İSTANBUL AYDIN ÜNİVERSİTESİ
ECZACILIK FAKÜLTESİ

E-BÜLTEN

1 EKİM – 31 EKİM 2026



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ECZACILIK FAKÜLTESİ

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BÖLÜMLER VE ANABİLİM DALLARI

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- Farmasötik Kimya Anabilim Dalı
- Farmakognozi Anabilim Dalı
- Farmasötik Toksikoloji Anabilim Dalı

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- Biyokimya Anabilim Dalı
- Farmasötik Mikrobiyoloji Anabilim Dalı

Öğretim Üyemiz Dr. Öğr. Üyesi Merve Ataman DRD 2026 Sempozyumuna Katılım Sağladı

Farmasötik Mikrobiyoloji Anabilim Dalı öğretim üyemiz Dr. Öğr. Üyesi Merve Ataman, 1-3 Ekim 2026 tarihlerinde Fenerbahçe Üniversitesi'nde gerçekleştirilen "International Multidisciplinary Symposium on Drug Research & Development (DRD 2026)" adlı sempozyuma katılım sağladı. Sempozyum kapsamında "Antibacterial and Antifungal Activities of Hydrazide-Hydrazone Derivatives" başlıklı çalışmayı sözlü bildiri olarak sundu.



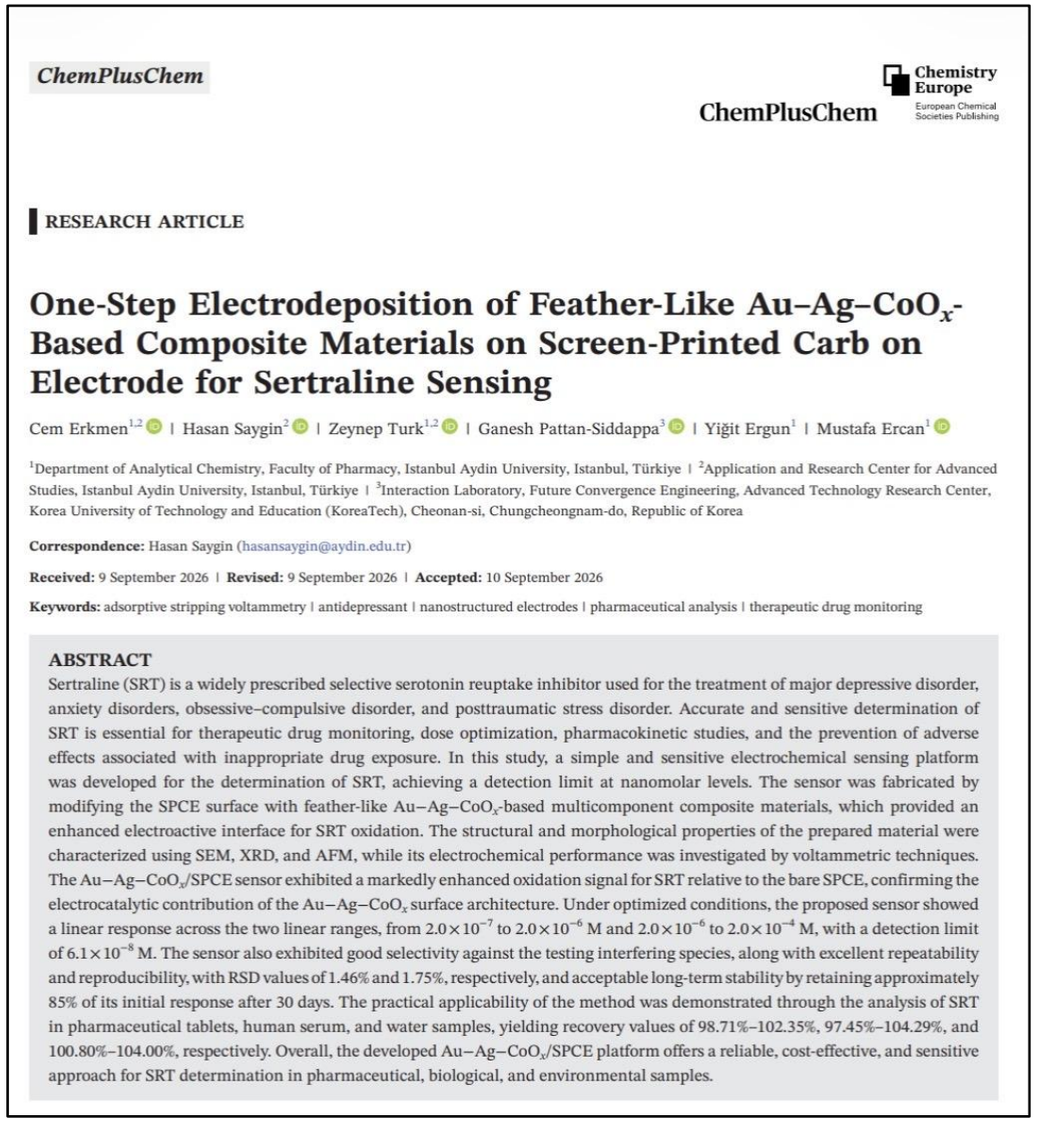
Öğretim Üyemiz Dr. Öğr. Üyesi Gizem Sena Elagöz, Kozmetik Ürün Güvenlilik Değerlendiricisi Eğitiminde Uygulama Eğitimi Verdi



Fakültemiz Farmasötik Toksikoloji Anabilim Dalı öğretim üyemiz Dr. Öğr. Üyesi Gizem Sena Elagöz tarafından, İstanbul Üniversitesi-Cerrahpaşa Sürekli Eğitim Merkezi bünyesinde düzenlenen "Kozmetik Ürün Güvenlilik Değerlendiricisi Eğitimi" kapsamında NBC Uygunluk Değerlendirme Eğitim Ltd. Şti. koordinasyonunda 8 saatlik uygulama eğitimi verildi.

Öğretim Üyelerimiz, Doç. Dr. Cem Erkmen ve Dr. Öğr. Üyesi Zeynep Türk'ün Çalışması *ChemPlusChem* Dergisinde Yayımlandı

Analitik Kimya Anabilim Dalı öğretim üyelerimiz Doç. Dr. Cem Erkmen ve Dr. Öğr. Üyesi Zeynep Türk'ün "One-Step Electrodeposition of Feather-Like Au-Ag-CoO_x-Based Composite Materials on Screen-Printed Carbon Electrode for Sertraline Sensing" başlıklı çalışması Q2 kategorisinde yer alan *ChemPlusChem* dergisinde yayımlandı.



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RESEARCH ARTICLE

One-Step Electrodeposition of Feather-Like Au–Ag–CoO_x-Based Composite Materials on Screen-Printed Carb on Electrode for Sertraline Sensing

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Keywords: adsorptive stripping voltammetry | antidepressant | nanostructured electrodes | pharmaceutical analysis | therapeutic drug monitoring

ABSTRACT

Sertraline (SRT) is a widely prescribed selective serotonin reuptake inhibitor used for the treatment of major depressive disorder, anxiety disorders, obsessive–compulsive disorder, and posttraumatic stress disorder. Accurate and sensitive determination of SRT is essential for therapeutic drug monitoring, dose optimization, pharmacokinetic studies, and the prevention of adverse effects associated with inappropriate drug exposure. In this study, a simple and sensitive electrochemical sensing platform was developed for the determination of SRT, achieving a detection limit at nanomolar levels. The sensor was fabricated by modifying the SPCE surface with feather-like Au–Ag–CoO_x-based multicomponent composite materials, which provided an enhanced electroactive interface for SRT oxidation. The structural and morphological properties of the prepared material were characterized using SEM, XRD, and AFM, while its electrochemical performance was investigated by voltammetric techniques. The Au–Ag–CoO_x/SPCE sensor exhibited a markedly enhanced oxidation signal for SRT relative to the bare SPCE, confirming the electrocatalytic contribution of the Au–Ag–CoO_x surface architecture. Under optimized conditions, the proposed sensor showed a linear response across the two linear ranges, from 2.0×10^{-7} to 2.0×10^{-6} M and 2.0×10^{-6} to 2.0×10^{-4} M, with a detection limit of 6.1×10^{-8} M. The sensor also exhibited good selectivity against the testing interfering species, along with excellent repeatability and reproducibility, with RSD values of 1.46% and 1.75%, respectively, and acceptable long-term stability by retaining approximately 85% of its initial response after 30 days. The practical applicability of the method was demonstrated through the analysis of SRT in pharmaceutical tablets, human serum, and water samples, yielding recovery values of 98.71%–102.35%, 97.45%–104.29%, and 100.80%–104.00%, respectively. Overall, the developed Au–Ag–CoO_x/SPCE platform offers a reliable, cost-effective, and sensitive approach for SRT determination in pharmaceutical, biological, and environmental samples.

Öğretim Üyemiz Dr. Öğr. Üyesi Tuğçe Tüccar, *Microorganisms* Dergisinin Özel Sayısında Konuk Editör Yardımcısı Olarak Kabul Edildi

Fakültemiz Farmasötik Mikrobiyoloji Anabilim Dalı öğretim üyemiz Dr. Öğr. Üyesi Tuğçe Tüccar, MDPI tarafından yayımlanan *Microorganisms* dergisinin "Microbiologically Influenced Corrosion: Biofilm Formation and Inhibition" başlıklı özel sayısında "Guest Editorial Assistant" olarak kabul edildi.


Special Issue

Microbiologically Influenced Corrosion: Biofilm Formation and Inhibition

Message from the Guest Editors

Microbiologically Influenced Corrosion (MIC) poses a significant economic threat across global industries, particularly in the oil, gas, and marine sectors. Although the corrosion mechanisms of iron and its alloys under controlled laboratory conditions have become clearer in recent years, the processes underlying MIC in other critical metals remain poorly understood. Common engineering materials such as aluminum, copper, zinc, and titanium rely on passive surface layers for protection. However, bacterial biofilms can degrade these barriers, rendering even highly corrosion-resistant materials susceptible to accelerated corrosion. Understanding the fundamental mechanisms of MIC and recent advances in metallurgical protection is critical to addressing this knowledge gap. This domain encompasses biofilm formation dynamics, passive layer degradation, and innovative mitigation strategies. Current research highlights next-generation countermeasures, including advanced antibacterial coatings, environmentally friendly inhibitors, and smart biocides designed to disrupt biofilms.

Guest Editors

Dr. Tuba Unsal
Institute of Marine Science and Management, Istanbul University, Istanbul, Türkiye

Dr. Di Wang
School of Materials and Engineering, Northeastern University, Shenyang, China

Guest Editorial Assistant

Dr. Tuğçe Tücca
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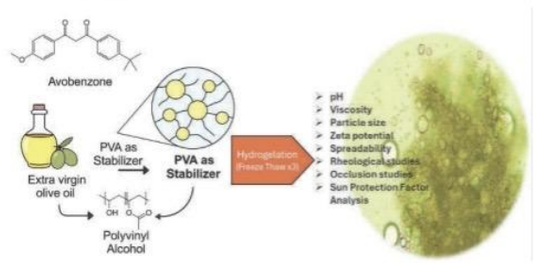
Öğretim Üyemiz, Dr. Öğr. Üyesi Ömer Yedikaya'nın Çalışması *Journal of Oleo Science* Dergisinde Yayımlandı

Journal of Oleo Science
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Replacing Emulsifiers with Gelation: A Surfactant-Free Approach to Emulgel Formulation Using Polyvinyl Alcohol

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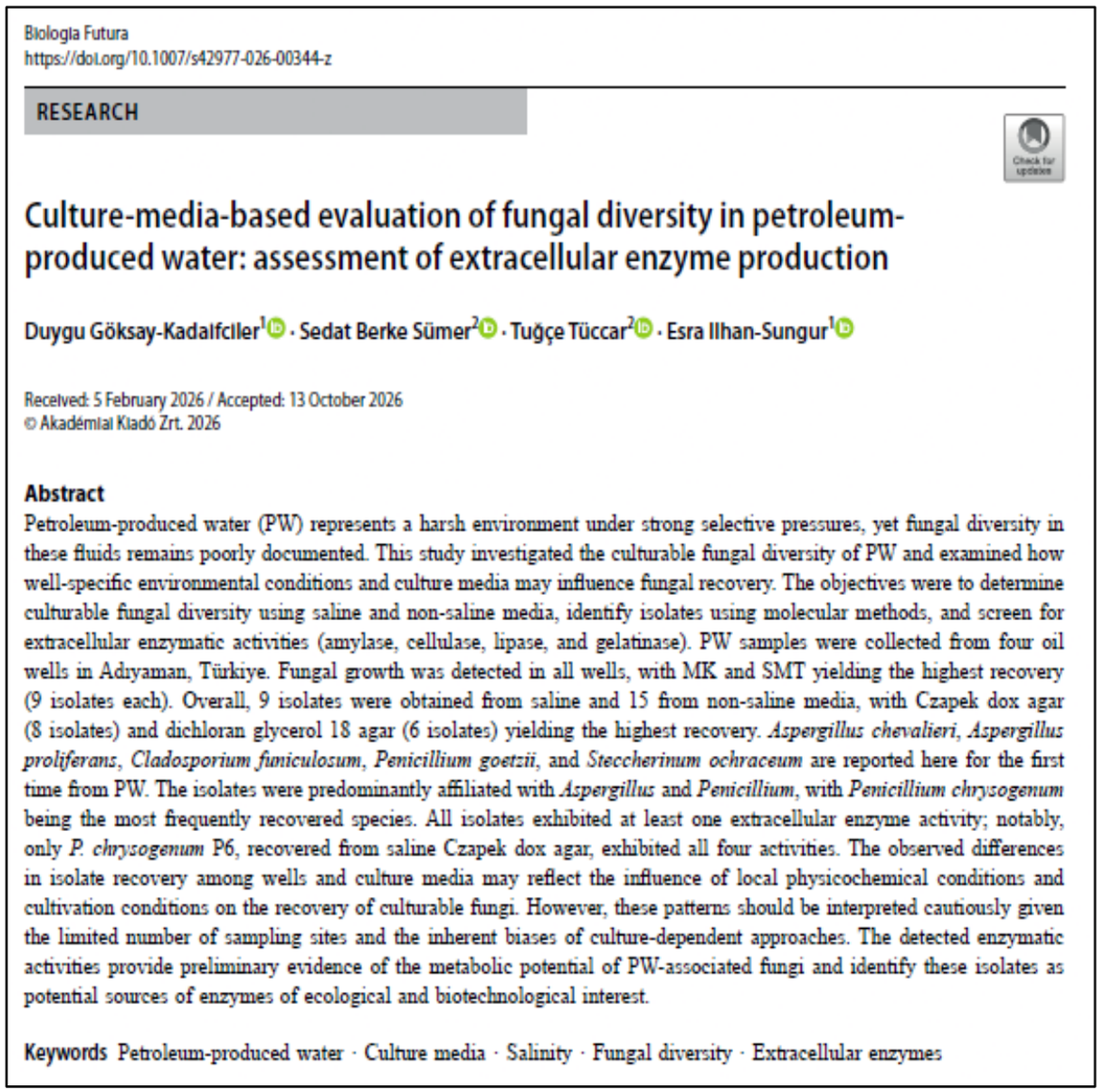
Abstract: Conventional emulgels require emulsifiers to stabilize oil and water, which may cause skin irritation and complicate formulations. This study aimed to develop a surfactant-free emulgel using polyvinyl alcohol (PVA) as both gelling and stabilizing agent. Methods: A 3^2 factorial design evaluated the effects of PVA concentrations (2 %, 4 %, 10 %) and olive oil ratios (10 %, 20 %, 40 %) on emulgel properties. Nine formulations were prepared via freeze–thaw gelation and homogenization. They were analyzed for pH, viscosity, particle size, and zeta potential. The optimized formulation was further assessed through spreadability, Texture Profile Analysis (TPA), rheological tests, and in vitro occlusion studies. Results: All formulations showed skin-compatible pH and viscosity. Higher PVA increased viscosity and network strength, while olive oil influenced droplet size and viscosity. The optimized formulation (4 % PVA, 20 % olive oil) exhibited favorable rheology, texture, and spreadability. Occlusion studies showed a moderate occlusion factor of 62.69 ± 7.95 %, lower than petrolatum (89.26 ± 3.19 %) but higher than control (0 %), indicating formation of a thin semi-occlusive film that reduced transepidermal water loss and promoted hydration. Conclusions: Surfactant-free emulgels using PVA can be successfully formulated. The moderate occlusion effect highlights their potential in dermal and cosmetic applications as biocompatible, stable, and patient-friendly systems.

Keywords: Surfactant-free emulgel, polyvinyl alcohol, factorial design, rheology.

Farmasötik Teknoloji Anabilim Dalı öğretim üyemiz Dr. Öğr. Üyesi Ömer Yedikaya'nın "Replacing Emulsifiers with Gelation: A Surfactant-Free Approach to Emulgel Formulation Using Polyvinyl Alcohol" başlıklı araştırma makalesi, Q3 kategorisindeki *Journal of Oleo Science* dergisinde yayımlandı.

Öğretim Üyemiz, Dr. Öğr. Üyesi Tuğçe Tüccar'ın Çalışması Biologia Futura Dergisinde Yayımlandı

Farmasötik Mikrobiyoloji Anabilim Dalı öğretim üyemiz Dr. Öğr. Üyesi Tuğçe Tüccar'ın yazarları arasında yer aldığı "Culture-media-based evaluation of fungal diversity in petroleum-produced water: assessment of extracellular enzyme production" başlıklı çalışma, Q2 kategorisindeki *Biologia Futura* dergisinde yayımlandı.



Biologia Futura
https://doi.org/10.1007/s42977-026-00344-z

RESEARCH

Culture-media-based evaluation of fungal diversity in petroleum-produced water: assessment of extracellular enzyme production

Duygu Göksay-Kadalfciler[1] · Sedat Berke Sümer[2] · Tuğçe Tüccar[2] · Esra Ilhan-Sungur[1]

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Abstract
Petroleum-produced water (PW) represents a harsh environment under strong selective pressures, yet fungal diversity in these fluids remains poorly documented. This study investigated the culturable fungal diversity of PW and examined how well-specific environmental conditions and culture media may influence fungal recovery. The objectives were to determine culturable fungal diversity using saline and non-saline media, identify isolates using molecular methods, and screen for extracellular enzymatic activities (amylase, cellulase, lipase, and gelatinase). PW samples were collected from four oil wells in Adıyaman, Türkiye. Fungal growth was detected in all wells, with MK and SMT yielding the highest recovery (9 isolates each). Overall, 9 isolates were obtained from saline and 15 from non-saline media, with Czapek dox agar (8 isolates) and dichloran glycerol 18 agar (6 isolates) yielding the highest recovery. *Aspergillus chevalieri*, *Aspergillus proliferans*, *Cladosporium funiculosum*, *Penicillium goetzii*, and *Steccherinum ochraceum* are reported here for the first time from PW. The isolates were predominantly affiliated with *Aspergillus* and *Penicillium*, with *Penicillium chrysogenum* being the most frequently recovered species. All isolates exhibited at least one extracellular enzyme activity; notably, only *P. chrysogenum* P6, recovered from saline Czapek dox agar, exhibited all four activities. The observed differences in isolate recovery among wells and culture media may reflect the influence of local physicochemical conditions and cultivation conditions on the recovery of culturable fungi. However, these patterns should be interpreted cautiously given the limited number of sampling sites and the inherent biases of culture-dependent approaches. The detected enzymatic activities provide preliminary evidence of the metabolic potential of PW-associated fungi and identify these isolates as potential sources of enzymes of ecological and biotechnological interest.

Keywords Petroleum-produced water · Culture media · Salinity · Fungal diversity · Extracellular enzymes

Öğretim Üyemiz, Dr. Öğr. Üyesi Tuğçe Tüccar COST Action CA25129 Çalışma Grubu Üyeliğine Kabul Edildi

Farmasötik Mikrobiyoloji Anabilim Dalı öğretim üyemiz Dr. Öğr. Üyesi Tuğçe Tüccar'ın, COST Action CA25129 "NutriSENSE: A European Network on Bioactives for Personalized Nutrition and Gut Health" kapsamında çalışma grubu üyeliği başvurusu kabul edildi.



Fakültemizin TEB Gençlik Komisyonu Temsilci Ekibi Belirlendi





2026-2027 Eğitim Öğretim Dönemi'nde Türk Eczacıları Birliği (TEB) Gençlik Komisyonu bünyesinde fakültemizi temsil edecek öğrenci ekibinin belirlenmesi amacıyla 19 Ekim 2026 tarihinde seçim gerçekleştirildi.

Gizli oy ve açık sayım esasına göre gerçekleştirilen seçim sonucunda Gizem Seyis **Fakülte Temsilcisi**, Mustafa Emre Gülgür **Mali Sorumlu ve Sosyal Projeler Fakülte Koordinatörü**, Doruk Koçhan **Eğitim Bilgilendirme Fakülte Koordinatörü** ve Yağmur Kaya **Uluslararası İlişkiler Fakülte Koordinatörü** olarak seçildi.



Dekanımız Prof. Dr. Ayşe Nurten Özdemir'e ve seçim komisyonunda görev olan öğretim üyelerimize seçim sürecindeki katkılarından dolayı teşekkür ederiz. Seçilen öğrencilerimizi tebrik eder, görevlerinde başarılar dileriz.