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International Researcher IDs

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Education Information

Doctorate, Kocaeli University, Fen Bilimleri Enstitüsü, Kimya Anabilim Dalı, Turkey 2013 - 2019

Postgraduate, Kocaeli University, Fen-Edebiyat Fakültesi, Kimya Bölümü, Turkey 2011 - 2013

Undergraduate, Istanbul University, Mühendislik Fakültesi, Kimya Bölümü, Turkey 2006 - 2010

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, DİOSGENİN TÜREVİ BİLEŞİKLERİN VE POLİMERLERİNİN SENTEZİ, KARAKTERİZASYONU VE ANTİKANSER ÇALIŞMALARINDA KULLANIMI, Kocaeli University, Fen Bilimleri Enstitüsü, Fen Bilimleri Enstitüsü, 2019

Postgraduate, Floresans aktif özelliğe sahip steroid içeren polimerlerin sentezi ve karakterizasyonu, Kocaeli Üniversitesi, Fen-Edebiyat Fakültesi, Kimya Bölümü, 2013

Research Areas

Chemistry, Organic Chemistry, Chemistry of Natural Products, Steroid Chemistry, Natural Sciences

Academic Titles / Tasks

Assistant Professor, Kocaeli University, Fen Edebiyat Fakültesi, Kimya, 2022 - Continues

Research Assistant, Kocaeli University, Fen Edebiyat Fakültesi, Kimya, 2010 - 2022

Courses

İleri Organik Kimya Laboratuvarı ve Teknikleri II, Postgraduate, 2023 - 2024

Bitirme Projesi, Undergraduate, 2023 - 2024

Temel Kimya I, Undergraduate, 2023 - 2024
Uzmanlık Alan Dersi, Postgraduate, 2023 - 2024
İleri Organik Kimya Laboratuvarı ve Teknikleri I, Doctorate, 2023 - 2024
Mesleki Kimya , Associate Degree, 2022 - 2023
General Chemistry Laboratory II, Undergraduate, 2022 - 2023
Mesleki Kimya, Associate Degree, 2022 - 2023
Genel Kimya Laboratuvarı I , Undergraduate, 2023 - 2024
Mesleki Kimya, Associate Degree, 2022 - 2023
KİMYA, Undergraduate, 2023 - 2024
Bitirme Çalışması, Undergraduate, 2022 - 2023
Mesleki Kimya, Associate Degree, 2022 - 2023
Advanced Organic Chemistry Laboratory and Techniques I, Postgraduate, 2022 - 2023
Temel Kimya, Associate Degree, 2022 - 2023

Advising Theses

İlkar Erdağı S., Alzheimer hastalığında kullanılabilir ilaç aktif maddelerin sentezi, Postgraduate, K.Nar(Student), Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A comprehensive study on synthesis and crystal structures of Cu(II) and Ni(II) complexes: In vitro and in silico evaluation of biomolecular interactions, antiproliferative activities and molecular docking**
Özbağcı D. İ., Erdağı S. İ., Aydın İ., AYDIN R., Zorlu Y., ARI F.
Journal of Molecular Structure, vol.1309, 2024 (SCI-Expanded)
- II. **A comparative study on the synthesis and crystal structures of Ni(ii) complexes bearing tetradentate N2O2 donor Schiff bases: biomolecular interactions, cytotoxicities and molecular docking**
İNCİ ÖZBAĞCI D., İLKAR ERDAĞI S., Aydın İ., AYDIN R., Zorlu Y., ARI F.
New Journal of Chemistry, vol.48, no.23, pp.10475-10496, 2024 (SCI-Expanded)
- III. **Steroid-Hymecromone Conjugates with Improved Antiproliferative and Antimicrobial Potential: Synthesis, Biological Evaluation, and in silico ADME Prediction**
Erdagi S. I.
CHEMISTRYSELECT, vol.8, no.25, pp.1-12, 2023 (SCI-Expanded)
- IV. **Preparation and characterization of steroid and umbelliferone-based hetero-bifunctional poly(epsilon-caprolactone)s for potential drug delivery systems: antimicrobial and anticancer activities**
İlkar Erdağı S., Isik S.
JOURNAL OF POLYMER RESEARCH, vol.29, no.6, 2022 (SCI-Expanded)
- V. **Synthesis, Structural Analysis and Antiproliferative Activity of Nitrogen-Containing Hetero Spirostan Derivatives: Oximes, Heterocyclic Ring-Fused and Furostanes**
İlkar Erdağı S., Yıldız U.
CHEMISTRYSELECT, vol.7, no.24, 2022 (SCI-Expanded)
- VI. **Synthesis of diosgenin derivatives by A and B ring modifications and low-valent titanium (Ti-0)-catalysed McMurry coupling reactions and designing to create novel biological agents**
İlkar Erdağı S., Yıldız U.
JOURNAL OF MOLECULAR STRUCTURE, vol.1256, 2022 (SCI-Expanded)
- VII. **Genipin crosslinked gelatin-diosgenin-nanocellulose hydrogels for potential wound dressing and**

healing applications

İL KAR ERDAĞI S., Ngwabebhoh F. A., YILDIZ U.

INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES, vol.149, pp.651-663, 2020 (SCI-Expanded)

VIII. **Pickering stabilized nanocellulose-alginate: A diosgenin-mediated delivery of quinalizarin as a potent cyto-inhibitor in human lung/breast cancer cell lines**

İlkar Erdağı S., Ngwabebhoh F. A., Yıldız U.

MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.109, 2020 (SCI-Expanded)

IX. **Biological evaluation of bioavailable amphiphilic polymeric conjugate based-on natural products: diosgenin and curcumin**

İL KAR ERDAĞI S., Uyanik C.

INTERNATIONAL JOURNAL OF POLYMERIC MATERIALS AND POLYMERIC BIOMATERIALS, vol.69, no.2, pp.73-84, 2020 (SCI-Expanded)

X. **Diosgenin-conjugated PCL-MPEG polymeric nanoparticles for the co-delivery of anticancer drugs: design, optimization, in vitro drug release and evaluation of anticancer activity**

Erdagi S., Yildiz U.

NEW JOURNAL OF CHEMISTRY, vol.43, no.17, pp.6622-6635, 2019 (SCI-Expanded)

XI. **Pickering emulsions stabilized nanocellulosic-based nanoparticles for coumarin and curcumin nanoencapsulations: In vitro release, anticancer and antimicrobial activities**

Ngwabebhoh F. A., Erdagi S., Yildiz U.

CARBOHYDRATE POLYMERS, vol.201, pp.317-328, 2018 (SCI-Expanded)

XII. **The formation of sobrelol ethers by the alcoholysis of pinene epoxides**

Erdagi S., BOZTAŞ F. G., UYANIK C.

JOURNAL OF CHEMICAL RESEARCH, no.5, pp.318-319, 2016 (SCI-Expanded)

XIII. **Heterobifunctional poly(epsilon-caprolactone): Synthesis of alpha-cholesterol-omega-pyrene PCL via combination of ring-opening polymerization and "click" chemistry**

Erdagi S., Doganci E., UYANIK C., Yilmaz F.

REACTIVE & FUNCTIONAL POLYMERS, vol.99, pp.49-58, 2016 (SCI-Expanded)

Articles Published in Other Journals

I. **In vitro biological activity and in silico molecular binding studies of steroidal conjugates**

İlkar Erdağı S.

Eurasian Journal of Biological and Chemical Sciences, vol.7, no.1, pp.10-19, 2024 (Peer-Reviewed Journal)

II. **Design, Synthesis, and Biological Evaluation of Curcumin- β -sitosterol Conjugate a Potential Candidate for Breast Cancer Therapy**

İL KAR ERDAĞI S.

Bilecik Şeyh Edebali Üniversitesi Fen Bilimleri Dergisi, vol.9, no.2, pp.866-880, 2022 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

I. **Steroidall Konjugatların Biyolojik Aktiviteleri: Antimikrobiyal ve Antiproliferatif Özelliklerin İncelenmesi ve Moleküler Bağlanma Çalışmaları**

İlkar Erdağı S.

6th International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2023) , Ankara, Turkey, 11 - 13 October 2023, pp.183

II. **Synthesis of Diosgenin Containing m-PEG-PCL Nanoparticles: Anticancer, Antimicrobial and Drug Delivery Studies**

İL KAR S.

4th International Conference on Polymer Chemistry, Stockholm, Sweden, 25 - 27 June 2018

- III. **Synthesis, Characterization and Fluorescence Studies of poly(ethylene glycol)-Diosgenin-Curcumin Conjugates**
İLKAR S.
European Polymer Congress EPF, Lyon, France, 2 - 07 July 2017
- IV. **SYNTHESIS AND CHARACTERIZATION OF SOME STEROIDAL POLYMERS CONTAINING COUMARIN DERIVATIVE**
SEMA I., İLKAR S.
European Polymer Congress EPF, Lyon, France, 2 - 07 July 2017
- V. **Chemical Preparation and Characterization of New Biodegradable Poly caprolactone formed from Diosgenin and Cholesterol**
İLKAR S., DOĞANCI E., YILMAZ F., UYANIK C.
MACRO 2016 - 46th IUPAC WORLD POLYMER CONGRESS, 17 - 21 July 2016
- VI. **Preparation of Biological Active Steroids**
İLKAR S., UYANIK C.
Eurochemistry 2016, 16 - 18 June 2016
- VII. **β Sitosterolen başlıyarak McMurry reaksiyonu ile B Norsteroidlerin sentezi**
İLKAR S., UYANIK C.
27. Ulusal Kimya Kongresi, Turkey, 23 - 28 August 2015
- VIII. **b-Sitosterolden Başlıyarak McMurry Reaksiyonu ile ?-Norsteroid sentezi**
İLKAR ERDAĞI S.
27. Ulusal Kimya Kongresi, Çanakkale, Turkey, 26 July 2015, pp.1
- IX. **Synthesis of pyrene functionalized cholesterol derivatives via Copper I catalyzed click reaction**
SEVINC İLKAR ERDAGI CAVIT UYANIK ERDINC DOGANCI FARUK YILMAZ June 28th July 2nd 2015
Sitges Barcelona Spain 2015
İLKAR S., UYANIK C., DOĞANCI E., YILMAZ F.
18th IUPAC International Symposium on Organometallic Chemistry Directed Towards Organic Synthesis (OMCOS), 28 June - 02 July 2015
- X. **Synthesis of Pyrene-Functionalized Cholesterol Derivatives via Copper (I) Catalyzed "Click" Reaction**
İLKAR ERDAĞI S.
Organometallic Chemistry Directed Towards Organic Synthesis IUPAC International Symposium, Sitges, Spain, 23 June 2015, pp.1
- XI. **Synthesis and characterization of a cholesterol and w pyrene functionalized poly e caprolactone polymer by a combination of ring opening polymerization and click chemistry techniques**
İLKAR S., DOĞANCI E., YILMAZ F., UYANIK C.
APME2013: 10th International Conference on Advanced Polymers via Macromolecular Engineering, 18 - 23 August 2013
- XII. **Synthesis and Characterization of ?-cholesterol and ?-pyrene Functionalized poly(?-caprolactone Polymer by a Combination of Ring Opening Polymerization and "click" Chemistry Techniques**
İLKAR ERDAĞI S.
10th IUPAC International Conference on Advanced Polymers via Macromolecular Engineering (APME), Durham, United Kingdom, 13 August 2013, pp.1
- XIII. **Studies on Kaurene chemistry**
İLKAR ERDAĞI S.
44th World Chemistry Congress, İstanbul, Turkey, 17 July 2013, pp.1
- XIV. **Nikotinamidin İkili Komplekslerinin Kararlılık Sabitleri ve Termodinamik Nicelikleri**
İLKAR ERDAĞI S.
24. Ulusal Kimya Kongresi, Zonguldak, Turkey, 22 June 2010, pp.1

Supported Projects

İL KAR ERDAĞI S., OLGUN U., GÜLFEN M., AKÇA Ş., YILDIZ U., ÖZCAN A., Project Supported by Higher Education Institutions, Triklolan ve hidroksiaril tiyazolo54dtiyazol bileşikleri ile modifiye edilmiş kitosan biyopolimerlerinin sentezi karakterizasyonu ve antibakteriyel aktivitelerinin ölçülmesi, 2024 - Continues

İlkar Erdağı S., Şaki N., Yıldız U., Arabacı G., Alıcı E. H., Akın M., Çobanoğlu O., Project Supported by Higher Education Institutions, Alzheimer Hastalığı için Potansiyel AChE İnhibitörleri Olarak Gallik asit ve Benzeri Fenolik Bileşikler ile Donepezil Konjugatlarının Sentezi Biyolojik Değerlendirmesi ve in silico Çalışmaları, 2024 - 2026

İlkar Erdağı S., Project Supported by Higher Education Institutions, Alzheimer hastalığı için potansiyel kolinesteraz inhibitörleri olarak kullanılmak üzere yeni steroidkarbammat türevlerinin sentezi biyolojik değerlendirilmesi ve moleküler bağlanma çalışması, 2023 - 2025

YILDIZ U., ERDEM A., İL KAR ERDAĞI S., Project Supported by Higher Education Institutions, 2019-KİMYA ARGE LABORATUVARI, 2019 - 2020

Scientific Refereeing

JOURNAL OF BIOMATERIALS SCIENCE, POLYMER EDITION, Journal Indexed in SSCI, December 2022

POLYMER JOURNAL, Journal Indexed in SSCI, August 2022

CARBOHYDRATE POLYMERS, Journal Indexed in SSCI, January 2022

CARBOHYDRATE POLYMERS, Journal Indexed in SSCI, December 2020

Metrics

Publication: 30

Citation (WoS): 200

Citation (Scopus): 203

H-Index (WoS): 6

H-Index (Scopus): 6

Scholarships

2228-B Yüksek Lisans öğrencileri burs programı , TUBİTAK, 2013 - 2019