

## Assoc. Prof. ÖMER AYDIN

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: E-9342-2012

ScopusID: 56622455400

Yoksis Researcher ID: 271623

### Education Information

Post Doctorate, The National Institute Of Health, Clinical Center, Radiology And Imaging Sciences, United States Of America 2016 - 2018

Doctorate, University of Michigan, School Of Engineering, Biomedical Engineering, United States Of America 2010 - 2016

Postgraduate, Yeditepe University, Fen Bilimleri Enst, Biyoteknoloji, Turkey 2007 - 2009

Undergraduate, Baskent University, Faculty Of Engineering, Biyomedikal Mühendisliği, Turkey 2003 - 2007

### Foreign Languages

English, C1 Advanced

### Research Areas

Biomedical Engineering, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Erciyes University, Mühendislik Fakültesi, Biyomedikal Mühendisliği, 2023 - Continues

Assistant Professor, Erciyes University, Mühendislik Fakültesi, Biyomedikal Mühendisliği, 2019 - 2023

Lecturer, Erciyes University, Mühendislik Fakültesi, Biyomedikal Mühendisliği, 2018 - 2019

Researcher, National Institute of Health, Clinical Center, Radiology and Imaging Sciences, 2016 - 2018

Research Assistant, University of Michigan, School of Engineering, Department of Biomedical Engineering, 2010 - 2016

Research Assistant, Yeditepe University, Faculty Of Engineering-Architecture, Department Of Genetics And Bioengineering, 2007 - 2009

### Academic and Administrative Experience

BAP Scientific Commissioner, Erciyes University, Mühendislik Fakültesi, Biyomedikal Mühendisliği, 2022 - Continues

Stratejik Plan Tema Grubu Üyesi, Erciyes University, Mühendislik Fakültesi, Biyomedikal Mühendisliği, 2021 - Continues

Deputy Director of the Center, Erciyes University, Mühendislik Fakültesi, Biyomedikal Mühendisliği, 2020 - Continues  
Deputy Head of Department, Erciyes University, Mühendislik Fakültesi, Biyomedikal Mühendisliği, 2020 - Continues  
Erciyes University, 2020 - Continues  
Erciyes University, 2020 - Continues  
Rectorate Commissioner, Erciyes University, Mühendislik Fakültesi, Biyomedikal Mühendisliği, 2019 - Continues  
Erasmus Coordinator, Erciyes University, Mühendislik Fakültesi, Biyomedikal Mühendisliği, 2019 - Continues  
Erciyes University, 2019 - Continues  
Erciyes University, 2019 - Continues

## Advising Theses

Aydın Ö., Detection of antimicrobial resistance using surface-enhanced raman spectroscopy combined with machine learning algorithms, Postgraduate, Z.ALI(Student), 2022  
Aydın Ö., Kemoterapiye dirençli yumurtalık kanserine karşı nanotıp tabanlı yenilikçi gen terapi sistemlerinin geliştirilmesi, Postgraduate, D.KANARYA(Student), 2022  
Aydın Ö., The effect of LC3 siRNA and doxorubicin dual treatment against breast cancer, Postgraduate, N.SAMEER(Student), 2022  
Aydın Ö., Tokmakçı M., Detection and classification of antibiotic resistant and susceptible bacteria by surface enhanced raman spectroscopy and machine learning techniques, Doctorate, F.UYSAL(Student), 2021  
Aydın Ö., SARS-CoV-2 proteinlerinin anlatımını yapan memeli hücrelerinin yüzeyde zenginleştirilmiş raman saçılması ile incelenmesi, Postgraduate, M.AKDENİZ(Student), 2021  
Aydın Ö., Ultrason-aktif nanoparçacığın kemoterapiye dirençli ovaryum kanser üzerine etkisinin incelenmesi, Postgraduate, B.KİP(Student), 2021  
Aydın Ö., BİYALGILAMA İÇİN MİKROAKIŞKAN SİSTEMLERİN GELİŞTİRİLMESİ, Doctorate, F.BETÜL(Student), 2021  
Aydın Ö., Şimşek E., Cryptosporidium parvum ookistlerinin yüzeyde zenginleştirilmiş raman saçılması ile incelenmesi, Postgraduate, A.HACER(Student), 2020

## Jury Memberships

Post Graduate, Post Graduate, İstanbul Medeniyet Üniversitesi, August, 2021  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Erciyes Üniversitesi, August, 2021  
Doctoral Examination, Doctoral Examination, İstanbul Medipol Üniversitesi, August, 2021  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Abdullah Gül Üniversitesi, July, 2021  
Doctoral Examination, Doctoral Examination, Abdullah Gül Üniversitesi, June, 2021  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Erciyes Üniversitesi, December, 2020  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Erciyes Üniversitesi, December, 2020  
Post Graduate, Post Graduate, İstanbul Medipol Üniversitesi, November, 2020  
Post Graduate, Post Graduate, Erciyes Üniversitesi, May, 2020  
Post Graduate, Post Graduate, Abdullah Gül Üniversitesi, December, 2019  
Doctorate, Doctorate, Erciyes Üniversitesi, December, 2019

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

1. **Enhancing Therapeutic Efficacy in Cancer Treatment: Integrating Nanomedicine with Autophagy**

## **Inhibition Strategies**

Walweel N., AYDIN Ö.

ACS OMEGA, vol.9, no.26, pp.27832-27852, 2024 (SCI-Expanded)

- II. **Staphylococcus Aureus-Related antibiotic resistance detection using synergy of Surface-Enhanced Raman spectroscopy and deep learning**  
Al-Shaebi Z., UYSAL ÇİLOĞLU F., Nasser M., Kahraman M., AYDIN Ö.  
Biomedical Signal Processing and Control, vol.91, 2024 (SCI-Expanded)
- III. **Breakthrough Solution for Antimicrobial Resistance Detection: Surface-Enhanced Raman Spectroscopy-based on Artificial Intelligence**  
Al-Shaebi Z., Akdeniz M., Ahmed A. O., Altunbek M., AYDIN Ö.  
ADVANCED MATERIALS INTERFACES, 2023 (SCI-Expanded)
- IV. **Characterization and discrimination of spike protein in SARS-CoV-2 virus-like particles via surface-enhanced raman spectroscopy**  
Akdeniz M., Al-Shaebi Z., Altunbek M., Bayraktar C., Kayabolen A., Bagci-Onder T., Aydin Ö.  
BIOTECHNOLOGY JOURNAL, vol.2300191, pp.1-10, 2023 (SCI-Expanded)
- V. **Design, synthesis, molecular docking and biological evaluation of 1,2,4-triazole derivatives possessing a hydrazone moiety as anti-breast cancer agents**  
Tapera M., Kekeçmuhammed H., Tunc C. U., Kutlu A. U., ÇELİK İ., Zorlu Y., AYDIN Ö., SARIPINAR E.  
New Journal of Chemistry, vol.47, no.24, pp.11602-11614, 2023 (SCI-Expanded)
- VI. **Overcome of Cisplatin Drug Resistance in Ovarian Cancer by Combination of Low-Intensity Ultrasound and Cisplatin.**  
Kip B., Aydin Ö.  
Current drug delivery, vol.20, pp.1380-1390, 2023 (SCI-Expanded)
- VII. **Simple Staining of Cells on a Chip.**  
Kosker F. B., Aydin Ö., Icoz K.  
Biosensors, vol.12, no.11, 2022 (SCI-Expanded)
- VIII. **DeepCAN: A Modular Deep Learning System for Automated Cell Counting and Viability Analysis.**  
Eren F., Aslan M., Kanarya D., Uysalli Y., Aydin M., Kiraz B., AYDIN Ö., Kiraz A.  
IEEE journal of biomedical and health informatics, vol.26, no.11, pp.5575-5583, 2022 (SCI-Expanded)
- IX. **Highly Accurate Identification of Bacteria's Antibiotic Resistance Based on Raman Spectroscopy and U-Net Deep Learning Algorithms**  
Al-Shaebi Z., UYSAL ÇİLOĞLU F., Nasser M., AYDIN Ö.  
ACS OMEGA, vol.7, no.33, pp.29443-29451, 2022 (SCI-Expanded)
- X. **SERS-based sensor with a machine learning based effective feature extraction technique for fast detection of colistin-resistant Klebsiella pneumoniae**  
Ciloglu F., Hora M., GÜNDOĞDU A., Kahraman M., TOKMAKÇI M., AYDIN Ö.  
Analytica Chimica Acta, vol.1221, 2022 (SCI-Expanded)
- XI. **Co-delivery of Bcl-2 siRNA and doxorubicin through gold nanoparticle-based delivery system for a combined cancer therapy approach**  
Tunç C. Ü., AYDIN Ö.  
Journal of Drug Delivery Science and Technology, vol.74, 2022 (SCI-Expanded)
- XII. **Design, synthesis, and in vitro and in vivo anticancer activity studies of new (S)-Naproxen thiosemicarbazide/1,2,4-triazole derivatives**  
Han M. İ., Tunc C. U., Atalay P., Erdogan O., Ünal G., Bozkurt M., Aydin Ö., Cevik O., Kucukguzel S. G.  
NEW JOURNAL OF CHEMISTRY, vol.46, no.13, pp.6046-6059, 2022 (SCI-Expanded)
- XIII. **Investigation of mammalian cells expressing SARS-CoV-2 proteins by surface-enhanced Raman scattering and multivariate analysis**  
Akdeniz M., UYSAL ÇİLOĞLU F., Tunc C. U., YILMAZ Ü., Kanarya D., ATALAY DÜNDAR P., AYDIN Ö.  
ANALYST, vol.147, no.6, pp.1213-1221, 2022 (SCI-Expanded)
- XIV. **Discrimination of waterborne pathogens, Cryptosporidium parvum oocysts and bacteria using surface-enhanced Raman spectroscopy coupled with principal component analysis and hierarchical**

## clustering

Arslan A. H., Ciloglu F., Yilmaz U., ŞİMŞEK E., AYDIN Ö.

Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, vol.267, 2022 (SCI-Expanded)

- XV. **Triple-combination therapy assisted with ultrasound-active gold nanoparticles and ultrasound therapy against 3D cisplatin-resistant ovarian cancer model.**  
Kip B., Tunc C. U., Aydin Ö.  
Ultrasonics sonochemistry, vol.82, pp.105903, 2021 (SCI-Expanded)
- XVI. **Drug-resistant Staphylococcus aureus bacteria detection by combining surface-enhanced Raman spectroscopy (SERS) and deep learning techniques**  
Ciloglu F., Caliskan A., Saridag A. M., Kilic I. H., TOKMAKÇI M., Kahraman M., AYDIN Ö.  
Scientific Reports, vol.11, no.1, 2021 (SCI-Expanded)
- XVII. **Design and synthesis of novel (S)-Naproxen hydrazide-hydrazones as potent VEGFR-2 inhibitors and their evaluation in vitro/in vivo breast cancer models**  
Han M. İ., Atalay P., Tunç C. Ü., Ünal G., Dayan S., Aydın Ö., Küçükgülzel Ş. G.  
BIOORGANIC & MEDICINAL CHEMISTRY, vol.37, 2021 (SCI-Expanded)
- XVIII. **Pulsed-focused ultrasound slows B16 melanoma and 4T1 breast tumor growth through differential tumor microenvironmental changes**  
Cohen G., Chandran P., Lorsung R. M., Aydin Ö., Tomlinson L. E., Rosenblatt R. B., Burks S. R., Frank J. A.  
Cancers, vol.13, no.7, 2021 (SCI-Expanded)
- XIX. **Identification of methicillin-resistant: Staphylococcus aureus bacteria using surface-enhanced Raman spectroscopy and machine learning techniques**  
Uysal C., Saridag A., Kilic I., Tokmakci M., Kahraman M., Aydin Ö.  
Analyst, vol.145, no.23, pp.7559-7570, 2020 (SCI-Expanded)
- XX. **Identification of methicillin-resistant Staphylococcus aureus bacteria using surface-enhanced Raman spectroscopy and machine learning techniques**  
Uysal Çiloğlu F., Sarıdağ A. M., Kılıç İ. H., Tokmakçı M., Kahraman M., Aydın Ö.  
Analyst, no.145, pp.7559-7570, 2020 (SCI-Expanded)
- XXI. **Usage of natural chitosan membrane obtained from insect corneal lenses as a drug carrier and its potential for point of care tests**  
Ikl S., Ramanauskaite A., Bilican B. K., Mulercikas P., Cam D., ÖNSES M. S., TÖRÜN İ., Kazlauskaite S., Baublys V., AYDIN Ö., et al.  
MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.112, 2020 (SCI-Expanded)
- XXII. **The Proteomic Effects of Pulsed Focused Ultrasound on Tumor Microenvironments of Murine Melanoma and Breast Cancer Models.**  
Aydin Ö., Chandran P., Lorsung R., Cohen G., Burks S., Frank J.  
Ultrasound in medicine & biology, vol.45, pp.3232-3245, 2019 (SCI-Expanded)
- XXIII. **Noninvasive Ablation of Prostate Cancer Spheroids Using Acoustically-Activated Nanodroplets**  
Aydin O., VLAŠAVLJEVIČ E., Durmaz Y. Y., XU Z., ElSayed M. E. H.  
MOLECULAR PHARMACEUTICS, vol.13, no.12, pp.4054-4065, 2016 (SCI-Expanded)
- XXIV. **Formulation of Acid-Sensitive Micelles for Delivery of Cabazitaxel into Prostate Cancer Cells**  
Aydin O., YOUSSEF I., Durmaz Y. Y., TIRUCHINAPALLY G., ElSayed M. E. H.  
MOLECULAR PHARMACEUTICS, vol.13, no.4, pp.1413-1429, 2016 (SCI-Expanded)
- XXV. **EFFECTS OF DROPLET COMPOSITION ON NANODROPLET-MEDIATED HISTOTRIPSY**  
VLAŠAVLJEVIČ E., Aydin O., Durmaz Y. Y., LİN K., FOWLKES B., XU Z., ElSayed M. E. H.  
ULTRASOUND IN MEDICINE AND BIOLOGY, vol.42, no.4, pp.931-946, 2016 (SCI-Expanded)
- XXVI. **The role of positive and negative pressure on cavitation nucleation in nanodroplet-mediated histotripsy**  
Vlaisavljevich E., Aydin O., Lin K., Durmaz Y. Y., Fowlkes B., ElSayed M., Xu Z.  
PHYSICS IN MEDICINE AND BIOLOGY, vol.61, no.2, pp.663-682, 2016 (SCI-Expanded)
- XXVII. **EFFECTS OF ULTRASOUND FREQUENCY ON NANODROPLET-MEDIATED HISTOTRIPSY**

VLAÍSAVLJEVIĆ E., Aydın O., Durmaz Y. Y., Lin K., Fowlkes B., Elsayed M., Xu Z.

ULTRASOUND IN MEDICINE AND BIOLOGY, vol.41, no.8, pp.2135-2147, 2015 (SCI-Expanded)

**XXVIII. Oligonucleotide-Mediated Au-Ag Core-Shell Nanoparticles**

Kahraman M., Aydın O., Culha M.

PLASMONICS, vol.4, no.4, pp.293-301, 2009 (SCI-Expanded)

**XXIX. Differentiation of Healthy Brain Tissue and Tumors Using Surface-Enhanced Raman Scattering**

Aydın O., Altaş M., Kahraman M., Bayrak O. F., Culha M.

APPLIED SPECTROSCOPY, vol.63, no.10, pp.1095-1100, 2009 (SCI-Expanded)

**XXX. Interaction of gold nanoparticles with mitochondria**

Karatas O. F., Sezgin E., Aydın O., Culha M.

COLLOIDS AND SURFACES B-BIOINTERFACES, vol.71, no.2, pp.315-318, 2009 (SCI-Expanded)

**XXXI. Surface-Enhanced Raman Scattering of Rat Tissues**

Aydın O., Kahraman M., Kilic E., Culha M.

APPLIED SPECTROSCOPY, vol.63, no.6, pp.662-668, 2009 (SCI-Expanded)

**XXXII. Size Effect of 3D Aggregates Assembled from Silver Nanoparticles on Surface-Enhanced Raman Scattering**

Kahraman M., Aydın O., Culha M.

CHEMPHYSICHEM, vol.10, no.3, pp.537-542, 2009 (SCI-Expanded)

## Articles Published in Other Journals

**I. LC3 siRNA-Mediated Impressed Autophagy in GBM Cells Enhances the Efficacy of Temozolomide: Inhibits Proliferation, Clone Formation and Migration of U87-MG Cells**

GÖKÇEK Ö. C., ULUTABANCA H., Guler A., ÇINAR V., Nurdinov N., Kokcu N. D., AYDIN Ö., HAMURCU Z.

MEDICINA BALEAR, vol.39, no.3, 2024 (ESCI)

**II. Investigation of Gold Nanoparticle Naproxen-Derived Conjugations in Ovarian Cancer**

Tunc C. U., Kursunluoglu G., Akdeniz M., Kutlu A. U., Han M. İ., Aycan M. B., Aydın Ö.

ACS MATERIALS AU, vol.3, no.5, pp.483-491, 2023 (ESCI)

**III. Selective Binding of pVTK Peptide- and Bisphosphonate-Functionalized Micelles to Prostate Cancer Cells, Osteoblasts, and Osteoclasts**

AYDIN Ö., Tiruchinapally G., Youssef I., Ramaraju H., YÜKSEL DURMAZ Y., Kozloff K. M., Kohn D. H., ElSayed M. E. H.

Precision Nanomedicine, vol.5, no.1, pp.851-869, 2022 (Scopus)

**IV. Review: mRNA delivery systems in vaccinations and COVID-19**

Walweel N., Kutlu A. U., YILMAZ Ü., Al-Shaebi Z., Charmi J., AYDIN Ö.

Journal of Research in Pharmacy, vol.26, no.5, pp.1084-1101, 2022 (Scopus)

**V. Yüzeyde Zenginleştirilmiş Raman Saçılması (YZRS) ile Ovaryum Kanseri İlaç Direncinin İncelenmesi**

AYDIN Ö.

Erciyes Üniversitesi Fen Bilimleri Enstitüsü Fen Bilimleri Dergisi, vol.37, no.3, pp.404-411, 2021 (Peer-Reviewed Journal)

**VI. Engineering of pH-sensitive, cross-linked micelles for drug delivery**

AYDIN Ö.

JOURNAL OF RESEARCH IN PHARMACY, vol.25, no.4, pp.359-370, 2021 (ESCI)

## Books & Book Chapters

**I. Determination of Optimum Ratio of Cationic Polymers and Small Interfering RNA with Agarose Gel Retardation Assay**

AYDIN Ö., Yılmaz Ü., KANARYA D., TUNÇ C. Ü.

in: Antisense RNA Design, Delivery, and Analysis. Methods in Molecular Biology, vol 2434, Arechavala-Gomez V;

## Refereed Congress / Symposium Publications in Proceedings

- I. **Development of Polymer-Based Nanoparticles for the Reduction of Melittin Toxicity**  
Chatzi Memet B., DEMİRPOLAT E., Yildirim T., AYDIN Ö.  
16th Mediterranean Conference on Medical and Biological Engineering and Computing, MEDICON 2023 and 5th International Conference on Medical and Biological Engineering, CMBEBIH 2023, Sarajevo, Bosnia And Herzegovina, 14 - 16 September 2023, vol.94, pp.45-50
- II. **DOX-Coupled Polymeric Micelles as a State-of-the-Art Strategy Against Triple Negative Breast Cancer**  
Memet B. C., Yildiz U., Eksi O. B., AYDIN Ö.  
9th World Congress on Recent Advances in Nanotechnology, RAN 2024, London, England, 8 - 10 April 2024
- III. **Smart Polymeric Nanocarriers for miRNA Delivery Against Triple Negative Breast Cancer**  
Yumuk K., HAMURCU Z., Ayra M. E., Durmaz Y. Y., AYDIN Ö.  
9th World Congress on Recent Advances in Nanotechnology, RAN 2024, London, England, 8 - 10 April 2024
- IV. **Label-free Acute Leukemia Diagnosis from Exosome with SERS and Artificial Intelligence**  
Akdeniz M., Al-Shaebi Z., Ahmed A. O., KEKLİK M., AYDIN Ö.  
9th World Congress on Recent Advances in Nanotechnology, RAN 2024, London, England, 8 - 10 April 2024
- V. **Synthesis of Hybrid Nanoparticles Containing siRNA and Quercetin for Targeting Triple-Negative Breast Cancer**  
Eksi O. B., AYDIN Ö.  
9th World Congress on Recent Advances in Nanotechnology, RAN 2024, London, England, 8 - 10 April 2024
- VI. **Bacteria-Cancer Cell Hybrid Membrane-Coated Gold Nanoparticles for Anticancer Therapy**  
Benk R., Akdeniz M., AYDIN Ö.  
9th World Congress on Recent Advances in Nanotechnology, RAN 2024, London, England, 8 - 10 April 2024
- VII. **A New and Fast Approach for Antimicrobial Resistance Detection: Combination of Artificial Intelligence and Surface-Enhanced Raman Spectra**  
AYDIN Ö., Al-Shaebi Z., Akdeniz M., Kursunluoglu G., Zarasız G., YERLİTAŞ S. İ., Sezgin A., ATALAY M. A., SAĞIROĞLU P.  
16th Mediterranean Conference on Medical and Biological Engineering and Computing, MEDICON 2023 and 5th International Conference on Medical and Biological Engineering, CMBEBIH 2023, Sarajevo, Bosnia And Herzegovina, 14 - 16 September 2023, vol.94, pp.98-103
- VIII. **EMODIN'S EFFECT ON THE SARS-COV-2 ENVELOP PROTEIN**  
BEKÇİ H., Somtürk B., TUNÇ C. Ü., Yılmaz Ü., AYDIN Ö., AYGAN M. B.  
INTERNATIONAL CAPPADOCIA SCIENTIFIC RESEARCH CONGRESS, Nevşehir, Turkey, 15 December 2021
- IX. **Dopamine conjugated Polymer Nanoparticles for Active Targeting**  
Yılmaz Ü., Memet B. C., AYDIN Ö., Yıldırım T.  
4th International Conference On Natural Products for Cancer Prevention and Therapy, Turkey, 18 December 2021
- X. **Comparison of siRNA Loading Quantification between Spherical and Serrated Gold Nanoparticles**  
Kutlu A. Ü., TUNÇ C. Ü., AYDIN Ö.  
European Biotechnology Congress, Bulgaria, 23 September 2021
- XI. **Delivery of Naproxen thiosemicarbazide/1,2,4-triazole Derived Chemotherapy Drugs Using Gold Nanoparticles**  
TUNÇ C. Ü., Kursunluoglu G., ATALAY DÜNDAR P., HAN M. İ., AYDIN Ö.  
INTERNATIONAL CONFERENCE ON APPLIED ENGINEERING AND NATURAL SCIENCES, Turkey, 1 - 03 November 2021
- XII. **Detection of colistin resistant Klebsiella pneumoniae bacteria using surfaceenhanced Raman spectroscopy combined with machine learning**

UYSAL F., Hora M., GÜNDOĞDU A., TOKMAKÇI M., AYDIN Ö.

BIO Türkiye Organizasyonu Uluslararası Biyoteknoloji Kongresi, Turkey, 9 - 11 September 2021

**XIII. Investigation of Mammalian Cells Expressing SARS-CoV-2 Proteins by Surface-Enhanced Raman Scattering**

AKDENİZ M., AYDIN Ö.

BIO Türkiye - International Biotechnology Congress, Turkey, 09 September 2021

**XIV. Surface enhanced Raman Spectroscopy Applications in Biomedical Engineering**  
AYDIN Ö.

International Materials Science and Nanotechnology for Next Generation Conference (MSNG 2021), Elazığ, Turkey, 14 July 2021

**XV. Development of Gold Nanoparticle Templated Nucleic Acid Assembly for Gene and Drug Delivery**  
TUNÇ C. Ü., AYDIN Ö.

International Materials Science and Nanotechnology for Next Generation Conference (MSNG 2021), Elazığ, Turkey, 14 July 2021

**XVI. Microbial Identification with a New Perspective: Surface-Enhanced Raman Spectroscopy with Machine Learning Techniques**

UYSAL F., Sarıdağ A. M., KILIÇ İ. H., TOKMAKÇI M., KAHRAMAN M., AYDIN Ö.

2nd International Conference on Access to Recent Advances in Engineering and Digitalization, Kayseri, Turkey, 10 March 2021

**XVII. Investigation of Mammalian Cells Expressing SARS-CoV-2 Proteins by Surface-Enhanced Raman Scattering (SERS)**

Akdeniz M., Uysal Çiloğlu F., Tunc C. U., Atalay Dünder P., Aydın Ö.

International Congress on Biological and Health Sciences, Afyonkarahisar, Turkey, 26 - 28 February 2021, pp.168

**XVIII. Triple-combination therapy against cisplatin-resistant ovarian cancer cells**

Kip B., Aydın Ö.

International Congress on Biological and Health Sciences, Afyonkarahisar, Turkey, 26 - 28 February 2021, pp.169

**XIX. Antibiyotik Dirençli ve Duyarlı Staphylococcus aureus Suşlarının Yüzeyde Zenginleştirilmiş Raman Spektroskopisi ve Temel Bileşen Analizi ile Hızlı Tespiti**

Uysal Çiloğlu F., Tokmakçı M., Kahraman M., Kılıç İ. H., Aydın Ö.

V. Yaşam Bilimleri Kongresi, Kayseri, Turkey, 21 - 22 February 2020, pp.21-22

**XX. Cryptosporidium parvum Ookistlerinin Yüzeyde Zenginleştirilmiş Raman Saçılması (SERS) ile İncelenmesi**

Arslan A. H., Uysal Çiloğlu F., Yılmaz Ü. G., Şimşek E., Aydın Ö.

V. Yaşam Bilimleri Kongresi, Kayseri, Turkey, 21 - 22 February 2020, pp.33

**XXI. Cryptosporidium parvum Ookistlerinin Yüzeyde Zenginleştirilmiş Raman Saçılması (SERS) ile İncelenmesi**

Afra Hacer A., UYSAL F., Yılmaz Ü. G., ŞİMŞEK E., AYDIN Ö.

V. Yaşam Bilimleri Kongresi, Kayseri, Turkey, 21 - 22 February 2020

**XXII. Rapid Identification of MRSA Using Surface Enhanced Raman Scattering and Support Vector Machine**

Uysal Çiloğlu F., Tokmakçı M., Kahraman M., Korkmaz A., Kılıç İ. H., Aydın Ö.

15th Nanoscience and Nanotechnology Conference, Antalya, Turkey, 3 - 06 November 2019, pp.97

**XXIII. Detection of Cryptosporidium parvum Oocysts via Surface Enhanced Raman Scattering(SERS)**

YILMAZ Ü. G., PEKDEMİR S., ŞAKİR M., ÖNSES M. S., ŞİMŞEK E., YILDIRIM A., AYDIN Ö.

15th Nanoscience and Nanotechnology Conference of Turkey (NANOTR-15), Antalya, Turkey, 3 - 06 November 2019, pp.174

**XXIV. Toward PCR-free mutation detection based on surface-enhanced Raman scattering**

ÇULHA M., KARATAŞ Ö. F., AYDIN Ö., Kahraman M., Keseroğlu K., Sayın İ., Bayrak Ö. F.

SPIE 7192, Plasmonics in Biology and Medicine VI, San Jose, United States Of America, 17 - 21 February 2009, pp.701-710

## Episodes in the Encyclopedia

- Encyclopedia of Nanoscience and Nanotechnology,**  
ÇULHA M., KAHRAMAN M., KARATAŞ Ö. F., AYDIN Ö.  
American Scientific Publishers, pp., 2009

## Supported Projects

- SAÇU İ. E., AL S., DANIŞMAN K., AYDIN Ö., AHMED A. O., Project Supported by Higher Education Institutions, Biyoteknoloji Uygulamaları için Ayarlanabilir Elektroporasyon Cihaz Prototopinin Geliştirilmesi ve Test Edilmesi, 2023 - Continues
- AYDIN Ö., KANBUR E., CHATZI MEMET B., KURŞUNLUOĞLU AYDIN G., YERLİKAYA A., Project Supported by Higher Education Institutions, Arı zehrindeki melittinin senolitik ve senomorfik özelliklerinin nanotaşıyıcılar ile primer insan ve primer fare hücreleri üzerinde araştırılması, 2023 - Continues
- AYDIN Ö., ATALAY M. A., AL-SHAEBI Z. A. Z., SAĞIROĞLU P., ZARARSIZ G., KURŞUNLUOĞLU AYDIN G., YERLİTAŞ S. İ., AKDENİZ M., SEZGİN A., ERKOL Z., Project Supported by Higher Education Institutions, Yüzeyle Zenginleştirilmiş Raman Saçılmasına ve Makine Öğrenmesine ile Antibiyotik Dirençli Bakterilerin Hızlı Teşhisine Yönelik Sistemlerinin Geliştirilmesi, 2023 - Continues
- AYDIN Ö., KUTLU A. Ü., TUNÇ C. Ü., KURŞUNLUOĞLU AYDIN G., Project Supported by Higher Education Institutions, Nanoparçacık Geometrisinin siRNA Gen Transfeksiyonuna Etkisi, 2022 - Continues
- AYCAN M. B., KARAKÜKCÜ Ç., KURŞUNLUOĞLU AYDIN G., ZARARSIZ G., YILMAZ Ü., YILDIRIM T., AYDIN Ö., Project Supported by Higher Education Institutions, Şizofreni Modelinde Dopamin İnhibisyonu için AMPT Konjuge Dopamin Hedefli Polimerik Nanotaşıyıcı Sistemlerin Geliştirilmesi, 2022 - Continues
- AYDIN Ö., HAMURCU Z., TUNÇ C. Ü., TAHERİ S., KURŞUNLUOĞLU AYDIN G., YUMUK K., Project Supported by Higher Education Institutions, miR186'nın Nanotaşıyıcılarla Meme Kanseri Hücrelerine Taşınması ve Antikanser Rollünün Araştırılması, 2022 - Continues
- AYDIN Ö., ÇAKIR Ş., Project Supported by Higher Education Institutions, Krisinin Nanoformülasyonu ve Terapötik Etkinliğinin İncelenmesi, 2022 - Continues
- Aydın Ö., TUBITAK Project, Odaklanmış Ultrason Tedavisinde Kullanılmak Üzere Biyomimetik Ultrason-Aktif Altın Nanokon Parçacığın Geliştirilmesi ve Geliştirilen Bu Tedavi ile anti-PD-1 İmmün Terapinin Etkinliğinin Arttırılması, 2022 - 2025
- ERTAŞ Y. N., ÖZDARENDELİ A., AYDIN Ö., KARATAŞ Ö. F., TUBITAK Project, Anti-Ace2 Antikor Ile Dekore Edilmiş Ve Mir-1275 Yüklü Niyozom Yapıları Ile Sars-Cov-2 Viral Genomunun Hedeflenmesi, 2022 - 2025
- AYDIN Ö., EKŞİ O. B., EKŞİ O. B., Project Supported by Higher Education Institutions, Üçlü Negatif Meme Kanseri Karşı siRNA ve Kuarsetin Yüklü Gümüş-tabanlı Hibrit Nanoparçacığın Geliştirilmesi, 2023 - 2024
- AYDIN Ö., Durmaz Y. Y., Aydemir E., Tunç C. Ü., TUBITAK Project, Kordomada MUC1 Genine Özgü CRISPR-CAS9 Plazmid Taşıyan Çekirdek Hedefli Akıllı Nanoparçacıkların Geliştirilmesi ve İmatinib ile İkili Tedavi Etkisinin İncelenmesi, 2021 - 2024
- AYDIN Ö., HAMURCU Z., ULUTABANCA H., ERTAŞ Y. N., DENİZ K., DANIŞMAN K., YÜKSEL DURMAZ Y., TAHERİ S., ÖZPOLAT B., ÖZDEMİR A. T., Project Supported by Higher Education Institutions, Lipozom siRNA ve TMZ İkili Tedavisinin Geliştirilmesi ve İn Vivo Fare Glioblastoma Modelinde Odaklanmış Ultrason (FUS) Aracılı İletimi ve Etkilerinin Araştırılması, 2020 - 2024
- HAMURCU Z., İNANÇ M., AYDIN Ö., ULUTABANCA H., AKYILDIZ H. Y., ÖZKUL Y., ÖZ A. B., Project Supported by Higher Education Institutions, Ortotopik Ksenograft (Zenograf) Üçlü Reseptör Negatif Meme Kanseri Fare Modellerinde Serotonin ve Metergolinin Rollerinin Araştırılması, 2020 - 2024
- Keklik M., Aydın Ö., Öktem F., Project Supported by Higher Education Institutions, Akut lösemilerin yüzeyle zenginleştirilmiş raman spektrometresi ile incelenmesi, 2022 - 2023
- AYDIN Ö., UYSAL ÇİLOĞLU F., ALSHAEBI Z. A. Z., Project Supported by Higher Education Institutions, Makine Öğrenmesi Algoritmalarıyla Birleştirilmiş Yüzeyle Zenginleştirilmiş Raman Spektroskopisi Kullanılarak Antimikrobiyal Direnç Tespiti, 2022 - 2023
- AYDIN Ö., KÖŞKER F. B., İÇÖZ K., Project Supported by Higher Education Institutions, Biyoalgılama için Mikroakışkan



Sistemlerin Geliştirilmesi, 2022 - 2023

DEMİRPOLAT E., CHATZI MEMET B., AYDIN Ö., Project Supported by Higher Education Institutions, MELİTTİNİN POLİMERİK NANOPARÇACIKLAR İLE KOMPLEKSİNİN LPS İLE İNDÜKLENMİŞ RAW 264.7 HÜCRELERİNDE ANTI-ENFLAMATUAR ETKİSİNİN ARAŞTIRILMASI, 2022 - 2023

AYDIN Ö., WALWEEL N. S., TUNÇ C. Ü., Project Supported by Higher Education Institutions, LC3 siRNA ve Doksorubisin İkili Tedavisinin Meme Kanseri Karşı Etkisinin İncelenmesi, 2022 - 2023

Duman F., Balkaya H., Demirbuğa S., Aydın Ö., Ceylan A., Project Supported by Higher Education Institutions, Balık pulu kaynaklı kollajen-hidroksiapatit nanokompozit içerikli deneysel kuafaj materyalinin karakterizasyonu, 2021 - 2023

ÖNSES M. S., ERTAŞ Y. N., YILMAZ E., PEKDEMİR S., TÖRÜN İ., ŞAKİR M., AYDIN Ö., ÖZDEMİR A. T., YILDIZ F., Project Supported by Higher Education Institutions, Sensör Uygulamaları için Nanoyapılı Plazmonik Yüzeylerin Üretilmesi ve Karakterizasyonu, 2020 - 2023

AYDIN Ö., TUNÇ C. Ü., Project Supported by Higher Education Institutions, Altın Nanopartikülleri Kullanılarak Eş Zamanlı Gen ve İlaç Taşınması ile Meme Kanseri Hücrelerinde Antitümör Aktivitenin Artırılması, 2020 - 2023

Aydın Ö., Project Supported by Higher Education Institutions, SARSCoV2 Proteinlerinin Anlatımını Yapan Memeli Hücrelerinin Yüzeyde Zenginleştirilmiş Raman Saçılması ile İncelenmesi, 2021 - 2022

ATALAY DÜNDAR P., AYDIN Ö., YILMAZ Ü., KANARYA D., Project Supported by Higher Education Institutions, SARS-CoV2 Spike proteinini hedeflemek üzere in vitro hücre modeli geliştirilmesi, 2020 - 2022

AYDIN Ö., KİP B., Project Supported by Higher Education Institutions, Ultrasonaktif Nanoparçacığın Kemoterapiye Dirençli Ovaryum Kanseri Üzerine Etkisinin İncelenmesi, 2020 - 2022

AYDIN Ö., KANARYA D., Project Supported by Higher Education Institutions, Kemoterapiye Dirençli Yumurtalık Kanseri Karşı Nanotıp Tabanlı Yenilikçi Gen Terapi Sistemlerinin Geliştirilmesi, 2020 - 2022

TOKMAKÇI M., AYDIN Ö., UYSAL ÇİLOĞLU F., Project Supported by Higher Education Institutions, Antibiyotik Dirençli ve Duyarlı Bakterilerin Yüzeyde Zenginleştirilmiş Raman Spektroskopisi ve Makine Öğrenmesi Teknikleri ile Tespiti ve Sınıflandırılması, 2020 - 2021

AYDIN Ö., ARSLAN A. H., Project Supported by Higher Education Institutions, Cryptosporidium parvum Ookistlerinin Yüzeyde Zenginleştirilmiş Raman Saçılması SERS ile İncelenmesi, 2020 - 2021

YILMAZ E., ŞAHMETLİOĞLU E., ÖNSES M. S., AYDIN Ö., PEKDEMİR S., SEZER G., YAY A. H., SANDUVAÇ S., Project Supported by Higher Education Institutions, Yüzeyde Güçlendirilmiş Raman Spektroskopisi (SERS) Temelli İlaç Analizlerinde Fotokatalitik Olarak Üretilmiş Metal Nanopartiküllerin Kullanımı, 2019 - 2021

## Memberships / Tasks in Scientific Organizations

Cancer and Bone Society, Member, 2018 - Continues

American Society for Bone and Mineral Research, Member, 2013 - Continues

Biomedical Engineering Society (BMES), Member, 2012 - Continues

## Scientific Refereeing

ADVANCED SCIENCE, Journal Indexed in SCI-E, December 2024

Small Science, Journal Indexed in SCI-E, December 2024

ANALYTICA CHIMICA ACTA, Journal Indexed in SCI-E, December 2024

ANALYST, THE, National Scientific Refreed Journal, November 2024

SPECTROCHIMICA ACTA - PART A: MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, Journal Indexed in SCI-E, November 2024

ANALYTICA CHIMICA ACTA, Journal Indexed in SCI-E, November 2024

ACS OMEGA, Journal Indexed in SCI-E, October 2024

APPLIED SPECTROSCOPY, Journal Indexed in SCI-E, October 2024

SPECTROCHIMICA ACTA - PART A: MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, Journal Indexed in SCI-E, September 2024

PLOS ONE, Journal Indexed in SCI-E, September 2024  
ANALYTICA CHIMICA ACTA, Journal Indexed in SCI-E, August 2024  
JOURNAL OF EXTRACELLULAR VESICLES, Journal Indexed in SCI-E, August 2024  
ANALYST, THE, Journal Indexed in SCI-E, August 2024  
BIOSENSORS AND BIOELECTRONICS, Journal Indexed in SCI-E, August 2024  
SPECTROCHIMICA ACTA - PART A: MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, Journal Indexed in SCI-E, July 2024  
SMALL, Journal Indexed in SCI-E, July 2024  
SENSORS AND ACTUATORS, B: CHEMICAL, Journal Indexed in SCI-E, June 2024  
ANALYTICAL CHEMISTRY, Journal Indexed in SCI-E, May 2024  
SMALL, Journal Indexed in SCI-E, March 2024  
SPECTROCHIMICA ACTA - PART A: MOLECULAR SPECTROSCOPY, Journal Indexed in SCI-E, March 2024  
ANALYTICA CHIMICA ACTA, Journal Indexed in SCI-E, March 2024  
SMALL, SCI Journal, December 2023  
ACS MEDICINAL CHEMISTRY LETTERS, Journal Indexed in SCI-E, December 2023  
INTERNATIONAL JOURNAL OF NANOMEDICINE, Journal Indexed in SCI-E, December 2023  
BIOMEDICAL SIGNAL PROCESSING AND CONTROL, Journal Indexed in SCI-E, November 2023  
MOLECULAR PHARMACEUTICS, Journal Indexed in SCI-E, October 2023  
ANALYTICA CHIMICA ACTA, Journal Indexed in SCI-E, October 2023  
ACS ES&T WATER, Journal Indexed in SCI-E, October 2023  
ACS APPLIED NANO MATERIALS, Journal Indexed in SCI-E, September 2023  
MOLECULAR NEUROBIOLOGY, Journal Indexed in SCI-E, August 2023  
ANALYTICA CHIMICA ACTA, Journal Indexed in SCI-E, August 2023  
JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY, Journal Indexed in SCI-E, August 2023  
CELL BIOCHEMISTRY AND FUNCTION, Journal Indexed in SCI-E, July 2023  
CANCER MEDICINE, Journal Indexed in SCI-E, July 2023  
SPECTROCHIMICA ACTA - PART A: MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, Journal Indexed in SCI-E, May 2023  
FRONTIERS IN ONCOLOGY, Journal Indexed in SCI-E, May 2023  
ANALYTICA CHIMICA ACTA, Journal Indexed in SCI-E, May 2023  
SPECTROCHIMICA ACTA - PART A: MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, Journal Indexed in SCI-E, April 2023  
SENSORS AND ACTUATORS, B: CHEMICAL, Journal Indexed in SCI-E, March 2023  
ANALYTICA CHIMICA ACTA, Journal Indexed in SCI-E, March 2023  
INFECTION AND DRUG RESISTANCE, Journal Indexed in SCI-E, March 2023  
ANALYTICA CHIMICA ACTA, Journal Indexed in SCI-E, March 2023  
SPECTROCHIMICA ACTA - PART A: MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, Journal Indexed in SCI-E, February 2023  
ANALYTICA CHIMICA ACTA, Journal Indexed in SCI-E, February 2023  
ANALYTICA CHIMICA ACTA, Journal Indexed in SCI-E, January 2023  
PHARMACEUTICS, Journal Indexed in SCI-E, January 2023  
ANALYTICA CHIMICA ACTA, Journal Indexed in SCI-E, January 2023  
ANALYTICA CHIMICA ACTA, Journal Indexed in SCI-E, January 2023  
SENSORS AND ACTUATORS, B: CHEMICAL, National Scientific Refreed Journal, January 2023  
EU Supported Other Project, Avrupa Birliği Proje Paydaş Ülkeleri, Turkey, January 2023  
ADVANCED INTELLIGENT SYSTEMS, Journal Indexed in SCI-E, December 2022  
SPECTROCHIMICA ACTA - PART A: MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, Journal Indexed in SCI-E, December 2022  
SPECTROCHIMICA ACTA - PART A: MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, Journal Indexed in SCI-E, December 2022  
ANALYTICA CHIMICA ACTA, SCI Journal, November 2022

ANALYTICA CHIMICA ACTA, Journal Indexed in SCI-E, November 2022

ADVANCED INTELLIGENT SYSTEMS, SCI Journal, November 2022

TUBITAK Project, 1507 - TÜBİTAK SME R&D Start Support Program, PACEM TEKNOLOJİ ANONİM ŞİRKETİ, Turkey, November 2022

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Erciyes University, Turkey, November 2022

ANALYTICA CHIMICA ACTA, SCI Journal, October 2022

SPECTROCHIMICA ACTA - PART A: MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, Journal Indexed in SCI-E, October 2022

ADVANCED INTELLIGENT SYSTEMS, Journal Indexed in SCI-E, October 2022

ANALYTICA CHIMICA ACTA, SCI Journal, September 2022

GAZI UNIVERSITY JOURNAL OF SCIENCE, National Scientific Refreed Journal, September 2022

ANALYTICA CHIMICA ACTA, SCI Journal, August 2022

NANOTECHNOLOGY, Journal Indexed in SCI-E, August 2022

ANALYTICA CHIMICA ACTA, SCI Journal, July 2022

NANOTECHNOLOGY, Journal Indexed in SCI-E, July 2022

ANALYTICA CHIMICA ACTA, Journal Indexed in SCI-E, June 2022

COMMUNICATIONS CHEMISTRY, Journal Indexed in SCI-E, May 2022

TUBITAK Project, 2210-c Domestic Priority Areas Graduate Scholarship Program , Erciyes University, Turkey, May 2022

COMMUNICATIONS CHEMISTRY, Journal Indexed in SCI-E, April 2022

SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, Journal Indexed in SCI-E, April 2022

JOURNAL OF RAMAN SPECTROSCOPY, Journal Indexed in SCI-E, April 2022

ANALYTICA CHIMICA ACTA, SCI Journal, March 2022

JOURNAL OF PHYSICAL CHEMISTRY, Journal Indexed in SCI-E, March 2022

ACS OMEGA, Journal Indexed in SCI-E, March 2022

JOURNAL OF RAMAN SPECTROSCOPY, SCI Journal, February 2022

SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, SCI Journal, February 2022

ACS OMEGA, Journal Indexed in SCI-E, February 2022

NANOTECHNOLOGY, SCI Journal, February 2022

ARCHIVES OF MEDICAL SCIENCE, Journal Indexed in SCI-E, January 2022

JOURNAL OF PHYSICAL CHEMISTRY, SCI Journal, January 2022

NANOTECHNOLOGY, SCI Journal, January 2022

BRAIN SCIENCES, Journal Indexed in SCI-E, January 2022

BRAIN SCIENCES, Journal Indexed in SCI-E, January 2022

ACS OMEGA, Journal Indexed in SCI-E, January 2022

CURRENT DRUG DELIVERY, SCI Journal, December 2021

ACS OMEGA, SCI Journal, November 2021

NANOTECHNOLOGY, SCI Journal, November 2021

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Erciyes University, Turkey, November 2021

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Erciyes University, Turkey, November 2021

NANOTECHNOLOGY, SCI Journal, October 2021

ACS OMEGA, SCI Journal, October 2021

TUBITAK Project, 3501 - National Young Researcher Career Development Program, Erciyes University, Turkey, September 2021

TUBITAK Project, 2218 - Yurt İçi Doktora Sonrası Araştırma Burs Programı, Erciyes University, Turkey, September 2021

TUBITAK Project, 2219 - Yurt Dışı Doktora Sonrası Araştırma Burs Programı, Erciyes University, Turkey, September 2021

ACS OMEGA, SCI Journal, August 2021

TUBITAK Project, 3501 - National Young Researcher Career Development Program, Erciyes University, Turkey, August 2021

TUBITAK Project, 2219 - Yurt Dışı Doktora Sonrası Araştırma Burs Programı, Erciyes University, Turkey, June 2021

TUBITAK Project, 2218 - Yurt İçi Doktora Sonrası Araştırma Burs Programı, Erciyes University, Turkey, June 2021

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Erciyes University, Turkey, June 2021

NANOTECHNOLOGY, SCI Journal, April 2021

TUBITAK Project, 1507 - TÜBİTAK SME R&D Start Support Program, PRODA ENDÜSTRİYEL TASARIM, Turkey, April 2021

NANOTECHNOLOGY, SCI Journal, March 2021

ANALYTICAL CHEMISTRY, SCI Journal, March 2021

Natural and Applied Sciences Journal, Other Journals, February 2021

NANOTECHNOLOGY, SCI Journal, January 2021

TUBITAK Project, 2209-B - Sanayiye Yönelik Lisans Araştırma Projeleri Destekleme Programı, Erciyes University, Turkey, January 2021

TUBITAK Project, 1002 - Quick Support Program, Erciyes University, Turkey, January 2021

NANOTECHNOLOGY, SCI Journal, December 2020

TUBITAK Project, 1002 - Quick Support Program, Yıldız Technical University, Turkey, November 2020

Project Supported by Other Official Institutions, Ege University, Turkey, November 2020

MOLECULAR ONCOLOGY, SCI Journal, October 2020

Research Project of the Presidency of Turkey Health Institutes (TÜSEB), Erciyes University, Turkey, October 2020

TUBITAK Project, 1501 - Industry R & D Projects Support Program, PLASTİ-MED PLASTİK MEDİKAL ÜRÜNLER SANAYİ VE TİCARET LİMİTED ŞİRKETİ, Turkey, October 2020

TUBITAK Project, 1002 - Quick Support Program, Erciyes University, Turkey, September 2020

TUBITAK Project, 1002 - Quick Support Program, Erciyes University, Turkey, September 2020

NANOTECHNOLOGY, SCI Journal, August 2020

Project Supported by Other Official Institutions, Inonu University, Turkey, August 2020

NANOTECHNOLOGY, SCI Journal, July 2020

TUBITAK Project, 1507 - TÜBİTAK SME R&D Start Support Program, EXPLORIA İLERİ TEKNOLOJİLER VE BİLİMSEL MATERYALLER TASARIM SANAYİ VE TİCARET LİMİTED ŞİRKETİ , Turkey, June 2020

NANOTECHNOLOGY, SCI Journal, May 2020

TUBITAK Project, 1507 - TÜBİTAK SME R&D Start Support Program, ASTEN MAKİNE ARGE MÜHENDİSLİK SANAYİ VE TİCARET LİMİTED LİMİTED ŞİRKETİ , Turkey, April 2020

Theranostics, SCI Journal, February 2020

MOLECULAR ONCOLOGY, SCI Journal, February 2020

TUBITAK Project, 1507 - TÜBİTAK SME R&D Start Support Program, NORLAND MEDİKAL ÜRÜNLER SANAYİ VE TİCARET LİMİTED ŞİRKETİ , Turkey, February 2020

MOLECULAR ONCOLOGY, SCI Journal, January 2020

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Erciyes University, Turkey, December 2019

PHYSICA SCRIPTA, SCI Journal, September 2019

TUBITAK Project, 1002 - Quick Support Program, Erciyes University, Turkey, September 2019

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Erciyes University, Turkey, June 2019

J. Phys. D: Appl. Phys, SCI Journal, February 2019

Nanotechnology, SCI Journal, July 2018

Nanotechnology, SCI Journal, May 2018

Nanotechnology, SCI Journal, January 2018

Nanotechnology, SCI Journal, November 2017

Nanotechnology, SCI Journal, October 2017

Measurement Science and Technology, SCI Journal, July 2017

Biomedical Materials, SCI Journal, June 2017

Biofabrication, SCI Journal, December 2016

Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji , National Scientific Refreed Journal, September 2016

Nanotechnology, SCI Journal, September 2016

## Metrics

Publication: 68

Citation (WoS): 743

Citation (Scopus): 798

H-Index (WoS): 16

H-Index (Scopus): 18

## Congress and Symposium Activities

2nd International Congress of Updates in Biomedical Engineering April 16-17, 2020, Invited Speaker, İzmir, Turkey, 2020

5th Life Sciences Conference, Invited Speaker, Kayseri, Turkey, 2020

The 13th Conferences of Affinity Techniques, Invited Speaker, İzmir, Turkey, 2019

FACSS- A Single Nucleotide Polymorphism Screening Method Based on Surface-Enhanced Raman Scattering, Attendee, Nevada, United States Of America, 2008

National Analytical Chemistry Congress- Application of Surface Plasmons on Analytical and Bioanalytical Chemistry, Attendee, Elazığ, Turkey, 2008

NANOTR- Nanoparticle Aggregation Control in Micron-Size Wells, Attendee, Turkey, 2008

NANOTR- Monitoring The Interactions of The Noble Metal Nanoparticles with Biomolecules and Structures in Biological Systems, Attendee, Turkey, 2008

NANOTR- Laser Wavelength Dependence of Surface-enhanced Raman Scattering Substrates, Attendee, Turkey, 2008

NANOTR- Development of Novel SERS Substrate via Controlling Inter-Particle Distance, Attendee, İstanbul, Turkey, 2008

NANOTR- Interaction of Gold and Silver Nanoparticles with Subcellular Structures, Attendee, Turkey, 2008

NANOTR- Monitoring The Interactions of The Noble Metal Nanoparticles with Biomolecules and Structures in Biological Systems, Attendee, Turkey, 2008

NANOTR- Modified Gold Nanoparticles for Bioanalysis, Attendee, Turkey, 2008

NANOTR- Towards Cancer Diagnosis by Intracellularly Grown Gold Nanoparticles, Attendee, Turkey, 2008

BIYOMUT-A New Detection Method for Tissue Differentiation, Attendee, Ankara, Turkey, 2008

EMBO-The Influence of Nanoparticles on Cancerous Cell Lines, Attendee, İstanbul, Turkey, 2008

## Invited Talks

Adventure of a Biomedical Engineering in Science and Research, Seminar, Başkent Üniversitesi, Turkey, May 2021

Nanotheranostics and Its Applications in Medicine, Seminar, Gebze Teknik Üniversitesi, Turkey, November 2020

Development of Novel Nanomedicines for Treatment of Primary and Metastatic Prostate Cancer and Pulsed Focused Ultrasound (pFUS) Modulation of Tumor Microenvironments, Seminar, Yeditepe Üniversitesi, Turkey, March 2018

Engineering of Ultrasound Active Nanobubbles and Ultrasound-based Immunotherapy, Seminar, Acıbadem Mehmet Ali Aydınlar Üniversitesi, Turkey, November 2017

Development of Novel Nanomedicines for Treatment of Primary and Metastatic Prostate Cancer, Seminar, İzmir Demokrasi Üniversitesi, Turkey, November 2017

Development of Novel Nanomedicines for Treatment of Primary and Metastatic Prostate Cancer and Pulsed Focused Ultrasound (pFUS) Modulation of Tumor Microenvironments, Seminar, Boğaziçi Üniversitesi, Turkey, October 2017

Engineering of Ultrasound Active Nanobubbles and Ultrasound-based Immunotherapy, Seminar, TÜBİTAK-UME, Turkey, October 2017

Nanomedicine and Biomedical Engineering, Seminar, Pamukkale Üniversitesi, Turkey, October 2017

Development of Novel Nanomedicines for Treatment of Primary and Metastatic Prostate Cancer and Pulsed Focused Ultrasound (pFUS) Modulation of Tumor Microenvironments, Seminar, Gebze Teknik Üniversitesi, Turkey, September 2017

Development of Novel Nanomedicines for Treatment of Primary and Metastatic Prostate Cancer, Seminar, The University of Wisconsin Madison, United States Of America, April 2016

Nanodroplet Mediated Histotripsy (NMH) Cell Ablation on 3D Prostate Cancer Cell Models, Conference, The University of Michigan, United States Of America, October 2015

Nanomedicine Solutions on Focal and Metastatic Prostate Cancer Treatment, Seminar, Case Western Reserve University, United States Of America, March 2015

## Scholarships

Rackham Summer Awards, University, 2015 - Continues

1416 Yurtdışı Doktora Bursu, University, 2008 - Continues

2228-A SON SINIF LİSANS ÖĞRENCİLERİ İÇİN LİSANSÜSTÜ (YÜKSEK LİSANS/DOKTORA) BURS PROGRAMI, University, 2007 - Continues

## Awards

Öktem F., Akdeniz M., Keklik M., Aydın Ö., Akyol G., Ünal A., The Best Oral Presentation Award, 1st Place, 11Th Aegean Hematology Oncology Conference, April 2023

Aydın Ö., Uysal Çiloğlu F., AI-based Antimicrobial Resistance Solution (AI-AMRS), Kaust-King Abdullah University Of Science And Technology, January 2022

AYDIN Ö., Gold Medal from the invited talk of Macromolecular Science & Engineering, 39th Macromolecular Symposium, University of Michigan, October 2015

AYDIN Ö., 1st Place Poster Award in Engineering in Biological Systems, University of Michigan Engineering Graduate Symposium, University of Michigan, October 2015

AYDIN Ö., Eight Fellows Forum on Metabolic Bone Disease, Endocrine Fellows Foundation, September 2014

AYDIN Ö., Frank E. Filsko Poster Award, Macromolecular Science and Engineering 35th Annual Symposium, University of Michigan, October 2011

AYDIN Ö., 2209-A Üniversite Öğrencileri Araştırma Projeleri Destekleme Programı, TÜBİTAK, September 2006