

Dr. Naseem Abbas
PhD Approved Supervisor By HEC Pakistan

Permanent Address: Near Check Post WAPDA Colony Piran Ghaib, 59030,
Multan, Pakistan.

E-mail: dr.naseen.abbas@bzu.edu.pk//dr.naseen.abbas@gmail.com Tel:
(0092)3009109435/(0092)3346006780 Date of Birth: 30th
April, 1984.



Education:

Jan 2009-Jan 2013	PhD: Synthesis, Characterization, Activity of novel Titania Nano-Particles for VOCs degradation modeling	Department of Applied Science and Technology, Politecnico di Torino University, Turin – Italy.	
2003 -2007	BS-Chemistry	Bahauddin Zakariya University Multan.	71.8 %
2001 - 2003	Higher Secondary School Certificate	Board of Intermediate Secondary Education Multan	71.8%
1997-1999	Secondary School Certificate	Board of Intermediate Secondary Education Multan	71.5%

PhD Thesis Title:

Synthesis, Characterization, Activity of novel Titania Nano-Particles for VOCs degradation and kinetic modeling

Brief Synopsis of Research:

The need of degradation of volatile organic compounds (VOCs) has increased with environmental and economic concerns. For the economical and quick removal of VOCs from indoor air, photoinduced degradation methods are gaining increasing attention because of the minimal energy requirement and ease of implementation. For this purpose, novel TiO₂ Titania nano-particles

(TNP) with small particle size and high surface area were successfully synthesized by sol-gel process with controlled operating parameters. Characterization was performed by XRD, BET, EDX, FESEM, DR-UV vis. spectroscopy, and FT-IR spectroscopy, TNP showed comparatively smaller size with less porosity between them, good crystalline anatase with small rutile phase, higher BET surface area, confined band gap energy, and higher OH groups. Photocatalytic oxidation of ethylene, propylene, toluene and their mixture have been investigated at ambient temperature in an ad-hoc designed Pyrex glass photocatalytic reactor, by using these photo catalysts. Higher photocatalytic conversion of given VOCs was observed for TNP compared to commercial TiO_2 . The effects of different factors, including adsorption, flow rates, concentrations, weight of catalyst, moisture and reaction temperature were studied in detail for ethylene, propylene, toluene oxidation.

Optimized TNPs were also used in powder, thin film, pellets and in honeycomb shapes. The deactivation phenomenon was investigated by means of FT-IR characterization of these photo catalysts before and after activity tests. A modified Langmuir-Hinshelwood expression-based model was designed which gives enthalpy of adsorption of ethylene and toluene as 13.31KJ/mole and -77.55KJ/mole respectively and apparent activation energy of propylene was found as 59.03KJ/mole.

Research Interests:

Current research work centers on the understanding the heterogeneous catalysis for water treatment, nanofertilizer, and drug delivery polymer.

Master Degree Thesis Title:

Synthesis and Swelling Behavior of pH Sensitive Terco-polymer Hydrogel for targeted drug delivery system.

Publications:

1. Rafael Luque, Ruhma Rashid, Muhammad Maaz, Iqrash Shafiq, Murid Hussain, Naseem Abbas, Muhammad Rehan Hassan Shah Gilani, Leonid G Voskressensky; Dual-Function

Polymeric Nanomaterials for adsorption photo-treatment of Oil Spills in aqueous solutions; Chemical Methodologies; (2024) CHEMM-2410-1835.

2. M. Bilal, K. Javed, N. Abbas, S. Mahmood, S. Iqbal, K. M. Alotaibi, M. Alshalwi; Designing of stable copper ferrite-doped metal–organic framework heterostructure for improved visible light-induced photodegradation of 4-nitrophenol in water, *International Journal of Environmental Science and Technology*, (2024) <https://doi.org/10.1007/s13762-024-05734-1>
3. Syed Ali Raza Naqvi, Ahmad Junaid Hassan, Muhammad Ramzan Saeed Ashraf Janjua, Naseem Abbas, Ameer Fawad Zahoor, Sadaf Ul Hassan, Amjad Hussain, A Radiolabeling and preclinical animal model evaluation of DTPA coupled ^{99m}Tc -labelled flutamide complex (^{99m}Tc]DTPA-FLUT) as a potential radiotracer for cancer imaging, *Acta Radiologica*, 65(8), 2024, 940-949.
4. Khalid Javed, Naseem Abbas, Muhammad Bilal, Abdulaziz A. Alshihri, Hafiza Zahra Rab Nawaz, Mohamed Fawzy Ramadan, Syed Ali Raza Naqvi, Fabrication of a ZnFe_2O_4 @Co/NiMOF nanocomposite and photocatalytic degradation study of azo dyes, *RSC Advances*, 2024, 14, 30957.
5. Naseem Abbas, Syed M. Husnain, Umar Asim, Faisal Shahzad, Yawar Abbas, A novel green synthesis of MnO_2 -coal composite for rapid Removal of silver and lead from wastewater, *Water Research (WR_WR80794)* 2024.
6. Suryyia Manzoor, Javier Fernandez Garcia *, Kausar Hussain Shah, Muhammad Imran Khan, Naseem Abbas, Hina Raza, Shamroza Mubarik, Muhamad, Hayat, Alveena Iram, Ahmed Yar, Abdallah Shanableh, Multipollutant Abatement through Visible Photocatalytic System, *Catalysts* **2023**, 13(1), 65.
7. Muhammad Usman Akram, Naseem Abbas, Muhammad Farman, Suryyia Manzoor, Muhammad Imran Khan, Sameh M. Osman, Rafael Luque, Abdallah Shanableh, Tumor micro-environment sensitive release of doxorubicin through chitosan based polymeric nanoparticles: An in-vitro study, *Chemosphere*, (doi.org/10.1016/j.chemosphere.2022.137332).
8. Umar Asim, Syed M. Husnain, Naseem Abbas, Faisal Shahzad, Shagufta Zafar, Sherif A. Younis, KiHyun Kim, Microwave-assisted synthesis of MnO_2 nanosorbent for adsorptive removal of Cs(I) and Sr(II) from water solutions, *Chemosphere*, 303 (2) (2022) 135088.

9. K. Javed, Sajid Mahmood, Muhammad Ammar, Naeem Abbas. M. Y. Shah, T. Ahmed, G. Mustafa, Rice husk ash adsorbent modified by iron oxide with excellent adsorption capacity for arsenic removal from water, *International Journal of Environmental Science and Technology*, JEST-D-21-02334R2.
10. Muhammad Hayat, Nadeem Raza, Umair Jamal, Suryyia Manzoor, Naseem Abbas, Muhammad Khan, Jechan Lee, Richard Brown, Ki-Hyun Kim, Targeted extraction of pesticide from agricultural run-off using novel molecularly imprinted polymeric pendants, *Journal of Industrial and Engineering Chemistry*, 109(25), (2022) 202-209.
11. Khadija Gillani, Saira Saeed, Syed M. Husnain, Surriya manzoor, Muhammad Rehan Hasan Shah Gilani, Naseem Abbas, Faisal Shahzad, In-vitro study of hydrogel for diclofenac potassium release, *Acta Chemica Malaysia*, 6(2), (2022) 31-39.
12. Naseem Abbas, Nida Rubab, Ki-Hyun Kim, Rabbania Chaudhry, Suryyia Manzoor, Nadeem Raza, Muhammad Tariq, Jechan Lee, and Shamaila Manzoor, The photocatalytic performance and structural characteristics of nickel cobalt ferrite nanocomposites after doping with bismuth, *Journal of Colloid and Interface Science*, 594 (2021) 902-913.
13. Muhammad Tariq, Atia Batool, Naseem Abbas, Ajaz Hussain, Ahmad Kaleem Qureshi, Jafir Hussain Shirazi; Synthesis, characterization, anti-microbial and cytotoxic applications of zinc(ii) complexes, *Chemical Society of Ethiopia*, 35(2) (2021), 287-299.
14. Abdul Rehman Khan, Sheheryar Khan Awan, Syed M. Husnain, Nadir Abbas, Dalaver H. Anjum, Naseem Abbas, Mhamed Benaissa, Cyrus Raza Mirza, Syed Mujtaba-ul-Hassan, Faisal Shahzad, 3D Flower like δ - MnO₂/MXene Nano-Hybrids for the Removal of Hexavalent Cr from Wastewater, *Ceramics International*, 47(18) (2021) 25951-25958.
15. Umar Asim, Syed M. Husnain, Naseem Abbas, Faisal Shahzad, Abdul Rehman Khan, Tahir Ali, Morphology controlled facile synthesis of MnO₂ adsorbents for rapid Strontium removal, *Journal of Industrial and Engineering Chemistry*, 98(2021) 375–382.
16. Naseem Abbas, Nida Rubab, Ki-Hyun Kim, Rabbania Chaudhry, Suryyia Manzoor, Nadeem Raza, Muhammad Tariq, Jechan Lee, and Shamaila Manzoor, The photocatalytic performance and structural characteristics of nickel cobalt ferrite nanocomposites after doping with bismuth, *Journal of Colloid and Interface Science*, 594 (2021) 902-913.
17. Muhammad Tariq, Ahmad Kaleem Qureshi, Shaista Karim, Muhammad Sirajuddin, Naseem Abbas, Muhammad Imran, Jaffir Hussain Shirazi, Synthesis, characterization and fuel parameters analysis of linseed oil biodiesel using cadmium oxide nanoparticles, *Energy*, 222 (2021) 1-8.
18. Naseem Abbas, Suryyia Manzoor, Saira Saeed, Syed Muhammad Husnain, Muhammad Tariq, Zeeshan Akhtar, Naveeda Saira, Ghazala Yasmin, Investigation of calcium silicate as a natural clay-based sunblock: Formulation and characterization, *Photodermatology, Photoimmunology & Photomedicine*, 137 (2021) 39-48.

19. Naseem Abbas, Nida Rubab, Natasha Sadiq, Suryyia Manzoor, Muhammad Imran Khan, Javier Fernandez Garcia, Isaias Barbosa Aragao, Muhammad Tariq, Zeeshan Akhtar, Ghazala Yasmin, Aluminum-Doped Cobalt Ferrite as an Efficient Photocatalyst for the Abatement of Methylene Blue, Water, 8(12) (2020) 2285-2304.
20. Muhammad Tariq, Ahmad Kaleem Qureshi, Muhammad Hamid, Naseem Abbas, Ajaz Hussain, Muhammad Naeem Khan, Organotin (IV) based Rabeprazole and Pregabalin Complexes Formation and Biocidal Investigation, Acta Chemica Malaysia, 1 (2020) 17-23.
21. Naseem Abbas, Muhammad Hayat, Hira Fatima, Sadia Manzoor, Sana Nawaz, Fazal Mabood, Ghazala Yasmeean, Abdul Majeed, Suryyia Manzoor, Template-assisted polymeric spherules for the solid phase extraction of chlorfenapyr from contaminated water, Separation Science and Technology, (2020) 1-9.
22. Zubala Lutfi Zeeshan Akhtar, Syed Imran Ali, Syed Adnan Hasan, Naseem Abbas, Shadab Ahmed, Muhammad Ali, Suryyia Manzoor and Muhammad Yasir Khan, Evaluation of Antibacterial Potential of New Acid Dyes Based on Substituted Aryl Amines and Amino Hydroxy Sulfonic Acid, Journal of Chemical Society of Pakistan, 5(42) (2020) 783-788.
23. Syed M Husnain, Umar Asim, Azra Yaqub, Faisal Shahzad, Naseem Abbas, Recent of MnO₂-derived adsorbents for water treatment: a review, New Journal of Chemistry, 16(44) (2020) 6096-6120.
24. Muhammad Tariq, Ahmad Kaleem Qureshi, Muhammad Imran, Muhammad Babar Taj, Muhammad Sirajuddin, Saqib Ali and Naseem Abbas, Biodiesel-a transesterified product of non-edible castor oil, Journal of REVUE ROUMAINE DE CHIMIE 64(12), 2019
25. Naseem Abbas, Zahid Mahmood, Suryyia Manzoor, ZeeshanAkhtar and Muhammad Tariq; Synthesis, Characterization and Sunscreen Protection Factor of Novel Synthesized Para Amino Benzoic Acid (PABA) Esters, Journal of Chemical Society of Pakistan, 41(04) (2019) 701-706.
26. Zeeshan Akhtar, Syed Imran Ali, Syed Rizwan Ali, Sadia Khan, Feroz Alam, Naseem Abbas and Muhammad Yasir Khan; Synthesis, Characterization and Dyeing Assessment of Novel Acid Dyes on Wool Fabric IV, Journal of Chemical Society of Pakistan, 41(04) (2019) 633-639.
27. Asifa Bashir, Farzana Hanif, Ghazala Yasmeen, Fazal Mabood, Ahmad Hussain, Naseem Abbas, Ammar Bin Yousaf, Muhammad Aamir, Suryyia Manzoor; Polyaniline based magnesium nanoferrite composites as efficient photocatalysts for the photodegradation of Indigo Carmine in aqueous solutions Desalination and Water Treatment, 164 (2019) 368–377
28. Zeeshan Akhtar, Mohib Reza Kazmi, Syed Imran Ali, Naseem Abbas and Rasheeda Parveen, Application of Acid Dyes on Nylon Fabric and Evaluation of Fastness Properties Part III, Journal of Chemical Society of Pakistan, 40 (05), (2018) 898-903.
29. BI. BI. Z., SHAD M. A., ABBAS N., HANIF M. & ABBAS G., Vinyl Acetate/Ethyl Cellulose/Poly(Acrylic) Acid Containing Hydrogels and its In-Vitro Controlled Release Studies : Lat. Am. J. Pharm. 36 (12): 2532-42 (2017).

30. Farzana H., Ghazala y., Suryyia M., Naseem A., Yousuf R., Study Of Protonation Reaction Of Anion Radicals Of Dinitroaromatic In N,N-Dimethylformamide Using Cyclic Voltammetry: Asian J. Chem. 12 (2015) 4327-4336.
31. N. Abbas, M. Hussain, N. Russo, G. Saracco, Studies on the activity and deactivation of novel optimized TiO₂ nanoparticles for the abatement of VOCs: Chem. Eng. J. 175 (2011) 330– 340.
32. Hussain, M., Abbas, N., Fino, D., Russo, N, Novel mesoporous silica supported ZnO adsorbents for the desulphurization of biogas at low temperatures: Chem. Eng. J. 188 (2012) 222– 232.

Book Chapters:

1. Syed Ali Raza Naqvi, Syeda Marab Saleem, Tania Jabbar, Atta Ul Haq, Muhammad Asif, Sadaf Ul Hassan, Muhammad Rehan Hassan SHah Gillan, Naseem Abbas, and Ali Abba, Principles of Molecular Biology for Bioanalysis, Bioanalytical Techniques Principles and Applications, (2025) 39-70.
2. Mehreen Imam, Syed Ali Raza Naqvi, Majid Muneer, Atta ul Haq, Sadaf Ul Hassan, Muhammad Rehan Hassan SHah Gillani, Naseem Abbas, Syeda Marab Saleem, Thin layer chromatography for natural product analysis, Bioanalytical Techniques Principles and Applications, Scivener Published LCC, (2025), 641-662.
3. Syed Ali Raza Naqvi, Urwa Muaz, Touqeer a Sherazi, Sadaf Ul Hassan, Naseem Abbas, Mazhar Hussain, Muhammad Rehan Hassan SHah Gillani, Aisha Yasin, Metal Hydride for Hydrogen Storage, Hydrogen Energy Production and Fuel Generation, Scivener Publisher LCC, (2025)
4. Aisha Yasin, Syed Ali Raza Naqvi, Touqeer a Sherazi, Sadaf Ul Hassan, Muhammad Ramzan Saeed Janjua, Muhammad Rehan Hassan SHah Gillani, Naseem Abbas, Mazhar Hussain, Urwa Muaaz, Nanomaterials for Hydrogen Storage, Hydrogen Energy Production and Fuel Generation, Scivener Publisher (2025)
5. Syeda Marab Saleem, Muhammad Rehan Hasan Shah Gilani, Ameer Fawad Zahoor, SadafUl Hassan, Naseem Abbas, Muhammad Ramzan Saeed Ashraf Janjua, Syed Ali Raza Naqvi, Copper nanofertilizer synthesis and applications, Nanofertilizer Synthesis, Elsevier, (2024) 247-267.
6. Syed Ali Raza Naqvi, Vaneeza Javed, Naseem Abbas, Muhammad Rehan Hasan Shah Gilani, Sadaf Ul Hassan, Muhammad Rizwan Javed, Mazhar Hussain, Essential Oil Based Therapies, Essential Oils Extraction Methods and Applications, John Wiley Sons, Inc., (2023) 903-931.

7. Ijaz Hussain, Tania Jabbar, Asma Naureen, Amjad Hussain, Muhammad Rehan Hasan Shah Gilani, Naseem Abbas, Syed Ali Raza Naqvi, Lincosamide and glycopeptide antibiotics, Antibiotics-Therapeutic Spectrum and Limitations, Academic Press, (2023) 183-202.

Employment:

Designation	Department/ Organization	Scale/ Grade	Duration		Responsibilities
			From	To	
Tenured Associate Professor (Applied Chemistry)	ICS, BZ University, Multan, Pakistan	20	19-03-2022	Present	BS, M.Sc, M.Phil PhD Classes
Assistant Professor (Applied Chemistry)	ICS, BZ University, Multan, Pakistan	19	10-06-2016	18-03-2022	BS, M.Sc, M.Phil PhD Classes
Part Time Teaching (Chemistry)	ICS, BZ University, Multan, Pakistan		12-06-2014	09-06-2016	BS, M.Sc, M.Phil Classes
Assistant Professor (Applied Chemistry)	Institute of Chemical Sciences, BZ University, Multan, Pakistan	19	12-06-2013	11-06-2014	BS, M.Sc, M.Phil Classes,
Supervisor	Department of applied sciences and technology, Politecnico di Torino University, Turin Italy		20-02-2012	10-01-2013	For research reports at BS and M.S. level
Lecturer (Chemistry)	Muslim college Mumtazabad, Multan, Pakistan	17	01-09-2007	31-12-2008	Classes, Laboratories Controller, Examination

Conferences/ Seminars/Workshops/Summer School:

- 1- **Participation** in One Day 2nd National Seminar on “Research Designing, Research Proposal Writing & In Silico Drug Designing” held on November 28, 2024 at Department of Biochemistry, Bahauddin Zakariya University Multan, Pakistan
- 2- **Invited Speaker**, International Conference of “International Conference on Collaborative Strategies of Higher Education Institutions and Industry to Promote Sustainable Development Goals” held on March 4-5, 2024, organized by The Women University, Multan, Pakistan.
- 3- **Oral Presentation** of a paper entitle as “Preliminary Biological evaluation of [99M TC] DPTA Flutamide complex as spect tumor Imaging agent” in II International Paris Congress on Medical and Health Sciences, October 24-26, 2023, Paris France.
- 4- **Oral Presentation** 2nd international Conference Trends & Research in Chemistry (TRIC 2023) on 16-18 May 2023, organized by Department of Chemistry, University of Education, Lahore, Pakistan.
- 5- **Invited Speaker**, 2nd international Conference of “Sustainable Chemical Industry” and Pakistan Chemical Expo 2023, organized by University of Management and Technology, Lahore, Pakistan.
- 6- Four days Training course on “**Research Capacity Building Programme for Researchers**” by Pak-UK Education gateway and British Council in 2022.
- 7- **Oral Presentation** 1st international Industrial Chemistry Conference 2021 on 26-28 February 2021, organized by Department of Chemistry NED University of Engineering and Technology, Karachi Pakistan.
- 8- **Participation** in International Conference on Research Advancements in Chemistry 2021 (ICRA-C 2021) held on March 10-11, 2021 Department of Chemistry, School of Natural Sciences (SNS), National University of Sciences and Technology (NUST), H-12 campus, Islamabad, Pakistan.
- 9- **Oral Presentation** in 1st International Conference On STEMS 2021 held on March 30-31, 2021, at Islamia University Bahawalpur Pakistan.
- 10- **Presentation as Invited Speaker**, in International Conference on Innovation in Chemical and Allied Sciences, held on October 26-28, 2021 at The Women University Multan Pakistan

- 11- **Oral Presentation**, in iiScience International Conference March 12-14, 2020 on “Light Generation Sensing and Energy” held at The Women University Multan Pakistan
- 12- **Oral Presentation**, in 1st International Conference February 12-13, 2020 “Recent Advances & Challenges in Basic and Social Sciences in Contemporary” held at Govt. . Post Graduate Islamia College (W) Cooper Road, Lahore, Pakistan.
- 13- **Organizer**, International Symposium on Advances in Chemical Sciences, Institute of Chemical Sciences, Bahauddin Zakariya University Multan, Pakistan. (December 05, 2019)
- 14- **Organizer**, International Chemistry Conference, Forefronts of Chemistry Celebrating The Periodic Table year, Institute of Chemical Sciences, Bahauddin Zakariya University Multan, Pakistan. (27-29 March, 2019)
- 15- **Oral Presentation** on the topic “Formulation, characterization and activity of calcium silicate based sunscreen filter” for oral presentation at “Three-day conference on “*Nanomaterials: New Trends in Development and Applications*” to be held on 29th - 31st January, 2019 at the Forman Christian College (A Chartered University), Lahore, Pakistan
- 16- **Participation** in One Day International Seminar on Standardization of natural Products: Opportunities for commercialization held on November 09, 2018 at Department of Pharmacognosy, Faculty of Pharmacy, Bahauddin Zakariya University Multan, Pakistan
- 17- **Participation** in Three Days International Conference January 17-19, 2018 recent approaches in research and development held at Forman Christian College University Lahore, Pakistan.
- 15- **Organizer**, A day Long International Conference on Recent Challenges and Chemical Sciences, Institute of Chemical Sciences, Bahauddin Zakariya University Multan, Pakistan. (December 22, 2017)
- 16- **Oral Presentation** on the topic “Estimation of Salicylic acid in aspirin tablets and its Remediation” in 16th international and 28th national chemistry conference 20th - 22th November, 2017 Karachi.
- 17- **Poster Presentation** in 9th Chemistry Conference 2017 on “Chemistry in Engineering and life sciences” 19-21, September 2017, PINSTECH, Islamabad, Pakistan.

- 18- **Organizer** of 12th International & 24th National Chemistry Conference, Institute of Chemical Sciences, Bahauddin Zakariya University Multan, Pakistan. (28-30 October, 2013)
- 19- **Summer School** on Advanced concepts and process schemes for CO₂-free fluidized and entertained bed co-gasification of coal, biomass and waste; Madrid Spain. (3-6 July, 2012)
- 20- **Summer School** on Next generation biofuel – University of Bologna, Italy, 14-19 September 2009
- 21- **Summer School** on Heterogeneous Catalysis: Fundamentals and Practice University Of Liverpool UK (13 -18 July 2009)
- 22- **Participation** in the 6 International & 16th National Chemistry Conference (06-08 April, 2006)

University Examiner:

1. External Examiner for BS. Semester 8th paper Advance Course of Applied Chemistry Chem-422 (Theory) exam 2020-2024 for affiliated colleges 2024.
2. External Examiner for BS. Semester 7th paper Advance Course of Applied Chemistry Chem-421 (Theory) exam 2020-2024 for affiliated colleges 2024.
3. External Examiner for BS. Semester 4th paper Applied Chemistry Chem-121 (Theory) exam (for repeater) 2019-2023 for affiliated colleges 2024.
4. External Examiner for BS. Semester 5th paper Applied Chemistry Chem-321 (Theory) exam 2021-2025 for affiliated colleges 2024.
5. External Examiner for BS/ADS Chemistry Semester 4th Chem-212 Analytical Chemistry (Practical) Govt. Crescent college Chichawatni Dated 19-09-2024.
6. External Examiner for BS/ADS Chemistry Semester 4th Chem-222 Analytical Chemistry (Practical) Govt. Crescent college Chichawatni Dated 20-09-2024.
7. External Examiner for M.Sc. Semester II paper Chem-324-II Govt College of Science Multan (Practical) 2024.
8. External Examiner for BS Chemistry 4 Years Semester 6th paper Chem-321 Govt. Willayat Hussain Islamia College Multan (Practical) Dated 10-02-23.

9. External Examiner for BS Chemistry 4 Years Semester 6th paper Chem-321 Superior College Multan (Practical) Dated 09-02-23.
10. External Examiner for M.Sc. Chemistry Part II Paper IV for 1st and 2nd Annual System 2022.
11. External Examiner for M.Sc. Chemistry Part II Paper IV for 1st and 2nd Annual System 2021.
12. External Examiner for BS Chemistry 4 Years Semester 6th paper Chem-321 Govt College for Women Sahiwal (Practical) Dated 19-03-22.
13. External Examiner for BS Chemistry 4 Years Semester 6th paper Chem-321 Concordia College Sahiwal (Practical) Dated 18-03-22.
14. External Examiner for BS Chemistry 4 Years Semester 6th paper Chem-321 Legend College Multan (Practical) Dated 16-03-22.
15. External Examiner for BS. Semester 4th paper Applied Chemistry Chem-121 (Theory) special exam 2019-2023 for affiliated colleges 2022.
16. External Examiner for M.Sc. Semester I & II paper Applied Chemistry Chem-324 (Theory) for affiliated colleges 2022.
17. External Examiner for M.Sc. Semester II paper Chem-324-II Govt Emerson College Multan (Practical) 2022.
18. External Examiner for BS. Semester 8th paper Applied Chemistry Chem-422-I (Theory) exam 2018-2022 for affiliated colleges.
19. External Examiner for BS. Semester 6th paper Fuel Chemistry Chem-381 (Theory) exam 2019-2023 for affiliated colleges.
20. Examiner for admission test in PhD 2021-2022.
21. Examiner for Comprehensive exam of M.Phil. and PhD Exist in 2021.
22. External Examiner for M.Sc. Chemistry Part II Paper IV Annual System 2021.
23. Supervision of Applied Chemistry Laboratory 2021.
24. External Examiner for BS. Semester 6th & 4th paper Chem-121 and Chem-321 (Theory) for affiliated colleges 2021.
25. External Examiner for M.Sc. Semester I & II paper Chem-323 and Chem-324 (Theory) for affiliated colleges 2021.

26. External Examiner for M.Phil. Thesis evaluation and viva Voce in Department of Chemistry, Govt. College university, Faisalabad
27. External Examiner for BS Chemistry 4 Years Semester 3rd paper Chem-171 Punjab College Mian Channu (Practical) Dated 10-12-20
28. Examiner for admission test in M.Phil. and PhD 2020-2021.
29. Examiner for Comprehensive exam of M.Phil. and PhD Exist in 2020.
30. External Examiner for M.Sc. Chemistry Part II Paper IV Annual System 2020.
31. Supervision of Applied Chemistry Laboratory 2020.
32. External Examiner for M.Sc. Semester I & II paper Chem-323 and Chem-324 (Theory) for affiliated colleges 2020.
33. External Examiner B.Sc Environmental Engineering 5th semester Theory and Practical Exam January 2020 NFC IET Multan (01-01-2020).
34. Supervision of Applied Chemistry Laboratory 2019.
35. External Examiner for M.Sc. Semester I & II paper Chem-323 and Chem-324 (Theory) for affiliated colleges 2019.
36. Performance based Increment for the year 2019.
37. Co-Opted member of Departmental Board of Studies 2019.
38. Examiner for admission test in M.Phil. and PhD 2018-2019.
39. External Examiner for BS Chemistry 4 Years Semester 6th paper Chem-321 Govt Woman College Sahiwal (Practical) Dated 14-11-19.
40. External Examiner for BS Chemistry 4 Years Semester 6th paper Chem-321 Govt College Sahiwal (Practical) Dated 15-11-19.
41. External Examiner for BS Chemistry 4 Years Semester 4th paper Final Term Applied Chemistry Chem-121 for affiliated colleges 2019.
42. External Examiner for M.Sc. Chemistry Part II Paper IV Annual System 2019.
43. External Examiner for BS Chemistry 4 Years Semester 6th paper Chem-321 Govt College Multan (Practical) Dated 28-01-2019.
44. External Examiner for BS Chemistry 4 Years Semester 6th paper Chem-321 Govt College Sahiwal (Practical) Dated 19-01-2019.
45. External Examiner for BS Chemistry 4 Years Semester 2nd paper Chem-161 Govt College Sahiwal (Practical) Dated 17-10-18

46. External Examiner for BSc Chemistry Practical Paper A+B+C Govt College for Women Farid Town, Sahiwal IInd annual 2018.
47. External Examiner for II Annual 2018 B.Sc. Chemistry Practical Paper A+B+C Govt Imamia College for Sahiwal
48. External Examiner for M.Sc. Semester I & II paper Chem-323 and Chem-324 (Theory) for affiliated colleges 2018
49. External Examiner for M.Sc. Chemistry Part II Paper IV Annual System 2018
50. Examiner for Comprehensive exam of M.Phil. and PhD Exist in 2018.
51. External Examiner for BSc Chemistry Practical Paper A+B+C Govt College for Women Farid Town, Sahiwal 1st annual 2018.
52. External Examiner for M.Sc. Semester II paper Chem-324-II Govt Emerson College Multan (Practical) 2018
53. Supervision of Applied Chemistry Laboratory 2018.
54. External Examiner for BSc Chemistry Practical Paper A+B+C College of Educator Sahiwal 2nd annual 2017.
55. External Examiner for M.Sc. Semester II paper Chem-324-II Govt Emerson College Multan (Practical) 2017.
56. External Examiner for BSc Chemistry Practical Paper A+B+C Superior College Sahiwal 1st annual 2017.
57. Supervision of Applied Chemistry Laboratory 2017.
58. External Examiner for M.Sc. Chemistry Part II Paper IV Annual System 2016
59. External Examiner for BSc Chemistry Practical Paper A+B+C Superior College Sahiwal 2nd annual 2016.
51. External Examiner for BSc Chemistry Practical Paper A+B+C Punjab College Sahiwal 1st annual 2016.

Awards, Fellowships, and Grants:

1. A performance based increment was awarded for the year 2022 by the Bahauddin Zakariya University, Multan.
2. A performance based increment was awarded for the year 2021 by the Bahauddin Zakariya University, Multan.

3. A performance based increment was awarded for the year 2020 by the Bahauddin Zakariya University, Multan.
4. A performance based increment was awarded for the year 2019 by the Bahauddin Zakariya University, Multan.
5. BZU research grant 2023-2024 for project entitled, “Investigation of Photocatalytic Degradation of Emerging Organic Pollutants in water by $\text{Cu}_{0.5}\text{Ni}_{0.5}\text{Fe}_{2-x}\text{M}_x\text{O}_4$ (M=Cr, Co, Al) and their composite with metal organic frameworks (MOFs)” as PI, accepted/approved with worth of Rs. 0.3 million.
6. BZU research grant 2021-2022 for project entitled, “Synthesis, Characterization of Binary Metal-Organic-Framework/Ferrite Composites for Catalytic Degradation of Organic Pollutant in Water” as PI, accepted/approved with worth of Rs. 0.3 million dated 07/10/2022.
7. BZU research grant 2019 for project entitled, “Synthesis characterization kinetic studies and release of drug by pH sensitive co-Polymer” as PI, accepted/approved with worth of Rs. 0.3 million dated 28-06-2019.
8. BZU research grant 2017 for project entitled, “Synthesis and application of sulfonic acid dyes on wool fabric” as PI, accepted/approved with worth of Rs. 0.153 million dated 11/10/2017.
9. Research, development, energy carriers, innovative catalytic processes, supercritical biofuels production. Catalytic systems by decomposition of photosynthesis play 'Water: H_2O -H.
10. PhD Funding: Fondi Prit industria 2015 Project; Production and use of fuels (2009-2011)

Number of students supervised:

Ph.D.

(a) Under supervision 05

(b) Completed 01

Sr. #	Name	Year	Title	Status
1.	Hafiz Umar Asim (PhD-C-17-12)	2017-2021	Microwave Assisted Synthesis of Optimized MnO_2 Nanoparticles for Removal of Sr, Cs and other Heavy Metals from Waste Water	Completed

2.	Muhammad Usman Akram (PhD-C-17-18)	2017-2021	Study of Polymeric Nanoparticles for site specific drug delivery application	Thesis Submitted
3.	Muhammad Farman (PhD-C-17-19)	2017-2021	Studies of Chitosan Based Smart Polymer for Controlled Drug Delivery System.	Thesis Submitted
4.	Khalid Javed (PhD-C-18-12)	2018-2022	Studies Of MOF Based Material For Photo Catalytic Degradation Of Organic Pollutants in Water	Thesis Submitted
5.	Muhammad Bilal (PhD-C-18-15)	2018-2022	Syntheses and Characterization of Co-MOF/Ferrite Composites for Catalytic Degradation of Organic Pollutants in Water	Thesis Submitted
6.	ZAHID MAHMOOD (PhD-CS-23-09)	2023-2027	Synthetic Studies of Metal–Organic Frameworks/Ferrite Composites for Catalytic Degradation of Organic Pollutants in Industrial Wastewater	In Process

M.Phil.

(a) Under supervision 11

(b) Completed 65

Sr. #	Name	Year	Title	Status
1.	Muhammad Aamir Islam MPH-F-13-45	2013-2015	Swelling Kinetics of Tercopolymer for pH Sensitive Drug Delivery System	Completed
2.	Farah Gul MPH-F-13-02	2013-2015	Synthesis, Swelling Kinetics and Characterization Of Ternary Copolymer for pH Sensitive Drug Delivery System	Completed
3.	Asad Ayaz MPH-CS-13-20	2013-2015	Factors Affecting the Drug Release from pH - Sensitive Hydrogel	Completed
4.	Zainab Ayaz MPHF-C-14-01	2014-2016	Synthesis, Characterization, Activity and Kinetics Study of pH Sensitive Co-Polymer	Completed
5.	Naila Yasmin MPH-F-C-14-08	2014-2016	Kinetics Studies of Drug Release by pH Sensitive Hydrogel	Completed
6.	Sidra Arshad MPH-F-C-14-10	2014-2016	Synthesis and Swelling Kinetics of pH Sensitive Hydrogel for Targeted Drug Delivery System	Completed
7.	Imran Hussain MPHF-C-14-35	2014-2016	Neutralization Effect on the Defecated Sugar Cane Juice	Completed

8.	M. Imran Mukhtar MPHF-C14-67	2014-2016	Effect of Calcium Hydroxide on the Sugar Cane Juice	Completed
9.	Anila Jabeen MPHF-C-14-63	2014-2016	Characterization and Application of pH - Sensitive Tercopolymer	Completed
10.	Zunaira Suleiman MPHS- C-14-16-43	2014-2016	Coconut Shell Based Modified Activated Carbon for the Estimation of Pharmaceuticals in Industrial Effluents	Completed
11.	M. Waqar Aslam MPHS-C-14-50	2014-2016	Walnut Shell and Peach Stone Based Activated Carbon for Removal of Pharmaceuticals In Biological Samples	Completed
12.	Zil-E-Ayesha MPH-C-14-02	2014-2016	Synthesis of Smart Polymer for The Site Specific Delivery of Drug	Completed
13.	Aisha Aslam MPHS-14-37	2014-2016	Synthesis and Application of Modified Rice Husk for The Removal of Heavy Metals From Water.	Completed
14.	Imrana Yasmeen MPHS-C-14-33	2014-2016	Characterization and Comparision of Drinking Water in Various Areas in Multan City	Completed
15.	Khadija Bibi MPHS-C-14-54	2014-2016	Synthesis and Swelling Kinetics of pH - Sensitive Ter-Copolymer for Controlled Release of Drug	Completed
16.	Rabia Bibi MPH-CF-14-26	2014-2016	Extraction and Quantification of Pesticides Using Molecularly Imprinted Polymer.	Completed
17.	Umair Jamal MPH-FC-14-21	2014-2016	Synthesis, Characterization and Application of Molecularly Imprinted Selective Sorbent for Lufenuron.	Completed
18.	Hira Fatima MPH-CF-14-61	2014-2016	Solid Phase Extraction of from Water Samples Using Selective Sorbent.	Completed
19.	Khalid Javed MPH-C-15-109	2015-2017	Removal of Heavy Metals from Water Using Modified Rice Husk Ash	Completed
20.	Zulfiqar Hussain MPH-C-15-11	2015-2017	Removal of Heavy Metal from Water Using Modified Rice Husk	Completed

21.	Faisal Faiz MPH-C-15-108	2015-2017	Estimation of Free Salicylic Acid in Aspirin Tablet and Its Remediation	Completed
22.	Zahid Mahmood MPH-C -15-50	2015-2017	Effect of Edible Fat on Sunscreen Filter and Sun Protection Factor	Completed
23.	Mustabshira Choudhry MPH-C-15-95	2015-2017	Removal of Anticancer Drug by Using Modified Multiwall Carbon Nano-Tube	Completed
24.	Tehreem Chaudhry MPH-C-15-110	2015-2017	Lignin Based Grafted Nano-Polymer for Thermosensitive Drug Delivery System	Completed
25.	Sumreen Nazar MPHF-16-03	2016-2018	Synthesis and swelling Kinetics of Ethyl Acrylatebased pH Sensitive Drug Delivery Polymer	Completed
26.	Aimun Noor MPH-16-04	2016-2018	Coconut Shell based activated carbon for removal of pharmaceutical in industrial effluents	Completed
27.	Khadija Gilani MPHF-16-26	2016-2018	Synthesis and swelling kinetics of Acrylic Acid based pH sensitive drug delivery polymer	Completed
28.	Saira Saeed MPHF-16-27	2016-2018	Synthesis, characterization and activity of calcium silicate based sun screen filter	Completed
29.	Shabnum Perveen MPHF-16-48	2016-2018	Synthesis, characterization and application of organic acid dyes	Completed
30.	Usman Haider MPHF-16-12	2016-2018	Phytochemical analysis and biological screening of <i>avena futua</i>	Completed
31.	Shaista Jabeen MPHF-16-20	2016-2018	Walnut Shell based activated carbon for removal of pharmaceutical in industrial effluents	Completed
32.	Muhammad Imran Qamar MPHF-16-41	2016-2018	Optimization of process variables for adsorption of fluoride on Nickel Ferrite	Completed
33.	Natasha Sadiq MPH-C-17-14	2017-2019	Aluminium Doped Ferrite for Catalytic Degradation of Methylene Blue	Completed
34.	Rabbania Chaudhry MPH-C-17-107	2017-2019	Bismuth Doped Ferrite for Catalytic Degradation of Congo Red	Completed

35.	Sajid Hussain MPHC-17-21	2017-2019	Phytochemical analysis of <i>Ranunculus Asiaticus</i> L. Extract and its Biological Activities	Completed
36.	H.Muhammad Sohaib MPH-17-C-108	2017-2019	Modified Spinel Ferrite for Catalytic Degradation of Congo Red	Completed
37.	Aneesa Imtiaz MPH-C-17-65	2017-2019	Effect of Calcium Phosphate on SPF Value of Inorganic Sunscreens Filters	Completed
38.	Neelum Bukhari MPH-C-17-112	2017-2019	Comparative Study of SPF Value for Talc Based Sunscreen Filters and Inorganic UV Filters	Completed
39.	Noshaba Noreen MPH-C-17-10	2017-2019	Acrylic Acid Based Nanopolymers for pH Sensitive Drug Delivery System	Completed
40.	Humaira Bashir MPH-C-18-61	2018-2020	Study of Release Kinetics of Dexamethasone by Modified Chitosan Polymers	Completed
41.	Muhammad Madni MPH-C-18-106	2018-2020	Synthesis of NiO-ZnO-MgO Nanocomposites for Photo Degradation of Dyes	Completed
42.	Sabahat Parvez MPH-C-18-131	2018-2020	Synthesis of Modified Chitosan Polymers to Study Release Kinetics of Ibuprofen	Completed
43.	Muhammad Imran MPH-C-18-134	2018-2020	Synthesis of NiO-CuO-MgO Nanocomposites for Photo Degradation of Dyes	Completed
44.	Sana Sajjad MPH-C-18-97	2018-2020	Fabrication of TiO ₂ /AgNPs Based Polymeric Nanocomposites to Enhance SPF of UV Filters	Completed
45.	M. Waqas Qazi MPH-C-18-125	2018-2020	Effect of Mustard Oil on Sun Protection Factor of UV Filters	Completed
46.	Tehreem Sarfraz MPH-C-20-62	2020-2022	Synthetic Studies of Cobalt Doped Ferrite for Abatement of Congo Red Dye	Completed
47.	Rida Nazir MPH-C20-65	2020-2022	Nickel Doped Spinel Ferrite for Catalytic Degradation of Methylene Blue Dye	Completed
48.	Arifa Noreen MPH-C20-70	2020-2022	Study of Modified Sunscreen UV Filters Using Mango Seed Oil and Aloe Vera Gel	Completed
49.	Muhammad Yasar MPH-C-20-71	2020-2022	Aluminium Doped Spinel Ferrite for Photodegradation of Congo Red Dye	Completed
50.	Saima Batool MPH-C-21-84	2021-2023	Photocatalytic Removal of Organic Pollutants Using Synthesized Modified Iron Oxide Catalyst	Completed

51.	Zahra Khan MPH-C-21-85	2021-2023	Synthetic Studies of Aluminum Doped Cadmium Ferrite for Photocatalytic Degradation of Atrazine	Completed
52.	Sheema Munawar MPH-C-21-76	2021-2023	Synthesis and Characterization of Metal Doped Spinel Ferrite for Photocatalytic Degradation of Pharmaceutical Pollutant	Completed
53.	Sana Nawaz MPH-C-22-08	2022-2024	Photocatalytic Degradation of Acetamiprid from Water using Modified Spinel Ferrite	Completed
54.	Mobashir Aziz MPH-C-22-14	2022-2024	Synthetic Studies of Manganese Doped Spinel Ferrite for Photocatalytic Degradation of Imidacloprid from Water	Completed
55.	Nazia Blouch MPH-C-22-91	2022-2024	Photodegradation of Atrazine from Water by Bismuth Doped Ferrite Catalyst	Completed
56.	Munazzah Akram MPH-C-22-107	2022-2024	Degradation Of Dimethoate Using Zinc Nickle Cobalt Spinal Ferrites	Completed
57.	Zikriya Amjad MPHC-22-109	2022-2024	Removal of Difenconazole from Water using Manganese Doped Spinel Ferrite	Completed
58.	Ayesha Minahil MPHW-C-22-03	2022-2024	Synthetic Studies of Barium Doped Spinel Ferrite for Photocatalytic Degradation of Carbofuran from Waste Water	Completed
59.	Syeda Tabeer E Fatima MPHW-C-22-86	2022-2024	Synthesis of Bismuth Doped Spinel Ferrite for Photocatalytic Removal of Ciprofloxacin from Waste Water	Completed
60.	Muhammad Nadeem Shahzad MPHW-C-22-75	2022-2024	Photodegradation of Atrazine from Waste Water by Aluminium doped Spinel Ferrite	Completed
61.	Soha Tahir MPHW-C-22-93	2022-2024	Synthesis of Antimony Doped Spinel Ferrite for Photocatalytic Removal of Mesotrione	Completed
62.	Aiman Riaz MPHW-C-22-109	2022-2024	Photocatalytic Degradation of Difenconazole in Water by Modified Spinel Ferrite	Completed
63.	Maira Irfan MPHWS-C-23-01	2023-2025	Synthesis and Characterization of Strontium Doped Zinc Ferrite for Photo Degradation of Imidacloprid	In Process
65.	Ambreen Lateef MPHWS-C-23-04	2023-2025	Photocatalytic Removal of Ibuprofen from Waste Water by Synthesized Manganese Doped Spinel Ferrite	In Process

Professional Memberships:

- ☐ Member of Chemical Society of Pakistan
- ☐ Member of National Academy of Young Scientists, Pakistan

Special Computer Skills:

Expertise in analyzing results and preparing reports by using following softwares on the Computer by using Special software including Origin, X'Pert High Score, GC/MSD ChemStation, MSD ChemStation data analysis, MAT-LAB, Mathcad, Fluent Code,

References:**Prof. Dr. Guido Saracco (PhD Supervisor)**

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