

VOLUME | ISSUE | YEAR
47 | 2 | 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 2 • 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
- Belkıs BİLGIN 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 ÖZENSÖY, 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 KAHVECI, 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 KÜFREYİOĞLU, Atatürk University, Turkey
- Ömer ZAIM, 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 DURDAĞLI, Bahçeşehir University, Turkey
- Sermet KOYUNCU, Çanakkale Onsekiz Mart University, Turkey
- Sibel Ayşıl 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

Synthesis of pyridinium-based ionic liquids and their application to improve <i>Candida rugosa</i> lipase stability in a methanol-water solvent system	307
Oktavianus HENDRA CIPTA, Anita ALNI, Rukman HERTADI	
Structural and dielectrical behavior of polypyrrole/huntite composites	321
Zeynep TÜRK, Nazlıcan ŞAHİN, Seyfullah MADAKBAŞ, Ferhat ŞEN, Kadir ESMER	
SARS-CoV-2 main protease targeting potent fluorescent inhibitors: Repurposing thioxanthenes.....	329
Gönül S. BATIBAY, Eyüp METİN	
Synthesis and characterization of PANI and PANI/nanometal oxides, photocatalytic and adsorbent applications	346
Bilge BUDAK, Sibel DEMİREL	
Surfactant incorporated preyssler polyoxoanion: a transition metal substituted Mo-PHP complex and its applications	364
Bharath SAMANNAN, Jothi SELVAM, Yi-Li LIN, Praveen PETER, Jeyabalan THAVASIKANI	
Electrochemical behavior, antimicrobial activities, and effect of temperature on micellization of imidazolium monomeric surfactants	375
Vinit SHARMA, TokumaGETAHUN, Manpreet SINGH, Jaswinder KAUR, Nandita THAKUR, Kamal KISHORE	
Additive-free synthesis of poly(n-vinyl pyrrolidone) and poly(n-isopropylacrylamide) nanogels with controlled sizes	386
S. Duygu SÜTEKİN, Feyza KIRAÇ, Olgun GÜVEN	
GaN/ZnO hybrid nanostructures for improved photocatalytic performance: One-step synthesis	399
Tugay ÜSTÜN, Bircan HASPULAT TAYMAZ, Volkan ESKİZEYBEK, Handan KAMIŞ, Ahmet AVCI	
Effect of size-graded and polydopamine-coated halloysite nanotubes on fundamental properties of low-density polyethylene nanocomposite film	409
Cüneyt Erdinç TAŞ	
The effect of POSS nanoparticles on crosslinking of styrene-butadiene rubber nanocomposites	417
Seda BEKİN AÇAR, Mehmet Atilla TAŞDELEN, Bağdagül KARAAĞAÇ	
Privileged fragment-based design, synthesis and in vitro antitumor activity of imatinib analogues	426
Hongyu JIANG, Yuankun WANG, Maokai JIANG, Lei YAO	
H ₂ (g) production from dimethylamine borane by Cu ₀ /WO ₃ NPs catalyst	436
Doaa AL-HAMEEDAW, Seda KARABOĞA, İzzet Amour MORKAN	
Synthesis optimization of ZrO ₂ nanostructures for photocatalytic applications	448
Filiz BORAN, Merve OKUTAN	
In vitro tyrosinase inhibitory, DNA interaction studies, and LC–HRMS analysis of <i>Ficus carica</i> leaves.....	465
Gülin RENDA, Burak BARUT, Rümeyşa CEREN, Enes AYDIN	
New pyrimidine-N-β-D-glucosides: synthesis, biological evaluation, and molecular docking investigations	476
Nuran KAHRİMAN, Kıvanç PEKER, Vildan SERDAROĞLU, Ali AYDIN, Burçin TÜRKMEÑOĞLU, Asu USTA, Nurettin YAYLI	
Ultrasound-assisted synthesis of rGO/SiO ₂ -based nanosheets and their electrochemical performances in Li-ion batteries.....	495
Ersu LÖKÇÜ, Süleyman CAN, Mustafa ANIK	
Carbon nanotube/waterborne polyurethane nanocomposites with light-to-heat conversion properties	504
Hayriye ÜNAL	
