

## Assoc. Prof. AHMET ERDEM

### Personal Information

Office Phone: [+90 262 303 2225](tel:+902623032225)

Web: <https://avesis.kocaeli.edu.tr/ahmet.erdem>

### 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

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, Kimya Bölümü, 2010 - 2017

### Courses

kimya, Undergraduate

### Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

#### I. 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 (Journal Indexed in SCI)

- II. **Methods for fabricating oxygen releasing biomaterials**  
Erdem A., Haghniaz R., Ertas Y. N. , Sangabathuni S. K. , Nasr A. S. , Swieszkowski W., Ashammakhi N.  
JOURNAL OF DRUG TARGETING, 2021 (Journal Indexed in SCI)
- III. **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. , Ertas Y. N. , Catterson E. J. , et al.  
MATERIALS CHEMISTRY FRONTIERS, vol.5, pp.4368-4400, 2021 (Journal Indexed in SCI)
- IV. **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 (Journal Indexed in SCI)
- V. **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 (Journal Indexed in SCI)
- VI. **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-PHYSCOCHEMICAL AND ENGINEERING ASPECTS, vol.607, 2020 (Journal Indexed in SCI)
- VII. **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 (Journal Indexed in SCI)
- VIII. **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 (Journal Indexed in SCI)
- IX. **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 (Journal Indexed in SCI)
- X. **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 (Journal Indexed in SCI)
- XI. **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 (Journal Indexed in SCI)
- XII. **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 (Journal Indexed in SCI)
- XIII. **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 (Journal Indexed in SCI)
- XIV. **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. , Cetintas S., Bingöl D., Yıldız U.

CHEMICAL ENGINEERING RESEARCH & DESIGN, vol.117, pp.122-138, 2017 (Journal Indexed in SCI)

**XV. 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 (Journal Indexed in SCI)

**XVI. 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 (Journal Indexed in SCI)

**XVII. 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 (Journal Indexed in SCI)

## 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 (Other Refereed National Journals)

## 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, pp.215-232, 2020

## Refereed Congress / Symposium Publications in Proceedings

**I. Yeni Nesil Makro Gözenekli İndirgenmiş Polietheramine Bazlı Kriyojellerin Cu (II) İyon Adsorpsiyon Uygulamaları**

ERDEM A., Asabuwa Ngwabebhoh F., YILDIZ U.

6. Fiziksel Kimya Kongresi, 15 - 18 May 2017

**II. 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

**III. 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

**IV. 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

**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

## **Supported Projects**

ERDEM A., Project Supported by Higher Education Institutions, DOKU MÜHENDİSLİĞİ UYGULAMALARINA YÖNELİK, JELATİN TÜREVLİ BİYOMÜREKKEPLERE MODİFİYE KİTOSAN TÜREVLERİNİN ETKİSİNİN İNCELENMESİ, 2017 - 2018

## **Mobility Activity**

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

## **Citations**

Total Citations (WOS):149

h-index (WOS):7