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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

I. **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)
II. **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)
III. **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)

IV. **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, 2023 (SCI-Expanded)

V. **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)

VI. **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)

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., Mujtaba 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. **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)

IX. **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)

X. **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)

XI. **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)

XII. **Chemical Funneling of Colloidal Gold Nanoparticles on Printed Arrays of End-Grafted Polymers for Plasmonic Applications**
Pekdemir S., Törun İ., Sakir M., Ruzi M., Rogers J. A., Onses M. S.
ACS NANO, vol.14, pp.8276-8286, 2020 (SCI-Expanded)

XIII. **Multiplexed patterning of cesium lead halide perovskite nanocrystals by additive jet printing for efficient white light generation**
ALTINTAS Y., Torun İ., YAZICI A. F., Beskazak E., Erdem T., Onses M. S., MUTLUGÜN E.
CHEMICAL ENGINEERING JOURNAL, vol.380, 2020 (SCI-Expanded)

XIV. **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., Puntes V. F., Mutlugun E., ÖNSES M. S.
NANOSCALE, vol.12, no.2, pp.895-903, 2020 (SCI-Expanded)

XV. **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)

XVI. **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)

XVII. **Water Impact Resistant and Antireflective Superhydrophobic Surfaces Fabricated by Spray Coating of Nanoparticles: Interface Engineering via End-Grafted Polymers**
TORUN İ., CELIK N., Hancer M., ES F., EMIR C., TURAN R., ÖNSES M. S.
MACROMOLECULES, vol.51, no.23, pp.10011-10020, 2018 (SCI-Expanded)

XVIII. **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)

XIX. **Assembly of Plasmonic Nanoparticles on Nanopatterns of Polymer Brushes Fabricated by Electrospin Nanolithography**
Kiremitler N. B., Pekdemir S., Patarroyo J., Karabel S., Torun İ., Puntes 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, Elektrohidrodinamik Püskürtmeli Yazıcı ile Kuantum Noktacıklar ve Kolloidal Nanopartiküllerin Üç Boyutlu Fonksiyonel Mimarilere Düzenlenmesi, 2021 - 2022
ŞAKİR M., ÖNSES M. S., TÖRÜN İ., TUBITAK Project, Anti-sahtecilik uygulamaları için tekrar edilemeyen görünmez güvenlik etiketlerinin gelistirilmesi, 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 Aşılanmasıyla 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: 27
Citation (WoS): 539
Citation (Scopus): 574
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 Isıf'18, September 2018

Non Academic Experience

University of Illinois Urbana-Champaign