

Faiza Ameen

Place of birth: Pakistan

Date of birth: 15 May 1991

 **Email address:** faiza.ameen@phd.unich.it

Place of residence: Chieti Pescara

ABOUT ME

PhD Chemistry Student in Science and Technology for Sustainable Development at Università degli Studi "G. d'Annunzio" di Chieti-Pescara and the Center for Advanced Studies and Technology (CAST). My research focuses on the biological effects of micro- and nanoplastics (MNPLs) on respiratory health and the protective role of plant-derived extracellular vesicles (PDEVs). My scientific interests include extracellular vesicle biology, nanotoxicology, environmental health, molecular pharmacology, and the identification of biomarkers associated with pollutant-induced cellular damage. I have a background in nanomaterials, green synthesis, analytical chemistry, and advanced characterization techniques.

WORK EXPERIENCE

 *Università degli Studi "G. d'Annunzio" di Chieti-Pescara / CAST – Chieti, Italy*

PhD Student

[11/2025 – Current]

- Investigation of micro- and nanoplastic-induced lung toxicity.
- Development of in vitro bronchial epithelial models cultured at the air-liquid interface (ALI).
- Isolation and characterization of plant-derived extracellular vesicles (PDEVs).
- Evaluation of the protective effects of PDEVs against MNPL-induced cellular damage.
- Analysis of molecular biomarkers related to oxidative stress, inflammation, and epithelial dysfunction.

 *University of Kotli AJK – Kotli, AJK, Pakistan*

Chemistry Researcher/Chemist [04/2023 – 03/2024]

- Collaborated remotely with a supervisor on research leading to peer-reviewed publications.
- Supported manuscript preparation and revisions for journals in the field of nanomaterials and photocatalysis.

 *University of Kotli Azad Jammu and Kashmir – Kotli Azad Kashmir, Pakistan*

Student Research Assistant [06/2017– 10/2018]

- Guided students in green synthesis of metal nanoparticles, including UV-vis characterization and antimicrobial/antioxidant testing (agar well diffusion, DPPH).

 *National Centre for Physics (NCP) – Islamabad, Pakistan*

Chemistry Research Intern

[03/2018 – 04/2018]

- Performed SEM (Scanning Electron Microscopy) and EDX (Energy-Dispersive X-ray Spectroscopy) characterization of AgNPs

 *Modern Iqra College of Science Khuiratta – Kotli Azad Kashmir, Pakistan*

Chemistry Lecturer [03/2015 – 11/2018]

 *Government Girls High School – Kotli, Azad Kashmir, Pakistan*

Chemistry Teacher Secondary School [11/2018 – 04/2023]

🏠 *Self-employed* – Dubai, United Arab Emirates

Private Chemistry Tutor [04/2024 – 03/2026]

EDUCATION AND TRAINING

Master of Philosophy in Chemistry

University of Kotli Azad Jammu & Kashmir [12/2015 – 12/2017]

City: Kotli Azad Kashmir | **Country:** Pakistan | **Website:** www.uok.ajk.pk

Thesis: Green Synthesis and Characterization of Silver Nanoparticles of Berberis Jaeschkeana Stapf Crude Extract Characterization using UV-Vis, FTIR, SEM/EDX, and XRD techniques.

Master of Science in Chemistry

Mirpur University of Science & Technology [10/2012 – 12/2014]

City: Mirpur Azad Kashmir | **Country:** Pakistan | **Website:** must.edu.pk

Major Courses:

Organic Chemistry, Inorganic Chemistry, Physical Chemistry, Analytical Chemistry, Environmental Chemistry, Applied Mathematics, Applied Computer, Spectroscopy, Polymer Chemistry, Nuclear Chemistry, Natural Products Chemistry.

Bachelor of Science in Chemistry

The University of Azad Jammu and Kashmir [02/2010 – 12/2012]

- City:** Muzaffarabad | **Country:** Pakistan | **Website:** www.ajk.edu.pk

PUBLICATIONS

List of Publications

- Dovizio M., Fink D., Gatta M., Bruno A., Milillo C., D'Ascanio F., Ameen F., Di Carlo P., Chiacchiaretta P., Lanuti P., Amedei A., Ballerini P. (2026). Micro-Nanoplastic Exposure and Lung Cancer Biomarkers: The Role of Extracellular Vesicle-Mediated Intercellular Communication. *International Journal of Molecular Sciences*, 27(11), 4887.
- Alamzeb, M., Zulfiqar, N. U. A., Akhtar, M. F., Riaz, I., Ameen, F., Asghar, A., & Setzer, W. N. (2026). Enhanced Photocatalytic Degradation of Methyl Red Dye with Bismuth-Doped ZnO: Kinetics, Mechanistic and Recyclability Aspects. *Journal of Fluorescence*, 36(1), 61-83.
- Synthesis of Conjugated Silver Nanoparticles Using Berberis jaeschkeana Stapf Extracts and Its Antibacterial Appraisal Muhammad Alamzeb^{1*}, Faiza Ameen¹, Uzma Akram², William N. Setzer³ (Under Review)

HONOURS AND AWARDS

Here is the list

- First position in MPhil Chemistry - University of Kotli AJK, Pakistan
- Hec Merit-based Scholarship - MSc (2012-2014) & MPhil (2015-2017)
- Prime minister youth Laptop award - 2014

Conferences & Seminars

- (ICAPPRSC) Dubai, 2024 International Conference on Applied and Practical Sciences
- (ICIABC2023) 2023, Mirpur University, Pakistan-Industry-Academia Chemistry Conference
- CTNAS Chemistry Symposium, University of Kotli AJK, Pakistan, 2022
- The Role of Separating and Spectroscopic Techniques in the Field of Chemistry, Conference, University of Kotli AJK, Pakistan, 2021

- Hyphenated Techniques Climate Studies, University of Kotli AJK, Pakistan
- Bone Metabolism and Nutrition in the prevention of Osteoporosis, Seminar, Università degli Studi "G. d'Annunzio" di Chieti–Pescara / CAST, 2026

TECHNICAL SKILLS

Technical and Research Skills

- Nanoparticle Characterization
- Analytical Techniques: UV-Vis, FTIR, SEM, TEM & XRD, GC-MS, LC-MS, GPC, TLC, PC, TGA
- Instrumentation: Ultracentrifuge, KF Potentiometer, Zeta Potential, Optical Microscopy
- Data & Software: Microsoft Word, PowerPoint, EndNote, Origin, ChemDraw, GraphPad Prism
- Research Interests: Extracellular Vesicles (EVs & PDEVs), Micro- and Nanoplastic Toxicology, Nanotoxicology, Environmental Health, Molecular Pharmacology, Lung Disease Biomarkers, Cell Culture Models, Green Nanotechnology

LANGUAGE SKILLS

Mother tongue(s): Urdu

Other language(s):

English

LISTENING B1 READING B1 WRITING C1

SPOKEN PRODUCTION B2 SPOKEN INTERACTION B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

Date: 17-06-2026



Signature:
Faiza Ameen