Sudheer, *M.Sc., Ph.D.*

Assistant Professor ellow
Department of Chemistry
University of Lucknow
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EDUCATION

- **2015** Ph. D. (Chemistry) — Indian Institute of Technology (Banaras Hindu University), India **Thesis:** *Nitrogen-Containing Heterocyclic Compounds as Corrosion Inhibitors for Mild Steel and Copper*
- **2007** M. Sc. — Chemistry: Ch. Charan Singh University, Campus Meerut, India
- **2004** B. Sc. — Physics, Chemistry, Math's: Ch. Charan Singh University, Meerut, India

AWARDS/ HONOURS

- **2017:** National Postdoctoral fellowship(N-PDF) award, from SERB, India
- **2013:** Received Honour code certificate from Massachusetts Institute of Technology in 3.091X: Introduction to Solid State Chemistry, trough edX.
- **2013:** IIT-BHU Publication Award
- **2012:** Teaching Assistant, at Department of Chemistry, Indian Institute of Technology (Banaras Hindu University), Varanasi, India
- **2010:** Research Fellowship in Science for Meritorious Students (RFSMS) from UGC-BSR, India
- **2009:** Research Fellowship from University Grant Commission (UGC), India
- **Dec 2008:** CSIR-UGC NET for Lectureship in Chemical Science, from CSIR-UGC, India

Teaching/Research Experience

1. Assistant Professor, University of Lucknow, Lucknow (Since **June 2022** to **till date**)
2. Assistant Professor, SRM University, Delhi-NCR Campus, (From **July 2015** to **June 2022**)
3. National Postdoctoral Fellow (N-PDF), Department of Chemistry, University of Delhi, Since **April, 2017 to April 2019**
4. Teaching undergraduate and Postgraduate

AREA OF INTEREST

Chemical Sensing, Organic Inhibitors, Protection of metals in acidic environment, Electrochemistry, Green Chemistry

TECHNICAL SKILLS

- **Fluorescence Techniques:**
- Metal Ion sensing
- **Electrochemical Techniques**
- Performed both AC: Electrochemical Impedance Spectroscopy (EIS), and DC: Tafel and linear polarization techniques,
- Cyclic Voltametry, for stability and redox behavior of material
- Illustrated Open Circuit Potential *vs*. Time,
- Designed Circuit for fitting the EIS data, etc.

- **Characterization Techniques:** Surface modification investigated by SEM (Scanning electron microscope), AFM(Atomic force microscopy), elemental detection via EDX (Energy dispersive X-ray), and energy absorption by UV-vis Spectra.
- **Synthesis**: Designed Synthesis of heterocyclic compounds and their characterization by UV-Vis, IR, and NMR etc.
- Experience of green chemistry and their methodology i.e. microwave irradiation, ultrasonic methods etc. for synthesis purpose.
- Acted on software such as Latex, Chem Bio Office, Origin, Photoshop, etc.

Publications in Refereed Journals

13. Zhang, J.; Peng, L.; Li, G.; Kushwaha, A.; **Sudheer**; Muddassir, M.; Wang, X.; Kumar, A.; Jin, J.-C. A New 3,4-Connected Zn(II)-Based Nitroisophthalic Acid Appended Coordination Polymer as Potent Photocatalyst for Dye Degradation. *J. Solid State Chem.* **2023**, *326*, 124220.

12. **Sudheer** and Kumar V., Kumar P., Gupta R., Detection of Al3+ and Fe3+ ions by nitrobenzoxadiazole bearing pyridine-2,6-dicarboxamide based chemosensors: effect of solvents on detection, New J. Chem., 44, 13285-13294, **2020**. (IF = 3.288, RSC), ISSN: 1369-9261.

11. ***Sudheer*** and Quraishi, M. A., Amino pyrazole phthalazine derivatives inhibition effect on mild steel/acid interface: Computational and Electrochemical investigation (**IF = 3.686, Communicated in *Corros. Sci*)** ISSN: 0010-938X**.**

10. ***Sudheer*** and Quraishi, M. A., The corrosion inhibition effect of Aryl Pyrazolo Pyridines on Copper in hydrochloric acid system: Computational and Electrochemical studies, ***RSC Advances,*** 5, 41923-41933, **2015.** (**IF** = **3.708, *RSC*)**, ISSN: 2046-2069.

9. ***Sudheer*** and Quraishi, M. A., 2-Amino-3,5-dicarbonitrile-6-thio-pyridines: New and Effective Corrosion Inhibitors for Mild Steel in 1 M HCl, ***Ind. Eng. Chem. Res.*****,** 53, 2851–2859, **2014**. **(IF = 2.235, ACS),** ISSN: 0888-5885.

8. Ansari, K. R., ***Sudheer*****,** Singh, A. and Quraishi, M. A., Some Pyrimidine Derivatives as Corrosion Inhibitor for Mild Steel in Hydrochloric Acid, ***J. Dispers. Sci. Technol.*****,** doi 10.1080/01932691.2014.938349, **2014. (IF = 0.705, Taylor & Francis),** ISSN: 0193-2691.

7. ***Sudheer*** and Quraishi, M. A., Electrochemical and theoretical investigation of triazole derivatives on corrosion inhibition behavior of copper in hydrochloric acid medium, ***Corros. Sci.*****,** 70, 161–169, **2013**. **(IF = 3.686, Elsevier),** ISSN: 0010-938X.

6. ***Sudheer*** and Quraishi, M. A., Thermodynamic and Electrochemical Investigation of Pantoprazole: (RS)-6-(difluoromethoxy)-2- [(3,4-dimethoxypyridin-2-yl)methylsulfinyl]-1H-benzo[d]-imidazole as Corrosion Inhibitor for Mild Steel in Hydrochloric Acid Solution, ***Arab. J. Sci. Eng.*****,** 38, 99–109, **2013**. **(IF = 0.365, Springer),** ISSN: 1319-8025.

5. Quraishi, M. A., ***Sudheer*** and Ebenso, E. E., Ketorol: New and effective corrosion inhibitor for mild steel in hydrochloric acid solution, ***Int. J. Electrochem. Sci.*****,** 7, 9920–9932, **2012**. **(IF = 1. 956, ESG),** ISSN: 1452-3981.

4. Quraishi, M. A., ***Sudheer***, Ansari, K. R. and Ebenso, E. E., 3-Aryl substituted triazole derivatives as new and effective corrosion inhibitors for mild steel in hydrochloric acid solution,. ***Int. J. Electrochem. Sci.*****,** 7, 7476–7492, **2012**. **(IF = 1. 956, ESG),** ISSN: 1452-3981.

3. ***Sudheer***, Quraishi, M. A., Ebenso, E. E. and Natesan, M., Inhibition of atmospheric corrosion of mild steel by new green inhibitors under vapour phase condition, *Int.* ***J. Electrochem. Sci.*****,** 7, 7463–7475, **2012**. **(IF = 1. 956, ESG)** ISSN: 1452-3981.

2. Dandia, A., Gupta, S. L., ***Sudheer***, and Quraishi M. A., Microwave Assisted Economic Synthesis of 4-amino-3-alkyl-5-mercapto-1, 2, 4-triazole Derivatives as Green Corrosion Inhibitors for Copper in Hydrochloric Acid ***J. Mater. Environ. Sci.*** 3 (5) 993-1000, **2012**. ISSN: 2028-2508.

12. ***Sudheer*** and Quraishi, M. A., Effect of pharmaceutically active compound omeprazole, on the corrosion of mild steel in hydrochloric acid solution, ***J. Chem. Pharm. Res.*****,** 3, 82–92, **2011**. ISSN: 0975-7384.

Publications in Refereed Conference Proceedings

1. Quraishi, M. A. and ***Sudheer***, K., Development and testing of a green volatile corrosion inhibitor for mild steel, ***NACE - Int. Corros. Conf. Ser.***, **2013**.

2. Quraishi, M. A., Natesan, M. and ***Sudheer***, Ethanolamine salt as vapor corrosion inhibitors for mild steel in NaCl environment, ***NACE - Int. Corros. Conf. Ser.*****, 2**, 1666–1675, **2012**.

3. ***Sudheer*** and Quraishi, M. A., Effect of Cefpodoxime on corrosion inhibition of mild steel in hydrochloric acid medium International Conference on corrosion, **CORCON,** 13 SSP6, **2013**.

Presentations in Conferences/ Symposia

1. International Workshop on **Electrocatalytic Materials for fuel and Biofuel cells 2013;** Department of Chemistry, Banaras Hindu University, Varanasi, Poster: Corrosion Protection of Mild Steel via Ethambutol in Hydrochloric Acid solution ***Sudheer***, M.A. Quraishi
2. National Conference on **Thermo Physical Properties (NCTP- 2011); Oct. 11-13, 2011,** IT BHU, Varanasi, India. Poster: Thermodynamic and electrochemical investigation of corrosion inhibition for mild steel ***Sudheer***, M.A. Quraishi
3. National Workshop on Green Chemistry" Sant Gadge Baba Amravati University, Amravati, Maharashtra Feb 17, 18 (2010)

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Ref

(1) Zhang, J.; Peng, L.; Li, G.; Kushwaha, A.; Sudheer; Muddassir, M.; Wang, X.; Kumar, A.; Jin, J.-C. A New 3,4-Connected Zn(II)-Based Nitroisophthalic Acid Appended Coordination Polymer as Potent Photocatalyst for Dye Degradation. *J. Solid State Chem.* **2023**, *326*, 124220. https://doi.org/10.1016/j.jssc.2023.124220.