

'Curriculum Vitae'

1. DEMOGRAPHIC

Prof. Dr. MUHAMMAD ASIF HANIF

S/O: Muhammad Hanif

Rank: Professor/Chairman (Chemistry)

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2. CAREER HIGHLIGHTS AND AWARDS

- Research Commercialization & collaboration with several industries
- CURRENT INTERNATIONAL IMPACT FACTOR ≈ 400
- Citations ≈ 12000 ; h-index = 55(ORCID: 0000-0002-0660-357X)
- Research articles in International Journal with Impact Factor: 201
- Books published at International Level: 12
- Book Chapters Published at International Level: 70
- Plenary Lectures/Invited Lectures/Oral Presentations at National/International Level ≈ 50
- MAJOR RESEARCH GRANT AWARD: 14 million from TDF-HEC 2018
- PATENT AWARD OF RS. 100000 FROM UAF.
- GOLD MEDAL in Chemistry in 2019 (Dr. M. Raziuddin Siddiqui Prize (2019), in Chemistry for Scientist under 40).
- BEST RESEARCH AWARD from International Congress on Natural Products: From Plants and Co products to medicaments and Bio-agriculture (ICNP). Hammamet-Tunisia-8 November-10 November 2018. Poster presentation on: Variations in growth and essential oil contents of Tulsi (*Oscimum sanctum*) under influence of primary and secondary nutrients.
- BEST REVIEW ARTICLE AWARD from Chemical Society of Pakistan of 2017.
- PATENT granted from Spain, Europe on "Process and installation for extraction of essential oils from natural resins".
- Higher Education Commission of Pakistan Approved Supervisor
- RESEARCH PRODUCTIVITY AWARD (RPA) in 2008, 2012, 2013 from Pakistan Council for Science and Technology, Govt. of Pakistan in Chemical Sciences.

3. EDUCATION

Class/ Degree	Year	Institution	Subjects
PhD	2010	University of Agriculture, FSD.	Analytical Chemistry)
M. Phil	2005	University of Agriculture, FSD.	Chemistry
M. Sc	2003	University of Agriculture, FSD.	Chemistry
B. Sc	2001	University of the Punjab, LHR.	Chem., Zol., Bot.
F. Sc	1998	Govt. College of Science, FSD.	Premedical
Matric	1996	Govt. Technical High School, FSD.	Bio-group

4. PROFESSIONAL HISTORY

- March 20, 2025, to date, "**Chairman**" in Department of Chemistry, University of Agriculture, Faisalabad, Pakistan.
- Oct. 11, 2024, to date, "**Professor**" in Department of Chemistry, University of Agriculture, Faisalabad, Pakistan.

Course No.	Course title	Class/level	Credit hours
Chem-102	Chemistry	Undergraduate	4(3-1)
Chem-305	Pharmaceutical Chemistry-IIIa (Pharmaceutical Analysis)	BS	4(3-1)
Chem-307	Organic Chemistry	BS	4(3-1)
Chem-401	Industrial Chemistry	BS	3(2-1)
Chem-502	Fundamentals Chemistry and Biochemistry	BS	3(2-1)
Hort-507	Medicinal and aromatic plants	BS	2(1-1)
Hort-509	Nutrient management for horticultural crops	BS	3(1-2)
Chem-604	Analytical Chemistry-I	M.Sc	4(3-1)
Chem-607	Inorganic Chemistry-II	M.Sc	3(2-1)
Chem-608	Analytical Chemistry-II	M.Sc	3(3-0)
Chem-618	Analytical Chemistry-III	M.Sc	3(2-1)
Chem-621	Technical Report	M.Sc	3(0-3)
Chem-701	Physical Chemistry-I	M.Sc/M.Phil	4(3-1)
Chem-702	Advanced Separation Techniques	M.Phil/PhD	3(2-1)
Chem-713	Environmental Analytical Chemistry	M.Phil/PhD	3(2-1)
Chem-714	Recent Advances in Analytical Chemistry	M.Phil/PhD	3(3-0)
Chem-715	Advanced Analytical Chemistry	M.Sc	3(3-0)
Chem-719	Special Problem	M.Phil/PhD	1(1-0)
Chem-720	Seminar	M.Phil/PhD	1(1-0)
FST-714	Chemistry of Edible oils and Fats	MS/PhD	3(2-1)
Chem-716	Advanced Analytical Chemistry-II	M.Sc	3(3-0)
Chem-718	Environmental Chemistry	M.Sc	3(3-0)
Chem-726	Advanced Radiation and Photochemistry	M.Phil/PhD	3(3-0)
Chem-744	Bioanalytical Chemistry	PhD	3(3-0)
Chem-746	Surface Analysis Analytical Techniques	M.Phil/PhD	3(3-0)

5. TEACHING EXPERIENCE

Note: Only selected and recently updated courses have been included. Class sizes were quite variable from teaching to 5 PhD students to 250 undergraduate students

6. PUBLICATIONS

Patents:

1. Patent entitled "Process and installation for extraction of essential oils from natural resins" has been granted from Spain, Europe.
2. Patent entitled "method and installation for extraction and purification of essential oils from natural resins for the production of dynamic flavors and fragrances" (Methodo e instalacao de extracao e purificacao de oleos essenciais a partir de resinas naturais para producao de aromas e fragancias dinamicas") has been granted from Portugal, Europe.

i. International Publications

1. F. Nadeem, **Muhammad Asif Hanif**, N. AlMasoud, T.S. Alomar, and A. Younis. (2024). Efficient nanostructured materials to reduce nutrient leaching to overcome environmental contaminants. *Scientific Reports*, 14(1), p.4772.
2. Muhammad Adnan Ayub, Nasrin Choobkar, **Muhammad Asif Hanif**, Mazhar Abbas, Qurat Ul Ain, Muhammad Riaz, and Amir Daraei Garmakhany. (2023). Chemical composition, antioxidant, and antimicrobial activities of *P. roxburghii* oleoresin essential oils extracted by steam distillation, superheated steam, and supercritical fluid CO₂ extraction. *Journal of Food Science*, 88(6), 2425-2438. (Impact factor:3.90).
3. Marrium Almas Dutt, **Muhammad Asif Hanif**, Farwa Nadeem, and Haq Nawaz Bhatti. (2020). A review of advances in engineered composite materials popular for wastewater treatment. *Journal of Environmental Chemical Engineering*, 8(5), 104073. (Impact factor: 7.968).
4. Muhammad Idrees Jilani, Raziya Nadeem, **Muhammad Asif Hanif**, Tariq Mahmood Ansari and Asid Majeed. 2014. Utilization of immobilized distillation sludges for bioremoval of Pb(II) and Zn(II) from hazardous aqueous streams. *Desalination and Water Treatment*. 1-10 (Impact factor = 1.383).
[\[citation\]](#)
5. **Muhammad Asif Hanif**, Ahmed Yahya Al-Maskri, Zeyana Mohammed Hamed Al-Mahruqi, Jamal Nasser Al-sabahi, Ahlam Al-Azkawi and Masoud Yahya Al-Maskari. Analytical Evaluation of Three Wild Growing Omani Medicinal Plants. *Natural Product Communications* 6(10) (2011) 1451-1454 (Impact factor = 0.809).
[\[citation\]](#)

7. BOOKS PUBLISHED

1. **Muhammad Asif Hanif**, Farwa Nadeem, Ijaz Ahmad Bhatti, Hafiz Touqeer Khan. 2020. *Environmental Chemistry: A comprehensive approach*. Publisher Scrivener Publishing in collaboration with Wiley. Print date: July 2020.

2. **Muhammad Asif Hanif**, Haq Nawaz, Muhammad Mumtaz Khan and Hugh J. Bryne. 2019. Medicinal Plants of South Asia: Novel Sources for Drug Discovery. Elsevier. Published.
3. **Muhammad Asif Hanif** and Haq Nawaz Bhatti (Editors). 2015. Chromatography. First Edition. International Scientific Organization (ISBN: 978-969-23074-0-6).

8. CHAPTERS IN BOOKS

1. Metal Ferrites and Their Graphene-Based Nanocomposites: Synthesis, Muhammad Zahid, Nimra Nadeem, **Muhammad Asif Hanif**, Ijaz Ahmad Bhatti, Haq Nawaz Bhatti, and Ghulam Mustafa. 2019. Characterization, and Applications in Wastewater Treatment. K. A. Abd-El Salam et al. (eds.), Magnetic Nanostructures, Nanotechnology in the Life Sciences. Springer.
2. **Muhammad Asif Hanif**, Shafaq Nisar, Ghufrana Samin Khan, Zahid Mushtaq and Muhammad Zubair. 2019. Essential oils in: Essential Oil Research - Trends in Biosynthesis, Analytics, Industrial Applications and Biotechnological Production. Edited By Dr. Sonia Malik. Stronger. UK.
3. Asma Shaheen, **Muhammad Asif Hanif**, Rafia Rehman, Muhammad Idrees Jilani, Alexander Shikov. 2019. Alkanet. In: Medicinal Plants of South Asia: Novel Sources for Drug Discovery. Accepted.
4. Bazgha Ijaz, **Muhammad Asif Hanif**, Muhammad Adnan Ayub, Asma Hanif, Zahid Mushtaq. 2019. Asthma weed. In: Medicinal Plants of South Asia: Novel Sources for Drug Discovery. Accepted.

9. ABSTRACTS PUBLISHED

1. Amna Khanam, **Muhammad Asif Hanif** and Faizan-ul-Hassan. Dye Sequestration using Calcinized, Alginate Hybrid Materials. International Symposium on Technologies and Materials for Renewable Energy, Environment and Sustainability (6-7th February 2019).
2. Sadia Saleem, Zil-e-Huma Nazli, Nazia Saleem, **Muhammad Asif Hanif**, Muhammad Naveed, Sheraz Ahmed Bhatti, Rehan Riaz. Synthesis, Spectroscopy and Biological Studies of Chalcone Derived Pyrimidines. International Symposium on Technologies and Materials for Renewable Energy, Environment and Sustainability (6-7th February 2019).

10. STUDENT SUPERVISION

Degree	As Major Supervisor		As committee Member	
	Produced	In progress	Completed	In progress
M.Sc	103	-	18	-
M.Phil.	157	50	314	54
Ph.D.	12	-	6	3
Total	272	50	338	57

11.CONFERENCES/SYMPOSIUMS ATTENDED

a. In Pakistan

1. Organizing Secretary of workshop on “Research Paper Writing”, Department of Chemistry, University of Agriculture, Faisalabad, Pakistan. 29th January, 2018.
2. Organizer of workshop on “Writing Scientific Research”, Department of Chemistry, University of Agriculture, Faisalabad, Pakistan. 26th Jan 2018.
3. Resource Person and delivered lecture on “Research Awards” in workshop on “Research Paper Writing”, Department of Chemistry, University of Agriculture, Faisalabad, Pakistan. 29th January 2018.

b. In Foreign Countries

1. International Congress on Natural Products: From Plants and Co products to medicaments and Bio-agriculture (ICNP). Hammamet-Tunisia-8 November-10 November 2018. Poster presentation on: Variations in growth and essential oil contents of Tulsi (*Oscimum sanctum*) under influence of primary and secondary nutrients.
2. International Congress on Natural Products: From Plants and Co products to medicaments and Bio-agriculture (ICNP). Hammamet-Tunisia-8 November-10 November 2018. Oral presentation on: Super saturation of bioactive components of *Foeniculum vulgare* Mill seeds essential oil.
3. First International Conference on Franckincense and Medicinal Plants: Recent Advances in Research and Industry at Sultan Qaboos University, Muscat, Oman. 30 October-1 November 2018. Oral presentation on: A novel superlative methodology for magnification of Boswellia essence.

12.RESEARCH GRANTS/PROJECTS

Commercialization of a novel indigenous methodology to produce menthol crystals to fulfil local market demands and six other research projects.

13.PROFESSIONAL ACTIVITIES

Dr. Muhammad Asif Hanif is Group leader of Nano and biomaterials research group. This research group is one of most active and effective research groups in the country. The active areas of research of nano and biomaterials lab are on energy, waste management, water treatment, essential oils, phytochemicals, natural medicine, natural products commercialization, nano fertilizers, mineral nutrition, treatment of water for drinking and irrigation use and production of plants-based biodiesel. These all research involves the use of the most recent analytical chemistry instrumentation. As a senior

Analytical Chemist, Dr. Muhammad Asif Hanif is involved in the use and training of Spectrophotometer, Atomic Absorption Spectrophotometer (AAS), Flame Photometer, Gas Chromatograph Mass spectrometer (GC-MS), High Performance Liquid Chromatograph (HPLC), High Speed Counter Current Chromatograph (HSCCC), Supercritical Fluid Extractor (SCFE), Electroanalytical and thermal analysis techniques etc.

14.ADMINISTRATIVE/ADVISORY SERVICES

1. Member Senate: University of Agriculture, Faisalabad, Pakistan, 2015-2018.
2. Member Board of Studies: Department of Chemistry, University of Agriculture, Faisalabad, Pakistan. 2008 to date

15.RESEARCH COMMERCILIZATION & INDUSTRIAL LINAKGES

Worked with Industries and following products are prepared and are successfully commercialized including biodiesel, biogas, catalysts, fertilizers, essential oils and fragrances, Pharmacological preparations from natural products, menthol and chromatographic standards.

16.EXTRACURRICULAR ACTIVITIES

- Cricket, Badminton, Table tennis and football.