



Ayaz Ali Memon PhD

National Centre of Excellence in Analytical Chemistry

University of Sindh, Jamshoro, 76080, Pakistan

Email: ayazmemon33@gmail.com, ayazmemon33@usindh.edu.pk

Cell # 0323-3001741/0336-3811678

Research ID : B-8803-2018, ORCID : 0000-0002-9018-4856

Google Scholar

[Citations](#) 1170

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Relevant knowledge and instrumental experience includes:

Method Development, UV/Vis Spectroscopy, Mass Spectrometry (LC-MS, GC-MS, APCI-MSMS/MS-NOSE), Chromatography (HPLC, GC), ICP-OES, Qualitative & Quantitative Analysis, Food analysis, proximate composition, Phytochemical Analysis, Antimicrobial Activity, Metal Nanoparticles, Drug delivery, Graphene and their composites, membrane technology

Education

Ph.D. (Analytical Chemistry)-----**12th November 2012**

National Centre of excellence in Analytical Chemistry, University of Sindh, Jamshoro, Sindh, Pakistan

PhD Thesis: Development of Analytical Methodology for Determination of Phenolic Compounds from Plant Material.

M.Sc. (Analytical Chemistry)-----**May 2005**

Dr. M.A. Kazi Institute of Chemistry, University of Sindh, Jamshoro, Sindh, Pakistan

B.Sc. (Chemistry)-----**May 2004**

Dr. M.A. Kazi Institute of Chemistry, University of Sindh, Jamshoro, Sindh, Pakistan

Research & Job Experience

➤ **Research**

• **M.Phil leading to PhD** -----**6th June 2006 to 12th November 2012**

National Centre of Excellence in Analytical Chemistry, University of Sindh, Jamshoro, Sindh, Pakistan

• **Visiting Fellowship (UK)**-----**22nd April 2014 – 18th July 2014**

School of Bioscience, division of food science at Sutton Bonington Campus University of Nottingham, LoughBrough Leics, L. E. 12 5RD, United Kingdom

Title: “To separate out the isobaric organic compounds by applying the APCI/MSMS technique”

• **Visiting Fellowship (USA)**-----**1st April 2012 – 30th June 2012**

Department of Nutrition and food Science University of Maryland, United States of America

Working place at Food Composition and Method Development Laboratory (FCMDL) USDA, ARS, Baltsville, 20705, MD

• **IRSIP (HEC) Fellowship (USA)** -----**June 2010 – Nov 2010**

Research work at Food Composition and Method Development Laboratory (FCMDL) USDA, ARS, Baltsville, 20705, MD, USA, with financial support of HEC, Pakistan and USDA, ARS, United States of America

➤ **Job**

Previous Job

Medical Technologist-----**06th June 2006 to 28th February 2013**

Department of Forensic Medicine * Toxicology, LUMHS, Jamshoro

Current Job

• **Associate Professor**-----**05th June 2022 to Present**

National Centre of Excellence in Analytical Chemistry, University of Sindh, Jamshoro, Sindh, Pakistan

• **Assistant Professor**-----**01st March 2013 to 4th June 2022**

National Centre of Excellence in Analytical Chemistry, University of Sindh, Jamshoro, Sindh, Pakistan

Awarded/Under Process

- **Local Challenge Fund/Higher Education Development in Pakistan (LCF-HEDP) through HEC Pakistan (Principal Investigator)**
Title: Coloration of polyester fabric at room temperature using advanced structure color technique: A practical approach towards green environment and energy saving **Ref No. 20-LCF-69/RGM/R&D/HEC/2020 (20.043 million Rupees)**
- **National research Program for Universities/Higher Education Commission Pakistan (NRPU) 2021 (Co-Principal Investigator)**
Title: Design and Development of CMOS Compatible Infrared Image Sensor **Project No. (20-14470/NRPU/R&D/HEC/2021) (13.06 M Rupees)**

Honors/Awards

- **April 2014 to July 2014 (Three months** visiting Fellowship Award from University of Nottingham, United Kingdom at School of Bioscience, division of food science at Sutton Bonington Campus Lough Brough Leics, LE 12 5RD, UK).
- **March 2012-May 2012 (Three months** Fellowship Award from USDA, USA for research work at FCMDL Lab ARS, USDA, MD, USA).
- **June 2010-February 2011 (Six months** Fellowship Award with collaboration of HEC (IRSIP) Islamabad during PhD study).
- **Vice Chancellor Silver Medal 2004/05** for 1st position in Masters of Science in Analytical Chemistry

Publications

Book/Book Chapter

1. **Chapter 3: “MXene-based Separation Membranes for Water Purification and Desalination”** Akbar Ali, Ayaz Ali Memon, Jun Yang, Javeed Akhtar, Khalid Hussain Thebo, **Book: Novel Materials and Water Purification: Toward a Sustainable Future, 2024, Page xxx, Royal Society of Chemistry (RSC), Copyright © 2024**
2. **Chapter-4, Cold pressed Torreya grandis kernel Oil,** Pages 31-38 Abdul Hafeez Laghari, Aftab Ahmed Kandhro, Ayaz Ali Memon. **Book: “Cold Pressed Oils Green” Technology, Bioactive Compounds, Functionality, and Applications”** Copyright © 2020 Elsevier Inc. All rights reserved <https://doi.org/10.1016/B978-0-12-818188-1.00004-9>

Review Articles

2024

1. **Molybdenum Sulfide Nanomaterial: A Potential Candidate for Separation Membranes** Faheeda Soomro, Weenjhar Ali, Ashique Jatoi, Imran Maqbool, Ayaz Ali Memon, Muzaffar Iqbal, Khalid Hussain Thebo **ChemBioEng Reviews Submitted (Accepted)**
2. Recent Progress in Two-dimensional Metal-Organic Frameworks-based Membranes for Water Sustainability **Environmental Science: Water Research & Technology**, Talib Hussain Banglani, Imamdin Chandio, Ali Akber tThebo, Ayaz Ali Memon, Khalid Hussain Thebo, Jun Yang, (**Under review**)
3. **MXene-based materials as new generation adsorbents for purification of emerging and gaseous pollutants from the environment: A comprehensive review** Mohammad Hadi Dehghani, Nadeem Hussain Solangi, Nabisab Mujawar Mubarak, Natarajan Rajamohan, Subrajit Bosua, Amina Othmani, Md. Ahmaruzzaman, Soumya Ranjan Mishra, Baishali Bhattacharjee, Vishal Gadore, Talib Hussain Banglani, Nawab Waris, Ali hyder, Ayaz Ali Memon, Khalid Hussain Thebo, Payal Joshi, Grzegorz Boczkaj, Rama Rao Karri **Journal of Hazardous Materials (Under review)**

2023

4. **MoS₂-containing composite membranes for separation of environmental energy-relevant liquid and gas mixtures: A comprehensive review** Farooque Ahmed Janjhi, Imamdin Chandio, Dahar Janwery, Ayaz Ali Memon, Khalid Hussain Thebo, Grzegorz Boczkaj, and Roberto Castro-Muñoz **Chemical Engineering Research and Design Volume 199, November 2023, Pages 327-347, 2023**
<https://doi.org/10.1016/j.cherd.2023.10.014>

5. *MXene-based Nanocomposites: An Emerging Aspirant for Removal of Antibiotics, Dyes, and Heavy Metal Ions* Hyder Ali, Akbar Ali, **Ayaz Ali Memon**, Amber Solangi, Jun Yang, Khalid Hussain Thebo, **Mater. Chem. Front.**, **2023**, **7**, 5519-5544, August 2023, DOI <https://doi.org/10.1039/D3QM00667K>,
6. *MoS₂-based lamellar membranes for mass transport applications: Challenges and opportunities* Muhammad Khurram Shahzad, Fida Hussain Memon, Faheeda Soomro, Muzaffar Iqbal, Aliya Ibrar, **Ayaz Ali Memon**, Jong Hwan Lim, Kyung Hyon Choi, Khalid Hussain Thebo, **J. of, Envir. Chem. Eng.** Volume 11, Issue 2, April 2023, 109329 <https://doi.org/10.1016/j.jece.2023.109329>

2022

7. *Recent Advances in Graphene Oxide-Based Membranes for Heavy Metal Ions Separation* Farooque Ahmed Janjhi, Dahar Janwery, Imamdin Chandio, Sami Ullah, Faisal Rehman, **Ayaz Ali Memon***, Jabir Hakami, Firoz Khan, Grzegorz Boczkaj, Khalid Hussain Thebo. **ChemBioEng Reviews**, Volume 9, Issue 6, 574-590, December 2022 <https://doi.org/10.1002/cben.202200015>
8. *Two-dimensional Materials based Printed Photodetectors* Ali A, Avishan N, Shah S, **Memon AA**, Khan Y **Materials Innovations** **2022**, **2** (6), 160-175 Two-dimensional Materials | Review Article | Electronic ISSN: 2790-1963 <http://doi.org/10.54738/MI.2022.2602>
9. *Two-Dimensional Transition Metal Carbides and Nitrides (MXene) for Water Purification and Antimicrobial Applications* Inamullah Mahar, Fida Hussain, Jae-Wook Lee, kyung Hwan Kim, Rafique Ahmed, Faheeda Soomro, Faisal Rehman, **Ayaz Ali Memon**, Khalid Hussain Thebo, and Kyung Hyun Choi.. **Membranes** **12**, **11**, 869, November 2021, <https://doi.org/10.3390/membranes11110869>

Research Articles

2024

10. **Chemical Papers-(Accepted)** Anwar Ali Chandio, Shahabuddin Memon, Aijaz Otho, Aamna Balouch, Nazir Ahmed Brohi, Fakhar N. Memon, **Ayaz Ali Memon***, Khalid Hussain Thebo. *Supramolecular Structural based Fabrication of Silver Nanoparticles using Diamide derivative of Calix[4]arene: An efficient Antimicrobial Agent*
11. **Sindh University Research Journal (science series) (Under review)** Farooque Ali Bhugio, Sher Muhammad Mangrio, Taj Muhammad Jahangir, **Ayaz Ali Memon**, Abdul Rauf Jamali, Sadaf Tabassum Qureshi, Hadi bux Bozdar, Altaf Ahmed Simair, Aijaz Ali Otho *Analysis of phenolic compounds and allelopathic effects of Eucalyptus on Prosopis cineraria*
12. **New Journal of Chemistry--Published 16-December-2023** Jatoti, Ashique Hussain ; Ali, Akbar; Nadeem, Ahmed; Phulpoto, Shah Nawaz; Iqbal, Muzaffar ; **Memon, Ayaz Ali**; Yang, Jun; Thebo, Khalid Hussain *High-performance asparagine-modified graphene oxide membranes for organic dyes and heavy metal ions separation* <https://doi.org/10.1039/D3NJ04552H>
13. **Industrial & Engineering Chemistry Research--published December 2, 2023** Ali Hyder, Dahar Janwary, Mujahid Mehdi, Muhammad Ali Khan, **Ayaz Ali Memon***, Amber Rehana Solangi, Khalid Hussain Thebo, Shahabuddin Memon, Jamil Ahmed Buledi *Supramolecular Structural based Graphene Oxide Lamellar Membrane for Removing Environmental Pollutants from Wastewater* <https://doi.org/10.1021/acs.iecr.3c03260>
14. **Analytical Letters--published November 24th 2023** Meher-Un-Nisa Khilji, Aijaz Ali Otho, Roomia Memon, Ali Hyder, Dahar Janwery, Ayaz Ali Memon*, Najma Memon, Khalid Hussain Thebo *Facile Fabrication of free-standing MgO@GO Functionalize Membrane: A Robust and Highly Efficient Material for Removal of Environmental Pollutants from Aqueous Matrices* <https://doi.org/10.1080/00032719.2023.2284841>

2023

15. **Diamond & Related Materials-139, November 2023, 110357** Ali Hyder, Jamil Ahmed Buledi, Roomia Memon, Anjum Qureshi, Javed H. Niazi, Amber Rehana Solangi, Shahabuddin Memon, **Ayaz Ali Memon***, Khalid Hussain Thebo *Modified Electrochemical Sensor via Supramolecular Structural Functionalized Graphene Oxide for Ultra-Sensitive Detection of Gallic Acid*, <https://doi.org/10.1016/j.diamond.2023.110357>, ISSN# 0925-9635, Netherland (W-Category)
16. **Heliyon-30th August 2023, 9, 9, 2023 e19622** Ali Hyder, Muzamil Thebo, Dahar Janwery, Jamil Ahmed Buledi, Imamdin Chandio, Awais Khalid, Bader S. Al-Anzi, Hanadi A. Almukhlifi, Khalid Hussain Thebo, Fakhar N. Memon, **Ayaz Ali Memon***, Amber Rehana Solangi, Shahabuddin Memon. *Fabrication of para-dimethylamine calix[4]arene functionalized self-assembled graphene oxide composite material for effective removal of 2, 4, 6-tri-Chlorophenol from aqueous environment*, ISSN #2405-8440, Netherland (W-Category) <https://doi.org/10.1016/j.heliyon.2023.e19622>
17. **Soil and Sediment Contamination: An International J.--07th May 2023**, Sana Ullah, Nizamuddin Depar, Dawood Khan, **Ayaz Ali Memon**, Amanat Ali & Asif Naeem *Selenate and Selenite Induced*

Differential Morphophysiological Modifications to Mitigate Arsenic Toxicity and Uptake by Wheat, <https://doi.org/10.1080/15320383.2023.2204956>, ISSN # 1532-0383, UK (Y-Category)

18. **Uni. Sindh. J. Anim. Sci.-vol.7(1); 32-37, 2023** Barirah Rehman Talpur, Zaheer Ahmed Nizamani, Mansoor Tariq, Imdad Hussain Leghari, **Ayaz Ali Memon**. *Toxicopathological effects of oral sodium arsenite on production of layers* Accepted 26th March 2023 **Online 31st March 2023. DOI:** <https://doi.org/10.57038/usjas.v7i1.6225>
19. **ACS Omega-Published 13th February 2023**, Dahar Janwery, Fida Hussain Memon, **Ayaz Ali Memon***, Muzaffar Iqbal, Fakhar Nisa Memon, Wajid Ali, Kyung-Hyun Choi*, and Khalid Hussain Thebo* *Lamellar Graphene Oxide-based Composite Membranes for Efficient Separation of Heavy Metal Ions and Desalination of Water*, Accepted 24th January 2023. <https://doi.org/10.1021/acsomega.2c07243>
20. **Chemical Engineering Research and Design-3rd Feb 2023, 191, 462–471** Inamullah Mahar, Faraz K. Mahar, Nasrullah Mahar, **Ayaz Ali Memon***, Azhar A. A. Pirzado, Zeeshan Khatri, Khalid H. Thebo, Ayaz Ali *Fabrication and Characterization of MXene/Carbon Composite-Based Nanofibers (MXene/CNFs) Membrane: An Efficient Adsorbent Material for Removal of Pb+2 and As+3 Ions from Water* <https://doi.org/10.1016/j.cherd.2023.02.005>
21. **Membrane-4th January 2023, 13, 64**, Faheeda Soomro, Fida Hussain Memon, Muhammad Ali Khan, Muzaffar Iqbal, Aliya Ibrar, **Ayaz Ali Memon**, Jong Hwan Lim, Kyung Hyon Choi, Khalid Hussain Thebo *“Ultrathin graphene oxide-based nanocomposite membranes for water purification”* <https://doi.org/10.3390/membranes13010064>
22. **Polycyclic Aromatic Compounds-3rd July 2023, 4843-4855**, Anwar Ali Chandio, Shahabuddin Memon, **Ayaz Ali Memon***, Aamna Balouch, Roomia Memon, Khalid Hussain Thebo, Fakhar N Memon, Muhammad Hassan Agheem, Safia Sanam Memon, Aijaz Ali Otho, *Eco-Friendly Conversion of p-Nitrophenol into p-Aminophenol Using Calix[4]arene Derived CuO Nanoparticles: An Excellent Catalytic Agent* Publisher: Taylor & Francis. <https://doi.org/10.1080/10406638.2022.2096648>
23. **Optical materials-January 2023, (135), 113260** Meher-Un-Nisa Khilji, Noor Ahmed Nahyoon, Mujahid Mehdi, Khalid Hussain Thebo, Nasrullah Mahar, **Ayaz Ali Memon***, Najma Memon, Nadir Hussain. *Synthesis of novel visible light driven MgO@GO nanocomposite photocatalyst for degradation of Rhodamine 6G* Accepted 20 November 2022 **Online 25 November 2022.** <https://doi.org/10.1016/j.optmat.2022.113260>

2022

24. **New Journal of Chemistry-June 2022, 46, 12530–12539** Memon, Saeed; Shaikh, Huma; Raza, Rizwan; Mughal, Zaib un-Nisa; **Memon, Ayaz**; Memon, Shahabuddin; *Graphene incorporated mesoporous perovskite with excellent conductivity and catalytic activity for low temperature solid oxide fuel cell*, Publisher: Royal Society of Chemistry DOI: 10.1039/d2nj01917e
25. **Biological Trace Element Research-2022, 200:2439–2454** Aijaz Ali Otho, Rabia Memon, Saeed Akhtar abro*, **Ayaz Ali Memon**, *Elemental Analysis of Medicinal herb fagonia Indica Burm.F. and its rhizospheric soil from six geographical locations of south-eastern Sindh Province, Pakistan, During spring and summer seasons*, <https://doi.org/10.1007/s12011-021-02873-1>
26. **Supramolecular Chemistry- 27 March, 2022, 1-11**, Tahira Sarwar Khokhar, Fakhar N Memon, Safia Sanam Memon, **Ayaz Ali Memon**, Asif Ali Bhatti, Shahabuddin Memon *Naringenin solubilizing and pH dependent releasing properties of water soluble p-sulphonatocalix[4]arene* <https://doi.org/10.1080/10610278.2022.2061352>
27. **Nanoscale Advances-4, 2303-2312, April 2022**, Shabana Gul Baloch, Huma Shaikh, Shahnaila Shah, Shahabuddin Memon, **Ayaz Ali Memon**, *Synthesis of an insulin intercalated graphene oxide nanogel composite: evaluation of its release profile and stability for oral delivery of insulin* DOI: 10.1039/D1NA00887K
28. **International J. of Envir. Analy. Chem.-102, 18, 2022**, Roomia Memon*, **Ayaz Ali Memon**, S.T.H Sherazi, Sirrajuddin, Aamna Balouch, M. Raza Shah, Sarfaraz A. Mahesar, Kousar Rajar, M. Hassan Agheem. *Ultrasensitive colorimetric detection of Hg²⁺ in aqueous media via green synthesis by Ziziphus Mauritiana Leaves extract based silver nanoparticles* <https://doi.org/10.1080/03067319.2020.1822353>
29. **Pakistan Journal of Zoology-March 54 (3) 1475-1478, 2022** Junejo, Ranjhan; Memon, Shahabuddin; Shar, Muhammad Usman; Memon, Ayaz Ali; Fakhar Nisa Memon, *Effect of Various Parameters for Trapping Red Palm Weevil (Rhynchophorus ferrugineus L) in Date Palm Orchards at Khairpur Mir's Sindh, Pakistan* DOI:10.17582/journal.pjz/20200201180253
30. **Chinese Journal of Analytical Chemistry-February, 50, 03, 100061, 2022**, Ghulam Qadir Chanihoon, Ahsanullah Unar, **Ayaz Ali Memon**, Hassan Imran Afridi, Anees-ur-Rahman Chandio, Tassadaq Hussain Jaffar *Determination of enzyme Q10 levels in Pakistani female patients with breast cancer* <https://doi.org/10.1016/j.cjac.2022.100061>

2021

31. **Optik Optics-December, 248, 168188, 2021**, Roomia Memon, **Ayaz Ali Memon**, Amna Balouch, M. Raza Shah, Mujeeb Rehman, S.T.H Sherazi, Sirrajuddin*, Safia Sanam Memon, Kanwal Memon *Highly selective nanomolar level colorimetric sensing of Cr³⁺ through biosynthesized gold nanoparticles in the presence of Cr⁶⁺* (Publisher: Elsevier) Published online: October 20 <https://doi.org/10.1016/j.ijleo.2021.168188>
32. **Pharmaceutical Chemistry Journal-55, 5, 2021 524-530** Madan Lal Maheshwari*, Najma Memon, **Ayaz Ali Memon**, Muhammad Yar Khawar, Abdul Hakeem Memon. *Validated RP-HPLC Validated RP-HPLC Method Development for Gentamicin Microanalysis in Pharmaceutical Dosage Forms, Urine and Blood.* <https://doi.org/10.1007/s11094-021-02451-8>,
33. **International Nano letters-April 11 (3), 263-271 2021**, Roomia Memon*, **Ayaz Ali Memon**, Ayman Nafadi, Sirrajuddin, S.T.H Sherazi, Aamna Balouch, Kanwal Memon, Nazir A. Brohi, Aamna Najeeb, *Electrochemical Sensing of Dopamine via Bio-assisted Synthesized Silver Nanoparticles*. Acceptance date: 4th April 2021 <http://doi.org/10.1007/s40089-021-00339-9>.
34. **International Journal of Chemistry and Chemical Engineering Systems-August, 6, 2021, 79-91** Slama Agha, A. W. Mastoi, G.M. Mastoi, Ayaz Ali Memon, G.M. Bhuto. *Water Management: Monitoring the water quality parameter of drinking water of Larkana district, Sindh, Pakistan*
35. **Pakistan Journal of Analytical and Environmental chemistry-June, 22, 1, 2021, 115-126** Zahid Ali Zounr*, **Ayaz Ali Memon**, Abdul Ghani Memon, Faqeer Mahboob Ali Rind, M.Y. Khuhawar, Ghulam Qadir Khaskheli, Mazhar Iqbal Khaskheli, Nazir Ahmed Brohi, and Saeed Ahmed Abro, *Determination of lisinopril in pure and tablet form by using 2 hydroxynaphthaldehyde as derivatizing reagent*, <http://doi.org/10.21743/pjaec/2021.06.12>
36. **Journal of the Chemical Society of Pakistan-December 2021, 43, 06**, Fouzia Chang, Najma Memon, Shahabuddin Memon, **Ayaz Ali Memon**, Saddam Hussain Bughio, Muhammad Nawaz Tahir, Abdul Sattar Chang, *Self-assembled synthesis and characterization of novel [Co(1-vinylimidazole)₆].NO₃ polymer: highly efficient antimicrobial agent*
37. **Advances in Breast Cancer Research-July 10, 3, 44-59, 2021** Ghulam Qadir Chanihoon, Ahsanullah Unar, **Ayaz Ali Memon**, Tassadaq Hussain Jafar, Huma I. Shaikh, Ayesha Sani, Raj Kumar, Sanam Erum Soomro, Muqaddas Qureshi *An AAS Dependent Method for Quantitative Essential Elements Analysis of Pakistani Female Breast Cancer Blood and Serum Samples*", <http://doi.org/10.4236/abcr.2021.103004>
38. **Separation and purification technology-November 2021, 274, 1 117969**, Farooque Ahmed Janjhi, Imam din Chandio, **Ayaz Ali Memon***, Zubair Ali, Khalid Hussain Thebo, Azhar Ali Ayaz, Ayaz Ali Hakro, Muzaffar Iqbal, *Functionalized graphene oxide based membranes for ultrafast molecular separation* <https://doi.org/10.1016/j.seppur.2020.117969>
39. **Applied Organometallic Chemistry-May (2021), 35, 5, e6199** Saman S, Balouch A, Talpur FN, **Memon AA**, Mousavi BM, Verpoort F.* *Green synthesis of MgO nanocatalyst by using Ziziphus mauritiana leaves and seeds for biodiesel production*. Appl Organomet Chem. <https://doi.org/10.1002/aoc.6199>
40. **Desalination-March (2021) 500, 114848** Imam din Chandio, Farooque Ahmed Janjhi, **Ayaz Ali Memon***, Shahabuddin Memon, Zubair Ali, Khalid Hussain Thebo, Azhar Ali Ayaz, Ayaz Ali Hakro, Waheed S. Khan *Ultrafast ionic and molecular sieving through reduced graphene oxide membranes.* <https://doi.org/10.1016/j.desal.2020.114848> online 20 November 2020,
41. **European Journal of Chemistry-March 2021, 12 (1), 45-51**, Fozia Chang*, Najma Memon, Huma Shaikh, **Ayaz Ali Memon**, Shahabuddin Memon, Paras Azadi Memon, Abdul Sattar Chang *MOF-5 embedded cryogel composite for extraction of cholesterol from milk samples prior to UV-Vis determination* doi: <https://doi.org/10.5155/eurjchem.12.1.45-51.2056>,
42. **Journal of the Iranian Chemical Society-September 2021, 18, 611-620** Madan Lal Maheshwari, **Ayaz Ali Memon**, Najma Memon*, Muhammad Yar Khawar, Abdul Hakeem Memon. *A Rapid HPLC-DAD Method for Quantification of Amikacin in Pharmaceuticals and Biological Samples using Pre-Column Derivatization with Hantzsch Reagent* <https://doi.org/10.1007/s13738-020-02046-2>

2020

43. **Turkish Journal of Chemistry-October (2020) 44: 1376-1385** Roomia Memon, **Ayaz Ali Memon**, S.T.H Sherazi*, Sirrajuddin, Amna Balouch, M. Raza Shah, Sarfaraz A. Mahesar, Kousar Rajar, M. Hassan Agheem *Application of synthesized CuNPs using aqueous extract of Ziziphus mauritiana L. leaves as a colorimetric sensor for the detection of Ag⁺*, <http://dx.doi.org/10.3906/kim-2001-51>
44. **Journal of Food Management and Characterization-June 2020, 14, 1325-1332**, Tahir Mehmood*, · Anum Afzal, · Farooq Anwar, · Najma Memon, · **Ayaz A. Memon**, · Rahman Qadir *Variation in*

phenolic acids and antibacterial attributes of peel extracts from ripe and unripe *Citrus limon* (L.) Osbeck
<https://doi.org/10.1007/s11694-020-00380-w>

45. **Journal of the Chemical Society of Pakistan-December 2020, 42, 06, 856**, Sehrish Qazia, Huma Shaikh*, **Ayaz Ali Memon**, Shahabuddin Memon. *Molecular imprinted graphene oxide nanocomposite for optical sensing of nicotine in Plasma*, ISSN# 0253-5106
46. **Canadian Journal of Pesticides & Pest Management-June 2020. 2, 54-64** Ranjhan Junejo*, Shahabuddin Memon, Fakhar-un-Nisa Memon, **Ayaz Ali Memon** Effect of Dose of Aggregation Pheromone, Kairomone, Food Type and Density on Trapping of Red Palm Weevil, *Rhynchophorus ferrugineus* (Coleoptera: Curculionidae) in Khairpur Mirs Sindh, Pakistan doi: 10.34195/can.j.ppm.2020.02.001
47. **Advanced Journal of Chemistry, Section A-21 April 2020, 3(5), 680–691** Ranjhan Junejo*, Shahabuddin Memon, Fatih Durmaz, **Ayaz Ali Memon**, Fakhar Nisa Memon, Nida Shams Jalbani, Safia Sanam Memon, Asif Ali Bhatti *Synthesis of Piperdinomethylcalix[4]arene Attached Silica Resin for the Removal of Metal Ions from Water: Equilibrium, Thermodynamic and Kinetic Modelling Studies DOI: 10.33945/SAMI/AJCA.2020.5.11*
48. **Turkish Journal of Pharmaceutical Sciences -Oct 2020, 17(5):465-473** Nida S. Jalbani, Amber R Solangi*, M.Y. Khuhawar, Shahabuddin Memon, Ranjhan Junejo, **Ayaz A. Memon** “Gas Chromatographic and Spectrophotometric Determination of Diclofenac Sodium, Ibuprofen and Mefenamic Acid in Urine and Blood samples” - doi: 10.4274/tjps.galenos.2019.42243, ISSN:2148-6247
49. **Separation Science and Technology-June 2020, 55, 19, 1650-1655** Naeem A. Memon, Fakhar N. Memon*, Hatice K. Kara, Hüseyin Kara, Sayed T. H. Sherazi, **Ayaz A. Memon**, Shahabuddin Memon, Muhammad K. Leghari *Selective on-line solid phase extraction of copper using p-morpholinomethylcalix[4]arene appended silica based column.* <https://doi.org/10.1080/01496395.2019.1600551>,
50. **Pakistan Journal of Analytical and Environmental chemistry-June 2020, 21,1, 27–33** Abdul Ghani Memon, **Ayaz Ali Memon***, Faqeer Mahboob Ali Rind, Zahid Ali Zounr, Azhar Ali Ayaz Pirzada, Nazir Ahmed Brohi, Mazhar Iqbal Khaskheli and Jamil Rahman Memon *Development of Colorimetric Method for the Quantitative Analysis of Amlodipine Besylate in Dosage form Using 4-Dimethyleaminobenzaldehyde as Derivatizing Reagent* <http://dx.doi.org/10.21743/pjaec/2020.06.04>,
51. **Polycyclic Aromatic Compounds-June 2020, 40, 3, 609-621** Tahira S. Khokhar, Shahabuddin Memon, **Ayaz A. Memon**, Asif Ali Bhatti*, Ashfaq Ali Bhatti *Improved solubility of morin using p-sulphonatocalix[4]arene as encapsulating agent: HPLC analysis and their molecular modeling.* <https://doi.org/10.1080/10406638.2018.1464037>,
52. **Journal of Food Composition and Analysis-March 2020, 86, 103358** **Ayaz Ali Memon**, Innamullah Memon, Roomia Memon, Najma Memon, Sanam Erum Soomro, Daveannad Luthria*, M. Iqbal Bhanger. *Impact of flour particle size on nutrient and phenolic composition of commercial wheat varieties* <https://doi.org/10.1016/j.jfca.2019.103358>

2019

53. **Journal of Chemical & Engineering Data-2019, 64, 8, 3407-3415** Ranjhan Junejo, Shahabuddin Memon, Fakhar N. Memon, **Ayaz Ali Memon***, Fatih Durmaz, Asif Ali Bhatti, Ashfaq Ali Bhatti, *Thermodynamic and Kinetic Study for Adsorption of Reactive Blue (RB-19) Dye Using Calix[4]arene Based Adsorbent.* <https://doi.org/10.1021/acs.jced.9b00223>
54. **Journal of Chemistry -2019, Article ID 2534072** Anwar Ali Chandio, Shahabuddin Memon, **Ayaz Ali Memon**, Qadeer K. Panhwar*, Shafi M. Nizamani, Ashfaq A. Bhatti, Nazir A. Brohi, *High biological outcome from Fe³⁺ complex of p-tert-butylcalix[4]arene derivative: Synthesis, Characterization and Antimicrobial Assessment.* <https://doi.org/10.1155/2019/2534072>
55. **Separation Science and Technology-2019, 54, 8, 1278-1288** Tahira S. Khokhar, Fakhar N. Memon*, **Ayaz A. Memon**, faith Durmaz, Shahabuddin Memon, Qadeer K. Panhwar, Saba Muneer, *Removal of ciprofloxacin from aqueous solution using wheat bran as adsorbent* <https://doi.org/10.1080/01496395.2018.1536150>
56. **Sindh University Research Journal (science series) -2019 Vol.51 (I) 11-1** Irshad Hussain Ghanghro*, Taj Muhammad Jahangir, Mahvish Jabeen Channa, **Ayaz Ali Memon** *Nutritional Profile and Mycotoxin Load on Stored Barley (Hordeum vulgare L.) at Hyderabad Division* <http://doi.org/10.26692/sujo/2019.01.03>

2018

57. **Chromatographia-1st August 2018, 81: 10, 1373-1380** Naeem A. Memon, **Ayaz A. Memon**, Fakhar N. Memon*, Sayed Tufail Hussain Shirazi, Shahabuddin Memon, Muhammad K. Leghari, *Method Development for Determination of Antibiotic Drugs Using Newly Prepared p-morpholinomethylcalix[4]arene Mesoporous Silica Based HPLC Column.,*

<https://doi.org/10.1007/s10337-018-3580-7> ISSN 0009-5893

58. **Rawal Medical Journal- 18 July 2018**, 43, 4, 661-664 (HEC Approved) Farheen Shaikh*, Tazeen Shah, **Ayaz A. Memon**, Muhammad Yousif Memon, Ghulam Qadir Chanihoon *Role of coenzyme Q10 in pre-eclamptic patients*. <https://www.ejmanager.com/mnsteps/27/27-1521520081.pdf?t=1542965782>
59. **International Journal of Food Properties-2017**, 20, 53, S2660-S2667 Saddam Hussain Bughio, Muhammad Qasim Samejo*, Shahabuddin Memon, **Ayaz Ali Memon**, Shaista Bano, Moina Akhtar Mughal, *Chemical Composition of the Essential Oil from Tamarix Dioica and Determination of Its Antibacterial Activity*. <https://doi.org/10.1080/10942912.2017.1387138>
60. **J. Iiaquat University of Medical and health Science-June 2018**, 17, 02, 86-90 Farheen Shaikh*, Sanum Ali Dahri, **Ayaz Ali Memon**, Ali Raza Memon, Muhammad Yousif Memon, Giran Naz Jagirani. To determine the plasma levels of malondialdehyde in patient with pre-eclampsia and healthy women of Hyderabad, Sindh ISSN: 1729-0341 <http://www.lumhs.edu.pk/jlumhs/>

2017

61. **Polycyclic Aromatic Compounds-17th Oct -2017 vol. 37, 5, 362-374** Shahabuddin Memon*, Anwar A. Chandio, **Ayaz A. Memon**, Qadeer K. Panhwar, Shafi M. Nizamani, Ashfaq A. Bhatti, Nazir A. Brohi, *Synthesis, Characterization and Exploration of Antimicrobial Activity of Copper Complex of Diamide Derivative of p-tert-butylcalix[4]arene*. <http://dx.doi.org/10.1080/10406638.2015.1125375>
62. **Journal of Food Composition and Analysis-July 2017**, 60, 10-16 Yingjian Lu, **Ayaz Ali Memon**, Patrick Fuerst, Alecia Kizonas, Craig Morris, Devanand Luthria*, *Changes in the phenolic acids composition during pancake preparation: Whole and refined grain and processed food classification by UV and NIR spectral fingerprinting method-Proof of concept* <http://dx.doi.org/10.1016/j.jfca.2017.03.001>
63. **Pakistan Journal of Pharmaceutical Sciences-30, 3, May 2017, 783-788** Tahira S. Khokhar, Shahabuddin Memon*, **Ayaz A. Memon**, Fakhar N. Memon, Qadeer K. Panhwar, Saba Muneer, Metin Tülü, *Complexation of Ibuprofen with Modified Calix[4]arene: A Potential Candidate for Drug Delivery Application*,
64. **Food Analytical Methods-January 2017**, 1, 10, 83-91, Almas Fatima Memon, Amber Rehana Solangi*, Saima Memon, Irfana Mallah, Najma Memon, **Ayaz Ali Memon**. *Simultaneous determination of quercetin, rutin, naringin and naringenin in different fruits by capillary zone electrophoresis DOI: 10.1007/s12161-016-0552-0, ISSN: 1936-9751*
65. **Journal of Herbs Spices and Medicinal Plants-1st March, 2017, 23, 2, 157-168** Maria Salih Siddique, **Ayaz Ali Memon***, Shahabuddin Memon, Shabana Gul Muger. *“Cuscuta Reflexa as a Rich Source of Bioactive Phenolic Compounds”* <http://www.tandfonline.com/doi/abs/10.1080/10496475.2017.1280867>

2016

66. **Journal of the Chemical Society of Pakistan-1st Dec 2016**, 38, 6, 1129-38, Tahira S. Khokhar, Shahabuddin Memon*, **Ayaz A. Memon**, Qadeer K. Panhwar, Saba Muneer, *Emancipation of levofloxacin from its wheat bran (WB) composit: A pH dependant mechanism*.
67. **Sindh University Research Journal (science series) -August 2016 Vol.48 (4) 865-868** S. S. A. Shah, Mohammad Ali Ghoto, N. Memon, Abdullah. Dayo, **Ayaz Ali Memon**, Mudassir I. Arain, R. Saleem, R. Mangi, *Irrational Use of H1 Receptor Antagonist In Various Allergic Patients, A Clinical Study in Hyderabad, Sindh*,
68. **Journal of Food Composition and Analysis-August 2016**, 51, 45-54, Najma Memon*; Sanam I Soomro; Muhammad Iqbal Bhanghar, Shahabuddin Memon; **Ayaz Ali Memon** *Mineral Content of Pakistani Foods: An update of Food Composition Database of Pakistan through indirect method".* <http://dx.doi.org/10.1016/j.jfca.2016.06.007>,
69. **Desalination and water treatment -2016**, 57, 19, 8935-8941, Fatih Durmaz, Shahabuddin Memon*, Fakhar N. Memon, **Ayaz A. Memon**, Naeem A. Memon and Hüseyin Kara. *Copper Sorption Efficiency of p-tetranitrocalix[4]arene Based High Performance Liquid Chromatographic Column.* <http://dx.doi.org/10.1080/19443994.2015.1025436>

2015

70. **Sindh University Research Journal (science series) -October 2015**, 47 (4) 801-804 Ubaid ur rehman Mugal, Madam L Maheshwari, Abdullah. Dayo, Mohammad Ali Ghoto, **Ayaz Ali Memon**, M.H. Mugal, *Evaluation of Quality and Quantity of Tobramycin Sulfate from Different Pharmaceutical Dosage Forms in Various Brands Available in Pakistan*.
71. **Saudi Pharmaceutical Journal-2015**, 23, 4, 444-452 Madan Lal Maheshwari, **Ayaz Ali Memon***, Shahabuddin Memon, Mohammad Ali Ghoto, Ubedurrahman Mughal, Abdullah Dayo, Fakhar-un-Nissa Memon, Naheed Memon, *Optimization of HPLC method for determination of cefixime using 2-thiophenecarboxaldehyde as derivatizing reagent: A new approach* <http://dx.doi.org/10.1016/j.jsps.2015.01.016>,

2014

72. **Analytical Methods -26 Jun 2014**, 6, 18, 7318 – 7323 Fakhar N. Memon, Fatih Durmaz, Shahabuddin Memon*, Naeem A. Memon and **Ayaz A. Memon** *Simultaneous determination of some basic dyes using p-tetranitrocalix[4]arene appended silica based HPLC column*. DOI:10.1039/C4AY01046A
73. **Journal of the Science of Food and Agriculture-July, 2014**, 94, 9,1723-1728 Devanand L. Luthria*, **Ayaz Ali Memon**, Keshun Liu., *Changes in the Individual and Total Phenolic Acid Content during Commercial Dry-grind Processing of Corn to Ethanol and DDGS*. DOI: 10.1002/jsfa.6481

2013

74. **Food Chemistry -15 August, 2013**, 139, 496–502 **Ayaz Ali Memon**, Najma Memon, Devanand L. Luthria*, M. I. Bhanger., *Assay of phenolic compounds from four species of Ber (Ziziphus Mauritiana L.) Fruits: Comparison of three base hydrolysis procedures for quantification of total phenolic acids*. <https://doi.org/10.1016/j.foodchem.2013.01.065>

2012

75. **Polish Journal of Food and Nutrition Science-2012**, 62, 1, 15-21 **Ayaz Ali Memon**, Najma Memon*, Devanand L. Luthria, M. I. Bhanger, A. A. Pitafi., *Phenolic Compounds and Seed Oil Composition of Ziziphus Mauritiana L. Fruit*. DOI: <https://doi.org/10.2478/v10222-011-0035-3>
76. **Journal of the American Oil Chemists' Society-July 2012**, 89:1297–1304 Devanand L. Luthria*, Keshun Liu and **Ayaz Ali Memon.**, *Phenolic acids and antioxidant capacity of distillers dried grains with solubles (DDGS) as compared with corn.*, <https://link.springer.com/article/10.1007/s11746-012-2025-y>
77. **Pakistan Journal of Analytical & Environmental Chemistry-2012**, 13, 2, 37–42 **Ayaz Ali Memon**, Najma Memon*, M. I. Bhanger, Devanand L. Luthria*, *Phenolic acids composition of fruit extracts of Ber (Ziziphus mauritiana L., var. Golo lemai)*.
78. **Natural Product Research-2012**, 26, 2, 173-176 Abdul Hafeez Laghari, **Ayaz Ali Memon**, Shahabuddin Memon*, Aisha Nelofar, Khalid M. Khan and Arfa Yasmin., *Determination of free phenolic acids and antioxidant capacity of methanolic extracts obtained from leaves and flowers of camel thorn (Alhagi Maurorum)*. doi: 10.1080/14786419.2010.538846

2010

79. **Separation and Purification Technology-13th December 2010**, 76 179–183 **Ayaz Ali Memon**, Najma Memon*, M.I. Bhanger., *Micelle-mediated extraction of chlorogenic acid from Morus laevigata W. leaves,*, <https://doi.org/10.1016/j.seppur.2010.10.005>
80. **Polish Journal of Food and Nutrition Science-March, 2010**, 60, 1, 25-32 **Ayaz Ali Memon**, N. Memon*, Devanand. L. Luthria, M. I. Bhanger, Amanat. A. Pitafi., *Phenolic acids profiling and antioxidant potential of mulberry (Morus Laevigata W., Morus Nigra L., Morus Alba L.) leaves and fruits grown in Pakistan*.

Conferences, workshops and Seminars (National & International) Organized

1. **International conference on Sustainable Development in Nanotechnology (ICSDN-2023)** Organized by National Centre of Excellence in Analytical Chemistry, University of Sindh Jamshoro with Collaboration of Department of Textile Engineering, MUET Jamshoro
Chief Organizer (Dr. Ayaz Ali Memon) **20– 21 March, 2023**

Financially Supported by: Local Challenge Fund/Higher Education Development in Pakistan (LCF-HEDP) through HEC Pakistan Ref No. 20-LCF-69/RGM/R&D/HEC/2020

Conferences and Seminars (National & International) Attained

- 3rd International conference of Chemistry and its role in Sciences (ICCRS-III) under the theme “**Sustainability: Basic to Advance Sciences**” Department of Chemistry, University of Karachi, Karachi 75270 Sindh, Pakistan **Invited Speaker** **3rd – 5th January, 2023**
- 20th International & 32nd National Chemistry Conference on "Chemical Sciences and Sustainable Development Goals" Venue: Khwaja Fareed University of Engineering & Information Technology (KFUEIT), Rahim Yar Khan, Pakistan. **Oral presentation** **2-4 November 2022**

- Joint Research Training Program (CATBM), IRCBM, COMSATS University, Islamabad, Lahore Campus for 10 days under Joint Research and Training Program of PC-1 entitled “establishment of a Centre for Advanced research Technologies in Biomedical materials” **May, 15-24, 2022**
Organized by: COMSATS University, Islamabad, Lahore Campus
- HEC-BC PIs Research Capacity building program for PIs in Hotel Marriott, Islamabad
Organized by: Pak-UK Education Gateway collaborative Project (Higher Education Commission with the British Council). **March 7-11, 2022**
- International Conference on “Natural Sciences at the Interface of Climate Change, Food Security and Sustainability (NSICFSS)” *Oral Presentation* **October 24 to 26, 2018**
Organized by: Faculty of Sciences, University of Kotli Azad Jammu and Kashmir
- 1st national conference on Current research and Practices in Pharmaceutical Sciences **November 3-5, 2017**
Oral Presentation,
Organized by: Faculty of Pharmacy, University of Sindh Jamshoro, Sindh, Pakistan
- 4th International Turk-Pak Conference on Chemical Sciences **October 26-28, 2017**
Oral Presentation,
Organized by: Department of Chemistry, Seuk University, Konya Turkey
- 27th National and 15th International Chemistry Conference **August 22 - 25 2016**
Poster Presentation,
Organized by: Department of Chemistry, University of Malakhand Pakistan
- 2nd International Conference on ‘Drug development- Natural and synthesis’ **August 23 - 25 2015**
Poster Presentation,
Organized by: Centre for Advanced Drug research, (CADR) COMSATS Institute of Information Technology, Abbottabad –Pakistan.
- 10th International Symposium on Analytical and Environmental Chemistry **December 02-04, 2013**
Poster Presentation,
Organized by: National Centre of Excellence in Analytical Chemistry (NCEAC), University of Sindh, Jamshoro, Pakistan
- 5th Chemistry Conference on Chemistry in Engineering and Life Science **November 04-06, 2013**
Oral Presentation,
Organized by: Chemistry Division, Pakistan Institute of Nuclear Science and Technology (PINSTECH), Directorate of Nuclear Fuel Cycle (DGNFC), New Chemical Complex (NCC) and Pakistan Institute of Engineering and Applied Science (PIEAS), Pakistan
- International Conference on Physical and Environmental Chemistry, **September 09-11, 2013**
Oral Presentation,
Organized by: National Centre of Excellence in Physical Chemistry (NCEPC), University of Peshawar, Nathiagali, Pakistan
- International Conference on Current Technologies in Oils & Fats **March 21-23, 2011**
Participant,
Organized by: National Centre of Excellence in Analytical Chemistry (NCEAC), University of Sindh, Jamshoro, Pakistan, HEC, COMSTECH, and PSF Islamabad
- 11th ASEAN Food Conference 2009, **October 21-23, 2009**
“Food Science and Technology: Innovative Approaches and Opportunities for Global Market”.
Oral Presentation,
Organized by: Institute of Food Technologists and International Union of Food Science & Technology, FIFSTA, ASEAN-COST, FoSTAT, AIAC, at Rizqun International Hotel, Bandar Seri Begawan, **Brunei Darussalam**
- 8th National Chemistry Conference, **February 25-27, 2008**
Oral Presentation,
Organized by: Chemical Society of Pakistan, Institute of Chemistry, University of the Punjab, Lahore, Pakistan
- 1st International Conference **April 16-18, 2007**
“The Role of Chemistry & Biochemistry in the National Development”
Oral Presentation,
Organized by: Department of Chemistry & Institute of Biochemistry University of Balochistan, Quetta, Pakistan
- 7th international & 17th National Chemistry Conference **February 26-28, 2007**
Oral Presentation,
Organized by: Department of Chemistry, Gomal University, Dera Ismail Khan, Pakistan

Workshops (National & International) attained

- 5- Day HEC Workshop Applying Quantitative Techniques Using SPSS, (*National*) **17th – 21st April, 2017**
Organized by: Centre for Physical Education, Health and Sports Science in Association with Office of Research, Innovation and Commercialization (ORIC), University of Sindh Jamshoro.
- 1st hands on training workshop on high performance liquid chromatography (HPLC), (*National*)
Resource Person, **Oct 13-15, 2016**
Organized by: Department of Chemical Engineering, Mehran University of Engineering and technology, Jamshoro
- workshop on “Application of Bioanalytical Techniques in the field of Physiology” (*National*)
Demonstrator, **March 27, 2015**
Organized by: National Centre of Excellence in Analytical Chemistry, University of Sindh Jamshoro, Pakistan
- International Workshop on Advances in Food Analytical Methods: “Oil/Fat and Phenolics” (*International*)
Participant, **December 04-06, 2013**
Organized by: OIC Ministerial Standing Committee on Scientific and Technological Cooperation (COMSTECH), Islamabad, Pakistan
- workshop on “Applications of Atomic and Molecular Spectrophotometric Techniques in Trace Element Analysis” (*National*) **September 24-26, 2013**
Demonstrator,
Organized by: National Centre of Excellence in Analytical Chemistry, University of Sindh Jamshoro, Pakistan
- Workshop on “Applications of chromatographic techniques in residues analysis” (*National*)
Demonstrator, **February 18-20, 2013**
Organized by: National Centre of Excellence in Analytical Chemistry, University of Sindh Jamshoro, Pakistan
- Workshop on “Analytical chromatography of small molecules: Practical skills Development Workshop” (*National*)
Demonstrator, **May 23-27, 2011**
Organized by: National Centre of Excellence in Analytical Chemistry, University of Sindh Jamshoro, Pakistan

M. Phil. and Ph. D. under work/produced

- *M. Phil. scholars produced under supervision and co-supervision*

No.	M. Phil Scholar Name	Research title	Year	Institute
1	Roomia Memon (12-06-2014)	Nutrient profiling of Wheat Varieties of Sindh	2015	NCEAC, University of Sindh Jamshoro Pakistan
2	Manzar Khan Shaikh (12-06-2014)	Assessment of toxic compounds in smokeless tobacco products available in Hyderabad, Sindh	2015	NCEAC, University of Sindh Jamshoro Pakistan
3	Paras Azadi Memon (12-06-2014)	Adsorptive Removal of Thiophenic Compounds from Hydrocarbon Fuel	2015	NCEAC, University of Sindh Jamshoro Pakistan
4	Anwar Ali Chandio (12-06-2014)	Synthesis and characterization of calix[4]arene metal complexes and their applications	2015	NCEAC, University of Sindh Jamshoro Pakistan
5	Saman Ali Sabir (02-10-2015)	Metal oxide nanoparticles based heterogeneous catalysis for biodiesel production from <i>zizphus</i> seed oil	2016	NCEAC, University of Sindh Jamshoro Pakistan
6	Maria Salih (02-10-2015)	Phytochemical study of <i>cuscuta reflexa</i> (bay pari)	2018	NCEAC, University of Sindh Jamshoro Pakistan
7	Ghulam Qadir (29-08-2016)	Determination of coenzyme q10 and micronutrients level in breast cancer patients	2018	NCEAC, University of Sindh Jamshoro Pakistan
8	Innamullah Mahar (29-08-2016)	Assessment of Proximate composition and phenolic bioactive substances in different mesh size flour of commercial wheat varieties from Sindh, Pakistan	2018	NCEAC, University of Sindh Jamshoro Pakistan
09	Sahrish Qazi (29-08-2016)	Development of Analytical Sensor for the Detection of Selected Alkaloids	2018	NCEAC, University of Sindh Jamshoro Pakistan

10	Imran Kumbo (20-10-2016)	Evaluation of Fatty Acids and Phenolic Compounds from <i>Acacia Senegal</i>	2018	NCEAC, University of Sindh Jamshoro Pakistan
11	Kiran Soomro 29-8-2016	Amino acid profiling and dietary fiber content of wheat varieties from Sindh Pakistan	2020	NCEAC, University of Sindh Jamshoro Pakistan
12	Najeebullah Abbasi 29-8-2016	Evaluation of PAHs in soil sediment of industrial harbor in Hyderabad division Sindh Pakistan	2020	NCEAC, University of Sindh Jamshoro Pakistan
13	Aasifa Memon 20-9-2017	Synthesis of MIPs for separation and purification of selected flavonoids	2020	NCEAC University of Sindh Jamshoro Pakistan
14	Salma Aagha 16-10-2018	Determination of Quality of underground water from district Larkana	2020	Institute of Advanced Research Studies in Chemical Sciences, University of Sind, Jamshoro
15	Waheed Ali 2018	Phenolic acid profiling and bioactivity assay of <i>Eucalyptus tereticornis</i>	2020	Dr. M.A. Kazi Institute of Chemistry, University of Sindh Jamshoro Pakistan
16	Saeeda Rind (Date of F sem: 13/12/19) 7-12-2018	Determination of trace elements and coenzyme Q ₁₀ in oral cancer patients of Sindh, Pakistan	2020	NCEAC University of Sindh Jamshoro Pakistan
17	Saeed Memon (Date of F sem: 20/12/19) 7-12-2018	Synthesis of Composite Materials and their Application in Fuel Cells	2020	NCEAC University of Sindh Jamshoro Pakistan
18	Sanam Rahujo (Date of F sem: 20/12/19) 7-12-2018	Green synthesis of metal nanoparticles by fruit extract of <i>Ziziphus Mauritiana</i> plant and their applications	2021	NCEAC University of Sindh Jamshoro Pakistan
19	Aqsa Arbab (Date of F sem: 15/1/2020) 7-12-2018	Self-assembly of Metal nanoparticles by base hydrolyzed extracts of Bioactive phenolic from wheat flour and their applications	2021	NCEAC University of Sindh Jamshoro Pakistan
20	Rubina (29-08-2016)	Phytochemical and Bioactivity Studies of <i>Ziziphus</i> Plant Grown in Sindh Pakistan	2021	NCEAC, University of Sindh Jamshoro Pakistan
21	Munawar Laghari 20-10-2016	Chemical Composition and Antimicrobial Activities of <i>Cordia Gharaf</i> Essential Oil	2021	Institute of Advanced Research Studies in Chemical Sciences
22	Farooque A. Janjhi 15-10-2019 F. S. 23 rd July 2020	Synthesis of graphene oxide-based membranes for water purification and desalination	2021	NCEAC University of Sindh Jamshoro Pakistan
23	Imam din Chandio 15-10-2019 F. S. 23 rd July 2020	Synthesis of graphene oxide based nano membranes and their applications	2021	NCEAC University of Sindh Jamshoro Pakistan
24	Nawaz Ahmed Arain co-supervision	Determination of Phenolic Compounds and Bioactivity Assay from Areal Parts of <i>Acacia nilotica</i>	2021	Dr. M.A. Kazi Institute of Chemistry, University of Sindh Jamshoro Pakistan
25	Talib Hussain Banglani 15-10-2019 Final seminar date 09-02-2021	Synthesis of graphene/metal oxide nanoparticles hybrid structure for gas sensing application	2021	NCEAC University of Sindh Jamshoro Pakistan
26	Abdul Rauf Qureshi 30-1-2018 co-supervision	Assessment of special distribution of pollution load in Rohri canal Pakistan	2022	National Centre of Envir. Science, UoS Jamshoro
27	Waris Nawab 20-9-2017 supervision	Hydrogel Implication for Drug Delivery System: Synthesis, Characterization and Applications	2022	NCEAC University of Sindh Jamshoro Pakistan
28	Komal Uras co-supervision	Green Synthesis, morphological and optical studies of Zinc oxide (ZnO) nanoparticles and their application	2022	NCEAC University of Sindh Jamshoro Pakistan
29	Raja Dahar Janwery Supervision	Design, synthesis and properties of graphene oxide based lamellar membranes for separation of heavy metals	2023	NCEAC University of Sindh Jamshoro Pakistan
30	Naseem Ahmed Hakro supervision Dates: Reg. 29-9-2022 F. Seminar 08-1-2023 Viva Voce: 20/12/2023	Functionalized graphene oxide-based membranes for toxic pollutant separation	2023	NCEAC University of Sindh Jamshoro Pakistan
31	Mushtaque soomro co-supervision	Determination of free and bound phenolic acids and its antioxidant activity from leaves of <i>Cordia garaph</i> plant by analytical methods	2023	Dr. M.A. Kazi Institute of Chemistry, University of Sindh Jamshoro Pakistan

	(Thesis submission) 20-12-2017			
32	Jameel Kalhoro co-supervision (Thesis submission) 16-10-2018	Synthesis of silver nanoparticles by base hydrolyzed extracts of phenolic compounds from plant material and their applications	2023	Dr. M.A. Kazi Institute of Chemistry, University of Sindh Jamshoro Pakistan
33	A. Ghaffar Chandio supervision (Thesis submission) Dates: Reg. 29-9-2022 F. Seminar 08-12-2023 Viva Voce	Synthesis of Light Driven Photocatalytic Materials and their Applications	2023	NCEAC University of Sindh Jamshoro Pakistan
34	Azhar Ali Ghangro Supervision (Thesis submission) Dates: Reg. 29-9-2022 F. Seminar 08-12-2023 Viva Voce	A Superficial Approach to Prepare Highly Conductive Electrospun Nanofibers by Novel Electroless Deposition Technique and Their Application	2024	NCEAC University of Sindh Jamshoro Pakistan

• **Ph.D. scholars produced under supervision and co-supervision**

No.	Ph.D. Scholar Name	Research title	Year	Institute
1	Tahira Sarwar Khokhar 16-10-2014	Application of functional materials in drug delivery systems	2018	NCEAC, University of Sindh Jamshoro Pakistan
2	Naeem Memon (Thesis submitted) 12-06-2014	Synthesis and application of calix[4]arene based mesomoporous materials	2022	NCEAC, University of Sindh Jamshoro Pakistan
3	Ranjhan Junejo (2018)	Development of Lure Traps for Botanical/Biological Management of Date Palm Pests	2022	NCEAC, University of Sindh Jamshoro Pakistan
4	Madan Lal 30-5-2016	Development of liquid chromatographic method for aminoglycoside antibiotic through imine derivative	2021	NCEAC, University of Sindh Jamshoro Pakistan
5	Aijaz otho 2018	Impacts of climate change and edaphography on phytochemistry and medicinal output of selected medicinal plants of rocky habitats of Sindh	2022	Institute of Plant Sciences University of Sindh
6	Roomia Memon Dates: Reg. 20-09-17 F. Seminar 30-7-2021 Viva Voce 24-2-2023	Medicinal Plant extract-based synthesis of metal nanoparticles and their application	2023	NCEAC, University of Sindh Jamshoro Pakistan
7.	Mehrunnisa Khilji (Thesis submission) Supervision Dates: Reg. 18-12-2019 F. Seminar 18-12-2023 Viva Voce	Synthesis and characterization of Graphene oxide based composite materials and their applications in water remediation	2023-24	NCEAC, University of Sindh Jamshoro Pakistan

• **M.Phil. scholars working under supervision and co-supervision**

No.	M. Phil. Scholar Name	Research title	Year	Institute
1	Azhar Ali Tunio supervision	Synthesis of highly stable silver nanoparticles using base hydrolyzed extract of ginger and their applications	2020	NCEAC University of Sindh Jamshoro Pakistan
2	Amreen Nizamani supervision		29-9-2022	NCEAC University of Sindh Jamshoro Pakistan
3	Asim Mahessar supervision		2023	NCEAC University of Sindh Jamshoro Pakistan

• **Ph. D. scholars working under supervision and co-supervision**

No.	Ph. D. Scholar Name	Research title	Year	Institute
1	Manzar Khan Shaikh Supervision	Encapsulation and Controlled Release of Bioactive Compounds Using Biocompatible Materials	20-09-2017	NCEAC, University of Sindh Jamshoro Pakistan
2	Shabana Gul co-supervision	Synthesis of Biocompatible materials and their Application in Drug Delivery System	20-09-2017	NCEAC, University of Sindh Jamshoro Pakistan
3	Anwar Ali co-supervision	Synthesis of calix[n]arene based metal nanoparticles and their applications	20-09-2017	NCEAC, University of Sindh Jamshoro Pakistan
4	Innamullah Mahar Supervision	Design, Synthesis and properties of two-dimensional materials based nanocomposites for energy and Environmental Application	01-04-2021	NCEAC University of Sindh Jamshoro Pakistan
5	Saddam Hussain co-supervision	Phytochemical Study of <i>Cordia Dichotoma</i> (Lasura)	18-12-2019	NCEAC University of Sindh Jamshoro Pakistan
6	Ali Hyder Supervision	Synthesis of Calix[n]arene Functionalized Nanocomposites for Environmental Applications	08-02-2023	NCEAC University of Sindh Jamshoro Pakistan
7	Sanaullah Janwery Supervision	Synthesis and Characterization of Functionalized Carbon Dots and Their applications	08-02-2023	NCEAC University of Sindh Jamshoro Pakistan