

# Arabian Journal of Chemistry

## Editor-in-Chief

**Prof. Abdulrahman Abdullah Alwarthan**  
Chemistry Department, College of Science  
King Saud University, Riyadh  
Kingdom of Saudi Arabia  
E-mail: awarthan@ksu.edu.sa

## Vice-Editors-in-Chief

**Prof. Sultan T. Abu-Orabi**  
President of Yarmouk University, Irbid-Jordan  
Jordanian Chemical Society, Arab Union of Chemists  
Secretary General  
E-mail: abuorabi@yu.edu.jo; Dr.abuorabi@gmail.com

**Prof. Yousry M. Issa**  
Chemistry Department  
Cairo University  
Cairo, Egypt  
E-mail: yousrymi@yahoo.com

**Dr. Zeid A. ALOthman**  
Chemistry Department  
King Saud University, Riyadh  
Saudi Arabia  
E-mail: zaothman@ksu.edu.sa

## Editorial Board

**Prof. Belkheir Hammouti**  
Director, Laboratory of Applied Chemistry and  
Environment, Faculty of Science  
University of Mohammed Premier, Morocco  
E-mail: hammoutib@yahoo.com

**Dr. Abdullah M. Al-Enizi**  
Department of Chemistry, College of Science  
King Saud University, Riyadh - 11451  
Saudi Arabia  
E-mail: amenizi@ksu.edu.sa

**Prof. Mamia El Rhazi**  
Chemistry Department  
Faculty of Science and Technology  
Hassan II University – Mohammedia, Morocco  
E-mail: elrhazim@hotmail.com

**Prof. Hamad Z. Al-Khatlan**  
Chemistry Department  
Science College, King Saud University  
Saudi Arabia  
E-mail: Khatlan@ksu.edu.sa

**Prof. Ibrahim A. Jibril**  
Chemistry Department  
Yarmouk University, Irbid, Jordan  
E-mail: iajibril@yahoo.com

**Prof. Ahmed-Yacine Badjah-Hadj-Ahmed**  
University of Science and Technology  
Houari Boumediene  
Faculty of Chemistry  
BP 32 El Alia., 16111 Bab Ezzouar, Algiers, Algeria  
E-mail: Ybadjah@hotmail.com

**Abdelkader Bengueddach**  
laboratoire de Chimie des Materiaux  
Department of Chemistry  
Faculty of Science  
University of Oran  
P.O. Box 1524 el Mhouar  
31000-Oran, Algeria  
E-mail: aek-bengueddach@univ.oran.dz

**Mohammad Hourani**  
Department of Chemistry, Al Balqa Applied  
University, Al-Salt, Jordan  
E-mail: mhouran@bau.edu.jo

**Prof. Mahmoud F. Farhat**  
Professor of Organic Chemistry  
Chemistry Department  
Faculty of Science  
Al-Fateh University, P.O. Box: 13494  
Tripole, Libya  
E-mail: mf\_farhat@yahoo.com

**Prof. Nouria A. Al-Awadi**  
Professor of Organic Chemistry  
Department of Chemistry, Faculty of Science  
P.O. Box: 5969 Safat-13060  
Kuwait University  
E-mail: eam\_hc5@kuc01.kuniv.edu.kw

**Dr. Falah H. Hussein**  
Professor of Physical Chemistry  
College of Science, University of Babylon  
Babylon - Hilla - Iraq  
E-mail: abohasan\_hilla@yahoo.com

**Prof. Salah S Al-Labeia**  
Chemistry Department  
Science College, Basrah University  
Basrah, Iraq  
E-mail: salah\_al\_labeia@yahoo.com

**Prof. Faris T. Abachi**  
Pharmaceutical Chemistry  
College of Pharmacy, Mosul University, Mosul, Iraq  
E-mail: farisabachi@yahoo.com

**Dr. Michelyne Haroun**  
Department of Pharmaceutical Chemistry  
Faculty of Pharmacy, Umm Al-Qura University  
Mecca, KSA  
E-mail: michelyneharoun@yahoo.com

**Ali K. Aldalbahi**  
Chemistry Department  
College of Science  
King Saud University, P.O. Box: 2455  
Riyadh, Saudi Arabia

**Prof. Leonardo Palmisano**  
Dept. of Energy, Information Engineering,  
and Mathematical Models (DEIM)  
University of Palermo  
Palermo, Italy 90143  
E-mail: leonardo.palmisano@unipa.it

## International Advisory Board

**Prof. Issa Yavari**  
Chemistry Department  
Tarbiat Modarres University, Tehran, Iran  
E-mail: yavarisa@modares.ac.ir

**Prof. Dr. Mustafa Soylak**  
Erciyes University  
Faculty of Sciences  
Department of Chemistry  
38039 Kayseri, Turkey  
E-mail: soylak@erciyes.edu.tr

**Prof. Robert G. Michel**  
Department of Chemistry, University of Connecticut  
55 North Eagleville Road, Storrs, CT 06269-3060  
E-mail: robert.g.michel@uconn.edu

**Prof. Motaza M. Khater**  
Chemistry Department  
Cairo University, Cairo, Egypt  
E-mail: motazakhater117@yahoo.com

**Prof. Jacques Vicens**  
Directeur de recherche at CNRS, UMR 7178-CNRS  
Institut Pluridisciplinaire Hubert Curien  
Universite Louis Pasteur de Strasbourg  
Laboratoire de Conception Moleculaire  
ECPM25, rue Becquerel F-67087, France  
E-mail: vicens@chimie.u-strasbg.fr

**Prof. Jean-Michel Kauffmann**  
Free University of Brussels  
Lab, Instrumental Analysis and Bioelectrochemistry  
Pharmaceutical Institute, ULB 205/6  
Campus Plain B-1050 Brussels, Belgium  
E-mail: jmkauf@ulb.ac.be

**Prof. Essam Khamis Al-Hanash**  
Vice-Dean for Graduate Studies & Research  
Faculty of Science, Mohram Bey, Alexandria University  
Alexandria, Egypt  
E-mail: ekaijac@yahoo.com

**Prof. Jin, Jung-II (M)**  
35-41Ku-Ui 2-Dong  
Kwang-Jin Ku, Seoul 133-202, Korea  
Chemistry Department and Center for Electro- and  
Responsive Molecules, College of Sciences  
Korea University, 5-1 Anam-Dong, Seoul 136-701, Korea  
E-mail: jijin@korea.ac.kr, jijin@kcsnet.or.kr

**Prof. Yuhua Sun**  
Institute of Coal Chemistry, Chinese Academy of Sciences  
P.O. Box: 165, Taiyuan, Shanxi, 030001, P.R. China  
E-mail: yhsun@sxicc.ac.cn

**Prof. Mikhail M. Krayushkin**  
Head of Laboratory of Heterocyclic Compounds  
N.D.Zelinsky Institute of Organic Chemistry  
Russian Academy of Sciences  
119991, Moscow, Leninsky Prospekt 47, Russia  
E-mail: mkray@ioc.ac.ru

**Prof. Angel Rios Castro**  
Department of Analytical Chemistry and Food Tech.  
Faculty of Chemistry, University of Castilla-La Mancha  
AV. Camilo Jose Cela, 10, E-13004 Ciudad Real, Spain  
E-mail: angel.rios@uclm.es

**Prof. Yarub Al-Douri**  
Editor-in-Chief  
International Journal of Nanoelectronics and Materials  
Malaysia  
E-mail: yaldouri@yahoo.com