

Curriculum Vitae

Manoj Kumar (PhD)

Assistant Professor

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Research Area of Interest:

- Synthetic inorganic and metallo-organic chemistry.
- Schiff base metal complexes and their potential application.
- OLED and photovoltaic application of lanthanide metal ion and their complexes.
- Nanotechnology and potential interest to learn novel modern concept.

Qualification:

- **PhD Chemistry** (Synthetic Inorganic and metal-organic Chemistry) from University of Allahabad, Prayagraj, Uttar Pradesh, India (2019)
- **M.Sc. Chemistry** (Inorganic Chemistry) with 67.33 % from University of Allahabad, Prayagraj, Uttar Pradesh, India (2013)

PhD Thesis (2019) Title: Synthesis, spectroscopic and biological studies of bi- and tri-valent metal complexes with various organic ligands (**Supervisor:** Prof. Shekhar Srivastava)

List of Paper Published/communicated:

1. Synthesis, spectroscopic, theoretical investigation and non-linear optical properties of mixed ligand Europium(III), Ytterbium(III) and Neodymium(III) complexes, **Manoj Kumar**, Avadhesh Pratap Singh and Ajeet Singh.(Under Publication).
2. Synthesis, spectroscopic characterization, theoretical investigation of NLO properties and antibacterial activity of mixed ligand complexes of Co(II) and Cu(II) metal ions, Vishnu Kumar Modanawal, Nitesh Jaiswal, Sikandar Paswan, Afreen Anjum, **Manoj Kumar** and Shekhar Srivastava. *Journal of Coordination Chemistry*, 2021.
3. Synthesis, spectroscopic characterization, DFT calculations and antimicrobial activities of N-arylsalicylaldehyde derivatives of diorganotin(IV), Raj Kumar Dubey, Avadhesh Pratap Singh, Nitesh Jaiswal, Divya Pratap Singh, Meenakshi Kumari, Ajeet Kumar Kushwaha, **Manoj Kumar** and Afreen Anjum. *Journal of Coordination Chemistry*, 72(19-21), 2019, 3371-3384.

4. Copper(II)-silver(I) heterobimetallic complexes of Schiff base ligands derived from diethylenetriamine : synthesis, surface morphology and spectroscopic studies, Afreen Anjum, **Manoj Kumar**, Sikandar Paswan and Raj Kumar Dubey, *Research Journal of Chemistry and Environment*, 23(3), **2019**, 36-44.
5. Synthesis, characterization and DFT studies of Some Co(II) and Cu(II) Complexes of 12-Membered Tetradentate [N4] Macrocyclic Schiff Base Derived from 9,10Phenanthrenequinone, Afreen Anjum, Sikandar Paswan, **Manoj Kumar**, Habib Ali and Raj Kumar Dubey, *Asian Journal of Chemistry*, 31(4), **2019**, 943-950.
6. Synthesis, spectroscopic and DFT calculation of mixed ligand copper(II) complexes, **Manoj kumar**, Afreen Anjum, Nitesh Jaiswal and Raj Kumar Dubey, *Asian Journal of Chemistry*, 30(7), **2018**, 1679-1684.
7. Synthesis and physicochemical studies of cobalt (II), nickel (II), copper (II) complexes with various Schiff bases containing oxygen and nitrogen donor atoms. Raj Kumar Dubey, Sharad Kumar Mishra, Ashok Kumar Jha and **Manoj Kumar**, *Indian Chemical Society*, 95, **2018**, 527-532.
8. Studies of isopropoxide bridge hetero-bimetallic complexes: Synthesis, Spectral, Morphology and Antimicrobial Activity. **Manoj Kumar**, Afreen Anjum, Sikandar Paswan and Raj Kumar Dubey, *Bulletin of Pure and Applied Sciences 'Section C – Chemistry'* 37C(2), **2018**, 25-32.
9. Biological application of Schiff base and their metal complexes: (A Review), **Manoj Kumar**, Afreen Anjum, Ajeet Kumar Kushwaha and Raj Kumar Dubey, *Vijnana anusandhan patrika*, 60(1), **2017**, 15-25.

List of Book Chapter Published/Communicated:

1. Biological properties of Cobalt(II), Nickel(II) and Copper(II) and their complexes: a review, Nitesh Jaiswal and **Manoj Kumar** (*accepted*).
2. Diagnosis and treatment with nanotechnology, Archana Chakravarty, **Manoj Kumar** and Ratnesh Das, Nova Science Publisher, New York(under publication).

Papers presented in National/International conferences: (Oral/Poster):

- An online oral presentation on “Synthesis, spectroscopic, fluorescence and morphological studies of mixed ligand complexes of Europium(III) and Ytterbium(III) metals” in **MTMI International conference on “Emerging issue in**

business, technology and applied Sciences” organized by Amity University of Higher Education, Ebene, Mauritius **20-22 Dec. 2019.**

- A Poster presentation on “Studies of isopropoxide bridge hetero-bimetallic complexes: synthesis, spectral, morphology and antimicrobial” in “**2nd Meghnath Saha Memorial International Symposium –cum- Workshop on Laser Induced Breakdown Spectroscopy**” organized by Department of Physics, University of Allahabad, Allahabad **19-21 Feb. 2018.**
- A Poster presentation on “Synthesis, spectroscopic and DFT studies of copper(II) complexes containing Schiff bases” in International conference on “**Emerging Materials and Application (ICEMA 2017)** ” held at Department of Physics, University of Allahabad, Allahabad. **20-22 Feb. 2017,**
- National seminar on “**Science and Technology for Indigenous Development of India**” **19-21 Feb, 2016** jointly organized by *Indian Science Congress Association* and Department of Chemistry, University of Allahabad, Allahabad.
- An oral presentation on “Biological and chemical properties of river Ganga” National Seminar on “**Ganga – A Life Line of India**” The role of Ganga in eco-centric Development” 18 Sept. 2016, Jointly organized by Ganga Samagra Prayas and Allahabad Museum (Ministry of Culture, Govt. of India).
- ‘**Author Workshop**’ jointly organized by Springer and University of Allahabad on 30th Oct, 2015 at University of Allahabad, Allahabad.

Awards/Achievements:

- **Assistant Professor** in Government Degree College, Dhadha Bujurg, Hata, Kushinagar, Uttar Pradesh (2nd Aug 2021- Continue).
- **Purvanchal University Post-Doctoral Fellowship (PUPDF)**, PRSIPSSR, Veer Bahadur Singh Purvanchal University, Jaunpur, Uttar Pradesh, India
- Council of Scientific and Industrial Research-National Eligibility test (**CSIR NET-2014**) for Lectureships in Indian Institutes and Universities.
- **Assistant Professor (Guest)** University of Allahabad, Prayagraj, Uttar Pradesh, India (2018- 2019)

Expertise:

- Multistep synthesis from milligram to gram scale, synthesis of compounds in special conditions e.g., at low temperature and inert atmosphere.
- Operated FT-IR and UV-Vis’s spectroscopy.

- Expertise in analyzing the synthesized complexes by IR, UV-Vis, Mass Spectra, ESR, TGA-DTA, PXRD and SEM-EDAX.
- Chemistry related software's viz. Chem Draw, Chems sketch, Origin and Gaussian 09 etc.

Personal details:

Nationality	Indian
Date of Birth	22 nd August, 1990
Gender & Marital Status	Male & Married
Language known	Professional proficiency in Hindi and English

Declaration

I hereby declare that all the above-mentioned facts and information are true to the best of my knowledge. I will solely be responsible for any discrepancy found in them.

Place: Kushinagar, India