

CURRICULUM VITAE



BEHISHT ARA

- PhD Analytical Chemistry, Feb 2012, University of Peshawar. 3.85 CGPA

RESEARCH / PROJECT

Investigation of New Methods for the Determination of Triazine Group of Herbicides and its Application to Samples of Environmental Importance. (PhD research thesis)

Selective Removal of Organic Pollutants from Contaminated Water using Molecularly Imprinted Polymer Microspheres Synthesized by Precipitation Polymerization.(funded by Hec)

Synthesis of Silica Monolith Particles and their Modification with Polymer Coating for the Extraction of Heavy Metals. (funded by Hec)

Undertaking Research projects for STFS students under project “Science Talent Farming Scheme for 1800 Young Students”. (funded by PSF)

RESEARCH INTEREST

- Method development in terms of efficient, cost effective and improved solid phase extraction and liquid liquid extraction techniques for the monitoring of organic and inorganic environmental pollutants (pesticides, drugs, heavy metals).
- Methods based on derivatization of the analyte using basic chemical reactions of complexation, acid and base hydrolysis, diazotization, azo coupling, acylation.
- Sample preparation, pretreatment and preconcentration using microwave, ultrasonic extraction, molecularly imprinted polymers, ion imprinted polymers, composite of TiO₂/active carbon black, QUECHERS extraction technique,
- Photocatalytic degradable material-based MIPs, surface imprinted polymers using silica gel composites as functional support, graphene-based MIPs, metal ion mediated MIPs and metal organic frameworks.
- Electrochemical sensors, biosensors, label free amino sensors
- Quantum dots

LIST OF PUBLICATIONS

Name of Author	Complete Name of Journal	Title of Publications	Vol. No. & Page No.	Year Published
Yijing Ai, Behisht Ara , Baoli Wang, Mansoor Ahmad, Xiao Han, Lisi	Microchemical Journal	One step laser-induced Fe ₃ O ₄ loaded 3D graphene electrode for electrochemical sensing and supercapacitor applications	209, 112776	2025

Wang, Shuhai He, Ruifeng Li, Wei Sun				
Fan Shi, Zejun Zhang, Behisht Ara , Zhitan Huang, Qifeng Gui, Ahmad Mansoor, Wei Sun	ACS sensors	Fe Single-Atom and Fe Cluster-Coupled N, S Co-doped Carbon Nanomaterial-Based Flexible Electrochemical Sweat Biosensor for the Real-Time Analysis of Uric Acid and Tyrosine	9, 6482–6491	2025
Khushnuma Zahid, Behisht Ara , Kashif Gul, Sumeet Malik, Tanveer Ul Haq Zia and Saima Sohni	Zeitschrift für Physikalische Chemie	Adsorption and visible light driven photocatalytic degradation of Malachite Green and Methylene Blue dye in wastewater using magnetized copper metal organic framework	238	March 20, 2024
Hira Amin, Humayun Khan, Kashif Gul, Tanveer Ul Haq Zia & Behisht Ara	International Journal of Environmental Analytical Chemistry	Synthesis of polyaniline-doped magnetic iron foam photo catalyst (PANI@mIF) for integrated adsorptive photocatalytic degradation of nicosulfuron		May, 2024
Tanveer ul Haq Zia, Anwar ul Haq Ali Shah, Behisht Ara , Kashif Gul	Colloids and Surfaces A: Physicochemical and Engineering Aspects	Label-free immunosensor for detection of hepatitis C (HCV) core antigen using ternary polypyrrole-Ag doped ZnO-exfoliated graphene nanocomposite	681, 132709	January 20, 2024
Ameen Ahmed Saleh Al-Makhathi, Hamayun Khan, Sumeet Malik, Paulo S. Taube, Behisht Ara , Kashif Gul and Adnan Khan	Zeitschrift für Physikalische Chemie	Ternary magnetic silica–graphene oxide composite for remediation of textile dyes from aqueous environment and real samples	238	January 1, 2024
Rania, Faiz Ali, Mian Muhammad, Behisht Ara and Aftab Ali Shah	RSC Adv	Synthesis of fructose bound Fe(III) integrated carbon dots as a robust turn-off detection sensor for chlortoluron	13, 17028-17037	2023
Behisht Ara , Sumeet Mali , Hoor Saba , Hamayun Khan, Salma Amir, Tanveer Ul Haq Zia, Paulo Sérgio Taube and Kashif Gul	Zeitschrift für Physikalische Chemie	Photocatalytic degradation of textile dyes laden industrial wastewater using fabricated bismuth ferrite coated nickel/nickel oxide foam	237	September 4, 2023
Tanveer ul Haq Zia, Syed Farhan Shah, Ammar ul Haq, Behisht Ara , Kashif Gul	Journal of Environmental Chemical Engineering	Fabricating ternary α -Fe ₂ O ₃ nanoparticles-polyaniline-graphite nanoplatelets nanocomposite with enhanced photoelectrochemical activity for potential use as peroxidase mimic as well as photocatalyst	11, 110410	Oct, 2023
Saba Sohani, Behisht Ara , Hamayun Khan, Kashif Gul, MansoorKhan	Environmental Research, Elsevier, ISSN 0013-9351	Photocatalytic assessed adsorptive removal of tinidazole from aqueous environment using reduced magnetic graphene oxide-bismuth oxychloride and its silver composite	215, 114262	12 September 2022 online
Tasbeeh Ullah, Kashif Gul, Hamayun Khan, Behisht Ara , Tanveer Ul Haq Zia	Chemosphere, Elsevier, ISSN 0045-6535.	Efficient removal of selected fluoroquinolones from the aqueous environment using reduced magnetic graphene oxide/polyaniline composite	293, 133452	2022
Kashif Gul, Hamayun Khan, Niaz Muhammad, Behisht Ara , Tanveer Ul Haq Zia	Separation Science and Technology, Taylor & Francis online, ISSN 0149-6395	Removal of toxic malachite green dye from aqueous environment using reduced magnetic graphene oxide as an efficient and reusable adsorbent	56, 2507-2520	2021
Mian Muhammad,	Physica Scripta,	Fabrication of a green and sensitive quantum dots	96,	2021

Behisht Ara , Faiz Ali and Ikram Ullah	IOP Science, ISSN 0031-8949	based fluorescent probe for determination of sparfloxacin in biological samples and drug formulations	045007	
Behisht Ara , Mian Muhammad, Salma Amir, Tanveer Ul Haq Zia & Zakia Minhas	Journal of Water Chemistry and Technology, Springer, ISSN 1063-455X.	Preconcentration of Nickel from Aqueous Environment Using Microspheric Nickel (II) Ion Imprinted Polymer	43, 379-386	2021
Mian Muhammd, Behisht Ara , Faiz Ali, Izaz Ahmad, Hafeez Ullah	Journal of the Chilean Chemical Society, Scielo, ISSN 0717-9324	Mn-dopped Zns quantum dots as sensitive sensor for determination of ciprofloxacin in pharmaceutical and biological samples	66, 5130-5135	2021
Jasmin Shah, Muhammad Rasul Jan, Mian Muhammad, Behisht Ara , Changeez Ahmad	Journal of the Chemical Society of Pakistan, Journal of Chemical society of pakistan, ISSN 0253-5106	Organo-Clay as Adsorbent for Removal of Fenoxaprop-p-ethyl from Water Samples; A Statistical Approach.	43, 278-278	2021
Tanveer ul Haq Zia, Daud Khan Ghazali, Behisht Ara , Kashif Gul, Muhammad Hassaan Qureshi, Nauman Ali.	Desalination and water treatment, Taylor and Francis online, ISSN 1944-3994	Understanding the electrokinetic behavior of the acrylic acid-based Fe (II) ion-imprinted polymer for its application in Fe (II) ions removal from aqueous medium with high selectivity	232, 165-186	2021
Behisht Ara , Mian Muhammad, Rani, Tanveer Ul Haq Zia, Kashif Gul	Desalination and water treatment, Taylor and Francis online, ISSN 1944-3994	Selective removal of copper and cobalt from aqueous environment using new Cu (II) and Co (II) imprinted polymer and their determination by flame atomic absorption spectrophotometry.	191, 173-184	2020
Tanveer ul Haq Zia, Ahmad Nawaz Khan, Behisht Ara , Kashif Gul	Journal of Electrochemical Energy Conversion and Storage, American Society of Mechanical Engineers, ISSN 2381-6872	Electrochemical Capacitance Properties of Electrode Based on Polyaniline Coated Graphite Nanoplatelets/Polystyrene Composite Film	17, 011004	2020
Hamayun Khan, Iram, Kashif Gul, Behisht Ara , Adnan Khan, Nauman Ali, Nisar Ali, Muhammad Bilal	Journal of Environmental Chemical Engineering, Elsevier, ISSN 2213-3437	Adsorptive removal of acrylic acid from the aqueous environment using raw and chemically modified alumina: Batch adsorption, kinetic, equilibrium and thermodynamic studies	8, 103927	2020
Mian Muhammad, Muhammad Rasul Jan, Jasmin Shah, Behisht Ara	Environmental toxicology and chemistry, Wiley-Blackwell, ISSN 0730-7268	Determination of Isoproturon in Environmental Samples using the QuEChERS Extraction-Spectrofluorimetric Method	38, 2614-2620	2019

Tanveer-ul-Haq Zia, Mehmood, A. H, Behisht Ara , Kashif Gul	Desalination and water treatment, Taylor and Francis online, ISSN 1944-3994	Investigation of the equilibrium, thermodynamic and kinetic parameters of study of the Allura red dye efficient removal from aqueous solution by magnetic α -Fe ₂ O ₃ nanoparticles and its nanocomposite with graphite powder (α -Fe ₂ O ₃ /Gp)	139, 174-190	2019
Muhammad Rasul Jan, Jasmin Shah, Mian Muhammad, Behisht Ara	South African Journal of Chemistry, South African Chemical Institute, ISSN 0379-4350	Flow injection spectrophotometric determination of glyphosate herbicide in wheat grains via condensation reaction with p-dimethylaminobenzaldehyde	71, 39-45	2018
Jasmin Shah, Muhammad rasul Jan, Behisht Ara , Mian Muhammad, Sobi Bibi	Desalination and water treatment, Taylor and Francis online, ISSN 1944-3994	Selective removal of 2, 4-dichlorophenol and 2, 4, 6-trichlorophenol in aqueous solutions by polyaniline-modified magnetic nanoparticles using high-performance liquid chromatography-UV detection	129, 234-243	2018
Mian Muhammad, Muhammad Rasul Jan, Jasmin Shah, Behisht Ara , Sohail Akhtar & Hafeez Ur Rahman	Journal of Analytical Science and Technology, Springer, ISSN 2093-3134	Evaluation and statistical analysis of the modified QuEChERS method for the extraction of pinoxaden from environmental and agricultural samples	8, 1-10	2017
Jasmin Shah, Muhammad Rasul Jan, Mian Muhammad, Behisht Ara , Fahmeeda	Water science and Technology, IWA, ISSN 2731223	Kinetic and equilibrium profile of the adsorptive removal of Acid Red 17 dye by surfactant-modified fuller's earth	75, 1410-1420	2017
Behisht Ara , Jasmin Shah, Muhammaf Rasul Jan, Mian Muhammad	Journal of Saudi Chemical Society, King Saud University, ISSN 1319-6103	Spectrophotometric determination of metribuzin herbicide with p-dimethylamino-benzaldehyde using factorial designs for optimization of experimental variables	20, S566-S572	2016
Behisht Ara , Mian Muhammad, Hira Amin, Noori, Robina Begum, Salma Jabeen, Sana Gul, Tanveer ul Haq Zia, Habib Nasir	Polymer-Plastics Technology and Engineering, Taylor & francis online, ISSN 0360-2559	Synthesis of ion imprinted polymers by copolymerization of Zn (II) and al (III) 8-hydroxy quinolone complexes with divinylbenzene and methacrylic acid	55, 1460-1473	2016
Mian Muhammad, Jasmin Shah, MUhammad Rasul Jan, Behisht Ara , Mariam Mahabat Khan & Abid Jan	Analytical Sciences, Springer, ISSN 09106340	Spectrofluorimetric method for quantification of triazine herbicides in agricultural matrices	32, 313-316	2016
Jasmin Shah Muhammad Rasul Jan Mian Muhammad Behisht Ara I. U. Rehman	Bulletin of the Chemical Society of Ethiopia, African Journals online, ISSN 10113924	Development of an indirect spectrophotometric method for determination of methamidophos insecticide in soil, water and vegetable samples.	29, 311-318	2015
Jasmin Shah, Muhammad Rasul Jan,	Environmental monitoring and	Determination of ametryn in sugarcane and ametryn-atrazine herbicide formulations using	184, 3463-	2012

Jasmin Shah, Muhammad Rasul Jan, Behisht Ara , Farhat-Un-Nisa Shehzad	Environmental monitoring and assessment, Springer, ISSN 0167-6369	Quantification of triazine herbicides in soil by microwave-assisted extraction and high-performance liquid chromatography.	178, 111-119	2011
Jasmin Shah, Muhammad Rasul Jan, Farhat-un-nisa Shehzad and Behisht Ara	Environmental monitoring and assessment, Springer, ISSN 0167-6369	Quantification of pendimethalin in soil and garlic samples by microwave-assisted solvent extraction and HPLC method	175, 103-108	2011
Jasmin Shah, M. Rasul Jan, Farhat-un-nisa Shehzad & Behisht Ara	Environmental Chemistry Letters, Springer, ISSN 16103653	Spectrophotometric determination of trifluralin in commercial formulations and agricultural samples using factorial design	8, 253-259	2010
Muhammad Rasul Jan, Jasmin Shah, Mian Muhammad, Behisht Ara	Journal of Hazardous materials, Elsevier, ISSN 0304-3894	Glyphosate herbicide residue determination in samples of environmental importance using spectrophotometric method	169, 742-745	2009
Jasmin Shah, Muhammad Rasul Jan, Behisht Ara , Mian Mohammad	Journal of Hazardous materials, Elsevier, ISSN 0304-3894	Extractive spectrophotometric method for determination of metribuzin herbicide and application of factorial design in optimization of various factors	164, 918-922	2009
Jasmin Shah, Muhammad Rasul Jan, Behisht Ara	International Journal of Environmental and Analytical Chemistry, Taylor and Francis online, ISSN 10290397	Spectrophotometric method for determination of atrazine and its application to commercial formulations and real samples	88, 1077-1085	2008
Behisht Ara & Farhat-un-nisa Shehzad	assessment, Springer, ISSN 0167-6369	spectrophotometric method.	3468	
Behisht Ara , Zhiyong Chen, Jasmin Shah, Muhammad Rasul Jan, Lei Ye	Journal of applied polymer science, Wiley, ISSN 0021-8995	Preparation and characterization of uniform molecularly imprinted polymer beads for separation of triazine herbicides. Journal of applied polymer science	126, 315-321.	2012

SCHOLARSHIPS AWARDED

- Awarded a fully funded scholarship for the entire PhD by the Higher Education Commission (HEC) of Pakistan under the Indigenous 5000 PhD Fellowship Program.
- Awarded a fully funded scholarship by HEC under the International Research support Initiative Program (IRSIP) to have six months Research Work at Lund University Sweden.

COUNTRIES VISITED:

S#	Name of Country	Duration	Purpose of Visit
1.	Sweden	October, 2010 to March 2011	Official
2.	Denmark	October, 2010 to March 2011	Private
3.	Austria	October, 2010 to March	Private

		2011	
4.	USA	May 2023 to Feb 2024	Private