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Education Information

Undergraduate, Afyon Kocatepe University, Faculty of Engineering, Biomedical Engineering, Turkey 2021 - Continues
Doctorate, Eskisehir Osmangazi University, Fen Bilimleri Enstitüsü, Polimer Bilim Ve Teknolojisi Anabilim Dalı (Disiplinlerarası), Turkey 2016 - 2021

Postgraduate, Eskisehir Osmangazi University, Fen Bilimleri Enstitüsü, Polimer Bilim Ve Teknolojisi Anabilim Dalı (Disiplinlerarası), Turkey 2014 - 2016

Postgraduate, Sakarya University, Faculty Of Arts And Sciences, Department Of Chemistry, Turkey 2013 - 2015

Undergraduate, Ataturk University, Fen Fakültesi, Kimya Bölümü, Turkey 2012 - 2013

Undergraduate, Ataturk University, Kâzım Karabekir Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, Turkey 2006 - 2011

Dissertations

Doctorate, Florofor çapraz bağlı çoklu duyarlı polimerik materyaller ve optik uygulamalarda kolloidal kuvantum kuyu katkılabilir polimer kompozitler, Eskisehir Osmangazi University, Fen Bilimleri Enstitüsü, 2021

Postgraduate, CdSe/CdS nano çubuk sentezi ve polimer ligantlar ile modifikasyonu, Eskisehir Osmangazi University, Fen Bilimleri Enstitüsü, Polimer Bilim Ve Teknolojisi Anabilim Dalı (Disiplinlerarası), 2016

Postgraduate, Ag tiyazolo-tiyazol komplekslerinin sentezi ve özelliklerinin incelenmesi, Sakarya University, Fen-Edebiyat Fakültesi, Kimya Bölümü, 2015

Research Areas

Optical Properties, Polymeric Materials, Nanomaterials, Chemistry

Published journal articles indexed by SCI, SSCI, and AHCI

- I. Preparation of elastic hydrogel films via in-situ ketalization of Poly(vinyl alcohol) and ZnO nanoparticle doped Poly(vinyl ketal) films as antibacterial surface
ÖZBAL A., DİKMEN Z., BÜTÜN V.

International Journal of Polymeric Materials and Polymeric Biomaterials, vol.73, no.3, pp.231-238, 2024 (SCI-Expanded)

- II. Multi-Analyte Sensitive Fluorophore Cross-Linked Nanofibers Based Antimicrobial Surface Enabling Bacterial Detection and Their Usage as Crystal Growth Template

- Dikmen Z., Bütün V.
MACROMOLECULAR MATERIALS AND ENGINEERING, vol.309, no.1, 2024 (SCI-Expanded)
- III. Gold-tipped CdSe/CdZnS colloidal quantum wells as non-quenching plasmonic particles for optical applications
DİKMEN Z.
Optical Materials, vol.147, 2024 (SCI-Expanded)
- IV. Fluorophore-assisted green fabrication of flexible and cost-effective Ag nanoparticles decorated PVA nanofibers for SERS based trace detection
DİKMEN Z., DİKMEN G., BÜTÜN V.
Journal of Photochemistry and Photobiology A: Chemistry, vol.445, 2023 (SCI-Expanded)
- V. An effective approach for hydrothermal synthesis of ZnO nanorod arrays activated under UV/Vis light: Different supporting ligands for hydrothermal precursor solutions
Gultepe O., Atay F., Dikmen Z.
MATERIALS CHEMISTRY AND PHYSICS, vol.307, 2023 (SCI-Expanded)
- VI. Novel approach to increase chemosensing ability of fluorophore via cross-linked hydrogel film formation
Turhan O., DİKMEN Z., BÜTÜN V.
Journal of Photochemistry and Photobiology A: Chemistry, vol.443, 2023 (SCI-Expanded)
- VII. Hydrothermal synthesis of ZnO nanostructures for environmental applications: the role of different supporting ligands
Gultepe O., Atay F., Dikmen Z.
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.129, no.8, 2023 (SCI-Expanded)
- VIII. Vertically oriented self-assembly of colloidal CdSe/CdZnS quantum wells controlled via hydrophilicity/lipophilicity balance: optical gain of quantum well stacks for amplified spontaneous emission and random lasing
DİKMEN Z., Işık A. T., Bozkaya İ., Dehghanpour Baruj H., Canimkurbey B., Shabani F., Ahmad M., Demir H. V.
Nanoscale, vol.15, no.22, pp.9745-9751, 2023 (SCI-Expanded)
- IX. In-situ formation of fluorophore cross-linked micellar thick films and usage as drug delivery material for Propranolol HCl
Dikmen Z., Turhan O., Özbal A., Bütün V.
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.279, 2022 (SCI-Expanded)
- X. All-colloidal parity-time-symmetric microfiber lasers balanced between the gain of colloidal quantum wells and the loss of colloidal metal nanoparticles
Foroutan-Barenji S., Shabani F., Isik A. T., Dikmen Z., Demir H. V.
NANOSCALE, vol.14, no.37, pp.13755-13762, 2022 (SCI-Expanded)
- XI. Thiazolo[5, 4-d]thiazole based dye modified microspheres as metal nanoparticle reactor template and hybrid catalyst
Dikmen Z., Isik M., Turhan O., Akbari M., Tuncer C., Javanifar R., Bütün V.
EUROPEAN POLYMER JOURNAL, vol.175, 2022 (SCI-Expanded)
- XII. Synthesis, optical dye properties and band gap energies of silver hydroxy-aryl thiazolo[5,4-d]thiazole complexes
Olgun U., DİKMEN Z., Çetin H., Arıcan F., Gülfen M.
Journal of Molecular Structure, vol.1250, 2022 (SCI-Expanded)
- XIII. Au/Pt Bimetallic Nanoparticle Decorated Microparticle Hybrid Catalyst System for Heterogeneous Hydrogenation of Styrene
Dikmen Z., Ünver H., Bütün V.
Catalysis Letters, vol.151, pp.3656-3663, 2021 (SCI-Expanded)
- XIV. Thiazolo thiazole based cross-linker to prepare highly fluorescent smart films with tunable emission wavelength and their multi-responsive usage
DİKMEN Z., BÜTÜN V.

- European Polymer Journal, vol.159, 2021 (SCI-Expanded)
- XV. An effective fluorescent optical sensor: Thiazolo-thiazole based dye exhibiting anion/cation sensitivities and acidochromism
Dikmen Z., Turhan O., Özkütük M., Bütün V.
Journal of Photochemistry and Photobiology A: Chemistry, vol.419, 2021 (SCI-Expanded)
- XVI. Fluorescent poly(methacryloxy quinolin) microparticles allowing simultaneous gold detection with additive-free photocatalytic synthesis of raspberry-like gold nanoparticles and gold nanoparticle decorated microparticles
DİKMEN Z., Javanifar R., BÜTÜN V.
EUROPEAN POLYMER JOURNAL, vol.129, 2020 (SCI-Expanded)
- XVII. Antibacterial poly{(4-vinyl phenylboronic acid)-co-[2-(dimethylamino)ethyl methacrylate]} copolymers and their application in water-based paints
ÇİÇEK H., Kocak G., CEYLAN Ö., Kutluca E. A., DİKMEN Z., BÜTÜN V.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.135, no.22, 2018 (SCI-Expanded)
- XVIII. Preparation of Cross-Linked Micelles from Glycidyl Methacrylate Based Block Copolymers and Their Usages as Nanoreactors in the Preparation of Gold Nanoparticles
Kocak G., SOLMAZ G., DİKMEN Z., BÜTÜN V.
JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY, vol.56, no.5, pp.514-526, 2018 (SCI-Expanded)

Articles Published in Other Journals

- I. Effect of Poly(Methyl Vinyl Ether-co-maleic Anhydride) Copolymer on Bond Strength of Experimental Dental Adhesive
Celiksoz Ö., Irmak O., DİKMEN Z., YAMAN B. C., BÜTÜN V., Ozer F.
MEANDROS MEDICAL AND DENTAL JOURNAL, vol.20, no.2, pp.106-113, 2019 (ESCI)

Refereed Congress / Symposium Publications in Proceedings

- I. Investigation of TEM and Confocal Micrographs of Polymeric Composite Films Prepared by Ultramicrotome Sectioning Method
Dikmen Z.
Uluslararası katılımlı 26. Ulusal Elektron Mikroskopi Kongresi (EMK26), Eskişehir, Turkey, 20 - 23 September 2023, pp.86
- II. ZnO NANOPARTICLE DOPED STRETCHABLE POLY(VINYL KETAL) FILMS
Özbal A., Dikmen Z., Bütün V.
19th Asian Chemical Congress, İstanbul, Turkey, 9 - 14 July 2023, pp.136
- III. Flurofor çapraz bağlı miselik filmlerin yerinde oluşumu ve propranolol HCl için ilaç salım malzemesi olarak kullanımı
Dikmen Z., Turhan O., Bütün V.
ULUSLARARASI KATILIMLI VIII. POLİMER BİLİM ve TEKNOLOJİ KONGRESİ, Malatya, Turkey, 20 - 23 June 2022, pp.58
- IV. Highly fluorescent polymers from amphiphilic polymers in different morphologies
Bütün V., Dikmen Z., Turhan O.
2021 GLOBAL CONFERENCE ON POLYMERS, PLASTICS AND COMPOSITES, Budapest, Hungary, 11 - 12 August 2021, pp.1
- V. Highly fluorescent smart nanofiber films
Dikmen Z., Turhan O., Bütün V.
2021 GLOBAL CONFERENCE ON POLYMERS, PLASTICS AND COMPOSITES, Budapest, Hungary, 11 - 12 August 2021, pp.1

- VI. **Evolution of Gold crystal formation on PMAQ microparticles**
Dikmen Z., Javanifar R., Bütün V.
2021 GLOBAL CONFERENCE ON POLYMERS, PLASTICS AND COMPOSITES, Budapest, Hungary, 11 - 12 August 2021, pp.1
- VII. **Highly Fluorescent Polymers in Different Morphologies and Morphology Tunable Amphiphilic Polymers**
Bütün V., Dikmen Z., Turhan O.
ANM2021, 17th Int. Conference on Advanced Materials, Aveiro, Portugal, 22 - 24 July 2021, pp.0-2
- VIII. **Highly Fluorescent Smart Films with Tunable Emission Wavelength**
Dikmen Z., Bütün V.
ANM2021, 17th Int. Conference on Advanced Materials, Aveiro, Portugal, 22 - 24 July 2021, pp.0-2
- IX. **Fluorescent Hydrogels For Simultaneous Nanoparticle Synthesis And Cation Sensing**
Dikmen Z., Ceylan S., Bütün V.
8th Int. Conference on Materials Science and Nanotechnology For Next Generation (MSNG2021), Elazığ, Turkey, 14 - 16 July 2021, pp.1
- X. **Synthesis and characterization of PDEA microgel containing P(DMA/AA) amphoteric hydrogels**
Maihan R., Dikmen Z., Yarlıgan Uysal S., Bütün V.
8th International fiber and polymer research symposium, ULPAS, Eskişehir, Turkey, 18 - 19 June 2021, pp.87-91
- XI. **Reusability of Respiratory Masks after UV-C Light Disinfection and Design of UV-C Sterilizer Cabinet**
Dikmen Z., Dikmen G., Paksoy N., Bütün V.
8th International fiber and polymer research symposium, ULPAS, Eskişehir, Turkey, 18 - 19 June 2021, pp.72-75
- XII. **Determination of N95 Respirators Reusability After UV-C Light Disinfection During the COVID-19 Pandemic**
DİKMEN Z., DİKMEN G., paksoy n., BÜTÜN V.
CONCOVID Conference, Turkey, 12 - 14 June 2020
- XIII. **Functionalized Poly(vinyl benzylchloride) Microspheres as Metal NP Reactor**
DİKMEN Z., Akbari M., BÜTÜN V.
15th Nanoscience and Nanotechnology Conference, 3 - 06 November 2019
- XIV. **Multi-Functional Fluorescent Polymers**
DİKMEN Z., BÜTÜN V.
15th Nanoscience and Nanotechnology Conference, Antalya, Turkey, 3 - 06 November 2019
- XV. **8-Hidroksi Kinolin Bazlı Polimerik Partikül Sentezi ve Farklı Uygulamalarda Metal Adsorban Olarak Kullanımı**
DİKMEN Z., Javanifar R., BÜTÜN V.
31. Ulusal Kimya Kongresi, Turkey, 10 - 13 September 2019
- XVI. **Polimer Modifikasyonunda Floresan Çapraz Bağlayıcılar**
DİKMEN Z., BÜTÜN V.
31. Ulusal Kimya Kongresi, Turkey, 10 - 13 September 2019
- XVII. **Fluoroscent Nanofibers and Determination of Properties for Possible Usage Areas**
Dikmen Z., Bütün V.
Uluslararası Katılımlı VII. Polimer Bilim ve Teknoloji Kongresi, Eskişehir, Turkey, 9 - 12 September 2018, pp.328
- XVIII. **Synthesis and Characterization of Fluorescence Dye Modified AMPSA Hydrogel**
Ceylan S., Dikmen Z., Tuncer C., Bütün V.
Uluslararası Katılımlı VII. Polimer Bilim ve Teknoloji Kongresi, Eskişehir, Turkey, 9 - 12 September 2018, pp.348
- XIX. **Fluoroscent Microparticles As Reductive Agent for Metal Solutions**
Akbari M., Dikmen Z., Bütün V.
Uluslararası Katılımlı VII. Polimer Bilim ve Teknoloji Kongresi, Eskişehir, Turkey, 9 - 12 September 2018, pp.327
- XX. **Semiconductor Dye Cross-linked PVA Usage as Electron Injection and Emissive Layer for OLED Applications**
DİKMEN Z., BÜTÜN V.
Uluslararası Katılımlı VII. Polimer Bilim ve Teknoloji Kongresi, Eskişehir, Turkey, 9 - 12 September 2018, pp.209

- XXI. **PbTe Nanokristal Sentezi ve Tek Tabaka Süperlatis Çalışmaları**
DİKMEN Z., BÜTÜN V.
29. Ulusal Kimya Kongresi, Turkey, 10 - 14 September 2017
- XXII. **2,5-Di(Piridil) Tiyazolo[5,4-d]Tiyazol ve Metal Komplekslerinin Sentezi: Elektronik Uygulamalar İçin Optik Özelliklerinin İncelenmesi**
DİKMEN Z., BÜTÜN V.
29. Ulusal Kimya Kongresi, Turkey, 10 - 14 September 2017
- XXIII. **Tiyazolo [5,4-d] tiyazol Bazlı Polimerler ve Elektronik Uygulamalar İçin Optik Özelliklerinin İncelenmesi**
DİKMEN Z., BÜTÜN V.
29. Ulusal Kimya Kongresi, Turkey, 10 - 14 September 2017
- XXIV. **Synthesis of fluorescent 2,5-di(2-pyridyl)thiazolo[5,4-d] thiazole dye functionalised poly(4-vinylbenzyl chloride)**
DİKMEN Z., BÜTÜN V.
2017 Global Conference on Polymer and Composite Materials (PCM2017), Guangzhou, China, 23 - 25 May 2017
- XXV. **New quaternary and sulfobetaine piperazine-based linear homopolymers and their aqueous solutions**
DİKMEN Z., KOÇAK G., SOLMAZ G., BÜTÜN V.
2017 Global Conference on Polymer and Composite Materials (PCM2017), Guangzhou, China, 23 - 25 May 2017
- XXVI. **CdSe, CdSe/CdS quantum dot synthesis and stabilization in dye functionalized polymer**
DİKMEN Z., BÜTÜN V.
2017 Global Conference on Polymer and Composite Materials (PCM2017), Guangzhou, China, 23 - 25 May 2017
- XXVII. **Bifunctional organic dye as cross linker in core of micelle**
DİKMEN Z., BÜTÜN V.
2017 Global Conference on Polymer and Composite Materials (PCM2017), Guangzhou, China, 23 - 25 May 2017
- XXVIII. **Novel surface active (co)polymers from glycidyl methacrylate-based polymers and their self-assembly behaviors”**
BÜTÜN V., KOÇAK G., SOLMAZ G., DİKMEN Z., TUNCER C.
2017 Global Conference on Polymer and Composite Materials (PCM2017), Guangzhou, China, 23 - 25 May 2017
- XXIX. **Polymer Coated CdSe CdS nanocrystals Synthesis and Optical Properties**
ERYILMAZ Z., BÜTÜN V.
46th IUPAC World Polymer Congress, İstanbul, Turkey, 17 - 21 July 2016, pp.123
- XXX. **Effective Parameters on Synthesis of Gold Tipped CdSe/CdS Hetero Nano Rods**
DİKMEN Z., Pietra F., Vanmaekelberg D.
NANOTR-12 Nanoscience And Nanotechnology Congress, 3 - 05 June 2016

Supported Projects

DİKMEN Z., BÜTÜN V., TURHAN O., DİKMEN G., Project Supported by Higher Education Institutions, Optik Duyarlı Kompleksleştirici Polimer İnorganik Kolloidal Nanokristal Temelli Hibrit Parikül İle İki Emisyon Dalga BoyluÇok İşlevli Sensörlerin Geliştirilmesi, 2023 - Continues

DİKMEN G., DAĞ İ., DİKMEN Z., KOYUNCU O., Project Supported by Higher Education Institutions, Tek Duvarlı Karbon Nanotüpün Kurşun Sulfür Kuvantum Noktacıkları ile Oluşturduğu PbS/SWCNT Hibrit Materyallerin Fototerapi Ajansı Olarak Kanser Tedavisindeki Etkinliğinin Araştırılması, 2023 - Continues

Dikmen Z., TUBITAK Project, Thiazolo[5,4-d]thiazole Bicyclic Core Unit in the Boronic acid Based Covalent Organic Frameworks: Investigation of Their Properties and pH Sensitive Drug Delivery, Gas Storage and Photo-electrochemical Applications, 2023 - 2025

ATAY F., DİKMEN Z., GÜLTEPE O., Project Supported by Higher Education Institutions, Fotokatalitik Uygulamalar İçin ZnO Nanoyapılı Filmlerin Üretimi Ve Karakterizasyonu, 2022 - 2023

Dikmen Z., TUBITAK Project, Katmanlı Nanolevhva ve Nanolens Filmlerin Hazırlanması ve Optik Kazanım Uygulamaları,

2021 - 2023

Bütün V., TUBITAK Project, Tiyazolo-Tiyazol Temelli Moleküller ile Modifiye Edilmiş Multi-fonksiyonlu Polimerik Materyal Geliştirilmesi, 2019 - 2022

Dikmen Z., TUBITAK Project, Tiyazolo Tiyazol Temelli Moleküller ile Çapraz Bağlı CdSe/CdS Nanotabaka filmlerin hazırlanması ve Optik Kazanım Çalışmaları, 2020 - 2021

DİKMEN G., DİKMEN Z., Project Supported by Higher Education Institutions, Tiyol Türevi Moleküllerin DFT,

Spektroskopik Yöntemler ve Sers Tekniği ile Araştırılması, DNA,BSA ve HSA' ya Bağlanması, 2020 - 2021

Dikmen G., Dikmen Z., Bütün V., Project Supported by Higher Education Institutions, TİYOL TÜREVİ MOLEKÜLLERİN DFT VE SPEKTROSKOPİK YÖNTEMLER İLE ARAŞTIRILMASI, DNA, BSA VE HSA'YA BAĞLANMASI, 2020 - 2021

DİKMEN Z., TUNCER C., BÜTÜN V., Project Supported by Higher Education Institutions, "Polimer Kaplı-CdSe/CdS Nano Kristal Sentezi ve Basit Güneş Pili Üretimi", 2016 - 2018

Bütün V., Çiçek H., TUBITAK Project, Bor Temelli Polimerik Yapıların üretilmesi ve Antibakteriyel Özelliklerinin Belirlenmesi, 2014 - 2017

Scientific Refereeing

MICROSCOPY RESEARCH AND TECHNIQUE, SCI Journal, October 2021

Metrics

Publication: 50

Citation (WoS): 76

Citation (Scopus): 81

H-Index (WoS): 6

H-Index (Scopus): 6

Scholarships

2211 - Yurt İçi Lisansüstü Burs Programı (Doktora), TUBITAK, 2016 - Continues

Katmanlı Nanolevha ve Nanolens Filmlerin Hazırlanması ve Optik Kazanım Uygulamaları, TUBITAK, 2021 - 2023

2211 - Yurt İçi Lisansüstü Burs Programı (Yüksek Lisans), TUBITAK, 2012 - 2014

Awards

Dikmen Z., Yılın Tezi Ödülü, Eskişehir Osmangazi Üniversitesi, March 2022

Dikmen Z., Bütün V., En İyi Poster Ödülü , 29. Ulusal Kimya Kongresi, Odtü, May 2017