

Curriculum Vita



Essential Information

الأستاذ الدكتور / أمجد حسين محمد الشيخ

Name: **Prof. Amjad Hussein Mohammad El-Sheikh.**

Academic rank: Professor. أستاذ **h-index: 22**

ORCID ID: 0000-0001-8321-3236

Scopus Author ID: 7006397686

Web of Science Researcher ID: AAC-2376-2019

Field: Analytical environmental chemistry.

Place of work: Dept. Chemistry, Hashemite University, Jordan.

Nationality: Jordanian.

Date of Birth: 19-2-1972.

Number of publications: 43.

E-mail: elsheikh@hu.edu.jo or amjadelsheikh3@yahoo.com

Contact number: 00962-795627128 (mobile), 00962-6-5715203.

Education

Degree	place	Period	Grade
PhD / Chemistry	Coventry University / United Kingdom	October 2001-September 2004	-
MSc / Chemistry	University of Jordan	Sep 1993-Sep 1996	Very good
BSc / Chemistry	Yarmouk University / Jordan	Sep 1990-Sep 1993	Very good
High school "Tawjihi"	Kuwait	June 1990	94.7%

Employment History

Place of work	Title	Period
The Hashemite University / Jordan	Professor	June 2015 — present
The Hashemite University / Jordan	Associate professor	March 2010 — June 2015
The Hashemite University / Jordan	Assistant professor	March 2005 — March 2010
The Hashemite University / Jordan	Part-time Lecturer	Oct 2004—Feb 2005
Al-Isra University / Jordan	Lecturer	Sep 1996— Sep 2001

Publications

1. **Amjad H. El-Sheikh**, Rania F. Qawariq, Jafar I. Abdelghani, Adsorption and magnetic solid-phase extraction of NSAIDs from pharmaceutical wastewater using magnetic carbon nanotubes: Effect of sorbent dimensions, magnetite loading and competitive adsorption study, *Environmental Technology & Innovation*, 16 (2019) article 100496.
2. **Amjad H. El-Sheikh**, Rawan M. Al-Salamin, Hiba S. Alshamaly, Dua'a M. Tahboub, Yahya S. Al-Degs, Ismail I. Fafous, Nabil N. Al-Hashimi, Jafar I. Abdelghani, Effect of varying deposition conditions of magnetite on sawdust on the physiochemical properties of the prepared composites, *Journal of Environmental Chemical Engineering*, 7 (2019) article 103497.
3. **Amjad H. El-Sheikh**, Esraa M. Elayyan, Bader A. Salameh, Magnetic solid phase extraction of cadmium and lead from water prior to FAAS determination: Which is better? Sorbent modification with organic acids or adding organic acids to the extraction medium, *Journal of Environmental Chemical Engineering*, 7 (2019) article 103377.
4. **Amjad H. El-Sheikh**, Fayrouz S. Nofal, Majed H. Shtaiwi, Adsorption and magnetic solid-phase extraction of cadmium and lead using magnetite modified with schiff bases, *Journal of Environmental Chemical Engineering*, 7 (2019) article 103229.
5. Nabil N. AL-Hashimi, **Amjad H. El-Sheikh**, Rania F. Qawariq, Majed H. Shtaiwi, Rowan AlEjlat, Multi-walled Carbon Nanotubes Reinforced into Hollow Fiber by Chitosan Sol-gel for Solid/Liquid Phase Microextraction of NSAIDs from Urine Prior to HPLC-DAD Analysis, *Current Pharmaceutical Biotechnology*, 20 (2019) 390-400.
6. Jafar I. Abdelghani, Yahya S. Al-Degs, **Amjad H. El-Sheikh**, Ismail I. Fafous, Ammar A. Al-Asafrah, Quick monitoring of coloring agents in highly consumed candies using multivariate calibration, *Arabian Journal of Chemistry*, available online July 2019, <https://doi.org/10.1016/j.arabjc.2019.07.002>
7. **Amjad H. El-Sheikh**, Ismail I. Fafous, Rawan M. Al-Salamin, Alan P. Newman, Immobilization of citric acid and magnetite on sawdust for competitive adsorption and extraction of metal ions from environmental waters, *Journal of Environmental Chemical Engineering*, 6 (2018) 5186-5195.
8. **Amjad H. El-Sheikh**, Anwar M. Shudayfat, Ismail I. Fafous, Preparation of magnetic biosorbents based on Cypress wood that was pretreated by heating or TiO₂ deposition, *Industrial crops and products*, 129 (2019) 105-113.
9. Yahya S Al-Degs, **Amjad H. El-Sheikh**, Eman A. Abu Saaleek, Reema A. Omeir, Musab A. Al-Ghodran, Combination of Cumulative Area Pre- Processing and Partial Least Squares for Handling Intensely Overlapping Binary and Ternary Drug Systems, *ACTA Pharmaceutica Scientia*, 57 (2019) 161-182.
10. **Amjad H. El-Sheikh**, Yahya S. Al-Degs, Asma H. Abu-Wardeh, Mohammad A. Al-Ghouthi, Quantification of melamine in milk and dairy products by liquid chromatography after a simple sample clean-up procedure, *Journal of Food Processing and Preservation*, 41 (2017) 1-9.

11. Ayman Issa, Yahya Al-Degs, **Amjad H. El-Sheik**, Anas Al-Reyahi, Ramia Al-Bakain, Jafar Abdelghani, Alan P. Newman, Application of Partial Least Squares-Kernel Calibration in Competitive Adsorption Studies Using an Effective Chemically Activated Biochar, *Clean - Soil, Air, Water*, 45 (2017) 1-13.
12. Ramia Z. Bakain, Yahya S. Al-Degs, **Amjad H. El-Sheikh**, Sharef H. Arar, Spectrophotometric determination of melamine in liquid milk by multivariate second order calibration, *Current Analytical Chemistry*, 12 (2016) 74-84.
13. Yahya S. Al-Degs, Amjad H. El-Sheikh, Ramia Z. Al Bakain, Alan P. Newman, Mohammad A. Al-Ghouti, Conventional and upcoming sulfur-cleaning technologies for petroleum fuel: a review, *Energy Technology*, 4 (2016) 679-699.
14. Ramia Z. Al Bakain, Yahya S. Al-Degs, **Amjad H. El-Sheikh**, A.Y. Al-Reyahi, Asma H. Abu-Wardeh, A quick detection of melamine adulteration in milk and dairy products using first-order multivariate calibration, *Journal of Food Processing and Preservation*, 39 (2015) 2718-2727.
15. Jamal A. Sweileh, Karema Y. Misef, **Amjad H. El-Sheikh**, Mahmoud S. Sunjuk, Development of a new method for determination of Al in Jordanian foods and drinks: solid phase extraction and adsorption of Al³⁺-D-mannitol on carbon nanotubes, *Journal of Food Composition and Analysis*, 33 (2014) 6-13.
16. **Amjad H. El-Sheikh**, Partial pyrolysis of olive wood to improve its sorption of chlorophenols and nitrophenols, *International Journal of Environmental Science and Technology*, 11 (2014) 1459-1472.
17. **Amjad H. El-Sheikh**, Yahya S. Al-Degs, Jamal A. Sweileh, Adi J. Said, Separation and flame atomic absorption spectrometric determination of total chromium and chromium(III) in phosphate rock used for production of fertilizer, *Talanta*, 116 (2013) 482–487.
18. **Amjad H. El-Sheikh**, Yahya S. Al-Degs, Spectrophotometric determination of food dyes in soft drinks by second order multivariate calibration of the absorbance spectra-pH data matrices, *Dyes and Pigments*, 97 (2013) 330-339.
19. **Amjad H. El-Sheikh**, Alan P. Newman, Adi J. Said, Abdullah M. Alzawahreh, Malek M. Abu-Helal, Improving the adsorption efficiency of phenolic compounds into olive wood biosorbents by pre-washing with organic solvents: Equilibrium, kinetic and thermodynamic aspects, *Journal of Environmental Management*, 118 (2013) 1-10.
20. Yahya S. Al-Degs, **Amjad H. El-Sheikh**, Saed T. Jaber, Application of heated date seeds as a novel extractant for diuron from water, *Arabian Journal of Chemistry*, 6 (2013), 121–129.
21. **Amjad H. El-Sheikh**, Maisa K. Al-Jafari, Jamal A. Sweileh, Solid phase extraction and uptake properties of multi-walled carbon nanotubes of different dimensions towards some nitro-phenols and chloro-phenols from water, *International Journal of Environmental Analytical Chemistry*, 92 (2012) 190-209.
22. Yahya S. Al-Degs, **Amjad H. El-Sheikh**, Ayman A. Issa, Mohammad A. Al-Ghouti, Mahmoud Sunjuk, A simple and accurate analytical method for determination of three commercial dyes in different water systems using partial least squares regression, *Water Science & Technology*, 66 (2012) 1647-1655.

23. **Amjad H. El-Sheikh**, Abdullah M. Alzawahreh, Jamal A. Sweileh, Preparation of an efficient sorbent by washing then pyrolysis of olive wood for simultaneous solid phase extraction of chloro-phenols and nitro-phenols from water, *Talanta*, 85 (2011) 1034– 1042.
24. **Amjad H. El-Sheikh**, Yahya S. Al-Degs, Randa M. Al-Asad, Jamal A. Sweileh, Effect of oxidation and geometrical dimensions of carbon nanotubes on Hg(II) sorption and preconcentration from real waters, *Desalination*, 270 (2011) 214-220.
25. **Amjad H. El-Sheikh**, Rasha W. Al-Quse, Musa I. El-Barghouthi, Fida'a S. Al-Masri, Derivatization of 2-chlorophenol with 4-amino-anti-pyrine: A novel method for improving the selectivity of molecularly imprinted solid phase extraction of 2-chlorophenol from water, *Talanta*, 83 (2010) 667-673.
26. **Amjad H. El-Sheikh**, Malek M. Abu Hilal, Jamal A. Sweileh, Bio-separation, speciation and determination of chromium in water using partially pyrolyzed olive pomace sorbent, *Bioresource Technology*, 102 (2011) 5749-5756.
27. **Amjad H. El-Sheikh**, Jamal A. Sweileh, Recent applications of carbon nanotubes in solid phase extraction and preconcentration: a review, *Jordan Journal of Chemistry*, 6 (2011) 1-16.
28. **Amjad H. El-Sheikh**, Jamal A. Sweileh, Maysoon I. Saleh, Partially-pyrolyzed olive pomace sorbent of high permeability for preconcentration of metals from environmental waters, *Journal of Hazardous Materials*, 169 (2009) 58-64.
29. Yahya S. Al-Degs, Mohammad Al-Ghoti, **Amjad H. El-Sheikh**, Simultaneous determination of pesticides at trace levels in water using multiwalled carbon nanotubes as solid-phase extractant and multivariate calibration, *Journal of Hazardous Materials*, 169 (2009) 128-135.
30. **Amjad H. El-Sheikh**, Jamal A. Sweileh, Yahya S. Al-Degs, Ahmad A. Insisi, Nancy Al-Rabady, Critical evaluation and comparison of enrichment efficiency of multi-walled carbon nanotubes, C18 silica and activated carbon towards some pesticides from environmental waters, *Talanta*, 74 (2008) 1675-1680.
31. **Amjad H. El-Sheikh**, Effect of oxidation of activated carbon on its enrichment efficiency of metal ions: Comparison with oxidized and non-oxidized multi-walled carbon nanotubes, *Talanta*, 75 (2008) 127-134.
32. Yahya S. Al-Degs, Musa I. El-Barghouthi, **Amjad H. El-Sheikh** and Gavin M. Walker, Effect of solution pH, ionic strength, and temperature on adsorption behavior of reactive dyes on activated carbon, *Dyes and Pigments*, 77 (2008) 16-23.
33. Yahya S. Al-Degs, **Amjad H. El-Sheikh**, Mohammad A. Al-Ghouti, Bahram Hemmateenejad, Gavin M. Walker, Solid phase extraction and simultaneous determination of trace amounts of sulphonated and azosulphonated dyes using microemulsion-modified-zeolite and multivariate calibration, *Talanta*, 75 (2008) 904-915.
34. **Amjad H. El-Sheikh**, Jamal A. Sweileh, Sorption of trace metals on fish scales and application for lead and cadmium pre-concentration with flame atomic absorption determination, *Jordan Journal of Chemistry*, 3 (2008) 87-97.

35. **Amjad H. El-Sheikh**, Ahmad A. Insisi, Jamal A. Sweileh, Effect of oxidation and dimensions of multi-walled carbon nanotubes on solid phase extraction and enrichment of some pesticides from environmental waters prior to their simultaneous determination by high performance liquid chromatography, *Journal of Chromatography A*, 1164 (2007) 25–32.
36. **Amjad H. El-Sheikh**, Jamal A. Sweileh, A rapid and simple microwave-assisted digestion procedure for spectrophotometric determination of titanium dioxide, *Talanta*, 71 (2007), 1867-1872.
37. **Amjad H. El-Sheikh**, Jamal A. Sweileh, Yahya S. Al-Degs, Effect of dimensions of multi-walled carbon nanotubes on its enrichment efficiency of metal ions from environmental waters, *Analytica Chimica Acta*, 604 (2007) 119-126.
38. **Amjad H. El-Sheikh**, Yahya S. Al-Degs, Alan P. Newmanb, Daniel E. Lynch, Oxidized activated carbon as support for titanium dioxide in UV-assisted degradation of 3-chlorophenol, *Separation & Purification Technology*, 54 (2007) 117-123.
39. Musa I. El-Barghouthi, **Amjad H. El-Sheikh**, Yahya S. Al-Degs , Gavin M. Walker, Adsorption behaviour of anionic reactive dyes on H-type activated carbon: competitive adsorption and desorption studies, *Separation Science & Technology*, 42 (2007) 2195-2220.
40. **Amjad H. El-Sheikh**, Alan P. Newman, Hafid K Al-Daffae, Suki S. Phull and Niel Cresswell, Characterization of activated carbon prepared from single cultivar Jordanian olive stones, *Journal of Analytical and Applied Pyrolysis*, 71 (2004) 151-164.
41. **Amjad H. El-Sheikh**, Maha F. Tutunji, Ghazi A.W. Derwish and Salem Musleh, Chemical and structural properties of the Jordanian diatomaceous clays supported metal oxides, *Journal of Advanced Oxidation Technologies*, 7 (2004) 161-171.
42. **Amjad H. El-Sheikh**, Alan P. Newman, Hafid K Al-Daffae, Suki S. Phull, Niel Cresswell and Steven York, Deposition of anatase on the surface of activated carbon, *Surface and Coatings Technology*, 187 (2004) 284-292.
43. **Amjad H. El-Sheikh**, Alan P. Newman, Hafid K Al-Daffae, Suki Phull and Daniel Lynch, The use of activated carbon of basic nature for treatment of 2-chlorophenol, *Adsorption Science and Technology*, 22 (2004) 451-465.

- **Title of MSc thesis:**

“Surface action of diatomite and diatomite supported metal oxides”.

- **Title of PhD thesis:**

“Preparation, characterization and some potential water treatment applications of activated carbon produced from Jordanian olive stones”.

Teaching Experience

1. General Chemistry.

2. **Analytical Chemistry.**
 3. **Instrumental Methods of Analysis.**
 4. **Environmental Chemistry.**
 5. **Practical Analytical Chemistry.**
 6. **Practical Instrumental Methods of Analysis.**
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Prizes

- 1) **Formpave prize for Environmental Research**, 2004, Coventry University, England, UK.
 - 2) **Scientific Foundation of Hisham Adeeb Hijjawi Award**, 1996, Water Treatment Sector.
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Conferences

- 1) Ahmad A. Insisi; **Amjad H. El-Sheikh**; Jamal A. Sweileh, Solid phase extraction of pesticides from waters using oxidized carbon nanotubes. 8th Jordanian Chemical Conference, 21st April 2008, Organized by Jordanian Chemical Society, In cooperation with Petra University.
 - 2) Maysoon I. Saleh, **Amjad H. El-Sheikh** and Jamal A. Sweileh, Preconcentration of metal ions from aqueous medium using partially pyrolyzed olive waste sorbents. *The 8th Jordanian Chemical Conference*, 21st April 2008, organized by Jordanian Chemical Society, In cooperation with Petra University.
 - 3) Randa Al-As`ad, Amjad H. El-Sheikh, Yahya S. Al-Degs, Jamal A. Sweileh. Simple microwave and ultrasound assisted digestion procedure of phosphate rock. *The 9th Jordanian chemical conference*, 28th April 2009, organized by Jordanian Chemical Society, In cooperation with the Hashemite University.
 - 4) Rasha W. Al-Quse, **Amjad H. El-Sheikh**, Mosa I. Al-Barghothy, Effect of derivatization of phenols on their selective solid phase extraction (SPE) from water using molecularly imprinted polymers (MIP), *The 9th Jordanian Chemical Conference*, 28th April 2009, organized by Jordanian Chemical Society, In cooperation with the Hashemite University.
 - 5) Maisa K. Al-Ja'fari, **Amjad H. El-Sheikh**, Jamal A. Sweileh, Effect of Dimensions and Oxidation of Carbon Nanotubes on Preconcentration of Phenols, *The 9th Jordanian Chemical Conference*, 28th April 2009, organized by Jordanian Chemical Society, In cooperation with the Hashemite University.
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Current Research

Selective solid phase extraction and preconcentration of organic and inorganic pollutants prior to their determination. This includes preparation and characterization of novel sorbents, mainly:

1. Multi-walled carbon nanotubes.
2. Lignocellulosic waste materials.
3. Molecularly imprinted polymers (MIP).

4. Magnetic solid phase extraction sorbents.

Supervising MSc Students

1) Main supervisor on **Ahmad Aql Insisi**, title of the thesis: "Development of preconcentration method for some pesticides in water samples using carbon nanotubes prior to their quantitative analysis", 2007.

2) Co-supervisor on **Maysoon Saleh**, title of the thesis: "The use of raw and partially pyrolyzed olive-related lignocellulosic material in pre-concentration of metal ions prior to atomic absorption spectrophotometer analysis", 2008.

3) Main supervisor on **Maisa Al-Jafari**, title of the thesis: "Development of a preconcentration method of phenols from aqueous medium", 2009.

4) Main supervisor on **Rasha Al-Quse**, title of the thesis: "The effect of derivatization of phenols with 4-amino-anti-pyrine on their selective pre-concentration from aqueous medium using molecularly imprinted polymer", 2009.

5) Main supervisor on **Randa Al-As'ad**, title of the thesis: "Development of analysis methods of mercury in water and phosphate rock", 2009.

6) Co-supervisor on **Malek Abu-Helal**, title of the thesis: "Developing a new method for speciation of Cr(III) and Cr(VI) in environmental samples using olive tree byproducts", 2010.

7) Co-supervisor on **Sa'ed Taiseer Jaber**, title of the thesis: "Extraction of pesticides using date stones", 2010.

8) Main supervisor on **Abdullah Al-Zawahreh**, title of the thesis: "Development of new method for solid phase extraction of phenols from aqueous medium", 2011.

9) Co-supervisor on **Karema Misef**, title of the thesis: "Determination of aluminium concentration in traditional Jordanian meals and drinks", 2012

10) Co-supervisor on **Asma Abo Wardeh**, title of the thesis: "Quantification of melamine in dairy products", 2012

11) Co-supervisor on **Dooa Harb**, title of the thesis: "Quantification of amoxicillin in different drug formulations using multivariate calibration", 2016.

12) Co-supervisor on **Eman Abuo-Saa'leek**, title of the thesis: "Application of multivariate calibration for quantification of paracetamol, chlorpheniramine maleate and pseudoephedrine hydrochloride in a marketed formulation", 2016.

13) Co-supervisor on **Anas Awwad**, title of the thesis: "Evaluation of new multi-walled carbon nanotubes – titanium dioxide composites for environmental applications", 2016.

- 14) Co-supervisor on **Reema Omeir**, Title of the thesis: "Determination of paracetamol and diphenhydramine Hydrochloride Active Pharmaceutical Ingredients in a Commercial Formulation by multivariate calibration", 2017.
- 15) Co-supervisor on **Ammar Al-Asafrah**, Title of the thesis: "Assessment of food colorants usage in highly consumed foodstuffs in Jordan by application of different analytical techniques", 2017.
- 16) Co-supervisor on **Musab Al-Ghodran**, Title of the thesis: "Development of new method for determination of the active ingredients in cold and flu pharmaceutical formulation", 2017.
- 17) Main-supervisor on **Rawan Al-Salamin**, Title of the thesis: "Preparation and characterization of modified magnetic olive wood sorbents for magnetic solid phase extraction of some metal ions from aqueous medium", 2017
- 18) Main-supervisor on **Anwar Shdaifat**, Title of the thesis: "Deposition of titanium dioxide on magnetic Cypress wood for adsorption and magnetic solid phase extraction of some metal ions from aqueous medium", 2017.
- 19) Main-supervisor on **Dua'a Tahboub**, Title of the thesis: "Effect of adding Schiff base on extraction of metal ions from water using magnetic adsorbents ", 2018.
- 20) Main-supervisor on **Fayrouz Nofal**, Title of the thesis: "Preparation and Characterization of Schiff Base Modified Magnetic Sorbent for Solid Phase Extraction of Cadmium and Lead from Aqueous Medium", 2018.
- 21) Main-supervisor on **Rania Qawariq**, Title of the thesis: "The use of magnetic carbon nanotubes for solid phase extraction of some non-steroidal anti-inflammatory drugs (NSAID) from pharmaceutical-industrial wastewater", 2018.
- 22) Main-supervisor on **Hiba Al-Shamaly**, Title of the thesis: "Effect of adding chelating agents on extraction of heavy metals by magnetic adsorbents from aqueous medium ", 2019.
- 23) Main-supervisor on **Rami Freihat**, Title of the thesis: "The use of modified graphene for adsorption and magnetic solid phase extraction of phthalate products prior to their HPLC determination ", 2019.
- 24) Main-supervisor on **Esra Alayyan**, Title of the thesis: "Modification of magnetic carbon nanotubes with organic acids for extraction of metal ions from aqueous medium prior to their analysis", 2019.
- 25) Main-supervisor on **Haneen Kamal**, Title of the thesis: "Effect of adding non-steroidal anti-inflammatory drugs (NSAID) on adsorption of cadmium from water using magnetic graphene oxide", 2020.
- 26) Main-supervisor on **Amani Mansour**, Title of the thesis: "Effect of adding amino acids on adsorption of Cd from water by magnetic carbon nanotubes", 2020.

MSc examination member committee

-Internal examiner for the following MSc students:

- | | | |
|--------------------|-------------------|--------------------|
| 1) Asma Al-Mallah. | 4) Mona Al-Hindi. | 7) Manar Adi. |
| 2) Einas Radwan, | 5) Rajaa Maher. | 8) Amer Abdul-Aziz |
| 3) Firyal Jawdat. | 6) Amani Zghoul. | 9) Raed Ghnaim |

-External Examiner for the following MSc students:

- 1) Shareef Al-Humaidee - University of Jordan,
- 2) Ahmad Al-Shraa, Al'Albayt University,
- 3) Hiba Fraij, Al'Albayt University,
- 4) Samer Abu-rub, Al'Albayt University,
- 5) Rasha Abu-Eid, University of Jordan.