

MERIUM ALVI

CONTACT

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PROFESSIONAL SUMMARY

An organic chemist with a strong academic and research background in Natural Product Chemistry and Organic Spectroscopy, with specialised expertise in the phytochemical analysis of wild plants, fruits, and vegetables, using advanced spectroscopic techniques, and the exploration of their potential pharmacological applications and environmentally sustainable uses.

Also a dedicated educator with over 8 years of teaching experience. Demonstrates a student-centred teaching approach that fosters critical thinking, scientific inquiry, and practical understanding. Seeking an academic position in a dynamic institution to contribute through effective teaching and academic development while advancing professionally in chemical and interdisciplinary sciences.

SKILLS

RESEARCH SKILLS

- **Spectroscopic Techniques-** GC-MS, HPLC-MS, UV-Visible and Infrared Spectroscopy
- **Chromatographic Techniques-** Paper, Thin Layer and Column Chromatography
- Microsoft Office

TEACHING SKILLS

Soft Skills

- Classroom Management
- Lesson Planning and Delivery

EXPERIENCE

RESEARCH EXPERIENCE

M. Phil Researcher-Dept. of Chemistry, Quaid-i-Azam University, Islamabad, February 2013-May 2014

M. Phil Dissertation

“Phytochemical Study of Pea Pericarp as a Promising Source of Bioactive Polyphenolics”, 2014, supervised by Dr. M. Farman, Professor, Department of Chemistry, Quaid-i-Azam University, Islamabad.

This research utilized HPLC-MS, GC-MS, and *in vitro* antibacterial assays to provide detailed insights into both the qualitative and quantitative polyphenolic profile of pea pericarp.

Achievements

Research Outcome

The study revealed that pea pericarp contains a considerable number of bioactive polyphenolics (phenolic acid glycosides, flavones glycosides, and flavanol glycosides) due to which it can be regarded as a potential

- Organization Skills
- Problem Solving
- Performance Monitoring Skills
- Communication and Interpersonal Skills
- Mentorship and Motivation

Digital and Technical Skills

Educational Technology (EdTech): Engage students using online platforms including Google Meet/Zoom for tutoring and LMS to maintain students' records.

EDUCATION

Advanced Diploma in English Language, National University of Modern Languages, Islamabad, 2017-2018

M. Phil, Organic Chemistry, Quaid-i-Azam University Islamabad, 2012-2014

M. Sc, Chemistry, Quaid-i-Azam University, Islamabad, 2010-2012

B. Sc, Chemistry, Botany and Zoology, Punjab University Lahore, 2007-2009

HSSC, Chemistry, Biology and Physics, FBISE Islamabad, 2005-2007

SSC, Chemistry, Biology, Physics, Mathematics, FBISE Islamabad, Pakistan 2003-2007

functional food capable of offering low-cost, nutritional dietary supplements.

Seminar Presentation

Presented a seminar titled "*Phytochemical study of pea pericarp as a source of bioactive polyphenolics*", Dept. Of Chemistry, Quaid-i-Azam University, Islamabad- Feb. 2014.

Publications

Poster ppt/publication- **Phytochemical Study of Pea Pericarp as a Promising Source of Bioactive Polyphenolics** at International Conference of Biochemical and Chemical Sciences, University of Agriculture Faisalabad, Pakistan, Feb 2014.

PROFESSIONAL EXPERIENCE

Visiting Lecturer – National University of Modern Languages, Islamabad, Pakistan.

Sept 2020- Present

- Teaching Introduction to Everyday Science to undergraduate students in the Department of International Relations.
- As a course coordinator, develop course curriculum, and establish assessment frameworks. Collaborate with faculty from regional campuses to ensure smooth syllabus coverage and evaluate their exam marking.

Freelance Coaching

Oct 2018-June 2024

- Provided customized tuitions and improved students' grades from average to good.
- Delivered exam-focused lectures and prepared mock exams for Cambridge IGCSE Chemistry (0620) and Biology (0610) by evaluating past papers, marking schemes and examiner reports.

Science Teacher- SLS Montessori and School G-11/4, Islamabad

Aug 2015-Aug 2019

Chemistry - SLS Montessori and School, G-11/4, Islamabad

Mar 2017-Aug 2019

- Taught a multitude of Middle School Science courses including Physics, Chemistry, Biology, Environmental Sciences, and High School Chemistry to a diverse group of students.

IELTS, British Council

(December 2023)

Overall band score: 7.5

Listening: 6 Reading 8.5

Writing 6 Speaking 8.5

- Developed and implemented engaging lesson plans for diverse learning needs.
- Coordinated curriculum reviews and classroom assessments to enhance student learning.
- Assisted in organizing school events and extracurricular activities.

Chemistry Lecturer- IMCB, F-11/3 Islamabad, Pakistan

May 2014-Aug 2014

- Conducted chemistry lectures and laboratory demonstrations of grades 9 and 10 and evaluated students' progress through tests and quizzes.

WORKSHOPS ATTENDED

Attended a workshop titled "*Effective classroom management and teaching strategies*" SLS Montessori and High School G-11/4, Islamabad-Aug. 2016.

Attended a workshop titled "*Importance of using positive language in teaching*" SLS Montessori and High School G-11/4, Islamabad-Aug. 2016.