

European Journal of Chemistry

An International Open Access Journal

Editor in Chief

Hakan Arslan, Mersin University, Mersin, Turkey

Associate Editors

Waldemar Adam, University of Wuerzburg, Wuerzburg, Germany

İskender Yılğör, Koç University, Istanbul, Turkey

Editorial Board

İlhan A. Aksay, Princeton University, Princeton, NJ, USA

Miral Dizdaroğlu, The National Institute of Standards and Technology, Gaithersburg, MD, USA

Diane J. Burgess, University of Connecticut, Connecticut, CT, USA

Luca Gonsalvi, Istituto di Chimica dei Composti OrganoMetallici-CNR, Firenze, Italy

Vinod Kumar Gupta, Indian Institute of Technology, Roorkee, India

Mehmet A. Oturan, Université Paris-Est Marne-la-Vallée, Marne La Vallée, France

Cora E. MacBeth, Emory University, Atlanta, GA, USA

Bekir Çetinkaya, Ege University, İzmir, Turkey

Djamaladdin G. Musaev, Emory University, Atlanta, GA, USA

Satoshi Kaneco, Mie University, Tsu, Japan

Atta-ur-Rahman, University of Karachi, Karachi, Pakistan

Suleyman I. Allakhverdiev, Institute of Basic Biological Problems, Russian Academy of Sciences, Pushchino, Russian Federation

Xueming Yang, Chinese Academy of Sciences, Dalian, China

Abdel Omri, Laurentian University, Sudbury, ON, Canada

Dilhan M. Kalyon, Stevens Institute of Technology, Hoboken, NJ, USA

Don VanDerveer, Clemson University, Clemson, SC, USA

Marko D. Mihovilovic, Vienna University of Technology, Vienna, Austria

Ram K. Agarwal, Chaudhary Charan Singh University, Sahibabad, India

Veysel Turan Yılmaz, Uludag University, Bursa, Turkey

Syed A. A. Rizvi, Nova Southeastern University, Fort Lauderdale, FL, USA

Jinlong Gong, Tianjin University, Tianjin, China

İsmail Özdemir, İnönü University, Malatya, Turkey

Paraskevas D. Tzanavaras, Aristotelian University of Thessaloniki, Thessaloniki, Greece

Tahir Cagin, Texas A&M University, College Station, TX, USA

Alexander I. Boldyrev, Utah State University, Logan, UT, USA

Copyeditors

Duc Do, Chicago State University, Chicago, IL, USA

Sezgin Kiren, Emory University, Atlanta, GA, USA

Murat Unlu, E. I. DuPont de Nemours, Wilmington, DE, USA

Syed A.A. Rizvi, Nova Southeastern University, Fort Lauderdale, FL, USA

Ahmet Tarık Baykal, The Scientific and Technological Research Council of Turkey, Ankara, Turkey

Bilge Baytekin, Northwestern University, Evanston, IL, USA

Sheri Lense, Pacific Northwest National Laboratory, Richland, WA, USA

European Journal of Chemistry founded in 2010. *European Journal of Chemistry* is a peer-reviewed journal that publishes original research and review articles as well as letters in all areas of chemistry (Analytical Chemistry, Inorganic Chemistry, Organic and Bioorganic Chemistry, Biochemistry, Theoretical and Applied Physical Chemistry, Pharmaceutical Chemistry, Applied and Materials Chemistry, Chemical Technology, Agro Chemical Technology, Pharmaceutical Technology, Colloid Chemistry, Interfacial Chemistry, Surface Chemistry, Chemical Engineering, Green Chemistry, etc.). For full details, see the Guide for Authors.

European Journal of Chemistry (ISSN: 2153-2249 (print)/2153-2257 (online)) is published quarterly and is available exclusively at www.eurjchem.com.

European Journal of Chemistry is indexed and/or abstracted by Chemical Abstracts Service (CODEN: EJCUA9) (USA), Directory of Open Access Journals (DOAJ), EBSCO, ProQuest, Ulrich's Periodicals Directory, Google Scholar, Open J-Gate, JournalTOCs, Academic Journal Database, Evisa, ABC Chemistry Free Chemical Information, WorldCat, Scirus, Scientific Commons, Sherpa/Romeo, The Open Access Digital Library and The Library of Congress (USA).

European Journal of Chemistry is a member of CrossRef (The Digital Object Identifier (DOI®) System) and CrossRef Cited-by Linking.

Production and Advertising Office: 4614 Lavista Road, Tucker, GA, 30084, USA. Tel: 1-770-723-1568, Fax: 1-770-723-1568, Production/Managing Editor: Ergah Pektaş.

European Journal of Chemistry Online. Visit our website at <http://www.eurjchem.com>

© 2013 European Journal of Chemistry. Printed in USA.

European Journal of Chemistry
ISSN 2153-2249 (Print) / ISSN 2153-2257 (Online) © 2013 EURJCHEM
[DOI:10.5155/eurjchem.4.2.i.848](https://doi.org/10.5155/eurjchem.4.2.i.848)