

## Dr. RAJNI LASYAL

Assistant Professor  
Department of Chemistry  
Rajkiya Mahavidyalaya Chinyalisaur (Uttarkashi)  
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### Career Profile

An extremely skilled, motivated chemistry professor with a passion for teaching, research, and student development. Possesses excellent communication and problem-solving skills.

### Professional strengths

- A highly motivated professional with vast experience of motivating students to understand Chemistry
- In-depth knowledge of the concepts, theories and experimentation techniques of Chemistry
- Keen observer of students potential and variations
- Posses excellent teaching and time management skills
- Familiar with various experiments in the laboratory
- Possess excellent organizational and managerial skills
- Ability to generate ideas in a clear and concise way
- Goal-oriented, good-motivator and ability to use different teaching methods and techniques
- Computer Literate with the knowledge of MS Office, Internet, Chemdraw, Origin(Software)
- A confident speaker, excellent comm. Skills
- Ability to handle multiple tasks

### Career Excellence

Designation	Institution	Duration	Assignment
<i>Assistant Professor</i>	Rajkiya Mahavidyalaya Chinyalisaur	06 March 2020 - till date	Administration, Teaching and Research
<i>Lecturer</i>	G.G.I.C Lambgaon	02 Aug 2019 - 05 March 2020	Teaching
<i>Assistant Professor</i>	MIT, Rishikesh	02 Aug 2016 - 01 Aug 2019	Teaching and Research
<i>PGT Chemistry</i>	Gayatri Vidyapeeth, Haridwar	April 2011 - March 2014	Teaching

### Educational Summary

- Ph.D in Chemistry, Gurukul Kangri Vishwavidyalaya, Haridwar, 2017  
**Thesis Title:** Kinetic and Mechanistic Studies on the Oxidation of Some Azo Dyes by Hexacyanoferrate(III) Ions in Presence of Iridium Nanoclusters.
- B.Ed, , H.N.B. Garhwal University, Srinagar, 2009
- M.Sc. in Chemistry, H.N.B. Garhwal University, Srinagar, 2008
- B.Sc (CBZ), H.N.B. Garhwal University, Srinagar, 2006
- U-SET, 2012

## Areas of Interest

- Reaction mechanism and chemical kinetics
- Environmental Chemistry
- Nanocatalysis

## National/International Journal Publications

1. **Rajni Lasyal**, Shakunj Rajput, Polyvinylpyrrolidone and Brij-35 stabilized IrO<sub>2</sub> nanoclusters as highly effective catalyst in the degradation of acid orange 10: A comparative study, *J. Water Environ. Nanotechnol.*, (2023), 8(2): 108-120, ISSN- 2476-6615(online), 2476-7204(Print), **SCOPUS** indexed Impact Factor-0.75.
2. Shakunj Rajput, Rajni Lasyal, Kinetic, Mechanistic and Thermodynamic Study of Ir(III) catalysed oxidation of leucine by hexacyanoferrate(III) in aqueous alkaline medium, *Oxidation Communications*, (2021), 44 (3), 542–555, ISSN- 0209-4541, **SCOPUS** indexed Impact Factor-0.527.
3. **Rajni Lasyal**, Anjali Goel, Facile synthesis of IrO<sub>2</sub> nanoclusters and their application as catalysts in the degradation of some azo dyes, *Turk J Chem*, 42, (2018), 941-957, ISSN- 1300-0527, E-ISSN- 1996-1303-6130, **SCOPUS** indexed, Impact Factor-1.151.
4. Anjali Goel, **Rajni Lasyal**, Iridium nanoparticles with high catalytic activity in degradation of acid red-26: an oxidative approach, *Water Science & Technology*, 74.11, (2016), ISSN-0273-1223(Print), 1996-9732(Online), **SCOPUS** indexed, Impact Factor- 2.43.
5. Anjali Goel, **Rajni Lasyal**, Abhilasha, Mechanistic insight into oxidative degradation of some azo dyes with kinetic and thermodynamic analysis, *Journal of the Indian Chemical Society*, 93, (2016), 621- 625 ISSN- 0019-4522, **SCOPUS** indexed, Impact Factor-0.243.
6. Anjali Goel, **Rajni Lasyal**, Degradation of Orange G dye by hexacyanoferrate(III) ions in the presence of Iridium nanoparticles: effect of system parameters and kinetic study, *Desalination and Water Treatment*, 57 (37), 17547-17556, (2016), ISSN-1944-3994(Print), 1944-3986(Online), **SCOPUS** indexed, Impact Factor-1.273.
7. **Rajni Lasyal**, Anjali Goel, Degradation of Azo Dye, Acid Red-14 by Hexacyanoferrate(III) Using Iridium Nanoclusters: A Kinetic Study, *Asian Journal of Chemistry*, 28 (2), 335-338, (2016), ISSN-0970-7077(Print), 0975-427X(Online), **SCOPUS** indexed, Impact Factor-0.158.
8. Anjali Goel, Ranjana Bhatt, **Rajni Lasyal**, Kinetic and mechanistic study of the oxidation of orange-II by hexacyanoferrate (III) ions catalyzed by iridium nano-clusters, *International Journal of Chemical Sciences*, 12 (4), 1527-1537, (2014), ISSN- 0972-768X, **SCOPUS** indexed, Impact Factor-0.16.
9. Anjali Goel, Ruchi Sharma, **Rajni Lasyal**, Iridium(III) Catalysed Oxidation of Threonine by Hexacyanoferrate(III) in aqueous alkaline medium, *International Journal of Scientific & Engineering Research*, 4 (7), 1978-1984, (2013) ISSN-2229-5518, **Google Scholar** indexed, Impact Factor-1.4.

## Paper Published as Proceedings

1. Anjali Goel, Rajni Lasyal, Abhilasha, Bimetallic nanoparticles: A single step synthesis, stabilization and characterization of Ir-Sn, Ir-Ni, Ir-Cu nanoparticles, Proceedings of National Workshop on Green Chemistry Practices in Teaching, Research and Industry, organized by Department of Chemistry, Pt. L.M.S. Govt. Post Graduate College, Rishikesh on 30<sup>th</sup> March 2016, 92-98.

### Chapters in Edited Books

1. **Rajni Lasyal**, Nikhil Kritipal, R.C. Sobti, Nanotechnology in Medicine: A Promising Future, Biomedical Research, Medicine, and Disease, CRC Press, (2023), 9-15, ISBN- 9781003220404.
2. Brijesh Chauhan, **Rajni Lasyal**, Landslide: A Curse to the Mountains ( Think, Rethink.....), Current Approaches in Science and Technology, P.K. Publishers & Distributers, (2023), 45-57, ISBN- 978-93-92239-58-8.
3. **Rajni Lasyal**, Brijesh Chauhan, Water Crisis in the Himalayan Region: Addressing and Tackling the Issue, Recent Advances in Soil and Water Education and Research, ABS Books, (2022), 35-43, ISBN-978-93-94424-24-1.

### Conferences /Seminars/Workshops

1. Attended and Presented paper at International Conference on “Advancement in Physical Sciences: Promoting Social Welfare, Sustainable Development and NEP-2020 organized by Sridev Suman Uttarakhand University, Pandit Lalit Mohan Sharma Campus Rishikesh (Dehradun) on 15-16<sup>th</sup> September 2023.
2. Attended and Presented paper at National Seminar on “Wildlife: Threats With Special Reference to Forest Fire and Human Wildlife Conflict” organized by Dr S.N.N. Government Degree College, Vedikhal, Pauri Garhwal, Uttarakhand in collaboration with USERC on 3-4<sup>th</sup> March 2023.
3. Attended and Presented paper at International Seminar on “Role of Education, Literature, Culture and Global Development organized by Department of B.Ed., L.S.M. Govt. P.G. College, Pithoragarh (Uttarakhand) on 13-14<sup>th</sup> November 2022.
4. Attended and Presented paper at National Seminar on “Biodiversity and Environmental Governance in India: Safeguarding Ecosystem for Human Welfare” organized by Chaman Lal Mahavidyalaya Landura, Haridwar (UK) on 23<sup>rd</sup> October 2021.
5. Attended and Presented paper at National Conference on “Conservation and Sustainable Development of Himalayan Wetland Ecosystem organized by Department of Zoology and Botany, Government Post Graduate College, New Tehri, Tehri Garhwal, Uttarakhand on 24-25<sup>th</sup> September 2021.
6. Attended National Workshop on “Applied SPSS and Research Methodolgy” organized by Government Degree College, Bhatrojkhan (Almora) Uttarakhand in collaboration with KISNO Foundation, New Delhi on 23-29<sup>th</sup> November 2020.
7. Attended National Webinar Series on “ Practicising Chemdraw, Origin and Mendeley Tools in Research organized by Department of Chemistry, Laxman Singh Mahar Government Post Graduate College, Pithoragarh on 8-10<sup>th</sup> August 2020.
8. Attended and Presented poster at National Conference on “Science and Technology : Rural Development organized by ISCA: Haridwar Chapter, Department of Chemistry and Department of Physics, Gurukul Kangri University, Haridwar on 15-16<sup>th</sup> February 2020.
9. Attended and Presented poster at National Conference on “Science and Technology for National Development” organized by ISCA: Haridwar Chapter and Department of Chemistry, Gurukul Kangri University, Haridwar on 20-22<sup>nd</sup> November 2016.
10. Attended and Presented poster at National Workshop on “Green Chemistry Practices in Teaching, Research & Industry” organized by Department of Chemistry, Pt. L.M.S. Govt. Post Graduate College, Rishikesh on 30<sup>th</sup> March 2016.
11. Attended and Presented paper at National Conference on “Science and Technology for Indigenous Development in India” organized by ISCA: Haridwar Chapter and Faculty of Engineering and Technology, Gurukul Kangri University, Haridwar on 28-30<sup>th</sup> Sept., 2015.
12. Attended and Presented paper at National Conference on “Science and Technology for Human Development” organized by ISCA: Haridwar Chapter and Department of Ancient Indian History, Culture & Archaeology, Gurukul Kangri University, Haridwar on 20-21<sup>st</sup> March, 2015.

13. Attended and Presented poster at National Conference on “Recent Advances in Chemical and Environmental Sciences” organized by Department of Chemistry, Arya P.G. College, Panipat on 27-28<sup>th</sup> Feb., 2015.
14. Attended and Presented poster at Regional Symposium on “Technovations for Inclusive Human Development” held at Faculty of Engineering and Technology, Gurukul Kangri University, Haridwar on 12<sup>th</sup> Oct., 2014.
15. Attended and Presented paper at National Conference on “Electrochemistry for Cleaner Environment” organized by School of Studies in Environmental Chemistry, Jiwaji University, Gwalior on 17-18<sup>th</sup> Jan., 2014.
16. Attended and Presented paper at National Conference on “Emerging Trends in Engineering & Sciences” organized by Department of Mechanical Engineering, Faculty of Engineering and Technology, Gurukul Kangri University, Haridwar on 9-10<sup>th</sup> Nov., 2013.
17. Attended and Presented paper at National Seminar on “Current Research and Education in Chemical Sciences” organized by Department of Chemistry, D.A.V. (P.G.) College, Muzaffarnagar on 19-20<sup>th</sup> March, 2013.
18. Attended conference on “GREEN CHEMISTRY” sponsored by UCOST, DEHRADUN on 23<sup>rd</sup> Feb, 2008.

#### Invited Talk

Delivered lecture on “Sustainable Development” at PM Shri Kendriya Vidyalaya Uttarkashi on October 31, 2023.

#### Conferences/ Seminars/ Events organized

- Organized National Conference on “Empowering Innovative Science and Technology for Indigenous Development of Uttarakhand: Dimensions and Challenges on March 02, 2023 as Convener.
- Organized State Level Poster Competition on “Ecosystem Restoration” on June 05, 2021 as Convener.
- Organized International Webinar on “Water Crisis in the Himalayan Region: Addressing and Tackling the Issue” on 30 Aug 2020 as Organizing Secretary.

#### Professional Development Programmes

- Refresher Course in Chemistry, TLC, Ramanujan College, University of Delhi, 30<sup>th</sup> June-14 July 2023.
- FIP, TLC, Ramanujan College, University of Delhi, 21<sup>st</sup> Aug-19<sup>th</sup> Sept 2021
- FDP on NAAC Accreditation Framework : An Overview in respect of New Guidelines, Research Foundation of India, 6-13<sup>th</sup> July 2020.

#### Membership of Academic Bodies

- Life Membership of **The Indian Science Congress Association (ISCA)**, Membership no. 0250

#### Reviewer in

- **Current NanoScience**, ISSN-1875-6786(online), 1573-4137(print)
- **Chemical Science International Journal**, ISSN- 2456-706X(online)
- **Materials Today: Proceedings**, ISSN- 2214-7853

### Academic and administrative assignments

- Incharge, Department of Chemistry, Rajkiya Mahavidyalaya Chinyalisaur (Uttarkashi)
- Theory and Practical Examiner of Sridev Suman Uttarakhand University, Badshshithaul, Tehri Garhwal , Uttarakhand Open University, Haldwani (Nanital) and Invertis University, Bareilly.
- Roles in various college committees:

Committees	Role in Committee
<b>IQAC/NAAC steering Committee</b>	Coordinator
<b>NIRF Committee</b>	Convener
<b>Academic Calendar Committee</b>	Convener
<b>Purchase Committee</b>	Convener
<b>CM Helpline</b>	Convener
<b>MIS Portal</b>	Nodal Officer
<b>AISHE</b>	Nodal Officer
<b>Samarth</b>	Nodal Officer
<b>e –Aaklan</b>	Nodal Officer
<b>RUSA Committee</b>	Nodal Officer
<b>NDLI Club</b>	President
<b>Sports Committee</b>	Member
<b>Discipline Committee</b>	Member
<b>Cultural Committee</b>	Member
<b>Innovation Club</b>	Member
<b>Disaster Management Committee</b>	Member
<b>Time Table (Science) Committee</b>	Member
<b>Physical Verification Committee</b>	Member
<b>Annual Magazine Committee</b>	Member
<b>Computer and EDUSAT Committee</b>	Member
<b>Affiliation Committee</b>	Member
<b>Prospectus and Website Development Committee</b>	Member
<b>Project Monitoring Committee</b>	Member
<b>Grievance Redressal Cell</b>	Member
<b>Canteen Monitoring Committee</b>	Member
<b>Departmental Council Committee</b>	Member
<b>Virtual Lab Committee</b>	Member

### Other Activities:

- Member of Jury in District Level Photography Competition on “Uttarakhand’s Nature, Culture and Heritage organized by Rajkiya Mahavidyalaya Chinyalaisaur.
- Member of Jury in various cultural, sports and co-curricular events organized in college.

### Personal Details

NAME : Dr. RAJNI LASYAL  
GENDER : FEMALE  
MARITAL STATUS : MARRIED  
SPOUSE NAME : Mr. ANIL CHAMOLI  
DATE OF BIRTH : 7<sup>TH</sup> FEB, 1985  
NATIONALITY : INDIAN

COMMUNICATION ADDRESS : C/ O Mr. Anil Chamoli  
Opposite Sai Krippa Mandir  
20 Feet Road, Kharikhurd  
Shyampur, Rishikesh (D.Dun)

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**Reference:**

Available upon request

**(Dr. Rajni Lasyal)**