

DR. RAJNI JOHAR CHHATWAL

Assistant Professor

CONTACT

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EDUCATION

Guru Jambheshwar University, Hissar

2002

Ph.D. in Chemistry

Thesis entitled "Synthesis and Characterization of Triphenyl - Sn(IV) - Al(III) - μ - Oxoisopropoxide compounds with O and N donor ligands.

Kurukshetra University, Kurukshetra

1995

M.Sc. Awarded

Kurukshetra University, Kurukshetra

1993

B.Sc. Awarded

WORK EXPERIENCE

Indian Institute of Aeronautical Science

Lecturer

09 Mar 2004 to 02 Jan 2006

[BharatiVidyaPeeth's College of engineering, G.G.S.I.P. university

Assistant Professor

02 Jan 2006 to 05 sept 2011

Rajdhani College, University of Delhi

Assistant Professor

05 Sept 2011 to 19 Dec 2014

Maitreyi College, University of Delhi

Assistant Professor

17 Jan 2015 to till Date

2. PS Jassal, S Gupta, N Chand, R Johar. A Study of Anthroquinone Dye Removal by Using Chitosan Nanoparticles. International Research Conference Proceedings, London, (United Kingdom), 2019, Part V, Oct 23-24, 516-524.
- 3 Pathak T, Kaushik K, Dobhal SP, Sharma V, Dixit PK, Johar R, Jassal PS, Singh RP; Aerosol forming pyrogenic composition for Class B fire fighting application: a halon alternative. International Conference on Environmental Challenges and Solutions 31 Jan- 2 Feb,2020. ICECS, Faridabad, India
- 4 Pathak T, Kaushik K, Dobhal, SP, Sharma V, Dixit PK, Johar R, Jassal PS, Singh RP (2019) Advantages of natural binder over conventional binder on the combustion characteristics of KNO₃/ KClO₃ based pyrotechnic mixtures. 12th International High Energy Materials conference and Exhibits, HEMCE-2019, Dec 16-19, IIT Madras, Chennai, India

Certificate of Best Presentation Award ICWPRW 2019 :XIII International Conference Water Pollution, Recycle and Wastewater hereby certifies that PyarJassal has presented an outstanding work entitled, "Nanochitosans for Toxic Metals Adsorption from Wastewater" by P. S. Jassal, Sonal Gupta, Neema Chand and Singh Rand Rajni J held on 23-24 Oct 2019, London.

BOOKS PUBLISHED

1. Environmental sciences – A systematic approach

ISBN : 81-85044-66X 2009 MARCH

2. Engineering chemistry

ISBN : 81850-44740 2010 MAY

SEMINARS / WORKSHOP / CONFERENCE ATTENDED

1. International Seminar on Sustainable Built Environment at BharatiVidyaPeeth College of Engineering- New Delhi in Dec 2007
2. National conference on The Environment Today:Issues& Challenges organised by VidyavatiMukand Lal Girls (PG) college Ghaziabad, under C.P.E.grant funded by U.G.C. held on 19 & 20 November,2010
3. National seminar on Role of Analytical Techniques in Biological &Environmental sciences organised by Kirori Mal collegeUniversity of Delhi, held on 27-29 January,2011
4. Indo-German workshop on Supramolecular Chemistry organised by the Department of Chemistry,University of Delhi on 30 March 2015 as Delegate.
5. Training programme on Technical Terminology and Science Teaching organised by Commission for Scientific and technical Terminology at DeenDayalUpadhaya college, University of Delhi from 18-19 September, 2016
6. National conference on Emerging Trends and Future Challenges in Chemical Science organised by Kirori Mal College on 03-04 February,2016
7. National Conference on Nanoscience-Opportunities and Challenge sorganised by the Department of Chemistry, Maitreyi college University of Delhi on 19-20 February, 2016
8. Three days online Workshop on "Designing and Development of e-Resources for Teaching & Learning" organized by Department of Chemistry &
9. Department of Computer Science, Rajdhani college on 22-24 June,2021
10. Online Workshop on Tools for Exploring Chemistry Organised by Department of Chemistry Rajdhani College, University of Delhi on 12 – 13 July 2021E Seminar on SciFinder-n Training by University of Delhi, ACSI India Team on July 20, 2021
11. 2 days online workshop on Designing and Development of e- Resources for Teaching and Learning - Part II organisedby Department of Chemistry and Department of Computer Science, Rajdhani College , University of Delhi, (under the aegis of IQAC) from 23-24 July 2021
12. 113-Day e-Workshop on Water Quantity and Quality organised by Water Resources Subject Expert Group under UBA from

July 28-30, 2021.

13. NATIONAL WEBINAR ON "Teacher's E-Kit: A Four Quadrant Approach for Development of OERs for Higher Education" organised by GAD-TLC under PMMMNMTT of Ministry of Education on September 09, 2021.

RESOURCE PERSON

1. Enzymes -12 Hours lecture; National Workshop on Advanced Biological Techniques held at Maitreyi college on 02-08 December, 2015
2. Chromatography-3Hours lecture ; Workshop on In Vitro : Techniques to Technologies held at Maitreyi college on 14-19 December, 2015
3. Qualitative Salt Analysis Lecture ; Star college Scheme in Confluence 2016 -Science Fair for school students held at Maitreyi college on 21 January 2016.
4. Resource person for academic programme on PM e_vidya in NIOS on the topic "Water Conservation" for TV programme on 14th October 2021 <https://drive.google.com/file/d/1Xch5hOdc9l-UygogqdHO44zS4C4rFL6L/view>
5. Resource person for academic programme on PM e_vidya in NIOS on the topic " Safety Measures At Workplace" for Radio Vahiniprogramme on 04th January 2022 <https://youtube.com/watch?v=tk5utnA8WYI&feature=share>
6. Resource person for academic programme on PM e_vidya in NIOS on the topic "आध्यात्म: मन की शांति और शिक्षा " for Radio Vahiniprogramme on 29th April 2022 (<https://www.youtube.com/c/NIOSMuktaVidyaVaniRadioVahini>)
7. Resource Person for Seminar at Guru Angad Institute of Higher Education on Topic Metals, Non-Metals and Metalloids on 25th July 2022
8. Resource person for academic programme on PM e_vidya in NIOS on the topic "Environment Conservation" for Radio Vahiniprogramme on 29th July 2022 <https://youtube.com/watch?v=ZDCwIUphEK0&feature=share>
9. Resource Person for Seminar at Guru Angad Institute of Higher Education on Topic Ozone Protector or Polluter on 29th August 2022
10. Resource person for academic programme on PM e_vidya in NIOS on the topic " Health and Hygiene: Interrelation" for Radio Vahiniprogramme on 2nd September 2022 <https://youtube.com/watch?v=vJt4BEIWagQ&feature=share>

ORIENTATION /REFRESHER PROGRAMMS

1. Orientation Programme OR-80 ,June 20, 2015 at Centre for Professional Development in Higher Education, University of Delhi, Delhi
2. Refresher Course in contemporary Studies (Natural Sciences, Education, Biological Sciences, Environmental, Demography and Sociology) from 07 June to 27 June ,2016 at Centre for Professional Development in Higher Education, University of Delhi, Delhi
3. FDP on Sustainable Development at Atma Ram Sanatan Dharma College from 15 Oct - 22 Oct 2018 organised by Star College Scheme (DBT)
4. SWAYAM ARPIT Course for Career Advancement Scheme (CAS) promotion: Online Refresher Course "In Chemistry for Higher Education" from 1-9-2019 -16 Feb, 2020 organised by MHRD & Sri Guru Tegh Bahadur Khalsa College, University of Delhi Faculty Development Program "Development of Teacher's e-Kit and MOOCs in Four Quadrant Format of e-Content" - : 12-20 September 2020
5. Two-Week National Faculty Development Program / Refresher Course on Emerging Accessible Technologies for Teachers in Higher Education organized by **Maitreyi College, University of Delhi in collaboration with Guru Angad Dev Teaching Learning Centre (GAD-TLC), SGTB Khalsa College, University of Delhi** from 20 March to 3 April 2021
6. One week online national faculty development program "four-quadrant model for development of e-content, MOOCs and TEACHER's E-KIT" organised by GAD-TLC under PMMMNMTT of Ministry of Education from 29 September to 5 October 2021
7. Faculty development program on MOOCs and e-learning in context of national education policy organised by delhi school of public policy and governance institution of eminence university of DELHI in collaboration with National law university and judicial academy assan and bhartiya shikshan mandal and national institute of open schooling, MINISTRY OF EDUCATION, GOVERNMENT OF INDIA from OCTOBER 18, 2021 TO OCTOBER 24, 2021

PAPER PRESENTED

1. Global Warming-Causes of Climate Change; International conference on Global Challenges -The Role of Chemistry in Giving Their Solutions organised by Indian council of chemists held on 12-14 June 2011 at Bankok
2. Orientation Programme OR-80 ,June 20,2015 at Centre for Professional Development in Higher Education, University of Delhi, Delhi
3. Greener approaches for clean Environment; National Seminar on Innovative,Advance Research in Bio medical and Environmental Dynamics organised by Department of Chemistry Dyal Singh College,University Of Delhi on October 09, 2015
4. Green Chemical Approaches for Clean Environment; Indo-Portuguese Workshop on Emerging Trends of Nanotechnology in Chemistry and Biology organised by Department of Chemistry Hansraj College Delhi University in association with University of Madera,Portugal from 12-13 February, 2016
5. Green chemical approaches for the design and synthesis of solid supported heterogeneous catalysts; National conference on Environment and Harmonious Development organised by Department of Chemistry Shyam Lal College Delhi University from 07-08 April,2016
6. Refresher Course in contemporary Studies (Natural Sciences,Education,BiologicalSciences,Environmental,Demography and Sociology from 07 June to 27 June ,2016 at Centre for Professional Development in Higher Education, University of Delhi, Delhi.
7. Fabrication of silica supported organic-inorganic hybrid catalysts and their applications in diverse Organic Transformation; Royal society of chemistry workshop on Green Chemistry and Water treatment organised by Department of Chemistry Hindu College and Green chemistry network centre,University of Delhi on October 17 ,2016
8. Synthesising Magnetic Chitosan Nanocomposites for the removal of chromium ions (VI) from Aqueous solution; International conference on Innovative Technology in Chemical, Bioprocess, Textile, Mining Engineering, Energy Technologies and Environmental dynamics for Sustainable development at Jawaharlal Nehru University, New Delhi on December 30,2017
9. Adsorption of Anthraquinone Dyes from waste waters; International conference on sustainable initiatives in the water management at ManavRachna University on March 06, 2018
10. Magnetic Chitosan Film” In Naac Sponsored National Seminar On *Assessment And Accreditation Of Best Practices In Higher Education Institution Under Naac Framework* Organized By Iqac, Maitreyi College On November 5-6, 2019
11. Eco-Friendly Magnetic Biopolymer Nanocomposites For Removal Of Heavy Metals From Waste Water” In Naac Sponsored National Seminar On *Assessment And Accreditation Of Best Practices In Higher Education Institution Under Naac Framework* Organized By Iqac, Maitreyi College On November 5-6, 2019 Presented a paper in International Virtual Conference on Chemical and Environmental Sciences organized by the Department of Chemistry, SPIHER during November 11-12, 2020.
12. Paper presentation on topic entitled Sustainable approach to manage water to make it potable in e-Workshop on Water Quantity and Quality organised by Water Resources Subject Expert Group under UBA on July 29, 2021.
13. Paper presentation in International Virtual Conference on Chemical and Environmental Sciences on 18 & 19 November,2021 organised by St. Peter's Institute of Higher Education and Research

POSTER PRESENTATION

1. Poster Presentation at National Conference on CHHE held at Conference Centre, University of Delhi on 15-16 December,2018
2. Magnetic Chitosan Film” In Naac Sponsored National Seminar On *Assessment And Accreditation Of Best Practices In Higher Education Institution Under Naac Framework* Organized By Iqac, Maitreyi College On November 5-6, 2019
3. Eco-Friendly Magnetic Biopolymer Nanocomposites For Removal Of Heavy Metals From Waste Water” In Naac Sponsored National Seminar On *Assessment And Accreditation Of Best Practices In Higher Education Institution Under Naac Framework* Organized By Iqac, Maitreyi College On November 5-6, 2019

ARTICLES PUBLISHED

1. Solid Waste Management and Energy Recovery- National Conference on Identification and Removal of barriers in Biomass Power generation at New Delhi n February,04, 2009
2. Educational Perspective –Revolution not Evolution- National Conference on India Com-09 at BharatiVidyapeethcollege New Delhi , India
3. Role ofchlorofluorocarbons in enhancing global warming, JigyasaMagazine,Indian Institute of Technology,Delhi, 24(79-81)2010
4. Fertilisers- It's Role on Physiology of Man, JigyasaMagazine,Indian Institute of Technology,Delhi, 23(139-142)2011

PROJECTS UNDERTAKEN

1. UGC Start-Up Grant Project titled Silica based Organic -Inorganic hybrid material: Synthesis and Characterization and application as catalysts for various Organic transformations in December 2015
2. Star college Project entitled Green Synthesis of Gold and Silver nanoparticles using Novel plant extract as reducing agent in 2015 for one year
3. Extended project of Inorganic Chemistry for B.SC (Hons) III rd Year Students on Preparation of Potash Alum from Aluminum Foil in October 2015
4. DRDO Project entitled Polysaccharides Nanoparticles and Cross- linked Derivatives for Adsorption of Toxic substances from Industrial Effluents in 2016
5. DRDO funded research project entitled Synthesis of 7,8- dihydroxycoumarins and 7,8-dihydroxythiocoumarins for evaluation of their radioprotection ability.
6. Research Project on synthesis of sugar-containing macrocyclic compounds for molecular recognition study.
7. Summer Internship Programme; Eco-Friendly Magnetic Biopolymer Composites for Removal of Heavy metals from Waste Water at Maitreyi College in 2019

University Student Related Activity

Member-Revision of Undergraduate Chemistry Syllabus of University of Delhi, LOCF (Learning Outcomes- based Curriculum Framework), UGC Course Basic Analytical Chemistry Course Code- Chemistry SEC-4(ii) For B.Sc (Hons) Chemistry from Apr to June, 2019 Under Graduate curriculum Revision Committee-2019 University of Delhi

Member-Revision of Undergraduate Chemistry Syllabus of University of Delhi, LOCF (Learning Outcomes- based Curriculum Framework), UGC Course Instrumental Methods Of Analysis (Theory and Practical) Course Code-Analytical Chemistry from Apr to June, 2019 Under Graduate curriculum Revision Committee-2019 University of Delhi

Workshops/Webinar Organised

1. Organised a National Webinar on ' **Sustainable technological solutions to provide potable water in rural areas** ', on 10th July 2021 in collaboration with Madhyanchal University on a virtual platform.
2. Organised a National Webinar on "Eye diseases in young and old" by The Department of Chemistry, under the Aegis of IQAC, Maitreyi College, University of Delhi on August 6, 2021.
3. Organised National Conclave on "National Education Policy-2020: A New Vision for India's Higher Education System"on August 7, 2021
4. Organised a National Webinar on "Understanding environmental issues related to ozone" on Sep 16, 2021

(Dr. RAJANI JOHAR CHHATWAL)