



Dr. NEERAJ SAINI

Academic & Administrative Experiences:

- Assistant Professor & HOD First Year (B.Tech.), Department of Chemistry, FEAT, SGT University, Gurugram, Haryana, India.
- I have teaching as well as administrative experience of three years at SGT University, Gurgaon, Haryana and has served in various administrative position as:

HOD, B.Tech. First Year Coordinator, Ph.D. Coordinator & Chairman, Ph.D. Committees-DRC & FRC Member, Mentor In-charge at Faculty Level, NAAC Incharge at Faculty Level, Head-Admission Team, Ph.D. Ordinance Committee Member, Examination-Observer, Head of Departmental Research Core Committee.
- Postdoctoral Fellow (01.November.2016 - 31.October.2017) with Teaching Assistance Assoc. Professor Dr. Vuthichai Ervithayasuporn, Department of Chemistry, Faculty of Science, Mahidol University, Bangkok-10400, Thailand.

Doctorate Degree: Ph.D. Chemistry [Specialization: Inorganic Chemistry]
Indian Institute of Technology, Roorkee
Registration No: PHD/CYD/12913008/2016

Contact No: 09643626546, 09810846232 (Dr. Neeraj Saini), 09812110093 (Home)
[Email: neeraj.sainimac@gmail.com](mailto:neeraj.sainimac@gmail.com), neeraj.saini124@gmail.com

Educational Qualifications	Year	Board/Institution	CGPA* / %
PG Overall	2012	Banaras Hindu University, Varanasi	9.0
UG Overall	2010	Govt. P.G. College, Hisar (Affiliated to Kurukshetra University)	84.0
Twelfth	2005	New Yashoda Public School, Hisar	82.0
Tenth	2003	New Yashoda Public School, Hisar	88.0

*on a scale of 10

RESEARCH PUBLICATIONS

1. Mannar R. Maurya, Neeraj Saini and Fernando Avecilla "**Liquid phase versus microwave assisted selective oxidation of volatile organic compounds involving dioxidomolybdenum(VI) and oxidoperoxidomolybdenum(VI) complexes as catalysts in the presence/absence of an N-based additive**", *Polyhedron*, 2015, 90, 221–232.
2. Mannar R. Maurya, Neeraj Saini and Fernando Avecilla "**Catalytic oxidation of secondary alcohols by molybdenum complexes derived from 4-acyl pyrazolone in presence and absence of an N-based additive: Conventional versus microwave assisted method**", *Inorganica Chimica Acta*, 2015, 438, 168–178.
3. Mannar R. Maurya, Neeraj Saini and Fernando Avecilla "**Effect of N-based additive on the optimization of liquid phase oxidation of bicyclic, cyclic and aromatic alcohols catalyzed by dioxidomolybdenum(VI) and oxidoperoxidomolybdenum(VI) complexes**", *RSC Adv.*, 2015, 5, 101076–101088.
4. Mannar R. Maurya, Neeraj Saini and Fernando Avecilla "**Study of temperature dependent three components dynamic covalent assembly via Hantzsch reaction catalyzed by dioxido- and oxidoperoxidomolybdenum(VI) complexes under solvent free condition**", *RSC Adv.*, 2016, 6, 12993–13009.
5. Neeraj Saini, Nicha Prigyai, Chidchanok Wannasiri, Vuthichai Ervithayasuporn and Suda Kiatkamjornwong "**Green synthesis of fluorescent N,O-chelating hydrazone Schiff base for multi-analyte sensing in Cu²⁺, F⁻ and CN⁻ ions**", *J. Photochem. Photobio. A: Chemistry*, 2018, 358, 215–225.
6. Neeraj Saini, Chidchanok Wannasiri, Supphachok Chanmungkalakul, Nicha Prigyai, Vuthichai Ervithayasuporn, Suda Kiatkamjornwong "**Furan/thiophene-based fluorescent hydrazones as fluoride and cyanide sensors**", *J. Photochem. Photobio. A: Chemistry*, 2019, 385, 112038-112046.
7. Sweety Rajput and Neeraj Saini "**A Comparative Study on Different Fruit Wastes Derived Ethanol using Yeast Strains (MTCC 170/180); Submerged vs Solid State Fermentation**", *Int. J. Adv. Sci. Tech.*, 2020, 29, 1147-1127.
8. Sweety Rajput, Neeraj Saini and Malini Tewari "**Assessment of the effects of Stiffness on the Seismic Behaviour of Framed Buildings**", *J. Cri. Rev.*, 2020, 7, 1146-1150.

Broad Research Area's: Catalysis and Sensor Technology

PROJECTS

Banaras Hindu University, Varanasi

Mono-metallic salts derived from complex anion of group 10 metal ions with p-tolylsulfonyl dithiocarbamate ligands: Synthesis and characterization

Project Work-M.Sc. 2012,

Under the guidance of Prof. Nanhai Singh, Department of Chemistry.

Govt. P.G. College Hisar, Haryana

Synthesis of fertilizers derived from human urine (Published in News Paper)

Project work-B.Sc. 2010,

Under the guidance of Dr. Raj Kumar, Department of Botany.

Govt. P.G. College Hisar, Haryana

Synthesis of Bio-Diesel from waste vegetable oils (2009)

Project work-B.Sc. 2009,

Under the guidance of Prof. Satyender Yadav, Department of Chemistry.

SKILLS AND ACHIEVEMENT**Languages Known**

English (SRW) and Hindi (SRW)

EXTRA CURRICULARS**Academic and Other Achievements (2007-2016)**

- Bangkok Bank Young Chemist Award (2016).
- Acharya P C Ray Memorial Award (INDIA) [First position in Inorganic Chemistry, (2012)].
- State Level Science Exhibition: First Position in Chemistry, in Gurgoan, Haryana (2008-09).
- District and State Level Exhibition: First Position in Botany, in Hisar, Haryana (2009-10).
- First in State level Inter-college Science Quiz Competition in Jind, Haryana.
- First Position in Inter-College Manohar Mahotsav-2010 Science Quiz, Fatehabad, Haryana.
- College Color of Kurukshetra University, Haryana (2009, 2010).
- YUVA Pratibha Scholarship Exam secured "A" grade.
- GATE qualified (two times) in theyear 2012 and 2013.
- PET 2010-Banaras Hindu University: All India Rank-3 and BHU Rank-1.
- Certificate of Excellence: Women studies and Development Cell, World Aids Day, Haryana (2009).
- Participated in the Science Conference to celebrate Dr. Homi. J. Bhabha, Birth Centenary, Kurukshetra University and Department of Science and Technology, Haryana (2010).

Bachelor of Science (2007-2010)**In Bachelor of Science 1st Year:*****Certificates of merit:***

- First in Overall Aggregate of Marks
- First Position in Chemistry, Botany, Zoology and English
- First Position in College in Annual Exam of Kurukshetra University

In Bachelor of Science 2nd Year:***Certificates of merit:***

- First in Overall Aggregate of Marks
- First Position in Chemistry, Botany and Zoology
- First Position in College in Annual Exam of Kurukshetra University

In Bachelor of Science 3rd Year:***Certificate of merit:***

- First in Overall Aggregate of Marks
- First Position in Chemistry, Botany and Zoology

Master of Science (Chemistry) (2010-2012)

Grade: A

Degree/ Cumulative Grade Point Average (DGPA/ CGPA): 9/10

Semester Grade Point Average (SGPA): 9/10

Ph.D. (Chemistry) (2012-2016)

Four Research Papers Published in International Journals:

1. Mannar R. Maurya, Neeraj Saini and Fernando Avecilla, *Polyhedron*, **2015**, *90*, 221–232.
2. Mannar R. Maurya, Neeraj Saini and Fernando Avecilla, *Inorg. Chim. Acta*, **2015**, *438*, 168–178.
3. Mannar R. Maurya, Neeraj Saini and Fernando Avecilla, *RSC Adv.*, **2015**, *5*, 101076–101088.
4. Mannar R. Maurya, Neeraj Saini and Fernando Avecilla, *RSC Adv.*, **2016**, *6*, 12993–13009.

List of Research Papers Presented In Conferences:

Best Poster Award: International Conference on Advanced Materials for Energy, Environment and Health, organized by Department of Chemistry, IIT Roorkee (2016)

1. Mannar R. Maurya and **Neeraj Saini**, “Dioxomolybdenum(VI) and oxoperoxomolybdenum(VI) complexes having pyrone unit in dibasic tridentate ligands: Synthesis, spectral and structural aspects”, confronted in the 50th, Annual Convention of Chemists, *organized by Indian Chemical Society*, held at Department of Chemistry and Centre for Advanced Studies in Chemistry, Panjab University, Chandigarh-160 014, December 04-07, 2013; [ING(PP)–32].
2. Mannar R. Maurya, **Neeraj Saini** and Fernando Avecilla, “A comparative study of microwave and liquid phase degradation of volatile organic compounds involving new dioxido and oxido-peroxidomolybdenum(VI) complexes as catalyst”, confronted in the 5th Interdisciplinary Symposium on Material Chemistry (International Conference), *organized by Chemistry Division, BARC and Society for Materials Chemistry*, held at Bhabha Atomic Research Centre, Trombay, Mumbai-400 085, December 09-13, 2014; [K–107].
3. Mannar R. Maurya, **Neeraj Saini** and Fernando Avecilla, “Catalytic oxidation of secondary alcohols by molybdenum complexes derived from 4-acyl pyrazolone in presence and absence of an N-based additive: Conventional versus microwave assisted method”, confronted in the Recent Advancements in Chemical Sciences, *organized by Department of Chemistry, MNIT, Jaipur*, held at Malviya National Institute of Technology, Jaipur-302 017, August 21-23, 2015; [PP–62].
4. Mannar R. Maurya, **Neeraj Saini** and Fernando Avecilla, “Effect of N-based additive on the optimization of liquid phase oxidation of bicyclic, cyclic and aromatic alcohols catalyzed by molybdenum(VI) complexes”, confronted in the International Conference on Nascent Developments in Chemical Sciences, *organized by Department of Chemistry, BITS Pilani*, held at Birla Institute of Technology and Science, Pilani, Pilani Campus, Rajasthan-333 031, October 16-18, 2015; [PP–281].
5. Mannar R. Maurya, **Neeraj Saini** and Fernando Avecilla, “Study of temperature dependent hantzsch reaction catalyzed by dioxido- And oxidoperoxidomolybdenum(VI) complexes of 4-acetyl pyrazolone based ligands under solvent free condition”, confronted in the Pure and Applied Chemistry International Conference, *organized by Chemical Society of Thailand in conjunction with Department of Chemistry, Faculty of Science, Chulalongkorn University*, held at BITEC, Bangkok, Thailand-10260, February 09-11, 2016 [INC-P-0200].
6. Mannar R. Maurya, **Neeraj Saini** and Fernando Avecilla, “Effect of N-based additive on the optimization of liquid phase oxidation of bicyclic, cyclic and aromatic alcohols catalyzed by

dioxidomolybdenum(VI) and oxidoperoxidomolybdenum(VI) complexes”, Poster presentation in the International Conference on Advanced Materials for Energy, Environment and Health, *organized by Department of Chemistry, IIT Roorkee*, held at Indian Institute of Technology, Roorkee-247667, March 04-07, 2016 [PP-48].

7. Nicha Prigyai, **Neeraj Saini**, Vuthichai Ervithayasuporn, “Colorimetric and Fluorometric Detection of Cu²⁺ and CN⁻/F⁻ in the Aqueous Medium based on Dehydroacetic Acid and 1,8-Naphthalimide unit”, Poster presentation in the International Symposium on Silsesquioxanes-Based Functional Materials, organized by Department of Chemistry, Shandong University, held at The Hall of Run Run Shaw Science Building, August 11-14, 2017 [SO-07].

List of Workshops Participated: National/International

1. Workshop entitled, “Q-Chem, A Quantum Leap into the Future of Chemistry”, *organized by Department of Chemistry, BITS Pilani*, Pilani Campus, Rajasthan-333 031, on October 19, 2015.
2. Workshop entitled, “Nuclear Magnetic Resonance on the Table”, *organized by Pure and Applied Chemistry International Conference Committee, Bangkok, Thailand-10260*, on February 10, 2016.
3. Workshop entitled, “Structure Solution and Refinement with OLEX2”, *organized by Faculty of Science and Technology, Thammasat University, Bangkok, Thailand-10260*, on February 11, 2016.

Application Training (2014 and 2017)

- Training on Lambda 950 UV/Vis/NIR Spectrophotometer and Spectrum Two IR Spectrometer held at Indian Institute Technology, Roorkee, India.
- Training on Horiba Spectrofluorometer and Puri-Flash 4100 at Faculty of Science, Mahidol University, Bangkok, Thailand.

Instrumental Knowledge

- Fourier transform infrared spectroscopy (FT-IR)
- UV-Visible Spectrophotometer
- Bruker NMR-500 MHz/Jeol NMR-400 MHz
- Spectrofluorometer (Jasco FP-6200/Horiba Fluoro-Max)
- Thermogravimetric Analysis (TGA)
- Gas Chromatography-Shimadzu 2010 GC-Plus (GC)
- Gas Chromatography-Mass Spectrometry (GC-MS)
- High Resolution Mass spectrometry (HR-MS)
- Cyclic Voltammetry
- Microwave techniques-Anton PAAR Monowave 300

Key Skills: MS Office (MS Word, Power-point and Excel)

PERSONAL DETAILS

Father's Name: Parkash Chander Saini

Mother's Name: Sharda Devi Saini

Date of Birth: December 31, 1986

Spouse Name: Ms. Bhumika

Status: Married

Gender: Male

Permanent Address:

House No: 124-B, Friends Colony, Near
Jawahar Nagar, Hisar, Distt. Hisar,
Haryana-125001, India.

Correspondence Address:

House No. 707, Sector 9A, Near ESI
Hospital, Gurgaon 122001, Haryana,
India.

Contact No:

09643626546,09810846232