

# Curriculum Vitae

## Dr. Adnan Mujahid

### Professor

Date of Birth: January 02<sup>nd</sup> 1982

School of Chemistry, University of the Punjab

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<https://scholar.google.com/citations?user=ayqSVIQAAAAJ&hl=en>



## Degree

2007-2010	Doctor of Natural Sciences (PhD) Chemistry	University of Vienna	Vienna, Austria
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## Employment History/Professional Experience

2024 - Till now	University of the Punjab, Lahore Pakistan	Professor
2019 - 2024	University of the Punjab, Lahore Pakistan	Associate Professor
2011 - 2019	University of the Punjab, Lahore Pakistan	Assistant Professor
2010 - 2011	Govt. College University, Lahore Pakistan	Assistant Professor
2004 - 2007	Highnoon Laboratories, Lahore Pakistan	Quality Control Analyst

## Certifications

Scientific Writing and Presentation	(2010)	University of Vienna, Austria
Quality Assurance GLP and GMP	(2009)	Technical University of Vienna, Austria

## Distinctions/Awards/Scholarships

- Awarded Two Times Ernst Mach (EZA) Research fellowship in 2017 and 2023 by Austrian Agency for International Cooperation in Education and Research (OeAD) at University of Vienna, Austria
- Pittcon 2018 Travel Award by American Chemical Society (ACS) to participate in 2018 Pittcon Conference, Orlando, USA
- Selected for Global Chemist Code of Ethics (GCCE) workshop at Melbourne 2017 by American Chemical Society (ACS)
- Early Career Chemist Award by International Chemical Congress of Pacific Basin Societies (Pacifichem 2015) at Honolulu, USA
- Selected in a global competition to participate in 63<sup>rd</sup> Lindau Nobel Laureate Meeting of Chemistry in 2013 at Lindau, Germany
- Throughout 1<sup>st</sup> Division in academic career
- 1<sup>st</sup> position in Bachelors at Government Waris Shah Degree College
- PhD scholarship from Higher Education Commission of Pakistan for Austria
- Chief Minister Scholarship in 2004 during M.Sc.
- Punjab University Scholarship in 2003 during M.Sc.

## Research Interests

- Chemical Sensor Technology; New Sensor Designs and Applications
- Artificial Polymers for Bio-recognition via Molecular Imprinting Technique
- Integration of Receptor Coatings with Mass Sensitive and Electrochemical Transducers

## Scientific Memberships

- American Chemical Society (ACS)
- Chemical Society of Pakistan (CSP)
- Society for Molecular Imprinting (SMI)

## Reference

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Citations 3283

h-index 30

i10-index 61

## ❖ Research Publications

## • Impact Factor Journal Publications

Sr. No.	Impact Factor Journal Articles	Journal	Year	Volume	Pages	Impact Factor
1	Chemical sensors based on molecularly imprinted sol-gel materials	Materials-mdpi	2010	3	2196-2217	3.2
2	Imprinted sol-gel materials for monitoring degradation products in automotive oils by shear transverse wave	Analytica Chimica Acta	2010	675	53-57	6
3	Solvent vapour detection with cholesteric liquid crystals—optical and mass-sensitive evaluation of the sensor mechanism	Sensors-mdpi	2010	10	4887-4897	3.5
4	From mono- to polytopic interactions via hydrogen bonds — Capacitive sensor studies	Materials Science and Engineering C/ Biomaterials Advances	2011	31	553-557	6
5	Dual and tetraelectrode QCMs using imprinted polymers as receptors for ions and neutral analytes	Analytical and Bioanalytical Chemistry	2011	400	2507-2515	3.8
6	Complementary percolation characteristics of carbon fillers based electrically percolative thermoplastic elastomer composites	Composites Science and Technology	2011	72	28-35	9.8
7	AFM substantiation of the fracture behavior and mechanical properties of sol-gel derived silica packed epoxy networks	J Sol-Gel Sci Technol	2012	61	44-48	3.2
8	Structurally modified poly(vinyl alcohol) ionic composites as efficient humidity indicators	Polymer Composites	2012	33	1018-1024	4.7
9	Micelle directed synthesis of (C <sub>19</sub> H <sub>42</sub> N) <sub>4</sub> H <sub>3</sub> (PW <sub>11</sub> O <sub>39</sub> ) nanoparticles and their catalytic efficiency for oxidative degradation of azo dye	J Sol-Gel Sci Technol	2012	63	194-199	3.2
10	Monitoring automotive oil degradation: analytical tools and onboard sensing technologies	Analytical and Bioanalytical Chemistry	2012	404	1197-1209	3.8
11	Advanced vapor recognition materials for selective and fast responsive surface acoustic wave sensors: A review	Analytica Chimica Acta	2013	787	36-49	6
12	All-organic PANI-DBSA/PVDF dielectric composites with unique electrical properties	Journal of Materials Science	2013	48	3737-3744	3.9
13	Bioimprinting strategies: From soft lithography to biomimetic sensors and beyond	Biotechnology Advances	2013	31	1435-1447	12.5

14	Molecularly Imprinted Nanomaterials for Sensor Applications	Nanomaterials	2013	3	615-637	4.3
15	Rapid assay of the comparative degradation of acetaminophen in binary and ternary combinations	Arabian Journal of Chemistry	2014	7	522-524	5.2
16	Extraction of Pb(II) from water samples by ionic liquid modified silica sorbents	Desalination and Water Treatment	2014	52	7915–7924	1
17	Influence of carbon nanotube dimensions on the percolation characteristics of carbon nanotube/polymer composites	Journal of Applied Physics	2014	116	064908-8	2.5
18	Chemically Modified Biomass from Triticum aestivum for Eco-Friendly Detoxification of Cd(II)- and Sn(II)-Contaminated Waters	Polish Journal of Environmental Studies	2014	23	2163-2174	1.3
19	Layer-by-Layer Assembly of Low-Temperature-Imprinted Poly(methacrylic acid)/Gold Nanoparticle Hybrids for Gaseous Formaldehyde Mass Sensing	RSC Advances	2014	4	43121-43130	4.6
20	Formation of self-ordered porous anodized alumina template for growing tungsten trioxide nanowires	International Nano Letters	2015	5	37-41	4
21	Phragmites karka as a Biosorbent for the Removal of Mercury Metal Ions from Aqueous Solution: Effect of Modification	Journal of Chemistry	2015	Article ID 293054	12	2.6
22	Developing imprinted polymer nanoparticles for the selective separation of antidiabetic drugs	Journal of Separation Science	2015	38	3469-3476	2.8
23	Fabrication of Ag and Ni nano catalyst with enhanced efficiency	Journal of Chemistry	2015	Article ID 601484	4	2.6
24	Blood Group Typing: From Classical Strategies to the Application of Synthetic Antibodies Generated by Molecular Imprinting	Sensors	2016	16	51	3.4
25	Surface Reforming of Diamond Particles by the Dispersion Enhancement in Common Liquids	Arabian Journal for Science and Engineering	2016	41	97-103	2.9
26	In situ synthesis of Copper Nanoparticles on SBA-16 Silica Spheres	Arabian Journal of Chemistry	2016	9	537-541	5.2
27	Molecularly imprinted porous beads for the selective removal of copper ions	Journal of Separation Science	2016	39	793-798	2.8
28	A collaborative effect of imprinted polymers and Au nanoparticles on bioanalogous detection of organic vapors	Sensors and Actuators B: Chemical	2016	231	431-439	7.7
29	Effect of the carbon nanotube size dispersity on the electrical properties and pressure sensing of the polymer composites	Journal of Materials Science	2016	51	11014–11020	3.9
30	Micro-Structured Interdigital Capacitors with Synthetic Antibody Receptors for ABO Blood-Group Typing	Sensors and Actuators B: Chemical	2017	242	378-383	7.7
31	Assessing Manganese Nanostructures based Carbon nanotubes composite for the Highly Sensitive Determination of Vitamin C in Pharmaceutical Formulation	Biosensors and Bioelectronics	2017	89	822-828	10.5

32	Surface Acoustic Wave (SAW) for Chemical Sensing Applications of Recognition Layers	Sensors	2017	17	2716	3.5
33	Surfactant Incorporated Co Nanoparticles Polymer Composites with Uniform Dispersion and Double Percolation	Journal of Chemistry	2017	Article ID 7191590	6 Pages	2.8
34	Effects of Fluoride Ion Toxicity on Animals, Plants, and Soil Health: A Review	Fluoride	2017	50(4)	393-408	0.6
35	Gravimetric Viral Diagnostics: QCM Based Biosensors for Early Detection of Viruses	Chemosensors	2017	5	7	3.7
36	Label-Free Bioanalyte Detection from Nanometer to Micrometer Dimensions—Molecular Imprinting and QCMs	Biosensors	2018	8	52	5.6
37	A miniaturized electronic sensor for instant monitoring of ethanol in gasohol fuel blends	RSC Advances	2018	8	22952-22962	4.6
38	Tailoring electrical and thermal properties of polymethyl methacrylate-carbon nanotubes composites through polyaniline and dodecyl benzene sulphonic acid impregnation	Polymer Composites	2018	39	E1052-E1059	4.7
39	Polyaniline/silver decorated-MWCNT composites with enhanced electrical and thermal properties	Polymer Composites	2018	39	E1346-E1353	4.7
40	Synthesis and antibacterial potential of hybrid nanocomposites based on polyorthochloroaniline/copper nanofiller	Polymer Composites	2018	39	4524-4531	4.7
41	Polymer-particulate composites with differential interfaces: synthesis, characterization, and mathematical modeling to evaluate interface-yield strength correlations	Colloid and Polymer Science	2019	297	545-556	2.3
42	Molecularly Imprinted Polymer-Silica Hybrid Particles for Biomimetic Recognition of Target Drugs	Advances in Polymer Technology	2019	Article ID 9432412	7 Pages	2.5
43	In-situ synthesis of 3D ultra-small gold augmented graphene hybrid for highly sensitive electrochemical binding capability	Journal of Colloid and Interface Science	2019	553	289-297	9.7
44	An Overview of High Frequency Acoustic Sensors—QCMs, SAWs and FBARs—Chemical and Biochemical Applications	Sensors	2019	19	4395	3.5
45	In situ synthesis of highly populated CeO <sub>2</sub> nanocubes grown on CNTs as a synergy hybrid and its electrocatalytic potential	Journal of Materials Research and Technology	2019	8	5336-5343	6.6
46	Design of heterostructured hybrids comprising ultrathin 2D bismuth tungstate nanosheets reinforced by chloramphenicol imprinted polymers used as biomimetic interfaces for mass-sensitive detection	Colloids and Surfaces B: Biointerfaces	2020	188	110775	5.6
47	Molecularly imprinted poly(methyl methacrylate)-nickel sulfide hybrid membranes for adsorptive desulfurization of dibenzothiophene	Separation and Purification Technology	2020	237	116453	9
48	Nanostructured molecularly imprinted photonic polymers for sensing applications	Current Nanoscience	2020	16	495-503	1.5
49	Nanocatalytic Assemblies for Catalytic Reduction of Nitrophenols: A Critical Review	Critical Reviews in Analytical Chemistry	2020	50	322-338	5.2

50	MIP-Based Impedimetric Sensor for Detecting Dengue Fever Biomarker	Applied Biochemistry and Biotechnology	2020	191	1384-1394	3.3
51	Synthesis and characterization of a novel chitosan-grafted-polyorthoethylaniline biocomposite and utilization for dye removal from water	Open Chemistry	2020	18	843-849	1.9
52	Molecularly imprinted polymeric coatings for sensitive and selective gravimetric detection of artemether	RSC Advances	2020	10	34355 - 34363	4.6
53	Enhanced High-Temperature (600 °C) NO <sub>2</sub> Response of ZnFe <sub>2</sub> O <sub>4</sub> Nanoparticle-Based Exhaust Gas Sensors	Nanomaterials	2020	10(11)	2133	4.3
54	Design and fabrication of a smart sensor using in-silico epitope mapping and electro-responsive imprinted polymer nanoparticles for determination of insulin levels in human plasma	Biosensors and Bioelectronics	2020	169	112536	10.7
55	Microbial fuel cells—A preferred technology to prevail energy crisis	International Journal of Energy Research	2021	45	8370-8388	4.2
56	Imprinted polymer and Cu <sub>2</sub> O-graphene oxide nanocomposite for the detection of disease biomarkers	Measurement Science and Technology	2021	32	105111	3.4
57	Determination of sitagliptin in human plasma using a smart electrochemical sensor based on electroactive molecularly imprinted nanoparticles	Nanoscale Advances	2021	3	4276-4285	4.6
58	Preventing SO <sub>x</sub> Emissions through Process Control: Interdigital Capacitors for On-Site Monitoring of Thiophene-Based Environmental Pollutants in Oil Refineries	Journal of The Electrochemical Society	2021	168	97505	3.3
59	Development of a MIP-Based QCM Sensor for Selective Detection of Penicillins in Aqueous Media	Chemosensors	2021	9	362	3.7
60	ZnO nanoparticles and β-cyclodextrin containing molecularly imprinted polymers for gravimetric sensing of very-low-density lipoprotein	Measurement Science and Technology	2022	33	45106	3.4
61	Solution grown multilayered zinc vanadium oxide nanosheets as a new material to bind glutathione	Journal of Materials Research and Technology	2022	17	1777-1785	6.6
62	Synthesis and characterization of poly(o-chloroaniline)/TiO <sub>2</sub> nanocomposites for photocatalytic degradation of direct yellow 50 dye in textile wastewater	Global NEST Journal	2022	24	53-58	1.2
63	Ultrathin 2D bismuth oxychloride nanosheets as novel catalytic interfaces for detection of biomolecules	Materials Science & Engineering B	2022	278	115651	4.6
64	Highly Stable APTES Incorporated CNTs Based Ternary Polymer Composites with Improved Dielectric and Thermal Properties	Silicon	2022	14	10807–10816	3.3
65	Smart nano-actuators for electrochemical sensing of Metformin in human plasma	Sensors and Actuators B: Chemical	2023	376	132928	7.7
66	Ag-ZnS Embedded Polymeric Receptors for the Recognition of Human Serum Albumin	Chemosensors	2023	11	240	3.7
67	Electrochemical Creatinine (Bio)Sensors for Point-of-Care Diagnosis of Renal Malfunction and Chronic Kidney Disorders	Diagnostics	2023	13	1737	3.3

68	An Ion-imprinted Polymer-Receptor-Based Electrochemical Sensor for the Sensitive and Selective Detection of Cadmium	ChemistrySelect	2023	8	e202204824	2
69	Low-cost, disposable sensors based on polystyrene waste and V-TiO <sub>2</sub> microneedle composites for diagnosis of renal malfunction and muscle dystrophy	Composites Communications	2023	37	101398	7.7
70	Transitioning from Supramolecular Chemistry to Molecularly Imprinted Polymers in Chemical Sensing	Sensors	2023	23	7457	3.5
71	Tuning sensitivity of creatinine-imprinted polymers with new super-sensitive schlegelite nanocrystals for disposable electrochemical CKD diagnostics	Composites Communications	2023	42	101673	7.7
72	Cytocompatible and stimuli-responsive chitosan based carrier with 3-aminopropyl(diethoxy)methylsilane for controlled release of cefixime	Chemical Papers	2023	77	5571–5586	2.5
73	Ensuring food safety with molecularly imprinted polymers: Innovative methods for the detection of aflatoxins in food and feed samples	Frontiers in Sustainable Food Systems	2023	7	1210104	3.1
74	A review on biomass selection criteria and its preliminary test for pyrolysis technique	"International Journal of Environmental Analytical Chemistry	2023	103	7070-7081	2.5
75	Synthesis and Characterization of Hybrid Nanocomposites Based on Poly(2-chloroaniline)/Zinc Oxide Nanofiller for Antibacterial Studies Against Escherichia coli and Bacillus subtilis	JOM	2023	75	5331–5340	2.3
76	Novel perovskite-type La:TiO <sub>2</sub> /poly(acrylic acid) nanocomposite coatings for solar-driven self-cleaning textiles	Progress in Organic Coatings	2024	186	108034	7.3
77	Discerning biomimetic nanozyme electrodes based on g-C <sub>3</sub> N <sub>4</sub> nanosheets and molecularly imprinted polythiophene nanofibers for detecting creatinine in microliter droplets of human saliva	Biosensors and Bioelectronics	2024	247	115899	10.7
78	Development of cholesterol imprinted polymer-based interfaces as smart sensors for detection of cholesterol in clinical samples	Journal of Materials Research	2024	39	459-470	2.9
79	Expanded polystyrene waste with Lead-Organic frameworks for adsorptive desulfurization of gasoline	Materials Letters	2024	359	135910	2.7
80	Functionalizing natural polymers to develop green adsorbents for wastewater treatment applications	Carbohydrate Polymers	2024	323	121397	12.5
81	Core-shell niobium(V) oxide@molecularly imprinted polythiophene nanoreceptors for transformative, real-time creatinine analysis	Nanoscale Advances	2024	6	3644-3654	4.6
82	Electrocatalytic FeFe <sub>2</sub> O <sub>4</sub> embedded, spermine-imprinted polypyrrole (Fe/MIPpy) nanozymes for cancer diagnosis and prognosis	Journal of Materials Chemistry B	2024	12	5898-5906	5.7
83	Expanded Polystyrene (EPS) Waste Upcycling and Efficient Oil/Water Emulsion Separation with Advanced EPS-Cotton Membranes	Desalination and Water Treatment	2024	320	100647	1
84	Portable smartphone-enabled dydrogesterone sensors based on biomimetic polymers for personalized gynecological care	Journal of Materials Chemistry B	2024	12	6905-6916	5.7

85	Flexible Plastic Electrodes Based on Thiosulfate-Modified gC3N4 Nanosheets for Simultaneous Handheld Monitoring of Hazardous Cationic Dyes in Drinking Water	ACS ES&T Water	2025	5	934-942	4.3
86	Synthesis and integration of sea urchin-like MnO <sub>2</sub> -GCN nanocomposite with imprinted polymers for mass-sensitive detection of chloramphenicol in water	Composites Communications	2025	56	102357	7.7
87	Polycrystalline boron nitride microflowers for non-invasive vitamin B3 (nicotinamide) sensing	Diamond and Related Materials	2025	155	112296	5.1
88	Hybrid Poly(Methacrylic Acid-Co-Acrylamide)-Polythiophene Nanofibers for Salivary Diagnosis of Oral Squamous Cell Carcinoma	Macromolecular Bioscience	2025	2025	2400420	4.1
89	Tailored MgAl LDH nanosheets as catalytic platform for selective electrochemical monitoring of ascorbic acid in pharmaceutical matrix	Microchemical Journal	2025	217	114859	5.1
90	Polymer Nanozymes: Electropolymerized Enzyme Mimics for the Detection of Oxidative Stress Biomarkers	ACS Applied Bio Materials	2025	8	8250-8260	4.7
91	Transforming agricultural waste into cement additives for durable and eco-friendly construction materials: rheological and mechanical properties	Zeitschrift für Naturforschung B	2025	80	403-411	0.8
92	Molecularly Imprinted Copolymers for Targeted Electrochemical Detection of Organic Contaminants in Groundwater	ACS Applied Engineering Materials	2025	3	988-997	3.5
93	Non-invasive Cholesterol Sensing by Poly(styrene-co-divinylbenzene) with Ag@MoO <sub>3</sub> Nanorods	Analysis & Sensing	2025	5	e202500034	2.9
Impact Factor as taken from ISI Web of Science 2024 Journal Citation Report						425.8

#### • Non-Impact Factor Journal Publications

Sr. No.	Article Title	Journal	Year	Volume	Pages
1	Quantitative degradation monitoring in core and enteric coated aspirin tablets	International Journal of Current Pharmaceutical Research	2013	5	68-70
2	Enhanced Control on the Electro Deposition Through Magnetic Field Using Reverse Microemulsion as Template	Asian Journal of Chemistry	2014	26	6077-6080
3	Molecular Imprinted Titania Sol-Gel Layer for Conductometric Sensing of p-Nitrophenol	Sensor Letters	2014	12	1682-1687
4	Modified Metal Catalysts with Enhanced Surface Area and their Activity	NUST Journal of Engineering Sciences	2014	7	38-41
5	Molecular Imprinted Polysiloxanes for Selective Removal of Leucomalachite Green	Asian Journal of Chemistry	2015	27	4369-4372
6	Tailoring Imprinted Titania Nanoparticles for Purines Recognition	Journal of Materials	2015	Article ID 903543	5
7	Iron and Copper Modification of Graphite Electrode for Effective Electro-oxidation Reaction of Methanol and Ethanol	International Journal of Emerging Technology and Advanced Engineering	2015	5	266-269

8	Molecularly imprinted titania nanoparticles for selective recognition and assay of uric acid	Applied Nanoscience	2015	5	527-534
9	Monitoring Oxidative Degradation of Thermally Stressed Palm Olein Shortening by Spectroscopic and Chromatographic Techniques	Open Journal of Applied Sciences	2018	8	598-606
10	Proficient photo catalytic degradation of methylene blue and methyl orange dyes as organic pollutant from aqueous medium	Parana Journal of Science and Education	2018	4	17-23
11	Polystyrene adsorbed multi-walled carbon nanotubes incorporated polymethylmethacrylate composites with modified percolation phenomena	MRS Advances	2018	3	25-30
12	Nickel Sulfide Nanoparticles Incorporated Poly(methyl methacrylate)-Zirconia Membranes for Ultra Deep Desulfurization of Dibenzothiophene	MRS Advances	2019	4	369-375
13	The Development of Antibiotics Based on Nanostructured Manganese Oxide; Understanding Mechanism from Fundamental Aspects to Application	Journal of Nanoscience and Nanotechnology	2020	20	7618-7628
14	Catalytic pyrolysis of Sweet Sorghum plant by using fixed-bed reactor; Effect of different temperatures on the pyrolytic bio-oil yield and FT-IR characterization	Journal of Optoelectronic and Biomedical Materials	2021	13	137-144
15	Synthesis of graphitic carbon nitride nanosheets-layered imprinted polymer system as a nanointerface for detection of chloramphenicol	Applied Nanoscience	2022	12	139-150
16	Materials for Wearable Sensors	Materials Innovations	2022	2	188-193
17	Theoretical Elucidation of Tuning the Transport Properties of Doped and Co-Doped Graphene Quantum Dots layer with Adsorption of Porphyrin Molecule Using Non-Equilibrium Green Function	Materials Innovations	2022	2	317-325
18	Zwitterionic Surfactant Modified Carbon Nanotubes Incorporated Percolative Polymer Composites with Improved Features	Nano Biomedicine and Engineering	2023	15	136-149

## • Peer Reviewed Conference Proceeding Articles

Sr. No.	Article Title	Conference	Volume	Pages	Year
1	Bio-analogous Recognition with Sol-gel Thin Films and Nanoparticles in Harsh Environments	2008 MRS Spring Meeting	1094	10940508	2008
2	Acoustic Chemo Sensors for Real-life Environments	IEEE Frequency Control Symposium	NA	431-433	2008
3	Synthesis of Imprinted Polysiloxanes for Immobilization of Metal ions	2014 MRS Spring Meeting	1675	209-2014	2014
4	Synthesis of SBA-16 Supported Catalyst for CNTs and Dispersion Study of CNTs in Polypyrrole Composite	2014 MRS Fall Meeting	1752	95-100	2014
5	Tailoring Molecular Imprinted Polymers as Biomimetic Recognition Coatings for Anti-Diabetic Drugs	17th International Meeting on Chemical Sensors - IMCS 2018	NA	696-697	2018

6	Molecularly Imprinted Polymer Strategy for Amoxicillin Detection As an Environmental Pollutants	18 <sup>th</sup> International Meeting on Chemical Sensors - IMCS 2020	NA	2255	2020
7	Reduced Graphene Oxide Fabricated Molecular Imprinted Polymeric Layers for Improved Recognition of Ciprofloxacin	18 <sup>th</sup> International Meeting on Chemical Sensors - IMCS 2021	NA	1533	2021
8	Physiochemical Modification of Graphene Nanosheets to tailor Electrical Properties of Graphene based PMMA Composites	Proceedings of 9 <sup>th</sup> International Conference on Materials Science and Nanotechnology for Next Generation (MSNG) 2022 published in Journal of Materials and Electronic Devices	4	40-44	2022
9	Nickel Oxide and Graphene Oxide Incorporated Molecular Imprinted Coatings for Electrochemical Recognition of Acetylcholine	Proceedings of 9 <sup>th</sup> International Conference on Materials Science and Nanotechnology for Next Generation (MSNG) 2022 published in Journal of Materials and Electronic Devices	4	45-48	2022
10	Utilizing Waste Expanded Polystyrene for Cleaning Fuels	Proceedings of the 2 <sup>nd</sup> International Conference on Sustainability: Developments and Innovations	2	279-285	2025
11	Efficient and Sustainable Energy Storage Materials for Meeting Future Power Needs	Proceedings of the 2 <sup>nd</sup> International Conference on Sustainability: Developments and Innovations	2	312-319	2025
12	From Polymeric Waste to Disposable Electrochemical Environmental Sensors for Water Quality Monitoring	Proceedings of the 2 <sup>nd</sup> International Conference on Sustainability: Developments and Innovations	3	248-255	2025

### • Book Chapters Published in Edited Books

Sr. No.	Chapter Title	Book	Publisher	Pages	Year
1	Surface Nano-patterning of Polymers for Mass-sensitive Bio-detection	Nano-Bio-Sensing	Springer	45-82	2010
2	Molecularly Imprinted Polymers for Sensors, Comparison of Optical and Mass-Sensitive Detections	Molecularly Imprinted Sensors Overview and Applications	Elsevier	125-159	2012
3	Detection of Cells and Viruses using Synthetic Antibodies	Handbook of Molecular Imprinting: Advanced Sensor Applications	Pan Stanford Publishing	527-568	2012
4	SAW and Functional Polymers	Springer Series on Chemical Sensors and Biosensors	Springer	213-246	2013
5	Molecular Imprinted Polymers for Biomedical Applications	Supramolecular Systems in Biomedical Fields	Royal Society of Chemistry	419-450	2013
6	Solid-state Sensors for Field Measurements of Gases and Vapors	Encyclopedia of Analytical Chemistry	Wiley	1-30	2014
7	Molecularly Imprinted Polymers (MIPs): Virus Sensing Applications	Encyclopedia of Biomedical Polymers and Polymeric Biomaterials	Taylor & Francis	4856-4866	2015

8	Molecularly Imprinted Polymers: Principle, Design, and Enzyme-Like Catalysis	Molecularly Imprinted Catalysts Principles, Syntheses, and Applications	Elsevier	79-101	2016
9	Applications of Carbon Based Materials in Developing Advanced Energy Storage Devices	Carbon Nanotubes-Redefining the World of Electronics	IntechOpen	129-147	2021
10	Methods for Design and Fabrication of Nanosensors	Nanosensors for Smart Agriculture	Elsevier	53-79	2022
11	Fabrication and Properties of Dielectric Elastomer-Based Nanocomposites	Emerging Nanodielectric Materials for Energy Storage	Springer	213-241	2023
12	Advanced nanosensors for smart healthcare	Advanced Sensors for Smart Healthcare	Elsevier	329-345	2025
13	Physical and Chemical Properties of Graphene–Metal Oxide-based Polymer Composites	Graphene–Metal Oxide Composites: Synthesis, Properties, and Applications	RSC	119-144	2025

### ❖ Research Projects Funded by Higher Education Commission (HEC) Pakistan

Sr. No.	Project Title	Principal / Co-Principal Investigator	Amount	Sponsoring Agency	Duration	Year
1	Microwave-Assisted Synthesis of Metal Nanostructures and their Possible Applications	Dr. Adnan Mujahid (PI)	500,000/-	Higher Education Commission	1 Year	2011
2	An Aerosol Route for the Synthesis of TiO <sub>2</sub> Nanoparticles for uses in Dye Sensitized Solar Cells	Dr. Adnan Mujahid (CoPI)	500,000/-	Higher Education Commission	1 Year	2012
3	A Sensor Array To Diagnose All-Cause Mortality Biomarkers - Death Risk Assessment	Dr. Adnan Mujahid (CoPI)	6,869,437/-	Higher Education Commission	2 Years	2017

### ❖ Research Projects Funded by University of the Punjab

Sr. No.	Project Title	Principal Investigator	Amount	Sponsoring Agency	Duration	Year
1	Molecular imprinted materials for the selective recognition of uric acid	Dr. Adnan Mujahid	150,000/-	University of the Punjab	1 year	2012
2	Molecular Imprinted Sol-gel Materials for Advance Drug Delivery Applications	Dr. Adnan Mujahid	150,000/-	University of the Punjab	1 year	2013
3	Surface Imprinted Polymers for Selective Separation of Carbamazepine	Dr. Adnan Mujahid	150,000/-	University of the Punjab	1 year	2014
4	Metal Sulfide Nanoparticles for Separating Sulfur Containing Compounds from Automotive Fuels	Dr. Adnan Mujahid	150,000/-	University of the Punjab	1 year	2015
5	Molecular Imprinted Layers for Electrical and Gravimetric Sensing of Target Analytes	Dr. Adnan Mujahid	150,000/-	University of the Punjab	1 year	2016

6	Tuning Polymethyl methacrylate (PMMA) Membranes for Adsorptive Desulfurization Applications	Dr. Adnan Mujahid	150,000/-	University of the Punjab	1 year	2017
7	Combining Graphene Derivatives with Molecular Imprinted Polymeric Layers for Developing Highly Responsive Hybrid Sensor Coatings	Dr. Adnan Mujahid	150,000/-	University of the Punjab	1 year	2019
8	Transforming Expanded Polystyrene Waste into Tailored Recognition Materials for Chemical Sensing and Separation Applications	Dr. Adnan Mujahid	250,000/-	University of the Punjab	1 year	2022
9	Integrating Ready to Use Molecular Imprinted Polymeric Layers with Screen Printed Electrodes for Electrochemical Sensing Applications	Dr. Adnan Mujahid	250,000/-	University of the Punjab	1 year	2023
10	Developing Molecularly Imprinted Electrochemical Sensors for Non-Invasive Detection of Biomarkers in Complex Biological Fluids	Dr. Adnan Mujahid	300,000/-	University of the Punjab	1 year	2024

### ❖ Research Work Presented in International Conferences

Sr. No.	Conference	Presentation Title	Year/Venue
1	2014 MRS Spring Meeting	Synthesis of Ion Imprinted Silanes and their Sensing Properties	2014 San Francisco, USA
2	22 <sup>nd</sup> Winter Fluorine Conference	Tailoring Imprinted Polymers for Selective Recognition of Fluorinated Drug Sitagliptin	2015 Florida, USA
3	2015 International Chemical Congress of Pacific Basin Societies	Developing Surface Imprinted Polymers for Selective Recognition of Pharmaceutical Targets	2015 Hawaii, USA
4	252 <sup>nd</sup> American Chemical Society National Meeting & Exposition	Surface Imprinted Polymeric Materials for Selective Recognition of Synthetic Hormones	2016 Philadelphia
5	253 <sup>rd</sup> American Chemical Society National Meeting & Exposition	Imprinted Polymeric Materials for Selective Recognition of Anti-Diabetic Drugs in Complex Mixtures	2017 San Francisco, USA
6	Pittcon 2018	Combining Graphene Oxide with Molecular Imprinted Polymer Layers as Recognition Coatings for Cholesterol Sensing	2018 Orlando, USA
7	255 <sup>th</sup> American Chemical Society National Meeting & Exposition	Integrating Metal Sulfide Nanoparticles with Porous PMMA Membranes for Desulfurization Applications	2018 New Orleans, USA
8	17 <sup>th</sup> International Meeting on Chemical Sensors - IMCS 2018	Tailoring Molecular Imprinted Polymers as Biomimetic Recognition Coatings for Anti-Diabetic Drugs	2018 University of Vienna, Austria
9	Pittcon 2019	Developing Molecular Imprinted Composite Sensor Coatings for Monitoring Neutral Nitrogenous Compounds in Liquid Fuel	2019 Philadelphia, USA
10	9 <sup>th</sup> International Conference on Materials Science and Nanotechnology for Next Generation (MSNG) 2022	Nickel Oxide and Graphene Oxide Incorporated Molecular Imprinted Coatings for Electrochemical Recognition of Acetylcholine	2022 Gazi University, Turkiye
11	International Conference and Exhibition for Science (ICES2023)	Developing Ag-MOF Incorporated Expanded Polystyrene Composites for Adsorptive Desulfurization of Fuels	2023 King Saud University, Saudi Arabia

12	2 <sup>nd</sup> International Conference on Sustainability: Developments and Innovations	Utilizing Waste Expanded Polystyrene for Cleaning Fuels	2024 Prince Sultan University, Saudi Arabia
13	ANAKON 2025	Combining Expanded Polystyrene with Graphitic Carbon Nitride Quantum Dots for Lactic Acid Sensing in Human Saliva	2025 Leipzig University, Germany

### ❖ Research Work Presented in National Conferences held in Pakistan

Sr. No.	Conference	Presentation Title	Year/Venue
1	Conference on Emerging Materials and Processes (CEMP 2013)	Molecular Imprinted Titania Nanoparticles as Advance Recognition Material	2013 NUST Islamabad
2	International Conference on Physical and Environmental Chemistry (ICPEC 2013)	Molecular Imprinted Polymers for Selective Adsorption of Dydrogesterone	2013 Nathiagali
3	24 <sup>th</sup> National Chemistry Conference	Molecularly Imprinted Polymers as Drug Carrier Matrix	2013 BZU, Multan
4	International Conference of Biochemical and Chemical Sciences (ICBCS 2014)	Selective Separation of Cr <sup>+3</sup> from Aqueous Solutions using Ion-Imprinted Materials	2014 UAF, Faisalabad
5	25 <sup>th</sup> National Chemistry Conference	Synthetic Strategies in Developing Ion Imprinted Polymers for Chemical Sensor Applications	2014 Punjab Univ., Lahore
6	2 <sup>nd</sup> Conference on Frontiers of Nanoscience and Nanotechnology	Developing Poly(Vinyl Alcohol)/Copper Nano-composite for Humidity Sensor Applications	2015 PINSTECH, Islamabad
7	26 <sup>th</sup> National Chemistry Conference	Developing Metal Sulfide Nanoparticles for Separation of Dibenzothiophene from n-hexane	2015 IUB, Bahawalpur
8	3 <sup>rd</sup> Conference on Frontiers of Nanoscience and Nanotechnology	Transition metal sulfide nanostructures for adsorptive desulfurization of thiophene derivatives	2016 PINSTECH, Islamabad
9	One Day Symposium on Nanotechnology Research in Pakistan	Imprinted Poly(methacrylic acid)/Gold Nanoparticles Hybrids for Gaseous Formaldehyde Mass Sensing	2016 NIBGE, Faisalabad
10	14 <sup>th</sup> EURASIA Conference on Chemical Sciences	Accessing Edible Oil Quality through FTIR and Chemical Sensor Approach	2016 HEJ, Karachi
11	One Day Symposium on Nanotechnology Research in Pakistan	Combining Au Nanoparticles with Imprinted Polymeric Layers as Highly Responsive Sensor Coatings	2017 NIBGE, Faisalabad
12	28 <sup>th</sup> National Chemistry Conference	Developing Molecular Imprinted Nanocomposites as Efficient Chemical Sensor Coatings	2017 UOK, Karachi
13	6 <sup>th</sup> International Conference on Semiconductor Materials and Nano-Devices	Integrating Molecular Imprinted Nanoparticles as Interdigital Capacitor Coatings for Chemical Sensor Applications	2018 IUB, Bahawalpur
14	1 <sup>st</sup> International Conference on Chemistry	Integrating Metal Nanostructures with Functionalized Polymers for Chemical Sensing Applications	2018 LGU, Lahore
15	International Symposium on Sensors and Biosensors	Evaluating Collaborative Effect of Molecular Imprinting and Au Nanoparticles for Highly Responsive Sensor Coatings	2018 COMSATS, Lahore
16	Natural Sciences at the Interface of Climate Change, Food Security and Sustainability	Developing Affinity Materials for Producing Clean Fuels by Adsorptive Desulfurization Approach	2018 UOK, Kotli AJK

17	International Symposium on Technologies and Materials for Renewable Energy, Environment and Sustainability	Functionalized Polymeric Membranes as Affinity Matrix for Adsorptive Desulfurization of Thiophenes	2019 UOA, Faisalabad
18	International Chemistry Conference on "Forefronts of Chemistry: Celebrating the Periodic Table Year"	Molecular Imprinted Composite Sensor Materials for Enhanced Recognition of Target Analytes in Real-Time Samples	2019 BZU, Multan
19	3 <sup>rd</sup> International Conference on Chemistry (ICC) Virtual	Integration of Chemical Recognition Layers with Surface Acoustic Wave Devices for Gravimetric Sensing Applications	2020 LGU, Lahore
20	5 <sup>th</sup> Conference on Emerging Materials and Processes (CEMP) 2021	Metal Sulfide Nanoparticles Decorated Titania Layers Combined with Interdigitated Capacitors for Electrochemical Sensing of Thiophenes	2021 NUST, Islamabad
21	1 <sup>st</sup> International Conference on General Chemistry from Fundamentals to Applications	Core-Shell Magnetic Molecular Imprinted Polymeric Nanoparticles for Adsorptive Denitrogenation/Desulfurization	2022 COMSATS, Islamabad
22	International Conference on Innovation in Chemistry and Physics (ICP-2022)	Developing Molecular Imprinted Magnetic Particles for Recognition of Cholic Acid	2022 UOE, Faisalabad
23	1 <sup>st</sup> International Conference on Innovations in Chemistry, BioChemistry, Biotechnology and Bioinformatics (ICBBB-2022)	Acid Treated Expanded Polystyrene Beads for Waste Water Purification	2022 IUB, Bahawalpur
24	International Conference on "Chemistry, Materials and Technology (CMT-2023)	Transforming Expanded Polystyrene Waste into Affinity Materials	2023 UAF, Faisalabad
25	"21 <sup>st</sup> International, 1 <sup>st</sup> Inter-Islamic, & 33 <sup>rd</sup> National Chemistry Conference	Monitoring Automotive Engine Fuel Quality using Titania based Nanocomposites	2023 QAU, Islamabad
26	34 <sup>th</sup> National & 22 <sup>nd</sup> International Chemistry Conference" (Chemcon-2024)	Unlocking the Potential of Ready to Use Polymers for Imprint-Based Electrochemical Sensors	2024 UOM, Malakand
27	2 <sup>nd</sup> International Conference on Innovations in Chemistry, BioChemistry, Biotechnology and Bioinformatics (ICBBB-2024)	Harnessing Biomimetic Properties in Pre-Polymerized Materials for Developing Highly Selective Sensor Coatings	2024 IUB, Bahawalpur
28	35 <sup>th</sup> National & 23 <sup>rd</sup> International Chemistry Conference" (Chemcon-2025)	Waste-to-Resource: Functionalized Waste Expanded Polystyrene Beads for Efficient Removal of Dyes from Water Bodies	2025 GCU, Faisalabad
29	7 <sup>th</sup> International Conference on Recent Trends in Chemistry" (ICRTC-2025)	Combining Metal Oxide Structures with Ready-to-Use Polymers as Highly Sensitive Sensor Coatings for Monitoring Stress Hormone	2025 AIOU, Islamabad

## ❖ Workshops

Sr. No.	Workshops	Venue	Year
1	Workshop on Advance Electroanalytical Techniques	University of Sindh, Jamshoro, Pakistan	2011
2	Air Pollution Modeling: Fate of Air Pollutants in the Atmosphere	University of Karachi, Karachi, Pakistan	2012
3	Global Chemists Code of Ethic Science and Technology Leadership Institute Workshop by American Chemical Society (ACS)	Melbourne, Australia	2017

## ❖ Research Thesis Supervised

- PhD Thesis Supervised **05**
- M.Phil./MS Thesis Supervised **34**
- BS/AD/M.Sc. Thesis Supervised **57**

## ❖ Scientific Advisory Services as Reviewer for Research Journals

- Accounts of Chemical Research
- ACS Nano
- ACS Sensors
- Analytical Chemistry
- Applied Biochemistry and Biotechnology
- Biosensors
- Biosensors and Bioelectronics: X
- Chemosphere
- Energy & Fuels
- Environmental Science and Pollution Research
- Industrial & Engineering Chemistry Research
- International Journal of Environmental Analytical Chemistry
- International Research Journal of Pure & Applied Chemistry
- Journal of Environmental Chemical Engineering
- Journal of Chemistry
- Journal of King Saud University
- Journal of Materials Science
- Journal of Surfactants and Detergents
- Korean Journal of Chemical Engineering
- Materials Chemistry and Physics
- Molecules-mdpi
- Nano Letters
- Nanotechnology Reviews
- Polymer
- Polymer International
- Recent Patents on Medical Imaging
- Resources, Conservation and Recycling
- Science of Advanced Materials
- Sensor Review
- Sensors & Actuators: B. Chemical
- Separation Science and Technology
- Superlattices and Microstructures
- Surface and Coatings Technology
- Synthetic Metals
- ACS Applied Materials & Interfaces
- ACS Omega
- Advanced Materials
- Applied Biochemistry
- Applied Catalysis A: General
- Biosensors and Bioelectronics
- Canadian Journal of Chemistry
- Colloids and Surfaces A
- Environmental Quality Management
- IEEE Electron Device Letters
- International Journal of Biological Macromolecules
- International Journal of Hydrogen Energy
- International Journal of Electrochemistry
- Journal of Biomaterials Science
- Journal of Industrial & Engineering Chemistry
- Journal of Material Research
- Journal of Polymer Research
- Journal of the Iranian Chemical Society
- Materials Advances
- Microchimica Acta
- Monatshefte fur Chemie - Chemical Monthly
- Nanoscale Advances
- Polish Journal of Environmental Studies
- Polymer Composites
- Polymers-mdpi
- Redox Biology
- Reviews in Chemical Engineering
- Sensor Letters
- Sensors & Actuators: A. Physical
- Sensors-mdpi
- SN Applied Sciences
- Supramolecular Chemistry
- Surface and Interface Analysis
- Talanta

## ❖ Administrative Duties /Assignments

- Member Departmental Admission Committee, Board of Studies, Board of Faculty, Academic Council, Departmental Tenure Review Committee, Curriculum Review Committee, Departmental Doctoral Program Committee, Member Preparing/Conducting GRE (General) and GRE (Subject) Test
- Program Coordinator of M.Phil. and In-charge Hostel Affairs at School of Chemistry