

CURRICULUM VITAE

of

Prof. Dr. Shahid Iqbal
Principal
University of Education Lahore
Faisalabad Campus
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Faisalabad



Professor of Chemistry
University of Education, Lahore (Faisalabad Campus)
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M.Sc. QAU 2001
Ph.D. NCEAC, 2007

One Year Post Doctorate Universiti Putra Malaysia, July 2011
Post-PhD Teaching Experience = 17 years +
Total Postgraduate Teaching Experience = 22 years +

Web of Science/ Clarivate Profile: Web of Science ResearcherIDNQF-0861-2025

ORCID ID: <https://orcid.org/0000-0001-5681-5995>

HIGHLIGHTS

- 135 Research Articles with Impact Factor: ~ 450+
- Citations: 3990 (Web of Science), 4880 (Scopus)
- h-index: 35 (Web of Science)
- i-10 index: 65
- Patents Secured (IPO, Govt of Pakistan): 2
- Ph.D. produced: 09

ADDITIONAL DUTIES/ASSIGNMENTS

Coordinator Department of Chemistry

Member, Academic Council, BASR, Faculty Board University of Education, Lahore

DISTINCTIONS/ HIGHLIGHTS

- Research Productivity Award (RPA 2013-2014) by Pakistan Council of Science and Technology (PCST), Islamabad, Government of Pakistan
- Research Productivity Award (RPA 2012-2013 B-Category) by Pakistan Council of Science and Technology (PCST), Islamabad, Government of Pakistan.
- Silver Medal in PRPi12 by University Putra Malaysia, July 2012 on Innovative Development.
- Research Productivity Award (RPA 2011-2012 B-Category) by Pakistan Council of Science and Technology (PCST), Islamabad, Government of Pakistan.
- Research Productivity Award (RPA 2010-2011 B-Category) by Pakistan Council of Science and Technology (PCST), Islamabad, Government of Pakistan.

- Best Researcher Award for year 2009 by University of Sargodha, Sargodha.
- Research Productivity Award (RPA 2009-2010 C-Category) by Pakistan Council of Science and Technology (PCST), Islamabad, Government of Pakistan.
- Research Productivity Allowance (RPA 2007-2008) by Pakistan Council of Science and Technology (PCST), Islamabad, Government of Pakistan.
- Higher Education Commission of Pakistan's Approved Supervisor for Doctoral Studies
- Enlisted as Productive Scientist by Pakistan Council of Science & Technology (PCST)
- International Research Publications: **125** (with impact factor) + **10** (non-impact factor)
- M.Phil. Thesis completed under my supervision: **51**
- **Ph.D. students awarded degree** under my supervision: **08** (*one as supervisor-II)
- Reviewer of several International Research Journals
- Worked as Incharge Water Purification Lab, UoS from ~ 4 years
- Worked as Incharge Research Laboratory, Department of Chemistry, UoS from ~ 14 years
- Member Ph.D. synopsis evaluation committee, AIOU Islamabad

I. MAIN AREAS OF RESEARCH: *Analytical and Applied Chemistry*

- Exploration of new sources of natural antioxidants from different plant materials, agrowastes and to investigate their efficiency in different *in vitro* model systems, e.g. in stabilization of vegetable oils, cookies, confectionary products, and meat against oxidative deterioration and *in vivo* model systems *i.e.* disease prevention. To improve the bioavailability and delivery of these plants extracts by nanosizing the materials.
- Development of low cost technologies for the determination and removal of different types of contaminants and pollutants, e.g. metal ions, organics, dyes, phenols, pesticides etc. from aqueous solutions and industrial effluents by developing agricultural wastes as potential sorbents.
- Exploitation of newer sources of vegetable oils with noticeable nutritional and functional properties. Investigation on phytochemical characteristics of extracted oils, different plant materials and agricultural wastes followed by development of nutraceutical and functional foods for commercial exploitation.

II. PROFESSIONAL AND ACADEMIC QUALIFICATION

Field of Specialization:Analytical Chemistry

July 2010-July 11

Post Doctorate

Institute of Bioscience, University Putra Malaysia, UPM Serdang, Selangor, **Malaysia**, under **Research University Grant Scheme, Ministry of Higher Education, Malaysia**.

Project Title: “*Commercialization of E-Ory: Antioxidant Formulation from Agriculture Recycled Product*”

Feb. 2008

Ph.D. (Analytical Chemistry)

National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro.

Project Title: “*Analytical Investigations on Antioxidant Potential of Some Botanical Materials and their Applications in Vitro Model Systems*”

2001

M.Sc (Analytical/Inorganic Chemistry)

Department of Chemistry, Quaid-i-Azam University, Islamabad, Pakistan

Specialization: Analytical Chemistry

Project Title: “*Study of solvents effect on PAN and dithizone by FTIR spectroscopy*”

III. TECHNIQUES OF EXPERTISE/Operational Skill

UV-Vis Spectrophotometer, FTIR Spectrometer, Atomic Absorption Spectrometer, HPLC, GC-MS and Rancimat besides other routine equipment.

IV. JOB EXPERIENCE:

- **Post Ph.D. experience** As Professor of Chemistry Since October 2020 to date ~ 5 years
 - As Assistant Professor since Nov. 2008 till Oct. 2020= ~**12.5 years**
 - As **Post-Doctoral Researcher** at Laboratory of Biomedicine, Institute of Bioscience, Universiti Putra Malaysia since July 20, 2010 to July 19, 2011= **1 year**
- As lecturer in Analytical Chemistry at Department of Chemistry, University of Sargodha, Sargodha since Sep. 2005 to July 2008. = ~ **3 years**
- As Research Associate in NCEAC, University of Sindh, Jamshoro since Feb. 2003 to Sep. 2005. = ~ **1.5 years**

V. Editorial Experience

Working as Editor/Editorial Board Member for International Peer-reviewed Journals

Editor: African Journal of Food Science

Editorial Board Member: Advanced Scholars in Biotechnology

International Journal of physical Sciences

Organized seminars, symposia and conferences besides preparation of proceedings of at NCEAC Jamshoro and at University Putra Malaysia.

Representative Journals, for Which Serving as Reviewer:

• Talanta	• Journal of Hazardous Materials
• Journal of Food Science	• Int. Journal of Food Science & Technology
• Food Chemistry	• Separation Science and Technology

VI. MEMBERSHIP OF BODIES:

• The Chemical Society of Pakistan	• American Oil Chemists Society
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VII. PATENTS GRANTED:

- Shahid Iqbal, M.I. Bhanger, Mubeena Akhtar, Habib ur Rehman Athar, Mehajabeen, and Zahid Khan. A process for preparation of a herbal composition useful as stabilizer for edible oil. Patent No. 140293, granted by IPO Pakistan, 03-03-2010.
- Shahid Iqbal, M.I. Bhanger, and Mubeena Akhtar, A herbal antioxidant composition for chewing gum stability. Patent No. 140101, granted by IPO Pakistan, 02-02-2010.

I/. RESEARCH PUBLICATIONS:

1. Muhammad Usama Younas, Munawar Iqbal, Naveed Ahmad, **Shahid Iqbal**, Abida Kausar, Arif Nazir, Osama A. Mohammed, and Fozia Anjum. Biogenic synthesis of zinc oxide nanoparticles using NARC G1 garlic (*Allium sativum*) extract, their photocatalytic activity for dye degradation and antioxidant activity of the extract, *Results in Chemistry*, **2025**, 102035.
2. Javeria Sultan, Khawar Sultan, Qamaruz Zaman, Fatima Irshad, Arif Nazir, Wissem Mnif, Munawar Iqbal, Shahid Iqbal, Naveed Ahmad. Mapping air quality variations in industrial and agricultural zones: Understanding spatial and temporal patterns of selected air pollutants, *Ecological frontiers*, **2025**, 45-53. <https://doi.org/10.1016/j.ecofro.2024.08.002>
3. Abdul Jabbar, Shahid Iqbal, Umar Younas, Arfaa Sajid, Qaisar Manzoor, Zohaib Saeed, Anam Sajid, Awais Ahmad, and Dongwhi Choi. Comparative extraction strategies for *Adhatoda vasica*: Unveiling bioactive profile via GC-MS and their scavenging potential, *Results in Chemistry*, **2025**, 16, 102432.
4. Gulnaz Nasir, Fozia Batool, Shahid Iqbal, Jamshed Akbar, Sobia Noreen, Khurram Shahzad Munawar, Tunzeel Iqbal, and Allah Ditta. Biosynthesis of lead oxide nanoparticles using mulberry leaf extract for adsorptive removal of diazine black dye, *Biomass Conversion and Biorefinery*, **2025**, 15(8), 12525–12549.
5. Faiza Nazir, Zaveeba Jabeen, Farheen Aslam, Osama A. Mohammed, Naveed Ahmed, **Shahid Iqbal**, Arif Nazir, and Munawar Iqbal. Unveiling multifaceted bioactivity assessment of *Psidium guajava* and *Azadirachta indica* leaves extract as a potential natural tyrosinase enzyme inhibitors, *Biocatalysis and Agricultural Biotechnology*, **2024**, 103486.
6. Muhammad Abdul Qayyum, Mian H. R. Mahmood, Tahir Farooq, Ahmad Irfan, **Shahid Iqbal**, and Nazim Hussain. Multivariate Statistical Evaluation of 20 Metals/Metalloid Levels in the Serum of Patients with Prostate Gland Diseases, *Indian Journal of Clinical Biochemistry*, **2024**, 1-20. (<https://doi.org/10.1007/s12291-024-01209-9>).
7. Tunzeel Iqbal, Fozia Batool, and Shahid Iqbal. Modeling of an adsorption study of a synthesized hematite composite for the removal of lead and cadmium from contaminated water. *Journal of Dispersion Science and Technology*, **2024**, 1-14. <https://doi.org/10.1080/01932691.2024.2434107>
8. Shabbir Hussain, Amina Zahid, Muhammad Imran, Shazma Massey, Muhammad Riaz, Muhammad Sagir, Muhammad Shahid, Wissem Mnif, Shahid Iqbal, Munawar Iqbal, Arif Nazir. Unveiling the chemical profile, synergistic antibacterial and hemolytic effects of *Cymbopogon citratus* and *Tachyspermum ammi* leaves, *Biocatalysis and Agricultural Biotechnology*, **2024**, 58, 103221.
9. Gulnaz Nasir, Fozia Batool, Shahid Iqbal, Jamshed Akbar, Sobia Noreen, Khurram Shahzad Munawar, Tunzeel Iqbal and Allah Ditta. Biosynthesis of lead oxide nanoparticles using mulberry leaf extract for adsorptive removal of diazine black dye. *Biomass conversion and biorefinery*, **2024**, 1-25. <https://doi.org/10.1007/s13399-024-06208-7>

10. Tunzeel Iqbal, Shahid Iqbal, and Faiza Riaz. Metal adsorption equilibrium response of iron oxide nanoparticles embedded on Acacia (*Vachellia nilotica*) wood waste under different parametric conditions, *Bioremediation Journal*, **2024**, 1–28. <https://doi.org/10.1080/10889868.2024.2407401>
11. Tahira Batool, Sobia Noreen, Fozia Batool, Gamal A Shazly, Shahid Iqbal, Ali Irfan, Saira Batool, Shazia Akram Ghumman, Maryam Basharat, Sara Hasan, Samina Aslam, and Yousef A. Bin Jardan. Optimization and pharmacological evaluation of phytochemical-rich *Cuscuta reflexa* seed extract for its efficacy against chlorpyrifos-induced hepatotoxicity in murine models, *Scientific Reports*, **2024**, 14(1), 22923.
12. Humaira Yasmeen Gondal, Fozia Batool, Shahid Iqbal, Jamshed Akbar, Sobia Noreen, Muhammad Mustaqeem, M. Fayyaz ur Rehman, M Imtiaz and Rehman Qadir. Novel green sorbent *Aerva Javanica* for dyes remediation from aqueous media and future prediction through QSPR modeling. *International Journal of Environmental Science and Technology*. **2024**, 21(45), 9045–9056. <https://doi.org/10.1007/s13762-024-05590-z>
13. Javaid Aftab, Mazhar Abbas, Sumaira Sharif, Aqsa Mumtaz, Kinza Zafar, Naveed Ahmad, Osama A. Mohammed, Arif Nazir, **Shahid Iqbal**, and Munawar Iqbal. LC-MS/MS profiling, antioxidant potential and cytotoxicity evaluation of citrus *reticulata albedo*, *Natural Product Communications*, **2024**, 19(8). doi:[10.1177/1934578X241272471](https://doi.org/10.1177/1934578X241272471)
14. Ali Abbas, Farooq Anwar, Naveed Ahmad, Afifa tur Rehman, Osama A. Mohammed, Mustafa Ahmed Abdel-Reheim, Munawar Iqbal, **Shahid Iqbal**, and Arif Nazir. GC-MS analysis and nutra-pharmaceutical potential of *Mentha piperita* essential oil extracted by supercritical fluid extraction and hydro-distillation. *Heliyon*, **2024**, 10(16), e35282.
15. Qamar ul Hassan, Raja Adil Sarfraz, Muhammad Mohsin, Munawar Iqbal, Naveed Ahmed, Samiah H. Al-Mijalli, Wissem Mnif, Arif Nazir and Shahid Iqbal. Physico-Chemical characterization, biological attributes and sensory evaluation of commercial ketchup, *Natural Product Communications*, **2024**, 19(12). doi:[10.1177/1934578X241308048](https://doi.org/10.1177/1934578X241308048)
16. Kinza Shabbir, Khawar Sultan, Zunaira Noreen, Qamar uz Zaman, Munawar Iqbal, Arif Nazir, Samiah H. Al-Mijalli, Nouf Mohammad Alnafisi, **Shahid Iqbal**, Naveed Ahmad, Impact of the urban environment on habitat selection of wild avifauna: Center to boundary ecological assessment, *Ecological Frontiers*, **2024**, 44(3), 570–579. <https://doi.org/10.1016/j.chnaes.2023.10.003>.
17. Iram Saba, Farooq Anwar, Naveed Ahmad, Munawar Iqbal, Ali Abbas, **Shahid Iqbal**, Arif Nazir, and Samiah H. Al-Mijalli. Spearmint (*Mentha spicata* L.) leaves essential oil: Comparative compositional and biological attributes as a function of different agroclimatic regions, *Biocatalysis and Agricultural Biotechnology*, **2024**, 102984.
18. Hafiza Kanwal Shahzadi, Khawar Sultan, Javeria Sultan, Qamar uz Zaman, Arif Nazir, Wissem Mnif, **Shahid Iqbal**, Naveed Ahmad, and Munawar Iqbal, Assessing the spatial and temporal dynamics of specific airborne pollutants in industrial and agricultural ecosystems, *Ecological Frontiers*, **2024**, 44 (4), 802 - 808.
19. Qaisar Manzoor, Arfaa Sajid, Zulfiqar Ali, Arif Nazir, Anam Sajid, Faiza Imtiaz, **Shahid Iqbal**, Umer Younas, Hamza Arif, and Munawar Iqbal. Toxicity spectrum and detrimental effects of titanium dioxide nanoparticles as an emerging pollutant: A review, *Desalination and Water Treatment*, **2024**, 317, 100025.
20. Arif Nazir, Shahbaz Qadir, Muhammad Naeem Ashiq, Abid Ali, H.I. Elsaeedy, Norah Alwadai, Ismat Bibi, **Shahid Iqbal**, Abida Kausar, and Munawar Iqbal. Fabrication of low over-potential manganese doped samarium oxide as synergistic electro-catalyst for generation of sustainable energy, *Materials Chemistry and Physics*, **2023**, 309, 128346.
21. Ali, Faisal, Maryam Ameen, Umer Younas, Muhammad Pervaiz, Zohaib Saeed, Adnan Ashraf, Faiza Hassan, Qaisar Manzoor, **Shahid Iqbal**, and Munawar Iqbal. Synthesis, characterization and kinetics of polymeric stabilized nanoparticles for Eosin Y degradation: a review, *Zeitschrift für Physikalische Chemie*, **2023**, 237, 365-393.
22. Naveed Ahmad, Farooq Anwar, Ali Abbas, Muhammad Shahid, Munawar Iqbal, Samiah H. Al-Mijalli, **Shahid Iqbal**, Mengfei Tian, Chunjian Zhao, and Arif Nazir. Appraisal of wild fig fruits for nutra-pharmaceutical and

biological attributes, *Arabian Journal of Chemistry*, **2023**, 16, 5, 104631.

23. Umer Younas, **Shahid Iqbal**, Asif Saleem, Roeya Rahman, Arif Nazir, Faiza Hassan, Arfaa Sajid, Zohaib Saeed, Munawar Iqbal, and Naveed Ahmad. Evaluation of biological activity and pharmacological attributes of *Pariploca aphylla*: potential source of functional food and nutraceuticals. *Revue Roumaine De Chimie*, **2023**, 68, 7-8, 391-400.
24. Zartasha Iqbal, Muhammad Imran, Shoomaila Latif, Arif Nazir, Sobhy M. Ibrahim, Iftikhar Ahmad, Munawar Iqbal and Shahid Iqbal, Photocatalytic degradation of dyes in aqueous media by gum shellac stabilized selenium nanoparticles, *Zeitschrift für Physikalische Chemie*, **2023**, 237(8), 1139–1152 (<https://doi.org/10.1515/zpch-2022-0113>).
25. Tunzeel Iqbal, Shahid Iqbal, and Fozia Batool. Error analysis based on isothermal study performed for adsorption of Cr(III) with hematite nanosorbent loaded on rice husk biochar, *Pakistan Journal of Scientific & Industrial Research Series A: Physical Sciences*, **2023**, 66, 255-260.
26. Sarvat Rahim, Amin Shah, and Shahid Iqbal. Ethnobotany of medicinal plants in Surghar Range of Pakistan. *Ethnobotany Research and Applications*, **2023**, 26, 1-72.
27. Farzana Majid, Mahwish Bashir, Ismat Bibi, Maida Ayub, Babar Shahzad Khan, Hamoud H. Somaly, Samiah H. Al-Mijalli, Arif Nazir, Shahid Iqbal and Munawar Iqbal, Green synthesis of magnetic Fe₃O₄ nanoflakes using vegetables extracts and their magnetic structural and antibacterial properties evaluation, *Zeitschrift für Physikalische Chemie*, **2023**, 237(9), 1345-1360 (<https://doi.org/10.1515/zpch-2022-0097>).
28. Zubair Ahmed, Ijaz A. Bhatti, Nyla Amjad, Muhammad Mohsin, Shahid Iqbal, Maryam Al Huwayz, Norah Alwadai, Arif Nazir and Munawar Iqbal, Desulfurization of coal using SnO₂/TiO₂ nanocomposite immobilized on glass beads under solar light irradiation, *Zeitschrift für Physikalische Chemie*, **2023**, 237(8), 1125–1137 (<https://doi.org/10.1515/zpch-2022-0084>).
29. Tunzeel Iqbal, **Shahid Iqbal**, Fozia Batool, Dimitrios Thomas, and Malik Muhammad Hassnain Iqbal, Exploration of haematite-loaded rice husk biochar as a low-cost nanosorbent to remove Cr(III) from the aqueous media, *Chemistry and Ecology*, **2023**, 39(4), 404-421.
30. Tanveer Hussain Bokhari, Ayesha Noreen, Muhammad Kaleem Khosa, Muhammad Usman, Mazhar Iqbal, Maryam Al Huwayz, Norah Alwadai, **Shahid Iqbal**, Munawar Iqbal, and Arif Nazir, Facilitating the removal of Reactive Blue 194 dye from wastewater under optimized conditions, *Desalination and Water Treatment*, **2023**, 307, 196–201.
31. Fozia Batool, Ali Irfan, Sami A. Al-Hussain, Eida S. Al-Farraj, **Shahid Iqbal**, Jamshed Akbar, Sobia Noreen, Taslim Akhtar, Tunzeel Iqbal and Magdi E. A. Zaki, Development of Ion Character Property Relationship (IC-PR) for Removal of 13-Metal Ions by Employing a Novel Green Adsorbent *Aerva javanica*, *Molecules*, **2022**, 27(23), 8213. (<https://doi.org/10.3390/molecules27238213>).
32. Taslim Akhtar, Fozia Batool, Sajjad Ahmad, Eida S. Al-Farraj, Ali Irfan, Shahid Iqbal, Sami Ullah, and Magdi E. A. Zaki, Defatted Seed Residue of *Cucumis Melo* as a Novel, Renewable and Green Biosorbent for Removal of Selected Heavy Metals from Wastewater: Kinetic and Isothermal Study, *Molecules*, **2022**, 27 (19), 6671.
33. Tunzeel Iqbal, **Shahid Iqbal**, and Fozia Batool, *Saccharum munja* derived biochar loaded with hematite nanomaterial for remediation of Cr(III) from aqueous environment: isothermal, error analysis, kinetic and thermodynamic studies, *European Journal of Materials Science and Engineering*, **2022**, 7(1), 49-71.
34. Faisal Abbas, Fozia Batool, **Shahid Iqbal**, Jamshed Akbar, Sobia Noreen and Tunzeel Iqbal, Artificial neural network (ANN) approach for modeling of methyl orange adsorption by *Syzygium cumini* seed coat, *Pure and Applied Biology*, **2021**, 10(3), 886-896. (<http://dx.doi.org/10.19045/bspab.2021.100091>)
35. Umer Younas, Syed Taimoor Hassan, Faisal Ali, Faiza Hassan, Zohaib Saeed, Muhammad Pervaiz, Safia Khan, Fakiha Tul Jannat, Sidra Bibi, Ayesha Sadiqa, Zahid Ali, Shahid Iqbal, Ayman A. Ghfar, Mohamed Ouladsmane, Murefah Mana AL-Anazy and Shafaqat Ali, Radical scavenging and catalytic activity of Fe-Cu bimetallic nanoparticles synthesized from *Ixora finlaysoniana* extract, *Coatings*, **2021**, 11(7), 813.
36. Tunzeel Iqbal, **Shahid Iqbal**, Fozia Batool, Dimitrios Thomas, and Malik Muhammad

Hassnain Iqbal, Utilization of a newly developed nanomaterial based on loading of biochar with hematite for the removal of cadmium ions from aqueous media, *Sustainability*, **2021**, 13(4), 2191. (<https://doi.org/10.3390/su13042191>)

37. Umer Younas, Shahid Iqbal, Rashida Bashir, Noreen Sajjad, Zohaib Saeed, Muhammad Pervaiz, Faiza Hassan, Faisal Ali, Fozia Batool, and Munawar Iqbal, An eco-friendly approach for the extraction of antioxidant components from *Artemisia annua* leaves using response surface methodology, *Polish Journal of Environmental Studies*, **2021**, 30, 4827-4833.
38. Zohaib Saeed, Ikram Ahmad, Shahid Iqbal, Umer Younas, Muhammad Pervaiz, Rana Rashad Mahmood Khan, Shahzad Sharif, Abdullah M. Asiri, Sher Bahadar Khan and Tahseen Kamal, Evaluating the Effect of Sewage Sludge on Bioactive Components of *Momordica charantia*, *Journal of the Chemical Society of Pakistan*, **2021**, 43 (4), 386-392.
39. Umer Younas, **Shahid Iqbal**, Zohaib Saeed, Saba Ibrahim, Shazia Khurshid, Muhammad Pervaiz, Asif Saleem, Asma Zaidi, Munawar Iqbal, Arif Nazir, Heavy metal enrichment of soil irrigated with paper and board mill (PBM) effluents, *Polish Journal of Environmental Studies*, **2020**, 29(6), 4463–4468.
40. Zohaib Saeed, **Shahid Iqbal**, Umer Younas, Muhammad Pervaiz, Syed M. Bukhari, Asma Zaidi. Variation in antioxidant potential of *Vigna unguiculata* grown in pure and amended soil, *Kuwait Journal of Science*, **2020**, 47 (3), 2-14.
41. Sobia Noreen, Shazia Akram Ghuman, Fozia Batool, Bushra Ijaz, Maryam Basharat, Shazia Noureen, Tusneem Kausar, and **Shahid Iqbal**. *Terminalia arjuna* gum/alginate in situ gel system with prolonged retention time for ophthalmic drug delivery. *International Journal of Biological Macromolecules*, **2020**, 152, 1056-1067.
42. Shoomaila Latif, Rabia Rehman, Muhammad Imran, **Shahid Iqbal**, Ayesha Kanwal and Liviu Mitu. Removal of acidic dyes from aqueous media using *Citrullus lanatus* peels - an agrowaste based adsorbent for environmental safety, *Journal of Chemistry*, **2019**, ID 6704953, 1-9.
43. Anila Arshad, Raheel Akram, Shahid Iqbal Rana, Ghulam Hussain, Sami Ullah Dar, and Saleem Iqbal. A single step fast track methodology for in-situ detection of hazardous melamine by using highly sensitive polyphenolics modified nanogold probe. *Journal of Nanoscience and Nanotechnology*, **2019**, 19 (11), 7229-7235.
44. Asma Batool, Muhammad Asam Riaz, Faiza Hassan, Shakeela Irum, **Shahid Iqbal**, Farooq Anwar and Mubshara Saadia. Screening of active formulation from combined sunflower (*Helianthus annuus*) and neem (*Azadirachta indica*) aqueous extract to control growth of lesser canary, *Pakistan Journal of Botany*, **2019**, 51 (3), 967-972.
45. Abdul Jabbar, Muhammad Sirajuddin, **Shahid Iqbal**, Muhammad I. Tariq, and Muhammad Ahmad, Exploration of Antioxidant Activities of Potentially Bioactive Compounds in *Trianthema portulacastrum* Herb: Chemical Identification and Quantification by GC-MS and HPLC, *Chemistry Select*, **2019**, 4 (3), 925 –935.
46. Sobia Noreen, Ishtiaq Hussain, Muhammad Ilyas Tariq, **Shahid Iqbal**, Fozia Batool, Shazia Akram Ghuman, Shazia Noureen, and Tusneem Kausar, Influence of Extraction Scheme on the Antioxidant Potential of *Caralluma tuberculate*, *Notulae Scientia Biologicae*, **2018**, 10(3), 340-347.
47. Zohaib Saeed, **Shahid Iqbal**, Umer Younas, Muhammad Pervaiz, Syed Mohsin Ali Naqvi, Rana Rashad Mahmood Khan, Optimization of sewage sludge mixing with soil to attain promising neutraceuticals attributes in the *Lagenaria siceraria* L. (Kaddu) Plant, *Biologia*, **2018**, 64(II), 233-239.
48. Taslim Akhtar, Muhammad Ilyas Tariq, **Shahid Iqbal**, Nargis Sultana, Muhammad Ahmad and Kim Wei Chan, Production of Biodiesel by Ultrasonic-Assisted Methanolysis of Cantaloupe Seed Oil and its Optimization by Taguchi Method. *Journal of the Chemical Society of Pakistan*, **2018**, 40(3), 427-436.
49. Fozia Batool, **Shahid Iqbal**, Jamshed Akbar, Sobia Noreen, Remediation of Cadmium Ions from Aqueous Media through Chemically Modified *Saccharum arundinaceum*: Prediction through Modeling Techniques. *Journal of the Chemical Society of Pakistan*, **2018**, 40(2), 294-303.

50. Jamshed Akbar, **Shahid Iqbal**, Fozia Batool, Sobia Noreen and Syed Nasir Abbas Bukhari, Study of isothermal, kinetic and thermodynamic parameters for adsorption of cadmium: an overview of linear and nonlinear approach and error analysis. *Bioinorganic Chemistry and Applications*, **2018**, 2018, 1-11.
51. Fozia Batool, **Shahid Iqbal**, Jamshed Akbar, Impact of metal ionic characteristics on adsorption potential of *Ficus carica* leaves using QSPR modeling, *Journal of Environmental Science and Health - Part B*, **2018**, 53 (4), 276-281.
52. Shoomaila Latif, Rabia Rehman, Muhammad Imran and **Shahid Iqbal**, Biosorptive decontamination of acid red-87 dye from wastewater by *Citrus limonum* peels: ecofriendly approach, *Pakistan Journal of Analytical and Environmental Chemistry*, **2018**, 19(1), 44–52.
53. Taslim Akhtar, Muhammad Ilyas Tariq, **Shahid Iqbal**, Nargis Sultana, Chan Kim Wei, Production and characterization of biodiesel from *Eriobotrya japonica* seed oil: An optimization study, *International Journal of Green Energy*, **2017**, 14(6), 569-574.
54. Taslim Akhtar, Hifsa Akhtar, M.I. Tariq, **Shahid Iqbal**, Nargis Sultana and Muhammad Ahmad, Optimization of biodiesel production through base-catalyzed methanolysis of cantaloupe seed oil, *Pakistan Journal of Science*, **2017**, 69(2), 174-178.
55. Fozia Batool, **Shahid Iqbal**, Muhammad Ilyas Tariq, Jamshed Akbar, Sobia Noreen, Muhammad Danish, Kim Wei Chan, MILK: Carrier of heavy metals from crops through ruminant body to human beings, *Journal of the Chemical Society of Pakistan*, **2016**, 38(1), 39-42.
56. Muhammad Saqib, **Shahid Iqbal**, Asif Mahmood, Raheel Akram, Theoretical investigation for exploring the antioxidant potential of chlorogenic acid: a density functional theory study, *International Journal of Food Properties*, **2016**, 19(4), 745-751.
57. Sobia Noreen, Ishtiaq Hussain, Muhammad Ilyas Tariq, Bushra Ijaz, **Shahid Iqbal**, Usman Ali Ashfaq, Tayyab Husnain, *Portulaca oleracea* L. as a prospective candidate inhibitor of hepatitis C virus NS3 serine protease, *Viral Immunology*, **2015**, 28(5), 282-289.
58. Fozia Batool, **Shahid Iqbal**, Kim Wei Chan, Muhammad Ilyas Tariq, Afzal Shah, Muhammad Mustaqeem, Concentrations of heavy metals in hair and nails of young Pakistanis: correlation with dietary elements, *Environmental Forensics*, **2015**, 16(1), 1-6.
59. Muhammad Sher, Pervaiz Ali, Zaman Ashraf, Muhammad Aamir, Ejaz Ahmed, Ahsan Sharif, Nadia Riaz, **Shahid Iqbal**, Synthesis and characterization of some novel 4-aryloxy substituted pyrazoles, *Asian Journal of Chemistry*, **2014**, 26(21), 7435.
60. Kim Wei Chan, **Shahid Iqbal**, Nicholas MH Khong, Der-Jiun Ooi, Maznah Ismail, Antioxidant activity of phenolics-saponins rich fraction prepared from defatted kenaf seed meal, *LWT - Food Science and Technology*, **2014**, 56(1), 181-186.
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/I. Workshops Organized

- As **Organizer** in workshop “*Phenolics Extraction Technique Workshop 2011*” **Organized by** Laboratory of Molecular Biomedicine, Institute of Bioscience, Universiti Putra Malaysia on Jun 14-15, 2011 **at** auditorium of IBS UPM Malaysia.
- Workshop titled “Chemicals & Pharmaceuticals for Development” sponsored by HEC was organized from Nov. 20-21, 2007 at Department of Chemistry, University of Sargodha, Sargodha.

/II. Conferences/Symposia Attended

1. National Symposium on “*Moringa oleifera*: Recent Trends and Challenges in Processing and Product Development” **Organized by** Department of Chemistry, University of Sargodha & Punjab Agricultural Research Board on April 09-10, 2018 **at** CAMB auditorium, University of the Punjab, Lahore.
2. National Symposium on “Emerging Trends in The Extraction of Plant Bioactives for Nutra-Pharmaceutical Development” **Organized by** Department of Chemistry, University of Sargodha on Nov 1-2, 2017 **at** MBA Hall, University of Sargodha.
3. Two-Days Conference on “Recent Advances in Chemistry-2017”, **Organized by** Department of Chemistry, The University of Lahore on May 13-14, 2017 **at** Auditorium, The University of Lahore.
4. One-Day Symposium on “Green Chemistry: An Innovative Route to Sustainable Scientific Developments”, **Organized by** Department of Chemistry, University of Sargodha on April 30, 2014 **at** Pharmacy Hall, University of Sargodha.
5. “10th International and 22nd National Chemistry Conference”, **Organized by** Chemical Society of Pakistan on Nov. 21-23, 2011 **at** University of Agriculture, Faisalabad.
6. “Current Technologies in Oil & Fats”, **Organized by** National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro on March 21-23, 2011 **at** Indus Hotel, Hyderabad.
7. “2nd Pak-Turk Seminar on Chemical Sciences”, **Organized by** National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro on Feb 11 - 13, 2010 **at** Indus Hotel, Hyderabad.
8. “18th National Chemistry Conference”, **Organized by** Chemical Society of Pakistan on Feb. 25-27, 2008 **at** Institute of Chemistry, University of the Punjab, Lahore.
9. 2nd International Seminar on Analytical Sciences, **Organized by** National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro on Sep. 6-8, 2007 **at** campus.
10. 9th International Symposium on Analytical and Environmental Chemistry, **Organized by** NCEAC, University of Sindh, Jamshoro & Institute of Chemical Sciences, University of Peshawar, Peshawar on July 24-26, 2006 **at** Baragali campus, University of Peshawar.
11. EnviroPakistan 2006-Conference & Exhibition, **Organized by** The Royal Society of Chemistry, UK on Jun 03, 2006 **at** Ambassador Hotel, Lahore.

12. 8th International Symposium on Analytical and Environmental Chemistry, **Organized by** National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro on Feb 7-8, 2005 **at** campus.
13. International Nutrition Conference-2004 **Organized by** University of Veterinary and Animal Sciences, Lahore on Dec 1-2, 2004 **at** Pearl Continental Hotel, Lahore.
14. 5th International and 15th National Chemistry Conference, **Organized by** Chemical Society of Pakistan on Nov 24-27, 2004 **at** Department of Chemistry, Quaid-e-Azam University Islamabad.
15. 4th International & 14th National Chemistry Conference, **Organized by** Chemical Society of Pakistan on May 16-18, 2004 **at** PCSIR Labs. Complex, Lahore-Pakistan.
16. Pakistan-Bangladesh-Iran International Seminar on Analytical Sciences, **Organized by** National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro on Dec. 8-9, 2003 **at** Indus Hotel, Hyderabad.
17. 7th National Symposium on Analytical and Environmental Chemistry, **Organized by** National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro on March 4th -5th, 2003 **at** campus.
18. 3rd International & 13th National Chemistry Conference, **Organized by** Chemical Society of Pakistan on Dec. 28-31, 2002 **at** University of Karachi, Karachi.

/II. INVITED LECTURES/ AS RESOURCE PERSON

- As **Invited Speaker** for talk in “Two days National Symposium on Chemistry an Emphatic Scientific Pillar in Multidisciplinary Research” **Organized by** Jabir Bin Hayan Chemists Society, Department of Chemistry, University of Gujarat, Gujarat on December 3-4, 2019 **at** Central Library, University of Gujarat.
- As **Invited Speaker** for talk in “One-day workshop on technical and patent writing” **Organized by** ORIC & Department of Chemistry, University of Sargodha on June 25, 2018 **at** auditorium, Department of Pharmacy, UoS.
- As **Invited Speaker** for talk in “7th Pak Pharma & Healthcare Expo: Exhibition & Conference” **Organized by** Prime Event Management, Karachi on Jan. 23-24, 2018 **at** Expo Centre Lahore.
- As **Invited Speaker** for talk in 1st National Conference On “*Recent Innovations on Medicinal Chemistry & Bio-Chemistry*” **Organized by** Department of Chemistry, University of Science and Technology, Bannu on Feb 20-22 2018 **at** Auditorium Central Library Township Campus”
- As **Invited Speaker** for talk in workshop “*Antioxidant Methodologies Workshop 2011*” **Organized by** Laboratory of Molecular Biomedicine, Institute of Bioscience, Universiti Putra Malaysia on Jan 25-26, 2011 **at** auditorium.
- As **Invited Speaker** for talk in workshop “*Antioxidant Methodologies Workshop 2/2011*” **Organized by** Laboratory of Molecular Biomedicine, Institute of Bioscience, Universiti Putra Malaysia on Apr 19-20, 2011 **at** Tongkat Ali auditorium.
- As **Invited Speaker** in workshop “*Phenolics Extraction Technique Workshop 2011*” **Organized by** Laboratory of Molecular Biomedicine, Institute of Bioscience, Universiti Putra Malaysia on Jun 14-15, 2011 **at** auditorium.

/III. SPECIALIZED TRAINING & CERTIFICATIONS

- Technical Workshop on Endnote X8 and Mendeley on March 28, 2018 **Organized by** ORIC, University of Sargodha, Sargodha.
- An international training course on “*Recent Trends in Analytical Chemistry*”, April 3-5, 2012, **Organized by** COMSTECH, Islamabad **at** Head office Islamabad.
- An international training course on “*Intellectual Property Rights and Technology Transfer*”, Oct. 31 to Nov. 2, 2011, **Organized by** COMSTECH, Islamabad **at** Head office Islamabad.

- “Recent Advances in Food Analysis” **Organized by** National Institute of Food Science and Technology, University of Agriculture, Faisalabad on Feb 7, 2009 **at** Campus.
- “First Regional Workshop on Urban Water Demand Management”, August 27-28, 2008, **Organized by** NCEAC, Sindh University, Mehran University, Jamshoro and Exeter University UK.
- A training course “Training of presiding officers” **Organized by** Election Commission of Pakistan on Jan 5, 2007 **at** Govt Ambala Muslim College, Sargodha.
- An international training workshop on patent systems on “Patent culture to Foster Research and Technology Development” **Organized by** COMSTECH-ISESCO on Dec 2-4, 2005 **at** National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro
- A workshop on “d-block Elements & Chemical Bonding”, **Organized by** National core group of chemists, Higher Education Commission Pakistan on Jan. 5-14, 2005, **at** HEC regional center, Lahore.
- A workshop on “Chromatography and Statistics” **Organized by** National core group of chemists, Pakistan Dec. 23-29, 2004 at National Center of Excellence in Analytical Chemistry, University of Sindh, Jamshoro.

XVII. REFERENCE:

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