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International Researcher IDs

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Publons / Web Of Science ResearcherID: AAT-8085-2020

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Education Information

Doctorate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Turkey 2020 - Continues

Doctorate, Yıldız Technical University, Graduate School Of Natural And Applied Sciences, Turkey 2019 - 2020

Postgraduate, Yıldız Technical University, Graduate School Of Natural And Applied Sciences, Kimya, Turkey 2016 - 2019

Certificates, Courses and Trainings

Other, 4th Chiba - Yıldız Technical University Student Workshop, Chiba University, 2017

Dissertations

Postgraduate, Antrasen türevi fotobaşlatıcı sentezi ve çeşitli nanoparçacıkların fotokimyasal olarak hazırlanmasında etkinliğinin incelenmesi, Yıldız Technical University, Graduate School Of Natural And Applied Sciences, 2019

Research Areas

Chemistry, Functional Polymers, nanocomposites, Characterization of Polymers, Polymeric Films, Natural Sciences

Academic Titles / Tasks

Research Assistant, Karadeniz Technical University, Fen Fakültesi, Kimya, 2020 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Thermally conductive phase change nanocomposites presenting PS-PEG/SeO₂ and PS-PEG/BN/SeO₂**
Mutlu S., Ortaç B., Başkan T., Yılmaz S., Yılmaz A. H.
Journal of Alloys and Compounds, vol.1007, 2024 (SCI-Expanded)
- II. **O-band femtosecond mode-locked laser by using Ni-MOF in praseodymium-doped fluoride fiber**

Ahmad H., Nizamani B., Samion M., MUTLU S., YILMAZ S., ARSU N., Thambiratnam K., Ortaç B.
Optical Materials, vol.157, 2024 (SCI-Expanded)

- III. **Zn-MOF as a saturable absorber for thulium/holmium-doped fiber laser**
Ahmad H., Chiam J. W., Samion M. Z., Thambiratnam K., Mutlu S., Yilmaz S., Arsu N., Ortac B.
PHYSICA SCRIPTA, vol.99, no.10, 2024 (SCI-Expanded)
- IV. **Laser-Driven Rapid Synthesis of Metal-Organic Frameworks and Investigation of UV-NIR Optical Absorption, Luminescence, Photocatalytic Degradation, and Gas and Ion Adsorption Properties**
MUTLU S., Ortaç B., Ozbey D. H., Durgun E., SAVAŞKAN YILMAZ S., ARSU N.
Polymers, vol.16, no.2, 2024 (SCI-Expanded)
- V. **Engineering of the High-Power Laser-Induced Synthesis of Ni-Based Metal-Organic Framework: Investigation of its Optical Properties, Computational Methodology, Electrocatalytic Performances, and Glucose-Sensing Ability**
MUTLU S., Ortaç B., Karatutlu A., Gorkan T., Durgun E., Söyler D., Söylemez S., ARSU N., SAVAŞKAN YILMAZ S.
Advanced Materials Technologies, 2024 (SCI-Expanded)
- VI. **Thermal Conductivity and Phase-Change Properties of Boron Nitride-Lead Oxide Nanoparticle-Doped Polymer Nanocomposites**
Ortaç B., Mutlu S., Başkan T., Savaskan Yilmaz S., Yilmaz A. H., Erol B.
POLYMERS, vol.15, no.10, 2023 (SCI-Expanded)
- VII. **Radiation Shielding Tests of Crosslinked Polystyrene-b-Polyethyleneglycol Block Copolymers Blended with Nanostructured Selenium Dioxide and Boron Nitride Particles**
Cinan Z. M., Erol B., Başkan T., Mutlu S., Ortac B., Savaşkan Yilmaz S., Yilmaz A. H.
NANOMATERIALS, vol.12, no.3, 2022 (SCI-Expanded)
- VIII. **Gamma irradiation, thermal conductivity, and phase change tests of the cement-hyperbranched poly amino-ester-block-poly cabrolactone-polyurathane plaster-lead oxide and arsenic oxide composite for development of radiation shielding material**
Cinan Z. M., Başkan T., Erol B., Mutlu S., Misirlioglu Y., Yilmaz S., Yilmaz A. H.
International Journal of Energy Research, vol.45, no.15, pp.20729-20762, 2021 (SCI-Expanded)
- IX. **Gamma Irradiation and the Radiation Shielding Characteristics: For the Lead Oxide Doped the Crosslinked Polystyrene-b-Polyethyleneglycol Block Copolymers and the Polystyrene-b-Polyethyleneglycol-Boron Nitride Nanocomposites**
Cinan Z. M., Erol B., Başkan T., Mutlu S., Yilmaz S., Yilmaz A. H.
POLYMERS, vol.13, no.19, 2021 (SCI-Expanded)
- X. **In-situ photochemical synthesis and dielectric properties of nanocomposite thin films containing Au, Ag and MnO nanoparticles**
Mutlu S., Metin E., Yuksel S. A., Bayrak U., NUHOĞLU Ç., ARSU N.
EUROPEAN POLYMER JOURNAL, vol.144, 2021 (SCI-Expanded)
- XI. **Thioxanthone-anthracene-9-carboxylic acid as radical photoinitiator in the presence of atmospheric air**
Mutlu S., Watanabe K., Takahara S., ARSU N.
JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY, vol.56, no.16, pp.1878-1883, 2018 (SCI-Expanded)

Books & Book Chapters

- I. **Formation of Polymeric Micelle-Mixed Micelles: The Drug Delivery, and Radiotherapy Applications, Interaction, and Investigation by Laser Light**
Ortaç B., Mutlu S., Yilmaz A. H., Savaşkan Yilmaz S.
in: Design and Applications of Self-Assembly Aggregates - From Micelles to Nanoemulsions, Juan C. Mejuto and Mihalj Poša, Editor, IntechOpen, London, pp.1-55, 2024
- II. **Synthesis of Polyethylene-Based Materials, Ion Exchanger, Superabsorbent, Radiation Shielding and**

Laser Ablation Applications

Yılmaz A. H., Ortaç B., Mutlu S., Savaşkan Yılmaz S.

in: PolyethyleneNewDevelopments&Applications, Nina Miocevic, Editor, IntechOpen, Glasgow, pp.1-36, 2023

Refereed Congress / Symposium Publications in Proceedings

- I. **Recent Developments in In-Situ Photochemically Prepared Nanocomposites**
Arsu N., Kazancıoğlu E. Ö., Batıbay G. S., Kırtay H., Dizman H. M., Metin E., Mutlu S., Aydın M.
Satellite International Conference on Advanced Imaging 2023, 23 June 2023, pp.21
- II. **Radyasyon Kalkanı Polimer-Çimento/SeO₂/ BN Nanokompozitleri**
Erol B., Cinan Z. M., Başkan T., Mutlu S., Ortaç B., Savaşkan Yılmaz S., Yılmaz A. H.
3.Uluslararası Katılımlı Radyasyondan Korunma Kongresi, Ankara, Turkey, 02 December 2022 - 04 January 2023, pp.1-9
- III. **Ring opening polymerization (ROP) of 2[3,5 -diphenyl-1H-1,2,4-triazol-1-yl]ethanol with ϵ -caprolactonand synthesis of homopolymer and copolymers with atom transfer radical polymerization (ATRP),investigation of photocatalic properties**
Mutlu S., Islami S., Bekircan O., Savaşkan Yılmaz S.
7th European Symposium of Photopolymer Science, İstanbul, Turkey, 19 - 22 September 2022, pp.65
- IV. **A Facile Method for In Situ Preparation of Polymer Nanocomposites Containing Metal, Metal Oxide and POSS Nanoparticles**
ÖZÇELİK KAZANCIOĞLU E., BATIBAY G. S., MUTLU S., METİN E., DİZMAN H. M., AYDIN M., KIRTAY H., ARSU N.
paintistanbul & Turkcoat 2021 Organik Kaplama, Polimer ve İlgili Malzemeler, 8 - 09 December 2021, pp.16
- V. **The Evaluation of the Applications of Polymer-Based Nano-Structured Composites Doped with Tungsten (W) and Tungsten Trioxide (WO₃) for Gamma Irradiation Shieldings**
Cinan Z. M., Başkan T., Erol B., Mutlu S., Savaşkan Yılmaz S., Yılmaz A. H.
International Conference on Polymer Science and Composite Materials (ICPSCM 2021), Frankfurt, Germany, 8 - 10 November 2021, pp.1-2
- VI. **IN-SITU PHOTOCHEMICAL SYNTHESIS OF NANOCOMPOSITE FILMS CONTAINING AU, AG AND MNO NANOPARTICLES WITH THIOXANTHONE-ANTHRACENE-9-CARBOXYLIC ACID AND INVESTIGATION OF THEIR ROLE FOR THE PHOTOCATALYTIC DEGRADATION OF METHYLENE BLUE**
MUTLU S., ARSU N.
Virtual European Symposium of Photopolymer Sciences, Vienna, Austria, 15 - 17 June 2021, pp.182
- VII. **Photochemical Synthesis and Potential Applications of Nanomaterials and Nanocomposites**
ÖZÇELİK KAZANCIOĞLU E., BATIBAY G. S., MUTLU S., METİN E., DİZMAN H. M., AYDIN M., KIRTAY H., ARSU N.
Virtual European Symposium of Photopolymer Sciences (VESPS 2021), 15 - 17 June 2021, pp.48
- VIII. **Fotokimyasal Olarak In-situ Mn Nanoparçacık Sentezi ve Nanokompozit Filmlerin Hazırlanması**
Bayrak U., MUTLU S., Batıbay G. S., ARSU N.
8. Ulusal Kimya Öğrenci Kongresi, Turkey, 16 - 18 May 2017
- IX. **46th IUPAC World Polymer Congress-MACRO 2016**
MUTLU S., Tolga Ç., Takahara S., ARSU N.
IUPAC İTÜ, 21 - 22 July 2016

Supported Projects

SAVAŞKAN YILMAZ S., YILMAZ A. H., MUTLU S., BAŞKAN T., ORTAÇ B., Project Supported by Higher Education Institutions, Kurşun Oksit ile Katkılandırılmış Çok Dalı Poli Kaprolakton Esaslı PAE-b-PCL Kompozitlerinin Radyasyon Kalkanı ve Termal İletkenlik Özelliklerinin İncelenmesi, 2022 - Continues

Mutlu S., Ortaç B., Karatutlu A., Savaşkan Yılmaz S., Arsu N., TÜBİTAK Project, Yüksek Güçlü, Sürekli Lazer Güdümlü Sentez Yöntemi İle Nico Metal Organik Kafes (Nicomof) Yapılarının Sentezi Ve Morfolojik ,Yapısal, Fotofiziksel Ve Elektiriksel

Özelliklerinin İncelenmesi, 2024 - 2025

SAVAŞKAN YILMAZ S., ÇUVALCI H., KALAYCIOĞLU H., MUTLU S., Project Supported by Higher Education Institutions, Çok Dallonmuş Poli Kaprolakton Esaslı Kopolimerlerin ÇD(PAE-b-PCL) ve polimerik alçı ÇD(PAE-b-PCL-DI), Sentezi, Karakterizasyonu, Polimerik Çimento ve Alçı Kompozitlerinin Hazırlanması Uygulamaları ve Mekanik Özelliklerinin İncelenmesi, 2021 - 2024

Scientific Research / Working Group Memberships

Ortaç Grup, Ihsan Dogramaci Bilkent University, Turkey, <http://www.ortacgroup.org/about/team/>, 2022 - Continues
Narsu Research Group, Yildiz Technical University, Turkey, <https://www.narsuresearch.com/>, 2014 - Continues

Metrics

Publication: 22

Citation (WoS): 79

Citation (Scopus): 91

H-Index (WoS): 5

H-Index (Scopus): 5

Scholarships

2211-A Genel Yurt İçi Doktora Burs Programı, TUBITAK, 2021 - Continues

Awards

Mutlu S., Üstün Başarı Ödülü/ Fen Edebiyat Fakülte Birinciliği, Yıldız Teknik Üniversitesi, December 2015

Non Academic Experience

Bilkent Üniversitesi Ulusal Nanoteknoloji ve Araştırma Merkezi
Yıldız Teknik Üniversitesi