Assoc. Prof. AHMET ERDEM

Personal Information

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International Researcher IDs
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Publons / Web Of Science ResearcherID: AAR-7132-2020
Yoksis Researcher ID: 124473

Education Information

Doctorate, Kocaeli University, Fen Edebiyat Fakültesi, Kimya, Turkey 2012 - 2017
Postgraduate, Bogazici University, Faculty Of Arts And Sciences, Department Of Chemistry, Turkey 2009 - 2011
Undergraduate, Bogazici University, Faculty Of Arts And Sciences, Department Of Chemistry, Turkey 2001 - 2007

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Biyomedikal ve çevre uygulamalarına yönelik polimerik jeller ile antikorozif kaplamaların sentezi ve karakterizasyonu, Kocaeli University, Fen Bilimleri Enstitüsü, Fen Bilimleri Enstitüsü, 2017
Postgraduate, Synthesis and effectiveness of low styrene emission agents for unsaturated polyester, Boğaziçi Üniversitesi, Fen-Edebiyat Fakültesi, Kimya Bölümü, 2011

Research Areas

Biomedical Engineering, Tissue Engineering, Chemistry, Physical Chemistry, Characterization of Polymers, New Technologies in Polymer Chemistry, Polymeric Adsorbents, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Kocaeli University, Teknoloji Fakültesi, Biyomedikal Mühendisliği, 2021 - Continues
Assistant Professor, Kocaeli University, Teknoloji Fakültesi, Biyomedikal Mühendisliği, 2021 - 2021
Research Assistant PhD, Kocaeli University, Teknoloji Fakültesi, Biyomedikal Mühendisliği, 2017 - 2021
Research Assistant, Kocaeli University, Fen Edebiyat Fakültesi, Kimya, 2010 - 2017

Courses

Doku Mühendisliğine Giriş, Undergraduate, 2022 - 2023
Polimerizasyon Teknikleri, Postgraduate, 2022 - 2023
Genel Kimya, Undergraduate, 2020 - 2021

Advising Theses

Erdem A., JELATİN METAKRİLOİL (GELMA) BİYOMAKROMOLEKÜLLERİNİN BİYOYAPIŞKAN UYGULAMA PERFORMANSLARI AÇISINDAN SENTEZ YÖNTEMLERİNİN KARŞILAŞTIRILMASI, Postgraduate, F.ŞENTÜRK(Student), 2023

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Dysregulation of autophagy in gastric carcinoma: Pathways to tumor progression and resistance to therapy**
Wen W., ERTAŞ Y. N., Erdem A., Zhang Y.
Cancer Letters, vol.591, 2024 (SCI-Expanded)

II. **Egg White Photocrosslinkable Hydrogels as Versatile Bioinks for Advanced Tissue Engineering Applications**
Mahmoodi M., Darabi M. A., Mohaghegh N., Erdem A., Ahari A., Abbasgholizadeh R., Tavafoghi M., Mir Hashemian P., Hosseini V., Iqbal J., et al.
ADVANCED FUNCTIONAL MATERIALS, 2024 (SCI-Expanded)

III. **Diagnostic, Therapeutic, and Theranostic Multifunctional Microneedles**
ERTAŞ Y. N., Ertas D., ERDEM A., Segujja F., Dulchavsky S., Ashammakhi N.
Small, 2024 (SCI-Expanded)

IV. **Aerogel-Based Biomaterials for Biomedical Applications: From Fabrication Methods to Disease-Targeting Applications**
Karamikamkar S., Yalcintas E. P., Haghniaz R., De Barros N. R., Mecwan M., Nasiri R., Davoodi E., Nasrollahi F., Erdem A., Kang H., et al.
ADVANCED SCIENCE, vol.10, no.23, 2023 (SCI-Expanded)

V. **Droplet-based microfluidics in biomedical applications**
Amirifar L., Besanjideh M., Nasiri R., Shamloo A., Nasrollahi F., De Barros N. R., Davoodi E., Erdem A., Mahmoodi M., Hosseini V., et al.
BIOFABRICATION, vol.14, no.2, 2022 (SCI-Expanded)

VI. **Methods for fabricating oxygen releasing biomaterials**
Erdem A., Haghniaz R., Ertaş Y. N., Sangabathuni S. K., Nasr A. S., Swieszkowski W., Ashammakhi N.
JOURNAL OF DRUG TARGETING, vol.30, no.2, pp.188-199, 2022 (SCI-Expanded)

VII. **Advances in biomedical applications of self-healing hydrogels**
Rammal H., Ghavaminejad A., Erdem A., Mbeleck R., Nematollahi M., Emir Diltemiz S., Alem H., Darabi M. A., Ertaş Y. N., Caterson E. J., et al.
MATERIALS CHEMISTRY FRONTIERS, vol.5, pp.4368-4400, 2021 (SCI-Expanded)

VIII. **Preparation of hydrophobic macroinimer-based novel hybrid sorbents for efficient removal of organic liquids from wastewater**
Erdem A., Mammadli N., Yıldız U.
ENVIRONMENTAL SCIENCE AND POLLUTION RESEARCH, vol.28, no.17, pp.22064-22076, 2021 (SCI-Expanded)

IX. **Synthesis and characterization of polypropylene glycol-based novel organogels as effective materials for the recovery of organic solvents**
Erdem A.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.138, no.7, 2021 (SCI-Expanded)

X. **Preparation and characterization of rapid temperature responsive cationic comb-type grafted POE-**

POP based hydrogel as prospective excellent actuators/sensors
Erdem A.
COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS, vol.607, 2020 (SCI-Expanded)

XI. **An Alkaline Based Method for Generating Crystalline, Strong, and Shape Memory Polyvinyl Alcohol Biomaterials**
Darabi M. A., Khosrozadeh A., Wang Y., Ashammakhi N., Alem H., Erdem A., Chang Q., Xu K., Liu Y., Luo G., et al.
ADVANCED SCIENCE, vol.7, no.21, 2020 (SCI-Expanded)

XII. **Safety Considerations in 3D Bioprinting Using Mesenchymal Stromal Cells**
Belk L., Tellisi N., Macdonald H., Erdem A., Ashammakhi N., Pountos I.
FRONTIERS IN BIOENGINEERING AND BIOTECHNOLOGY, vol.8, 2020 (SCI-Expanded)

XIII. **3D Bioprinting of Oxygenated Cell-Laden Gelatin Methacryloyl Constructs**
Erdem A., Darabi M. A., Nasiri R., Sangabathuni S., Ertas Y. N., Alem H., Hosseini V., Shamloo A., Nasr A. S., Ahadian S., et al.
ADVANCED HEALTHCARE MATERIALS, vol.9, no.15, 2020 (SCI-Expanded)

XIV. **Advances in Controlled Oxygen Generating Biomaterials for Tissue Engineering and Regenerative Therapy.**
Ashammakhi N., Darabi M., Kehr N., Erdem A., Hu S., Dokmeci M., Nasr A., Khademhosseini A.
Biomacromolecules, 2019 (SCI-Expanded)

XV. **A design optimization study on synthesized nanocrystalline cellulose, evaluation and surface modification as a potential biomaterial for prospective biomedical applications**
Ngwabebhoh F. A., Erdem A., Yıldız U.
INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES, vol.114, pp.536-546, 2018 (SCI-Expanded)

XVI. **Synthesis, characterization and swelling investigations of novel polyetheramine-based hydrogels**
Erdem A., Ngwabebhoh F. A., Yıldız U.
POLYMER BULLETIN, vol.74, pp.873-893, 2017 (SCI-Expanded)

XVII. **Novel macroporous cryogels with enhanced adsorption capability for the removal of Cu(II) ions from aqueous phase: Modelling, kinetics and recovery studies**
Erdem A., Ngwabebhoh F. A., Yıldız U.
JOURNAL OF ENVIRONMENTAL CHEMICAL ENGINEERING, vol.5, no.1, pp.1269-1280, 2017 (SCI-Expanded)

XVIII. **Fabrication and characterization of novel macroporous jeffamine/diamino hexane cryogels for enhanced Cu(II) metal uptake: Optimization, isotherms, kinetics and thermodynamic studies**
Erdem A., Ngwabebhoh F. A., Cetıntas S., Bingöl D., Yıldız U.
CHEMICAL ENGINEERING RESEARCH & DESIGN, vol.117, pp.122-138, 2017 (SCI-Expanded)

XIX. **Synergistic removal of Cu(II) and nitrazine yellow dye using an eco-friendly chitosan-montmorillonite hydrogel: Optimization by response surface methodology**
Ngwabebhoh F. A., Erdem A., Yıldız U.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.133, 2016 (SCI-Expanded)

XX. **Functionalized Hybrid Coatings on ABS Surfaces by PLD and Dip Coatings**
Kaçar E., Erdem A., Sanlı M. M., Kayan A., Candan L., Yıldız U., Demir A.
JOURNAL OF INORGANIC AND ORGANOMETALLIC POLYMERS AND MATERIALS, vol.26, pp.895-906, 2016 (SCI-Expanded)

XXI. **Fabrication and characterization of soft macroporous Jeffamine cryogels as potential materials for tissue applications**
Erdem A., Ngwabebhoh F. A., Yıldız U.
RSC Advances, vol.6, pp.111872-111881, 2016 (SCI-Expanded)

Articles Published in Other Journals

I. **pH and thermoresponsive comb-type grafted hydrogels based on polyethylene glycol diglycidyl ether and monoamino/diamino terminated jeffamines: synthesis, characterization and**

physicochemical properties
Erdem A.
CUMHURIYET SCIENCE JOURNAL, vol.41, no.3, pp.690-698, 2020 (Peer-Reviewed Journal)

Books & Book Chapters

I. **3D Bioprinting**
Pountos I., Tellisi N., Darabi M. A., Erdem A., Mohamed T., Güvendiren M., Ashammakhi N.
in: Digital Surgery, Atallah,Sam, Editor, Springer, Basel, pp.215-232, 2020

Refereed Congress / Symposium Publications in Proceedings

I. **Synergistic Removal of Cu(II) and Nitrazine Yellow Dye Using an EcoFriendlyHydrogel: Optimization by Response Surface Methodology**
Asabuwa Ngwabebhoh F., ERDEM A., YILDIZ U.
6. Fiziksel Kimya Kongresi, 15 - 18 May 2017
II. **Doku İskelesi Olarak Kullanılabilecek Polyetheramine Bazlı Kriyojellerin Sentezi ve Karakterizasyonu**
ERDEM A., Asabuwa Ngwabebhoh F., YILDIZ U.
6. Fiziksel Kimya Kongresi, 15 - 18 May 2017
III. **Yeni Nesil Makro Gözenekli İndirgenmiş Polietheramine Bazlı Kriyojellerin Cu (II) İyon Adsorpsiyon Uygulamaları**
ERDEM A., Ngwabebhoh A. F., YILDIZ U.
6. Fiziksel Kimya Kongresi, 15 - 18 May 2017
IV. **Yeni Nesil Makro Gözenekli İndirgenmiş Polietheramine BazlıKriyojellerin Cu (II) İyon Adsropsiyon Uygulamaları**
ERDEM A., Asabuwa Ngwabebhoh F., YILDIZ U.
6. Fiziksel Kimya Kongresi, 15 - 18 May 2017
V. **Evaluations of molecular weight and reduction effects on Jeffamine glutaraldehyde cryogels for potential application as scaffolds in cartilage tissue engineering**
ERDEM A., YILDIZ U., Fahanwi A. N.
46. IUPAC World Polymer Congress, 17 - 21 July 2016
VI. **Polieteramine bazlı hidrojellerin şişme davranışlarının incelenmesi Çanakkale Türkiye 2015**
ERDEM A., Asabuwa F., YILDIZ U.
27. Ulusal kimya kongresi, Turkey, 23 - 28 August 2015
VII. **Synthesis and characterization of Jeffamine based hydrogels and investigation of Cu II ion binding properties by response surface method approach**
ERDEM A., YILDIZ U., Fahanwi A.
European Polymer Congress, 21 - 26 June 2015
VIII. **Synthesis of oil based low styrene emission (LSE) agents for polyester**
ERDEM A., Kusefoglu S.
242nd National Meeting of the American-Chemical-Society (ACS), Colorado, United States Of America, 28 August - 01 September 2011

Supported Projects

Erdem A., TUBITAK Project, Üç Boyutlu Biyobaskılanmıs Doku Yapıların Depolanabilmesi Için Uygun Kriyobiyomürekkeplerin Hazırlanması ve Gelistirilmesi, 2023 - 2026
Eliçora A., Duruksu G., Gündoğdu Ö., Yıldız U., Sezer H. F., Yazır Y., Gülyüz Ü., Erdem A., TUBITAK Project, Görünür ışıkta

çapraz bağlanabilen kotekol fonksiyonel PEG ve Aljinatın katkılanmasıyla elde edilmiş jelatin bazlı yüksek yapışkan cerrahi sızdırmazlık malzemelerinin geliştirilmesi, 2021 - 2024
Erdem A., Duruksu G., Yazır Y., TUBITAK Project, Görünür Işıkta Çapraz Bağlanabilen Katekol Fonksiyonel Peg Ve Aljinatın Katkılanmasıyla Elde Edilmiş Jelatin Bazlı Yüksek Yapışkanlı Cerrahi Sızdırmazlık Malzemelerinin Geliştirilmesi, 2021 - 2024
YILDIZ U., ERDEM A., Project Supported by Higher Education Institutions, ANTİKOROZİF POLİMERİK KAPLAMARIN PCB DEVRELERDEKİ LEHİM ÜZERİNE ETKİLERİNİN İNCELENMESİ, 2017 - 2017
Industrial Thesis Project, Korozyon ve Bakteri Oluşumuna Karşı Koruyucu Kaplamaların Geliştirilmesi, 2012 - 2013

Mobility Activity

Research Scholarship Program, Post Doc, University of California, Los Angeles, United States Of America, 2018 - 2019

Metrics

Publication: 31
Citation (WoS): 550
Citation (Scopus): 624
H-Index (WoS): 12
H-Index (Scopus): 13