**Ahmad Aqel Abdelfattah Ifseisi**

Assistant Professor;

Advanced Materials Research Chair

Chemistry Department

College of Science

King Saud University

Work Tel.: +966 1 4674198

Fax: +966 14675992

P.O. Box 2455 Riyadh 11451 Saudi Arabia

Mobile: +966 505284007 (SA)

+962 796855576 (JOR)

Email: [aifseisi@ksu.edu.sa](mailto:aifseisi@ksu.edu.sa)

ahmad3qel@yahoo.com

Web Site: http://fac.ksu.edu.sa/aifseisi

Place & Date of Birth: Kuwait, 21th of Dec. 1982

Nationality: Jordanian

**Ahmad Aqel**

Author and Coauthor of more than **30** scientific contributions;

**8** original papers, **2** review articles, **1** patent, **2** book chapters

and **21** presentations in local and international conference proceedings

**EDUCATION**

**Oct/2008 – Nov/2012 …**

King Saud University, (Riyadh – Saudi Arabia):-

**Ph.D.** in Analytical Chemistry.

Rated as Excellent grade (4.74 / 5).

Thesis Title: "Preparation and Characterization of Novel Capillary Monolithic Columns and Application on a Modified Liquid Chromatograph".

Supervisor: Prof. Abdulrahman A. Alwarthan.

Co-supervisors: Prof. Ahmed-Yacine Badjah-Hadj-Ahmed,

Dr. Zeid A. ALOthman.

**Oct/2005 – Jan/2008 …**

The Hashemite University, (Zarqa – Jordan):-

**M.Sc.** in Analytical Chemistry.

Rated as Excellent grade (3.72 / 4).

Thesis Title: "Development of Preconcentration Method for Some Pesticides in Water Samples Using Carbon Nanotubes Prior to High Performance Liquid Chromatographic Analysis".

Supervisor: Dr. Amjad H. El-Sheikh.

Co-supervisor: Dr. Jamal A. Sweileh.

**Oct/2001 – Jun/2005 …**

The Hashemite University, (Zarqa – Jordan):-

**B.Sc.** in Chemistry major.

Rated as Very Good grade (3.26 / 4).

**EMPLOYMENT HISTORY**

**Jul/2013 – Present …**

Assistant Professor, Chemistry Department, College of Science, King Saud University, Riyadh, Kingdom of Saudi Arabia.

**Jan/2013 – Present …**

Researcher, Advanced Materials Research Chair, Chemistry Department, College of Science, King Saud University, Riyadh, Kingdom of Saudi Arabia.

**Oct/2008 – Jul/2013 …**

Researcher, King Abdullah Institute for Nanotechnology (KAIN), King Saud University, Riyadh, Kingdom of Saudi Arabia.

**Mar/2008 – Aug/2008 …**

Researcher, Chemistry Department, The Hashemite University, Zarqa, Jordan.

**Oct/2005 – Oct/2007 …**

Teaching Assistant, Chemistry Department, The Hashemite University, Zarqa, Jordan.

**EXPERIENCE**

* Proposal and supervision of yearly theoretical and practical trainings on chromatography techniques in cooperation with the Chemistry Department and Saudi Chemical Society at King Saud University, since 2013.
* Several theoretical and practical trainings as follows:
* Practical training on Waters AcquityTM Ultra Performance LC - Tandem Quadrapole Detector TQD, with MassLynx software, King Saud University, College of Science, Department of Chemistry, (Apr. 4–6, 2010).
* Theoretical and practical training on Thermo Scientific Trace GC Ultra / FID and TCD, with ChromCard software, King Saud University, College of Science, Department of Chemistry, (Mar. 20–24, 2010).
* Theoretical and practical training on Thermo Scientific Finnigan Surveyor HPLC, with ChromQuest software, King Saud University, College of Science, Department of Chemistry, (Mar. 6–10, 2010).
* The major techniques and instruments used during the course of research work are as follows:

**HPLC`s …**

* Waters Acquity TM Ultra Performance LC (with MassLynx software).
* Thermo Scientific Finnigan Surveyor (with ChromQuest software).
* UFLC Shimadzu Prominence LC-20AD (with LCsolution software).
* Shimadzu LC-6A.
* Perkin Elmer 785A LC Plus system.

**GC`s …**

* Thermo Scientific TSQ Quantum GC-MS (with Xcalibur software).
* Thermo Scientific Trace GC Ultra / FID and TCD (with ChromCard software).
* GC Hewlett Packard.

**Others …**

Packing Machine, Spectrophotometer, UV/VIS spectrometer, Atomic Absorption Spectrometer, Inductive Coupled Plasma, Surface Area Analyzer, Solid Phase Extraction and Microextraction Processors, FT-IR Spectrometer, Flame Photometer, Freezing Point device, Polarimeter, Refractometer, Calorimeter, Conductivity meter and pH meters.

**TEACHING EXPERIENCE**

**Theoretical Courses …**

* General chemistry.
* Fundamentals of analytical chemistry.
* Instrumental analysis.
* Chemical separation & chromatographic methods.

**Laboratory Courses …**

* General chemistry.
* Engineering chemistry.
* Basic analytical chemistry.
* Instrumental methods of analysis.
* Industrial analysis.
* Physical chemistry.

**AWARDS AND PRIZES**

* King Saud University award for scientific excellence, Riyadh - Saudi Arabia, 2014.
* A fully-funded fellowship for POC2012 IUPAC conference, Qatar Petroleum Company QAPCO, Doha - Qatar, 2012.
* Vice-rectorate for graduate studies and research prize for the excellence scientific research in the King Saud University, Riyadh - Saudi Arabia, 2011.
* A fully-funded Ph.D. scholarship, King Abdullah Institute for Nanotechnology, King Saud University, Riyadh - Saudi Arabia.
* The distinct and creator students prize, Hashemite University, Zarqa - Jordan, 2008.
* A fully-funded M.Sc. scholarship, Hashemite University, Zarqa - Jordan.

**GRANTS PROJECTS**

* 2012/2013, Project number ST/2013/20, Dae'em program (Research center) King Saud University, 20,000 SR (5400 USD).

Project title: Preparation and characterization of capillary monolithic columns for liquid chromatographic applications

* 2009/2010, Project number 3/2/163933, Vice Rectorate for Graduate Studies and Scientific Research, King Saud University, 25,000 SR (6600 USD).

Project title: Development and application of novel capillary monolithic columns for capillary chromatography.

**AREAS OF RESEARCH INTERESTS**

**General Research Areas …**

* Analytical chemistry.
* Chromatography research.
* Environmental and pharmaceutical analysis.
* Analytical methods development.

**Specific Research Areas …**

* Preparation and development of chromatographic columns (packed and capillary types).
* Solid-phase extraction, microextraction and preconcentration of trace organic and inorganic samples using new adsorbents.
* Sample treatment, separation, purification and characterization of organic and inorganic species.
* Selective preconcentration of environmental and other samples by using carbon nanotubes, activated carbon and newly modified adsorbents.

**REFERENCES AND CONTACT PERSONS**

* Prof. Ahmed-Yacine Badjah-Hadj-Ahmed (Professor, King Saud University)

E-mail: [ybadjah@ksu.edu.sa](http://us.mg5.mail.yahoo.com/yab-fe/mu/MainView?.src=neo&themeName=green&stab=1336077423637), [ybadjah@hotmail.com](http://us.mg5.mail.yahoo.com/yab-fe/mu/MainView?.src=neo&themeName=green&stab=1336077423637).

* Prof. Abdulrahman A. Alwarthan (Professor, King Saud University)

E-mail: [awarthan@ksu.edu.sa](mailto:awarthan@ksu.edu.sa).

* Dr. Amjad H. El-Sheikh (Associate Professor, Hashemite University)

E-mail: [elsheikh@hu.edu.jo](mailto:elsheikh@hu.edu.jo).

* Dr. Zeid A. ALOthman (Associate Professor, King Saud University)

E-mail: zaothman@ksu.edu.sa.

* Dr. Ismail I. Fasfous (Assistant Professor, Hashemite University)

E-mail: ismailf[@hu.edu.jo](mailto:jsweileh@hu.edu.jo).

**LIST OF PUBLICATIONS**

**I. Submitted Manuscripts …**

[**5**] **Ahmad Aqel**, Asma’a Al-Rifai, Amani Awad, Zeid A. ALOthman, Analysis of quercetin and kaempferol in alcoholic extract of Convolvulus pilosellifolius using HPLC.

[**4**] Eman Al-Damegh, **Ahmad Aqel**, Zeid A. ALOthman, Chemically modified silica gel with aminohydrazinopyrazole for preconcentration and determination of Cu(II), Cd(II) and Hg(II).

[**3**] **Ahmad Aqel**, Eman Al-Damegh, Zeid A. ALOthman, Functionalization of silica gel with aminoazole derivatives for determination of copper and cadmium by flame atomic absorption spectrometry.

[**2**] **Ahmad Aqel**, Kareem Yusuf, Zeid ALOthman, Yacine Badjah-Hadj-Ahmed, Incorporation of sporopollenin particles into polymethacrylate based monolithic capillary columns to be use as templates for HPLC separations.

[**1**] **Ahmad Aqel**, Hessa Alshemari, Zeid A. ALOthman, Preparation and evaluation of high porous poly(2-ethylhexyl methacrylate-co-ethylene glycol dimethacrylate) monolithic columns for fast separation of small molecules.

**II. Original Papers …**

[**8**] Abdulrhman M. Dhabbah, Sultan N. Al-Jaber, Ahmad H. Al-Ghamdi, **Ahmad Aqel**, Determination of gasoline residues on carpets by SPME-GC-MS technique, The Arabian Journal for Science and Engineering, 39 (2014) 6749–6756 (IF: 0.385, 2012).

[**7**] **Ahmad Aqel**, Zeid A. ALOthman, A. Yacine Badjah-Hadj-Ahmed, Kareem Yusuf, Abdulrahman A. Alwarthan, Preparation and evaluation of benzyl methacrylate monoliths for capillary chromatography, Journal of Chromatographic Science, 52 (2014) 201–210 (IF: 0.794, 2012).

[**6**] Kareem Yusuf, **Ahmad Aqel**, Zeid A. Al-Othman, A. Yacine Badjah-Hadj-Ahmed, Preparation and characterization of alkyl methacrylate-based monolithic columns for capillary gas chromatography applications, Journal of Chromatography A, 1301 (2013) 200–208 (IF: 4.612, 2012).

[**5**] **Ahmad Aqel**, Kareem Yusuf, Zeid A. Al-Othman, A. Yacine Badjah-Hadj-Ahmed, Abdulrahman A. Alwarthan, Effect of multi-wall carbon nanotubes incorporation to benzyl methacrylate monolithic columns in capillary liquid chromatography, Analyst 137 (2012) 4309–4317 (IF: 4.230, 2011).

[**4**] Zeid A. Al-Othman, **Ahmad Aqel**, Muteb K.E. Al Badrani, A. Yacine Badjah-Hadj-Ahmed, Abdulrahman A. Alwarthan, Fast chromatographic determination of caffeine in food using a capillary hexyl methacrylate monolithic column, Food Chemistry 132 (2012) 2217–2223 (IF: 3.655, 2011).

[**3**] Zeid A. Al-Othman, **Ahmad Aqel**, Hadeel A. Al Abdelmoneim, A. Yacine Badjah-Hadj-Ahmed, Abdulrahman A. Alwarthan, Preparation and evaluation of long chain alkyl methacrylate monoliths for capillary chromatography, Chromatographia 74 (2011) 1–8 (IF: 1.075, 2010).

[**2**] 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 (IF: 3.374, 2007).

[**1**] 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 (IF: 3.096, 2006).

**III. Review Articles …**

[**2**] Kareem Yusuf, **Ahmad Aqel**, Zeid ALOthman, Metal organic frameworks in chromatography, Journal of Chromatography A, 1348 (2014) 1–16 (IF: 4.612, 2013).

[**1**] **Ahmad Aqel**, Kholoud M. M. Abou El-Nour, Reda A. A. Ammar, Abdulrahman Alwarthan, Carbon nanotubes, science and technology part (I): structure, synthesis and characterization, Arabian Journal of Chemistry 5 (2012) 1–23 (IF: 1.367, 2011).

**IV. Patents …**

[**1**] Abdulrahman Alwarthan, A. Yacine Badjah-Hadj-Ahmed, Zeid A. Al-Othman, **Ahmad Aqel**, Sample and flow splitter for micro and nano LC, Liquid Chromatography Device, Patent Application EP 12154228.6 - 2204, 2012, EPO FB26211.

**V. Chapters in Books …**

[**2**] **Ahmad Aqel**, Kareem Yusuf, Asma’a Al-Rifai, Zeid A. ALOthman, Vitamin analysis in food by UPLC-MS, Ultra Performance Liquid Chromatography Mass Spectrometry: Evaluation and Applications in Food Analysis (edited by: Mu. Naushad; M. R. Khan), CRC Press, Taylor & Francis Group, New York, USA, 2014.

[**1**] Kareem Yusuf, **Ahmad Aqel**, Ayman Abdel Ghfar, Zeid A. ALOthman, UPLC-MS as an analytical tool for the determination of aflatoxins in food, Ultra Performance Liquid Chromatography Mass Spectrometry: Evaluation and Applications in Food Analysis (edited by: Mu. Naushad; M. R. Khan), CRC Press, Taylor & Francis Group, New York, USA, 2014.

**VI. Conferences & Symposiums …**

[**21**] **Ahmad Aqel**, Kareem Yusuf, Zeid ALOthman, Amro Dyab, Yacine Badjah-Hadj-Ahmed, Using of sporopollenin microparticles to enhance the liquid chromatographic separation of ketonic molecules. 41th International Symposium on High Performance Liquid Phase Separations and Related Techniques (P-M-0505) May 11–15 (2014), New Orleans, Louisiana, USA.

[**20**] Kareem Yusuf, **Ahmad Aqel**, Yacine Badjah-Hadj-Ahmed, Zeid ALOthman, Preparation of novel functional polymeric monoliths for specific capillary liquid chromatographic separations. 41th International Symposium on High Performance Liquid Phase Separations and Related Techniques (P-M-0504) May 11–15 (2014), New Orleans, Louisiana, USA.

[**19**] Zeid A. ALOthman, **Ahmad Aqel**, Kareem Yusuf, A. Yacine Badjah-Hadj-Ahmed, Abdulrahman A. Alwarthan, Effect of polymeric mixture composition on porous and chromatographic properties of monolithic benzyl methacrylate-based capillary columns. 5th International Chemistry Conference – Chemistry for Durable Globe and Society Welfare (26–29, Apr. 2014) Abha, Kingdom of Saudi Arabia.

[**18**] **Ahmad Aqel**, Kareem Yusuf, Zeid ALOthman, Yacine Badjah-Hadj-Ahmed, Preparation, characterization and application of methacrylate monolithic columns for capillary liquid chromatography. 39th International Symposium on High Performance Liquid Phase Separations and Related Techniques (PO. MONO 02\_TU) June 16–20 (2013), Amsterdam, The Netherlands.

[**17**] Kareem Yusuf, **Ahmad Aqel**, Amro Dyab, Zeid ALOthman, Yacine Badjah-Hadj-Ahmed, Incorporation of sporopollenin particles into polymethacrylate based monolithic capillary columns to be use as templates for HPLC separations. 39th International Symposium on High Performance Liquid Phase Separations and Related Techniques (PO. MONO 23\_TU) June 16–20 (2013), Amsterdam, The Netherlands.

[**16**] Hessa K. Al-Shammari, **Ahmad Aqel**, Zeid A. ALOthman, Stearyl methacrylate monolithic capillary columns, preparation, characterization and qualitative analysis of drugs. 1st Chemistry Students Meeting, (Apr. 30 – May. 1, 2013), King Saud University, Riyadh, Saudi Arabia.

[**15**] Hadeel A. Al-Abdelmoneim, Zeid A. ALOthman, **Ahmad Aqel**, Long chain alkyl methacrylate monolithic columns for capillary liquid chromatography. 1st Chemistry Students Meeting, (Apr. 30 – May. 1, 2013), King Saud University, Riyadh, Saudi Arabia.

[**14**] Eman Al-Damegh, Zeid A. ALOthman, **Ahmad Aqel**, Functionalization of silica gel with aminoazole derivatives for determination of copper and cadmium by flame atomic absorption spectrometry. 1st Chemistry Students Meeting, (Apr. 30 – May. 1, 2013), King Saud University, Riyadh, Saudi Arabia.

[**13**] **Ahmad Aqel**, Development and application of methacrylate monolithic columns for capillary liquid chromatography, 7th Singapore international chemical conference and 12th Asia-Pacific international symposium on capillary electrophoresis and microscale separation and analysis – SICC7 (Dec. 16–19, 2012) National University of Singapore, Singapore.

[**12**] Abdulrahman A. Alwarthan, **Ahmad Aqel**, Incorporation of carbon nanotube into organic polymer monolithic columns for capillary liquid chromatography, Hybrid and organic photovoltaics conference - nanoGe (HOPV2012), PO 79 (May. 6–9, 2012), Uppsala, Sweden.

[**11**] **Ahmad Aqel**, Kareem Yusuf, Zeid A. Al-Othman, Ahmed Y. Badjah-Hadj-Ahmed, Abdulrahman A. Alwarthan, Incorporation of multi-walled carbon nanotube into organic polymer monolithic columns for capillary liquid chromatography, The 14th international union of pure and applied chemistry conference on polymers and organic chemistry (POC2012), PO 123 (Jan. 6–9, 2012), Doha, Qatar.

[**10**] **Ahmad Aqel**, Development and application of capillary monolithic columns for liquid chromatography, The 4th international chemistry conference - chemistry and its role and application in development (Nov. 19–21, 2011) King Saud University, Riyadh - Saudi Arabia.

[**9**] **Ahmad Aqel**, Kareem Yusuf, Zeid A. Al-Othman, Ahmed Y. Badjah-Hadj-Ahmed, Abdulrahman A. Alwarthan, Preparation, characterization and application of benzyl methacrylate capillary monolithic columns, The 4th international chemistry conference - chemistry and its role and application in development. POA 19 (Nov. 19–21, 2011), King Saud University, Riyadh - Saudi Arabia.

[**8**] Kareem Yusuf, **Ahmad Aqel**, Ahmed Y. Badjah-Hadj-Ahmed, Zeid A. Al-Othman, Preparation, characterization and application of polyalkyl methacrylate monolithic columns in gas chromatography, The 4th international chemistry conference - chemistry and its role and application in development. POA 29 (Nov. 19–21, 2011), King Saud University, Riyadh - Saudi Arabia.

[**7**] **Ahmad Aqel**, Hadeel A. Al Abdelmoneim, Ahmed Y. Badjah-Hadj-Ahmed, Zeid A. Al-Othman, Abdulrahman A. Alwarthan, Preparation, characterization and application of alkyl methacrylate monolithic columns for capillary chromatography, First United Arab Emirates conference on pure and applied chemistry (ECPAC11). PO 020 (Mar. 1–3, 2011), American University of Sharjah, Sharjah, United Arab Emirates.

[**6**] Kareem Yusuf, **Ahmad Aqel**, Zeid A. Al-Othman, Ahmed Y. Badjah-Hadj-Ahmed, Abdulrahman A. Alwarthan, Stearyl methacrylate monolithic capillary column preparation, characterization and qualitative analysis of drugs, First United Arab Emirates conference on pure and applied chemistry (ECPAC11). PO 199, (Mar. 1–3, 2011), American University of Sharjah, Sharjah, United Arab Emirates.

[**5**] **Ahmad Aqel**, Preparation and characterization of capillary hexyl methacrylate monolithic column and application in rapid determination of caffeine in food samples, KSU 2nd Students Scientific Symposium, (Dec. 15–16, 2010). King Saud University, Riyadh - Saudi Arabia.

[**4**] Zeid A. Al-Othman, Hadeel A. Al Abdelmoneim, **Ahmad Aqel**, A. Yacine Badjah-Hadj-Ahmed, Abdulrahman Alwarthan, Alkyl polymethacrylate monolithic columns for capillary liquid chromatography, The 34th international symposium on capillary chromatography (ISCC) and 7th GCxGC symposium, PO F.08 (May. 30 – June. 4, 2010). Riva Del Garda - Italy.

[**3**] Ahmed Y. Badjah-Hadj-Ahmed, Zeid A. Al-Othman, **Ahmad Aqel**, Metaab Al-Badrani, Abdulrahman A. Alwarthan, Rapid analysis and determination of caffeine in some food samples using capillary hexyl methacrylate monolithic column, The 34th international symposium on capillary chromatography (ISCC) and 7th GCxGC symposium, PO F.07 (May. 30 – June. 4, 2010). Riva Del Garda - Italy.

[**2**] **Ahmad Aqel**, Development and application of nanoscale chromatographic techniques, King Saud University Students Research Conference (KSUSRC). (Dec. 9–10, 2009), King Saud University, Riyadh - Saudi Arabia.

[**1**] **Ahmad A. Insisi**, Amjad H. El-Sheikh, Jamal A. Sweileh, Solid phase extraction of pesticides from water samples using oxidized carbon nanotubes, The 8th Jordanian chemical conference (JCC). PO 5 (Apr. 21, 2008), Petra University, Amman - Jordan.