

## Curriculum Vitae

First name: **Ahmed-Yacine**  
Family name: **BADJAH-HADJ-AHMED**  
Date of birth: June 2<sup>nd</sup> 1953  
Birth place: Algiers, Algeria  
Marital status: married, 4 children  
Permanent address: 5 Mohamed KHELIL Street  
16008 Hussein-Dey , Algiers, Algeria  
Phone (home): 00966540300679  
Email: [ybadjah@hotmail.com](mailto:ybadjah@hotmail.com), ybadjah@ksu.edu.sa  
Work address: King Saud University, College of Science, Department of Chemistry  
P.O. Box 2455, 11451 Riyadh, Kingdom of Saudi Arabia

### **Academic Qualifications**

- \* Doctorate thesis in applied organic chemistry, June 1987, Chemistry Institute, University of Sciences and Technology Houari Boumediene (U.S.T.H.B.), Algiers, Algeria
- \* Magister thesis in applied organic chemistry, July 1978, University of Algiers
- \* High Studies Diploma (D.E.S.) in organic chemistry, June 1975, University of Algiers
- \* Baccalaureat, mathematics (Secondary G.C.E.), June 1971, Algiers

### **Professional positions**

- ☆ Professor at King Saud University, College of Science, Department of Chemistry since September 2007
- ☆ Professor at University of Science and Technology Houari Boumediene of Algiers (Algeria) from 1993 to 2007
- ☆ Associate Professor at University of Science and Technology Houari Boumediene of Algiers (Algeria) from 1987 to 1993
- ☆ Assistant Professor at University of Science and Technology Houari Boumediene of Algiers (Algeria) from 1975 to 1987

### **Taught University Courses**

- \* Analytical chemistry
- \* General chemistry

- \* Organic chemistry
- \* Chromatographic methods of separation
- \* Analytical spectroscopic techniques
- \* Environmental chemistry

### **Field Training Courses**

- ☆ Theoretical and practical training course on “Analysis of Fire Debris and Toxic Compounds by Chromatographic Techniques ” for Saudi Civil Defense Officers, Saudi Chemical Society at King Saud University, College of Science, Chemistry Department (12 participants), December 2013 to March 2014
- ☆ Theoretical and practical training course on “High Performance Liquid Chromatography” and “Gas Chromatography” for Saudi Chemical Society at King Saud University, College of Science, Chemistry Department, from 2008 to 2014
- ☆ Theoretical and practical training course on “Analysis of Toxic Compounds and Drugs”, King Fahd Security College, Riyadh, 19-25 January 2010
- ☆ Theoretical and practical training course on “Application of GC/MS in Drugs Analysis”, General Directorate of Narcotics Control, Riyadh, June 2008
- ☆ Theoretical and practical training course on “Drug Analysis and Quality Control” for Sidal Pharmaceutical Company (Algeria): from 2001 to 2007

### **Research Fields**

- \* Natural products extraction and analysis: essential oils, plant extracts, food, additives, quality control
- \* Analysis of various organic pollutants and their residues: hydrocarbons, pesticides, PCBs
- \* Capillary column preparation for high resolution gas chromatography
- \* Preparation, characterization and application of capillary monolithic columns for micro and nano-LC
- \* Column packing for high performance liquid chromatography
- \* Application of liquid crystals as gas chromatographic stationary phases
- \* Chiral stationary phases preparation and application for GC and HPLC
- \* Fractionation and analysis of petroleum products

### **Experimental Analytical Techniques**

- \* Chromatographic separation methods:
  - gas chromatography on both packed and capillary columns
  - high performance liquid chromatography for analytical or preparative purposes
  - supercritical fluid chromatography
- \* Spectroscopic identification methods:

- ultraviolet and infrared spectrophotometry
- nuclear magnetic resonance: proton, carbon-13, silicon-29 and other nuclei
- mass spectrometry with electron impact, positive or negative ionization modes
- \* Hyphenated techniques: GC/MS-MS, GC/FTIR, LC/MS-MS, LC/UV, SFC/FTIR

### **Communications to Scientific Meetings (since 2000)**

- \* 6<sup>th</sup> International Chemistry Conference, Riyadh, Kingdom of Saudi Arabia, 8-10 November 2016
- \* 4<sup>th</sup> International Chemistry Conference, Riyadh, Kingdom of Saudi Arabia, 19-21 November 2011
- \* 34<sup>th</sup> International Conference on Capillary Chromatography, Riva Del Garda, Italy, 29 May-4 June 2010
- \* Taibah International Chemistry Conference TICC-2009, Al Madinah Al Munawwarah, KSA, 26-28 March 2009
- \* International Conference for Nanotechnology Industries, Riyadh, KSA, 507 April 2009
- \* International Environment Congress, Ghardaia (Algeria), March 10-11, 2007
- \* 6<sup>th</sup> Symposium on Organic and Pharmaceutical Chemistry, Annaba (Algeria), December 4-5, 2006
- \* 29<sup>th</sup> International Symposium on Capillary Chromatography, Riva Del Garda (Italy), May 29- June 2, 2006
- \* 9<sup>th</sup> International Pharmaceutical Sciences Conference and Exposition, Riyadh (Kingdom of Saudi Arabia), December 17-21, 2005
- \* 8<sup>th</sup> International Conference on Chemistry and its Role in Development (ICCRD'8), Mansoura- Sharm El-Sheikh (Egypt), April 11-14 2005
- \* Seminaire International sur la Valorisation des Plantes Medicinales dans les Zones Arides, Ouargla (Algeria), February 1-3, 2005
- \* International Conference on Chemistry and Industry, Future Trends for the Third Millenium, Riyadh (Kingdom of Saudi Arabia), December 11-14, 2004
- \* 3<sup>rd</sup> Environmental Design Competition, UAEU, Al Ain (Unites Arab Emirates), May 2-4, 2004
- \* 2<sup>nd</sup> International Conference on Chemistry and its Applications, Doha (Qatar), December 6-9, 2003
- \* Colloquium Spectroscopicum Internationale XXXIII, Granada (Spain), September 7-12, 2003
- \* 7th International Conference on Chemistry and its Role in Development, Mansoura (Egypt), April 14-17, 2003.
- \* First International Congress on the Chemistry of Natural Products, Trabzon (Turkey), October 2002

### **Patents**

- ☆ “Nanoflow Detector Cell”, published US patent, number US 9217732 B2 (2015)
- ☆ “Fluorescent Silica Nanoparticle with Radioactive Tag and the Detecting Method of PET and Fluorescent Dual Imaging using Thereof”, published US Patent US2011/0262351 (2011)
- ☆ “Single Drop Microextraction Method Combined with Capillary Electrophoresis-Mass Spectrometry”, published WIPO patent number WO 2011 031005 A3 (2011)
- ☆ “Sample and flow splitter for micro and nano LC”, accepted as European Patent Application (number EP 12154228.6) (2011)
- ☆ “Selective extraction of benzene from benzene/cyclohexane mixture by pervaporation technique using a biphasic membrane”, submitted (May 2014)

### **Published scientific articles** (since 2010)

- 1) Determination of free fatty acids in olive oils by UPHLC–MS  
*Saikh M. Wabaidur, Ahmad AlAmmari, Ahmad Aqel, Saad A. AL-Tamrah, Zeid Abdullah Alothman, A.Y. Badjah Hadj Ahmed*  
*Journal of Chromatography B, 1031 (2016) 109–115*

- 2) Determination of Gasoline and Diesel Residues on Wool, Silk, Polyester and Cotton Materials by SPME–GC–MS  
*Ahmad Aqel, Abdulrhman M. Dhabbah, Kareem Yusuf, Nasser M. AL-Harbi, Zeid A. Al Othman, A. Yacine Badjah-Hadj-Ahmed*  
*Journal of Analytical Chemistry, 2016, Vol. 71, No. 7, pp. 730–736*
  
- 3) Zeolitic imidazolate framework-methacrylate composite monolith characterization by inverse gas chromatography. *Kareem Yusuf, Ahmed Yacine Badjah-Hadj-Ahmed, Ahmad Aqel, Taieb Aouak, Zeid Abdullah ALOthman*  
*Journal of Chromatography A, 1443 (2016) 233–240*
  
- 4) Monolithic metal-organic framework MIL-53(Al)-polymethacrylate composite column for the reversed-phase capillary liquid chromatography separation of small aromatics *Kareem Yusuf, Ahmed Yacine Badjah-Hadj-Ahmed, Ahmad Aqel, Zeid Abdullah ALOthman*  
*Journal of Separation Science, 2016, 39, 880–888*
  
- 5) Simultaneous determination of twenty-five polyphenols in multifloral and cactus honeys using solid- phase extraction and high-performance liquid chromatography with photodiode array detection  
*A. Y. Badjah Hadj Ahmed, Saikh M. Wabaidur, Masoom Raza Siddiqui, Zeid A. Alothman, Munir S. Obeid, Mohammad R. Khan, Saad A. AL - Tamrah*  
*European Food Research and Technology, 242 (2016), 943-952*
  
- 6) Fabrication of zeolitic imidazolate framework-8-methacrylate monolith composite capillary columns for fast gas chromatographic separation of small molecules  
*Kareem Yusuf, Ahmed Yacine Badjah-Hadj-Ahmed, Ahmad Aqel, Zeid Abdullah ALOthman*  
*Journal of Chromatography A, 1406 (2015) 299–306*
  
- 7) Ultrahigh performance liquid chromatography with mass spectrometry method for the simultaneous determination of phenolic constituents in honey from various floral sources using multiwalled carbon nanotubes as extraction sorbents  
*Saikh Mohammad Wabaidur, Yacine Badjah Hadj Ahmed, Zeid Abdullah Alothman, Munir Saeed Obbed, Nasser Mohamed AL-Harbi, Turki Mohammad AL-Turki*  
*Journal of Separation Science 2015, 38, 2597–2606*
  
- 8) Anticorrosive assay-guided isolation of active phytoconstituents from *Anthemis pseudocotula* extracts and a detailed study of their effects on the corrosion of mild steel in acidic media  
*H. Z. Alkhathlan, M. Khan, M. M. S. Abdullah, A. M. AlMayouf, A. Yacine Badjah-Hadj-Ahmed, Z. A. ALOthman and A. A. Mousa*  
*RSC Advances, 2015, 5, 54283–54292*
  
- 9) Sporopollenin Microparticle- Based Monolithic Capillary Columns for Liquid Chromatography  
*Ahmad Aqel, Kareem Yusuf, Zeid A. ALOthman, A. Yacine Badjah - Hadj - Ahmed*  
*Chromatographia 2015; 78(7-8) 481-486*
  
- 10) Simultaneous determination of monosaccharides and oligosaccharides in dates using liquid chromatography–electrospray ionization mass spectrometry

Ayman A. Ghfar, Saikh M. Wabaidur, A. Yacine Badjah Hadj Ahmed, Zeid A. Alothman, Mohammad R. Khan, Nora H. Al-Shaalan  
*Food Chemistry* 176 (2015) 487–492

- 11) Preparation and Evaluation of Benzyl Methacrylate Monoliths for Capillary Chromatography  
Ahmad Aqel, Zeid A. ALothmanI, Kareem Yusuf, A. Yacine Badjah-Hadj-Ahmed, Abdulrahman A. Alwarthan  
*Journal of Chromatographic Science* 2014; 52, 201–210
- 12) High-Performance Liquid Chromatography Analysis of Phenolic Acid, Flavonoid, and Phenol Contents in Various Natural Yemeni Honeys Using Multi-walled Carbon Nanotubes as a Solid-Phase Extraction Adsorbent  
A. Y. Badjah Hadj Ahmed, Munir S. Obbed, Saikh M. Wabaidur, Zeid A. ALothman, Nora H. Al-Shaalan  
*J. Agric. Food Chem.* 2014, 62, 5443–5450
- 13) Chemical Composition of the Essential oil of *Brocchia cinerea* Grown in South Eastern of Algeria  
M. Bouziane, A.Yacine Badjah-Hadj-Ahmed, Mahfoud Hadj-Mahammed  
*Asian Journal of Chemistry*, 2013; 25(7), 3917-3921
- 14) Identification of wild collected mosquito vectors of diseases using gas chromatography-mass spectrometry in Jazan Province, Saudi Arabia  
Azzam M. Al Ahmed, Ahmed-Yacine Badjah-Hadj-Ahmed, Zeid A. Al Othman, Mohamed F. Sallam  
*Journal of Mass Spectrometry* 2013; 48(11); 1170-1177
- 15) Preparation and characterization of long alkyl chain methacrylate-based monolithic column for capillary gas chromatography  
Ahmad Aqel, Zeid A. ALothman, Kareem Yusuf, A. Yacine Badjah-Hadj-Ahmed and Abdulrahman A. Alwarthan  
*Journal of Chromatography A*, 2013; 1301, 200-208
- 16) Comparison of Soxhlet extraction, microwave-assisted extraction and ultrasonic extraction for the determination of PCBs congeners in spiked soils by transformer oil (Askarel),  
Ahmed Halfadji, Abdelkrim Touabet, Ahmed-Yacine Badjah-Hadj-Ahmed  
*International Journal of Advances in Engineering & Technology*, Jan. 2013; Vol. 5 (2), 63-75
- 17) Liquid-liquid extraction of uranium(VI) from aqueous solution using 1-hydroxyalkylidene-1,1-diphosphonic acids  
Mustapha Bouhoun Ali, Ahmed Yacine Badjah Hadj Ahmed, Mouloud Attou, Abdelhamid Elias & Mohamed Amine Didi  
*Solvent Extraction and Ion Exchange*, 2012, 30, 469–479
- 18) Effect of the extraction solvent polarity on the sesame seeds oil composition  
Rachid Tir, Paresh C. Dutta, Ahmed Yacine Badjah-Hadj-Ahmed  
*European Journal of Lipid Science and Technology* 2012, 114, 1427–1438
- 19) Determination of capsaicinoids in *Capsicum* species using ultra performance liquid chromatography-mass spectrometry

*Zeid Abdullah Allothman, Saikh Mohammad Wabaidur, Mohammad Rizwan Khan, Ayman Abdel Ghafar, Mohamed Abdelaty Habila, Yacine Badjah Hadj Ahmed*  
*Journal of Separation Science* 2012, 35(21), 2892–2896

- 20)** Effect of multi-walled carbon nanotubes incorporation into benzyl methacrylate monolithic columns in capillary liquid chromatography  
*Ahmad Aqel, Kareem Yusuf, Zeid A. Al-Othman, A. Yacine Badjah-Hadj-Ahmed, Abdulrahman A. Alwarthan*  
*Analyst*, 2012, 137, 4309-4317
- 21)** Fast chromatographic determination of caffeine in food using a capillary hexyl methacrylate monolithic column  
*Zeid A. Al-Othman, Ahmad Aqel, Muteb K.E. Alharbi, A. Yacine Badjah-Hadj-Ahmed, Abdulrahman A. Al-Warthan*  
*Food Chemistry* 132 (2012) 2217–2223
- 22)** Sensitive analysis of amino acids with carrier-mediated single drop microextraction in-line coupled with capillary electrophoresis  
*Jeongmi Choi, Kihwan Choi, Jihye Kim, Ahmed Yacine Badjah Hadj Ahmed, Zeid A. Al-Othman, Doo Soo Chung*  
*Journal of Chromatography A*, 1218 (2011) 7227– 7233
- 23)** Determination of Capsaicin and Dihydrocapsaicin in *Capsicum* Fruit Samples using High Performance Liquid Chromatography  
*Zeid A AlOthman, A Yacine Badjah-Hadj-Ahmed\*, Mohamed A Habila and Ayman A Ghafar*  
*Molecules*, 16 (2011) 8919-8929
- 24)** Preparation and Evaluation of Long Chain Alkyl Methacrylate Monoliths for Capillary Chromatography  
*Zeid A. AlOthman, Ahmad Aqel, Hadeel A. Al Abdelmoneim, A. Yacine Badjah-Hadj-Ahmed, Abdulrahman A. Al-Warthan*  
*Chromatographia*, 74(1-2), 1-8, 2011
- 25)** Synthesis under microwave irradiation, characterization and application of alkyliminodimethylenediphosphonic acids in solvent extraction of uranium (VI)  
*M. Bouhoun Ali, A.Y. Badjah Hadj Ahmed, M. Attou, A.H. Elias, M.A. Didi,*  
*Journal of Applied Sciences* 11 (2), (2011), 284-291
- 26)** Level of polychlorinated biphenyls in marine environment of Algiers Bay, Algeria  
*Djamila Fouial-Djebbar, Réda Djebbar , Ahmed Yacine Badjah-Hadj-Ahmed, Hélène Budzinski*  
*Analytical Letters* 44, (2011), 2438-2456
- 27)** Synthesis under microwave irradiation, characterization and application of alkyliminodimethylenediphosphonic acids in solvent extraction of iron (III)  
*M. Bouhoun Ali, A.Y. Badjah Hadj Ahmed, M. Attou, A.H. Elias, M.A. Didi,*  
*Journal of Applied Sciences* 11 (2), (2011), 292-299
- 28)** Determination of organochlorine compounds in coastal marine sediments from the southern west of the Mediterranean sea  
*Djamila Fouial-Djebbar, Ahmed-Yacine Badjah-Hadj Ahmed, Helene Budzinski*  
*International Journal of Environmental Science and Technology* 7 (2), (2010), 271-

- 29)** Selective preconcentration of amino acids and peptides using single drop microextraction in-line coupled with capillary electrophoresis  
*Yang-Ki Park, Kihwan Choi, Ahmed Yacine Badjah-Hadj-Ahmed, Zeid A. AlOthman, Doo Soo Chung*  
*Journal of Chromatography A* 1217 (2010), 3357-3361
- 30)** Highly sensitive chiral analysis of amino acids by in-line single drop microextraction and capillary electrophoresis with laser-induced fluorescence detection  
*Guodong Liang, Kihwan Choi, Ahmed Yacine Badjah-Hadj-Ahmed, Zeid A. AlOthman, Doo Soo Chung*  
*Analytica Chimica Acta* 677(1), (2010), 37-42
- 31)** Optical isomer separation of flavanones and flavanone glycosides by nano-liquid chromatography using a phenyl-carbamate-propyl- $\beta$ -cyclodextrin chiral stationary phase  
*Kahina Si Ahmed, Fairouz Tazerouti, Ahmed Yacine Badjah-Hadj-Ahmed, Zeineb Aturki, Giovanni D'Orazio, Anna Rocco, Salvatore Fanali*  
*Journal of Chromatography A* 1217(7), (2010), 1175-1182
- 32)** Analysis of hesperitin enantiomers in human urine after ingestion of blood orange juice by using nano-liquid chromatography  
*Kahina Si Ahmed, Fairouz Tazerouti, Ahmed Yacine Badjah-Hadj-Ahmed, Zeineb Aturki, Giovanni D'Orazio, Anna Rocco, Salvatore Fanali*  
*Journal of Pharmaceutical and Biomedical Analysis* 51, 225-229 (2010)