



## Dr. Sidra Farid (Ph.D.)

*Assistant Professor*

*Department of Chemistry*

*GC University, Lahore-54000 Pakistan*

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ORCID iD: <https://orcid.org/0009-0000-6632-5201>

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Google scholar: <https://scholar.google.com/citations?hl=en&user=qS5xBxoAAAAJ>

### *Professional Experience*

- **Assistant Professor (BS-19)**  
Department of Chemistry, GC University Lahore  
18-02-2022 till date
- **Lecturer (BS-18)**  
Department of Chemistry, GC University Lahore  
06-11- 2014 to 17-02-2022
- **Short-Term Visiting Scholar**  
Dartmouth College, Hanover, New Hampshire State, USA.  
1<sup>st</sup> June, 2019 to 30<sup>th</sup> November, 2019
- **Research/Teaching Assistant (BS-17)**  
01-10-2012 to 30-09-2014  
Department of Chemistry, GC University, Lahore

### *Education*

- **PhD in Chemistry** **2021**  
Government College University, Lahore Pakistan  
Thesis Title: Synthesis, Computational studies and characterization of Organic-Inorganic Materials for potential applications in electronic devices.
- **M.Phil. Chemistry** **2013**  
Government College University, Lahore Pakistan  
Thesis Title: Development of novel method for the evaluation of antioxidant activity.
- **B.Sc. (Hons) Chemistry** **2011**  
Government College University, Lahore Pakistan  
Thesis Title: Evaluation of antioxidant potential of *Monothea buxifolia* by novel and contemporary methods.

### *Professional Development*

- Completed STEM Faculty Professional Development Program, Kings College London under Pakistan-UK Education Gateway project funded by the British Council (July 7-12<sup>th</sup>, 2025).
- Secured the HEC IRSIP fellowship and completed a research fellowship at Dartmouth College, New Hampshire, United States.
- Completed Master Trainers Faculty Professional Development Programme (MT-FPDP) at Higher Education Commission Islamabad (March 21- May 11<sup>th</sup>, 2017).

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| <b><i>Brief Statement of Research Interest</i></b> | <ul style="list-style-type: none"> <li>• Design and develop biomaterials to promote angiogenesis and accelerate effective wound healing.</li> <li>• To design and fabricate the wearable sensors on flexible substrates.</li> <li>• To synthesize, compute and characterize new organic-inorganic hybrid materials (MOFs) for their potential applications in batteries &amp; energy storage devices.</li> </ul>  |
| <b><i>Courses Taught</i></b>                       | <p><b>Graduate Level:</b><br/>Organotransition metal Chemistry (CHEM-8206)</p> <p><b>Undergraduate Level:</b><br/>Inorganic Chemistry-I (CHEM-3102 and CHEM-3102P)<br/>Physical Chemistry-I (CHEM-3101 and CHEM-3101P)<br/>Analytical Chemistry-I (CHEM-2202 and CHEM-2202P)<br/>Biochemistry-I (CHEM-2201 and CHEM-2201P)<br/>Non-Aqueous Solvents (CHEM-459)<br/>Advanced Inorganic Chemistry (CHEM-3202 &amp; CHEM-3202P)<br/>Advanced Analytical Chemistry Paper-IV (CHEM-477)<br/>Inorganic Reaction Mechanism (CHEM-4126)<br/>Atomic Spectroscopy (CHEM-4138)</p> <p><b>Intermediate/Sophomore level</b><br/>General Chemistry to sophomores</p>  |
| <b><i>Courses Designed/Updated</i></b>             | <ul style="list-style-type: none"> <li>• Organotransition metal Chemistry (CHEM-8206)</li> <li>• Principles of Inorganic Chemistry (CHEM-3103)</li> <li>• Inorganic Reaction Mechanisms (CHEM-4126)</li> <li>• Group Theory (CHEM-4226)</li> <li>• Inorganic Chemistry Lab-I (CHEM-4129P)</li> </ul>  |
| <b><i>Service Activity</i></b>                     | <ul style="list-style-type: none"> <li>• Program Coordinator, Forensic Sciences, Institute of Chemical Sciences, GC University Lahore.</li> <li>• Advisor, GCU Anti-Narcotics Society (20-11-2020 till date).</li> <li>• Co-Advisor, Ravian Forensic Society, (12-12-2019 till date).</li> <li>• Serving as deputy chief proctor at GC University, Lahore (01-09-2022 till date).</li> <li>• Incharge Research Lab-I, Department of Chemistry GC University Lahore (01-08-2023 till date).</li> <li>• Member, Board of Studies, Department of Chemistry, University of Mianwali, Mianwali, (2021 till date).</li> <li>• Secretary, GCU's Anti-Drug and Tobacco Abuse (ADTC) committee, (February, 2023 till date).</li> <li>• Secretary GCU Pink Ribbon Committee, (2020 till date).</li> <li>• Focal Person GCU to Chughtai Healthcare (2021 till date).</li> <li>• Focal Person GCU to Pink Ribbon and Pink Pakistan Trust (2020 till date).</li> <li>• Member, Board of Studies, Department of Chemistry, GC University, Lahore (2016 till 2019).</li> <li>• Focal person QEC for Intermediate Faculty Evaluation (2016 till 2018).</li> </ul> |

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|  | <ul style="list-style-type: none"> <li>• Co-Advisor, Dunnicliff Chemical Society (2015 to October 2018)</li> <li>• F.Sc. Coordinator, Department of Chemistry, GC University Lahore (2015).</li> <li>• In-charge Research Lab-I (2015 till date).</li> <li>• In-charge F.Sc. lab 2 (2019 to 2023).</li> </ul> |
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|                             | Year | Class            | Name of student | Status     |
|-----------------------------|------|------------------|-----------------|------------|
| <b>Research Supervision</b> | 2026 | M.Phil Chemistry | Ayesha Shahzad  | In-Process |
|                             | 2026 | M.Phil Chemistry | Sundas Shahzad  | In-Process |
|                             | 2026 | M.Phil Chemistry | Ayesha Akram    | In-Process |
|                             | 2026 | M.Phil Chemistry | Ayesha Noor     | In-Process |
|                             | 2026 | M.Phil Chemistry | Azhar Mehmood   | In-Process |
|                             | 2025 | M.Phil Chemistry | Mahnoor Nadeem  | Completed  |
|                             | 2025 | M.Phil Chemistry | Minahil Arif    | Completed  |
|                             | 2025 | M.Phil Chemistry | Ambreen Fatima  | Completed  |
|                             | 2024 | M.Phil Chemistry | Noor Fatima     | Completed  |
|                             | 2024 | M.Phil Chemistry | Swera           | Completed  |
|                             | 2024 | B.Sc. (Hons)     | Ayesha Akram    | Completed  |
|                             | 2023 | M.Phil Chemistry | Touqeer Aslam   | Completed  |
|                             | 2023 | M.Phil Chemistry | Sofia Abid      | Completed  |
|                             | 2023 | M.Phil Chemistry | Hafsa Zafar     | Completed  |
|                             | 2023 | M.Phil Chemistry | Farhat Hanif    | Completed  |
|                             | 2023 | M.Phil Chemistry | Kamran Rafique  | Completed  |
|                             | 2022 | M.Phil Chemistry | Sana Shabbir    | Completed  |
|                             | 2022 | M.Phil Chemistry | Shanza Altaf    | Completed  |
|                             | 2022 | M.Phil Chemistry | Fatima Jamil    | Completed  |
|                             | 2022 | M.Phil Chemistry | Zakir Ullah     | Completed  |
|                             | 2021 | M.Phil Chemistry | Mona Munir      | Completed  |
|                             | 2021 | M.Sc. Chemistry  | Iftikhar Ahmed  | Completed  |

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|  | 2019 | M.Phil Chemistry | Falak Naz       | Completed |
|  | 2019 | M.Sc. Chemistry  | Sumbal Jamshaid | Completed |
|  | 2019 | M.Sc. Chemistry  | Rida Khan       | Completed |
|  | 2018 | M.Phil Chemistry | H. M. Amjad     | Completed |
|  | 2018 | B.Sc. (Hons)     | Ammara Fawad    | Completed |
|  | 2018 | M.Sc. Chemistry  | Abdul Jaleel    | Completed |
|  | 2018 | M.Sc. Chemistry  | Faqia Jan       | Completed |
|  | 2016 | M.Phil Chemistry | M. Abu Bakar    | Completed |
|  | 2016 | M.Phil Chemistry | Sadia Alam      | Completed |
|  | 2016 | M.Phil Chemistry | Ayesha Sarwar   | Completed |
|  | 2016 | M.Phil Chemistry | Mehwish Aslam   | Completed |
|  | 2016 | B.Sc. (Hons)     | Neelam Tariq    | Completed |
|  | 2016 | M.Phil Chemistry | Nadeem Anjum    | Completed |
|  | 2015 | M.Phil Chemistry | Samina Shaheen  | Completed |

## Publications

- ❖ **S. Farid**, S. Riasat, Bisma, M. Shahbaz, K. Rafique, F. Jamil, S. Sharif, Electrochemical Investigation of Nitrogen-Containing Copper Complex and 2D Copper MOF for Hybrid Supercapacitor Applications, *Microporous and Mesoporous Materials*, **2025** (Submitted).
- ❖ J. H. Shah, M. Shahbaz, M. Saeed, A. Shahzad, **S. Farid**, S. Shahzad, S. Muhammad, Electrochemical investigation of copper 1D conductive polymer for hybrid supercapacitor applications. *Journal of Energy Storage*, **2024**, 102, DOI: <https://doi.org/10.1016/j.est.2024.114058>.
- ❖ T. Arooj, Z-U-D. Khan, M. Akhtar, M. A. Raza, S. Muhammad, H. Shabbir, & **S. Farid**, Phytochemical profile, antimicrobial, antioxidant, anthelmintic and antiproliferative activities of *Asplenium trichomanes* L. of Malam Jabba, Swat valley KP, Pakistan. *The journal of population therapeutics and clinical pharmacology*, **2023**, 30, 17. DOI: <https://doi.org/10.53555/jptcp.v30i17.2718>
- ❖ M. Z. Iqbal; M. W. Khan; S. Siddique; **S. Farid**; S. Aftab; S. M. Wabaidur, Elucidating d- $\pi$  conjugated two-dimensional 2,3,6,7,10,11-hexahydroxytriphenylene based conductive metal- organic framework for hybrid supercapacitors. *Journal of Electroanalytical Chemistry*, **2023**, 943, 117564.
- ❖ M. Z. Iqbal, M. Shaheen, M. W. Khan, S. Siddique, **S. Farid**, S. Aftab, The Rise of 2D Conductive Metal-Organic-Framework: Cu<sub>3</sub>(HHTP)<sub>2</sub> d- $\pi$  MOF for Integrated Battery-Supercapacitor Hybrids, *Materials Today Sustainability*, **2023**, 22, 100331.
- ❖ Z. Meng, C. G. Jones, **S. Farid**, I. U. Khan, H. M. Nelson, K. A. Mirica, Unraveling Metal–Organic Framework With Atomic Precision, *Angewandte Chemie International Edition*, (2022), 134, 6, e202113569, DOI: 10.1002/anie.202113569.
- ❖ M. Riasat, S. Sharif, S. Khurshid, **S. Farid**, R. Bano, M. A. Gilani, O. Şahin, F. Perveen, Ultrasonic assisted synthesis of Zn(II) 2D coordination polymer and 4-nitroaniline photoluminescence sensing manifestation through DFT studies, *Journal of Coordination Chemistry*, (2022), 75, 4, 431-447.
- ❖ M. Roman, S. S. A Gillani, **S. Farid**, M. Shakil, R. Ahmad, M. Z Iqbal, M. M. Faisal, Exalted redox frameworks of Cu- MOF/polyaniline/RGO based composite electrodes by integrating silver nanoparticles as a catalytic agent for superior energy featured supercapatteries, *Electrochimica Acta*, (2021), 400, 139489.
- ❖ **S. Farid**, S. Ameen, S. Sharif, M. Tariq, I. A. Kundi, O. Sahin, M. Hassan Sayyad, I. U. Khan, Facile solvothermal syntheses of isostructural lanthanide(III) formates: Photocatalytic, photoluminescent chemosensing properties, and proficient precursors for metal oxide nanoparticles, *Journal of Coordination Chemistry*, 74, 2021, Issue 9-10, 1700–1719.
- ❖ M. Z. Iqbal, M. M. Faisal, S. R. Ali, **S. Farid**, A. M. Afzal (2020), Co-MOF/polyaniline-based electrode material for high performance supercapattery devices, *Electrochimica Acta*, 346, <https://doi.org/10.1016/j.electacta.2020.136039>.
- ❖ R. Khan, I. U. Khan, S. Sharif, **S. Farid**, H. Iqbal, S. Khan and N. Kanwal, High Performance Liquid Chromatographic– Diode Array Detector Method for Simultaneous Determination of Aspirin, Caffeine and Ephedrine in Weight Loss Formulations, Human Plasma and *in vitro* Drug– Drug Interaction Studies, 2020, *Journal of Analytical Chemistry*, 75, 12, 1589-1598.
- ❖ A. Shah, Z. Khan , S. Saleem , **S. Farid**, Antioxidant activity of ethnobotanically important plant *Quisqualis indica* Linn, 2019, *Pak. J. Pharm. Sci.*, 32(1), pp.095-102.

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|  | <p>A. A. Sardar, Z. U Khan, A. Perveen, <b>S. Farid</b>, I. U. Khan (2017) GC-MS analysis, Phytochemical Screening and <i>In vitro</i> Antioxidant activity of pollen of <i>Centella asiatica</i> (Linn) Urban a traditional medicinal plant, submitted to <i>Pakistan journal of Pharmaceutical science</i>. 30 (6), 2239- 2245.</p> <p>❖ M. Ajaib, T. Mehak, <b>S. Farid</b>, S. Perveen and S. Shah (2017), Antimicrobial and Antioxidant activity of <i>Citharexylum Spinosum</i>. <i>J. Chem. Soc. Pak.</i>, 39(2), 254- 260.</p> <p>❖ N. Kanwal, I.U. Khan, E. A. Hussain, <b>S. Farid</b> and O. Sahin (2016). Efficient Syntheses, Crystal Structure, Thermal and Biological Evaluation of Amlodipine 4- chlorobenzene, 4- chlorobenzoyl and 2, 5- dichlorobenzene sulfonamide derivatives. <i>Comptes Rendus Chimie</i>, 19 (5), 594-603.</p> <p>❖ U. Hanif, B. Ghazala, <b>S. Farid</b> and A. A. Farooqi (2016). Exploring new sources of antioxidants and phenolic contents from a marine red alga <i>agardhiella robusta</i> (grevi.) borg. Collected from karachi coast. <i>J. Anim. Pla sci</i>. 26 (5), 1445-1450.</p> <p>❖ M. Ajaib, T. Arooj, K. M. Khan, <b>S. Farid</b>, M. Ishtiaq, S. Perveen and S. Shah (2016). Phytochemical, Antimicrobial and Antioxidant Screening of Fruits, Bark and leaves of <i>Lagerstroemia indica</i>. <i>J. Chem. Soc. Pak</i>. 38(3), 538-545.</p> <p>❖ U. Hanif, H. A. Ali, D. Shahwar, <b>S. Farid</b>, S. Ishtiaq (2014). Bryophytes, <i>Funaria hygrometrica</i> and <i>Polytrichum commune</i>, Evaluation as a Source of Natural Antioxidant, <i>Asian J. Chem.</i>, 26 (14).</p> <p>❖ A. A. Sardar, Z. D. Khan, A. Perveen, <b>S. Farid</b>, I. U. Khan (2014). In vitro antioxidant potential and free radical scavenging activity of various extracts of pollen of <i>Typha domigensis Pers</i>. <i>Pak. J. Pharm. Sci</i>. 27 (2), 279-284.</p> <p>❖ J. Rehman, I. U. Khan, <b>S. Farid</b>, S. Kamal, and N. Aslam, (2013). Phytochemical screening and evaluation of <i>in-vitro</i> antioxidant potential of <i>Monothea buxifolia</i>, <i>E3 Journal of Biotechnology and Pharmaceutical Research</i>, 4(4), 54-60.</p> <p>❖ J. Rehman, Ejaz, I. U. Khan, W. T. A. Harrison and <b>S. Farid</b> (2011). <i>N</i>-(4-Ethylsulfamoyl) phenyl)acetamide. <i>Acta Cryst</i>. E67, o2455.</p> <p>❖ I. U. Khan, Ejaz, <b>S. Farid</b>, and W. T. A. Harrison (2012). <i>N</i>-[4- (4-Chlorobenzenesulfonamido)-phenylsulfonyl]acetamide. <i>Acta Cryst</i>. E68, o1913.</p> <p><b>BOOKS</b></p> <p>❖ <b>Sidra Farid</b>, Islam Ullah Khan and Jeveria Rehman (2012) <i>In- vitro</i> evaluation of antioxidant activity of <i>Monothea buxifolia</i>: A spectrophotometric approach. Lambert Academic Publishing, Germany. ISBN: 978-3- 8484-0265-6.</p> |
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***Selected Professional  
Presentations/Seminar/  
Workshops***

- Delivered invited lecture on “Project-Based Learning in STEM Education” at Government Islamia Postgraduate College for Women, Cooper Road, Lahore on 13-11-2025.
- Served as resource person and delivered a session on Gender disparity in STEM Education and Role of AI in modern class room teaching at GC Women University Faisalabad on 30<sup>th</sup> October, 2025.
- Successfully completed, one day Hands-on Training on “Intellectual Property Rights" with a focus on Patent Writing, Drafting, and Submission” organized by ORIC GCU, on October 9<sup>th</sup>, 2024.
- Received training on “Advanced Teaching and Learning” organized by GC University Lahore from 17-07-2023 to 16-08-2023.
- Successfully completed 2-days training on ‘Outcome Based Education’ organized by Punjab Higher Education Commission at University of the Punjab, on June 7-8, 2023.
- Presented paper entitled, “Smart Textiles to Sniff out the Toxic Gases” at 4<sup>th</sup> International Conference on Chemistry organized by Lahore Garrison University on May 15<sup>th</sup>-16<sup>th</sup>, 2023.
- Successfully completed one day “Training Of Trainers” organized by Punjab Population Department and Green Star regarding Sexual and reproductive health and rights on October 21<sup>st</sup>, 2022.
- Completed one day training entitled, “Women in Learning & Leadership for gender inclusive socioeconomic development” organized by Shaoor Foundation for education & Awareness on 11<sup>th</sup> October, 2022.  
Completed a 3-Days long multisectoral leadership training entitled “Drug Demand Reduction at higher education institutions managed by Students government” jointly organized by Ministry of Narcotics Control and Anti-Narcotics Force at ANF Academy Islamabad from 21<sup>st</sup> March, 2021 to 24<sup>th</sup> March, 2021.
- Completed a leadership course entitled, “Bridges: Building a Supportive Community” from Dartmouth College, Hanover New Hampshire state, USA.
- Served as Training Coordinator in 5-Day long Cascading Workshop of Master Trainers Faculty Professional Development Training Program (MT-FPDP) from October 15-19, 2018.
- Served as resource person for the modules of “Teaching as Profession” and “Microteaching” in 5-Day long Cascading Workshop of Master Trainers Faculty Professional Development Training Program (MT-FPDP) from October 15-19, 2018.
- Attended 1<sup>st</sup> International Symposium on Sensors and Biosensors (ISSB-2018) at IRCBM, COMSATS University Islamabad, Lahore Campus on September 11, 2018.
- Delivered invited talk on ‘Metal Organic Frameworks-A newly emerging class of Photonic Materials’ at 2018 International Photonics Symposium (IPS'2018) and National Engineering Convention & Optics Olympiad (NECOO'2018) held at Ghulam Ishaq Khan Institute of Science & Technology, Topi on 30th March-1st April, 2018.
- Successfully organized 3 days international Chemistry Conference for the promotion of University-Industry linkage, January 24-26, 2018 and served as Convener Stage Committee.
- Successfully completed a workshop on “Science Teaching Methodology” at HEC Islamabad on October 16-17, 2017.
- Conducted a workshop as a resource person on ‘Teaching as Profession at University of Education, Bank Road Campus Lahore on 8th September, 2017.

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|  | <ul style="list-style-type: none"> <li>• Successfully completed Master Trainers Faculty Professional Development Programme (MT-FPDP) at Higher Education Commission Islamabad from March 21st, 2017 to May 11th, 2017.</li> <li>• Successfully completed one week long In service Short Term Training on “Andragogical &amp; Communication Skills” from 23- 27 May, 2016.</li> <li>• Attended DNA Strategy symposium jointly organized by British High Commission &amp; Punjab Forensic Science Agency Lahore on January 19-20, 2016.</li> <li>• Successfully completed Indigenous on Campus Training (IOT) under Modern University Governance Programme (MUGP) organized by QEC, GCU Lahore on May 25-29, 2015.</li> <li>• Participated in workshop on Nanoscience &amp; Nanotechnology organized by GC University, Lahore on August 27, 2015.</li> <li>• Successfully completed Cascading Master Trainers Faculty Professional Development Programme (MT- FPDP) organized by QEC GCU Lahore on 12-15 October, 2015.</li> <li>• Participated in Symposium on Forensic Sciences, organized by Punjab Forensic Science Agency, Lahore, 2014.</li> <li>• Participated in Chromatography Techniques &amp; Sample Preparation Seminar, organized by Agilent Technologies, 2014.</li> <li>• Participated in Inter university poster competition, organized by Ravian Forensic Society, GCU Lahore, 2013.</li> <li>• Two days XRD workshop on Crystallography, organized by Department of Chemistry, GCU, Lahore, 2011.</li> <li>• Participated in a poster exhibition on the theme of "Chemistry- our life, our future" held at Department of Chemistry, GC University, Lahore, 2011.</li> </ul> |
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