Sharif H. Arar

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Objective

Associate professor of analytical chemistry, scientist and team leader in project development.

Education

PhD. Chemistry, University of Guelph/ Canada, 2009 (supervisor: Prof. Mario Monteiro)
Concentrations: **Bio-analytical-chemistry, and vaccine research**
Dissertation: Complex carbohydrates: Structures and Conjugate Vaccine Development.

M.Sc., Chemistry, University of Jordan/ Jordan, 1998 (Supervisor: Prof. Mohammed Hourani)
Concentrations: **analytical chemistry, environmental chemistry**
Dissertation: Development of Indirect Voltammetric Analytical Method for Determination of Sulfur Dioxide in Ambient Atmosphere.

B.SC., Chemistry, University of Jordan / Jordan, 1995.

Work Experience

Associate professor Assistant professor /Analytical chemistry	University of Jordan University of Jordan	Feb, 2016...presence Dec, 2014...Feb, 2016
Lecturer/ assistant professor	University of Jordan	Sept, 2010-Dec, 2014
Postdoctoral fellow (Vaccine research)	University of Guelph Department of chemistry With Dr. Mario Monteiro	Guelph, Canada (2009- 2010)
Teaching assistant (Analytical chemistry)	University of Guelph	Guelph, Canada (2005-2007)

R&D Chemist (micronutritients technology)	NutriAg	(Toronto, Canada) (2006- 2008)

NutriAg Ltd. supplies with cutting edge nutrient products and highest quality agricultural chemicals worldwide.

Chemist (Water and soil testing)	SGS	(Lakefield, Canada) (Oct, 2004)

SGS is the world's leading inspection, verification, testing and certification company and recognized as the global benchmark for quality and integrity. Testing for the purpose of the quality, safety and performance of your products against relevant health, safety and regulatory standards.

Chemical Researcher / Laboratory manager	Royal Scientific Society (Environment)	(Amman, Jordan) (1999- 2004)

The **R.S.S**. is an internationally renowned, non-profit research facility that offers technological consultations, calibration and conformity assessment services for locally made and imported products while serving the objectives of scientific and technological research and the needs of public and private sectors.

Teaching Assistant (General and Organic chemistry)	University of Jordan Department of chemistry	(Amman, Jordan) (1995-1998)

Scholarships and Awards

University of Jordan teaching assistant scholarship	1995-1998
Ontario Graduate Scholarship	2008

Skills

General Skills:

- Good experience in project management and supervision duties.
- Excellent knowledge of writing project proposals, and reports
- Proficient in Microsoft Office, excel and Internet applications.
- Thorough understanding of laboratory protocols and research data interpretation.
- Excellent communication skills
- Able to work independently and as a cooperative team member.

Analytical Chemistry and Biotechnology Skills:

- Excellent knowledge in separation science and chromatography, mass spectrometry and nuclear magnetic resonance spectroscopy.
- 2 years experience in analysis of micronutrients
- 5 years experience in carbohydrates and proteins in food
- 7 years experience in analytical, agricultural, and environmental laboratories for small molecules and large molecules including pesticides, herbicides and phyotochemicals
- Experienced in GLP, methods validation, SOP development, EPA methods,
- ISO/IEC 17025, ISO 9001, 2000, and operation on LIMS.
- Extensive experience in residue and trace analysis of organic and inorganic compounds.

Thorough knowledge of teaching the following topics:

- General chemistry
- Analytical chemistry
- Electroanalytical chemistry
- Special topics in analytical chemistry
- Practical analytical chemistry
- Instrumental analysis laboratory
- Mass spectrometry
- Separation science
- Nuclear magnetic resonance spectroscopy
- Instrumental analysis
- Environmental analytical chemistry: analytical techniques, analytical toxicology..etc.
- Food analysis, and food toxicology
- Analytical toxicology

Modern Analytical Instrumentation Skills:

- Experienced in **Mass spectrometry** (DIP, MALDI-TOF, and ESI-MS).
- Excellent knowledge in HPLC**, LC-MS(LTQ orbitrap)**,**Bruker- FTMS, ESI techniques, LC-MS/MS**, IC-MS, **GC-MS**,GC-NPD,GC-FID,GC-ECD, GC-ECD/Headspace, GC-ECD (purge and trap), pH/Ion meters, Polarographs, titroprocessors, TOC, UV-Spectrophotometers and AAS flame, IC (ion-chromatography), FT-IR, and 1D &2D **Nuclear magnetic resonance** (NMR).

Research interests

Real life applications of chemistry including industry, and chemical processes; where my research interests are related to two major areas: 1) Analytical chemistry focusing on the application and development of mass spectrometric methods, separation science, and spectroscopic methods for small and large molecules, 2) Environmental and food toxicology related to determination of inorganic or organic substances that have acute toxicity, or chronic toxicity, or causing cancer and mutation 3) Carbohydrate chemistry and vaccine research

Graduate Students supervision

Student name	Degree	Period	Institution	Role
Qusay Ibrahim	**M.Sc**	**July,2015- July-2016**	**The University of Jordan**	**Supervisor**
Thesis title: Method development for determination of water soluble myo-inositol content in infant & baby food formula by gas chromatography mass spectrometry method.				
Hakem Alsoufi	**M.Sc**	**March, 2016-Dec,2016-**	**Al-Balqa Applied University**	**Co-supervisor**
Identification of some Synthetic Cannabinoids in Different Matrices by Chromatography-Mass Spectrometry				

Funding and grants

1- Internal research project funding (total amount 15k US$) funded by the Deanship of Scientifc Research at the University of Jordan. “Research Title: Mutagenic and carcinogenic Bisphenol A (BPA)concentration in canned food from discount supermarkets or outlet stores”, 2013 – 2016.

2- Internal research project funding (total amount 6k US$) funded by Hamdi Mango Center for Scientific Research at the University of Jordan. “Research Title: Preparation of new stationary phases based on new polymeric materials for gas chromatographic separation of isomers”, 2014 – 2016.

Scientific training

1- ISO/IEC 17025 Field of Applications and Requirements (August 26th – August 27th, 2003) Royal Scientific Society/Jordan

2- Principles of Good Laboratory Practice ,Guelph, Canada 2009

3- 1st International Workshop on Computer- Aided Drug Design
23-25April, 2013, The University of Jordan, Amman-Jordan.

4- Staff Development Workshop, 25th of August to 4th of September, 2013, The University of Jordan, Amman, Jordan.

5- E-Learning Contents Design and Development, 16-24 January, 2013, The University of Jordan, Amman, Jordan

6- Young Syrian Refugees in Jordan's Educational Systems Challenges and Policies, April 16, 2015, Intercontinental Hotel, Amman-Jordan.

7- ISI web of knowledge, April 28th, 2015.

8- Advanced Statistical analysis by SPSS (May 29th – May 30th, 2016)

9- Detection of Plagiarism (March 3rd, 2016)

Conferences

1- GLUPOR7 12-15 Sept, 2007/ Portugal

2- EuAsC_2S Chemistry Care-11th Eurasia Conference on Chemical Sciences, 2010, 6-10 October. The Dead Sea - Jordan.

3- 5th International Conference of Young Chemists (ICYC), 8-10 April 2012. Amman-Jordan.

Membership in Scientific Communities

- Member of the Jordanian Chemical Society
- Member of the Aerosol Association of Middle East and North America (AAMENA).

Publications

Google scholar at:
https://scholar.google.com/citations?hl=ar&user=R_GcNB4AAAAJ&view_op=list_works&sortby=pubdate

1- Ahmad Elian, **Sharif Arar** ,Manar Fayyad* , Ahmad Zalloum. Potent hormones in the air of workplace in the pharma industry: HPLC method development for simultaneous trace determination of contraceptives: ethinyl estradiol, drospirenone, cyproterone acetate, and desogestrel. *Fresenius Environmental Bulletin*. Accepted, 2017.

2- Androniki Maragkidou, **Sharif Arar**, Afnan Al-Hunaiti, Yuning Ma, Stuart Harrad, Omar Jaghbeir, Dina Faouri, Kaarle Hämeri, Tareq Hussein*. Occupational health risk assessment and exposure to floor dust PAHs inside an educational building. *Science of The Total Environment*. 2017, 579, 1050-1056.

3- Abeer A Malhis, **Sharif H Arar**, Manar K Fayyad, Hamdallah A Hodali*. Amino- and thiol-modified microporous silicalite-1 and mesoporous MCM-48 materials as potential effective adsorbents for Pb(II) in polluted aquatic systems. *Adsorption Science & Technology*. On line Jan/2017.

4- Androniki Maragkidou, Yuning Ma, Omar Jaghbeir, Dina Faouri, Stuart Harrad, Afnan Al-Hunaiti,**Sharif Arar**, Kaarle Hameri and Tareq Hussein*. PAHs in Household Floor Dust Collected in Amman, Jordan. *Journal of Chemical Engineering and Process Technology*. 2016, 7(2), 292.

5- Ramia Z. Al Bakain, Yahya S. Al-Degs, Amjad H. El-Sheikh and **Sharif H. Arar**. Spectrophotometric Determination of Melamine in Liquid Milk by Multivariate Second Order Calibration. *Current Analytical Chemistry*.2016, 12 (1), 74-84

6- **Sharif Arar***, Rasha Abu Eid, Ramia Al Bakain. Titanium dioxide content in foodstuffs from the Jordanian market: Spectrophotometric evaluation of TiO_2 nanoparticles. *International Food Research Journal*. 2015, 22(3), 1024-1029.

7- **S. Arar***., R. Abu Eld, M., Fayyad. Anaerobic Cr (VI) Bioaccumulation: Application to Industrial Wastewater and Soil Matrices in Jordan. *Asian Journal of Chemistry*. 2015, 27(3), 1143- 1146

8- Ehab Alshamaieh, Mohammad H Kailani, **Sharif Arar**, Aiman E Al-rawajfeh. Corrosion Inhibition of Aluminium by Cyclohexylamine Dithiocarbamate in Acidic Solution. Studia Universitatis Babes-Bolyai, Chemia. 2014, 59(3), 61-69.

9- Allison S.E., D'Elia M.A., **Arar S**., Monteiro M.A., Brown E.D .Studies of the genetics, function and kinetic mechanism of TagE - the wall teichoic acid glycosyltransferase in bacillus subtilis 168. *Journal of Biological Chem*eistry. 286 (**2011**) ,23708-23716.

10-Zuchao Ma, **Sharif Arar** and Mario Monteiro.Tempo mediated glycoconjugation: A scheme for glycoconjugate vaccine. *Carbohydrate Research*. **2011,** 346, 343-347.

11-Monteiro M.A, **S Arar**, Atsushi Harimaya. Novel Polysaccharide Immunogens from *Alloiococcus Otitidis* and Synthesis of a Glycoconjugate Vaccine Therof. US patent WO 2009/033269 A1. March 2009

12-**Sharif Arar**,…, and Mario Monteiro*. A polysaccharide of *Alloiococcus otitidis,* a new pathogen of otitis media: chemical structure and synthesis of a neoglycoconjugate thereof. *Carbohydrate Research*.**2008**.343, 1079-1090.

13-**Sharif Arar**,…., and Mario Monteiro*. Desialylation of core type 1 O-glycan in the equine embryonic capsule consides with the immobilization of the conceptus in the uterus. *Carbohydrate Res*earch.**2007**, 342, 1110-1115.

14 - M. Hourani….**S.Arar**. Atmospheric SO_2 determination by voltammetric analysis at Iodine- Coated Platinum Electrode. *Electroanalysis*.**1999**, 11(9), 637-640.

References

1- Prof. Mario Monteiro	University of Guelph/ Canada	monteiro@uoguelph.ca
2- Prof. Mohammed Hourani	University of Jordan/Jordan	mhourani@ju.edu.jo
3- Prof. Manar K. Fayyad	German Jordanian University/Jordan	manar.fayyad@gju.edu.jo
4- Prof. Tareq Hussein	University of Jordan/ Jordan	t.hussein@ju.edu.jo
5- Prof. Hamdallah Hodali	University of Jordan/ Jordan	h-hodali@ju.edu.jo