Dr. Tarig Ali

Curriculum Vitae

Personal Details

Name:	**Dr. Tarig Elshaarani Mohamed Ali**
Rank:	**Assistant Professor**
Nationality:	**Sudanese**
Status (Married/Single):	**Married**
Address:	**Khorfakkan, Sharjah, UAE**
Mobile:	**+971-563478437**
Email Address:	**Tarig.Ali@ukf.ac.ae**
Google Scholar Profile:	**Link to google Scholar**
Scopus Profile:	**Link to Scopus Profile**
Orchid ID:	**Link to Orchid ID**
LinkedIn Profile:	**Link to LinkedIn Profile**

Academic Qualifications

PhD: Chemical Engineering, Zhejiang University, 2019, China

MS: Chemical Engineering, Universiti Kebangsaan Malaysia, 2013, Malaysia

BSc: Chemistry (honor), University of Khartoum, 2004, Sudan

Employment History

- 2024-Current: University of Khorfakkan (UKF), Sharjah, United Arab Emirates, Visiting Assistant Professor in Chemistry, College of Marine Sciences and Aquatic Biology
- 2020-2023: Sudan Atomic Energy Commission (SAEC), Khartoum, Sudan, Head of Radiation Processing Unit, Institute of Chemistry & Nuclear Physics (ICNP), Khartoum, Sudan
- 2019-2023: Sudan Atomic Energy Commission (SAEC), Khartoum, Sudan, Assistant Professor, Institute of Chemistry & Nuclear Physics (ICNP), Khartoum, Sudan
- 2013-2016: Sudan Atomic Energy Commission University (SAEC), Khartoum, Sudan, Researcher, Department of radiation Processing, Institute of Chemistry & Nuclear Physics (ICNP), Khartoum, Sudan
- 2006-2009: Sudan Atomic Energy Commission University (SAEC), Khartoum, Sudan, Research Assistant, Department of Environmental Monitoring, Khartoum, Sudan

Professional Membership & Activities

- American Chemical Society

Teaching Experience

>10 years of experience lecturing chemistry for different disciplines and class levels (e.g. General Chemistry; Physical Chemistry and Introduction to Organic and Biochemistry).

- 2023-2024: University of Khorfakkan (UKF), Sharjah, United Arab Emirates – Part time Assistant Professor in Chemistry, College of Marine Sciences and Aquatic Biology
- 2022-2023: University of Khartoum (UofK), Khartoum, Sudan, Adjunct Assistant Professor in Chemistry, Faculty of Science, Department of Chemistry
- 2020-2021: University of Khartoum (UofK), Khartoum, Sudan, Adjunct Assistant Professor in Chemistry, Faculty of Developmental and Technological Studies, Health Engineering
- 2014-2016: Nahda College, Khartoum, Sudan, Adjunct Lecturer, Faculty of Pharmacy
- 2005-2008: University of Khartoum, Part time Teaching Assistant, Faculty of Science, Department of Chemistry

Taught Courses:

- General Chemistry-1
- General Cemistry-2
- Chemical thermodynamics
- Chemical Kinetics
- Phase Changes
- Quantum Mechanics
- Introduction to Organic and Biochemistry
- Practical Physical chemistry
- Practical Organic chemistry
- Practical Analytical Chemistry
- Practical General Chemistry

Conferences & Workshops

Conferences

- Tarig Elshaarani, Haojie Yu, Li Wang (2018) “PBA-bearing hydrogels for glucose sensing”, Proceeding of the symposium on frontier of chemistry and chemical engineering, Hangzhou, China.
- Tarig Elshaarani, Haojie Yu, Li Wang (2018) “Glucose-responsive hydrogels for glucose sensing” Symposium on novel materials and technology, Hangzhou, Hangzhou, PR China.
- Tarig Elshaarani, Haojie Yu, Li Wang (2019) “Synthesis of injectable nanogels and their applications for insulin delivery under physiological conditions” Poster Presentation, 2nd conference on Novel Materials and Technology, Hangzhou, PR China.
- Tarig Elshaarani., Z. Yaakob, K. Mohamed and S. Kumar (2010) Mechanical Properties

and Thermal Degradation of Jatropha oil cake/ Polyethylene composites. Oral Presentation, Regional Engineering Postgraduate Conference (EPC), UKM, Malaysia.

Workshops

- Regional Training Course on Monitoring of Microplastics (0.3-5 mm) in Sand Beach and Superficial Seawater, Using Nuclear Analytical Techniques, Tunisia, 06-2024
- Workshop on Recent developments and challenges in materials science in the field of nuclear Energy & its applications. AAEA, Jordon. 03-2023
- Coordination meeting on Marine microplastic monitoring and recycling. IAEA Marine Laboratories, Monaco. 02-2023
- Presenter, Radiation processing in industry, 1st, 2nd and 3rd Training course on application of radiation technology", SAEC, Khartoum, Sudan, 2020-2023.
- Presenter, Scientific Publishing, 1st, 2nd and 3rd Training course on application of radiation technology", SAEC, Khartoum Sudan, Sep 6th.
- Training course on treating food with radiation to improve food safety (AAEA). Jordan. 10-2022
- Basic Course on Measurement & evaluation. Khartoum University Centre for Advanced Training. Khartoum, Sudan, 11-2022
- Virtual Technical Meeting on the Status and Use of Geopolymers to Immobilize Radioactive Waste (IAEA). 04-2022
- Virtual Regional Workshop on Radiation Technology for Industry (IAEA). 04-2021
- Basic MATLAB and Latex, Sudan Atomic Energy Commission. 09-2014
- Workshop on Macromolecules II. Faculty of Applied Science, UiTM, Malaysia. 12-2010
- Specialize course on the operation and application of GC/MS technique, Central Laboratory, ministry of Science and Technology, 2007
- Training Course on Radiation Processing for Materials, Sudan Atomic Energy commission, 2006
- Quality management system based on the ISO 17025 for testing and calibrating Labs (IAEA, AFRA-SAEC), 2006

Research Interests

- Detecting and monitoring marine pollutions
- Biosensors for environmental, biomedical and industrial applications
- Stimuli-responsive Drug delivery systems
- Developing methods for the extraction and measurements of Marine Contaminants
- Polymers, biopolymers and nanocomposites for absorption and water treatment

Research Publications (Books, Journals & Conferences papers)

1. Primandari, S. R. P., Krismadinata, K., Yuvenda, D.., Lapisa, R., Kurniawan, A., Mulianti, M., Bustan, M. D., Haryati, S., Sushanti, G., Elshaarani, T.., & Chaniago, Y. (2023). Triglycerides of Crude Palm Oil to Biokerosene: Studies on Electrolysis and Electromagnetic Effect. JAETS. 5(1), 557-568.
2. Dinul, F. I., Nurdin, H., Rahmadiawan, D., Nasruddin, Laghari, I. A., & Elshaarani, T. (2023) Comparison of NaOH and Na_2CO_3 as absorbents for CO_2 absorption in carbon capture and storage technology. Journal of Engineering Researcher and Lecturer, 2(1), 28–34.
3. Abdelmoneim Bakur, Lu Hongyun, Tarig Elshaarani, Dafaallah Albashir, Anas Mohammed, Qihe Chen. (2021) Antioxidant and Anticancer Properties of Biosynthesized GA/Ag-Fe3O4@ Nancomposites. J. Clust. Sci.
4. Muhammad Usman, Li Wang, Haojie Yu, Salam J.J Titinchi, Amin Khan, Kaleem ur Rahman Naveed, Shah Fahad, Tarig Elshaarani, Ahsan Nazir, Bilal Ul Amin (2021) Synthesis of poly(2-(methacryloyloxy) ethyl ferrocene carboxylate-co-glycidyl methacrylic acid) s and their anti-migration and burning rate catalytic properties, J. Therm. Anal. Calorim.
5. Ahsan Nazir, Li Wang, Haojie Yu, Han He, Quan Chen, Bilal Ul Amin, Kaleem-ur-Rehman Naveed, Rizwan Ullah Khan, Amin Khan, Tarig Elshaarani, Muhammad Usman, Alim Uddin. (2020) Preparation and Properties of Ferrocene-Based Polyfuran/Carbon Material Composites for Electromagnetic Interference Shielding, J. Elect. Mater., 49, 5647-5656.
6. Rizwan Ullah Khan, Li Wang, Haojie Yu, Lesong Teng Zain-Ul- Abdin, Shah Fahad, Ehsan Nazir, Tarig Elshaarani, Fazal Haq, De Shen. (2020) Synthesis of amino-cosubstituted polyorganophosphazenes and fabrication of their nanoparticles for anticancer drug delivery, J. Appl. Polym. Sci. 137, 49424.
7. Tarig Elshaarani, Haojie Yu, Li Wang, Jingyi Feng, Chengjiang Li, Weibin Zhou, Amin Khan, Muhammad Usman, Bilal Ul Amin, Rizwan Khan. (2020) Chitosan reinforced hydrogels with swelling-shrinking behaviors in response to glucose concentration. Int. J. Biol. Macro. 161, 109-121.
8. Tarig Elshaarani, Haojie Yu, Li Wang, Long Lin, Nan Wang, Kaleem ur Rahman Naveed, Li Zhang, Yin Han, Shah Fahad, Ni, Zhipeng (2020). Dextran-crosslinked glucose responsive nanogels with a self-regulated insulin release at physiological conditions, Eur. Polym. J. 125, 109505.
9. Bilal Ul Amin, Haojie Yu, Li Wang, Ahsan Nazir, Shah Fahad, Fazal Haq, Sahid Mahmood, Md Alim Uddin, Tarig Elshaarani, Di Shen. (2020) Synthesis of Ferrocene-based Esters as Burning Rate Catalysts and their Anti-migration Study, ZAAC, 646, 1671-1678.
10. Muhammad Usman, Li Wang, Haojie Yu, Jianguo Qian, Xuefeng Li, Amin Khan, Shah Fahad, Tarig Elshaarani, Ahsan Nazir. (2020) Synthesis of poly(2-(methacryloyloxy) ethyl ferrocene carboxylate-co-methacrylic acid) s and their anti-migration and burning rate

catalytic properties, J. Organomet. Chem., 923, 121412.

11. Kaleem-ur-Rahman Naveed, Li Wang, Haojie Yu, Lesong Teng, MD Alim Uddin, Shah Fahad, Raja Summe Ullah, Tarig Elshaarani, Ahsan Nazir. (2020) Synthesis of spin labeled ethylene glycol-based polymers and study of their segmental motion, J. Mol. Struc., 1218, 128528.
12. Shah Fahad, Haojie Yu, Li Wang, Yang Wang, Tarig Elshaarani, Bilal Ul Amin, Kaleem ur Rahman Naveed, Rizwan Ullah Khan, Sahid Mehmood, Fazal Haq, Zheping Ni, Muhammad Usman. (2020). Synthesis of corrugated surface AgNWs and their applications in surface enhanced Raman spectroscopy, Cryst. Eng. Comm, 22, 2183-2196.
13. Ahsan Nazir, Li Wang, Haojie Yu, Jinhua Liu, Songbiao Li, Bilal Ul Amin, Kaleem-ur-Rehman Naveed, Rizwan Ullah Khan, Amin Khan, Tarig Elshaarani, Muhammad Usman. (2020) Electromagnetic interference shielding effectiveness of ferrocene-based polyimidazole/carbon material', Polymer composite, 41, 2068-2081.
14. Rizwan Ullah Khan, Li Wang, Haojie Yu, Qian Zhang, Wei Xiong, Zain ul Abdin, Ahsan Nasir, Shah Fahad, Tarig Elshaarani, Xiang Chen. (2020) Synthesis of polyorganophosphazenes and preparation of their polymersomes for reductive/acidic dual-responsive anticancer drugs release", J. Mater. Sci., 22, 8264-8284.
15. Zhiping Ni, Li Wang, Haojie Yu, Tarig Elshaarani, Amin Khan, Di Shen. (2020). Recent research progress on polyphosphazene-based drug delivery systems", J. Mater. Chem. B., 8, 1555-1575.
16. Amin Khan, Haojie Yu, Yang Wang, Li Wang, Raja Summe Ullah, Fazal Haq, Tarig Elshaarani, Muhammad Usman, Ahsan Nazir and Kaleem-ur-Rehman Naveed. (2019). Synthesis of P(FHEMA-co-MAZO-co-MAA) s copolymers and their redox and photo-responsive properties", J. Organomet. Chem., 902, 120955.
17. Tarig Elshaarani, Haojie Yu, Li Wang, Raja Summe Ullah, Shah Fahad, Kaleem Ur Rahman, Amin Khan, Ahsan Nazir, Muhammad Usman, Rizwan Ullah Khan, Fazal Haq, Ruixue Liang, Xiang Chen, Muhammad Haroon. (2019). Glucose-responsive nanostructured hydrogels with enhanced elastic and swelling properties", J. Mater. Sci., 54, 10009-10023.
18. Abdelmoneim Bakur, Tarig Elshaarani, Yongwu Niu, Qihe Chen. (2019) Comparative study of antidiabetic, bactericidal, and antitumor activities of MEL@AgNPs, MEL@ZnONPs, and Ag-ZnO/MEL/GA nanocomposites prepared by using MEL and gum arabic." RSC Adv., 9, 9745-9754.
19. Raja Summe Ullah, Li Wang, Haojie Yu, Muhammad Haroon, Tarig Elshaarani, Kaleem-ur-Rahman Naveed, Shah Fahad, Amin Khan, Ahsan Nazir, Xia Xia, Lisong Teng, (2019). Synthesis of polyphosphazene and preparation of microspheres from polyphosphazene blends with PMMA for drug combination therapy", J. Mater. Sci., 54, 745-764.
20. Kaleem-ur-Rahman Naveed, Li Wang, Haojie Yu, Lesong Teng, Shah Fahad, Raja Summe

Ullah, Tarig Elshaarani, Muhammad Usman, Amin Khan, Ahsan Nazir. (2019). Synthesis of spin-labelled poly (acrylic acid) s and their segmental motion study, Mole. Phys., 118, 1-14.

21. Shah Fahad, Haojie Yu, Li, Wang, Ahsan Nazir, Raja Summe Ullah, Kaleem-ur-Rahman Naveed, Tarig Elshaarani, Bilal Ul Amin, Amin Khan, Sahid Mehmood. (2019). Synthesis of silver nanowires with controlled diameter and their conductive thin films. J. Mater, Sci. Mater. Electron., 30, 2019, 12876-12887.
22. Muhammad Usman, Li Wang, Haojie Yu, Fazal Haq, Ruixue Liang, Raja Summe Ullah, Amin Khan, Ahsan Nazir, Tarig Elshaarani, Kaleem-ur-Rehman Naveed. (2019). Synthesis, anti-migration properties and burning rate catalytic properties of ferrocene-based compounds, Inorg. Chim. Acta., 495, 118958.
23. Rizwan Ullah Khan, Li Wang, Haojie Yu, Zain-Ul- Abdin, Fazal Haq, Muhammad Haroon, Kaleem-Ur-Rehman Naveed, Tarig Elshaarani, Shah Fahad, Sicong Ren, Jun Wang. (2019). Synthesis of polyorganophosphazenes and fabrication of their blend microspheres and micro/nanofibers as drug delivery systems. Int. J. Polym. Mater. Polym. Biomater. 69, 1-22.
24. Ahsan Nazir, Haojie Yu, Li Wan, Shah Fahad, Kaleem-ur-Rahman Naveed, Amin Khan, Bilal Ul Amin, Tengfei Lin, Muhammad Usman, Tarig Elshaarani, Fazal Haq. (2019). Electrical conductivity and electromagnetic interference shielding properties of polymer/carbon composites. J. Mater, Sci. Mater. Electron.,30, 16636–16650.
25. Shah Fahad, Haojie Yu, Li Wang, Zain-ul-Abdin, Muhammad Haroon, Raja Summe Ulla, Ahsan Nazir, Kaleem-ur-Rahman Naveed, Tarig Elshaarani, Amin Khan, (2019). Recent progress in the synthesis of silver nanowires and their role as conducting materials. J. Mater. Sci., 54, 997–1035.
26. Amin Khan, Li Wang, Haojie Yu, Muhammad Haroon, Raja Summe Ullah, Ahsan Nazir, Tarig Elshaarani, Muhammad Usman, Shah Fahad, Kaleem-ur-Rehman Naveed. (2018). Synthesis and properties of stimuli-responsive ferrocene-and azobenzene-based copolymers P(FHEMA-co-MAAT) s, J. Organomet. Chem., 880, 124-133.
27. Tarig Elshaarani, Li Wang, Haojie Yu, Muhammad Haroon, Raja Summe Ullah, Ahsan Nazir, Amin Khan, Muhammad Usman, Shah Fahad, Kaleem-ur-Rehman Naveed, (2018). Synthesis of hydrogel-bearing phenyl boronic acid moieties and their applications in glucose sensing and insulin delivery, J. Mater. Chem. B., 6, 3831-3854.
28. Muhammad Usman, Li Wang, Haojie Yu, Fazal Haq, Muhammad Haroon, Raja Summe Ullah, Amin Khan, Shah Fahad, Ahsan Nazir, Tarig Elshaarani, (2018). Recent progress on ferrocene-based burning rate catalysts for propellant applications. J. Organomet. Chem., 872, 40-53.
29. Amin Khan, Li Wang, Haojie Yu, Muhammad Haroon, Raja Summe Ullah, Ahsan Nazir, Tarig Elshaarani, Muhammad Usman, Shah Fahad, Fazal Haq, (2018). Research advances in the synthesis and applications of ferrocene-based electro and photo responsive materials, Appl. Organomet. Chem., 32, 1-28.

30. Kaleem-ur-Rahman Naveed, Li Wang, Haojie Yu, Raja Summe Ullah, Muhammad Haroon, Shah Fahad, Jiyang Li, Tarig Elshaarani, Rizwan Ullah Khana and Ahsan Nazir, (2018). Recent progress in the electron paramagnetic resonance study of polymers, Polym. Chem., 9, 3306-3335.

31. Ahsan Nazir, Li Wang, Haojie Yu, Muhammad Haroon, Raja Summe Ullah, Amin Khan, Tarig Elshaarani, Muhammad Usman, Shah Fahad, Kaleem-ur-Rehman Naveed, (2018). Recent progress in the modification of carbon materials and their application in composites for electromagnetic interference shielding, J. Mater. Sci., 53, 8699-8719.

32. Elshaarani M. T., Yaakob. Z., Dahlan K. Z. M. (2013). Jatropha deoiled cake filled MDPE composites: Effect of filler loading and MPE coupling agent on mechanical, dynamic mechanical and interfacial properties, Polym. Comp., 34,5: 746-756.

33. Elshaarani T., Yaakob Z., Dahlan K. Z. M., Mohammad M., Abdullah S. (2012). Mechanical properties, morphology, flammability, and thermokinetic investigation of high-density polyethylene/jatropha deoiled cake composites. J.Appl. Polym.Sci., 125: E78-E88

Peer Review Activities

- 1 review for ACS Applied Biomaterials
- 1 review for Mini-Reviews in Organic Chemistry,
- 1 review for Microchemical Journal
- 1 review for Chemistry of Materials

Research, Teaching Grants

Principal Investigator (PI):

- Ministry of Higher Education and Scientific Research Grant: Assessment of environmental and health pollution resulting from the Use of Mercury In traditional gold mining areas. 2022-2024 (SDG 3.600.000)

Project Coordinator:

- IAEA Grant (RAF 1010): Optimizing Nuclear Techniques to Assess Microplastic Pollution in Coastal Areas, Sudan. 2020-2024.

Team member:

- IAEA Grant (RAF 7014). Applying Nuclear Analytical Techniques to Support Harmful Algal Bloom Management in the Context of Climate and Environmental Change, (2016-2018).
- IAEA Grant (RAF 5088): Building Capacity for Food Irradiation by Facilitating the Commercial Application of Irradiation Technologies, Suda. (2020-2024).
- IAEA Grant (RAF 7015). Strengthening Regional Capacities for Marine Risk Assessment Using Nuclear and Related Techniques. (2016-2018)
- IAEA Grant (RAF/8/044). Radiation Processing for Human Health (2007-2009)

Awards and Recognitions

- ZJU Scholarship 2016 – Zhejiang University
- Bronze medal: Malaysia Technology Expo, 2011

- IAEA Fellowship, in Radiation Processing for the synthesis of biopolymers for wound healing, Malaysian Nuclear Technology Institute (MINT), 05/2008 (3 month)
- Honora Award 2001– Department of Chemistry, University of Khartoum

University & Community Services

- Member of the research council (ICNP-SAEC))
- Projects Coordinator of Radiation processing unit (ICNP-SAEC)
- Team member of procurement committee (SAEC)
- Coordinator for the procurement of chemicals and scientific instruments (ICNP-SAEC)
- Seminar coordinator (ICNP-SAEC)

Service to the Community:

- Trainer and speaker in different training courses and workshops (SAEC), Sudan (2013-2023)
- Orientating and guiding the new members of our research group, Department of Chemical and Biological Engineering, Zhejiang University, China
- Academic Secretary, Sudanese Students Association, UKM, Malaysia, 2011-2013
- Founding Member, Sudanese Students Association, UKM, Malaysia, 2011
- Demonstrator, Faculty of Engineering and Built Environment, UKM, Malaysia, 2009-2010
- Member of the Sudanese researcher initiative (Sudan)
- Member of Sudan Association for Scientific Equipment users, Sudan