

CURRICULUM VITAE



Personal Information:

Name: Ayman Abdulla Issa.
Date of Birth: 19.05.1970.
Marital Status: Married.
E-mail: aymani@hu.edu.jo
Home Page: <http://staff.hu.edu.jo/aymani>

Education:

- **Ph.D** in Analytical Chemistry, 2000, University of Jordan, Amman, Jordan.
 - Grade: 3.56 out of 4 (Very Good).
 - **Thesis Title:** “Preparation and Utilization of Electrodes Modified with Microporous Metal-Organic Networks in Electroanalysis and Electrocatalysis”
- **M.Sc.** in Physical Chemistry, 1995, University of Jordan, Amman, Jordan.
 - Grade: 84.5% (Excellent).
 - **Thesis Title:** “Thermodynamics of Dissociation of Boric Acid and Potassium Hydrogen Phthalate in Aqueous Acetonitrile Mixtures”
- **B.Sc.** in Chemistry, 1991, Yarmouk University, Irbid, Jordan.
 - Grade: 84.5% (Excellent).
- **General Secondary Certificate**, 1987, Irbid Secondary School, Jordan.
 - Grade: 90.9%.

Experience:

<u>Place of Work</u>	<u>Post</u>	<u>Period</u>
Hashemite University	Associate Prof.	Feb, 2011 – now.*
	Assistant Prof.	Jan, 2003 – Feb, 2011.
	Lecturer	Oct, 2000 – Dec, 2002.
	Teaching Assistant	Sep, 1995 – Nov, 1998.
Jordan University of Science and Technology	Part-Time Lecturer	Jan, 1995 – Sep, 1995

* Al-Hussein Bin Talal University – Two Sabbatical years 2012/2013 and 2013/2014

Courses:

- General Chemistry.
- Analytical Chemistry.
- Analytical Chemistry 2 (Al-Hussein Bin Talal Univ.).
- Practical General Chemistry.
- Practical Analytical Chemistry.
- Instrumental analysis.
- Instrumental Analysis 2 (Al-Hussein Bin Talal Univ.).
- Practical Instrumental analysis.
- Electroanalytical Chemistry.
- Special Topics in Pharmaceutical Analytical Analysis and Analytical Process Validation.
- Special Topics in Electroanalytical Chemistry
- Analysis in Industry. (Blackboard/Moodle Course – with a practical part)

- Advanced Instrumental Analysis (for graduate students).
- Electroanalytical Chemistry (for graduate students).
- Special Topics in Electroanalytical Chemistry (for graduate students)

These courses are during my work in Hashemite University after the PhD degree.

Training Courses:

- Validation in Pharmaceutical Industry. This course was given in VAPCO to employees working in QC, QA, and R&D departments. Sep, 2001.
- Instrumental Analysis training course. This course was given in Hashemite University for employees of different Jordanian companies in QA and QC departments. Sep. 2001.
- Advanced course in Validation in Pharmaceutical Industry. This course was given in VAPCO to employees working in QC, QA, and R&D departments, which included total process validation for their drug products. Sep, 2002.

These courses were arranged with the cooperation of the Center for Studies, Consultations & Community Service in Hashemite University.

Areas of Research Intesrest:

- Modified Eelectrodes.
- Electroanalysis.
- Environmental Studies.
- Application of natural Jordanian silicate adsorbents and microwave heating (zeolite, clay, diatomite) in metals and organics adsorption and separation.
- Application of Multivariate Calibration methods in food and environment.

Publications:

1. **Ayman A. Issa**, Yahya S. Al-Degs, Amjad H. El-Sheikh, Anas Y. Al-Reyahi, Ramia Z. 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*. (DOI:10.1002/clen.201600333), 2017.
2. Mohammad A. Al-Ghouti, Yahya S. Al-Degs, **Ayman A. Issa**, Ramia Z. Al Bakain, Majeda A. Khraisheh. Mechanistic and Adsorption Equilibrium Studies of Dibenzothiophene-Rich-Diesel on MnO₂-loaded-Activated Carbon: Surface Characterisation. *Environmental Progress & Sustainable Energy*. (DOI 10.1002/ep.12539), 2017.
3. Mahmoud Abu-Ghoush, Ismail Fafous, Yahya Al-Degs, Murad Al-Holy, **Ayman A. Issa**, Anas Y. Al-Reyahi, Abdel Aziz Alshathri. Application of Mid-Infrared spectroscopy and PLS-Kernel Calibration for Quick Detection of Pork in High Value Meat Mixes. *Journal of Food Measurement & Characterization*., **11**(1), 337-346, 2016.
4. **A.A. Issa**, H. M. Abdel-Halim, Y.S. Al-Degs, H.A. Al-Masri. Application of Multivariate Calibration for Studying Competitive Adsorption of Two Problematic Colorants on Acid Activated-Kaolinitic Clay. *Research on Chemical Intermediates*, **43**(1), 523-544, 2016.
5. Mohammad A. Al-Ghouti, **Ayman A. Issa**, Bety S. Al-Saqarat, Anas Y. Al-Reyahi, Yahya S. Al-Degs. Multivariate Analysis of Competitive Adsorption of Food Dyes by Activated Pine Wood. *Desalination and Water Treatment*, **57**(57), 27651-27662, 2016.
6. Mahmoud Salman, **Ayman A. Issa**, Ibrahim Sarairaha and Abdel Aziz Abu-Yamin. Synthesis and Spectroscopic Characterization of Tris(hydroxymethyl)aminomethane Proton Transfer Complexes with Acidic π -Acceptors. *Jordan Journal of Chemistry*, **11**(2), 85-99, 2016.
7. **Ayman A. Issa**, Yahya S. Al-Degs, Kholoud Mashal and Ramia Z. Al Bakain. “Fast Activation of Natural Biomasses by Microwave Heating”. *Journal of Industrial Engineering Chemistry*, **21**, 230-238, 2015.
8. R. Z. Al Bakain¹, Y. S. Al-Degs, **A. A. Issa**, S. A. Jawad, K. A. Abu Safieh and M. A. Al-Ghouti. “Activation of Kaolin with Minimum Solvent Consumption by Microwave Heating”. *Clay Minerals*, **49**(5), 667-681, 2014.
9. **Ayman A. Issa**, Yahya S. Al-Degs, Mohammad A. Al-Ghouti and Amal A. Olimat. “Studying Competitive Sorption Behavior of Methylene Blue and Malachite Green using Multivariate Calibration”. *Chemical Engineering Journal*, **240**(15), 554-564, 2014.
10. 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**, 1647-1655, 2012.
11. Adnan Abu-Surrah, Khalid A. Ibrahim, Maher Y. Abdalla, and **Ayman A. Issa**, “Pentacoordinated iron(II) Complexes with 2,6-bis[(imino)ethyl]pyridine-Schiff base Ligands as New Catalyst Systems Mediated Atom Transfer Radical Polymerization of (meth)acrylate Monomers”, *Journal of Polymer Research*, Published online. (DOI 10.1007/s10965-010-9391-7), Jan, 2010.

12. **Ayman A. Issa** and Yahya S. Al-Degs, "Simple Spectrophotometric Determination of Reactive Dyes after Preconcentration using Activated Carbon". *Jordan Journal of Chemistry*, **4**, 89-101, 2009.
13. **Ayman A Issa**, Yahya S. Al-Degs and Nancy Al-Rabady, "Selective Electrochemical Detection of Toxic Heavy Metals at Ultra Trace Levels using Natural Clay-Modified-Pt Electrode", *Eurasian Journal of Analytical Chemistry*, **4**, 245-256, 2009.
14. M. I. El-Barghouthi, C. Jaime, R. E. Akieleh, N. A. Al-Sakhen, N. M Masoud, **A. A. Issa**, A. A. Badwan and M. B. Zughul, "Free Energy Perturbation Studies on Inclusion Complexes of some Structurally Related Compounds with β -Cyclodextrin", *Supramolecular Chemistry*, **21**, 603-610, 2009.
15. **Ayman. A. Issa**, Yahya. S. Degs, and Nancy. S. Rabadi, "Deposition of Two Natural Clays on Platinum Surface using Potentiostatic and Spin-Coating Techniques: A Comparative Study", *Clay Minerals Journal*, **43**, 501-510, 2008.
16. M. I. El-Barghouthi, C. Jaime, N. A. Al-Sakhen, **A. A. Issa**, A. A. Abdoh, M. M. Al Omari, A. A. Badwan and M. B. Zughul, "Molecular Dynamics Simulations and MM-PBSA Calculations of the Cyclodextrin Inclusion Complexes with 1-alkanols, para Substituted Phenols and Substituted Imidazoles", *Journal of Molecular Structure: THEOCHEM*, **853**, 45-52, 2008.
17. Y. S. Al-Degs, M. I. El-Barghouthi, **A. A. Issa**, M. Khraisheh. and G. Walker, "Sorption of Zn(II), Pb(II), and Co(II) Using Natural Sorbents: Equilibrium and Kinetic Studies", *Water Research*, **40**, 2645-2658, 2006.
18. H. M. Abdel-Halim, **A. A. Issa**, and A. S. Abu-Surrah, "A Model to Evaluate Solubility of Sparingly Soluble Salts in Electrolytes' Solutions", *Asian Journal of Chemistry*, **17**, 525-535, 2005.
19. **A. A. Issa** and M. Hourani, "Selective Analysis of Copper and Silver Ions using Electrodes Modified with Zinc(II)-Benzenetricarboxylate Networks", Proceedings of *International Congress of Chemistry and Environment*, by *Res. J. Chem. Env.*, 219-227, 2005.
20. F. Khalili and **A. A. Issa**, "Thermodynamics of the Dissociation of Boric Acid and Potassium Hydrogen Phthalate in Aqueous Acetonitrile Mixtures", *Annali di Chimica*, **86**, 193-203, 1996.

Thesis Supervision:

1. Student: Nancy Rabadi
Supervisor
Year of defence: 2007
Title (MSc Thesis): Preparation and Utilization of Electrodes Modified with Naturally-Occurring Jordanian Silicates.
2. Student: Nada Al-Sakhen
Co-Supervisor
Year of defence: 2007
Title (MSc Thesis): Preparation and Utilization of Electrodes Applying Molecular Dynamic Simulations based on the Continuum Solvation Model.
3. Student: Amal Olimat
Supervisor
Year of defence: 2012
Title (MSc Thesis): Preparation and Utilization of Electrodes Modified with Naturally-Occurring Jordanian Clays in Electroanalysis, Based on their Adsorptive Properties Studies.
4. Student: Huda Al Masri
Co-Supervisor
Year of defence: 2015
Title (MSc Thesis): Kinetic Study of Competitive Adsorption of Food Colorants on Natural Jordanian Clay.
5. Student: Muna Al Hendi
Supervisor
Year of defence: 2016
Title (MSc Thesis): Activation of Natural Jordanian Clay by Different Activators to Enhance Adsorption of Pollutants from Solution.

Conferences: (Oral and Poster Presentation)

1. 2nd International Congress of Chemistry and Environment, Indore, India, 2005.
2. Malaysian International Symposium on Analytical Sciences (SKAM-20) as part of 12ACC conference, Kuala Lumpur, Malaysia, 2007.
3. Poster: 7th Jordanian chemical conference, Mu`ta University, 2007.
4. 4th International Congress of Chemistry and Environment, Ubonratchathani , Thailand, 2010
5. Eurasia Conference on Chemical Sciences-11, (Eurasia-11), the Dead Sea, Jordan, 2010
6. Eurasia Conference on Chemical Sciences-12, (Eurasia-12), Corfu, Greece, 2012.
7. Poster: International Conference of Young Chemists, Amman, Jordan, 2012
8. 15th Asian Chemical Congress (15ACC), Sentosa, Singapore, 2013.

Awards:

- **Comstech Award:** IUPAC Award for Oral presentation of the Environmental and Green Chemistry session in the 12th Eurasia Conference on Chemical Sciences (Eurasia-12), Corfu, Greece, 2012.

Other Skills and Experiences:

- Excellent skills in both software and hardware management.
- Excellent experience in software packages such as MS products and other packages.
- Very good experience in networking and web-design.

Committees in Hashemite University: -Since 2000

- Academic courses outline planning committee / Faculty of Science – Member
- Faculty representative for the academic courses planning committee in Hashemite University – Member.
- Examinations and schedules committee / Faculty of Science – Member.
- Faculty website development and updating committee / Faculty of Science – Head
- Department representative in Faculty of Science Council – 2 years.
- Computer and software committee / Chemistry Department – Head.
- Academic courses outline planning committee / Chemistry Department – Head.
- Graduate studies and scientific research committee / Chemistry Department – Member.
- Examinations and schedules committee / Chemistry Department – Head.
- Public safety committee / Chemistry Department – Member.
- Community service committee / Chemistry Department – Head.
- Academic Supervisor – Undergraduate students.

Address: Hashemite University
Faculty of Science
Chemistry Department.
POBox 330001-Zarka-13133
Jordan

Phones: +962-5-382-6600 ext 4504 (O)
+962-777-355-148 (M)