

VOLUME | ISSUE | YEAR
47 | 3 | 2023
ISSN 1300-0527 • E-ISSN 1303-6130

TURKISH JOURNAL OF
CHEMISTRY

<http://journals.tubitak.gov.tr/chem/>



Published by the Scientific and
Technological Research Council of Turkey

TÜBİTAK

TURKISH JOURNAL OF CHEMISTRY

Editor-in-Chief

Ahmet GÜL, İstanbul Technical University, Turkey

Assistant Editors in Chief

Mustafa Kemal SEZGİNTÜRK, Çanakkale Onsekiz Mart University, Turkey

Nurettin Menges, Necmettin Erbakan University, Turkey

Önder Metin, Koç University, Turkey

VOLUME 47 • ISSUE 3 • 2023

ISSN 1300-0527 • E-ISSN 1303-6130

SCOPE

- The Turkish Journal of Chemistry is a bimonthly multidisciplinary journal published by the Scientific and Technological Research Council of Turkey (TÜBİTAK).
- The journal is dedicated to dissemination of knowledge in all disciplines of chemistry (organic, inorganic, physical, polymeric, technical, theoretical and analytical chemistry) as well as research at the interface with other sciences especially in chemical engineering where molecular aspects are key to the findings.
- The journal accepts English-language original manuscripts and contribution is open to researchers of all nationalities.
- The journal publishes refereed original papers, reviews, letters to editor and issues devoted to special fields.
- All manuscripts are peer-reviewed and electronic processing ensures accurate reproduction of text and data, plus publication times as short as possible.

EDITORIAL BOARD

- Adem KILIÇ, Gebze Technical University, Turkey
- Adem TEKİN, İstanbul Technical University, Turkey
- Ahmet Ceyhan GÖREN, Gebze Technical University, Turkey
- Ali Hakan GÖKER, Ankara University, Turkey
- Ali Rehber TÜRKER, Gazi University, Turkey
- Ali Rıza ÖZKAYA, Marmara University, Turkey
- Ali SINAĞ, Ankara University, Turkey
- Alireza KHATAEE, University of Tabriz, Iran
- Amitav SANYAL, Boğaziçi University, Turkey
- Andrea GOTI, University of Florence, Italy
- Antoine MARION, Middle East Technical University, Turkey
- Arif DAŞTAN, Atatürk University, Turkey
- Atif KOCA, Marmara University, Turkey
- Ayşe BAYRAKÇEKEN YURTCAN, Atatürk University, Turkey
- Bagher EFTEKHARI-SIS, Maragheh University, Iran
- Bekir ÇETİNKAYA, Ege University, Turkey
- Bekir SALİH, Hacettepe University, Turkey
- Belkis BİLGİN ERAN, Yıldız Technical University, Turkey
- Bünyamin KARAGÖZ, İstanbul Technical University, Turkey
- Cihangir TANYELİ, Middle East Technical University, Turkey
- Deniz ÜNER, Middle East Technical University, Turkey
- Emrah ÖZENSOY, Bilkent University, Turkey
- Emür HENDEN, Ege University, Turkey
- Erdal BEDİR, İzmir Institute of Technology, Turkey
- Erol ERÇAĞ, Tekirdağ Namık Kemal University, Turkey
- Fabienne DUMOULIN, Acıbadem Mehmet Ali Aydınlar University, Turkey
- Ferdi KARADAŞ, Bilkent University, Turkey
- Gülaçtı TOPCU, Bezmialem Vakıf University, Turkey
- Gülfeza KARDAŞ, Çukurova University, Turkey
- Hasan SEÇEN, Atatürk University, Turkey
- Hilal DEMİR KIVRAK, Eskişehir Osmangazi University, Turkey
- Hüseyin DELİGÖZ, İstanbul University, Turkey
- Irishi N. N. NAMBOOTHIRI, Indian Institute of Technology, India
- İhsan ERDEN, San Francisco State University, U.S.A.
- İlkay ORHAN ERDOĞAN, Gazi University, Turkey
- İlnur TUNÇ, University of Turkish Aeronautical Association, Turkey
- İmren HATAY PATİR, Selçuk University, Turkey
- İsmail ÖZDEMİR, İnönü University, Turkey
- Kadriye Arzum ERDEM GÜRSAN, Ege University, Turkey
- Karel SMEJKAL, Univ. of Vet. and Pharmaceutical Sci. Brno, Czech Republic
- Levent ARTOK, İzmir Institute of Technology, Turkey
- Levent Kamil TOPPARE, Middle East Technical University, Turkey
- Lokman UZUN, Hacettepe University, Turkey
- Mahammad BABANLY, Baku State University, Azerbaijan
- Marianna TÖRÖK, University of Massachusetts Boston, U.S.A.
- Mehlika Dilek ALTINTOP, Anadolu University, Turkey
- Mehmet ZAHMAKIRAN, Yüzüncü Yıl University, Turkey
- Metin BALCI, Middle East Technical University, Turkey
- Metin ZORA, Middle East Technical University, Turkey
- Mingwei CHEN, Tohoku University, Japan
- Muhammed Übeydullah KAHVECİ, İstanbul Technical University, Turkey
- Murat KILIÇ, Ecole Polytechnique Federale de Lausanne, Switzerland
- Mustafa ERSÖZ, Selçuk University, Turkey
- Mustafa SOYLAĞ, Erciyes University, Turkey
- Mustafa YILMAZ, Selçuk University, Turkey
- Mustafa Zafer ÖZEL, The University of York, United Kingdom
- Nadège LUBIN-GERMAIN, University of Cergy-Pontoise, France
- Nurettin YAYLI, Karadeniz Technical University, Turkey
- Oğuz OKAY, İstanbul Technical University, Turkey
- Okan Zafer YEŞİLEL, Eskişehir Osmangazi University, Turkey
- Ö. İrfan KÜFREVİOĞLU, Atatürk University, Turkey
- Ömer ZALİM, Trakya University, Turkey
- Önder METİN, Ataturk University, Turkey
- Özlem DEMİRKIRAN, Trakya University, Turkey
- Ponnadurai RAMASAMI, University of Mauritius, Mauritius
- Qiang XU, National Inst. of Advanced Indust. Sci. and Technology, Japan
- Reşat APAK, İstanbul University, Turkey
- Safacan KÖLEMEN, Koç University, Turkey
- Salih ÖZÇUBUKÇU, Middle East Technical University, Turkey
- Serap EVRAN, Ege University, Turkey
- Serdar DURDAĞI, Bahçeşehir University, Turkey
- Sermet KOYUNCU, Çanakkale Onsekiz Mart University, Turkey
- Sibel Aysıl ÖZKAN, Ankara University, Turkey
- Siméon ARSENIYADIS, Inst. for the Chem. of Natural Substances, France
- Şefik SÜZER, Bilkent University, Turkey
- Şeref DEMİRAYAK, Medipol University, Turkey
- Şule Erten ELA, Ege University, Turkey
- Thomas MAVROMOUSTAKOS, University of Athens, Greece
- Turan ÖZTÜRK, İstanbul Technical University, Turkey
- Ufuk ÖZGEN, Karadeniz Technical University, Turkey
- Uğur BOZKAYA, Hacettepe University, Turkey
- Vefa AHSEN, Gebze Institute of Technology, Turkey
- Viktorya AVIYENTE, Boğaziçi University, Turkey
- Vural BÜTÜN, Eskişehir Osmangazi University, Turkey
- Yıldırım ERBİL, Gebze Technical University, Turkey
- Yunus ZORLU, Gebze Technical University, Turkey
- Yusuke YAMUCHI, National Institute for Materials Science, Japan
- Zehra ALTUNTAŞ BAYIR, İstanbul Technical University, Turkey

ABSTRACTED

- Science Citation Index Expanded
- Scopus
- Academic Search Complete
- Chemical Abstracts

CONTENTS

Zinc-mediated efficient and selective reductive aza-Claisen rearrangement of N-allyl- and N-propargylaminoanthraquinones in ionic liquid	514
Fereshteh ALBOOYEH, Ghasem AGHAPOUR	
Ultraviolet-activated clamshell hydroxyapatite-substituted palladium in the photoreduction of methyl orange water pollutant	527
Anis Liyana AZHAR, Azman MA'AMOR, Nurhidayatullaili MUHD JULKAPLI, Nor Asrina SAIRI, Aina Sofea NORAIZAT	
A new method in the synthesis of conductive polymers; synthesis, characterization, and investigation of photocatalytic properties of polyaniline	540
Muzaffer CAN	
Imaging supermolecular interactions of the pharmaceutical- cocrystal of apigenin-nicotinamide binding with serum albumin	554
Yuting SUN, Ming GUO, Xiaoxue ZHAO, Ronghui WU	
Modelling and simulation of chemical reaction of porous MgCl ₂ pellets with NH ₃ by including impact of heat and mass transfer and structure change	572
Zeynep Karakaş HELVACI, Gürkan KARAKAŞ, Yusuf ULUDAĞ	
Facile preparation of polyolefin-based amphiphilic graft copolymer fibers by combination of photoinduced graft copolymerization and electrospinning	583
Çağatay ALTINKÖK	
Hydrophobic surface modification and characterization of melamine foam	591
Merve OKUTAN, Filiz BORAN, Ayça ERGÜN, Yusuf KANCA, Bengi ÖZKAHRAMAN, Hüseyin DELİGÖZ	
Dual-reactive hydrogels functionalizable using “Huisgen click” and “Schiff base” reactions	605
Nergiz CENGİZ	
Synthesis of copper nano/microparticles via thermal decomposition and their conversion to copper oxide film	616
Çağdaş ALLAHVERDİ	
Spectrophotometric quantification of paracetamol and tramadol hydrochloride by chemometric calibration methods	633
Faysal SELİMOĞLU, Nermin PINARCIK	
Theoretical investigation of steric effects on the S1 potential energy surface of o-carborane-anthracene derivatives	646
Fahri ALKAN	
Investigation of boron adsorption by graphene oxide: equilibrium, kinetic, and thermodynamic studies	656
Mehmet Fatih ÖNEN, Nalan ERDÖL AYDIN, Osman EKSİK, Pelin DEMİRÇİVİ, Gülhayat Nasun SAYGILI	
