

PERSONAL INFORMATION

Syed Hammad Gillani

WORK EXPERIENCE

(10/2024 – Current)

Research Fellow – Department of Chemistry, Sapienza University of Rome
Oct-2024 – Present

- Performing green hydrometallurgical leaching of black mass to recover rare-earth elements from spent lithium-ion batteries.
- Synthesizing NMC cathode materials via co-precipitation using recovered precursors.
- Synthesis and characterization of nanostructured catalysts for the electrochemical reduction of CO₂.

(05/2017 -07/2024)

Assistant Professor Chemistry, Askaria Education System, Rawalpindi, Pakistan
05/08/2017 – 31/07/2024

- Course curriculum and lecture planner preparation.
- Supervision of the laboratory work.
- Managing support activities, trips, functions and group discussion.
- Maintaining paper pattern, marking as per final examination criteria and record keeping.

(09/2015 – 08/2017)

Quality Control Analyst, Davis Pharmaceutical Laboratories Islamabad, Pakistan
01/09/2015 – 01/08/2017

- Testing and analysis of raw materials, intermediates and finished products using current pharmacopoeias and instrumental techniques (HPLC & UV), as appropriate.
- Stability testing of products for new formulation & ongoing stability trials using physical (pH, viscosity) & instrumental (HPLC & UV) techniques, as appropriate.
- Writing/reviewing Standard Operating Procedures (SOPs).
- Supporting all QC activities.

EDUCATION AND TRAINING

(01/012018 – 08/12/2020)

Master Degree in Chemistry from the Allama Iqbal Open University, Islamabad

1st-year Master degree in Chemistry Course main components: Advance stereo chemistry, Reactive intermediate, Natural Products, Retro Analysis of organic compounds, Organometallic compounds, Medicinal Chemistry, Nuclear magnetic resonance Spectroscopy, Organic Polymer.

2nd - year Master degree in Chemistry with a Thesis: "Synthesis and characterization of NiO/NiS/NiP nanocomposites for oxygen evolution reaction."

Main Techniques: FTIR, UV-Vis, SEM, XRD, CV, LSV, EIS. CP, GCD

(01/08/2011 – 31/12/2015)

Bachelor Degree in Chemistry from the University of Gujarat, Pakistan

B.S(Hons.) in Chemistry Course main components: Inorganic Chemistry, Analytical Chemistry, Organic Chemistry, Physical Chemistry, Spectroscopy

PERSONAL SKILLS

Mother tongue(s)	Urdu				
Other language(s)	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	B2	B2	B2	B2
English Proficiency Certificate (Higher Degree Institute)					

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2 Proficient user
[Common European Framework of Reference for Languages](#)

- Communication skills
- Teamwork
 - Scientific integrity
 - Collaboration for research
 - Determination
 - Scientific writing
 - Punctuality
 - Attention to Details

- Job-related skills
- Gas chromatography (GC)
 - Inductively Coupled Plasma (ICP)
 - X-ray Powder Diffraction (XRD)
 - Scanning Electron Microscope (SEM)
 - Ultraviolet-Visible Spectroscopy (UV-Vis)
 - Fourier-transform infrared spectroscopy
 - Chronoamperometry
 - Cyclic Voltammetry (CV)
 - Electrochemical-impedance spectroscopy

Digital skills	SELF-ASSESSMENT				
	Information processing	Communication	Content creation	Safety	Problem solving
	Independent User	Independent User	Independent User	Independent User	Independent User

Levels: Basic user - Independent user - Proficient user
[Digital competences - Self-assessment grid](#)

- Good knowledge of Microsoft Office™ tools (Microsoft Excel, Microsoft Word, Microsoft Power Point)
- Good knowledge of Origin
- Good knowledge ChemDraw
- Good knowledge EndNote

ADDITIONAL INFORMATION

- Publications
- “Gillani, S. H., Sohail, M., El Maati, L. A., Altujjri, R., Zairov, R., Nazar, M. F., & Ahmad, I. (2024). An efficient NiO/NiS/NiP heterostructure catalyst for oxygen evolution reaction. Journal of Alloys and Compounds, 976, 172931. 8/02/2024. <https://doi.org/10.1016/j.jallcom.2023.172931>

- Mustafa, G., Saleem, M., Ahmad, I., Sohail, M., Gillani, S. H., Nazar, M. F., & Bahkali, A. H. (2025). Hydrogen evolution reaction enhancement through cobalt oxide-cobalt phosphide interface engineering. *Emergent Materials*, 1-9. <https://doi.org/10.1007/s42247-025-01065-0>

Conferences

- **As a speaker** in 6th International Conference on "Recent Trends in Chemistry" "An efficient NiO/NiS/NiP catalyst for oxygen evolution reaction" at AIOU Islamabad.
- As a participant in the 5th International Chemistry Conference on "Recent Trends in Chemistry" held at AIOU Islamabad.
- As a participant in the 3rd International Chemistry Conference on "Recent Trends in Chemistry" held at AIOU Islamabad.

Honours and awards

- Won Laptop award from Pakistan Prime Minister merit-based scheme 2013.

References

- Dr. Pietro Altimari (Associate Professor) Department of Chemistry University "Sapienza" of Rome. Italy
Email: pietro.altimari@uniroma1.it
- Dr. Zaman Ashraf (Professor Chairperson Chemistry) Department of Chemistry Rawalpindi Women University.
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The undersigned acknowledges that this curriculum vitae will be published on the University's official website, under the "Transparent Administration" section, in accordance with the provisions of Legislative Decree no. 33/2013, Article 15.