



AHSAN

Chemist | Research Scientist

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PROFESSIONAL SUMMARY

Chemist with research training at the Pakistan Institute of Nuclear Science and Technology (PINSTECH) and hands-on experience in radiation chemistry, nanotechnology, food chemistry, and organic synthesis. Author of 11 peer-reviewed publications and an experienced reviewer for Elsevier and Springer journals. Possess hands-on operational expertise with advanced instrumentation, including AAS, UV-Vis, FTIR, and Zetasizer, and am equally proficient in interpreting data from techniques such as SEM, XRD, TGA, NMR, HPLC, and GC-MS. Skilled in scientific software (OriginPro, ChemDraw) and experimental design. Currently applying analytical and quality control expertise as a Chemist in an industrial R&D setting at Biafo Industries Limited, while seeking to contribute to fundamental research in multidisciplinary chemistry.

PROFESSIONAL EXPERIENCE

Chemist – Quality Control Department (QCD)

Mar 2025 – Present

Biafo Industries Limited | Haripur Hattar, Pakistan

- Apply analytical and quality control expertise in an industrial R&D setting
- Conduct testing and analysis to ensure product quality and regulatory compliance
- Completed certified trainings in Quality Assurance, Risk & Hazard Management, and Stress Management & Emotional Intelligence (Pakistan Institute of Management)

Research Associate

Oct 2024 – Mar 2025

Pakistan Institute of Nuclear Science and Technology (PINSTECH) | Islamabad, Pakistan

- Conducted research in radiation chemistry focusing on the effects of ionizing radiation on food systems
- Operated advanced instrumentation including LINAC technology for X-ray irradiation studies
- Co-authored multiple peer-reviewed publications in Q1 journals during tenure

Chemistry Lecturer / Academic Coordinator

Aug 2023 – Oct 2024

Punjab Group of Colleges, Wah Cantt Campus | Wah Cantt, Pakistan

- Delivered undergraduate chemistry lectures and coordinated academic activities
- Mentored students in laboratory techniques and scientific writing

EDUCATION

Master of Science – Organic Chemistry

Oct 2023 – Jun 2025

University of Wah | Wah Cantt, Pakistan | **CGPA:** 3.45 / 4.00

Thesis: Investigation of the Impact of Ionizing Radiation on Chemical Characteristics and Shelf Life of Walnut

Bachelor of Science – Chemistry

Oct 2019 – Jul 2023

Riphah International University | Faisalabad, Pakistan | **CGPA:** 3.54 / 4.00

Thesis: Coating of ZnO Nanoparticles with Humic Acid for Efficient Removal of Toxic Metals from Industrial Wastewater

SELECTED PUBLICATIONS (11 TOTAL)

1. The Impact of Ionizing Radiation on Phytochemicals in Fruits and Vegetables: A Comprehensive Review

Ahsan, et al. (2025). *Trends in Food Science & Technology*, 161.

IF: 17.4 | Q1 | 1st Author

2. Enhancing Chickpea Shelf Life Through Low-Dose X-ray Irradiation: Application of 6 MeV LINAC Technology

Qureshi, T.M., et al. (2025). *Discover Food*, 5(1).

IF: 3.7 | Q1 | 4th Corresponding Author

3. Green Synthesized Gold Nanoparticles from Biogenic Sources and Their Catalytic Applications

Ahsan. (2024). *Journal of Xi'an Shiyu University, Natural Science Edition*, 20(8), 121–139.

IF: 5.6 | 1st Author

4. Recent Advances in Green Synthesis of Silver Nanoparticles and their Diverse Biological and Textile Applications

Ahsan, et al. (2024). *Advances in Research in Textile Engineering*, 9(2): 1098.

IF: 1.9 | 1st Author

5. Enhancing Anticancer Properties of Organosulfur Compounds in *Allium cepa* through Nitrogen, Sulfur and Potassium Fortification

Qureshi, T.M., et al. (2025). *Matrix Science Pharma*, 9(1): 14–20.

IF: 1.25 | 3rd Corresponding Author

Additional publications available on request.

TECHNICAL SKILLS

Laboratory	Organic synthesis, radiation chemistry, food chemistry, nanotechnology, wastewater treatment
Instrumentation	AAS, UV-Vis Spectrophotometry, FTIR, Zetasizer, LINAC
Software	OriginPro, ChemDraw, MS Office Suite
Research	Scientific writing, peer review (Elsevier & Springer), experimental design, literature review

CONFERENCE PRESENTATIONS

9th Multi-Disciplinary Student Research International Conference (MDSRIC)

Oct 2024

University of Wah, Pakistan | Poster Presentation

Structure-Based Designing, Solvent-Free Synthesis of 1,2,3,4-Tetrahydropyrimidine-5-carboxylate Derivatives: A Combined In Vitro and In Silico Screening Approach

7th Pak-Turk International Conference

Oct 2024

University of Wah, Pakistan | Poster Presentation

Exploring the Antibacterial Potential of Gabapentin Sulfonamide Analogues: Synthesis and Characterization

PEER REVIEW SERVICE

Elsevier: Bioorganic Chemistry | European Journal of Agronomy | Food Chemistry | Journal of Food Engineering | Journal of Radiation Research and Applied Sciences | Radiation Physics and Chemistry

Springer Nature: Water, Air, and Soil Pollution

CERTIFICATIONS & TRAINING

Course / Training	Institution	Grade
General Chemistry: Concept Development & Application	Rice University / Coursera	87.97%
Advanced Chemistry	University of Kentucky / Coursera	100%
Understanding Research Methods	University of London / Coursera	100%
Drug Development Product Management (Specialization)	UC San Diego / Coursera	97.74%
Industrial Biotechnology	University of Manchester / Coursera	86.18%
Teaching in University Science Laboratories	University of Amsterdam / Coursera	75.30%
Quality Assurance & Management	Pakistan Institute of Management	Certified
Risk & Hazard Management	Pakistan Institute of Management	Certified
English Proficiency (C2 Proficient – CEFR)	EF SET	C2

LANGUAGES

Urdu (Native) **English** (C2 Proficient – CEFR: Listening, Reading, Writing, and Speaking)

REFERENCES

Available upon request.