# CURRICULUM VITAE

****

## Dr. Ramesh Chandra Assistant Professor

**Department of Chemistry**

## University of Lucknow

## Contact No. 08394943725 [Email:rameshchndr766@gmail.com](mailto:rameshchndr766@gmail.com)

## PERSONAL DETAILS:

Passport No. : P4569546 Nationality : Indian

Current Address: Department of Chemistry, University of Lucknow

Parmanent address: Village-Tiyara, Post- Kooba Khash, District. - Azamgarh-276203, U.P. India.

## Area of Research Interest:

Metal-Organic Frameworks (MOFs), Nanoparticles (NPs), Novel metal NPs sensitized MOx and their NPs@MOFs composites for the various applications such as Catalysis, Photocatalysis, Supercapacitor, Sensor, Gas storage and Biomedical applications.

## Title of Ph.D. thesis:

**“**MODIFIED METAL ORGANIC-FRAMEWORKS: MULTI-CORE-SHELL COMPOSITES AS ADSORBENTS AND PHOTOCATALYSTS**”**

**Supervisor Name: Prof. Mala Nath** (Emeritus Professor, Department of Chemistry, Indian Institute of Technology Roorkee India-247667)

## ACADEMIC RECORD:

|  |  |  |  |
| --- | --- | --- | --- |
| **Program/ Examination** | **University/ Board** | **Year of Passing** | **Grade/Percentage Obtained [Division]** |
| Ph.D. in Chemistry | Indian Institute of  Technology Roorkee | 2019 | **Awarded** |
| M.Sc. in Chemistry (Master of Science) | Chhatrapati Shahu Ji Maharaj University Kanpur, UP, India. | 2013 | 65.0%  **[First Div.]** |
| B.Ed.  (Bachelor of Education) | Dr. Ram Manohar Lohiya Awadh  University Faizabad, UP, India. | 2011 | 74.1%  **[First Div.]** |
| Senior Secondary School  (12th) | UP Board Allahabad,  UP, India. | 2006 | 69.6%  **[First Div.]** |

* NET-2014 qualified with AIR-53 conducted by CSIR-UGC New Delhi.
* GATE-2014 qualified conducted by IIT Kharagpur.

## Research Experiance:

* Junior research fellow from 05-08-2014 to 04-08-2016 at the Department of Chemistry, Indian Institute of Technology Roorkee, India.
* Senior research fellow from 05-08-2016 to 04-08-2019 at the Department of Chemistry, Indian Institute of Technology Roorkee, India.
* Teaching assistantship for two years (06 months for Undergraduate (UG) and one and half years for postgraduate (PG)) at the Department of Chemistry, Indian Institute of Technology Roorkee, India.
* Research Associate fellow from 08-01-2020 to 30-06-2020 at the Structural Engineering Division, CSIR-CBRI, Roorkee.
* Postdoctoral fellow from 29-07-2020 to 08-06-2022 at the Department of Chemistry Indian Institute of Technology Kanpur, India.

## Honors and Fellowship:

* Junior research fellowship (JRF), Ministry of Human Resource Development, New Delhi, India.
* Senior research fellowship (SRF), Ministry of Human Resource Development, New Delhi, India.
* Institute Postdoctoral Fellowship, Indian Institute of Bhubneswar Technology, Odish, India (turned down).
* DS Kothari Postdoctoral Fellowship, UGC, New Delhi (turned down).

## TECHNICAL EXPOSURE:

**Software Skills:**

* ChemDraw. Ultra
* Olex2
* OrginPro
* Mercury
* WinGX
* X’Pert High Score Plus

**Sophisticated Instrument handling:**

* UV-visible Spectrophotometer
* Infra-Red Spectrophotometer
* Fluorescence Spectrophotometer
* UV- Diffuse Reflectance Spectrophotometer
* Cyclic Voltametry
* GC-MS

**Peer Reviewed Publications:**

* [1] **R. Chandra**, S. Mukhopadhyay and M. Nath, **“**TiO2@ZIF-8: A novel approach of modifying micro-environment for enhanced photo-catalytic dye degradation and high usability of TiO2 nanoparticles**”** Mater. Lett. 164 (2016) 571-574. <http://dx.doi.org/10.1016/j.matlet.2015.11.018>
* [2] **R. Chandra** and M. Nath, “Multi-Core–shell TiO2NPs@ZIF-8 Composite for Enhanced Photocatalytic Degradation and Adsorption of Methylene Blue and Rhodamine-B” ChemistrySelect 2 (2017) 7711-7722. DOI: 10.1002/slct.201701195
* [3] **R. Chandra,** V. Singh, S. Tomar and M. Nath, “Multi-core-shell composite SnO2NPs@ZIF-8: potential antiviral agent and effective photocatalyst for waste-water treatment” Environ. Sci. Pollut. R. 26 (2019) 23346–23358. [https://doi.org/10.1007/s11356-](https://doi.org/10.1007/s11356-019-05646-5) [019-05646-5](https://doi.org/10.1007/s11356-019-05646-5)
* [4] P. K. Saini, N. Kumar, **R. Chandra**, M. Nath and A. K. Minocha, “Facile synthesis of novel SWCNT/HgS nanohybrid: An effective photocatalyst for degradation of methylene blue” Mater. Lett. 250 (2019) 5–8. <https://doi.org/10.1016/j.matlet.2019.04.090>
* [5] **R. Chandra** and M. Nath, “Controlled synthesis of AgNPs@ZIF-8 composite: Efficient heterogeneous photocatalyst for degradation of methylene blue and congo red.” J. Water Process Eng. 36 (2020) 101266. <https://doi.org/10.1016/j.jwpe.2020.101266>
* [6] **R. Chandra** and M. Nath “Facile synthesis of ZnO-SnO2 anchored ZIF-8 nanocomposite: a potential photocatalyst” Environ. Sci. Pollut. R. 27 (2020) 25103–25118. <https://doi.org/10.1007/s11356-020-08936-5>
* [7] **R. Chandra** and M. Nath “Facile Synthesis of Metal-Organic Framework (ZIF-11) and Ag NPs Encapsulated-ZIF-11 Composite as an Effective Heterogeneous Catalyst for Photodegradation of Methylene Blue” Appl. Organomet. Chem. 34 (2020) e5951. <https://doi.org/10.1002/aoc.5951>.
* [8] S. K. Singh, P. Vashistha, **R. Chandra** and A. K. Rai “Study on Leaching of Electric Arc Furnace (EAF) Slag for its Sustainable Applications as Construction Material” Process Saf. Environ. Prot. 148 (2021) 1315-1326. <https://doi.org/10.1016/j.psep.2021.01.039>.
* [9] P. K. Saini, N. Kumar, **R. Chandra** and S.G. Kumar “Hydrothermal assisted synthesis of SWCNT/PbS nanohybrid: An effective photocatalyst for waste-water remediation” under communication.
* [10] P. Bhatia, **R. Chandra** and M. Natha “Controlled synthesis of ZIF-11: Effective Adsorbent for industrial pollutants and storages of CO2, H2 and CH4” under communication.

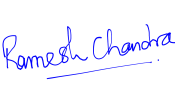
## Conferences and Poster Presentation:

* **R. Chandra** and M. Nath, “Synthesis of TiO2@ZIF-8 Composite and its Photocatalytic Activity for Degradation of Methylene Blue “(ICAM 2016): International Conference on Advanced Materials for Energy, Environment and Health at IIT Roorkee.
* **R. Chandra** and M. Nath, “Novel Multi-Core-Shell SnO2NPs@ZIF-8 Composite: A Potential Antiviral Inhibitor for Chikungunya Virus” (Su-Chem2018): International Conference on Sustainable Chemistry for Health, Environmental and Materials at CSIR, IICT Hyderabad.
* M. Nath and **R. Chandra, “**Core-Shell Based Composite SnO2NPs@ZIF-8 as an Effective Photo-catalyst for Degradation of Methylene” (ICMAT): 9th International conference on materials for advanced technologies, 18-23 June 2017 Suntec, organized by Material Research Society Singapore.
* M. Nath and **R. Chandra** “Toluene Assisted Synthesis of ZIF-11 and Multi-Core-Shell AgNPs@ZIF-11 composite: As an Effective Photocatalyst for Industrial Pollutants” International conference in Berlin, Germany.

## Workshops:

* Participated in the Annual Technical Festival of Indian Institute of Technology Roorkee- 2015,
* Participated in “Workshop on Laboratory Safety -2014” Chemistry Department, Indian Institute of Technology Roorkee
* Participated in “Workshop on *ACS on Campus*, 2018, IIT Roorkee.” Chemistry Department, Indian Institute of Technology Roorkee

**Declaration:**

I hereby declare that above mention all information is correct in my knowledge. In the verification of any information being found false or incorrect, then I will

be responsible for that.

**RAMESH CHANDRA**

## DATE: 16/07/2022

**PLACE:** LUCKNOW