# PROF. DR. AMBER R. SOLANGI

#### **PERSONAL**

Pakistani, Female, Single, Born on 15/02/1974; Good in English, Urdu and Sindhi; Computer literate; Interest in current affairs. Enjoy reading, traveling and social work.

## **EDUCATIONAL QUALIFICATION**

- Post Doctorate (Electroanalytical Chemistry). School of Chemistry, Monash University, Melbourne, Australia, Feb-2009-Jan-2010. Project title: "Electrochemical and NMR based measurement of diffusion coefficient of (SeCN)-/(SeCN)-3 redox couple in different Ionic Liquids".
- **Ph.D** (Analytical Chemistry). National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro, Pakistan **Sep -2007.** Dissertation: "Development of new Analytical methods for the determination of 4-Quinolone & Cephalosporin antibiotics using Voltammetry and Capillary Electrophoresis".
- M.Phil (Electroanalytical chemistry). National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro, Pakistan. First Class, (G.P.A- 4) 2002. Thesis: "Indigenous fabrication of new Ion Selective Electrodes & their applications.
- M.Sc (Physical Chemistry). Quaid-e-Azam University, Islamabad Pakistan, First Class (62%), 1998. Thesis: "Determination of pKa values of different dyes by Potentiometric and Spectrophotometric Methods".
- **B.Sc** (Chemistry). M.A. Kazi Institute of Chemistry, University of Sindh, Jamshoro. Pakistan, First Class (77%), 1995.
- Inter (Biology group). Government Degree College, Shahdadpur, Pakistan, First Class (65%), 1991.
- Matric (Science). Government Girls High School, Shahdadpur, Pakistan, First Class (75%), 1989.

#### JOB EXPERIENCE

- **Professor** at National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro Pakistan, since **22 Feb 2017 to date**.
- Associate Professor at National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro Pakistan, since 26<sup>th</sup> March 2012 to 22 Feb 2017.
- Post Doc Fellow at School of Chemistry, Monash University, Melbourne, Australia, since Feb 2009 to Jan 2010.
- Assistant Professor at National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro Pakistan, since March 2008 to March 2012.
- Lecturer at National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro Pakistan, since 13<sup>th</sup> November 2000 till March 2008.
- Research Associate/officer at National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro Pakistan, since 10<sup>th</sup> October 1999 till 12<sup>th</sup> November 2000.

#### ADDITIONAL DUTIES BESIDE TEACHING & RESEARCH

- In-Charge Students Affairs
- In-Charge Chemical Store
- Associate Editor of Pakistan Journal of Analytical & Environmental Chemistry, (A biannual Journal).

### ADMINISTRATIVE RESPONSIBILITY

- In-charge NCEAC Hostels (Girls & Boys) since 2011.
- In-Charge Admissions (for M.Phil Ph.D) since 2011.
- Member Admission/Examination Committee.
- Member Tender/Bid Committee.
- Member Administrative/Executive (Policy Decision) Committee.
- Member Board of Studies, NCEAC.
- Member Board of Faculty, University of Sindh, Jamshoro.
- Member Departmental Promotion Committee.
- Member Board of Studies, Institute of Chemistry, Shah Abdul latif University, Khairpur

- Member Admission/Examination Committee Govt.College University Hyderabad
- Member Selection Board NCEPC, Peshawar

### **RESEARCH AREAS**

- Adsorption/removal studies of various environmental pollutants for the treatment of contaminated water.
- Synthesis of nano materials/nano composites and their applications as sensors and biocatalysts.
- Separation and determination of drugs/organic compounds using capillary electrophoresis.

## STUDENTS SUPERVISED (AS HEC APPROVED SUPERVISOR)

S.No.	Student's	Research Topic	Degree	Role
	name			
1	S. Sara Hassan	Analgesic derived Au nano particles & their applications in sensors	Ph.D Completed- 2013	Co-Supervisor
2	Yasmeen Junejo	Antibiotic based synthesis of Ag nano particles& their use in catalysis	Ph.D Completed- 2014	Co-Supervisor
3	M. Yahya Gilal	Voltammetric determination of pharmaceutical preparations containing guanidine functional groups	M.Phil Completed-2015	Co-Supervisor
4	Sidra Amin	Electrochemical determination of selected analgesic drugs of environmental concern using solid state electrodes.	M.Phil Completed- 2015	Co-Supervisor
5	Umair Ahmed	Use of new materials for the removal of Phthalates by solid phase extraction	Ph.D Completed 2015	Supervisor
6	Anita Abbas	Synthesis of modified calix[n]arene derivatives and their application in electrochemistry	M.Phil Completed 2015	Supervisor
7	Paras Azadi	Adsorptive Removal of Thiophenic Compounds from Hydrocarbon Fuel	M.Phil Completed- 2015	Co-Supervisor
8	Saba Waris	Microbial Production of Conjugated Linolenic Acid By Linolenic Acid	M.Phil Completed-2015	Co-Supervisor
9	Safia Sanam	Drug Based Synthesis of Precious Metal Nanoparticles and Their Application for Electrochemical Sensoring.	M.Phil Completed-2015	Co-Supervisor
10	Erum Akhund	Synthesis and Characterization of Nickel Nano Particles and Their Applications	M.Phil Completed-2016	Supervisor

11	Amna Khatoon	Development of Capillary	M.Phil	Supervisor
11	Amia Knatoon	Electrophoretic Method for the	Completed-2016	Supervisor
		Determination of Skin Whitening	Completed 2010	
		Agents in Cosmetic Products		
12	Shabana Gul	Phytochemical and Antioxidant activity	M.Phil	Co-Supervisor
12	Shabana Gui	of Ocimum basilicum (Sweet basil)	Completed-2016	Co-Supervisor
13	Ruqaya Sheikh	Preparation and characterization of	M.Phil	Co-Supervisor
13	Ruqaya Sheikh	Functional Metal-Nanoparticles and	Completed-2016	Co-Supervisor
		Their Application	Completed 2010	
14	Sana Ahmed	Development of Electro-analytical	M.Phil	Co-Supervisor
	SWIIW 1211110W	method for the detection of selected	Completed-2017	o supervisor
		Triazine herbicides.	2017	
15	Raja Karim	Determination of Polycyclic Aromatic	M.Phil	Supervisor
10	Tuju Turini	Hydrocarbons in Vegetables Grown in	Completed-2017	Supervisor
		Sindh, Pakistan	completed 2017	
16	Tasawar Ali	Electrochemical determination of	Ph,D	Co-Supervisor
10	14547741 1111	Various Drugs using stationary and	Completed-2018	Co supervisor
		flow cell techniques	2010	
17	Almas Fatima	Determination of selected Phenolic	Ph,D	Supervisor
1,	1 IIIIII I I IIIIII	compounds from natural and biological	Completed-2018	Supervisor
		samples using capillary electrophoresis	2010	
		and HPLC		
18	Aiusha Memon	Synthesis of Layered Double	M.Phil	Supervisor
10	Trusha Wellon	Hydroxide Materials for the Removal	Completed-2018	Supervisor
		of Perchlorate Ions from Aqueous	2010	
		System		
19	Indra Khatoon	Development of New Analytical	M.Phil	Supervisor
		Method for the Determination of	Completed-2018	Super (1501
		Selected Anticancer Drugs	2010	
20	Sanaullah	Nutritional Profiling of Non-Leafy	M.Phil	Supervisor
		Vegetables Cultivated in Sindh,	Completed-2018	
		Pakistan		
21	Bindia Junejo	Study of the Physiochemical Behavior	M.Phil	Supervisor
		of Zeolite for the Removal of Selected	Completed-2019	
		Dyes from Aqueous Medium	1	
22	Tania Ghumro	Method Development for the Treatment	M.Phil	Supervisor
		of Formaldehyde Contaminated water	Completed-2019	•
23	Mehwish Abbasi	Antibiotic Assisted Formation of Metal	M.Phil	Co-Supervisor
		Nanoparticles and their Applications in	Completed-2019	•
		Sensors	•	
24	Dilawar Hassan	Effect of size on potential applications	M.Phil	Supervisor
		of metal oxide nanoparticles	Completed-2020	_
		_	-	
25	Aysha Sani	Green Synthesis of hematite (α-Fe <sub>2</sub> O <sub>3</sub> )	M.Phil	Supervisor
	Memon	Nanoparticles and their Application	Completed-2020	
26	Saba Memon	Synthesis of Cobalt oxide NPs from	M.Phil	Supervisor
		plant extracts and their applications	Completed-2021	_
			<u>-</u>	
27	Sidra Ameen	Synthesis of metal oxide/sulphide based	Ph.D	Supervisor
		nano composite nanostructures, their	Completed-2021	
		characterization and applications	-	
28	Shakeel Bhutto	Comparative Application Study of	M.Phil	Supervisor
		Metal Oxide Nanoparticles Synthesized	Completed-2021	_
		Wictai Oxide Nanoparticles Synthesized 1	Completed-2021	

29	Jamil Ahmed	Synthesis of Copper Oxide (CuO) nanoparticles using different hydroxyl sources and their environmental application	M.Phil Completed-2021	Supervisor
30	Nadir Ali	Ionic liquid-assisted synthesis of Cobalt oxide (Co <sub>3</sub> O <sub>4</sub> ) nanostructures and their environmental applications	M.Phil Completed-2021	Supervisor
31	Attia Bhatti	Plant Mediated Synthesis of NiFe <sub>2</sub> O <sub>4</sub> Nanoparticles and their Applications	M.Phil Completed-2021	Supervisor
32	Saira Talpur	Development of Dispersive Liquid- Liquid Microextraction method for preconcnetration of selected pharmaceutical compounds	M.Phil Completed-2021	Co-Supervisor
33	Nida Shams	Synthesis of ion carriers for the determination and separation of toxic metals	Ph.D Completed-2021	Supervisor
34	Nadeem Qambrani	Synthesis of Metal Oxide Nanocomposites and Their Applications	M.Phil Completed- <b>2022</b>	Supervisor
35	Mehrunissa	Synthesis of Functionalized Carbon Material for Catalytic Degradation of selected Organic Contaminants	M.Phil Completed- <b>2022</b>	Co-supervisor
36	Hadi Buksh	Synthesis and Characterization of Metal Oxide Nanoparticles and their Application for the Detection of Pesticides, Drugs and Heavy Metals	Ph.D Completed-2022	Supervisor
37	Raja Kareem	Effect of water/rock/soil interaction on the quality of ground-water: A geochemical case study of the ground- water of selected areas of Sindh	Ph.D Completed- <b>2023</b>	Supervisor
38	Aamna Khatoon	Bio-synthesis of silver nano particles through vegetable extract and their applications	Ph.D Completed- <b>2024</b>	Supervisor
39	Mir Mehran Khan	Layered double hydroxide based nanostructure modified electrode for environmental application	M.Phil Completed- <b>2024</b>	Supervisor
40	Shuaib –Ul- Zaman	Synthesis of Copper Oxide/Nickel Oxide (CuO/NiO) nano-composite and its Applications	M.Phil Completed- <b>2024</b>	Supervisor

# STUDENTS UNDER SUPERVISION

S.No	Student's name	Research Topic	Degree	Role
1	Bindia Junejo	Synthesis, Characterization, Agricultural and Pharmacological applications of metal/metal	Ph.D	Supervisor

		oxide nano-particles		
2	Tania Ghumro	Evaluation of functional compounds from various propolis of Pakistan	Ph.D	Supervisor
4	Sehrish Qazi	Synthesis of Graphene Derivatives/Composites and Their Applications	Ph.D	Co-supervisor
5	Jamil Ahmed	Fabrication of Symbiotic Graphene Oxide/Metal Oxide Nanocomposites and Their Electrochemical Applications	Ph.D	Supervisor
6	Nadir Hussain	Synthesis of Hetero-structured Nanocomposites for Energy Storage and Sensing Applications	Ph.D	Supervisor
7	Saba Ali	Controlled Synthesis of Functionalized Metal Nanoclusters and their utilization as Sensor for Monitoring of Environmental Pollutants	Ph.D	Supervisor
8	Ali Hyder	Synthesis of Calix[n]arene Based Functionalized Nanocomposite Materials and Their Applications	Ph.D	Co-supervisor

# FUNDED PROJECTS COMPLETED

S.No.	Title	Budget	Funding Agency/ awarded year	Role/status
1	Green Nanotechnology: A Safe Approach for Environmental Remediation	Rs. 2.3 million	Sindh HEC 2021	Co-I Completed- 2023
2	Exploitation of Role of Capillary Electrophoresis as a Characterization Tool for Nanomaterials	Rs. 1.5 million	HEC, Islamabad 2019	P.I Completed- 2022
3	Synthesis of NiO nanostructures assisted with the combination of ionic liquids and cationic and anionic surfactants and their potential use in the development of sensitive electrochemical pesticide sensors for the monitoring of pesticides from different vegetables grown in Pakistan.	Rs. 4.23 million	HEC, Islamabad 2017	P.I Completed- 2021
4	Ionic Liquid Modified Sorbents for the removal of Phthalates	0.533 millions	NCEAC 2013	P.I Completed- 2015
5	Synthesis and characterization of drug- derived gold nanoparticles and their applications in sensors	5.1 millions	HEC, Islamabad 2010	Co-I Completed- 2014

### HEC FUNDED PROJECT ONGOING/ APPLIED

S.No	Title	Budget (millions)	Funding Agency/year	Role/status
1	Bio-Sensing Platform Based on nanoparticles for waterborne bacterial pathogens	Rs. 2.078	HEC, Islamabad 2019	Co-PI
2	Potassium Nano-Fertilizer: Cultivating a New Era for Sustainable Agriculture under Changing Climate	Rs. 2.31	Sindh HEC 2023	P.I
3	The Design and Reaction Mechanisms of Efficient Synergistic Catalytic Removal of NOx and VOCs	Rs. 8.02	PSF-NCFC China 2023	P.I

## HEC FUNDED STUDENT UNDER SUPERVISION ON INDIGENIOUS SCHOLARSHIP

S.No	Student's	Research Topic	Degree	Role
	name			
1	Jamil Ahmed	Fabrication of Symbiotic Graphene Oxide/Metal Oxide Nanocomposites and Their	Ph.D	Supervisor
		Electrochemical Applications		
2	Ali Hyder	Synthesis of Calix[n]arene Based Functionalized Nanocomposite Materials and Their Applications	Ph.D	Co- supervisor

### HEC FUNDED STUDENT SUPERVISED ON INDIGENIOUS SCHOLARSHIP

S.No	Student's	Research Topic	Degree	Role
	name			
1	Almas Fatima	Determination of selected Phenolic compounds from natural and biological samples using capillary electrophoresis and HPLC	Ph.D Completed -2018	Supervisor
2	Sidra Ameen	Synthesis of metal oxide/sulphide based nano composite nanostructures, their characterization and applications	Ph.D Completed 2021	Supervisor

### **Total Publications**

(https://scholar.google.com/citations?hl=en&user=zY8\_aTYAAAAJ&view\_op=list\_works &sortby=pubdate)

- 1. Jamil A. Buledi, Madeeha Batool, Sidra Ameen, Amber R. Solangi, Arfana Mallah, Ismail Murat Palabiyik, Syed Tufail H. Sherazi, "Polyethylene glycol functionalized CuO/rGO nanocomposite based electrochemical sensor for ultra-sensitive electro-oxidation of bromoxynil in vegetables", *Chemical Papers* (2023) DOI: 10.1007/s11696-023-03012-x. (IF: 2.2)
- 2. Ali, Hyder, Akbar Ali, Jamil Ahmed Buledi, Ayaz Ali Memon, Amber R. Solangi, Jun Yang, and Khalid Hussain Thebo. "MXene-based nanocomposites: emerging candidates for the removal of antibiotics, dyes, and heavy metal ions." *Materials Chemistry Frontiers* (2023). (IF: 7.0)
- **3.** Hyder, Ali, Jamil Ahmed Buledi, Roomia Memon, Anjum Qureshi, Javed H. Niazi, **Amber R. Solangi**, Shahabuddin Memon, Ayaz Ali Memon, and Khalid Hussain Thebo. "Modified electrochemical sensor via supramolecular structural functionalized graphene oxide for ultrasensitive detection of gallic acid." *Diamond and Related Materials* (2023): 110357. (**IF: 4.1**)
- **4.** Nawaz, M., Shaikh, H., Buledi, J.A. **Solangi, A.R.** *et al.* Fabrication of ZnO-doped reduce graphene oxide-based electrochemical sensor for the determination of 2,4,6-trichlorophenol from aqueous environment. *Carbon Lett.* **(2023).** <a href="https://doi.org/10.1007/s42823-023-00562-8">https://doi.org/10.1007/s42823-023-00562-8</a> **(IF: 4.5)**
- **5.** Buledi, J.A., Hyder, A., Khand, N.H., Memon, S.A., Batool, M., **Solangi, A.R.** Potential Mitigation of Dyes Through Mxene Composites. In: Rizwan, K., Khan, A., Ahmed Asiri, A.M. (eds) Handbook of Functionalized Nanostructured MXenes. Smart Nanomaterials Technology. Springer, Singapore. **(2023).** https://doi.org/10.1007/978-981-99-2038-9 17
- 6. Jamil A. Buledi & Amber R. Solangi Low-temperature aqueous growth of SDS-stabilized CuO eectrocatalyst for ranitidine monitoring in pharmaceuticals. *Chem. Papers.* (2023). https://doi.org/10.1007/s11696-023-02946-6 (IF: 2.2)
- 7. Bindia Junejo, Qamar A. Solangi, Ali Salman B. Thani, Ismail Murat Palabiyik, Tania Ghumro, adia Bano, Amber R. Solangi\*, Syed Iqleem H. Taqvi, "Physical properties and Pharmacological applications of Co<sub>3</sub>O<sub>4</sub>, CuO, NiO and ZnO Nanoparticles" *World Journal of Microbiology and Biotechnology*: 2023 (IF: 4.1)
- 8. Madeeha Batool, Zartashia Afzal, Iqra Saleem Khan & Amber R. Solangi (2023): Exploring the Mechanism of Anionic Chemosensing by Imidazoles: A Review, *Critical Reviews in Analytical Chemistry*, DOI: 10.1080/10408347.2023.2210680 (IF: 5.6)
- 9. Shuaibul-Zaman Shah, Iqleem H. Taqvi, Sidra Ameen, Arfana Mallah, Jamil A. Buledi, Nadir H. Khand and **Amber R. Solangi**, "Plant based fabrication of CuO/NiO nanocomposite: a green approach for low-level quantification of vanillin in food samples" *Pure and Applied Chemistry*, 2023. https://doi.org/10.1515/pac-2023-0106 (IF: 1.8)

- 10. Bindia Junejo, Mujde Eryilmaz, Suna Sibel Rizvanoglu, Ismail Murat Palabiyik, Tania Ghumro, Arfana Mallah, **Amber R. Solangi**, Syed Iqleem Hyder, Hassan Karimi Maleh and Elena Niculina Dragoi, "Pharmacological assessment of Co<sub>3</sub>O<sub>4</sub>, CuO, NiO and ZnO nanoparticles via antibacterial, anti-biofilm and anti-quorum sensing activities", *Water Science & Technology*, Vol 00 No 0, 1 doi: 10.2166/wst.2023.150 (IF: 2.7)
- 11. Buledi, Jamil A., Huma Shaikh, Amber R. Solangi, Arfana Mallah, Zia-ul-Hassan Shah, Mir Mehran Khan, Afsaneh L. Sanati et al. "Synthesis of NiO-Doped ZnO Nanoparticle-Decorated Reduced Graphene Oxide Nanohybrid for Highly Sensitive and Selective Electrochemical Sensing of Bisphenol A in Aqueous Samples." *Industrial & Engineering Chemistry Research* 62, no. 11 (2023): 4754-4764. (IF: 4.2)
- **12.** Raja Karim Bux, Madeeha Batool, Syed Mubashir Shah, **Amber R. Solangi**\*, Asghar Ali Shaikh, Syed Iqleem Haider, Zia-ul-Hassan Shah, "Mapping the Spatial distribution of Soil heavy metals pollution by Principal Component Analysis and Cluster Analyses", *Water Air Soil Pollut* (2023) 234:330. <a href="https://doi.org/10.1007/s11270-023-06361-1">https://doi.org/10.1007/s11270-023-06361-1</a> (IF: 2.9)
- 13. Jamil A Buledi, **Amber R Solangi**, Arfana Mallah, Syeda Sara Hassan, Syed Tufail H Sherazi, Muhammad Raza Shah, "Electrocatalytic evaluation of β-SnWO<sub>4</sub>/rGO nanostructure for low-level urea detection", *J Mater Sci: Mater Electron* 34, 618 (2023). (IF: 2.8)
- **14.** Jamil A Buledi, **Amber R Solangi**, Arfana Mallah, Zia-ul-Hassan Shah, Syed Tufail Sherazi, Muhammad Raza Shah, Ali Hyder, Saba Ali, "<u>Electrochemical monitoring of isoproturon herbicide using NiO/V2O5/rGO/GCE</u>", *J. Food Measurement and Characterization*, **(2023)**. https://doi.org/10.1007/s11694-022-01733-3. **(IF: 3.4)**
- 15. Jamil A. Buledi, Amber R. Solangi\*, Arfana Mallah, Syeda Sara Hassan, Sidra Ameen, Ceren Karaman, Hassan Karimi-Maleh, "A Reusable Nickel Oxide Reduced Graphene Oxide Modified Platinum Electrode for the Detection of Linezolid Drug", Industrial & Engineering Chemistry Research, January 11, 2023 (IF: 4.2) DOI: 10.1021/acs.iecr.2c03334
- **16.** A. Khatoon, N. H. Khand, A. Mallah, **Amber R. Solangi,** S. Q. Memon, A. F. Memon, C. Karaman, F. Karimi, and O. Karaman, "A Fast and Reliable Electrophoretic Method for Size-Based Characterization of Silver Nanoparticles," *Industrial & Engineering Chemistry Research*, November 3, **2022**. (IF: **4.2**) **DOI**: 10.1021/acs.iecr.2c03317
- 17. A. N. Soomro, H. Shaikh, M. I. Malik, J. A. Buledi, S. Qazi, and A.R Solangi, "Fluorene intercalated graphene oxide based CoQ10 imprinted polymer composite as a selective platform for electrochemical sensing of CoQ10," RSC Advances, vol. 12, pp. 31639-31649, 2022. (IF: 3.2)
- **18.** A. F. Memon, S. Ameen, N. H. Khand, N. Qambrani, J. A. Buledi, B. Junejo, A. R. Solangi, S. I. H. Taqvi, E.-N. Dragoi, and N. Zare, "Electrochemical monitoring of bisphenol-s through nanostructured tin oxide/Nafion/GCE: A solution to environmental pollution," *Chemosphere*, p. 135170, **2022.** (IF: 8.8)
- 19. M. Batool, Z. Afzal, H. M. Junaid, A. R. Solangi, and A. Hassan, "Sulfonamides as Optical Chemosensors," *Critical Reviews in Analytical Chemistry*, pp. 1-28, 2022. (IF: 6.5).

- **20.** M. Nawaz, H. Shaikh, J. A. Buledi, A. R. Solangi, R. Raza, and B. Maher, "Microwave-assisted synthesis of cadmium/reduced graphene oxide composite: an operative platform for highly specific electrochemical determination of bisphenol-A," *Journal of Applied Electrochemistry*, pp. 1-14, **2022**. (IF: 2.9)
- **21.** J. A. Buledi, A. R. Solangi, A. Hyder, N. H. Khand, S. A. Memon, A. Mallah, N. Mahar, E. N. Dragoi, P. Show, and M. Behzadpour, "Selective oxidation of amaranth dye in soft drinks through tin oxide decorated reduced graphene oxide nanocomposite based electrochemical sensor," *Food and Chemical Toxicology*, vol. 165, p. 113177, **2022**. (IF: 5.572)
- **22.** J. A. Buledi, **A. R. Solangi**, A. Hyder, M. Batool, N. Mahar, A. Mallah, H. Karimi-Maleh, O. Karaman, C. Karaman, and M. Ghalkhani, "Fabrication of sensor based on polyvinyl alcohol functionalized tungsten oxide/reduced graphene oxide nanocomposite for electrochemical monitoring of 4-aminophenol," *Environmental Research*, vol. 212, p. 113372, **2022**. (IF: 8.431)
- 23. M. W. Ashraf, S. I. Haider, A. R. Solangi, and A. F. Memon, "Toxicity of tellurium and its compounds," *Physical Sciences Reviews*, 2022. (IF: 1.26)
- **24.** Amna Khatoon, Junaid Ali Syed, Jamil A. Buledi, Sadia Shakeel, Arfana Mallah, **Amber R. Solangi\***, Sirajuddin, Syed Tufail H. Sherazi, Muhammad Raza Shah, "Bio-green fabrication of bell pepper mediated silver nanoparticles: An efficient material for electrochemical sensing of arbutin in cosmetics" *Journal of the Iranian Chemical Society* **2022** <a href="https://doi.org/10.1007/s13738-022-02558-z">https://doi.org/10.1007/s13738-022-02558-z</a>. (IF: 2.4)
- 25. Nadeem Qambrani, Jamil A. Buledi, Nadir H. Khand, Amber R. Solangi\*, Sidra Ameen, Nida S. Jalbani, Amna Khatoon, Mohammad Ali Taher, F.H. Moghadam, Moein Shojaei, Fatemeh Karimi, "Facile Synthesis of NiO/ZnO nanocomposite as an effective platform for electrochemical determination of carbamazepine", *Chemosphere*, Volume 303, Part 3, September 2022, 135270. (IF: 8.8)
- 26. Almas F. Memon, Sidra Ameen, Nadeem Qambrani, Jamil A. Buledi, Nadir H. Khand, Amber R. Solangi\*, Syed Iqleem H. Taqvi, Ceren Karaman, Fatemeh Karimi, Najmeh Zare, "An improved electrochemical sensor based on triton X-100 functionalized SnO2 nanoparticles for ultrasensitive determination of cadmium" Chemosphere, 2022, (IF: 8.8)
- 27. Raja Karim, Syed Iqleem Haider, Madeeha Batool, Amber R. Solangi\*, Saima Q. Memon, Ziaul-Hassan Shah, Omid Moradi, Yasser Vasseghian, Natural and anthropogenic origin of metallic contamination and health risk assessment: A hydro-geochemical study of Sehwan Sharif, Pakistan, *Chemosphere*, volume 300, August 2022, 134611 (IF: 8.8)
- **28.** Taqvi, Syed Iqleem H., **Amber R. Solangi\***, Jamil A. Buledi, Nadir H. Khand, Bindia Junejo, Almas F. Memon, Sidra Ameen et al. "Plant extract-based green fabrication of nickel ferrite (NiFe2O4) nanoparticles: An operative platform for non-enzymatic determination of pentachlorophenol." *Chemosphere* 294 (**2022**): 133760. (**IF: 8.8**)
- **29.** Hyder, Ali, Jamil A. Buledi, Muhammad Nawaz, Dhani B. Rajpar, Yasin Orooji, Mehmet Lütfi Yola, Hassan Karimi-Maleh, Hongjun Lin, and **Amber R. Solangi\***. "Identification of heavy metal ions from aqueous environment through gold, Silver and Copper Nanoparticles: An excellent colorimetric approach." *Environmental Research* 205 (**2022**): 112475. (**IF: 8.431**)

- 30. Bakhsh, Hadi, Ismail M. Palabiyik, Raj Kumar Oad, Nadeem Qambrani, Jamil A. Buledi, Amber R. Solangi\*, and Syed Tufail H. Sherazi. "SnO2 Nanostructure based Electroanalytical Approach for Simultaneous Monitoring of Vitamin C and Vitamin B6 in Pharmaceuticals." Journal of Electroanalytical Chemistry (2022): 116181. (IF: 2.9)
- 31. Shams Jalbani, Nida, Amber R. Solangi\*, Shahabuddin Memon, Ranjhan Junejo, and Asif Ali Bhatti. "Surface coating of silica with amine functionalized calix [4] arene and its application in metal ion extraction." *Journal of Dispersion Science and Technology* (2022): 1-9. (IF: 2.057)
- 32. Raja Karim, Syed Iqleem Haider, Arfana Mallah, Amber R. Solangi\*, Omid Moradi, and Hassan Karimi-Maleh. "Spatial analysis and human health risk assessment of elements in ground water of District Hyderabad, Pakistan using ArcGIS and multivariate statistical analysis." *Environmental Research* (July 2022): Volume 210, 112915 (IF: 8.431)
- **33.** Jamil A., Buledi, Nasrullah Mahar, Arfana Mallah, **Amber R. Solangi\***, Ismail M. Palabiyik, Nadeem Qambrani, Fatemeh Karimi, Yasser Vasseghian, and Hassan Karimi-Maleh. "Electrochemical quantification of mancozeb through tungsten oxide/reduced graphene oxide nanocomposite: A potential method for environmental remediation." *Food and Chemical Toxicology* 161 (**2022**): 112843. (**IF: 5.572**)
- 34. Raja Karim Bux, Syed Iqleem Haider, Madeeha Batool, Amber R. Solangi\*, Zia-ul-Hassan Shah, Hassan Karimi-Maleh, Fatih Sen, "Assessment of heavy metal contamination and its sources in urban soils of district Hyderabad, Pakistan using GIS and multivariate analysis", *International Journal of Environmental Science and Technology*, 2021 <a href="https://doi.org/10.1007/s13762-021-03691-7">https://doi.org/10.1007/s13762-021-03691-7</a> (IF: 3.1)
- 35. N. S. Jalbani, A. R. Solangi\*, S. Memon, R. Junejo, A. A. Bhatti, M. L. Yola, M. Tawalbeh, and H. Karimi-Maleh, "Synthesis of New Functionalized Calix [4] arene Modified Silica Resin for the Adsorption of Metal ions: Equilibrium, Thermodynamic and Kinetic Modeling Studies," *Journal of Molecular Liquids*, p. 116741, 2021, <a href="https://doi.org/10.1016/j.molliq.2021.116741">https://doi.org/10.1016/j.molliq.2021.116741</a> (IF: 6.0)
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### INTERNATIONAL TRAININGS ATTENDED

- 1. International Training Workshop on "Sustainable Economic Growth through Establishing Science and Technology Parks" jointly organized by IRIS and UNESCO at Isfahan Science and Technology Town, Iran from 27 -29 November, 2023.
- 2. International training on "Developing Female leadership in Higher Education in Pakistan" online program delivered by Michigan State University in collaboration with U.S Department of State since March 2023. "Women Leadership Summit" in Islamabad from October 8-12, 2023.
- 3. Training course on "Ph.D Supervisors Capacity Building Program" offered by NAHE-HEC, Islamabad (sponsored by British Council), from 19-23 June (Cohort-1) and from 31 July to 4 August (Cohort-2), 2023.
- 4. International Training Course on "Environmental Toxicology and Health" from June 15 20, 2022 Organized by Chulabhorn Research Institute, Bangkok, Thailand.
- 5. Training workshop on "Women Leadership Program" offered by NAHE-HEC, Islamabad (sponsored by British Council), from 29 November to 4<sup>th</sup> December, 2021.
- 6. International Training School on the Theory and Experiment of Modern Electroanalytical Chemistry from August 29 to September 12, 2019 being held at Changchun Institute of Applied Chemistry, Chinese Academy of Sciences 5625 Renmin Street, Changchun, Jilin, China.
- 7. International Training Course on "Detection of environmental pollutants and monitoring of health effects" from February 05 16, 2018 Organized by Chulabhorn Research Institute, Bangkok, Thailand.
- 8. International Training Course on "Principles of Toxicology, Toxicity Testing and Safety Evaluation" from February 07 22, 2017 in Bangkok, Thailand Organized by Chulabhorn Research Institute, nominated by Ministry of Economic Affair Division, Islamabad.
- 9. 11<sup>th</sup> Science, Technology and Innovation Management Training Course for Researchers in OIC Countries" organized by Malaysian Technical Cooperation Program from 4 13 October 2015, Kuala Lumpur, Malaysia, nominated by Ministry of Economic Affair Division, Islamabad.

### **CONFERENCES & SEMINARS ORGANIZED**

- Focal Person at One day "Workshop on Scientific Writing and Research Management" May 2<sup>nd</sup>, 2023 at National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro.
- Resource Person at Two days workshop on "PATENT & RESEARCH PAPER WRITING from 30<sup>th</sup>& 31<sup>st</sup> May 2016 at Hotel Elites, Nathiagali, Pakistan, organized by National Center of Excellence in Physical Chemistry, University of Peshawar, Peshawar, Pakistan.
- 3. Organizing Committee member/Stage secretary at "11<sup>th</sup> International Symposium on Analytical & Environmental Chemistry", March 07-08, 2016, held at National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro.
- 4. Organizing Secretary of three days workshop on "Applications of Chromatographic Techniques in Residue Analysis" from Feb 18-20, 2013, held at National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro.
- 5. Organizing Secretary of "10<sup>th</sup> International Symposium on Analytical & Environmental Chemistry", Dec 02-04, 2013, held at National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro.
- 6. Resource Person at 3-days Training Workshop on "Analytical Techniques in Soil and water Analysis" June 15 17, **2010** held at **Sindh Agricultural University, Tando Jam- Pakistan.**

### PAPER PRESENTED AT INTERNATIONAL CONFERENCES & SEMINARS

- 1. Invited lecture at "9th IUPAC International Conference on Green Chemistry" from 5-9 September, 2022 being held at Athens, Greece.
- 2. Invited lecture at "18<sup>th</sup> International Symposium on Electro-Analytical Chemistry" from August 25 to 27, 2021 being held at Changchun Institute of Applied Chemistry, Chinese Academy of Sciences 5625 Renmin Street, Changchun, Jilin, China.
- 3. 17<sup>th</sup> International Symposium on Electro-Analytical Chemistry and 3<sup>rd</sup> International meeting on electrogenerated chemiluminescence from August 22 to 25 **2019** being held at Changchun Institute of Applied Chemistry, Chinese Academy of Sciences 5625 Renmin Street, Changchun, Jilin, China.
- 4. Invited lecture **at NANO SMAT-Africa-2018** held at Lord Charles Hotel, Cape Town, South Africa from 19 23 November, **2018** organized by UNISA and iThemba Labs, South Africa.
- 5. Invited lecture at 4th International Turk-Pak Conference on Chemical Sciences from October 26-28, 2017 at Selçuk University, Konya, Turkey.
- 6. 9<sup>th</sup> International Conference and Exhibition on "Chemistry and Industry (CHEMINDIX-2013)" held at *Gulf International Convention Center*, *Gulf Hotel*, *Manama*, **Kingdom of Bahrain**, from November 04 06, **2013**.

- 7. "The 3rd PAK-TURK Conference on Chemical Sciences" 13-15 September, **2012**, held in **Bursa**, **Turkey**.
- 8. 2<sup>nd</sup> International Laboratory Technology Conference & Exhibition (LAB-TECH 2011)" October 8-12, 2011 at Ritz Carlton Hotel, Doha, Qatar.
- 9. 25<sup>th</sup> National Chemistry Congress with International participation", June 27 July 02, **2011** at Ataturk University, Erzurum, **Turkey.**
- 10. International Conference of Chemistry on "Green and Sustainable Chemistry in Developing Countries" March 03 06, 2008, at *Department of Chemistry*, Cairo University, Cairo, Egypt.
- 11. Pure and Applied International Chemistry Conference", Jan 30 to Feb 01, **2008**, *at Kasatsart University*, **Bangkok**, **Thailand**.
- 12. 12<sup>th</sup> Asian Chemical Congress (12ACC) 2007, from August 23-25, **2007** held at *Putra World Trade Center*, **Kuala Lumpur**, **Malaysia**.
- 13. Asian Conference on Laboratory Biosafety and Biosecurity, from 17-19 April **2007**, held at *Marriot Hotel*, **Bangkok**, **Thailand**.
- 14. 7<sup>th</sup> International Conference and Exhibition on "Chemistry and Industry (CHEMINDIX-2007)" held at *Gulf International Convention Center*, *Gulf Hotel*, *Manama*, **Kingdom of Bahrain**, from 26- to 28 March, **2007**.
- 15. 5<sup>th</sup> Aegeon Analytical Days 2006, October 5 9, **2006**, *Laboratory of Analytical Chemistry, University of Aristotle*, **Thessaloniki**, **Greece**.
- 16. 40th IUPAC Congress on Innovations in Chemistry, August 13 19, 2005, Beijing, China.

### PAPER PRESENTED AT NATIONAL CONFERENCES & SEMINARS

- 1. Invited lecture at "National Conference on Chemical Sciences: A Multidisciplinary Approach (ICCS-MA)-2022" held on 29-31 March 2022 at Shah Abdul Latif University (SALU), Khairpur Mir's, Sindh-Pakistan.
- 2. Invited lecture at "19<sup>th</sup> International and 31<sup>st</sup> National Conference on Emerging Trends in Chemistry (2ndCCUMT)" held on December 16-18, 2021 at University of Management and Technology (UMT) Lahore, Pakistan.
- 3. Invited lecture at "2<sup>nd</sup> International Conference of Chemistry and its role in Science" under the theme "Chemistry Today" to be held on **August 2<sup>nd</sup> 4<sup>th</sup>, 2019** at Department of Chemistry University of Karachi, Karachi, Pakistan.
- 4. Oral presentation at "International School on Physics and allied Disciplines **March 2019**, being held at National Center for Physics, Islamabad.

- 5. Invited lecture at International Conference on "Recent Trends in Chemistry" organized by Department of Chemistry, Allama Iqbal Open University, Islamabad, Pakistan from 7-8 November, 2018.
- 6. Oral presentation at 28<sup>th</sup> National and 16<sup>th</sup> International Chemistry Conference" held at Federal Urdu University of Arts, Science and Technology, Karachi from **November 20-22, 2017.**
- 7. Invited lecture at International Conference on "Current Research in Chemical & Pharmaceutical Sciences" organized by Department of Chemistry, Forman Christian College (A Chartered University), Lahore, Pakistan from 18-20 Jan, 2017.
- 8. **Key note lecture** at 27<sup>th</sup> National and 15<sup>th</sup> International Chemistry Conference" held at University of Malakand, from August 22-25, **2016**.
- 9. 25<sup>th</sup> National and 13<sup>th</sup> International Chemistry Conference" held at University of the Punjab, Lahore from October 20-22, **2014**.
- 10.  $2^{nd}$  International Conference on Environmental Horizon" held at University of Karachi, Karachi from Jan 1-3, **2014**.
- 11. "International Conference on Physical & Environmental Chemistry" held at Baragali Campus, University of Peshawar, from 09-11 September, **2013**.
- 12. International Conference on "Current Technologies in Oils & Fats", March 21-23, **2011** at *NCEAC*, *University of Sindh*, *Jamshoro*, **Pakistan**.
- 13. 1st National Conference on Physical & Environmental Chemistry", 27-29 September, **2010** at Baragali Campus, University of Peshawar, **Pakistan.**
- 14. Pak-Turk Seminar on Chemical Sciences", Feb 11-13, 2010 at NCEAC, University of Sindh, *Jamshoro*, Pakistan.
- 15. 1st National Symposium on Analytical, Environmental and Applied Chemistry, 24 25 October, **2008** at *SAL University, Khairpur Mir's*, *Sindh*, **Pakistan**.
- 16. 1st Regional Workshop on Urban Water Demand Management, August 27-28, **2008**, at *NCEAC*, *University of Sindh*, *Jamshoro*, **Pakistan**.
- 17. 2<sup>nd</sup> International Seminar on Analytical Sciences, Sep 6 8, 2007, NCEAC, University of Sindh, Jamshoro, Pakistan.
- 18. 9th International Symposium on Analytical and Environmental Chemistry, July 24–26, **2006**, *Institute of Chemical Sciences, University of Peshawar*, **Pakistan**.
- 19. International Training Workshop on Patent System, December 02 04, **2005**, *NCEAC*, *Jamshoro*, **Pakistan**.
- 20. 8<sup>th</sup> International Symposium on Analytical and Environmental Chemistry, Feb. 07 08, **2005**, *NCEAC*, *Jamshoro*, **Pakistan**.

- 21. National Seminar on Environmental, Social and Cultural impact of water scarcity in Sindh, January 15-16, **2004**, *M.A. Kazi Institute of Chemistry, University of Sindh, Jamshoro* **Pakistan**.
- 22. Pakistan-Bangladesh-Iran International Seminar on Analytical Sciences, 8-9 December **2003**, *NCEAC*, *Jamshoro*, **Pakistan**.
- 23. 7<sup>th</sup> National Symposium on Analytical and Environmental Chemistry, 4-5 March **2003**, *NCEAC*, *University of Sindh*, *Jamshoro*, **Pakistan**.
- 24. 2<sup>nd</sup> International and 12<sup>th</sup> National Chemistry Conference, 4-6 February, **2002**, *NCEAC*, *University of Sindh*, *Jamshoro*, **Pakistan**.
- 25. 7<sup>th</sup> Eurasia Conference on Chemical Sciences, 09-12 March, **2002**, *HEJ Research Institute of Chemistry, Karachi*, **Pakistan**.
- 26. Seminar on University- Industry Interaction, 13<sup>th</sup> November **2001**, NCEAC, *University of Sindh*, Jamshoro, **Pakistan**.
- 27. 1st International and 11th National Chemistry Conference, 12 April **2001**, *University of Peshawar*, **Pakistan**.
- 28. 10<sup>th</sup> National Chemistry Conference, October **1999**, *Quaid –i-Azam University, Islamabad*, **Pakistan**.

#### **MEMBERSHIP**

- **Fellow** *Chemical Society of Pakistan* (and Life time member)
- Soil Science Society of Pakistan
- ❖ American Chemical Society (ACS), USA
- American Society for Microbiology, USA
- ❖ International Society for Development & Sustainability, Japan

#### REFERENCES

- Prof. Dr. M. I. Bhanger, HEJ Research Institute of Chemistry, University of Karachi, Karachi–Pakistan. Email: dbhanger2000@gmail.com
- Prof. Alan. M. Bond, School of Chemistry, Monash University, Melbourne– Australia. Email: alan.bond@monash.edu

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