12-2009	Till date
Assistant professor (Pre revised)	Continental Institute of Engineering & Technology, Punjab Technical university	Sept 2008	Dec, 2009
Lecturer	Lovely Professional University, Punjab	August, 2007	August, 2008

Publications

Year	Journal	Publication
2004	Indian Journal of Chemistry	Bhatt SS, Kumari R, Sharma N and Chaudhry SC, Synthesis of new bis(2,4-pentanedionato)zirconium(IV) aryloxides and their thermal studies, Indian Journal of Chemistry, 43 A, 778-781(2004).
2005	J. Indian chemical Society	Bhatt SS, Kumari R, Sharma N and Chaudhry SC Mixed ligand (acetylacetonate) (chlorophenoxo) zirconium (IV) complexes and their reactivity, J. Indian chemical Society, Vol. 82, 2005, 354-356.
2006	Thermans	Thermoanalytical investigations of poly(methylmethacrylate) organotin (IV) 2-tert-butyl-4- methyl phenoxides blends, Thermans, 200-203(2006).
2007	J. Indian chemical	Chaudhry SC Kumar A, Bhatt SS, Kumari R, and Sharma N, Synthesis,

	Society	characterization and reactivity of tin(II) 2, 4-dinitrophenoxide J. Indian chemical Society, Vol. 84, 2007, 230-235.
2009	International Journal of theoretical and applied Sciences	SS Bhatt, Kumari R, Sharma N and Chaudhry SC , New aryloxide derivatives of monochlorotris (acetylacetonato) zirconium(IV). International Journal of theoretical and applied Sciences, Vol 1(1), 2009, 57-63.
2011	International Journal of Current Research & Review	Raj Kaushal, Nitesh Kumar, Rajeev Kaushal and Pamita Awasthi, An insight into metal based anti-cancer drugs, International Journal of Current Research & Review, vol 03 , issue 7 , page, 2011.
2012	Journal of Modern Chemistry & Chemical Technology	Raj Kaushal & S.S. Bhatt, Mono(acetylacetonato) zirconium(iv) aryloxides : synthesis, reactivity and thermoanalytical investigation, Journal of Modern Chemistry & Chemical Technology , Volume 3, Issue 1, April 2012, Pages 6–16.
2013	Chemical Engineering Transactions	Raj Kaushal & Sheetal Thakur, Syntheses and biological screening of Schiff base complexes of titanium (IV), Chemical Engineering Transactions, vol 32, page1801-1806, 2013 .
2013	Turkish journal of Chemistry	Raj Kaushal, Nitesh Kumar, Pamita Awasthi and Kiran Nehra, Syntheses, characterization and antibacterial study of titanium complexes, Turkish journal of Chemistry, vol 37, issue 6 ,936-945,2013.
2014	Bioinorganic Chemistry and applications	Raj Kaushal, Nitesh Kumar, Ashun Chaudhary, Saroj Arora and Pamita Awasthi, Synthesis, spectral characterization and Antiproliferative studies of mixed ligand titanium complexes of adamantylamine , Bioinorganic Chemistry and applications, Volume 2014, Article ID 142828, 1-12 2014
2014	International Journal of Pharmacy and Pharmaceutical Sciences	Raj Kaushal, Sheetal, Rajeev Kaushal and Kiran Nehra, synthesis, characterization and biological screening of titanium(IV) complexes derived from antibiotic drugs, International Journal of Pharmacy and Pharmaceutical Sciences, 2014 Vol 6, Issue 2, 374-378
2014	Medicinal Chemistry Research,	Nitesh Kumar, Raj Kaushal, Ashun Chaudhary, Saroj Arora and Pamita Awasthi, synthesis, structure elucidation and in vitro antiproliferative activities of mixed ligand titanium complexes, Medicinal Chemistry Research, 2014, vol 23(5) page 1-12 DOI 10.1007/s00044-014-0963-7.
2015	Biochemistry Research International	Pamita Awasthi, Nitesh Kumar, Raj Kaushal, Mohan Kumar and Shrikant Kukreti, Comparative <i>In Vitro</i> Binding Studies of $TiCl_2(dpme)_2$, $Ti(ada)_2(bzac)_2$, and $TiCl_2(bzac)(bpme)$ Titanium Complexes with Calf-Thymus DNA, Biochemistry Research International, Volume 2015, Article ID 836928, 7 pages
2016	Russian journal of General Chemistry	Sheetal and Raj Kaushal, <i>In vitro</i> Anticancer and Antibacterial Activities of Octahedral Ruthenium(III) Complexes with Hydroxamic Acids. Synthesis and Spectroscopic Characterization, Russian journal of General Chemistry, 2016, vol 86, issue 2.
2016	Russian journal of General Chemistry	Sheetal, Kiran Nehra, Rajeev Kaushal, Saroj Arora, Davinder Kaur, Raj Kaushal Octahedral Titanium (IV) Complexes with Five Novel Hydroximates Ligands: Synthesis, Spectroscopic Characterization And In Vitro Activities On IMR-32 And CHO Cell Line And Ten Bacterial Strains, Russian Journal of General Chemistry, 2016, vol 86, issue 1, 154–160.
2016	International journal of Medicinal Chemistry	Raj Kaushal, Sheetal Thakur and Kiran Nehra, ct-DNA Binding and Anti-bacterial Activity of Octahedral Titanium (IV) Heteroleptic (Benzoylacetone and Hydroxamic Acids) Complexes, International journal of Medicinal Chemistry, Volume 2016 (2016), Article

		ID 2361214, 11 pages http://dx.doi.org/10.1155/2016/2361214 .
2018	Anti cancer agents in Medicinal Chemistry	Raj Kaushal, Nitesh Kumar, Archana Thakur, Kiran Nehra, Pamita Awasthi, Rajeev Kaushal and Saroj Arora, Synthesis, spectral characterization, antibacterial and anticancer activity of some titanium complexes, Anti cancer agents in Medicinal Chemistry, Vol 18, 2018, 739-746. DOI : 10.2174/1871520618666171219122431 .
2019	Inorganic and nano metal Chemistry	Nitesh Kumar, Raj Kaushal, Anshun Chaudhary, Saroj Arora, and Pamita Awasthi , Titanium based mixed ligand complexes: synthesis, spectroscopic and in vitro antiproliferative studies, Inorganic and nano metal Chemistry, 2019, 1-10 DOI: 10.1080/24701556.2019.1569690
2020	Research Journal of Chemistry and Environment	Archana Thakur and Raj Kaushal, Synthesis, spectroscopic characterization, DNA interactions, antimicrobial and antioxidant activities of Titanium (II) indole complexes, Res. J. Chem. Environ. Vol. 24 (7), 126-145, 2020.
2020	International Journal of Pharmaceutical Research	Archana Thakur, Kiran Nehra, Saroj Arora, Raj Kaushal Synthesis, characterization, DNA-interactions, antioxidant, antimicrobial and anticancer studies of mixed-ligand titanocene dichloride complexes, International Journal of Pharmaceutical Research , Vol 12 (3), 1180-89, 2020 https://doi.org/10.31838/ijpr/2020.12.03.164 .
2020	Applied Organometallic Chemistry	Mandeep Kaur and Raj Kaushal, synthesis, characterization, and α -amylase and α -glucosidase inhibition studies of novel vanadyl chalcone complexes, Applied Organometallic Chemistry, , page 1-17, 2020 DOI: 10.1002/aoc.6042
2020	Journal of Chemical Sciences	Raj Kaushal, Archana Thakur , Astha Bhatia , Saroj Arora , Kiran Nehra, Synthesis, characterization, DNA-binding and biological studies of novel titanium (IV) complexes, Journal of Chemical Sciences, September, 2020 (Accepted)

Edited Book/Book Chapter

Sr. No	Title	Publisher	Authors	ISBN/ISSN No.	Year
1	Mixed Ligand (acetylacetonato) (chlorophenoxy) zirconium(IV) Complexes	Lambert Academic Publishing	Raj Kaushal & Sarvjeet Singh	978-3-8443-0494-7	2011

Courses/ conferences Organized

Category	Type	Title	Venue	From	To	Designation
STC	MHRD Funded	Advances in Material Characterization (ATMC 2013), 20-24 May, 2013 sponsored by MHRD and DBT, New Delhi).	NIT, Hamirpur	20.05.2013	24.05.2013	coordinator
STC	Self	06 days short term course on	NIT,	12.12.2017	17.12.2017	coordinator

	financed	computer Aided Drug Designing (CADD-2016), 12-17 December, 2017, NIT, Hamirpur (Self Financed).	Hamirpur			
Conference	National	National conference on Analytical Chemistry and Molecular spectroscopy 2016 (ACMS-2016), 13-14	NIT, Hamirpur	13.10.16	14.10.16	Organising Secretary
Training –cum – workshop	Self financed	Training –cum –workshop on Newest Technology of bioinformatics, drug discovery and molecular simulations	NIT, Hamirpur	22-04-16	23-04-2016	coordinator

Conference Publications

Year	Author(s)	Title	Conference name with place
2019	Mandeep Kaur and Raj Kaushal	Synthesis, spectroscopic characterization and alpha amylase inhibition studies of vanadyl chalcone complexes	Indian analytical congress international conference, Amity University, Noida, Delhi NCR, India
2018	Raj Kaushal and Archana Thakur	Synthesis, characterization and spectrophotometric studies of titanium indole complexes.	International conference on advances in analytical sciences, CSIR-Indian Institute of Petroleum, Dehradun, Uttarakhand, India
2017	Raj Kaushal and Archana Thakur	Spectrophotometric studies of some indole derivatives with CT –DNA Page no. 143	National conference on role of biophysics in academia and industry, Punjab University, Chandigarh
2017	Raj Kaushal, Sheetal, Archana Thakur, Saroj Arora	Evaluation of cytotoxic properties of some of ruthenium (III) hydroxamate complexes	National seminar on Recent Trends in Plant and Environmental Sciences, GNDU, Amritsar, Punjab.
2016	Raj Kaushal, Sheetal and Archana Thakur	Spectrophotometric titration of ruthenium(III) complexes with CT-DNA.	National conference on Analytical chemistry and molecular spectroscopy (ACMS-2016), ,NIT Hamirpur
2014	Raj Kaushal, Sheetal, Saroj Arora	syntheses, characterization and anticancerous activity of novel titanium(IV) hydroxamate complexes,	National conference on recent trends in chemical sciences, engineering and technology (RTCET 2014), , NIT Hamirpur
2014	Nitesh Kumar, Raj Kaushal, Ashun Chaudhary, Saroj Arora, Srikant Kukreti and Pamita Awasthi	in-vitro cytotoxic and calf thymus DNA binding studies of some titanium complexes, page 26.	National conference on recent trends in chemical sciences, engineering and technology (RTCET 2014), , NIT Hamirpur
2014	Nitesh Kumar, Raj Kaushal, Saroj Arora, Shrikant Kukreti and Pamita Awasthi	Synthesis, characterization, cytotoxic and DNA binding studies of titanium complexes.	Recent developments in Chemical Sciences and Technology: young Scientist meet (RDCST-2014), March 15-16, 2014, NIT Rourkela,
2013	Raj Kaushal, Nitesh Kumar, Pamita Awasthi	Synthesis , characterization and in vitro cytotoxic studies of mixed ligand titanium complexes	Annual convention of chemists PU, Chandigarh

2013	Raj Kaushal, Nitesh Kumar, Ashun Chaudhary, Saroj Arora, Pamita Awasthi	Synthesis , structure elucidation and in vitro antiproliferative activities of mixed ligand titanium complexes	International conference on interdisciplinary areas with chemical sciences (ICIACS 2013), PU Chandigarh
2013	Raj Kaushal, Sheetal, Kiran Nehra	Effect of titanium and sugar on the antibacterial activity of amoxicillin: synthesis, structural investigation and biological studies.	International conference on interdisciplinary areas with chemical sciences (ICIACS 2013), PU Chandigarh
2013	Raj Kaushal, Sheetal, Kiran Nehra	Synthesis , and biological screening of titanium (IV) complexes derived from antibiotic drugs,	National Symposium on Biotechnology: present Status and Future prospectus, Biosym-2013, DCRUST, Murthal, Sonapat, Haryana
2013	Raj Kaushal, Nitesh Kumar, Kiran Nehra, Pamita Awasthi	Synthesis , characterization and antibacterial study of titanium complexes,	National Symposium on Biotechnology: present Status and Future prospectus, Biosym-2013, DCRUST, Murthal, Sonapat, Haryana
2013	Raj Kaushal and Sheetal Thakur	Syntheses and biological screening of Schiff base complexes of titanium (IV)	11 th international Conference on Chemical engineering and Process Engineering (ICheaP-11), Milan, Italy
2012	Nitesh Kumar, Raj Kaushal and Pamita Awasthi	Synthesis and characterization of titanium complexes as anti cancer agents.	Symposium on new developments in NMR and conference of National Magnetic resonance society, NMR research centre, IISc, Bangalore,
2011	Raj Kaushal, Rajeev Kaushal and S.S. Bhatt	Thermo analytical investigation of some organozirconium(IV) complexes,	International conference on emerging trends in chemistry, Punjab university, Chandigarh,
2010	Raj Kaushal and R K Kaushal	Selective antibacterial activity of some novel zirconium(IV) complexes.	XVIII International conference on Bioencapsulation, Porto, Portugal
2010	R K Kaushal, Raj Kaushal and S. S. Kanwar	Entrapped hydrogels used in ester synthesis.	XVIII International conference on Bioencapsulation, Porto, Portugal

Training/Refresher/orientation program attended:

- Orientation program for technical teachers (4.01.10-8.01.10), NIT Hamirpur.
- Induction Training programme on effective Teaching Learning Process”(August 3-4, 2013), NIT, Hamirpur.
- Workshop on Universal Human Values, 27-29 Sept, 2013, NIT, Hamirpur.
- 60 days Training in Drug Designing conducted by BioDiscovery Group, Life sciences, India.
- **“Molecular Docking study of p38 MAP Kinase| Inhibitory study for discovery of new anti-inflammatory drugs” with BioDiscovery Group, India. Dec 2015 to may 2016.**

Summer school attended:

1. Summer school on nano -science & technology held on 31.05.10-4.06.10, NIT, Hamirpur
2. STC on nanomaterials characterization & application, 8-12 Nov, 2010, NITTTR Chandigarh.

Professional Membership

1. Indian society of analytical scientists (Life member)
2. Membership of International Journal of Current Research & Review

3. Life membership of The Indian Science Congress Association
4. Affiliate membership of IUPAC
5. Life membership of Society of biological chemists
6. Asia-Pacific Chemical, Biological & Environmental Engineering Society (APCBEEES) membership number
7. Life membership of Chemical Research Society of India