



ÖZGEÇMİŞ

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Eğitim

Doktora.: Marmara Üniversitesi, Metalurji ve Malzeme Mühendisliği, 2021

Yüksek lisans: İstanbul Teknik Üniversitesi Enerji Enstitüsü, Nükleer Araştırmalar, 2017

Lisans: İstanbul Teknik Üniversitesi, Fizik Mühendisliği, 2014

Tezler

Doktora Tezi: Üç boyutlu yazıcı ile yapay kornea üretimi ve elektroçözülmüş nanofiber yama ile kornea dokusunun desteklenmesi

Yüksek Lisans Tezi: The investigation of the irradiation effect on PMMA/MWCNTs polymer nanocomposites

Projeler

- TÜBİTAK-Polonya, Proje No: 120N333, “Kornea perforasyonu kaynaklı sekonder kornea enfeksiyonlarının tedavisi için çok katmanlı yamaların tasarımı ve üretimi”, 2021-2024, Bursiyer.
- TÜBİTAK 1001, Proje No: 114R053, “Kendi Kendini Onaran Akıllı Malzemelerin Geliştirilmesi ve Mekanik Özelliklerinin Araştırılması”, 2015-2018, Bursiyer.
- TÜBİTAK 4004, Bilim ve Toplum, Proje No: 119B717, “Her Habitat Bir Tabiat”, 2020, Eğitimci.
- TÜBİTAK 4005, Bilim ve Toplum, Proje No: 119B024, “Üç Boyutlu Biyoyazıcı ile Yenilikçi Biyomedikal Uygulamaları”, 2020, Eğitimci.
- TÜBİTAK 1005, Proje No: 222S265, “Kişiyi özel sembelfaron halkalarının üretimi”, 2023-2024, Yürütücü.
- TÜBİTAK 1002, Proje No: 122M906, “Bitki Hastalıkları İçin Salisilik Asit Yüklü Ker-Ma Bazlı Mikroorganizmaların Üretimi ve Karakterizasyonu”, 2023-2024, Yürütücü.
- TÜSEB, Proje No: 17007, “3 Boyutlu Yazıcı Teknolojisi ile Antimikrobiyal Nar Ekstrakt yüklü Dental Membran Üretimi”, 2022-2023, Yürütücü.
- TÜBİTAK 1004, Proje No: 23AG008, “Nöron Hasarı İlişkili Hastalıkların Tanı, İzlem ve Tedavisine Yönelik

Biyobelirteç ve İleri Teknolojik Uyarı Sistemlerinin Geliştirilmesi”, 2023-2027, Araştırmacı.

- TÜSEB, Proje No: 31083, “Deri Hastalıkları için yerli yara örtüsü üretimi”, 2024-2026, Yürütücü.
- TÜSEB, Proje No: 33815, “Enjekte Edilebilir, Glutasyon ve Doğal Zeolit Katkılı GelMA/Kitosan Hidrojeli Bazlı Yara Pansumanı Materyali”, 2024-2025, Araştırmacı
- TÜBİTAK 1002, Proje No: 224M516, “Üç Boyutlu Mikroigne ile Burundan Beyne İlaç Salımı: Migren Tedavisine Yeni Bir Yaklaşım”, 2025-2026, Danışman.

Posterler, Bildiriler ve Sözlü Sunumlar

- Songul Ulag, Elif Ilhan, Burak Aksu, Mustafa Sengor, Nazmi Ekren, Osman Kilic, Oguzhan Gunduz. Patch-Based Technology for Corneal Microbial Keratitis. International Work-Conference on Bioinformatics and Biomedical Engineering. IWBBIO 2020. Lecture Notes in Computer Science, vol 12108. Springer, Cham.
- Elif Ilhan, Songul Ulag, Ali Sahin, Nazmi Ekren, Osman Kilic, Faik Nuzhet Oktar, Oguzhan Gunduz. Production of 3D-printed Tympanic Membrane Scaffolds as a Tissue Engineering Application. International Work-Conference on Bioinformatics and Biomedical Engineering, IWBBIO 2020. Lecture Notes in Computer Science, vol 12108. Springer, Cham.
- Evren Isa Uzgur, Songul Ulag, Faik Nuzhet Oktar, Osman Kilic , Nazmi Ekren, Oguzhan Gunduz. Characteristic properties of 3D Printed Polycaprolactone/Polyvinylpyrrolidone/Chitosan Constructs for Cartilage Tissue Engineering. IWBBIO 2019.
- Muhammet Sefa Izgordu, Songul Ulag, Faik Nuzhet Oktar, Osman Kilic, Nazmi Ekren, Oguzhan Gunduz. Investigation of the Polycaprolactone/Polyvinylpyrrolidone based Biocomposite Constructs for Cartilage Impairment by using 3D Plotting. IWBBIO 2019.
- Elif Nur Yildiz, Zekiye Akdag, Songul Ulag, Oguzhan Gunduz. Fabrication and Characterization of Poly(lactic Acid)/Hyaluronic Acid/Collagen Nanofibers for Tendon Tissue Engineering. Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2023 – Summer Edition, Bucuresti, Romania, 26 - 30 June 2023, 114-115.
- Yeliz Ersan, Burcak Bulut, Banu Aydin, Songul Ulag, Oguzhan Gunduz. Characterizations of Ethosuximide-Loaded Bismuth Ferrite Nanoparticles for the Potential Treatment of Epilepsy. Applications of Chemistry in Nanosciences and Biomaterials Engineering, Bucuresti, Romania, 28 - 30 June 2023.
- Irem Tuba Arslan, Selin Yasar, Songul Ulag, Oguzhan Gunduz. Production of Essential Oil Coated Polycapralactone Scaffold with Antibacterial Properties. Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2023 – Summer Edition, Bucuresti, Romania, 26 - 30 June 2023, ss.105-106.
- Beyda Tag, Songul Ulag, Cem Bulent Ustundag, Oguzhan Gunduz. Development of Microparticles Containing Poly(lactic Acid)/Bioactive Glass/Caffeic Acid. Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2023 – Summer Edition, Bucuresti, Romania, 26 - 30 June 2023, ss.50-51.
- Aysim Cisen Akyol, Hatice Karabulut, Banu Aydin, Rezzan Gulhan, Songul Ulag, Oguzhan Gunduz. Ethosuximide-Loaded Alginate/Polyethylene Oxide 3D-Printed Scaffolds for Epilepsy Treatment. Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2022 – Winter Edition, Bucuresti, Romania, 24 - 26 November 2022, ss.45-46.
- Senanur Arslan, Eray Altan, Songul Ulag, Gulgun Tinaz, Oguzhan Gunduz. Investigation of Antimicrobial and Biofilm Properties of 3D Alginate/Polyethylene Glycol/Phenethyl Alcohol Scaffolds. Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2022: winter session, Romania, 24 - 26 November 2022.

- Furkan Canli, Turac Ozan Anilir, Sule Ilgar, Songul Ulag, Gulgun Tinaz, Oguzhan Gunduz. Fabrication of 3D Scaffolds with Antibacterial and Antibiofilm Properties for the Treatment of Chronic Wounds. Applications of Chemistry in Nanosciences and Biomaterials Engineering, Bucuresti, Romania, 24 - 26 November 2022, ss.9.
- Kubra Aranci Ciftci, Sena Su Torun, Songul Ulag, Oguzhan Gunduz. Fabrication, Characterization and Investigation of Antibacterial Activity of Propolis Substituted Sodium Alginate Tissue Scaffolds Using Three-Dimensional (3D) Printing Technology. 5th International Congress on 3D Printing (Additive Manufacturing) Technologies and Digital Industry , Antalya, Turkey, 3 - 05 June 2021, ss.1-8.
- Nasma Aranjı, Songul Ulag, Oguzhan Gunduz. Antibiotic-Loaded Polylactic Acid Fibers for the Treatment of Skin Infections. Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2023 – Summer Edition, Bucuresti, Romania, 26 - 30 June 2023, ss.81-82.
- Yigit Turan, Songul Ulag, Oguzhan Gunduz. Development and Characterization of 3D-Printed Bioactive Glass-Doped Scaffolds. Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2023 – Summer Edition, Bucuresti, Romania, 26 - 30 June 2023, ss.110-111.
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- Synthesis, characterization and In-vitro investigation of the activity of Doxorubicin-loaded PLA-based nanofibers. Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2024 – Summer Edition, Bucuresti, Romanya, 19 - 21 Haziran 2024, ss.101-102.
- Fabrication of ethosuximide loaded polycaprolactone/bismuth ferrite-based 3D-printed scaffolds and controlled drug release in electric field for the treatment of epilepsy. Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2024 – Summer Edition, Bucuresti, Romanya, 19 - 21 Haziran 2024, ss.48-49.
- Antimicrobial and biodegradable electrospun nanofiber composite for wound dressing. Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2024 – Summer Edition, Bucuresti, Romanya, 19 - 21 Haziran 2024, ss.35-36.
- ELEKTROEĞRİLMİŞ POLİÜRETAN-BAZLI NANOFİBER YAPILARIN ÜRETİMİ VE KARAKTERİZASYONU. 4.ULUSAL BİLİMSEL ARAŞTIRMALAR KONGRESİ, Ankara, Türkiye, 16 - 17 Temmuz 2024, ss.44-45.
- DİRENÇLİ EPİLEPSİ TEDAVİSİNE YÖNELİK ENJEKTE EDİLEBİLİR FENİTOİN-PLGA NANOPARTİKÜL YÜKLÜ SİLKMA HİDROJELİNİN ÜRETİMİ VE KARAKTERİZASYONU. 4. ULUSAL BİLİMSEL ARAŞTIRMALAR KONGRESİ , Ankara, Türkiye, 16 - 17 Temmuz 2024, ss.105-106.
- 316L PASLANMAZ ÇELİĞİN ELEKTROPÜSKÜRTME TEKNİĞİ İLE ANTİMİKROBİYAL İLAÇ VE HİDROKSİAPATİT YÜKLÜ POLİAKTİK ASİT PARTİKÜL İLE KAPLANMASI. 5th INTERNATIONAL BURSA SCIENTIFIC RESEARCHS CONGRESS, Bursa, Türkiye, 1 - 03 Mart 2024, ss.857-864.
- SALICYLIC ACID-LOADED GELATIN METHACRYLOYL (GELMA)/KERATIN METHACRYLATE MICRONEEDLES AS A POTENTIAL DRUG DELIVERY SYSTEM IN PLANT DISEASES. 5th INTERNATIONAL BURSA SCIENTIFIC RESEARCHS CONGRESS, Bursa, Türkiye, 1 - 03 Mart 2024.
- FİBROİN TEMELLİ 3D BASILI ANTİMİKROBİYAL YAMALAR. 7th INTERNATIONAL HEALTH

SCIENCE AND LIFE CONGRESS (IHSLC 2024), 7 - 09 Mart 2024, ss.85.

- Production of Individualized Symblepharon Rings. Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2023 – Winter Edition, Bucuresti, Romanya, 22 - 24 Kasım 2023, ss.79.
- Fabrication and Characterisation of GelMA/Keratin and GelMA/KerMA Hybrid Tissue Scaffolds by 3D Bioprinting. Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2023 – Winter Edition, Bucuresti, Romanya, 22 - 24 Kasım 2023, ss.77.
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- Vitamin E Microparticles Coated on 3D Polylactic Acid (PLA)/Polymethylsilsesquioxane (PMSQ) Scaffold For Wound Healing Applications. “Applications of Chemistry in Nanosciences and Biomaterials Engineering” NanoBioMat 2022 – Winter Edition, Bucuresti, Romanya, 24 - 26 Kasım 2022, ss.53-54.
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- Fabrication of Electrospun Polylactic Acid/Polyhydroxybutyrate/Silk Fibroin Nanofibers to Obtain Retinal Nerve Fiber Layer. Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2022 – Winter Edition, Bucuresti, Romanya, 24 - 26 Kasım 2022, ss.44-45.
- Fabrication of PLA/PVA/Graphene Oxide Nanofibers for Biomedical Applications. APPLICATIONS OF CHEMISTRY IN NANOSCIENCES AND BIOMATERIALS ENGINEERING, Romanya, 22 - 24 Haziran 2022.
- DERİ HASTALIKLARINA YÖNELİK POLİÜRETAN FİLM TABAKASININ ÜRETİMİ VE KARAKTERİZASYONU. 8th INTERNATIONAL HALICH CONGRESS ON MULTIDISCIPLINARY SCIENTIFIC RESEARCH, İstanbul, Türkiye, 3 - 05 Aralık 2024, ss.100-101.
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- Fabrication and Characterization of Electrospun PolylacticAcid/B-KerMA Nanofibers for Wound Dressing Applications. Applications of Chemistry in Nanosciences and Biomaterials Engineering” NanoBioMat 2022 – Winter Edition, Bucuresti, Romanya, 24 - 26 Kasım 2022, ss.56-57.
- Ferrostatin-Loaded Polylactic Acid/Tricalcium Phosphate Microparticles for Bone Tissue Engineering. Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2022 – Winter Edition, Bucuresti, Romanya, 24 - 26 Kasım 2022, ss.102.
- 3D-Printed Cardiac Patches Based on Fabrication and Characterization of Fucoidan-Loaded Chitosan/Silk Fibroin/PANI Scaffolds. Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2022 – Winter Edition, Bucuresti, Romanya, 24 - 26 Kasım 2022, ss.55.
- Fabrication of Vitamin E Loaded 3D-printed Sodium Alginate/Xanthan Gum Scaffolds for Wound Healing Applications. Applications of Chemistry in Nanosciences and Biomaterials Engineering NanoBioMat 2022 – Winter Edition, Bucuresti, Romanya, 24 - 26 Kasım 2022, ss.102.
- Curcumin Loaded Ethyl Cellulose Microparticles on 3D Scaffolds for Diabetic Wound Healing. Applications of Chemistry in Nanosciences and Biomaterials Engineering, Bucuresti, Romanya, 22 - 24 Haziran 2022, ss.60.

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Toplantular, Kurslar ve Sertifika Eğitimleri

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Görev Alınan Organizasyonlar

- 2022, Tübitak 2204-B Ortaokul Öğrencileri Araştırma Projeleri Yarışması, Jüri
- 2022, 2204-A Lise Öğrencileri Araştırma Projeleri Yarışması, Jüri

Üye Olunan Kurum ve Dernekler

- Türk Eğitim Sen, 2022-günümüz

Kazanılan Ödüller ve Burslar

- YÖK 100/2000 Doktora Bursu, 2018-2021.
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Stajlar ve İş Deneyimleri

- Boğaziçi Üniversitesi Makine Mühendisliği Bölümü, 2013
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- İTÜ Makine Fakültesi, Atölye Stajı, 2012
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Nitelikler

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