



ISTANBUL AYDIN UNIVERSITY FACULTY OF PHARMACY

E-NEWSLETTER

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FACULTY OF PHARMACY

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Department of Pharmaceutical Technology

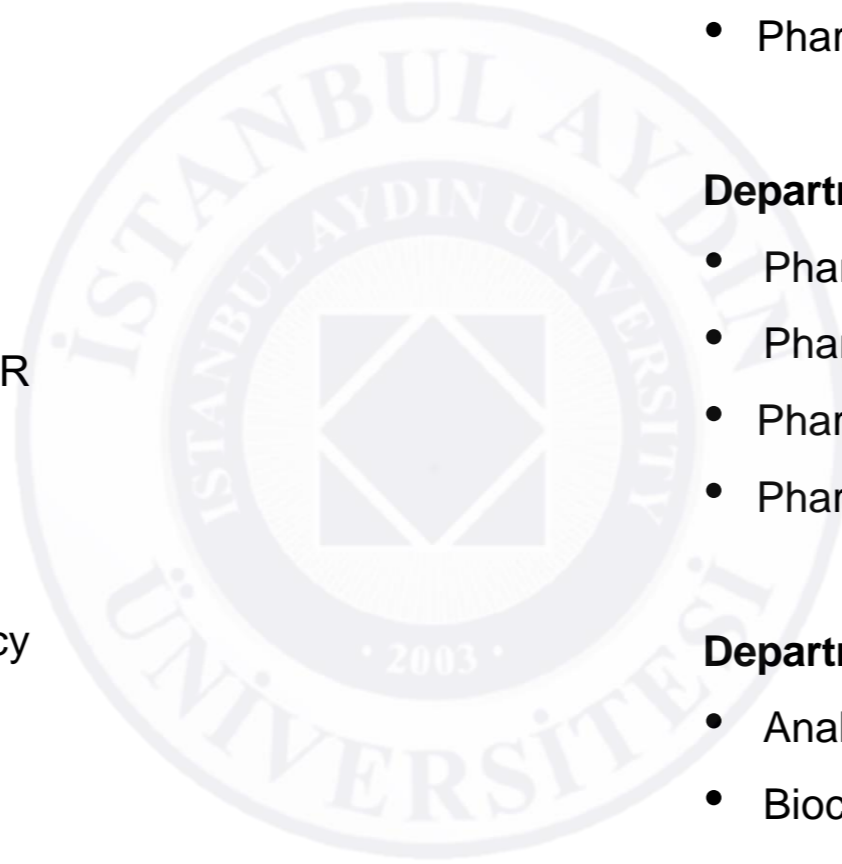
- Pharmaceutical Technology

Department of Professional Pharmaceutical Sciences

- Pharmacology
- Pharmaceutical Chemistry
- Pharmacognosy
- Pharmaceutical Toxicology

Department of Basic Pharmaceutical Sciences

- Analytical Chemistry
- Biochemistry
- Pharmaceutical Microbiology





FACULTY OF PHARMACY

October

As part of the **STAR Global Conference 2025**, the Faculty of Pharmacy at Istanbul Aydın University organized two online panels on 8 October 2025, titled “*Climate Change and Healthcare Sustainability*” and “*The Formula for Sustainable Living – Perspectives on Health, Food, and Environment*”.

With the participation of our students, these panels addressed topics such as the impacts of global climate change, the environmental role of the healthcare sector, the relationship between air pollution and cardiovascular diseases, and the influence of the pharmaceutical industry on climate change, and discussed the multidimensional interaction between the environment and health.





FACULTY OF PHARMACY

October

Faculty members Asst. Prof. Dr. Tuğçe TÜCCAR and Asst. Prof. Dr. Gizem Sena ELAGÖZ participated in the *BIOEXPO 2025 Fair*, held in Istanbul between 15–17 October 2025.

Bringing together the biotechnology, pharmaceutical, laboratory, and healthcare sectors, BIOEXPO once again served as a meeting point for academia and industry representatives. During the fair, Dr. TÜCCAR and Dr. ELAGÖZ explored innovations in the sector, gained insights into new technologies and materials, and exchanged views with industry representatives on potential university–industry collaborations.





FACULTY OF PHARMACY

October

Our second-year student from the Faculty of Pharmacy, Merve Feyza MÜLAYİM, completed the online basic training modules within the AFAD Volunteering System and became a *Basic AFAD Volunteer*, subsequently participating in the next-level *Support AFAD Volunteer Training Program*. The trainings were held between 13–17 October 2025 under the coordination of the AFAD Istanbul Training Branch Directorate.





FACULTY OF PHARMACY

October

In cooperation with the R&D Club, our Faculty's PharmAydın Club organized an awareness event on 21 October 2025 between 12:00–16:00 at T Block Purple Hall, featuring a presentation by Prof. Dr. Yavuz KURT titled “*Early Diagnosis and Detection of Breast Cancer*”.





FACULTY OF PHARMACY

October

Asst. Prof. Dr. Gizem Sena ELAGÖZ, a faculty member of the Department of Pharmaceutical Toxicology, participated in the “*Career Introduction Days*” event held at Beylikdüzü ERA College on Wednesday, 22 October 2025, and introduced the pharmacy profession to 11th- and 12th-grade science-track students. Providing information on the contribution of pharmacy to society, career opportunities, and the education process at our faculty, Dr. ELAGÖZ also answered students’ questions, helping them gain awareness about the profession.





FACULTY OF PHARMACY

October

At our university's 2025–2026 Academic Year Opening Ceremony, certificates of appreciation were presented to Prof. Dr. Yusuf ÖZTÜRK from the Department of Pharmacology and Prof. Dr. Abdülhadi BAYKAL from the Department of Analytical Chemistry for being included in the list of the “World’s Most Influential Scientists”.



İSTANBUL AYDIN ÜNİVERSİTESİ | 22. Yılı

Akademisyenlerimiz
Dünyanın En Etkili Bilim İnsanları
Listesinde!

Kariyer Boyu Etki Kategorisine giren değerli akademisyenlerimiz:

Prof. Dr. Abdülhadi BAYKAL	Prof. Dr. Beşir ŞAHİN	Prof. Dr. Kamil KAYGUSUZ	Prof. Dr. Nosratollah Zarghami SOLTANAHMADI	Prof. Dr. Yusuf ÖZTÜRK



FACULTY OF PHARMACY

October

Prof. Dr. Abdülhadi BAYKAL, faculty member of the Department of Analytical Chemistry, has authored a article entitled “**Tuning the electronic structure of nickel-cobalt spinels via cerium ion doping on binder-free nickel foam for enhanced electrochemical activity in methanol oxidation-assisted hydrogen production: Synergistic experimental and DFT insights**” which has been published in *Journal of Environmental Chemical Engineering* internationally recognized journal.



Tuning the electronic structure of nickel-cobalt spinels via cerium ion doping on binder-free nickel foam for enhanced electrochemical activity in methanol oxidation-assisted hydrogen production: Synergistic experimental and DFT insights

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ABSTRACT

The most promising method for producing green hydrogen, which is both environmentally friendly and efficient, is to split water using an electrocatalytic process. Developing a highly efficient and cost-effective catalyst that promotes the hydrogen evolution reaction (HER) is a persistent and significant challenge. Herein, the Ce-doped NiCo₂O₄ on nickel foam (NiCe_xCo_{2-x}O₄@NF (0.00 ≤ x ≤ 0.08)) electrocatalyst with compactly packed vertically oriented growth of nanorods and an optimized concentration of Ce (x = 0.04) achieved the lowest overpotential of 265 mV for HER. Additionally, the same optimized electrocatalyst required only 1.32 V potential for the methanol oxidation reaction (MOR) to achieve the current density of 20 mA/cm². The findings suggest that modifying the electronic configuration of the NiCo₂O₄@NF electrocatalyst by altering the Ce doping levels significantly enhances catalytic efficiency and prolongs catalyst durability. The electrocatalyst NiCe_xCo_{2-x}O₄@NF (x = 0.04) displayed good catalytic performance in the HER process, owing to metal redox couples (Ce³⁺/Ce⁴⁺), surface oxygen vacancies, and vertical alignment of nanorods with a significant active surface area. Density functional theory examines how Ce doping influences the activity of HER and the spin-dependent electronic structure of CN systems that have adsorbed hydrogen and water molecules. Our findings indicate that raising the concentration of the Ce dopant improves catalytic performance and HER activity. These findings highlight the important role that Ce dopants play in changing the electrical and catalytic characteristics of CNs for HER applications.

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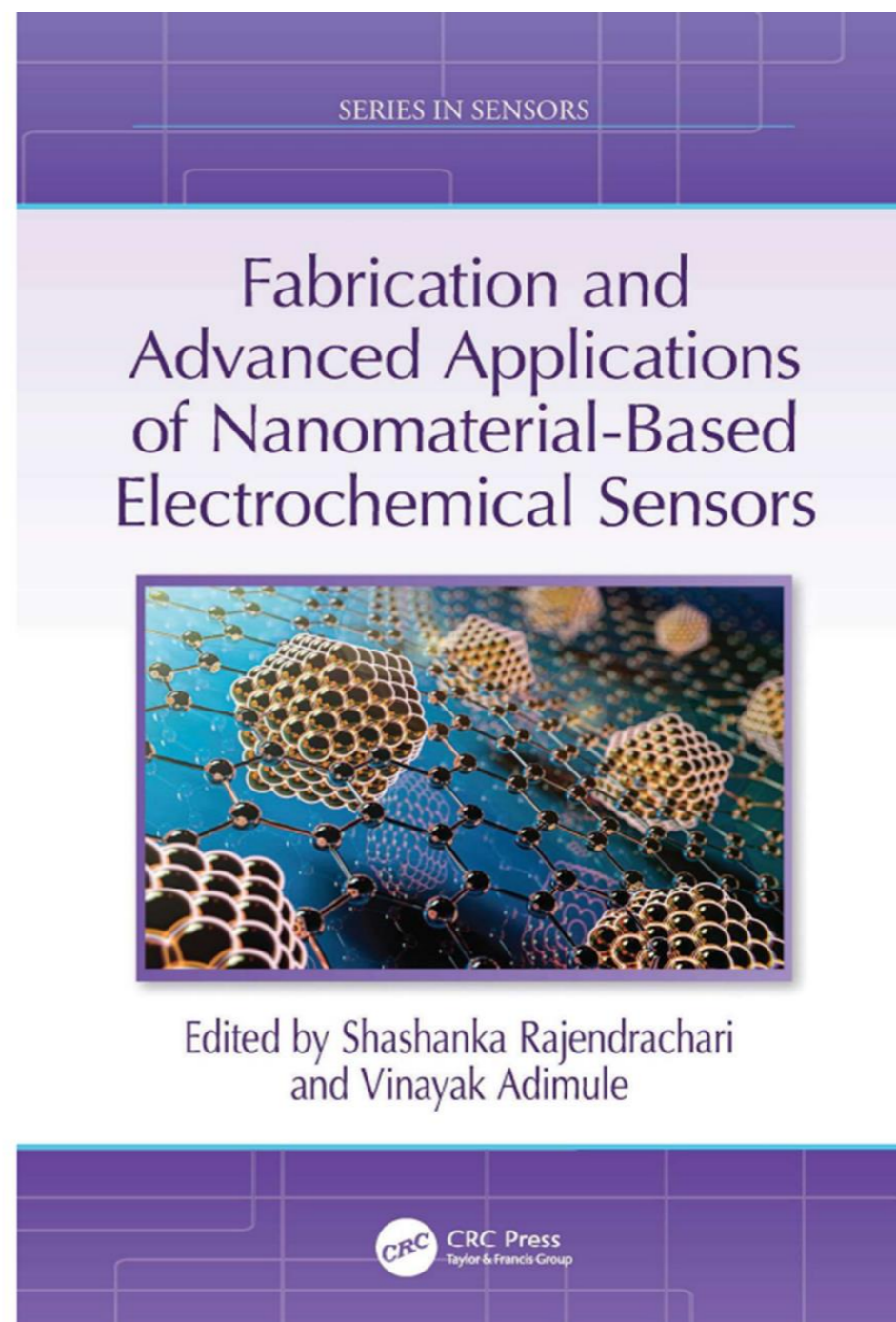
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FACULTY OF PHARMACY

October

Asst. Prof. Dr. Cem ERKMEN, a faculty member of the Department of Analytical Chemistry, has co-authored a book chapter entitled “**Recent Advances in Nanomaterial-Based Electrochemical Sensors for Pharmaceutical and Biomedical Diagnosis**” which has been published in the book *Fabrication and Advanced Applications of Nanomaterial-Based Electrochemical Sensors*. 148-191, CRC Press, ISBN: 9781032842561

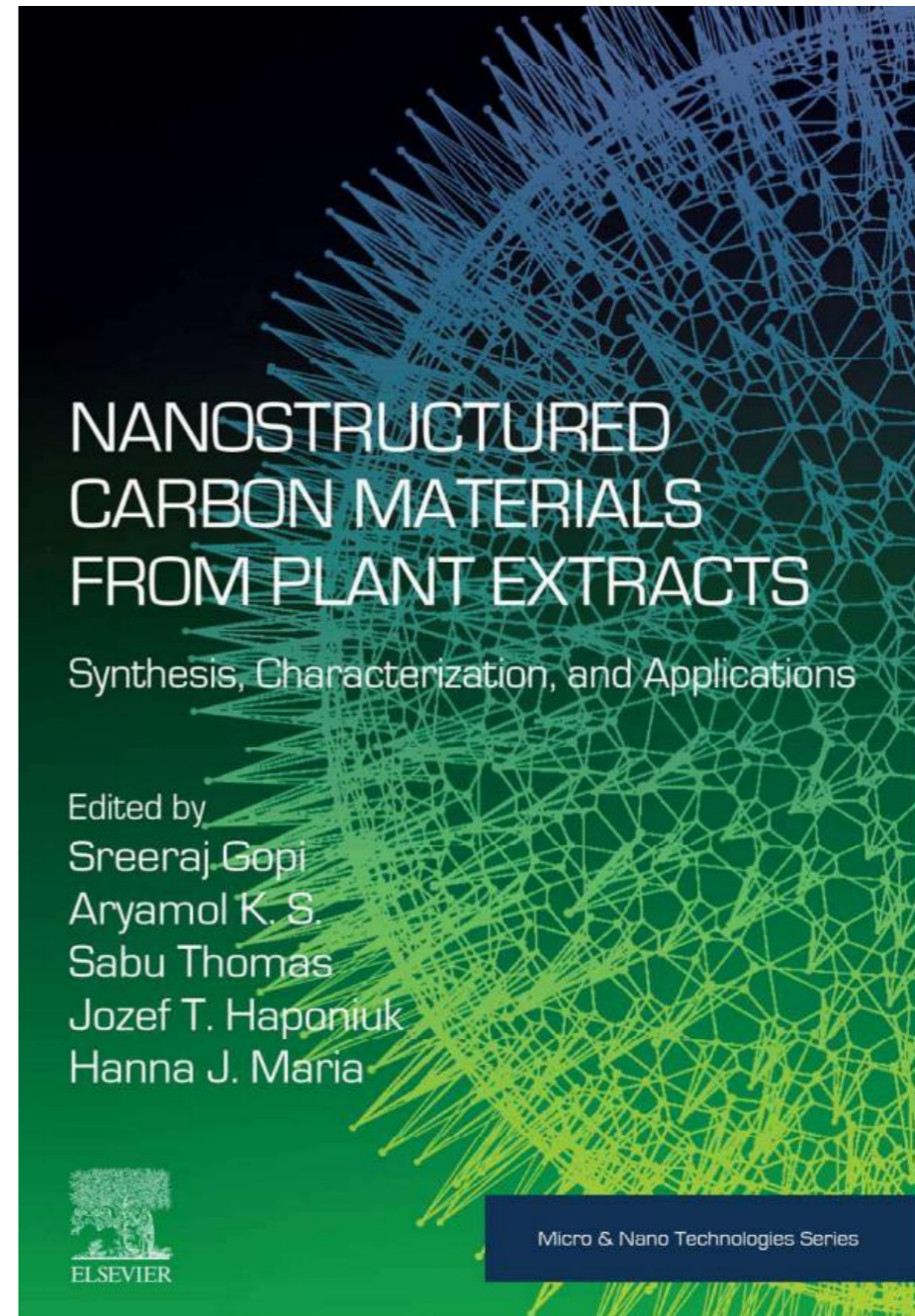




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October

Asst. Prof. Dr. Cem ERKMEN, a faculty member of the Department of Analytical Chemistry, has co-authored a book chapter entitled “**Applications of carbon-based nanomaterials in agriculture sector**” which has been published in the book *Nanostructured Carbon Materials from Plant Extracts*. 381-414, Elsevier, ISBN: 978-0-323-95126-5.

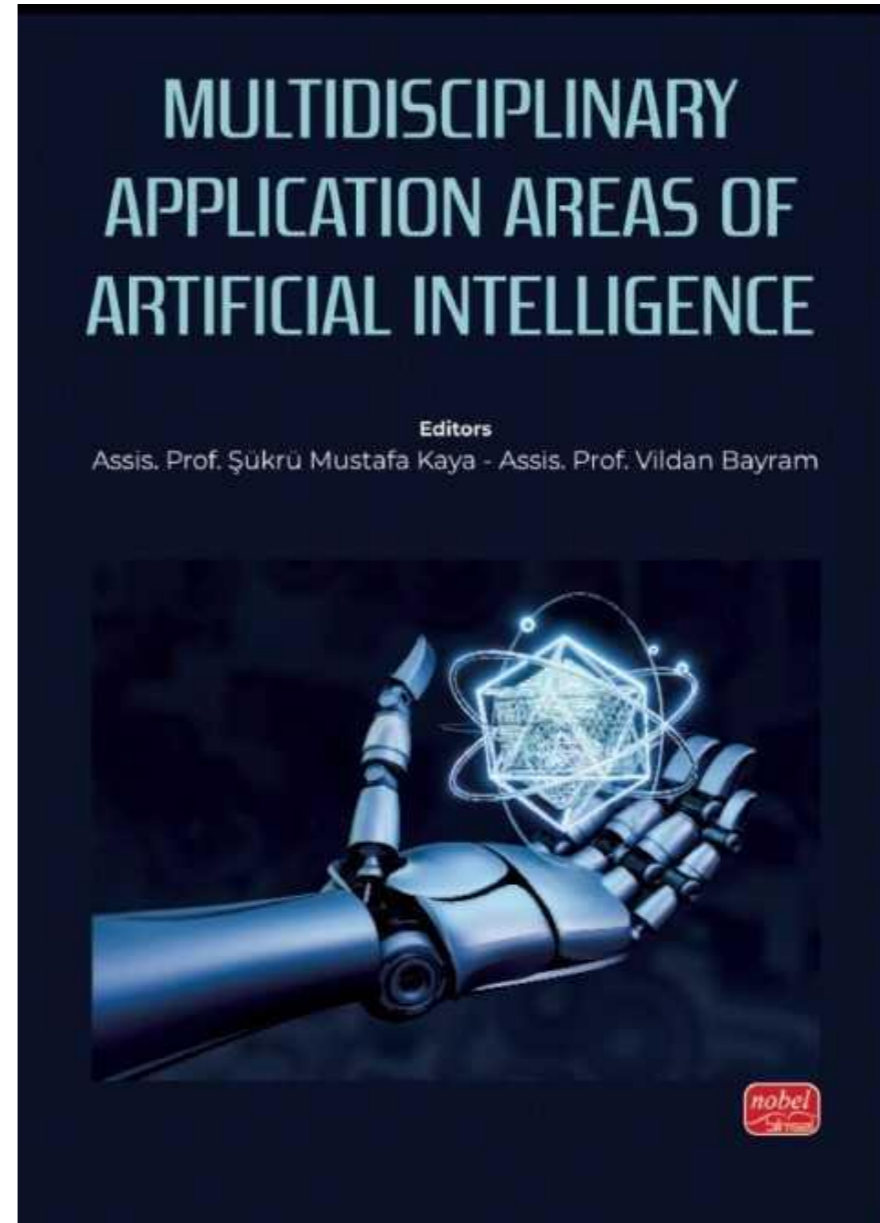




FACULTY OF PHARMACY

October

Asst. Prof. Dr. Tuğçe TÜCCAR, a faculty member of the Department of Pharmaceutical Microbiology, has authored a book chapter entitled “**A new era in the microscopic world: Artificial intelligence in microbiology**” which has been published in the book *Multidisciplinary application areas of artificial intelligence*. 83-107, Nobel Bilimsel Eserler, ISBN:978-625-376-646-7.





FACULTY OF PHARMACY

October

The elections for the Faculty Representative and Class Representatives for the 2025–2026 academic year were successfully held on Friday, 31 October 2025. The election process, grounded in the democratic participation of our students, made an important contribution to strengthening student representation within our faculty.

This year, elections were held among the 1st- and 2nd-year students of the Pharmacy Department Turkish Program and the 1st-year students of the Pharmacy Department English Program. By electing their representatives from among the nominated candidates in their respective classes, our students took an important step toward enhancing communication within the faculty and increasing student engagement.

Election Results:

Faculty Representative: Ceren İlsu KORKMAZ

Pharmacy Department Turkish Program 1st-Year Representative: Tamilla ALKAN

Pharmacy Department Turkish Program 2nd-Year Representative: Ceren İlsu KORKMAZ

Pharmacy Department English Program 1st-Year Representative: İlayda İrem ÖZDEMİR

The election process was conducted fairly and transparently under the supervision of the faculty administration. Our faculty representative and class representatives have now assumed their roles for the new term, with the aim of contributing to the academic and social life of our students, strengthening student–faculty communication, and supporting the development of our faculty.