

Dr. Saghir Abbas (PhD)

Assistant Professor

Department of Biological Sciences

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Specialization: Analytical and Synthetic Inorganic Chemistry

Research Interests: Synthesis and characterization, Green chemistry, Electrochemistry, Drug development and delivery systems, Sensors, Organometallics, Metal complexes, Metal-organic frameworks (MOFs), Artificial photosynthesis: Electrocatalytic water splitting (HER and OER)

Education

Ph. D (2012-2018) Inorganic/Analytical Chemistry (**Quaid-i-Azam University**, Islamabad, Pakistan).

M. Phil (2009-2011) Inorganic/Analytical Chemistry (**Quaid-i-Azam University**, Islamabad, Pakistan)

M. Sc (2006-2008) Inorganic/Analytical Chemistry (**Quaid-i-Azam University**, Islamabad, Pakistan)

B. Sc (2004-2006) Botany, Zoology, Chemistry (**Govt. College University**, Lahore, Pakistan)

Experience

Quaid-i-Azam University, Islamabad, Pakistan (Visiting Faculty Staff). (February 2017 to June 2019).

Bilkent University, Department of chemistry, Ankara, Turkey (Visiting Ph. D scholar under Tubitak-2216 Research Fellowship Programme for International Researchers). (June 2015 to October 2016).

Advisor: Dr. Ferdi Karadas

The University of Sydney, School of chemistry, Sydney, Australia (Visiting Ph. D scholar and occupational Trainee under International Research Support Initiative Programme by HEC, Pakistan).

(October 2014 to May 2015).

Advisor: Dr. Mohammad Choucair and Dr. Deanna D'Alessandro

Publications

1. Shaista Ibrahim, Bushra Iqbal, Kiran Shehzadi, **Saghir Abbas***, David R. Turner and Muhammad Arif Nadeem, "A novel trinuclear cobalt-based coordination polymer with high performance towards **electrocatalytic water oxidation** at neutral pH". **Journal of Colloid and Interface Science**. 245 (2019) 269-275.
2. Maryam Batool, Shaista Ibrahim, Bushra Iqbal, Saqib Ali, **Saghir Abbas***, David R. Turner and Muhammad Arif Nadeem, "Novel cobalt-fumarate based framework for electrocatalytic water oxidation reaction at neutral pH". **Electrochimica Acta** 298 (2019) 248-253.
3. Waqas Ali Shah, Sadaf Mir, **Saghir Abbas**, Aleksandar Kondinski, David R. Turner, Paul Kögerler and Muhammad Arif Nadeem, "Cationic Copper (II) Hydroxo Layers Interlocked by 4,4'-Oxybis(benzoate) Linkers: A Robust and Efficient Electro-catalyst for Water Oxidation". **Inorganica Chimica Acta** 497 (2019) 119080.
4. **Saghir Abbas**, Sumera Zaib, Shafiq ur Rahman, Saqib Ali, Shahid Hameed, Muhammad Nawaz Tahir, Khurram Shahzad Munawar, Farzana Shaheen, Syed Mustansar Abbas, Jamshed Iqbal, "Carbonic anhydrase inhibitory potential of 1,2,4-triazole-3-thione derivatives of flurbiprofen, ibuprofen and 4-*tert*-butylbenzoic hydrazide: Design, synthesis, characterization, biochemical evaluation, molecular docking and dynamic simulation studies". **Medicinal Chemistry** 15 (2019) 298-310.
5. **Saghir Abbas**, Khurshid Ayub, Manzar Sohail, Saqib Ali, Ralf Ludwig, Muhammad Arif Nadeem, Shabbir Muhammad, "Synthesis, X-ray crystal structure and spin polarized DFT study of high spin Mn based metal-organic framework". **Journal of Molecular Structure** 1175 (2019) 439-444.
6. **Saghir Abbas**, Manzar Sohail, Muhammad Arif Nadeem, Saqib Ali; Javaid H Zaidi, "Formulation of an unprecedented potassium thiadiazolate framework via in-situ ligand synthesis". **Journal of the Chemical Society of Pakistan** 43 (2019) 437-443.
7. **Saghir Abbas**, Hafiza Huma Nasir, Sumera Zaib, Saqib Ali, Tariq Mahmood, Khurshid Ayub, Muhammad Nawaz Tahir, Jamshed Iqbal, "Carbonic anhydrase inhibition of Schiff base derivative of imino-methyl-naphthalen-2-ol: Synthesis, structure elucidation, molecular docking, dynamic simulation and density functional theory calculations". **Journal of Molecular Structure** 1156 (2018) 193-200.
8. **Saghir Abbas**, Mukhtiar Hussain, Saqib Ali, Masood Parvez, Ahsan Raza, Ali Haider, Jamshed Iqbal, "Structural, enzyme inhibition, antibacterial and DNA protection studies of organotin(IV) derivatives of thiophene-2-carboxylic acid". **Journal of Organometallic Chemistry** 724 (2013) 255-261.

9. **Saghir Abbas**, Saqib Ali, Muhammad Siraj Khan, Masood Parvez, Jamshed Iqbal, "Synthesis, crystal structure, enzyme inhibition, DNA protection and antimicrobial studies of di-and triorganotin(IV) derivatives. **Journal of Coordination Chemistry**. 15 (2013) 2765–2774.
10. Abdur Rauf, Afzal Shah, **Saghir Abbas**, Usman Ali Rana, Salah Ud-Din Khan, Saqib Ali, Zia- ur-Rehman, Rumana Qureshi, Heinz-Bernhard Kraatz, Francine Belanger-Gariepy. "Synthesis, spectroscopic characterization and pH dependent photometric and electrochemical fate of Schiff bases". **Spectrochimica Acta Part A: Molecular and Bimolecular Spectroscopy** 138 (2015) 58–66.
11. Syed Mustansar Abbas, Syed Tajammul Hussain, Saqib Ali, Nisar Ahmad, Nisar Ali, **Saghir Abbas**, "Structure and electrochemical performance of ZnO/CNTC composite as an anode material for lithium-ion batteries". **Journal of Material Science**. 48 (2013) 5429–5436.
12. Syed Mustansar Abbas, Syed Tajammul Hussain, Saqib Ali, Nisar Ahmad, Nisar Ali, **Saghir Abbas**, Zulfiqar Ali, "Modification of carbon nanotubes by CuO-doped NiO nanocomposite for use as anode material for lithium-ion batteries". **Journal of Solid State Chemistry** 202 (2013) 43–50.