

Journal of the Turkish Chemical Society, Section A: Chemistry (JOTCSA)

e-ISSN: 2149-0120

Volume 4, issue 2, 2017

A triannual, open-access chemical journal, hosted by Dergipark

(Published, in English, in every February, June, and October)

Editorial Board (sorted by the last names)

Prof. Dr. Göktürk, Sinem (Physical Chemistry, Marmara University, Turkey)

Prof. Dr. Karagözler, A. Alev (Biochemistry, Adnan Menderes University, Turkey)

Prof. Dr. Karagözler, A. Ersin (Electrochemistry, Adnan Menderes University, Turkey)

Assoc. Prof. Dr. Köse, Dursun Ali (Inorganic Chemistry, Hitit University, Turkey)

Assoc. Prof. Dr. Küçükbay, F. Zehra (Analytical Chemistry, İnönü University, Turkey)

Prof. Dr. Küçükbay, Hasan (Organic Chemistry, İnönü University, Turkey) Editor-in-Chief

Assoc. Prof. Dr. Taşdelen, M. Atilla (Polymer Chemistry, Yalova University, Turkey)

Prof. Dr. Yalçın, Esin A. (Computational Chemistry, Ankara University, Turkey)

Address: Halaskargazi Str. Uzay Apt. No: 15/8, 34373 Harbiye, Istanbul/Turkey.

Fax: +90 212 231 70 37

E-mail: jotcsa@turchemsoc.org

Website: <http://turchemsoc.dergipark.gov.tr/jotcsa>.

N.B. JOTCSA is a peer-reviewed publication of the Turkish Chemical Society. Peer-reviewing process is performed with the Ulakbim Journal System (UDS). The ideas outlined by the authors cannot be attributed to the journal management nor the editorial board.

Aim and Scope of the Journal

The journal will publish, after a peer-reviewing process, as provided by the Ulakbim Journal Systems (UJS), the following:

- a)** Research articles,
- b)** Review articles,
- c)** Letters to the editor.

The journal's scope will include, but not limited to, the following disciplines of chemistry:

- i)** Analytical chemistry,
- ii)** Biochemistry,
- iii)** Computational chemistry,
- iv)** Electrochemistry,
- v)** Inorganic chemistry,
- vi)** Organic chemistry
- vii)** Physical chemistry,
- viii)** Polymer chemistry.

ETHICAL GUIDELINES

Guidelines for the Editors

An editor (editors, associate editors, etc.) should provide impartial consideration to all manuscripts offered for publication, judging each on its particular feature without regard to race, religion, nationality, sex, seniority, or institutional affiliation of the author(s). An editor should review and treat a manuscript submitted for publication with all reasonable speed. An editor takes the sole responsibility for accepting or rejecting a manuscript for publication. An editor may seek assistance on a manuscript from specialists chosen for their expertise and fair judgment. An editor should not reveal any information about the manuscript under consideration to anyone other than the author and designated reviewers until after the evaluation process is complete. An editor should respect the intellectual independence of authors.

Authors

Our journal considers a person as an author who is responsible at least for a part of the work. Authors should be able to explain the problem in study in a deep manner. For our journal, all authors are responsible for the content they submitted. The corresponding author is responsible for the agreement of all the authors and to keep them informed about the submission process since first submission of their manuscript. He/she is responsible for providing the license to publish, in case of acceptance, on behalf of all the authors. Our journal assumes that submitting the paper implies in total agreement from all the authors. For manuscripts with more than 8 authors, all the authors should provide a declaration specifying what was their contribution to the manuscript. It is not acceptable for JOTCSA to consider for publication anything that was previously published, neither entirely nor partly in other journals. Anything sent to our journal must not be under analysis by anywhere else. Simultaneous submissions to JOTCSA and any other journal, is considered a major conduct flaw, and all the authors will be definitely banned, and all their previous publications in JOTCSA will be publicly retracted. Plagiarism and self-plagiarism will be treated in the same way. Multiple manuscripts, dealing with closely related subjects and/or variables are discouraged as long as they could figure in a single paper.

Reviewers

JOTCSA invites peers to review its submissions, relying on their expertise, curricula, and their will to review them as volunteers. By accepting to review a manuscript, the reviewer commits himself to do so in due time. Delays are extremely negative to the review process and makes it last much longer than it should. When a reviewer is requested, he/she is gently asked to answer the invitation e-mail, informing if he/she is willing or not willing to review the manuscript. It is a gesture of politeness, and it avoids delays too. By accepting to review a manuscript, the reviewer declares that no conflicts of interests do exist, and he/she is doing his/her revision for the wealth and progress of Science. Those reviewers who answer our requests, agreeing or not, and those who respect the deadlines, are scored positively, and eventual submissions they could send to JOTCSA will be treated with priority.

The online version of this declaration can be viewed on <http://dergipark.gov.tr/jotcsa/page/2796>.

Journal of the Turkish Chemical Society, Section A: Chemistry (JOTCSA)

e-ISSN: 2149-0120

A triannual, open-access chemical journal, hosted by Dergipark

(Published, in English, in every February, June, and October)

Editorial Advisory Board Members (sorted alphabetically by the last names)

Demonstrator of Pharmaceutical Organic Chemistry, Pharmaceutical organic chemistry department-

Faculty of Pharmacy: Abo-dya, Nader Elmaghwry (Zagazig University, Egypt)

Tenured Assistance Professor: **do Amaral, Marcos Serrou** (Federal University of Mato Grosso do Sul, Instituto de Física, Campo Grande, Brazil)

Senior scientist, **Bachawala, Praveen** (Sigma-Aldrich, OH, USA)

Research Associate Professor, institute of Chemistry: **Beatriz, Adilson** (Federal University of Mato Grosso do Sul, Brazil)

Researcher, PhD: **Carta, Fabrizio** (Università degli Studi di Firenze, Italy)

Professor: **Döndaş, Hacı Ali** (Mersin University, Faculty of Pharmacy, Department of Basic Pharmaceutical Sciences, Mersin, Turkey)

Postdoctoral researcher: **El-Khatib, Mirna** (under Professor Sergei Vinogradov (2015-present) University of Pennsylvania, USA)

Professor: **Florio, Saverio** (CINMPIS, Italy)

Assistant professor: **Isa, Seema Habib** (G.M. Momin Women's College, Faculty of Organic Chemistry, Department of Chemistry, University of Mumbai, India)

Postdoctoral researcher: **Jishkariani, Davit** (under Prof. Christopher B. Murray, University of Pennsylvania, USA)

Professor: **Külcü, Nevzat** (Distinguished professor of chemistry in Mersin University, Department of Chemistry, Mersin, Turkey)

Assistant Professor of Chemistry: **Lebedeva, Iryna** (Augusta University, Augusta, GA, USA)

Full Member: **Nájera, Carmen** (Royal Spanish Academy of Sciences, Spain)

Assistant professor: **Orhan, Ersin** (Düzce University, Faculty of Arts and Sciences, Department of Chemistry, Düzce, Turkey)

Professor: **Öcal, Nüket** (Yıldız Technical University Faculty of Arts and Sciences, İstanbul, Turkey)

Assistant Professor: **Panda, Siva S.** (Augusta University, Augusta, GA, USA)

Researcher: **Deepak Shankar Panmand** (Mhaskewadi, Tal: Parner, Dist: Ahmadnagar, Pin: 414305, Maharashtra, India)

Researcher: **Pillai, Girinath G.** (University of Tartu, Faculty of Science, Estonia)

Professor: **Seçen, Hasan** (Atatürk University, Faculty of Science, Erzurum, Turkey)

Professor: **Souizi, Abdelaziz** (University of Ibn Tofail, Morocco)

Distinguished professor: **Stanovnik, Branko** (University of Ljubljana, Ljubljana, Slovenia)

Professor: **Supuran, Claudiu T.** (University of Florence, Florence, Italy)

Former researcher: **Sütay, Berkay** (Istanbul Technical University, İstanbul, Turkey)

Researcher: **Tural, Bilsen** (Dicle University Ziya Gökalp Education Faculty, Diyarbakır, Turkey)

Professor: **Tüfekçi, Mehmet** (Karadeniz Technical University, Faculty of Science, Trabzon, Turkey)

Professor: **Yaman, Mehmet** (Fırat University, Faculty of Science, Elazığ, Turkey)

Professor: **Yılmaz, İsmet** (İnönü University, Faculty of Arts and Sciences, Malatya, Turkey)

Associate professor: **Yılmaz, Ülkü** (İnönü University, Battalgazi Vocational School, Malatya, Turkey)

Professor: **Yus, Miguel** (Ludwig-Maximilian-University of Munich, Department of Chemistry, München, Germany and Uppsala University, Uppsala Sweden)

JOTCSA, Table of Contents, Volume 4, issue 2

Title of the Manuscript	Pages
Editorial, Volume 4, issue 2 / Editörden (cilt 4, sayı 2) (Prof. Dr. Hasan KÜÇÜKBAY)	viii
1. Synthesis of novel schiff bases derived from ferrocene as a chiral sensor / Kiral sensör olarak ferrosenden türetilen yeni schiff bazlarının sentezi (Erratum-Asuman UÇAR)	ix-xi
2. Easy synthesis of 3,4-dihydropyrimidin-2-(1H)-one derivatives using phosphate fertilizers map, dap, and tsp as efficient catalysts /Etkin katalizör olarak fosfatlı gübreler map, dap ve tsp kullanan 3,4-dihidropirimidin-2-(1H)-on türevlerinin kolay sentezi (Sarrah SIBOUS, Said BOUKHRIS, Rachida GHAILANE, Nouzha HABBADI, Amina HASSIKOU, and Abdelaziz SOUIZI)	477-488
3. Boron and molybdenum contents of verbascum olympicum boiss. Growing around an abandoned tungsten mine: a case study for ecological problem solving / Terk edilmiş tungsten madeni etrafında yetişen verascum olypicum boiss. Bitkisine bor ve molibden içerikleri: ekolojik sorun çözme için bir vaka çalışması (Ümran SEVEN ERDEMİR)	489-500
4. Synthesis of Novel Diarylethenes Bearing Naphthalimide Moiety and Photochromic Fluorescence Behaviors / Naftalimid grubu içeren yeni diariletten bileşiklerinin sentezi ve fotokromik floresans davranışları (Ersin ORHAN)	501-516
5. An efficient catalyst for aldol condensation reactions / Aldol kondensasyon reaksiyonları için etkili bir katalizör (Yusuf HASSAN, Rosa KLEIN, Perry T KAYE)	517-524
6. Using natural stone pumice in Van region on adsorption of some textile dyes / Bazı tekstil boyalarının adsorpsiyonu için Van bölgesinde bulunan doğal ponza taşının kullanılması (Ali Rıza KUL, Veysel BENEK, Ahmet SELÇUK, and Nilgün ONURSAL)	525-536
7. Determination of Cd(II) ions by using cyclodextrin-based polymeric fluorescence sensor / Siklodekstrin esaslı polimerik floresans sensörü kullanarak Cd(II) iyonlarının tayini (Soner ÇUBUK, Özge YILMAZ, Ece KÖK YETİMOĞLU, and Memet Vezir KAHRAMAN)	537-548
8. Development of UV-cured polymeric fluorescence sensor for boron determination / Bor tayini için UV-kürlemeli polimerik floresans sensörünün geliştirilmesi (Soner ÇUBUK, Mirgöl KOSİF, Ece KÖK YETİMOĞLU, and Memet Vezir KAHRAMAN)	549-562
9. Chemical investigation and antioxidant activity of fractions of Lannea humilis (Oliv.) Engl. / Lannea humilis (Oliv.) Engl.'nin fraksiyonlarının kimyasal incelenmesi ve antioksidan aktivitesi (ACHIKA Jonathan Ilemona, AYO Racheal Gbekele-Oluwa, OYEWALE Adebayo Ojo, and JAMES Dama Habila)	563-572
10. Theoretical investigation of corrosion inhibition of iron metal by some benzothiazole derivatives: A Monte Carlo study / Bazı benzotiyazol türevleri ile demir metalinin korozyon azaltma özelliğinin teorik olarak incelenmesi : Bir Monte Carlo çalışması (Savaş KAYA and Nail ALTUNAY)	573-578
11. A versatile water soluble ball-type phthalocyanine as potential antiproliferative drug: the interaction with G-quadruplex formed from Tel 21 and cMYC / Çok yönlü, çözünür top tipi ftalosiyanın bileşiminin hücre büyümesini engelleme özelliği: Tel 21 ve cMYC'en oluşan G-kuadrupleks ile etkileşim (Efkan BAĞDA, Esra BAĞDA, and Ebru YABAŞ)	579-596
12. Novel straight-chained sulfanyl members of arylamino-1,4-naphthoquinones: Synthesis and Characterization / Arilamino-1,4-naftokinonların yeni düz zincirli sülfanil üyeleri: Sentez ve karakterizasyon (Nilüfer BAYRAK)	597-606
13. Determination of bisphenol A in beverage samples using ultrasonic- extraction and atomic absorption spectrometry / Ultrasonik ekstraksiyon ve atomik absorpsiyon spektrometrisi ile içecek örneklerinde bisfenol A tayini (Emre YILDIRIM, Nail ALTUNAY, and Ramazan GÜRKAN)	607-630

14. CSA-Catalyzed Three-component Synthesis of Fused Polycyclic Pyrazolo[4,3-e]pyridines Under Ultrasonic Irradiation and Their Antioxidant Activity / Ultrasonik ışımada kaynaşmış polisiklik pirazolo[4,3-e]piridinlerin CSA katalizörlü üç bileşenli sentezi ve antioksidan etkileri (Emel PELİT)	631-648
15. Synthesis and Characterization of Novel Aromatic Substituted γ - and δ -Ketoxime Esters / Yeni aromatik sübtitüe γ - ve δ -ketoksim esterlerinin sentezi ve karakterizasyonu (Belma HASDEMİR)	649-660



TURKISH CHEMICAL SOCIETY

**Editorial, Vol. 4, issue 2 (2017): Submissions between
February-June, 2017**

We are very happy to present the volume 4, issue 2 of “**Journal of the Turkish Chemical Society, Section A: Chemistry (JOTCSA)**” which has already been indexed in **TR-Dizin** of TÜBİTAK (The Scientific and Technological Research Council of Turkey)

(<http://cabim.ulakbim.gov.tr/?s=Journal+of+Turkish+chemical+society+section+a+chemistry>) and **Chemical Abstracts**

(http://cassi.cas.org/publication.jsp?P=eCQtRPJo9AQyz133K_I13zLPXfcr-WXf-1IG1_aXCEAyz133K_I13zLPXfcr-WXf-9sRQmIixJMyz133K_I13zLPXfcr-WXfm62XYhyRweqA4Krr_z8o_Q).

This issue includes 15 papers, 3 by authors of various nationalities and 12 by Turkish authors.

We wish to thank all the authors and reviewers of the manuscripts, and to the editorial team of Journal of the Turkish Chemical Society, Section A: Chemistry for your contributions over the last three years to making a success of **JOTCSA**.

Please visit to the website of our journal at <http://turchemsoc.dergipark.gov.tr/jotcsa> and send your research papers/articles using our website. In case of any queries please do not hesitate to contact our managing editor, Mr. Barbaros AKKURT, at jotcsa@turchemsoc.org or myself at hasan.kucukbay@inonu.edu.tr.

There is no any publication, processing or subscription charge for our open-access journal.

Best regards,

Prof. Dr. Hasan KÜÇÜKBAY, PhD

Editor-in-chief, JOTCSA

JOTCSA, 2(3), 2015

Synthesis of Novel Schiff Bases Derived From Ferrocene as a Chiral Sensor (Erratum)

Kiral Sensör Olarak Ferrosen Türevli Yeni Schiff Bazının Sentezi (Hata bildirimi)

Asuman UÇAR*^a, Mükerrerem FINDIK^a, Haluk BİNGÖL^b, Ersin GÜLER^a, Emine ÖZCAN^a

^aDepartment of Chemistry, Faculty of Science, Selcuk University, 42075 Konya, Turkey

^bChemistry Department, Ahmet Kelesoglu Education Faculty, Necmettin Erbakan University, 42099 Konya, Turkey

asucar340@gmail.com.

ABSTRACT

Ferrocene and ferrocenyl compounds are widely used in fluorescence studies due to the realizing of energy and electron transfer [1]. In addition to the high selectivity, because of their potential applications in the fields of analytical, biological, clinical and biochemistry, enantioselective fluorescence sensor studies are listed in the literature [2]. Amino acids are important to obtain chiral receptor due to the being natural chiral molecule and excellent hydrogen bond made by amide bonds [3].

In this study the chiral compound **3** was synthesized and fluorescence properties of **3** was studied. When we investigated the fluorescence changes after the interaction of this compound with various chiral amino acids (D-Methionine L-Methionine, D-Alanine, L-Alanine, D-Valine, L-Valine, D-Serine, L-Serine, D-Histidine, L-Histidine, D- Cysteine, L- Cysteine and D-Threonine, L-Threonine), it was seen that there is a visible change observed against the D-methionine unlike other aminoacids.

Keywords

Ferrocene, Schiff base, Amino acids methylester , Fluorescence sensors, Chiral recognition

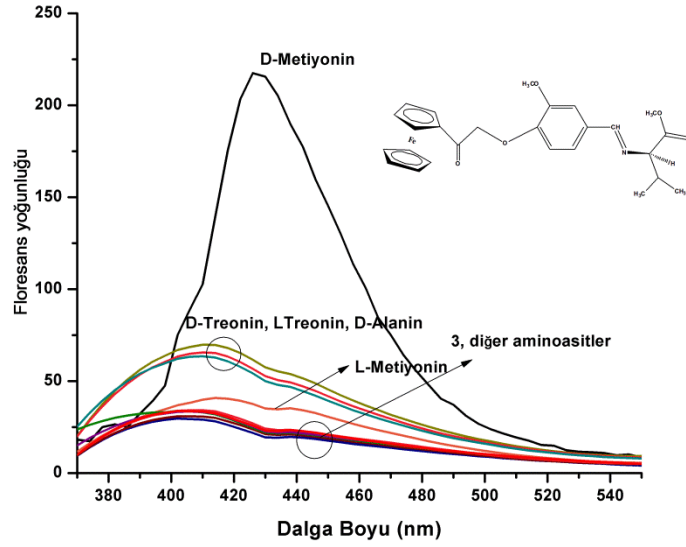


Figure 1: The structure of the synthesized compounds and the fluorescence spectra of **3** upon the titration of various amino acids.

Şekil 1: Sentezlenen bileşiğin yapısı ve incelenen amino asitlere karşı değişen floresans yoğunluk grafiği.

ÖZET

Ferrosen ve ferrosenil bileşikleri enerji ve elektron transferi gerçekleştirebilmesinden dolayı floresans çalışmalarında yaygın olarak kullanılmıştır (1). Yüksek seçiciliğin yanında analitik, biyolojik, klinik ve biyokimya alanlarında potansiyel uygulamaları nedeniyle enantioseçici floresans sensör çalışmaları literatürlerde yer almaktadır (2). Aminoasitler hem doğal kiral moleküller olduğu için hem de amid bağları mükemmel hidrojen bağı yaptıkları için kiral reseptör eldesinde önem taşımaktadırlar (3).

Bu çalışmada kiral yapıda olan **3** bileşiği sentezlenmiş ve floresans özellikleri çalışılmıştır. Bu bileşiğin çeşitli kiral aminoasitlerle (D- Metiyonine, L- Metiyonine, D-Alanin, L-Alanin, D-Valin, L-Valin, L-Serin, D-Serin, D-Histidin, L-Histidin, D-Sistein, L- Sistein D- Treonin, L- Treonin) etkileşimi sonucu floresans değişimleri incelendiğinde D-metiyonine karşı gözle görülür bir değişim söz konusuysen incelenen diğer amino asitlere karşı bu artışın mevcut olmadığı görülmüştür. Bu sonuçlar sentezlenen bileşiğin D-metiyonin enantioselektif tanınması için kullanışlı bir sensör olduğunu göstermektedir.

Anahtar Kelimeler: : Ferrosen, Schiff bazı, Aminoasit metilester, Floresans sensör, Kiral tanınma

REFERENCES/KAYNAKLAR

- [1] Qing G.Y, Sun T. L, He Y. B, Wang F, Chen Z. H. HIGHLY SELECTIVE FLUORESCENT RECOGNITION OF PHENYL AMINO ALCOHOL BASED ON FERROCENYL MACROCYCLIC DERIVATIVES. *Tetrahedron: Asymmetry*, 2009 Feb;20: 575-583.
- [2] Meng J, Wei G, Huang X, Dong Y, Cheng Y, Zhu C. A FLUORESCENCE SENSOR BASED ON CHIRAL POLYMER FOR HIGHLY ENANTIOSELECTIVE RECOGNITION OF PHENYLALANINOL. *Polymer*, 2011 Dec;52: 363-367.
- [3] Zhang X, Yin J, Yoon J. RECENT ADVANCES IN DEVELOPMENT OF CHIRAL FLUORESCENT AND COLORIMETRIC SENSORS. *Chem. Rev.* 2014 Feb;114:4918-4959.