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International Researcher IDs

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ORCID: 0000-0001-9820-6565

Publons / Web Of Science ResearcherID: ABG-1773-2020

ScopusID: 57193926342

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Education Information

Doctorate, Erciyes University, Fen Bilimleri Enstitüsü, Turkey 2018 - 2024

Postgraduate, Erciyes University, Fen Bilimleri Enstitüsü, Turkey 2016 - 2018

Undergraduate, Erciyes University, Mühendislik Fakültesi, Turkey 2011 - 2016

Dissertations

Postgraduate, Yüksek mekanik dayanımlı saydam süperhidrofobik kaplamaların üretilmesi ve karakterizasyonu, Erciyes University, Fen Bilimleri Enstitüsü, 2018

Research Areas

Metallurgical and Materials Engineering, Material science and engineering, Composites, Polymeric Materials, Plating, Nanomaterials, Surface Analysis, Engineering and Technology

Academic Titles / Tasks

Lecturer, Erciyes University, Nanaoteknoloji Uygulama Ve Araştırma Merkezi (ERNAM), 2019 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- Coffee-Ring Mediated Thinning and Thickness-Dependent Dewetting Modes in Printed Polymer Droplets Coupled with Assembly of Quantum Dots for Anti-Counterfeiting**
TÖRÜN İ., Huang C., KİREMİTLER N. B., KALAY M., Shim M., ÖNSES M. S.
SMALL, vol.20, no.45, 2024 (SCI-Expanded)
- Tattoo-Like Multi-Color Physically Unclonable Functions**
KİREMİTLER N. B., Esidir A., Drake G. A., YAZICI A. F., Sahin F., TÖRÜN İ., Kalay M., KELEŞTEMUR Y., Demir H. V., Shim M., et al.

Advanced Optical Materials, vol.12, no.12, 2024 (SCI-Expanded)

- III. **pH Tunable Patterning of Quantum Dots**
Törün İ., Huang C., Kalay M., Shim M., Önses M. S.
SMALL, vol.20, no.2, 2024 (SCI-Expanded)
- IV. **pH Tunable Patterning of Quantum Dots (Small 2/2024)**
TÖRÜN İ., Huang C., KALAY M., Shim M., ÖNSES M. S.
SMALL, no.2, 2024 (SCI-Expanded)
- V. **Silver nanoflowers with SERS activity and unclonable morphology**
ŞAKİR M., Torun N., Kayaci N., TÖRÜN İ., Kalay M., ÖNSES M. S.
MATERIALS TODAY CHEMISTRY, vol.29, 2023 (SCI-Expanded)
- VI. **Robust superhydrophobic fabrics by infusing structured polydimethylsiloxane films**
ÇELİK N., TÖRÜN İ., Ruzi M., ÖNSES M. S.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.138, no.41, 2021 (SCI-Expanded)
- VII. **Sponge-derived natural bioactive glass microspheres with self-assembled surface channel arrays opening into a hollow core for bone tissue and controlled drug release applications**
KAYA M., Bilican I., Muhtaba M., Sargin I., Haskoylu M. E., Oner E. T., Zheng K., Boccaccini A. R., CANSARAN DUMAN D., ÖNSES M. S., et al.
CHEMICAL ENGINEERING JOURNAL, vol.407, 2021 (SCI-Expanded)
- VIII. **Physically Unclonable Surfaces via Dewetting of Polymer Thin Films**
Torun N., Törün İ., Şakir M., Kalay M., Önses M. S.
ACS APPLIED MATERIALS & INTERFACES, vol.13, no.9, pp.11247-11259, 2021 (SCI-Expanded)
- IX. **Transferring the structure of paper for mechanically durable superhydrophobic surfaces**
TÖRÜN İ., ÇELİK N., Ruzi M., ÖNSES M. S.
SURFACE & COATINGS TECHNOLOGY, vol.405, 2021 (SCI-Expanded)
- X. **Fabrication of superhydrophobic Ag@ZnO@Bi₂WO₆ membrane disc as flexible and photocatalytic active reusable SERS substrate**
Korkmaz I., ŞAKİR M., SARP G., Salem S., TÖRÜN İ., Volodkin D., Yavuz E., ÖNSES M. S., YILMAZ E.
JOURNAL OF MOLECULAR STRUCTURE, vol.1223, 2021 (SCI-Expanded)
- XI. **Fabrication of robust superhydrophobic surfaces by one-step spray coating: Evaporation driven self-assembly of wax and nanoparticles into hierarchical structures**
ÇELİK N., TÖRÜN İ., Ruzi M., Esidir A., ÖNSES M. S.
CHEMICAL ENGINEERING JOURNAL, vol.396, 2020 (SCI-Expanded)
- XII. **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)
- XIII. **Chemical Funneling of Colloidal Gold Nanoparticles on Printed Arrays of End-Grafted Polymers for Plasmonic Applications**
Pekdemir S., Törün İ., Sakir M., Ruzi M., Rogers J. A., Onses M. S.
ACS NANO, vol.14, pp.8276-8286, 2020 (SCI-Expanded)
- XIV. **Multiplexed patterning of cesium lead halide perovskite nanocrystals by additive jet printing for efficient white light generation**
ALTINTAS Y., Torun İ., YAZICI A. F., Beskacak E., Erdem T., Onses M. S., MUTLUGÜN E.
CHEMICAL ENGINEERING JOURNAL, vol.380, 2020 (SCI-Expanded)
- XV. **Writing chemical patterns using electrospun fibers as nanoscale inkpots for directed assembly of colloidal nanocrystals**
Kiremitter N. B., TÖRÜN İ., ALTINTAS Y., Patarroyo J., Demir H. V., Puntos V. F., Mutlugun E., ÖNSES M. S.
NANOSCALE, vol.12, no.2, pp.895-903, 2020 (SCI-Expanded)
- XVI. **Superhydrophobic coatings made from biocompatible polydimethylsiloxane and natural wax**

- Torun İ., Ruzi M., Er F., Onses M. S.
 PROGRESS IN ORGANIC COATINGS, vol.136, 2019 (SCI-Expanded)
- XVII. **One-step deposition of hydrophobic coatings on paper for printed-electronics applications**
 Gozutok Z., Kinj O., Torun İ., ÖZDEMİR A. T., ÖNSES M. S.
 CELLULOSE, vol.26, no.5, pp.3503-3512, 2019 (SCI-Expanded)
- XVIII. **Water Impact Resistant and Antireflective Superhydrophobic Surfaces Fabricated by Spray Coating of Nanoparticles: Interface Engineering via End-Grafted Polymers**
 TORUN İ., CELİK N., Hancer M., ES F., EMİR C., TURAN R., ÖNSES M. S.
 MACROMOLECULES, vol.51, no.23, pp.10011-10020, 2018 (SCI-Expanded)
- XIX. **Robust superhydrophobicity on paper: Protection of spray-coated nanoparticles against mechanical wear by the microstructure of paper**
 TORUN İ., ÖNSES M. S.
 SURFACE & COATINGS TECHNOLOGY, vol.319, pp.301-308, 2017 (SCI-Expanded)
- XX. **Assembly of Plasmonic Nanoparticles on Nanopatterns of Polymer Brushes Fabricated by Electrospin Nanolithography**
 Kiremitler N. B., Pekdemir S., Patarroyo J., Karabel S., Torun İ., Puntos V. F., Önses M. S.
 ACS MACRO LETTERS, vol.6, pp.603-608, 2017 (SCI-Expanded)

Articles Published in Other Journals

- I. **Fully transparent and superhydrophobic electrodes enabled by soft interfaces**
 Törün İ., Çelik N., Kiremitler N. B., Huang X., Önses M. S.
 SURFACES AND INTERFACES, vol.36, 2023 (Scopus)
- II. **Solid-State Encapsulation and Color Tuning in Films of Cesium Lead Halide Perovskite Nanocrystals for White Light Generation**
 Torun İ., ALTINTAS Y., YAZICI A. F., MUTLUGÜN E., ÖNSES M. S.
 ACS APPLIED NANO MATERIALS, vol.2, no.3, pp.1185-1193, 2019 (ESCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **The relationship of surface roughness and wettability of 316L stainless steel implants with plastic deformation mechanisms**
 Cicek S., Karaca A., Torun İ., ÖNSES M. S., UZER B.
 1st International Conference on Materials, Mimicking, Manufacturing from and for Bio Application (BioM&M), Milan, Italy, 27 - 29 June 2018, vol.7, pp.389-393
- II. **Arrays of Multi-Color Emitting Cesium Lead Halide Perovskite Nanocrystals and Efficient White Light Generation by Tailored Anion Exchange Reactions and Electrohydrodynamic Jet Printing**
 MUTLUGÜN E., TÖRÜN İ., ÖNSES M. S.
 Light, Energy and the Environment 2018 (E2, FTS, HISE, SOLAR, SSL), Singapore, Singapore, 5 - 08 November 2018
- III. **Assemblies of Plasmonic Nanoparticles on Patterns of End-grafted Poly(ethylene Glycol) Layers Fabricated by Electrohydrodynamic Jet Printing”, 14th NANOSCIENCE AND NANOTECHNOLOGY CONFERENCE**
 PEKDEMİR S., KİREMİTLER N. B., TÖRÜN İ., ÖNSES M. S.
 NANOTR14, İzmir, Turkey, 22 - 25 September 2018
- IV. **Self-cleaning and highly transparent coatings based on endgrafted polymers for photovoltaic applications**
 Törün İ., Celik N., Hancer M., Es F., Emir C., Turan R., Önses M. S.
 PVCON 2018, Ankara, Turkey, 4 - 06 July 2018
- V. **Understanding the Influence of Plastic Deformation Mechanisms on Implant Surface Properties**

TÖRÜN İ., ÖNSES M. S.

The First International Conference on Materials, Mimicking, Manufacturing from and for Bio Application, Milan, Italy, 26 - 28 June 2018

VI. The Effect of Substrate Hydrophobicity on the Resolution of the Chemical Patterns Fabricated by Electrospinning

TÖRÜN İ., KİREMİTLER N. B., ÖNSES M. S.

13th NANOSCIENCE AND NANOTECHNOLOGY CONFERENCE (NANOTR13), Antalya, Turkey, 22 - 25 October 2017

Supported Projects

ÖNSES M. S., TÖRÜN İ., ÖZBAŞARAN A., KİREMİTLER N. B., Project Supported by Higher Education Institutions, Polimer Kompozitlerin Ekstrüzyonuyla Fotolüminesan Fiziksel Olarak Klonlanamayan Fonksiyonların Ölçeklenebilir Üretimi, 2023 - Continues

ÖNSES M. S., KİREMİTLER N. B., TÖRÜN İ., ÇELİK N., Project Supported by Higher Education Institutions, Buzlanma giderici ve yansıtma önleyici saydam süperhidrofobik yüzeylerin geliştirilmesi, 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

Törün İ., TUBITAK Project, Elektrohüdrodinamik Püskürtmeli Yazıcı ile Kuantum Noktacıklar ve Kolloidal Nanopartiküllerin Üç Boyutlu Fonksiyonel Mimarilere Düzenlenmesi, 2021 - 2022

ŞAKİR M., TÖRÜN İ., ÖNSES M. S., TUBITAK Project, Anti-sahtecilik uygulamaları için tekrar edilemeyen görünmez güvenlik etiketlerinin geliştirilmesi, 2020 - 2021

Mutlugün E., TUBITAK Project, Hibrit Kuantum Noktacık-Nanofiber Esnek Elektrolüminesant Aygıtlar, 2017 - 2019

Törün İ., Önses M. S., Project Supported by Higher Education Institutions, Yüksek mekanik dayanımlı saydam süperhidrofobik kaplamaların üretilmesi ve karakterizasyonu, 2017 - 2018

Önses M. S., TUBITAK Project, Elektrospin Edilmiş Nanofiberlerden Polimerlerin Lokalize Olarak Aşılmasıyla Kimyasal Ve Mekansal Olarak Tanımlanmış Yüzeylerin Üretilmesi, Karakterizasyonu Ve Uygulaması, 2015 - 2018

Patent

Törün İ., Önses M. S., Patent, CHAPTER C Chemistry; Metallurgy, The Invention Registration Number: TR 2017 23249 B , Standard Registration, 2021

Önses M. S., Çelik N., Törün İ., PREPARATION METHOD OF A BASE SUITABLE FOR USE TO IMPROVE THE DURABILITY OF THE SUPERHYDROPHOBIC SURFACES, Patent, CHAPTER B Implementation of Operations; Transport, The Invention Registration Number: TR 2019 22041 B , Standard Registration, 2021

Metrics

Publication: 28

Citation (WoS): 613

Citation (Scopus): 643

H-Index (WoS): 13

H-Index (Scopus): 13

Scholarships

2211-A Genel Yurt İçi Doktora Bursu, TUBITAK, 2019 - Continues

2214-A Yurt Dışı Doktora Bursu (University of Illinois at Urbana-Champaign Materials Science and Engineering),

TUBITAK, 2022 - 2023

YÖK 100/2000 Doktora Bursu, YOK, 2018 - 2019

Awards

Törün İ., ISIF'18 Gümüş Madalya, İstanbul Uluslararası Buluş Fuarı Isif'18, September 2018

Non Academic Experience

University of Illinois Urbana-Champaign