

CURRICULUM VITAE

Dr. Sonia Tariq (Assistant Professor- Analytical Chemistry)

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Academic Qualification

- Post doctorate in Chemistry (Fulbright scholar), Department of Material science and Engineering, Pennsylvania State university, United States. 2019-2020
Title: *3D printed polymer based colorimetric sensors.*
Advisor: Dr. Michael Hickner s
- Ph.D in Chemistry, School of Chemistry and Pharmacy, University of East Anglia, United Kingdom, 2015
Title: *Development of an optical pH sensor for visualization of pH gradients in marine sediments.*
Advisor: Dr. Andrew Mayes
- M.Sc with distinction in Chemistry from University of Balochistan, Pakistan **3rd Position** 2009
- B.Sc with distinction from University of Balochistan Quetta **3rd Position in Balochistan Province** 2006

Professional Experience

- Working as an Assistant Professor (Analytical Chemistry) at University of South Carolina, Aiken, United states.
- Worked as an Associate Professor (Analytical Chemistry) at Lasbela university of Agriculture, Water and Marine sciences, Uthal, Pakistan (LUAWMS) since September 2021- August 2023
- Worked as an Assistant professor (Chemistry) at LUAWMS December, 2017-September, 2021.
- Worked as a visiting research associate at University of East Anglia (October, 2017- February, 2018)
- Worked as a Lecturer (Marine chemistry) at LUAWMS (February, 2010 to 2017-includes study leave for Ph.D studies)
- Worked as an Associate tutor, University of East Anglia, U.K.
- Worked as a demonstrator in outreach program, ‘spectroscopy in a suitcase’ at University of East Anglia, U.K.
- STEM-Net ambassador experience U.K.

Additional Administration related duties

- Worked as a Director, Office of Research, Innovation and Commercialization (ORIC) at Lasbela university of Agriculture, Water and Marine sciences, Uthal, Pakistan (LUAWMS) since 13 May 2023- august 2023.
- Worked as a founding Head of the department (coastal and environmental sciences, LUAWMS) Sep 2016-Dec 2018.
- Worked as an Assistant director student affair at LUAWMS (Dec 2010-2011)

Invited Lecture

Lecture on “Advances in Chemical Sensors” at Clarion university, invited and organized by Clarion university, Pennsylvania, United States.

Awards and scholarships

- Fulbright Post doctorate scholarship awarded by USEFP.
- Ph.D scholarship for studies in U.K awarded by Higher Education Commission Pakistan and LUAWMS.
- Cefas (U.K) scholarship, Funds for female graduates (U.K) , Hammond trust British council scholarship and Tuition fee discount during PhD.

Conferences

- Co-organizer of International conference on Geosciences. (December, 2022)
- Co-organizer and speaker of PAUSE (Pakistan-US Environmentalists) webinar series (January, 2023-Present)
<https://us-pakistan-project-meas.wordpress.ncsu.edu/seminars/>
- Keynote speaker on “Air Pollution” and in organizing team of conference on ozone day (September, 2021)
- Talk at Center of Environment, Fisheries and Aquaculture Sciences (Cefas) student day, Lowestoft, U.K. (2015)
- Talk at school of environmental sciences, University of East Anglia, U.K (2014)
- Poster presentation at challenger’s society of marine sciences conference, Plymouth, U.K (8-11 September 2014)
- Poster presentation at Cefas student day, Weymouth, U.K. (2014)
- Talk at Cefas, Lowestoft, U.K (2014)
- Presented a poster at UEA school colloquium, University of East Anglia, U.K (2013 and 2014)
- Poster presentation at Cefas student day, Lowestoft, U.K (2013)

Research thesis evaluated and supervised

- Advised MS student “Fehmeeda Afzal”
- Evaluated two Mphil (Chemistry) theses as an external examiner

Publications

***corresponding author/ Primary research supervisor.**

1. Shah. N., Khan, Z., Hussain. M., Rehan.T., Khan. A., Zaman. K., **Tariq. S.**, Kamal.T and Asiri.A.M., 2020, Molecularly imprinted polymer particles and beads: A survey of Modern synthetic techniques, current nanoscience, DOI: 10.2174/1573416666201105155421.
2. **Tariq. S.** (2015). *Developing an optical sensor for the visualisation of pH gradients in marine sediments*. Thesis available online at <https://www.semanticscholar.org/paper/Developing-an-optical-sensor-for-the-visualisation-Tariq/4d81dcde261698b733d5056cfccbe1aa1679e233>. Restriction on publication.
3. **Tariq. S.**, Mamrol.N , Mayes. A.G. and Hickner.M. *3D polymerized colorimetric sensor for pH detection using cell phone photography*. (Manuscript in progress)
4. Afzal. F., **Tariq. S.***, Nadeem. A., Iqbal. J., Hasni. K., Aslam. M. and Sanaullah. S., (2021). A review on measurement of concentration of heavy metals in the muscles of Mugil Cephalus. Journal of chemical society of Pakistan, 43 (5): 611-622.
5. Afzal. F., Samiullah, Nadeem. A., Aslam. M., Shafi. M., Hasni. K., Hakeem. A. and **Tariq. S.*** (2022). Measurement of Iron, Manganese, Copper, Cobalt and Lead for edible fitness of M. cephalus collected from Lasbela (Balochistan), Pakistan using atomic absorption spectroscopy. Malaysian journal of science.41 (1): 54-75.
6. Mandokhail, A., Samiullah, Khan, N., Tareen, A. H., Kakar. A.R, **Tariq. S.**, Kakar, N. (2020). *Determination of antioxidants by four different methods in medicinally important plant Ebenus Stellata of Balochistan*. Al-Nahrain journal of Science, 23 (4): 13-18.
7. **Tariq. S.***, Aslam, M., Hasni, K., Khan, A., Ahmed, S., Khan. M., Jan. S., Khosa, M.H., Samiullah, Afzal. F.,(2021). *Determination of Total Chloride/Bromide Ions and Total Hardness of Drinking Water of Uthal and LUAWMS, Lasbela, Baluchistan, Pakistan*. Frontiers in chemical sciences, 2 (20): 107-115.
8. Malkani. M.S, Alyani. M.S, Khosa. M.S, **Tariq.S**, Saeed.F, Khan.G and Faiz.J. (2016). Mineral Resources of Pakistan-an update. Lasbela university journal of science and technology 1 :90-114
9. Rahim. S., Hasni.K., Baloch. A. H., Nawaz. A, Wajid. C, **Tariq. S** and Hasni. M.S., (2023). Variation analysis of *Acanthopagrus Latus* found in the costal belt of Lasbela by using mitochondrial DNA, D- Loop region. Advancement in life sciences, 10 (1) 42-47.
10. Nadeem, A., Kalhoro, M.A., Buzdar, M.A., **Tariq. S.**, Shafi, M., Afzaal, Z., Shah, H., Saeed, F., Haroon, A., and Ahmed, I. (2017). Growth, mortality and exploitation rate of *Sardinella longiceps* (Valenciennes, 1847) from Pakistani waters based on length frequency distribution data. Indian Journal of Geo-Marine Science, 46(08): 1693-1703
11. Afzaal, Z., Kalhoro, M.A., Buzdar, M.A., **Tariq. S.**, Shafi, M., Nadeem, A., Saeed, F., Haroon, A., Shah, H., and Ahmed, I. (2017). Carapace length-weight and carapace width-weight relationship of *Portunus pelagicus* (Linnaeus, 1758) in Pakistani waters northern Arabian Sea. Indian Journal of Geo-Marine Science, 48(10)

Peer Reviewer

Reviewed research articles for *PLOS ONE*, *Malaysian Journal of Analytical Science*, *Journal of Estuarine, Coastal and Shelf Science* and *Journal of coastal conservation*.

Research Grants

1. \$250,086 for MOF- Based Mercury sensor development. Role : **Co-PI**
2. “Earth Day” One day activity grant sponsored by Pakistan-US Alumni Network (PUAN). Role: **PI**
3. \$16000 awarded to my undergraduate students for developing a prototype of Biodegradable sensor for food freshness. Role: **Research Mentor**
4. 500,000 for US-Pakistani female environmentalists linkages entitled “Developing the next generation of female environmentalists” Role: **Co-PI**