

Dr. Jameel Ahmed Baig

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Summary

I am Jameel Ahmed Baig, is an Associate Professor of Analytical Chemistry at NCEAC, University of Sindh Jamshoro, Sindh, Pakistan. I did B.Sc. (Honors) in Chemistry (2003) and M.Sc. (Final) in Physical Chemistry from Shah Abdul Latif University, Khairpur, Sindh, Pakistan. I received my MS leading to Ph.D. degree in Analytical Chemistry from NCEAC, the University of Sindh at Jamshoro (Sindh, Pakistan) in 2011 under the supervision of Professor Dr. Tasneem Gul Kazi, and postdoctoral from the Pamukkale University of Denizli in Turkey (2012, under the guidance of Professor Dr. Latif Elci). I started my academic carrier as an Assistant Professor (under the HEC IPFPs) at the International Islamic University of Islamabad (August 2021 – February 2013). I was appointed to the NCEAC at the University of Sindh, Jamshoro, in March 2013 as an Assistant Professor. I also did MBA (HRM) from KASBIT, Karachi (2015). I received PAS Dr. Atta-ur-Rahman Gold Medal in Chemistry (2016) for Scientists under 40. I served as an editorial board member for the Pakistan Journal of Environmental Analytical Chemistry. I supervised 30 M. Phil and three Ph.D. research scholars. Currently, I am supervising several M.Phil and Ph.D. students. I have previously served as a member of the executive committee of YWS-Sindh, Pakistan (NGO), and was appointed president (Volunteer) of YWS-Sindh in 2018. I have produced over 200 scholarly contributions in peer-reviewed research papers (Impact factor more than 1000, h-index = 50, i10-index = 132; citations = 8072). I have been completed project as Principal Investigator (PI) entitled "Evaluation of chromium speciation in drinking water, domestic wastewater and industrial effluents of Sindh, Pakistan and its bio-remediation," funded by The World Academy of Sciences (TWAS), Italy, in 2014-16 with the funded amount of 10,000 USD followed by another project (NRPU) entitled "Metal oxide nanocomposite based strategies for detection and remediation of selected toxic metals and anions from contaminated water in Pakistan" funded by Higher Education Commission (HEC) Pakistan with the amount of funding 2,776, 501 Pk Rs (2019 – 2022). I working in multidisciplinary research related to the environmental pollution studies of water, soil, quality control measurement for consumer commodities, food, spices, impact on humans, and remediation of toxic elements from water using indigenous natural and synthetic materials. I am also working on the cheapest efficient and most selective sensor development for detecting toxicants and pharmaceutical formulations in complex matrices and removing toxic metals and anions using plant-based synthesized nanocomposites.

EDUCATION

April 2013-March 2015 **MBA (Human Resource Management)** KASBIT, SMEHS Karachi
Sep. 2011-Jul. 2012 **Post Doc. Analytical Chemistry** Pamukkale University, Denizli Turkey
(TUBITAK Scholarship one year)
Sep. 2006 - Sep. 2011 **Ph. D. Analytical Chemistry** NCEAC University of Sindh, Jamshoro Pakistan
Aug. 2003-Jul. 2004 **M.Sc. (Final) Physical Chemistry** Shah Abdul Latif University
Khairpur Mir's, Pakistan.
Aug. 2000- Jul. 2003 **B. Sc. (Hon.) Chemistry** Shah Abdul Latif University Khairpur
Mir's, Pakistan.

Ph. D. Dissertation "Chemical Analysis of Arsenic in Environment and Biological Samples of
Selected Areas of Sindh, Pakistan and its Removal from Water"

EXPERIENCE

Sep. 2006 to Aug. 2009 Research Fellow NCEAC University of Sindh, Jamshoro, Pakistan
Sep. 2009 to Feb. 2012 Research Associate NCEAC University of Sindh, Jamshoro, Pakistan
Sep. 2011 to Jul. 2012 Post Doctorate Fellow at Pamukkale University, Denizli Turkey
Aug. 2012 to Feb. 2013 Assistant Professor Environmental Sciences, International Islamic
University, Islamabad (IPFP-HEC)
Mar. 2013 to June 2022 Assistant Professor NCEAC University of Sindh, Jamshoro, Pakistan

June 2022 till to date Associate Professor NCEAC University of Sindh, Jamshoro, Pakistan

Member ship:

1. Life-time fellow of the Chemical Society of Pakistan
2. Member of National Academy of Young Scientist
3. Member of AOAC International
4. Member of IUPAC
5. President, YWS-Sindh, Pakistan

Awards and Honors:

1. Visiting Research Scholar (post doctorate study) under TUBITAK 2216. Research Fellowship Programme for Foreign Citizens at Department of Chemistry, Pamukkale University, Denizli. (Year 2011-12).
2. Research Productivity Awards (RPA) in Chemistry, G category 2010 by Pakistan Council for Science and Technology (PCST), Islamabad.
3. Research Productivity Awards (RPA) in Chemistry, D category 2011 by Pakistan Council for Science and Technology (PCST), Islamabad.
4. Research Productivity Awards (RPA) in Chemistry, C category 2012 by Pakistan Council for Science and Technology (PCST), Islamabad.
5. Research Productivity Awards (RPA) in Chemistry, A category 2013 by Pakistan Council for Science and Technology (PCST), Islamabad.
6. Research Productivity Awards (RPA) in Chemistry, C category 2015 by Pakistan Council for Science and Technology (PCST), Islamabad.
7. Dr. Atta-ur-Rehman Gold Medal (2016) in Chemistry the Scientist Under 40 by Pakistan Academy of Sciences, Islamabad.

Completed Project:

A project entitled "**Evaluation of chromium speciation in drinking water, domestic wastewater and industrial effluents of Sindh, Pakistan and its bio-remediation**" funded by **The World Academy of Sciences (TWAS), Italy** in 2014 – 2016. Funded amount 10,000 USD

Project Title: Metal oxide nano-composite based strategies for detection and remediation of selected toxic metals and anions from contaminated water in Pakistan

Funding agency: NRP Higher Education Commission (HEC) Pakistan **Total amount of funds:** 2,776, 501 Pk Rs.

Duration: 2019 – 2022

Ongoing project:

List of students who completed M. Phil/Ph.D. under Supervision/co-supervision.

Name of Student/ Role	Degree Pursuing	Title
1. Dr. Jamshed Ali	Ph.D.	Chemical analysis of Arsenic and mercury in the coal of Thar Coalfield Pakistan
2. Dr. Muhammad Waris	Ph.D.	Analytical profiling of aquatic and terrestrial plants and estimation of their phytoremediation capacity for trace and toxic elements
3. Dr. Niaz Ali Malghani	Ph.D.	Phytochemical and nutritional profiling of vegetables and fruits of the Larkana division
4. Dr. Ghulam Qadir Chanihoon	Ph.D.	Correlation of electrolytes, essential trace and toxic elements in biological samples of Ewing Sarcoma patients in comparison to normal
5. Mr. Kashif Hussain Channa (Supervisor)	M. Phil	Chromium speciation and remediation in industrial effluent
6. Mr. Muhammad Waris (Supervisor)	M. Phil	Evaluation of Roxarsone in poultry feed and litter

7. Mr. Ashfaq Ali Bhutto (Supervisor)	M. Phil	Speciation of chromium in water samples by different analytical techniques
8. Miss. Hina Dawood Memon (Supervisor)	M. Phil	Assessment of Toxic Metals in Poultry Feed and Supplement
9. Mr. Oan Muhammad Sahito (Co-Supervisor)	M. Phil	Study of poultry waste as a source of heavy metals in vegetables
10. Mr. Shahnawaz Baloch (Co-Supervisor)	M. Phil	Evaluation of lithium level in drinking water and scalp hair samples of the psychiatric patient
11. Miss. Nusrat Shahab Memon (Co-Supervisor)	M. Phil	Interaction of calcium, iron, manganese, and lead in biological samples of thyroid patients
12. Mr. Muhammad Bilal (Co-Supervisor)	M. Phil	Development of advanced extraction methods for the determination of heavy metals in water samples of different lakes
13. Ms. Asma Akhtar Rajput (Co-Supervisor)	M. Phil	Determination of iron, chromium, and mercury in different smokeless tobacco products
14. Miss. Saba Bhatti (Supervisor)	M. Phil	Total and extractable chromium, cobalt, copper, iron, selenium, and zinc in Indian spices
15. Mr. Ghulam Mustafa (Supervisor)	M. Phil	Quantitative Assessment of azo dyes and toxic elements in wastewater of dying industry and their environmental impact
16. Mr. Sadam Hussain (Supervisor)	M. Phil	Determination of toxic metals in aquatic system of fish farms in Sindh and their accumulation in different fish tissues
17. Mr. Ghulam Fareed (Supervisor)	M. Phil	Sequential assessment of trace and toxic elements in sugar industry products and their impact on workers
18. Mr. Saleem Atif (Supervisor)	M. Phil	Development of selective analytical methods for the detection of cefadroxil in pharmaceutical preparations and biological samples
19. Miss Iram Gul (Supervisor)	M. Phil	Proximate analysis and mineral composition of street and processed traditional Pakistani foods
20. Mr. Zubair Ali Shah (Supervisor)	M. Phil	Proximate analysis and elemental composition of different date palm varieties in Sindh, Pakistan
21. Mr. Arsalan Ahmed Rajput (Supervisor)	M. Phil	Evaluation of zinc, cadmium and lead in coal, gangue reclamation soil and laboratory made ash of coal of Lakhra coal mining area
22. Mr. Shoaib Ahmed Hub (Co-supervisor)	M. Phil	Leaching of phthalates from medical devices
23. Mr. Ashfaque Ahmed Larik (Co-supervisor)	M. Phil	The removal of azo dyes by chemically modified adsorbent from water
24. Miss Kanwal Zohra (Co-supervisor)	M. Phil	Facile synthesis of metallic nanoparticles using cruciferous vegetables
25. Miss Sanjha Mangrio (Co-supervisor)	M. Phil	Determination of toxic metals in cosmetic products available in commercial markets of city, Hyderabad, Pakistan
26. Mr. Meer Muhammad (Supervisor)	M. Phil	Development of a selective analytical method for the detection of cefixime pharmaceutical preparations and biological sample
27. Mr. Khalil Akhtar (Supervisor)	M. Phil	Synthesis and application of fluoride selective electrochemical sensor
28. Mr. Shakoore Ahmed Solangi (Supervisor)	M. Phil	Impact of Heavy metals on rice varieties by organic and synthetic Fertilizers

List of students M. Phil/Ph.D. enrolled under supervision.

Name of Student/ Role	Degree Pursuing	Title
1. Mr. Shahnawaz Baloch	Ph.D.	Evaluate the exposure of non-essential elements in workers related with workplaces
2. Mr. Ashfaque Ahmed Bhutto	Ph.D.	Selective recognition of metal oxide nanocomposites for Toxic elements in Environmental and Biological Samples
3. Mr. Ayaz Ali Lashari	Ph.D.	Partitioning and transformation of hazardous trace elements in coals of different mining areas of Sindh before /after combustion. Environmental Impacts
4. Miss Suraya Samejo	Ph.D.	Eco-friendly fabrication of metal oxide-based nanocomposites for the removal of toxic metals and fluoride
5. Mr. Sajjad Hussain Solangi	Ph.D.	Synthesis of Hexagonal Ferrite nanoparticles and Assessment of their Physicochemical Properties for Analytical Applications
6. Mr. Noor Zaman Shar	Ph.D.	Preparation and characterization of metal polymer nanocomposites and their applications
7. Miss Seerat ul Urooj	M. Phil	Significance and impact of trace and toxic metals in different age groups consuming confectionary and nut products
8. Mr. Tarique Hussain Mahesar	M. Phil	Assessment of meal quality after extraction of oil from oil canola and soybean seeds

PARTICIPATION IN SCIENTIFIC CONFERENCES:

S. No.	Event	Date
1.	“20 th International and 32 nd National Chemistry Conference on Chemical Science and Sustainable Goals” held at Khawaja Fareed University of Engineering and Information Technology, Rahimyar Khan	2 – 4 Nov 2022
2.	“2 nd International Chemistry Conference and its Role in Sciences” Theme “Chemistry Today” organized by University of Karachi	2 nd – 4 th Aug 2019
3.	“1 st National Conference on Environment and Sustainable Development (NCESD-2019)	29-March-2019
4.	29 th National and 17 th International Chemistry Conference held at Baragali Summer Campus, University of Peshawar, Abbottabad	6 th – 8 th September, 2018
5.	ACS workshop on “Global Chemists’ Code of Ethics” at Shaikh Zaid Islamic Centre, Karachi	21 st November, 2017
6.	28 th National 16 th International Chemistry Conference organized by FUUAST held at Shaikh Zaid Islamic Centre, Karachi	20 th – 22 nd November, 2017
7.	7 th International Conference on Biotechnology and Bioengineering & 2017 International Conference on Agricultural and Food Sciences organized by APASET and VU at Lahore	25 – 27 October, 2017
8.	Symposium and workshop on Biowaste Derived Carbons for Waste-to-bioenergy Conversion and Water purification organized by NCEAC, University of Sindh, Jamshoro	20 th – 21 st February, 2017
9.	Three days interactive workshop on Quality Assurance Procedures and Advanced Computing Skills for Research Supervisors	11– 13 January, 2017
10.	International Conference on Environmental Issues of Sindh and Remedies organized by SALU, Khairpur Mir’s	9 -10 April 2014
11.	10 th International symposium on Analytical and Environmental Chemistry. MBBCC, University of Sindh, Jamshoro	December 02-04, 2013
12.	1 ST INTERNATIONAL COAL CONFERENCE, MUET Auditorium, MUET,	November 07-09, 2013

	Jamshoro, Pakistan.	
13.	12 th International and 24 th National Chemistry Conference, BZU, Multan	October 28-30, 2013
14.	Three days workshop on Applications of Atomic & Molecular Spectrophotometric Techniques in Trace Elements Analysis	September 24-26, 2013
15.	International Conference on Physical and Environmental Chemistry, Baragali Summer Campus, University of Peshawar.	September 09-11, 2013
16.	III. Physical Chemistry Days, BURHANİYE, BALIKESİR-TURKEY	12-15 July 2012,
17.	II-Trace Analysis Workshop (EsAn-2012), organized by Karadeniz (Black-Sea) Technology University (KTU) Trabzon, held at KTU Trabzon-Turkey	27-30 June 2012
18.	5 th Geo-chemistry Symposium, organized by Geology Department of Pamukkale University, held at Congress Hall, Pamukkale University, Denizli-TURKEY	23-25 May 2012
19.	1 st International Conference of Chemistry and its role in science organized by Jinnah University for Women, Karachi	3 rd – 5 th January 2011
20.	1 st National Conference on Physical & Environmental Chemistry (PEC-2010), National Centre of Excellence in Physical Chemistry, University of Peshawar Summer Campus, Bara Gali, Distt. Abbottabad	26 th -30 th September 2010
21.	International Conference on Sustainable Water Management organized by MUET, NCEAC, SAU, EU-UK at MUET, Jamshoro	15 17 September 2010
22.	8 th International and 20 th National Chemistry Conference, Department of Chemistry, Quaid-i-Azam University, Islamabad	15 th -17 th February, 2010
23.	2 nd Pak-Turk Seminar on Chemical Sciences (2 nd PTSCS), at NCEAC, University of Sindh, Jamshoro	11 th -13 th February, 2010
24.	18 th National Chemistry Conference Chemical society of Pakistan held at Institute of Chemistry, University of Punjab Lahore Pakistan	25-27 February 2008
25.	International Seminar of Analytical Sciences ISAS held at Indus Hotel Hyderabad, Pakistan	6 – 8 September 2007
26.	International conference on “the role of chemistry & biochemistry in the national development held at Baluchistan University Quetta Pakistan	16 – 18 April 2007
27.	Seven days training program of Planning, Monitoring & Evaluation, Management, Budgeting and Computer Work by Education Sector Reform Assistance (ESRA)	07- 13 February 2005
28.	Proposal Writing Training conducted at Indus Resource Centre Khairpur	16 – 18 October 2004

LIST OF RESEARCH PUBLICATIONS

Sr. No. Author/Title/ Journals/impact factors

- Hussain, S., Sadiq, I., **Baig, J.A.**, Sadiq, F., Akhtar, K., Solangi, I. B., Naseem, S. (2024). Electroactive ferrites nanostructure driven electrochemical platform for the selective detection of dopamine. **Inorganic Chemistry Communications**, 111997.
- Akhtar, K., **Baig, J.A.**, Solangi, S.A., Perveen, S., Hussain, S., Kazi, T.G., Abbasi, F. (2024). Phytoextract based synthesis of TiO₂. Al₂O₃ nanocomposites for efficient electrocatalytic detection of acetaminophen from environmental and pharmaceutical samples. *Ceramics International*.
- Lashari, A. A., Kazi, T. G., **Baig, J. A.**, Afridi, H. I. (2023). Determination of lead in groundwater samples of three aquifers of a coal mining area at various depths using advance extraction methodology. **International Journal of Environmental Analytical Chemistry**, 103(18), 6662-6674.
- Malghani, N. A., Mahesar, S. A., **Baig, J. A.**, Sherazi, S. T. H., Sidhu, A. R., Mahesar, H. U. R. (2023). Impact of Irrigation Water and Rhizospheric Soil on Quality of Different Fruits Concerning Metal Ions. **Erwerbs-Obstbau**, 1-9.
- Waris, M., Baig, J. A., Talpur, F. N., Kazi, T. G., & Afridi, H. I. (2023). Speciation of heavy metals and evaluation of their ecological risk impact on salt-affected wetland soil. **Arabian Journal of Geosciences**, 16(10), 1-10. <https://doi.org/10.1007/s12517-023-11696-4>
- Lashari, A. A., Kazi, T. G., Baig, J. A., & Afridi, H. I. (2023). Determination of lead in groundwater samples of three aquifers of a coal mining area at various depths using advance extraction methodology. **International Journal of Environmental Analytical Chemistry**, 103(18), 6662-6674. <https://doi.org/10.1080/03067319.2021.1959566>

7. Lashari, A.A., Kazi, T.G., **Baig, J.A.**, Afridi, H.I., Lashari, A. and Kandhro, F., (2023). An ultrasound assisted modified solid phase micro-extraction technique for enrichment of cadmium and lead in aqueous extract of coal gangue soil samples. **Geoderma**, 437, p.116601. <https://doi.org/10.1016/j.geoderma.2023.116601>
8. Akhtar, K., **Baig, J.A.**, Solangi, S.A., Hussain, S., Ali, H.E., Perveen, S., Kazi, T.G. and Afridi, H.I., (2023). Biosynthesis and characterization of NiFe₂O₄-NPs for electrochemical detection of ceftriaxone from biological and pharmaceutical samples. **Microchemical Journal**, 191, p.108808. <https://doi.org/10.1016/j.microc.2023.108808>
9. Samejo, S., **Baig, J.A.**, Kazi, T.G., Afridi, H.I., Hol, A., Ali, F.I., Hussain, S., Akhtar, K., Perveen, S. and Bhutto, A.A., (2023). Green synthesis of iron oxide nanobiocomposite for the adsorptive removal of heavy metals from the drinking water. **Materials Chemistry and Physics**, 303, p.127807. <https://doi.org/10.1016/j.matchemphys.2023.127807>
10. Hussain, S., Sadiq, I., **Baig, J.A.**, Sadiq, F., Solangi, I.B., Akhtar, K., Solangi, S.A., Idrees, M., Riaz, S. and Naseem, S., 2023. Electrocatalytic sensing of metronidazole by R-type hexagonal nanoferrites modified electrode. **Inorganic Chemistry Communications**, 153, p.110832. <https://doi.org/10.1016/j.inoche.2023.110832>
11. **Baig, J.A.**, Chandio, I.G., Kazi, T.G., Afridi, H.I., Akhtar, K., Junaid, M., Naher, S., Solangi, S.A. and Malghani, N.A., 2023. Risk assessment of macronutrients and minerals by processed, street, and restaurant traditional Pakistani foods: a case study. **Biological Trace Element Research**, 201(7), pp.3553-3566. <https://doi.org/10.1007/s12011-022-03429-7>
12. Lashari, A., Kazi, T.G., Afridi, H.I., **Baig, J.A.**, Arain, M.B. and Lashari, A.A., (2023). Estimation of metal and metalloid in crude oil of newly developed oil field after acid digestion/extraction methods using different devices. **Journal of Trace Elements and Minerals**, 4, p.100064. <https://doi.org/10.1016/j.jtemin.2023.100064>
13. Waris, M., **Baig, J.A.**, Talpur, F.N., Kazi, T.G., Afridi, H.I. and Shakeel, S., 2023. Estimation of phytoextraction potential of selected halophytes for accumulation of heavy metals from wetland saline soil. **Rendiconti Lincei. Scienze Fisiche e Naturali**, 34(2), pp.553-562. <https://doi.org/10.1007/s12210-023-01147-3>
14. Bhutto, A.A., **Baig, J.A.**, Kazi, T.G., Sierra-Alvarez, R., Akhtar, K., Perveen, S., Afridi, H.I., Ali, H.E., Hol, A. and Samejo, S., (2023). Biosynthesis of aluminium oxide nanobiocomposite and its application for the removal of toxic metals from drinking water. **Ceramics International**, 49(9), pp.14615-14623. <https://doi.org/10.1016/j.ceramint.2023.01.052> (IF = 5.532)
15. Lashari, A.A., Kazi, T.G., **Baig, J.A.**, Afridi, H.I., Laghari, M.A., Qureshi, A.A., Lashari, A. and Unar, A., (2023). Chemical association and combustion behaviour of cadmium in coal of different mining fields using sequential and single step extraction methods. **International Journal of Environmental Analytical Chemistry**, pp.1-11. <https://doi.org/10.1080/03067319.2023.2196719>
16. Kandhro, F., Kazi, T.G., Afridi, H.I., **Baig, J.A.**, Lashari, A.A. and Lashari, A., (2023) Determination of toxic elemental levels in whey milk of different cattle and human using an innovative digestion method: risk assessment for children < 6.0 months to 5 years. **Environmental Science and Pollution Research**, 30(14), pp.41923-41936. <https://doi.org/10.1007/s11356-022-25059-1>
17. Lashari, A.A., Kazi, T.G., **Baig, J.A.**, Afridi, H.I. and Junejo, S.H., (2023). Chemical association of copper and selenium in coals of Sindh by time saving single step strategy and their impact on groundwater. **Environmental Science and Pollution Research**, 30(13), pp.38650-38662. <https://doi.org/10.1007/s11356-022-25039-5>
18. Hussain, S., Sadiq, I., **Baig, J.A.**, Sadiq, F., Shahbaz, M., Solangi, I.B., Idrees, M., Saeed, S., Riaz, S. and Naseem, S., (2023). Synthesis and characterization of vanadium ferrites, electrochemical sensing of acetaminophen in biological fluids and pharmaceutical samples. **Ceramics International**, 49(5), pp.8165-8171. <https://doi.org/10.1016/j.ceramint.2022.10.340> (IF = 5.532)
19. Lashari, A., Kazi, T.G., Afridi, H.I., **Baig, J.A.**, Arain, M.B., Lashari, A.A. Kandhro, F. (2023). Impact of oil well drilling activities on vanadium in soil, ground water, vegetables, fruits, and feed crops: a risk assessment. **International Journal of Environmental Science and Technology**, pp.1-10. <https://doi.org/10.1007/s13762-023-04796-x>
20. Parveen, S., Afridi, H.I., Kazi, T.G., Talpur, F.N., **Baig, J.A.**, Chanihoon, G.Q., Memon, A.A. and Rahoojo, A., (2023). Impacts of Smoking and Stomach Disorders on Essential Elements in Biological Samples of Cement and Glass Industrial Workers. **Biological Trace Element Research**, 201(3), pp.1065-1079. <https://doi.org/10.1007/s12011-022-03238-y>
21. Malghani, N.A., Mahesar, S.A., **Baig, J.A.**, Talpur, F.N., Sohu, S. and Sherazi, S.T.H., (2023). Phytochemical screening, gc-ms and ftir analysis of bioactive compounds present in vegetables and fruits. **Carpathian Journal of Food Science & Technology**, 15(1), p36-47.

22. Chanihoon, G.Q., Afridi, H.I., Kazi, T.G., Talpur, F.N., **Baig, J.A.**, Lashari, A., Chandio, A.U.R., Lashari, A.A. and Memon, A.A., (2023), Essential Micronutrients and Toxic Elemental Concentrations in the Biological Samples of Pakistani Ewing Sarcoma Patients. **Clinical laboratory**, 69(1). <https://doi.org/10.7754/Clin.Lab.2022.210929>
23. Bhutto, A.A., **Baig, J.A.**, Sirajuddin, Kazi, T.G., Alvarez, R.S., Akhtar, K., Hussain, H., Afridi, H.I., Hol, A., Samejo, S. (2023). Biosynthesis and analytical characterization of Iron oxide Nanobiocomposite for in-depth adsorption strategy for the removal of toxic metals from drinking water. **Arabian Journal for Science and Engineering**, 48, pages7411–7424. <https://doi.org/10.1007/s13369-022-07477-y> (IF = 2.807)
24. Channa, M.K., Akhtar, K., **Baig, J.A.**, Kazi, T.G., Afridi, H.I., Perveen, S., Solangi, S.A., Sara, B. (2023), Distribution of chromium species and physicochemical analysis of different industrial effluents in Sindh, Pakistan. **Journal of the Turkish Chemical Society Section A: Chemistry**, 10(1), 1-10. <https://doi.org/10.18596/jotcsa.1107392>, (I.F 0.78)
25. Afridi, H.I., Bhatti, M., Talpur, F.N., Kazi, T.G., **Baig, J.A.**, Chanihoon, G.Q. and Rahoojo, A., (2022). Cadmium Concentration in Different Brands of Cosmetic and their Effect on the Skin of Female Dermatitis Cosmetic Users. **Journal of the Chemical Society of Pakistan**, 44(5), 419-435. (IF = 0.536)
26. Channa, M.K., **Baig, J.A.**, Kazi, T.G., Afridi, H.I., Samaijo, S., Channa, G.M., Elci, L. (2022). An Efficient and Low-Cost Indigenous Material for Removal of Hexavalent Chromium from Industrial Effluents. *Pakistan Journal of Scientific & Industrial Research Series A: Physical Sciences*, 65(3), 235-247. (IF = 0.679)
27. Lashari, A.A., Kazi, T.G., **Baig, J.A.**, Afridi, H.I. and Memon, A.A. (2022), Speciation of the Selenium in Groundwater Samples of Different Aquifers from Coal Mining Fields: Applied a Green Analytical Technique. **Water, Air, & Soil Pollution**, 233(11), 1-11. <https://doi.org/10.1007/s11270-022-05898-x> (IF = 2.984)
28. **Baig, J.A.**, Muhammad, M., Akhtar, K., Afridi, H.I., Kazi, T.G., Mirza, J., Solangi, S.A. and Bhutto, A.A., (2022). Selective electrochemical sensing of cefixime by silver nanoparticle amalgam paste microelectrode. **Journal of Materials Science: Materials in Electronics**, 33(17), pp.13926-13938. <https://doi.org/10.1007/s10854-022-08323-5> (I.F. = 2.779)
29. Mughal, Z.N., Shaikh, H., **Baig, J.A.**, Memon, S. and Shah, S., (2022), Fabrication of an imprinted polymer based graphene oxide composite for label-free electrochemical sensing of Sus DNA. **New Journal of Chemistry**, 46(34), pp.16509-16522. <https://doi.org/10.1039/D2NJ02958H>
30. Lashari, A.A., Kazi, T.G., **Baig, J.A.**, Afridi, H.I., Chandio, A.U.R., Chanihoon, G.Q. and Lashari, A., (2022). Volatilization of selenium from coals by heating at different temperatures: application of sequential extraction scheme on ash. **International Journal of Environmental Analytical Chemistry**, pp.1-10. <https://doi.org/10.1080/03067319.2022.2066475> (I.F. = 2.826)
31. Waris, M., **Baig, J.A.**, Talpur, F.N., Kazi, T.G. and Afridi, H.I., (2022). An environmental field assessment of soil quality and phytoremediation of toxic metals from saline soil by selected halophytes. **Journal of Environmental Health Science and Engineering**, pp.1-10. <https://doi.org/10.1007/s40201-022-00800-7> (I.F. = 3.433)
32. Fareed, G., **Baig, J.A.**, Kazi, T.G., Afridi, H.I., Akhtar, K. and Solangi, I.B., (2022). Heavy metals contamination levels in the products of sugar industry along with their impact from sugar to the end users. **International Journal of Environmental Analytical Chemistry**, pp.1-10. <https://doi.org/10.1080/03067319.2022.2062238> (I.F. = 2.826).
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