Assoc. Prof. ERTAN YİLDİRİM

Personal Information

Office Phone: +90 312 202 1162
Email: ertan.yildirim@gazi.edu.tr
Web: https://avesis.gazi.edu.tr/ertan.yildirim
Address: Gazi Üniversitesi Fen Fakültesi Derslik Binası Oda:O-1002

International Researcher IDs
ScholarID: G8Adt9wAAAAJ
ORCID: 0000-0002-4083-3408
ScopusID: 57210961566
Yoksis Researcher ID: 55323

Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Kimya (Dr), Turkey 2010 - 2016
Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Kimya (Yl) (Tezli), Turkey 2008 - 2010
Undergraduate Double Major, Gazi University, Fen Fakültesi, Fizik Bölümü, Turkey 2006 - 2009
Undergraduate, Gazi University, Fen Fakültesi, Kimya Bölümü, Turkey 2004 - 2008

Dissertations

Doctorate, Silisyum yüzeyinde ibuprofen baskılı poli(n-[2-hidroksipropil] metakrilamit) ince filmlerin hazırlanması, Gazi University, Fen Bilimleri Enstitüsü, Kimya (Dr), 2016
Postgraduate, Miyoglobin baskılı yüzey tasarımı, Gazi University, Fen Bilimleri Enstitüsü, Kimya (Yl) (Tezli), 2010

Research Areas

Chemistry, Physical Chemistry, Polymers and Their Applications, Functional Polymers, Chemical Kinetics, Characterization of Polymers, New Technologies in Polymer Chemistry, Polymeric Films, Polymeric Materials, Medical Applications of Polymers, Thermodynamics, Natural Sciences

Academic Titles / Tasks

Associate Professor, Gazi University, Fen Fakültesi, Kimya, 2021 - Continues
Assistant Professor, Gazi University, Fen Fakültesi, 2021 - 2021
Lecturer, Gazi University, Fen Fakültesi, Kimya, 2012 - 2021

Academic and Administrative Experience

Fakülte Yönetim Kurulu Üyesi, Gazi University, Fen Fakültesi, Kimya, 2022 - Continues
Birim Kalite Komisyonu Başkanı, Gazi University, Fen Fakültesi, Kimya, 2021 - Continues
Uygulama ve Araştırma Merkezi İYS yetkilisi, Gazi University, Fen Fakültesi, Kimya, 2021 - 2022

Uygulama ve Araştırma Merkezi Yönetim Kurulu Üyesi, Gazi University, Fen Fakültesi, Kimya, 2021 - 2022
Deputy Director of the Center, Gazi University, 2021 - 2022

Courses

Polimer Fizikokimyası, Postgraduate, 2022 - 2023
Kimyacılar İçin Matematik ve Bilgisayar Uygulamaları, Undergraduate, 2022 - 2023
GENEL KİMYA LABORATUVARI, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021
ENDÜSTRİYEL KİMYA UYGULAMALARI, Undergraduate, 2021 - 2022
Araştırma Projesi, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021
Kuantum Kimyası, Undergraduate, 2021 - 2022
Fizikokimya, Undergraduate, 2021 - 2022
Fizikokimya Laboratuvarı, Undergraduate, 2020 - 2021
Genel Kimya, Undergraduate, 2021 - 2022
Kimyasal Kinetik ve Tepkime Mekanizmalari, Undergraduate, 2017 - 2018

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Polymer brush construction with interface-mediated RAFT polymerization technique for glutathione determination**
Elmalı N., Cimen Eren D., Caykara T., YİLDİRİM E.
Colloids and Surfaces A: Physicochemical and Engineering Aspects, vol.685, 2024 (SCI-Expanded)

II. **RAFT agent effect on graft poly(acrylic acid) to polypropylene glycol fumarate phthalate**
Sarsenbekova A. Z., Zhumanazarova G. M., Yildirim E., Tazhbayev Y. M., Kudaibergen G. K.
CHEMICAL PAPERS, 2024 (SCI-Expanded)

III. **Thiol-ene clickable gelatin–hyaluronic acid cryogels**
Kudaibergen G., Akhmetkarimova Z., YİLDİRİM E., Baidarbekov M.
Journal of Materials Science, vol.58, no.26, pp.10821-10831, 2023 (SCI-Expanded)

IV. **New approaches with ATR-FTIR, SEM, and contact angle measurements in the adaptation to extreme conditions of some endemic Gypsophila L. taxa growing in gypsum habitats**
Kayabas A., YİLDİRİM E.
SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.270, 2022 (SCI-Expanded)

V. **Design of a new biosensor platform for creatinine determination**
Caliskan S., YİLDİRİM E., AKIN ANAKÖK D., ÇETE S.
JOURNAL OF SOLID STATE ELECTROCHEMISTRY, vol.26, no.2, pp.549-557, 2022 (SCI-Expanded)

VI. **Carboxylic Acid End-Capped Brushes on Titanium via Interface-Mediated RAFT Polymerization and Cell-Surface Interactions**
Choi H., YİLDİRİM E., Schulte A., Schönherr H.
ACS Applied Polymer Materials, vol.4, no.1, pp.755-765, 2022 (SCI-Expanded)

VII. **Synthesis of end group-functionalized PGMA-peptide brush platforms for specific cell attachment by interface-mediated dissociative electron transfer reversible addition-fragmentation chain transfer radical (DET-RAFT) polymerization**
YİLDİRİM E., Choi H., Schulte A., Schonherr H.
EUROPEAN POLYMER JOURNAL, vol.148, 2021 (SCI-Expanded)

VIII. **Investigation of nanomechanical and morphological properties of silane-modified halloysite clay nanotubes reinforced polycaprolactone bio-composite nanofibers by atomic force microscopy**
Bulbul Y. E., Uzunoglu T., Dilsiz N., Yildirim E., Ateş H.
POLYMER TESTING, vol.92, 2020 (SCI-Expanded)

IX. **Development of a Novel Phenylalanine Biosensor for Diagnosis of Phenylketonuria**
ARSLAN H., Unal K., Aynaci Koyuncu E., YİLDİRİM E., ARSLAN F.
IEEE SENSORS JOURNAL, vol.20, no.20, pp.12127-12133, 2020 (SCI-Expanded)

X. **Grafting density of oligo-bottle-brushes on silicon surface: effect of mole fraction of RAFT agent-functionalized alkenes in mixed self-assembled monolayers**
ÖZKAN HÜKÜM K., YİLDİRİM E., Evci M., ÇAYKARA T.
JOURNAL OF MACROMOLECULAR SCIENCE PART A-PURE AND APPLIED CHEMISTRY, vol.57, no.7, pp.479-487, 2020 (SCI-Expanded)

XI. **Construction of biosensor for hypoxanthine determination by immobilization of xanthine oxidase and uricase in polypyrrole-paratoluenesulfonate film**
Erol E., YİLDİRİM E., ÇETE S.
JOURNAL OF SOLID STATE ELECTROCHEMISTRY, vol.24, no.7, pp.1695-1707, 2020 (SCI-Expanded)

XII. **A novel biosensor with the use of polypyrrole-poly(sodium-4-styrenesulphonate) as a dopant in the determination of glucose**
ÇETE S., Ozyurt M., YİLDİRİM E., AKIN ANAKÖK D.
CHEMICAL PAPERS, vol.74, no.3, pp.799-808, 2020 (SCI-Expanded)

XIII. **Preparation of poly(N-isopropylacrylamide) by interface-mediated dissociative electron transfer reversible addition-fragmentation chain transfer (IMDET-RAFT) polymerization technique**
YİLDİRİM E.
CHEMICAL PAPERS, vol.74, no.3, pp.1049-1058, 2020 (SCI-Expanded)

XIV. **Surface-initiated single-electron transfer reversible addition-fragmentation chain transfer polymerization of 2-hydroxyethyl acrylamide on silicon substrate at ambient temperature**
Yucel F. M., YİLDİRİM E., ÇAYKARA T.
JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY, vol.57, no.10, pp.1140-1146, 2019 (SCI-Expanded)

XV. **Ibuprofen-imprinted ultrathin poly[N-(2-hydroxypropyl) methacrylamide] films**
YİLDİRİM E., ÇAYKARA T.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.135, no.4, 2018 (SCI-Expanded)

XVI. **Synthesis of poly(N-(2-hydroxypropyl) methacrylamide) brushes by interface-mediated RAFT polymerization**
YİLDİRİM E., Cimen D., Zengin A., ÇAYKARA T.
RSC ADVANCES, vol.6, no.51, pp.45259-45264, 2016 (SCI-Expanded)

XVII. **Synthesis of dual-functional poly(6-azidohexylmethacrylate) brushes by a RAFT agent carrying carboxylic acid end groups**
Cimen D., YİLDİRİM E., ÇAYKARA T.
JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY, vol.53, no.14, pp.1696-1706, 2015 (SCI-Expanded)

XVIII. **RAFT-Mediated Synthesis and Temperature-Induced Responsive Properties of Poly(2-(2-Methoxyethoxy)ethyl Methacrylate) Brushes**
Zengin A., YİLDİRİM E., ÇAYKARA T.
JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY, vol.51, no.4, pp.954-962, 2013 (SCI-Expanded)

XIX. **Molecularly imprinted superparamagnetic iron oxide nanoparticles for rapid enrichment and separation of cholesterol**
Zengin A., YİLDİRİM E., TAMER U., ÇAYKARA T.
ANALYST, vol.138, no.23, pp.7238-7245, 2013 (SCI-Expanded)

XX. **Construction of myoglobin imprinted polymer films by grafting from silicon surface**
YİLDİRİM E., Turan E., ÇAYKARA T.
JOURNAL OF MATERIALS CHEMISTRY, vol.22, no.2, pp.636-642, 2012 (SCI-Expanded)

XXI. **Myoglobin adsorption onto poly(glycidyl methacrylate) microbeads with surface functionalized iminodiacetic acid**
ÇETE S., Turan E., YİLDİRİM E., ÇAYKARA T.

MATERIALS SCIENCE & ENGINEERING C-BIOMIMETIC AND SUPRAMOLECULAR SYSTEMS, vol.29, no.1, pp.20-24, 2009 (SCI-Expanded)

Articles Published in Other Journals

I. **Effects of Tooth Brushing and MouthWashing on Leaching Bisphenol A Levels From an Orthodontic Adhesive: An In Vitro Study**
Arslan B., Yildirim E., Bodur O. C., Baloş Tuncer B., Ulusoy M. Ç., Tuncer C.
TURKISH JOURNAL OF ORTHODONTICS, vol.35, no.1, pp.27-32, 2022 (ESCI)

II. **Chemical Profiling and Wetting Behaviors of Endemic Salvia absconditiflora Greuter & Burdet (Lamiaceae) Collected from Gypsum Areas**
Kayabas A., YİLDİRİM E.
European Journal of Biology, vol.81, no.1, pp.1-10, 2022 (Scopus)

III. **Biochemical Fingerprints of Some Endemic Plants Growing in Gypsum Soils: Attenuated Total Reflection-Fourier Transform Infrared (ATR-FTIR) Spectroscopic Study**
YİLDİRİM E., KAYABAŞ A.
European Journal of Biology, vol.80, no.2, pp.97-106, 2021 (Peer-Reviewed Journal)

IV. **Synthesis and Characterization of Poly (2-hydroxyethyl methacrylate) Homopolymer at Room Temperature via Reversible Addition-Fragmentation Chain Transfer (RAFT) Polymerization Technique**
YİLDİRİM E.
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.33, no.1, pp.22-29, 2020 (ESCI)

V. **Preparation of Poly(sodium-4-styrenesulphonate) Doped Polypyrrole Film on Platinum Electrode and its Use in Determination of Hydrogen Peroxide**
ÇETE S., Ozyurt M., YİLDİRİM E.
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.30, no.4, pp.104-112, 2017 (ESCI)

Refereed Congress / Symposium Publications in Proceedings

I. **İmplant Yüzeylerde PET-RAFT Tekniği ile PDEGMA Fırçaların Sentezi ve Karakterizasyonu**
Yildirim E., Solmaz S., Özkan Hüküm K., Çaykara T.
Uluslararası Katılımlı VIII. Polimer Bilim ve Teknoloji Kongresi, Malatya, Turkey, 20 - 23 June 2022, pp.33

II. **Polymer Brush Synthesis with Functional End Groups Using Interface-mediated RAFT Techniques for Cell-Surface Interaction Studies**
Yildirim E., Choi H., Schulte A., Schönherr H.
POLYCHAR-2022, Siegen, Germany, 23 - 25 May 2022, vol.0, no.0, pp.29

III. **Compositional features of different plant parts of the local endemic Helianthemum germanicopolitanum Bornm. (Cistaceae) characterized by ATR-FTIR technique**
KAYABAŞ A., YİLDİRİM E.
3rd International Eurasian Conference on Science, Engineering and Technology, Ankara, Turkey, 15 - 17 December 2021

IV. **Comparison of ATR-FTIR spectra on two endemic species of Asperula L. (Rubiaceae) growing at the same substrate in Turkey**
KAYABAŞ A., YİLDİRİM E.
3rd International Symposium on Biodiversity Research, Turkey, 20 - 23 October 2021

V. **Titanyumdioksit kaplıcam yüzeylerde poli (glisidilmetakrilat) fırçaların sentezive karakterizasyonu**
YİLDİRİM E.
32. Ulusal Kimya Kongresi, Turkey, 17 - 19 September 2020

VI. **Synthesis of Poly (2-[2-Methoxyethoxy] ethyl methacrylate) brushes on titanium dioxide surfaces**

YİLDİRİM E.
3rd International Eurasian Conference onBiological and Chemical Sciences(EurasianBioChem 2020), 19 - 20 March 2020

VII. **Ortodontik Yapıştırıcıdan Salınan Bisfenol A'nın İn-vitro Olarak Değerlendirilmesi.**
Arslan Avan B., YİLDİRİM E., BODUR O. C., BALOŞ TUNCER B., ULUSOY M. Ç., TUNCER C.
Erciyes Üniversitesi Uluslararası Diş Hekimliği Kongresi, Kayseri, Turkey, 26 February 2020

VIII. **A computational study of mechanism of the hydrogenative C–C coupling of alkynes and imines**
YİLDİRİM E.
International Eurasian Conference on Science, Engineering and Technology, 22 - 23 November 2018, pp.632-636

IX. **Preparation of poly (2-Hydroxyethyl Methacrylate) brushes via Interface-Mediated Degenerative ElectronTransfer Reversible Addition Fragmentation Chain Transfer Polymerization (IMDET-RAFT) Technique**
YİLDİRİM E.
14th NANOSCIENCE ANDNANOTECHNOLOGY CONFERENCE, Turkey, 22 - 25 September 2018, pp.105

X. **Silisyum Disk Yüzeyine Kovalent Bağlı Poli N 2 hidroksipropil metakrilamit g poli laktik asit Şişe Tipi Polimerik Fırça Sentezi**
ÖZKAN K., YİLDİRİM E., EVCİ M., ÇAYKARA T.
6. ULUSAL POLİMER BİLİMİ VE TEKNOLOJİ KONGRESİ, Turkey, 4 - 07 September 2016

XI. **Yüzeyde Başlatılan Tek Elektron Aktarımlı Tersinir Katılma Ayrılma Zincir Transfer Radikal SET RAFT Polimerizasyonuyla Akrilamit Bazlı Polimerik Fırçaların Sentezi ve Kinetik Analizi**
MADEN F., YİLDİRİM E., ÇAYKARA T.
6. ULUSAL POLİMER BİLİM VE TEKNOLOJİ KONGRESİ, Turkey, 4 - 07 September 2016

XII. **YÜZEYDE BAŞLATILAN TEK ELEKTRON AKTARIMLI TERSİNİR KATILMAAYRILMA ZİNCİR TRANSFER RADİKAL (SET-RAFT) POLİMERİZASYONUİLE POLİ(2-HİDROKSİ ETİL AKRİLAMİT) FIRÇALARIN SENTEZİ**
maden f., YİLDİRİM E., ÇAYKARA T.
27. Ulusal Kimya Kongresi, Turkey, 23 - 28 August 2015

XIII. **ARA YÜZEY VASITALI TERSİNİR AYRILMA-KATILMA ZİNCİR TRANSFER(RAFT) POLİMERİZASYONU TEKNİĞİ İLE ŞİŞE TİPİ POLİMER FIRÇASENTEZİ**
Özkan Hüküm K., Yildirim E., Çaykara T.
27. Ulusal Kimya Kongresi, Çanakkale, Turkey, 23 - 28 August 2015

XIV. **Interface Mediated RAFT Polymerization of N 2 Hydroxypropyl Methacrylamide from Silicon Surface**
ÇAYKARA T., YİLDİRİM E.
The 11th International Conference on Advanced Polymers via Macromolecular Engineering (APME 2015), 18 - 22 October 2015

XV. **Synthesis of poly N hydroxyethylacrylamide brushes via surface initiated SET RAFT polymerization**
YİLDİRİM E., ÇAYKARA T.
8TH ECNP INTERNATIONAL CONFERENCE ON NANOSTRUCTURED POLYMERS AND NANOCOMPOSITES, 16 - 19 September 2014

XVI. **Preparation of poly n 2 hydroxypropyl methacrylamide g poly lactic acid bottlebrushes via surface mediated RAFT polymerization**
YİLDİRİM E., ÇAYKARA T.
44th World Chemistry Congress-IUPAC, 11 - 16 August 2013

XVII. **Kolestrol Baskılanmış Manyetik Nanopartiküller**
YİLDİRİM E., ÇAYKARA T.
26. Ulusal Kimya Kongresi, Muğla, Turkey, 1 - 06 October 2012

XVIII. **Yüzeyde Başlatılan RAFT Polimerizasyonu ile Sıcaklık Duyarlı Polimerik Fırçaların Hazırlanması ve Karakterizasyonu**
ZENGİN A., YİLDİRİM E., ÇAYKARA T.
IV. Polimer Bilim ve Teknoloji Kongresi, Çanakkale, Turkey, 5 - 08 September 2012

XIX. **Yüzeyde Başlatılan RAFT Polimerizasyonu ile Polihidroksipropilmetakrilamid Fırçaların Sentezi ve**

Karakterizasyonu
YİLDİRİM E., ZENGİN A., ÇAYKARA T.
IV. Polimer Bilim ve Teknoloji Kongresi, Çanakkale, Turkey, 5 - 08 September 2012

XX. **Construction of myoglobin imprinted polymer films by grafting from silicon surface**
YİLDİRİM E., ÇAYKARA T.
IUPAC 9th APME, 5 - 08 September 2011

Supported Projects

DEMİREL G., CANDAN S., ASAR T., LİMAN G., TAMER U., DİŞLİ A., GÖKMEN U., YİLDİRİM E., ÖZKAN HÜKÜM K., ŞAFAK ASAR Y., Project Supported by Higher Education Institutions, Organik Yarı İletken Temelli Yapı Taşların Moleküler ve Morfolojik Mühendisliği: Yüzey Güçlendirilmiş Raman Spektroskopisine Yeni Bir Bakış, 2022 - Continues
Demirel G., YİLDİRİM E., TUBITAK Project, Sağlikli Yaşam İçin Yeni Nesil Biyomalzeme Teknolojileri Araştirma Aği, 2023 - 2027
YİLDİRİM E., TUBITAK Project, Yüzeyde Başlatilan Set Raft Polimerizasyonu İle Poli 2 Hidroksi Etil Akrilamit Firçalarin Sentezi Ve Kinetik Analizi, 2016 - 2017
Sarı N., Aydın S., Yildirim E., Balabanlı K. B., Project Supported by Higher Education Institutions, Fen Fakültesi Öğrenci Laboratuvarları Altyapı Projesi, 2015 - 2017

Metrics

Publication: 47
Citation (WoS): 221
Citation (Scopus): 180
H-Index (WoS): 9
H-Index (Scopus): 9

Scholarships

2219-TÜBİTAK YURT DIŞI DOKTORA SONRASI BURS PROGRAMI, TUBITAK, 2019 - 2020
2211 - Yurt İçi Lisansüstü Burs Programı, TUBITAK, 2008 - 2016

Non Academic Experience

Siegen University