CURRICULUM VITAE

SALEH **SULAIMAN**
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Chemistry Department
Birzeit University
Ramallah-Palestine

PROFESSIONAL SUMMARY

- Teaching of Environmental Chemistry courses for BSc and MSc students at Chemistry Department, Birzeit University.
- Instrumental analysis for water and Pharmaceutical with 18 years of experience. Specialty areas include Water and Pharmaceutical.
- Teaching of Instrumental analysis and Water Quality courses at Institute of Environmental and Water Studies for MSc students in the last year.
- A broad range of teaching experience. Classes taught range from wet chemistry to Instrumental.
- High experience in water and drug analysis whose primary research interests include analytical and Instrumental methods.
- High experience in laboratory quantitative analytical chemistry included analysis by gravimetric methods, in addition to experience in calibration, Spectral analysis and Quantitative analysis methods.

SKILLS

- High experience in Basic principles and practical applications of the methods of chemical analysis of water, sludge, and gases from biological processes, basic accounts and keeping the samples, methods Gravimetric analysis (sedimentation and separation), methods of analysis of chemical wet, calibration, concepts, basic theory and practical experience on the analytical methods using spectrophotometer and Chromatograph gas appliances Chromatograph liquid and a high-performance, dual atomic absorption and plasma, the ion selective electrodes, volatilization techniques (stripping), electrolysis and Voltammeter, different methods and devices used in the analysis to monitor and control the vital and physical processes in water and wastewater treatment systems. Practical experiences.

- High experience in Physical, chemical and biological water composition, possible contaminants in water, air composition and precipitation, soil, water quality parameters such as sediment and the degree of turbidity ... etc., diseases transmitted by water, control and reduce the transmission of these diseases through the use of sanitary engineering methods. A range of water chemistry experiments which surface water and groundwater chemistry, calibration and measurement of color, pH, water hardness, water disinfection using chlorine, identify persistent organic and non-organic, the use of advanced methods to examine the microscopic contaminants.
- Advanced user on Microsoft Windows and Microsoft Office applications
- Analysis of pharmaceutical products
- Good experience in pharmaceutical production processes
- Good experience in Quality systems (ISO 9000,ISO14000), GMP, and GLP pharmaceutical applications.
- Good experience in water quality and environmental pollution studies.
- Practical experience in water and wastewater sampling and analysis.

WORK HISTORY

08/2015-till now **Researcher and Assistant Professor**
Chemistry Department, Birzeit University,
West Bank/Palestine

- Teaching courses in Environmental Chemistry
- Teaching course in Physical Sciences
- Teaching laboratory courses in General Chemistry
- Teaching courses in Water Chemistry
- Researcher

11/2011-10/2014 **Researcher and Ph.D. student**
Basilicata University, Potenza/Italy

- Course on Methods of Instrumental Analysis, Potenza, Italy.
- Summer school "Pesticide-Environment, 2013, Catania, Italy.
- Course on Cyanobacteria, 2013, Barcelona, Spain.

- Laboratory of soil fertility and analysis, Potenza, Italy.
- Course in Applied Plant Physiology, Potenza, Italy.
- Removal of drugs from wastewater: isolation, identification and biological reactions, Potenza, Italy.
- The use of stable isotopes to investigate the physiological response of forests to climate and a anthropogenic, Potenza, Italy.
- Molecular basis of sex, Potenza, Italy.
- Applications of NMR Spectroscopy in Organic Chemistry, Potenza, Italy.
- Communication systems between microorganisms and plants, Potenza, Italy.

10/2005-11/2011 Researcher and Lab Director
Institute Of Environmental and Water Studies, Birzeit University

- Responsible for BSc Civil Engineering Sanitary course labs.
- Advised students on academic plan and course selection.
- Teaching laboratory course in I*nstrumental* analysis for MSc students.
- Conducted in-services to train teachers in methods of implementing new framework.
- Make sure that all the Instrument work in the right way, And to help the entire student to do their experiments as well as must be.
- Help MSc student to do there researches.
- Researcher assistant
- Teaching laboratory course in Water and Wastewater analysis

4/2000-10/2005 Lab Manager and Deputy Quality Control
Al-Quds Jerusalem Pharmaceuticals Co., Albireh-Rammallah

- Overseeing the implementation of all aspects of pharmaceutical control, including the application of regulatory measures in the control of the products produced and make sure they conform to the specifications of good manufacturing for medicines.
- Follow-up to verify the files for some products and the search for methods of analysis for products which are not pharmacopial.

12/1997-4/2004 QC. Control member
Al-Quds Jerusalem Pharmaceuticals Co., Albireh-Rammallah

- Raw material, In-Process and Finished product analysis, Preparing of Raw material Monograph, Test Method And Test Method Validation.
- Calibration of lab Instruments.

EDUCATION

1992 **High School Diploma**
Ameer Hassan School- Birzeit-Rammallah-Palestine

1997 **Bachelor of Science: Chemistry**
Birzeit University-Birzeit -Rammallah-Palestine

2010 **Master of Science: Water Science and Environment**
Birzeit University-Birzeit -Rammallah-Palestine
Thesis: Flow regime of Wadi Zomar.
Advisor: Ziad Mimi

2015 **Ph.D. BioEcosystem and BioTechnology**
Basilicata University-Potenza/Italy
Thesis: "Removal of recalcitrant organic Pollutants from wastewater using different treatment technologies including adsorption, filtration, and advanced oxidation methods"

advisor: Sabino A. Bufo

ACCOMPLISHMENT

My PhD quantifies degradation rates of different types of drugs, in drinking water and in wastewater.

- The metabolites are identified and their structures as well as pathways for their production are proposed.
- Some of the degradation products are similar to those identified in studies on human and rat liver.
- Characterization the morphological of bacterial community in activated sludge which allowed to identify many bacterial species.
- Removal of drugs from drinking water are significantly more efficient by a nano-composite denoted micelle-clay than by activated carbon, both by filtration and by sedimentation.
- Efficiency of removal of drugs from wastewater by a battery of purification elements, such as ultrafiltration, activated carbon and reverse osmosis (RO) was investigated.

- Isolation of strains constituting the bacterial colonies, aiming at the identification of the more active strains capable of utilizing the pharmaceutical molecules as energy source.

LANGUAGES

- Fluent in Arabic
- Very good in English

PUBLICATION

Saleh, S., Ziad, M. And Saed, K., 2011. Using Biological Indicators to Characterize the Natural Flow Regime in Wadi Zomar Stream/ Palestine. Asian Journal of Applied Sciences, 4: 685-701.

Saleh Sulieman, Yesid Carvajal-Escobar, Ziad Mimi, Saed Khayat, (Birzeit University, Palestine), Wilson Garces and Guillermo Cespedes. Application of Methodologies for Environmental Flow Determination in an Andean and a Mediterranean Basin: Two Case Studies of the Pance River (Colombia) and Wadi River (Palestine) Basin. International Journal of Social Ecology and Sustainable Development (IJSESD). 2(4), 26-43, October-December 2011.

Saleh Sulaiman, Laura Scrano, Sabino Aurelio Bufo and Rafik Karaman, Seasonal and Spatial Variation in the Monitoring Parameters of Zomar Stream, Palestine during 2010. Journal of Environmental Science and Engineering B 1 (2012) 499-509.

Saleh Sulaiman, Mustafa Khamis, Shlomo Nir, Filomena Lelario, Laura Scrano, Sabino Aurelio Bufo and Rafik Karaman, Stability and Removal of Dexamethasone Sodium Phosphate from Wastewater using different Techniques, Environmental Technology, 2014, 35(15): 1945-1955.online, http:// dx.doi.org/ 10.1080/ 09593330.2014.888097

Sulaiman S. Scrano L., Khamis M., Nir S., Bufo S.A., Karaman R. Diazepam stability in wastewater and removal by advanced membranes technology, activated carbon and micelle- clay complex. Desalination and Water Treatment Journal, published, online, doi: 10.1080/19443994.2014.981225. Volume 52, Issue 37-39, 2014.

Saleh Sulaiman, Mustafa Khamis, Shlomo Nir, Filomena Lelario, Laura Scrano, Sabino Aurelio Bufo and Rafik Karaman, Stability and Removal of Spironolactone from Wastewater, Journal of Environmental Science and Health, Part A: Toxic/Hazardous Substances and Environmental Engineering, Volume 50, Issue 11, 2015. DOI:10.1080/10934529.2015.1047668.

Sulaiman S. Scrano L., Khamis M., Nir S., Bufo S.A., Karaman R. Stability and Removal of Atorvastatin, Rosuvastatin and Simvastatin from wastewater , Environmental Technology,(2015), DOI:10.1080/09593330.2015.1058422.
http://www.tandfonline.com/doi/full/10.1080/09593330.2015.1058422.

Saleh Sulaiman, Laura Scrano, Sabino Aurelio Bufo and Rafik Karaman, Diazepam Photodegradation : A comparative study of the efficiencies of biodegradation and solar light/TiO_2 processes. In-publish

Saleh Sulaiman, Laura Scrano, Sabino Aurelio Bufo, Shlomo Nir and Rafik Karaman, Removal of organic Pollutants from wastewater using different treatment technologies. International Journal of case studies, Volume 4, Issue 5 – May-2015.

Saleh Sulaiman, Mathematical modelling of drug removal by using TiO_2 as photo catalysis. International Journal of case studies, Volume 5, Issue 5 – June-2016, pp.12-19.

S. Sulaiman, L. Scrano, S.A. Bufo, R. Karaman. Degradation and Removal of Dexamethasone Sodium Phosphate and Microbes Using Different Wastewater Treatment Technologies Including Adsorption on Activated Carbon and Clay- Micelles Complexes. 3rd conference of biotechnology research and application in Palestine. Al-Quds University / Abu-Dies campus/ Palestine, 20th October, 2012, (Poster).

S. Sulaiman, L. Scrano, F. Lelario, S. Nir, S.A. Bufo, R. Karaman. Photocatalytic degradation of Spironolactone by using Advanced Oxidation Processes (AOPs). In Book of Abstract 14th EuCheMS International Conference on Chemistry and the Environment (ICCE 2013) - Barcelona, Spain, June 25th -28th, 2013, p. 519 (Poster).

S. Sulaiman, L. Scrano, F. Lelario, S. Nir, S.A. Bufo, R. Karaman. Photodegradation and photocatalysis of Diazepam in liquid phase. In Book of Abstract 14th EuCheMS International Conference on Chemistry and the Environment (ICCE 2013) - Barcelona, Spain, June 25th -28th, 2013, p. 520 (Poster).

S. Sulaiman, L. Scrano, F. Lelario, S. Nir, S.A. Bufo, R. Karaman. Removal of Dexamethasone Sodium Phosphate (DSP) in liquid phase by Using Advanced Oxidation Processes (AOPs). 3rd European Conference on Environmental Applications of Advanced Oxidation Processes (EAAOP-3) – Almeria, Spain, October 27th - 30th, 2013. Postprint volume is expected. (Poster).

S. Sulaiman, L. Scrano, F. Lelario, S. Khalaf, S.A. Bufo, R. Karaman. Liquid Chromatography and High-Resolution Fourier Transform Ion Cyclotron Resonance Mass Spectrometry (LC/ESI-ICR-MS) Applied to the Identification of Pharmaceutical Photodegradation Byproducts. In Book of Abstract "4 MS-J-Day -"I giovani e la spettrometria di massa 2013" - Potenza, Italy, November 14, 2013, p. 39 (Poster).

S. Sulaiman, L. Scrano, F. Lelario, S. Khalaf, S.A. Bufo, D'Auria, M. Efficiency of blue-glass-metal oxides immobilized system in the photodegradation of different pharmaceutical compounds. In Book of Abstract "Italian Photochemistry meeting 2013" - (Rifreddo) Potenza, Italy, 28 November -1 December, 2013, p. 55 (Poster).

Sulaiman S. Scrano L., Lelario F., Khalaf S., Bufo S.A., Karaman R. Liquid chromatography mass spectrometry and high-resolution Fourier transform ion cyclotron resonance mass spectrometry (LC/ESI-FT-ICR-MS) for identifying photodegradation products of pharmaceuticals in the aquatic environment. 11th European Fourier Transform Mass Spectrometry Conference, Paris, April 22-25, 2014. (Poster)

S. Sulaiman, L. Scrano, F. Lelario, S.A. Bufo, R. Karaman. Efficiency of some pharmaceuticals removal from aqueous environment by using photodegradation coupled with TiO_2 powder dispersion and TiO_2 immobilized on blue glass slabs.8th European Conference on Pesticides and related organic micro pollutants in the Environment.14th Symposium in Chemistry and Fate of modern Pesticides. Ioannina, Greece, September 18 - 21, 2014. Post print volume is expected. (Poster).

S. Sulaiman, L. Scrano, F. Lelario, S.A. Bufo and R. Karaman. Removal of Naproxen in Liquid Phase by Using Advanced Oxidation Processes (AOPs). 2nd International Conference on Recycling and Reuse, Istanbul/ Turkey, June 4-6, 2014. (Oral Presentation), Book of Abstracts, p.47-48.

S. Sulaiman, Environmental Flow Regime for Wadi Zomar: Characterizing the natural Flow Regime in Wadi Zomar/ Stream Palestine Using Biological Indicators. LAP LAMBERT Academic publishing GmbH & co. KG. Deutschland, ISBN: 978-3-659-17071-3.2012.

S. Sulaiman, Diazepam TiO_2 Photodegradation along with Metabolites Obtained from the Kinetic Study in Sludge . Journal of Water and Environment Technology, 15, 5: 174-185, 2017.
doi: 10.2965/jwet.16-078

S. Sulaiman, T. Shahwan. Mefenamic acid stability and removal from wastewater using bentonite-supported nano scale zero-valent iron and activated charcoal. Desalination and Water Treatment,

97 (2017) 175–183.

Mohammed Al-Jabari, Imtiaz Khalid, **Saleh Sulaiman**, Israa Alawi, Jameleh Shilo. 2018. Synthesis, characterization, kinetic and thermodynamic investigation of silica nanoparticles and their application in Mefenamic acid removal from aqueous solution. Desalination and water treatment, 17:1-5.

Saleh Sulaiman, Mohammed Al-Jabari, Assem Mubarak, Shahid Ali. 2019 Adsorption study of levofloxacin on reusable magnetic nanoparticles: Kinetics and antibacterial activity. Journal of Molecular Liquids. Accepted.

Saleh Sulaiman, Mohammed Al-Jabari. Removal of Spironolactone from aqueous solution using bentonite-supported nanoscale zero-valent iron and activated charcoal. 2020. Desalination and water treatment. 173, 283-293.

PERSONAL INFORMATION

- Sex & Marital Status: Male & Married Age & DOB: 40 years, 29th June 1974. Nationality / Citizen: Palestinian.

TRAINING

Training course in Quality systems (ISO 9000,ISO14000)

Training course in GLP

Training course in GMP

Training course in Calibration

Training course in Planning and administration

Training course in Computer Microsoft Office

Training course in Information Technology

Training course in Validation

Training course in wastewater management and treatment, Germany

Regional Workshop in Integrated water Resources Management in Jordan

Training course in wastewater management and treatment, Italy

Drinking water quality and pollutant effects

Wastewater collection and treatment technologies and wastewater reuse

Environmental pollution causes and negative impacts

Lab analysis for water quality parameters

Teaching at Birzeit University:

- **Environmental Chemistry**
- **Water Chemistry**
- **Instrumental Analysis course**
- **Analytical chemistry course**
- **General science course**
- **Bioremediation course**
- **Water and wastewater treatment course**
- **Analysis of water and wastewater treatment course**
- **Solid waste management course**
- **Water Quality course**