

## Assoc. Prof. Mehmet YILMAZ

### Personal Information

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### International Researcher IDs

ScholarID: EsCEe88AAAAJ

ORCID: 0000-0003-2687-9167

Publons / Web Of Science ResearcherID: P-8290-2015

ScopusID: 55174198700

Yoksis Researcher ID: 235071

### Biography

Dr. Mehmet Yılmaz, Lisans, Yüksek Lisans ve Doktora derecelerini sırasıyla Hacettepe Üniversitesi, Ankara Üniversitesi ve Hacettepe Üniversitesi'nde 2005, 2011 ve 2014 yılında almıştır. 2014-2017 arası dönemde Gazi Üniversitesi'nde Doç. Dr. Gökhan Demirel ve 2017-2018 arası dönemde ise University of Michigan'da Prof. Nicholas A. Kotov danışmanlığında doktora sonrası çalışmalar yapmıştır ve şu anda Atatürk Üniversitesi'nde Doç. Dr. olarak çalışmaktadır. Çalışma alanları: Yüzey Zenginleştirilmiş Raman Spektroskopisi (SERS), Kiral Nanoyapılar, İnce Film Üretimi ve Uygulamaları, Kolloidal Nanoparçacıkların Sentezi ve Üretimi. Dr. Yılmaz dört ulusal projede görev almıştır. Çalışmalarının bir kısmı *Nature Materials* (IF: 38.9), *Advanced Functional Materials* (IF: 15.6) ve *ACS Applied Materials and Interfaces* (IF: 8.4) gibi prestijli dergilerde ilk yazar olarak basılmıştır. Basılı 37 adet SCI makalesi, 1 adet ulusal makalesi ve 2 adet kitap bölümü bulunmaktadır. Dr. Yılmaz bu yayınlarına toplam 988 adet atıf almıştır. Evli ve bir çocuk babasıdır.

### Education Information

Post Doctorate, The University of Michigan, Faculty Of Engineering, Chemical Engineering, United States Of America 2017 - 2018

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Biyomühendislik, Turkey 2011 - 2014

Postgraduate, Ankara University, Fen Bilimleri Enstitüsü, Kimya Mühendisliği, Turkey 2006 - 2009

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Kimya Mühendisliği, Turkey 2000 - 2005

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Yüzey Zenginleştirilmiş Raman Spektroskopisi (SERS) için Nano-yaklaşım Temelli Platformların Geliştirilmesi ve Tanı Amaçlı Uygulanması, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Biyomühendislik, 2014

Postgraduate, Süperkritik Akışkan Ortamında Kopolimerizasyon, Ankara Üniversitesi, Fen Bilimleri Enstitüsü, Kimya Mühendisliği, 2009

## Research Areas

Chemical Engineering and Technology, Chemistry, Physical Chemistry, Spectroscopy, Surface Chemistry, Natural Sciences, Engineering and Technology

## Academic Titles / Tasks

Associate Professor, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, 2019 - Continues  
Assistant Professor, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, 2018 - 2019  
Assistant Professor, Sinop University, Mühendislik Ve Mimarlık Fkültesi, Biyomühendislik, 2015 - 2018  
Research Assistant, Ankara University, Mühendislik Fakültesi, Kimya Mühendisliği, 2006 - 2011  
Research Assistant, Van Yüzüncü Yil University, Mühendislik Fakültesi, Kimya Mühendisliği, 2005 - 2006

## Academic and Administrative Experience

Rectorate Commissioner, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, 2022 - Continues  
Rectorate Commissioner, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, 2021 - Continues

## Courses

Proje Hazırlama, Postgraduate, 2023 - 2024  
Akademik Okuma ve Yazma Becerileri, Undergraduate, 2022 - 2023  
Nanodesenlenmiş Yüzeyler ve Uygulamaları, Postgraduate, 2022 - 2023  
Yüzey Zenginleştirilmiş Raman Spektroskopisi (SERS) ve Uygulamaları, Postgraduate, 2022 - 2023, 2021 - 2022  
Akışkanlar Mekaniği, Undergraduate, 2022 - 2023  
Kütle ve Enerji Denklikleri, Undergraduate, 2022 - 2023  
Biyobenzetim ve Uygulamaları, Postgraduate, 2022 - 2023  
Nanostructured surfaces and Applications, Postgraduate, 2022 - 2023  
Akışkanlar Mekaniği, Undergraduate, 2021 - 2022  
Nanodesenlenmiş Yüzeyler ve Uygulamaları, Postgraduate, 2021 - 2022  
Akışkanlar Mekaniği I, Undergraduate, 2016 - 2017

## Advising Theses

Yılmaz M., Farklı Morfolojilerde Titanyum Dioksit Nanosistemlerin Üretilmesi, Karakterizasyonu ve Biyolojik Uygulamaları, Postgraduate, N.SERGİNAY(Student), 2024  
Yılmaz A., Yılmaz M., ÜRE VE LAKTİK ASİTTEN KARBON KUANTUM NOKTALARININ ÜRETİMİ VE Fe+3 TANI SİSTEMİ OLARAK KULLANIMI, Postgraduate, S.AYDIN(Student), 2023  
Yılmaz A., YILMAZ M., Farklı pasaj numaralarındaki hücre hatlarında farklılaşmanın yüzey zenginleştirilmiş Raman spektroskopisi(SERS) yaklaşımı ile araştırılması, Postgraduate, N.ÖNCER(Student), 2023  
Yılmaz M., MXene/metal nanokompozit sistemleri ve SERS uygulamaları, Postgraduate, H.MAZLUMOĞLU(Student), 2023  
Yılmaz M., Yüzey Zenginleştirilmiş Raman Spektroskopisi (SERS) ve Haritalama Tekniği Kullanılarak Farklı Tipte Hücrelerde Apoptoz ile Nekroz Düzeylerinin Belirlenmesi, Postgraduate, O.ÜSTÜN(Student), 2023  
Yılmaz M., YÜZEY ZENGİNLEŞTİRİLMİŞ RAMAN SPEKTROSKOPİSİ (SERS) YAKLAŞIMI İLE HÜCRE TİPLERİNİN TANIMLANMASI, Postgraduate, S.Tarhan(Student), 2021

## Jury Memberships

Post Graduate, Yüksek lisans Tez savunma, Van Yüzüncü Yıl Üniversitesi, August, 2019

Post Graduate, Yüksek lisans Tez savunma, Tokat Gaziosmanpaşa Üniversitesi, August, 2019

Doctorate, Doktora Tez Savunma, Tokat Gaziosmanpaşa Üniversitesi, July, 2019

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Machine learning-assisted SERS approach enables the biochemical discrimination in Bcl-2 and Mcl-1 expressing yeast cells treated with ketoconazole and fluconazole antifungals**  
Guler A., Yilmaz A., Oncer N., Sever N. I., Cengiz Sahin S., Kavakcioglu Yardimci B., Yilmaz M.  
Talanta, vol.276, 2024 (SCI-Expanded)
- II. **Green Synthesis of Various Heteroatom-doped Carbon Quantum Dots from Urine, Whey, and Their Mixture: The Optimization of Synthesis and Potential Applications**  
Aydin S., YILMAZ A., YILMAZ M.  
CHEMISTRYSELECT, vol.9, no.17, 2024 (SCI-Expanded)
- III. **Hummers' method-assisted liquid-phase exfoliation enables the fabrication of few-layer borophene from bulk boron**  
Bingöl M. S., Yilmaz M., Kasapoğlu A. E.  
TURKISH JOURNAL OF CHEMISTRY, vol.48, no.2, pp.289-299, 2024 (SCI-Expanded)
- IV. **Hispidulin exerts a protective effect against oleic acid induced-ARDS in the rat via inhibition of ACE activity and MAPK pathway**  
Koç K., Şimşek Özek N., Aysin F., Demir Ö., Yilmaz A., Yilmaz M., Geyikoğlu F., Erol H. S.  
INTERNATIONAL JOURNAL OF ENVIRONMENTAL HEALTH RESEARCH, vol.34, no.2, pp.755-766, 2024 (SCI-Expanded)
- V. **Silver nanostructure-decorated hierarchical titanium dioxide nanoflowers for SERS and photocatalytic applications**  
Serginay N., MAZLUMOĞLU H., YILMAZ A., YILMAZ M.  
CATALYSIS COMMUNICATIONS, vol.178, 2023 (SCI-Expanded)
- VI. **pH-Sensitive Fluorescence Emission of Boron/Nitrogen Co-Doped Carbon Quantum Dots**  
Ustun O., Karadag S. N., MAZLUMOĞLU H., YILMAZ A., YILMAZ M.  
Coatings, vol.13, no.2, 2023 (SCI-Expanded)
- VII. **The fabrication of excitation-dependent fluorescence boron/nitrogen co-doped carbon quantum dots and their employment in bioimaging**  
Karadag S. N., Ustun O., YILMAZ A., YILMAZ M.  
Chemical Physics, vol.562, 2022 (SCI-Expanded)
- VIII. **Hydrothermal Synthesis of Nitrogen-Doped and Excitation-Dependent Carbon Quantum Dots for Selective Detection of Fe<sup>3+</sup> in Blood Plasma**  
Aydin S., Ustun O., Ghosigharehaghaji A., TAVACI T., YILMAZ A., YILMAZ M.  
COATINGS, vol.12, no.9, 2022 (SCI-Expanded)
- IX. **Catalytic and SERS activities of WO<sub>3</sub>-based nanowires: the effect of oxygen vacancies, silver nanoparticle doping, and the type of organic dye**  
Ustun O., YILMAZ A., YILMAZ M.  
PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.24, no.31, pp.18615-18626, 2022 (SCI-Expanded)
- X. **A sensitive nanocomposite design via polydopamine mediated Au and Ag nanoparticles: Voltammetric assay for dopamine in biological samples**  
KARATAŞ E., Ozden D. S., YILMAZ M., YAZAN Z., Piskin E.  
THIN SOLID FILMS, vol.756, 2022 (SCI-Expanded)
- XI. **Antibacterial activity and cytotoxicity of bioinspired poly(L-DOPA)-mediated silver nanostructure-decorated titanium dioxide nanowires**

Serginay N., Dizaji A. N., Mazlumoğlu H., Karatas E., Yılmaz A., Yılmaz M.

Colloids and Surfaces A: Physicochemical and Engineering Aspects, vol.639, 2022 (SCI-Expanded)

- XII. **Gold nanorod arrays enable highly sensitive bacterial detection via surface-enhanced infrared absorption (SEIRA) spectroscopy**  
Dizaji A. N., Şimşek Özek N., Yılmaz A., Aysin F., Yılmaz M.  
COLLOIDS AND SURFACES B-BIOINTERFACES, vol.206, 2021 (SCI-Expanded)
- XIII. **Fabrication of gold nanostructure decorated polystyrene hybrid nanosystems via poly(L-DOPA) and their applications in surface-enhanced Raman Spectroscopy (SERS), and catalytic activity**  
Calis B., YILMAZ M.  
COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS, vol.622, 2021 (SCI-Expanded)
- XIV. **Poly(L-DOPA)-mediated bimetallic core-shell nanostructures of gold and silver and their employment in SERS, catalytic activity, and cell viability**  
Turan H., Calis B., Dizaji A. N., Tarhan S., Mazlumoglu H., Aysin F., Yılmaz A., Yılmaz M.  
NANOTECHNOLOGY, vol.32, no.31, 2021 (SCI-Expanded)
- XV. **Silver nanoparticle-decorated titanium dioxide nanowire systems via bioinspired poly(L-DOPA) thin film as a surface-enhanced Raman spectroscopy (SERS) platform, and photocatalyst**  
MAZLUMOĞLU H., YILMAZ M.  
PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.23, pp.13396-13404, 2021 (SCI-Expanded)
- XVI. **Combining vancomycin-modified gold nanorod arrays and colloidal nanoparticles as a sandwich model for the discrimination of Gram-positive bacteria and their detection via surface-enhanced Raman spectroscopy (SERS)**  
Dizaji A. N., ŞİMŞEK ÖZEK N., AYSİN F., CALIS A., YILMAZ A., YILMAZ M.  
ANALYST, vol.146, pp.3642-3653, 2021 (SCI-Expanded)
- XVII. **Monitoring chemically and green-synthesized silver nanoparticles in maize seedlings via surface-enhanced Raman spectroscopy (SERS) and their phytotoxicity evaluation**  
Yılmaz M., Yılmaz A., Karaman A., Aysin F., Aksakal Ö.  
Talanta, vol.225, 2021 (SCI-Expanded)
- XVIII. **Metallic Nanoparticle-Decorated Polydopamine Thin Films and Their Cell Proliferation Characteristics**  
AYSİN F., YILMAZ A., YILMAZ M.  
COATINGS, vol.10, no.9, 2020 (SCI-Expanded)
- XIX. **Bimetallic Core Shell Nanoparticles of Gold and Silver via Bioinspired Polydopamine Layer as Surface-Enhanced Raman Spectroscopy (SERS) Platform**  
YILMAZ A., YILMAZ M.  
NANOMATERIALS, vol.10, no.4, 2020 (SCI-Expanded)
- XX. **Silver thin film deposited 3-dimensional gold nanorod arrays for plasmonic catalysis**  
YILMAZ M., Demirel G. B., Demirel G.  
Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, vol.38, no.2, 2020 (SCI-Expanded)
- XXI. **Gold-nanoisland-decorated titanium nanorod arrays fabricated by thermal dewetting approach**  
Dinc D. O., Yılmaz M., Cetin S. S., Turk M., Piskin E.  
SURFACE INNOVATIONS, vol.7, no.5, pp.249-259, 2019 (SCI-Expanded)
- XXII. **Silver-Nanoparticle-Decorated Gold Nanorod Arrays via Bioinspired Polydopamine Coating as Surface-Enhanced Raman Spectroscopy (SERS) Platforms**  
YILMAZ M.  
COATINGS, vol.9, no.3, 2019 (SCI-Expanded)
- XXIII. **Asymmetric, nano-textured surfaces influence neuron viability and polarity**  
BELU A., Yılmaz M., NEUMANN E., Offenhaeusser A., Demirel G., MAYER D.  
JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART A, vol.106, no.6, pp.1634-1645, 2018 (SCI-Expanded)
- XXIV. **Surface-enhanced Raman spectroscopy (SERS): an adventure from plasmonic metals to organic semiconductors as SERS platforms**  
Demirel G., USTA H., Yılmaz M., Celik M., Alidagi H. A., Buyukserin F.

- JOURNAL OF MATERIALS CHEMISTRY C, vol.6, no.20, pp.5314-5335, 2018 (SCI-Expanded)
- XXV. **Nanostructured organic semiconductor films for molecular detection with surface-enhanced Raman spectroscopy**  
Yilmaz M., Babur E., Ozdemir M., Gieseck R. L., Dede Y., Tamer U., Schatz G. C., Facchetti A., USTA H., Demirel G.  
NATURE MATERIALS, vol.16, no.9, pp.918-925, 2017 (SCI-Expanded)
- XXVI. **Three-Dimensional Au-Coated Electrospayed Nanostructured BODIPY Films on Aluminum Foil as Surface-Enhanced Raman Scattering Platforms and Their Catalytic Applications**  
Yilmaz M., ERKARTAL M., Ozdemir M., Sen U., USTA H., Demirel G.  
ACS APPLIED MATERIALS & INTERFACES, vol.9, no.21, pp.18199-18206, 2017 (SCI-Expanded)
- XXVII. **Understanding the effect of polydopamine coating on catalytic reduction reactions**  
Bakirci G., Yilmaz M., Babur E., Ozden D., Demirel G.  
CATALYSIS COMMUNICATIONS, vol.91, pp.48-52, 2017 (SCI-Expanded)
- XXVIII. **Fabrication of Plasmonic Nanorod-Embedded Dipeptide Microspheres via the Freeze-Quenching Method for Near-Infrared Laser-Triggered Drug-Delivery Applications**  
Erdogan H., Yilmaz M., Babur E., DUMAN M., AYDIN H., Demirel G.  
BIOMACROMOLECULES, vol.17, no.5, pp.1788-1794, 2016 (SCI-Expanded)
- XXIX. **Synthesis and characterization of poly(glycerol-co-sebacate-co- $\epsilon$ -caprolactone) elastomers**  
AYDIN H., Salimi K., YILMAZ M., Turk M., Rzayev Z. M. O., Piskin E.  
Journal of Tissue Engineering and Regenerative Medicine, vol.10, no.1, 2016 (SCI-Expanded)
- XXX. **Silver or gold deposition onto magnetite nanoparticles by using plant extracts as reducing and stabilizing agents**  
Dizaji A. N., Yilmaz M., Piskin E.  
ARTIFICIAL CELLS NANOMEDICINE AND BIOTECHNOLOGY, vol.44, no.4, pp.1109-1115, 2016 (SCI-Expanded)
- XXXI. **Antenna-type radiofrequency generator in nanoparticle-mediated hyperthermia**  
Nasseri B., Yilmaz M., Turk M., Kocum I. C., Piskin E.  
RSC ADVANCES, vol.6, no.54, pp.48427-48434, 2016 (SCI-Expanded)
- XXXII. **The fabrication of plasmonic nanoparticle-containing multilayer films via a bio-inspired polydopamine coating**  
Yilmaz M., Bakirci G., Erdogan H., Tamer U., Demirel G.  
RSC ADVANCES, vol.6, no.15, pp.12638-12641, 2016 (SCI-Expanded)
- XXXIII. **Micro-/Nanostructured Highly Crystalline Organic Semiconductor Films for Surface-Enhanced Raman Spectroscopy Applications**  
Yilmaz M., Ozdemir M., Erdogan H., Tamer U., Sen U., Facchetti A., USTA H., Demirel G.  
ADVANCED FUNCTIONAL MATERIALS, vol.25, no.35, pp.5669-5676, 2015 (SCI-Expanded)
- XXXIV. **Light-Driven Unidirectional Liquid Motion on Anisotropic Gold Nanorod Arrays**  
Yilmaz M., Kuloglu H. B., Erdogan H., Cetin S. S., Yavuz M. S., Ince G. O., Demirel G.  
ADVANCED MATERIALS INTERFACES, vol.2, no.12, 2015 (SCI-Expanded)
- XXXV. **Morphological Versatility in the Self-Assembly of Val-Ala and Ala-Val Dipeptides**  
Erdogan H., Babur E., Yilmaz M., Candas E., Gordesel M., Dede Y., Oren E. E., Demirel G. B., Ozturk M. K., Yavuz M. S., et al.  
LANGMUIR, vol.31, no.26, pp.7337-7345, 2015 (SCI-Expanded)
- XXXVI. **Controlled graft copolymerization of lactic acid onto starch in a supercritical carbon dioxide medium**  
Salimi K., Yilmaz M., Rzayev Z. M. O., Piskin E.  
CARBOHYDRATE POLYMERS, vol.114, pp.149-156, 2014 (SCI-Expanded)
- XXXVII. **Large area uniform deposition of silver nanoparticles through bio-inspired polydopamine coating on silicon nanowire arrays for practical SERS applications**  
Akin M. S., Yilmaz M., Babur E., Ozdemir B., Erdogan H., Tamer U., Demirel G.  
JOURNAL OF MATERIALS CHEMISTRY B, vol.2, no.30, pp.4894-4900, 2014 (SCI-Expanded)
- XXXVIII. **Investigation of lichen based green synthesis of silver nanoparticles with response surface methodology**  
Yildiz N., Ateş Ç., Yilmaz M., Demir D., Yildiz A., Çalimli A.

- Green Processing and Synthesis, vol.3, no.4, pp.259-270, 2014 (SCI-Expanded)
- XXXIX. **Combining 3-D plasmonic gold nanorod arrays with colloidal nanoparticles as a versatile concept for reliable, sensitive, and selective molecular detection by SERS**  
Yilmaz M., Senlik E., Biskin E., Yavuz M. S., Tamer U., Demirel G.  
PHYSICAL CHEMISTRY CHEMICAL PHYSICS, vol.16, no.12, pp.5563-5570, 2014 (SCI-Expanded)
- XL. **Ring-opening copolymerization of L-lactide and epsilon-caprolactone in supercritical carbon dioxide using triblock oligomers of caprolactone and PEG as stabilizers**  
Yilmaz M., Egri S., Yildiz N., Calimli A., Piskin E.  
POLYMER JOURNAL, vol.43, no.9, pp.785-791, 2011 (SCI-Expanded)
- XLI. **Dispersion polymerization of L-lactide in supercritical carbon dioxide**  
Yilmaz M., Egri S., Yildiz N., Calimli A., Piskin E.  
JOURNAL OF POLYMER RESEARCH, vol.18, no.5, pp.975-982, 2011 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Excitation-Dependent and pH-Sensitive Fluorescence Emission of Carbon Quantum Dots from Whey as Precursor**  
İlter A. B., AYDIN S., YILMAZ A., YILMAZ M.  
AVES YAYINCILIK A.Ş., vol.3, 2023 (Peer-Reviewed Journal)
- II. **3D and Plasmonic Nanoparticle Decorated Catalytic System via Bio-inspired Polydopamine Coating: Cigar Filter Case Study**  
YILMAZ M.  
Hacettepe Journal of Biology and Chemistry, vol.46, no.4, pp.515-521, 2018 (Scopus)

## Books & Book Chapters

- I. **BAĞLAMA TEKNİKLERİ**  
Yılmaz A., Yılmaz M.  
in: NANOÜRETİM TEKNİKLERİ, Editor, Nobel Akademik Yayıncılık, Ankara, pp.297-312, 2023
- II. **NANOTEKNOLOJİDE İNCE FİLM BİRİKTİRME YÖNTEMLERİ**  
AKÇAKOCA İ., NARİN P., ÜNVEROĞLU ABDİOĞLU B., YILMAZ M.  
in: NANOÜRETİM TEKNİKLERİ, Editor, Nobel Akademik Yayıncılık, pp.191-236, 2023
- III. **SIVI TEMELLİ YAKLAŞIMLAR İLE NANOYAPILARIN ÜRETİMİ**  
TURAN H., Dizaji A. N., YILMAZ M.  
in: NANOÜRETİM TEKNİKLERİ, Editor, Nobel Akademik Yayıncılık, pp.67-96, 2023
- IV. **Biyoesinlenmiş Fonksiyonel Malzemeler**  
ERDOĞAN H., YILMAZ M., ÖZDEN D. Ş., DEMİREL G.  
in: İleri Malzemeler: Biyomalzeme ve Nanomalzeme Uygulamaları, Kurallay Filiz, Editor, HACETTEPE ÜNİVERSİTESİ, Ankara, pp.89-115, 2019
- V. **MULTIFUNCTIONAL THERAPEUTIC HYBRID NANOCARRIERS FOR TARGETED AND TRIGGERED DRUG DELIVERY: RECENT TRENDS AND FUTURE PROSPECTS**  
KURTAY G., YILMAZ M., KURALAY F., BİRLİK DEMİREL G.  
in: Nanostructures for Drug Delivery, Ecaterina Andronescu, Alexandru Mihai Grumezescu, Editor, Elsevier, 2017

## Refereed Congress / Symposium Publications in Proceedings

- I. **pH-mediated Emission of Boron/Nitrogen co-doped Carbon Quantum Dots**  
ÜSTÜN O., YILMAZ M., YILMAZ A.

NanoTR 2022, Ankara, Turkey, 05 September 2022

- II. **The Fabrication of Silver Nanoparticle-decorated Titanium Dioxide Nanoflowers Through Bioinspired Poly(L-DOPA) Thin Film and Their Biological Applications**  
SERGİNAY N., Ghosigharehaghaji A., MAZLUMOĞLU H., YILMAZ M.  
NanoTR 2022, Ankara, Turkey, 05 September 2022
- III. **The Fabrication of Novel Fluorescence dye-loaded PEG-PLA Nanoparticle Systems**  
Öncer N., YILMAZ A., YILMAZ M., YALÇIN E., SEFEROĞLU Z.  
NanoTR 2022, Ankara, Turkey, 05 September 2022
- IV. **Hydrothermal synthesis of Nitrogen and boron co-doped carbon quantum dots for bioimaging**  
Karadağ Ş. N., ÜSTÜN O., YILMAZ A., YILMAZ M.  
2nd International Conference on Applied Engineering and Natural Sciences, Konya, Turkey, 10 March 2022
- V. **Poly(L-DOPA)-mediated silver nanoparticle-decorated titanium dioxidenanowires with high SERS and, photocatalytic activity**  
Mazlumoğlu H., Yılmaz M.  
World Congress on Applied Nanotechnology 2021, Erzurum, Turkey, 24 - 26 November 2021, pp.123-126
- VI. **Gold nanoparticle-decorated polystyrene hybrid nanosystems as SERS platform, and catalyst**  
YILMAZ M.  
World Congress on Applied Nanotechnology 2021, Turkey, 24 - 26 November 2021
- VII. **Hücreleştirilmiş Dokular ve Grafen Oksit'in Birlikte Kullanılmasının Doku Mühendisliği Uygulamaları**  
İNCİ İ., Norouz Dizaji A., AYSİN F., ŞİMŞEK ÖZEK N., YILMAZ A., YILMAZ M.  
The 3rd International Medical Congress of Izmir Democracy University (IMCIDU 2021), 10 December 2021
- VIII. **THE MONITORING OF DIMERIZATION AND CATALYTIC CONVERSION OF ORGANIC DYES ON TUNGSTEN NPs WITH OXYGEN VACANCIES THROUGH SURFACE-ENHANCED RAMAN SPECTROSCOPY (SERS)**  
ÜSTÜN O., YILMAZ A., YILMAZ M.  
1st INTERNATIONAL CONGRESS ON NATURAL SCIENCES (ICNAS-2021), Turkey, 10 - 12 September 2021
- IX. **Highly Sensitive Fourier Transform Infrared (FT-IR)-based Whole-Cell Bacterial Detection by Combining Gold Nanorod Arrays and Gold Nanoparticles as Sandwich Platform**  
Dizaji A. N., ŞİMŞEK ÖZEK N., YILMAZ M.  
4th International Symposium on Advanced Materials and Nanotechnology, 1 - 03 December 2020, pp.316-320
- X. **Bimetallic Core/Shell Nanoparticles of Gold and Silver via Bioinspired Polydopamine Layer**  
YILMAZ M.  
iSAMN 2019 (3rd International Symposium On Advanced Materials and Nanotechnology), 19 - 20 August 2019
- XI. **Cell Diagnosis Based on Surface-Enhanced Raman Spectroscopy (SERS) Tools**  
YILMAZ M., YILMAZ A., AYSİN F., ŞİMŞEK ÖZEK N.  
iSAMN 2019 (3rd International Symposium On Advanced Materials and Nanotechnology), 19 - 20 August 2019
- XII. **Novel Approaches in Synthesis of Chiral Nanostructures**  
YILMAZ M.  
ISASE2018 INTERNATIONAL SYPOSIUM ON APPLIED SCIENCES AND ENGINEERING, 26 - 28 November 2018
- XIII. **Nanostructured Organic Semiconductor Thin Films as Surface Enhanced Raman Spectroscopy (SERS) Platforms**  
YILMAZ M.  
ISASE2018 INTERNATIONAL SYPOSIUM ON APPLIED SCIENCES AND ENGINEERING, 26 - 28 November 2018
- XIV. **Organic semiconductor thin films as SERS substrates**  
YILMAZ M.  
41st Annual Symposium Emergent Polymer Science Engineering, 19 October 2017
- XV. **Nanostructured organic semiconductor films as new generations of surface-enhanced Raman spectroscopy substrates**  
YILMAZ M.  
2017-5th Annual LNF Users Symposium, 06 December 2017

- XVI. **Gold modified anisotropic titanium nanorod arrays for sensing applications**  
ÖZDEN D. Ş., YILMAZ M., BİŞKİN E., DEMİREL G.  
3rd International Congress on Biosensors, 5 - 07 October 2016
- XVII. **Layer by layer films of polydopamine and gold nanoparticles**  
BAKIRCI DÜNDAR G., YILMAZ M., DEMİREL G.  
3rd International Congress on Biosensors, 5 - 07 October 2016
- XVIII. **Thin films of p type organic semiconductors as SERS substrates**  
YILMAZ M., ÖZDEN D. Ş., USTA H., DEMİREL G.  
3rd International Congress on Biosensors, 5 - 07 October 2016
- XIX. **Self powering biosensors for biofuel cell applications**  
NİLGÜN D., YILMAZ M., DEMİREL G., KURALAY F.  
3rd International Congress on Biosensors, 5 - 07 October 2016
- XX. **New Generations of SERS Substrates**  
YILMAZ M., DEMİREL G.  
International Köyceğiz Meetings (AFFTECH 2015, NANOMED 2015, NANOBIOTECH 2015), 6 - 12 September 2015
- XXI. **PGEs Carrying Polydopamine Mediated Gold Nanoparticles**  
KARATAŞ E., DİLEK ŞURA Ö., YILMAZ M., ZEHRA Y., ERHAN B.  
International Köyceğiz Meetings 2015 (AFFTECH 2015, NANOMED 2015, NANOBIOTECH2015, 6 - 12 September 2015
- XXII. **Silicon nanowire supported gold nanoparticles for environmental applications**  
BAKIRCI G., YILMAZ M., DEMİREL G.  
NanoTR 11 Nanoscience and Nanotechnology Conference, 22 - 25 June 2015
- XXIII. **Polydopamine mediated nanoparticle deposition for SERS applications**  
YILMAZ M., AKIN M. S., DEMİREL G.  
NanoTR 11 Nanoscience and Nanotechnology Conference, Turkey, 22 - 25 June 2015
- XXIV. **Theranostic aimed nanoabsorbers in antenna modulus radiofrequency hyperthermia A comprehensive study**  
NASSERİ B., YILMAZ M., KOÇUM İ. C., BİŞKİN E.  
Euro BioMAT 2015 European Symposium and Exhibition on Biomaterials and Related Areas, 21 - 22 April 2015
- XXV. **Fabrication and SERS applications of uni directional gold and silver nanorod arrays enhanced by colloidal nanoparticles**  
YILMAZ M., DEMİREL G., BİŞKİN E.  
Euro BioMAT 2015 European Symposium and Exhibition on Biomaterials and Related Areas, 21 - 22 April 2015
- XXVI. **Fabrication of starch g PLA copolymers in supercritical carbon dioxide medium**  
SALİMİ K., YILMAZ M., RZAYEV Z., BİŞKİN E.  
Euro BioMAT 2015 European Symposium and Exhibition on Biomaterials and Related Areas, 21 - 22 April 2015
- XXVII. **Uni directional gold and silver nanorod arrays as Surface Enhanced Raman Spectroscopy SERS substrates**  
YILMAZ M., DEMİREL G., BİŞKİN E.  
1st International NanoBiotechnology Symposium - NanoBioTech 2014, 27 - 29 August 2014
- XXVIII. **Silver or gold deposited magnetite nanoparticles Green synthesis approach with plant extract**  
DİZAJI A. N., YILMAZ M., BİŞKİN E.  
1st International NanoBiotechnology Symposium - NanoBioTech 2014, 27 - 29 August 2014
- XXIX. **Fabrication and applications of uni directional gold nanorod arrays based on gas phase deposition**  
YILMAZ M., DEMİREL G., BİŞKİN E.  
Biosensors 2014, 27 - 30 May 2014
- XXX. **Magnetite gold core shell nanoparticles for delivery and imaging of plasmid DNA**  
DİZAJI A. N., USTA D. D., YILMAZ M., KUTSAL T., TÜRK M., BİŞKİN E.  
TERMIS-EU 2013, 17 - 20 June 2013
- XXXI. **The catalyst assisted two stage synthesis of poly glycerol c sebacate co caprolactone elastomers as potential subacromial adhesion barriers in rotator cuff repair**



- AYDIN H. M., SALİMİ K., YILMAZ M., TÜRK M., RZAYEV Z., BİŞKİN E.  
TERMIS-EU 2013, 17 - 20 June 2013
- XXXII. **Hyperthermia with RF using nanoparticles**  
NASSERİ B., YILMAZ M., KOÇUM İ. C., TÜRK M., BİŞKİN E.  
TERMIS-EU 2013, 17 - 20 June 2013
- XXXIII. **Design and production of intelligent inorganic nanoparticles for delivery and imaging of plasmid DNA and antisense oligonucleotides to tumor cells**  
DİZAJI A. N., YILMAZ M., KUTSAL T., BİŞKİN E.  
18th International Biomedical Science and Technology Symposium, 10 - 13 September 2012
- XXXIV. **PLLA PEG based biodegradable micelles**  
YILMAZ M., NASSERİ B., EĞRİ S., DİNÇER İŞOĞLU S., BİŞKİN E.  
18th International Biomedical Science and Technology Symposium, 10 - 13 September 2012
- XXXV. **Micelles and reverse micelles of PLC PEG PCL triblock oligomers**  
YILMAZ M., NASSERİ B., EĞRİ S., DİNÇER İŞOĞLU S., BİŞKİN E.  
NANOTR-VIII, 25 - 29 June 2012
- XXXVI. **Nanomagnetic particle synthesis and characterization for seperation of plasmid DNA**  
UTKAN G., SAYAR F., BATAT P., İDE S., YILMAZ M., ATİLA DİNÇER C., KRİECHBAUM A., BİŞKİN E.  
Nanomagnetisme et Spintronique, 24 - 25 November 2010
- XXXVII. **Ring opening homopolymerization of L lactide and copolymerization of L lactide and CL in supercritical carbon dioxide with triblock copolymers of CL and PEG as stabilizer**  
YILMAZ M., EĞRİ S., YILDIZ N., ÇALIMLI A., BİŞKİN E.  
5th European Symposium on Biopolymers, ESBP 2009, 18 - 20 November 2009
- XXXVIII. **Triblock copolymers of CL and PEG as stabilizer in ring opening copolymerization of L lactide and CL in supercritical carbon dioxide**  
YILMAZ M., EĞRİ S., YILDIZ N., ÇALIMLI A., BİŞKİN E.  
BİOTECH-METU 2009, 27 - 30 September 2009
- XXXIX. **Copolymer synthesis of L lactide and CL in supercritical fluid**  
YILMAZ M., EĞRİ S., YILDIZ N., ÇALIMLI A., BİŞKİN E.  
8th National Chemical Engineering Convention, Turkey, 26 - 29 August 2008

## Supported Projects

- YILMAZ M., ŞİMŞEK ÖZEK N., MOHAMMED O. H. JABER M. O. H. J., KHALAF A. H. K., KAYA F., YILMAZ A., CAN F., Project Supported by Higher Education Institutions, Etiketsiz Yüzey Zenginleştirilmiş Raman Spektroskopisi SERS Yaklaşımı ile Bakterilerin Tanısı, 2023 - 2024
- BİNGÖL M. S., YILMAZ M., KASAPOĞLU A. E., Project Supported by Higher Education Institutions, Hummers Metodu kullanılarak Sıvı Faz Eksfoliasyon Yöntemiyle Bulk Bordan Birkaç Tabakalı Borofen Üretimi, 2023 - 2024
- Çakmak N., Alkan Ö., Kizilgeçit M., Yılmaz M., Karaaslan A., Türkmenadağ Z., Çetintaş H. B., Nişancı B., Ünver Ş., Çay Atalay A., Project Supported by Higher Education Institutions, Mentör Destekli Birebir Makale Yazma Eğitimi Sürecinde Yaşanan Problemlerin Belirlenmesi ve Çözüm Önerilerinin Sunulması, 2022 - 2023
- YILMAZ M., Project Supported by Higher Education Institutions, 2020 Yılı UBYT Yayın Destek Doç Dr Mehmet Yılmaz, 2022 - 2022
- NADAROĞLU H., HACİMÜFTÜOĞLU A., DAŞ E., BAYRAKÇEKEN YURTCAN A., BARIŞ Ö., GÜR E., ÇOMAKLI Ö., KARAKAN M., ERTUĞRUL M., EFEOĞLU H., et al., Project Supported by Higher Education Institutions, World Congress on Applied Nanotechnology 2021, 2021 - 2022
- MAZLUMOĞLU H., YILMAZ M., YILMAZ A., SERGİNAY N., Project Supported by Higher Education Institutions, Farklı Morfolojilerde Titanyum Dioksit Nanosistemlerin Üretilmesi Biyoesinlenmiş Poli LDOPA İnce Film Aracılığıyla Gümüş Nanopartiküller ile Dekore Edilmesi ve Fotokatalizör Olarak Kullanımı, 2021 - 2022
- YILMAZ M., AYSİN F., ŞİMŞEK ÖZEK N., YILMAZ A., Project Supported by Higher Education Institutions, Vankomisin ile Modifiye Edilmiş Altın Nanodesenlenmiş Yüzeyler ile Gram Pozitif Bakterilerin Ayrıştırılması Yüzey Zenginleştirilmiş

Raman Spektroskopisi SERS Yaklaşımı ve Sandviç Modeli ile Gram Pozitif Bakterilerin Tanısı, 2021 - 2022  
YILMAZ A., YILMAZ M., AYSİN F., Project Supported by Higher Education Institutions, Uyarılma Dalga Boyu Bağımlı Karbon Kuantum Noktalarının Üretimi ile Sağlıklı ve Kansere Akciğer Hücre Hatlarında Sitotoksik Etkilerinin Belirlenmesi ve Floresans Görüntülenmesi, 2021 - 2022  
Geyikoğlu F., Koç K., Yılmaz A., Yılmaz M., Özgül Abuç Ö., Aysin F., Şimşek Özek N., Project Supported by Higher Education Institutions, Hispidulinin Sıçanlarda Oleik Asit ile İndüklenen Akut Akciğer Hasarı Modeli Üzerine Etkilerinin Araştırılması, 2021 - 2022  
Yılmaz A., Yılmaz M., Aysin F., Şimşek Özek N., TUBİTAK Project, Yüzey Zenginleştirilmiş Raman Spektroskopisi (SERS) Yaklaşımı ve 3D Haritalama Tekniği Kullanılarak Farklı Tipte Hücrelerin Tanımlanması ve Apoptoz ile Nekroz Düzeylerinin Belirlenmesi, 2020 - 2022  
YILMAZ M., TUBİTAK Project, Yeni Kiroplazmonik Nanoyapılı Sistemler, 2017 - 2018  
YILMAZ M., TUBİTAK Project, 3-Boyutlu Anizotropik Nanoyapılar Yardımı ile Plazmonik Fotokataliz, 2014 - 2017  
TUBİTAK Project, TÜBİTAK 2219 BİDEB Yurtiçi Doktora Programı, 2009 - 2014  
TUBİTAK Project, Süperkritik Karbondioksit Ortamında L-laktat/γ-kaprolacton Kopolimer Sentezi, 2008 - 2009

## Activities in Scientific Journals

COATINGS, Special Issue Editor, 2021 - 2023

## Scientific Refereeing

COATINGS, SCI Journal, December 2023  
APPLIED SCIENCES, SCI Journal, November 2023  
COATINGS, SCI Journal, November 2023  
APPLIED SCIENCES, SCI Journal, October 2023  
JOURNAL OF PHARMACEUTICAL AND BIOMEDICAL ANALYSIS, SCI Journal, August 2023  
JOURNAL OF FUNCTIONAL BIOMATERIALS, SCI Journal, August 2023  
POLYMERS, SCI Journal, July 2023  
APPLIED SURFACE SCIENCE, SCI Journal, March 2023  
FOODS, SCI Journal, March 2023  
APPLIED SURFACE SCIENCE, SCI Journal, March 2023  
CUMHURİYET SCIENCE JOURNAL, National Scientific Refreed Journal, January 2023  
SURFACES, Journal Indexed in ESCI, January 2023  
Surfaces and Interfaces, SCI Journal, January 2023  
Materials, Journal Indexed in SCI-E, November 2022  
POLYMERS, SCI Journal, November 2022  
CHEMOSENSORS, SCI Journal, October 2022  
PHYSICAL CHEMISTRY CHEMICAL PHYSICS, SCI Journal, October 2022  
TUBİTAK Project, 1002 - Quick Support Program, Ataturk University, Turkey, October 2022  
TUBİTAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Ataturk University, Turkey, October 2022  
TUBİTAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Ataturk University, Turkey, October 2022  
International Journal of Life Sciences and Biotechnology, Other Indexed Journal, September 2022  
COATINGS, SCI Journal, September 2022  
RSC ADVANCES, SCI Journal, September 2022  
INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, SCI Journal, September 2022  
TOXICS, SCI Journal, September 2022  
Celal Bayar Üniversitesi Fen Bilimleri Dergisi, National Scientific Refreed Journal, September 2022

Surfaces and Interfaces, SCI Journal, August 2022  
SURFACE INNOVATIONS, SCI Journal, August 2022  
ELECTRONICS (Basel), SCI Journal, July 2022  
FOODS, SCI Journal, June 2022  
materials, SCI Journal, June 2022  
TUBITAK Project, 1002 - Quick Support Program, Ataturk University, Turkey, June 2022  
QUANTUM BEAM SCIENCE, SCI Journal, April 2022  
materials, SCI Journal, March 2022  
INTERNATIONAL JOURNAL OF ENVIRONMENTAL RESEARCH AND PUBLIC HEALTH, SCI Journal, March 2022  
COATINGS, SCI Journal, December 2021  
COATINGS, SCI Journal, December 2021  
BIOSENSORS-BASEL, SCI Journal, December 2021  
BIOSENSORS-BASEL, SCI Journal, November 2021  
COATINGS, SCI Journal, November 2021  
BIOSENSORS-BASEL, SCI Journal, October 2021  
POLYMERS, SCI Journal, October 2021  
POLYMERS, SCI Journal, October 2021  
POLYMERS, SCI Journal, September 2021  
POLYMERS, SCI Journal, September 2021  
NANOMATERIALS, SCI Journal, August 2021  
NANOMATERIALS, SCI Journal, July 2021  
PHARMACEUTICS, SCI Journal, June 2021  
POLYMERS, SCI Journal, May 2021  
CHEMOSENSORS, SCI Journal, April 2021  
MATERIALS, SCI Journal, March 2021  
BIOSENSORS-BASEL, SCI Journal, February 2021  
Polymers, SCI Journal, December 2020  
PHARMACEUTICS, SCI Journal, December 2020  
NANOMATERIALS, SCI Journal, November 2020  
COATINGS, SCI Journal, October 2020  
CRYSTALS, SCI Journal, September 2020  
CHEMOSENSORS, SCI Journal, September 2020  
NANOMATERIALS, SCI Journal, August 2020  
NANOMATERIALS, SCI Journal, July 2020  
CRYSTALS, SCI Journal, June 2020  
APPLIED SCIENCES-BASEL, SCI Journal, June 2020  
INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, SCI Journal, May 2020  
SENSORS, SCI Journal, May 2020  
MICROMACHINES, SCI Journal, May 2020  
MICROMACHINES, SCI Journal, April 2020  
biomimetics, Journal Indexed in ESCI, March 2020  
SENSORS, SCI Journal, March 2020  
MATERIALS, SCI Journal, February 2020  
SENSORS, SCI Journal, February 2020  
MATERIALS, SCI Journal, February 2020  
NANOMATERIALS, SCI Journal, January 2020  
Molecules, SCI Journal, November 2019  
Sensors, SCI Journal, October 2019  
Nanomaterials, SCI Journal, October 2019  
Hacettepe Journal Biology and Chemistry, National Scientific Refreed Journal, September 2019  
Materials, SCI Journal, September 2019

Sensors, SCI Journal, August 2019  
Sensors, SCI Journal, July 2019  
Coatings, SCI Journal, June 2019  
Coatings, SCI Journal, May 2019  
Nanomaterials, SCI Journal, May 2019  
Applied Surface Science, SCI Journal, April 2019  
Materials, SCI Journal, April 2019  
Nanomaterials, SCI Journal, April 2019  
Applied Sciences, SCI Journal, March 2019  
International Journal of Molecular Sciences , SCI Journal, February 2019  
Hacettepe Journal Biology and Chemistry, National Scientific Refreed Journal, January 2019  
Sensors, SCI Journal, January 2019  
materials, SCI Journal, November 2018  
sensors, SCI Journal, November 2018  
Sensors, SCI Journal, September 2018  
sensors, SCI Journal, September 2018  
sensors, SCI Journal, July 2018  
sensors, SCI Journal, May 2018  
sensors, SCI Journal, March 2018  
Sensors, SCI Journal, February 2018  
sensors, SCI Journal, December 2017  
sensors, SCI Journal, November 2017  
Journal of Hazardous Materials, SCI Journal, September 2015

## **Scientific Consultations**

TÜBİTAK, Project Consultancy, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, Turkey, 2022 - 2022  
TÜBİTAK, Project Consultancy, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, Turkey, 2022 - 2022

## **Tasks In Event Organizations**

Bayrakçeken H., GÜR E., YILMAZ M., W-CAN2021 , Scientific Congress, Erzurum, Turkey, Kasım 2021

## **Metrics**

Publication: 87  
Citation (WoS): 1034  
Citation (Scopus): 1097  
H-Index (WoS): 16  
H-Index (Scopus): 17

## **Congress and Symposium Activities**

Session Moderator, Erzurum, Turkey, 2021

## **Awards**

Serginay N., Ghosigharehaghaji A., Mazlumođlu H., Yılmaz M., Best Poster Award, 16Th Nanoscience & Nanotechnology Conference, September 2022

YILMAZ M., En İyi Poster (Üçüncülük) Ödülü, NanoTR 11 Nanoscience and Nanotechnology Conference, 2015., June 2016