

Prof. SEVİL SAVAŞKAN YILMAZ

Personal Information

Office Phone: [+90 462 377 3349](tel:+904623773349)

Office Phone: [+90 462 377 2506](tel:+904623772506)

Fax Phone: [+90 462 325 3195](tel:+904623253195)

Email: sevily@ktu.edu.tr

Web: <https://avesis.ktu.edu.tr//sevily>

Address: KTU, Fen Fakültesi, Kimya Bölümü, 61080, Trabzon

International Researcher IDs

ORCID: 0000-0002-1055-7799

Yoksis Researcher ID: 2466

Education Information

Doctorate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Turkey 1989 - 1994

Postgraduate, Karadeniz Technical University, Fen Fakültesi, Kimya, Turkey 1984 - 1987

Undergraduate, Karadeniz Technical University, Fen Fakültesi, Kimya, Turkey 1980 - 1984

Dissertations

Doctorate, Yeni İyon Değişiricilerin Sentezi ve İyon Değişim Özelliklerinin İncelenmesi, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Fizikokimya, 1994

Research Areas

Chemistry, Physical Chemistry, Polymeric Complexes, Polymeric Materials, Natural Sciences

Academic Titles / Tasks

Professor, Karadeniz Technical University, Fen Fakültesi, Kimya, 2006 - Continues

Associate Professor, Karadeniz Technical University, Fen Fakültesi, Kimya, 2000 - 2006

Assistant Professor, Karadeniz Technical University, Fen Fakültesi, Kimya, 1995 - 2005

Research Assistant, Karadeniz Technical University, Fen Fakültesi, Kimya, 1985 - 1995

Advising Theses

Savaşkan Yılmaz S., Synthesis, characterization of biocompatible polycaprolactone polymers, biocompatible polycaprolactone-poly methyl methacrylate block copolymers with a new initiator system, preparation of nanofibers of the polymers and investigation of drug delivery properties, Postgraduate, A.KÜÇÜK(Student), 2019

Savaşkan Yılmaz S., Preparation, implementation and investigation of mechanic properties of the new 16-arms, star, coil-HBPAE-b-PCL copolymers, 16-arms, star, coil-HBPAE-b-PCL-ordinary portland cement and 16-arms, star, coil-HBPAE-b-PCL-DI, poly urethane-ordinary portland cement composite samples, Postgraduate, E.TÜTÜNCÜ(Student), 2017

Savaşkan Yılmaz S., Atom transfer radical polymerization with biodegradable two-arm of poly(3-hydroxyundecenoat) -graft-polymethylmethacrylate (PHU-g-PMMA) and poly(3-hydroxyundecenoat) -graft-polyacrylonitrile(PHU-g-PAN) graft synthesis of copolymer, characterization, Postgraduate, S.AKKAYA(Student), 2015

Savaşkan Yılmaz S., Ring opening polymerization of ϵ -caprolactone with new starting systems and synthesis and characterization of a new macroinitiator, new macroinimer and new biocompatible block copolymers based methyl methacrylate with atom transfer radical polymerization, Postgraduate, A.İMRAN(Student), 2015

Savaşkan Yılmaz S., Evaluation of partial atomic charge calculation methods in terms of electrostatic potential calculation and optimum parameters of electronegativity equalization method (EEM)for partial atomic charge calculation, Doctorate, M.EMİRİK(Student), 2012

Savaşkan Yılmaz S., Synthesis of a novel superabsorbent polymer based on polyacrylic acid and investigation of its analytical properties, Postgraduate, E.ÇELİK(Student), 2011

Savaşkan Yılmaz S., Ring opening polymerization (rop) of γ -caprolactone and atom transfer radical polymerization (ATRP) of various monomers with new initiating systems, Doctorate, M.MISIR(Student), 2011

Savaşkan Yılmaz S., Synthesis of star-shaped block copolymers with poli(ethylene oxide) core and poly(tert-butyl acrylate) shell and investigation of their micellization properties, Doctorate, D.KUL(Student), 2006

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **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)
- II. **Synthesis and Characterization of ABA-Type Triblock Copolymers Using Novel Bifunctional PS, PMMA, and PCL Macroinitiators Bearing p -xylene-bis(2-mercaptoethoxy) Core**
Mısır M., SAVAŞKAN YILMAZ S., BİLGİN A.
POLYMERS, vol.15, no.18, 2023 (SCI-Expanded)
- III. **Thermal Conductivity and Phase-Change Properties of Boron Nitride-Lead Oxide Nanoparticle-Doped Polymer Nanocomposites**
Ortaç B., Mutlu S., Başkan T., Savaskan Yılmaz S., Yılmaz A. H., Erol B.
POLYMERS, vol.15, no.10, 2023 (SCI-Expanded)
- IV. **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 Yılmaz S., Yılmaz A. H.
NANOMATERIALS, vol.12, no.3, 2022 (SCI-Expanded)
- V. **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., Yılmaz S., Yılmaz A. H.
International Journal of Energy Research, vol.45, no.15, pp.20729-20762, 2021 (SCI-Expanded)
- VI. **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., Yılmaz S., Yılmaz A. H.
POLYMERS, vol.13, no.19, 2021 (SCI-Expanded)
- VII. **Synthesis, Characterization of a New Polyacrylic Acid Superabsorbent, Some Heavy Metal Ion Sorption, the Adsorption Isotherms, and Quantum Chemical Investigation**
SAVAŞKAN YILMAZ S., YILDIRIM N., Misir M., Misirlioglu Y., ÇELİK E.
MATERIALS, vol.13, no.19, 2020 (SCI-Expanded)
- VIII. **Synthesis of Novel Tetrahydrofuran-Epichlorohydrin[Poly(THF-b-ECH)] Macromonomeric Peroxy Initiators by Cationic Polymerization and the Quantum Chemically Investigation of Initiation System**

Effects,

SAVAŞKAN YILMAZ S.

JOURNAL OF POLYMER SCIENCE PART A-POLYMER CHEMISTRY, vol.48, pp.2896-2909, 2010 (SCI-Expanded)

- IX. **Synthesis of a novel crosslinked superabsorbent copolymer with diazacyclooctadecane crown ether and its sorption capability**
Yilmaz S., Kul D., Erdol M., OZDEMIR M., Abbasoglu R.
EUROPEAN POLYMER JOURNAL, vol.43, no.5, pp.1923-1932, 2007 (SCI-Expanded)
- X. **The theoretical conformation analyses of polyoxanorbornene chain**
Yilmaz S., Abbasoglu R.
INDIAN JOURNAL OF CHEMISTRY SECTION B-ORGANIC CHEMISTRY INCLUDING MEDICINAL CHEMISTRY, vol.45, no.11, pp.2491-2496, 2006 (SCI-Expanded)
- XI. **The quantum chemical investigation of the addition reactions of Br₂ to homocubylidenehomocubane and its derivatives**
Abbasoglu R., Yilmaz S.
INDIAN JOURNAL OF CHEMISTRY SECTION A-INORGANIC BIO-INORGANIC PHYSICAL THEORETICAL & ANALYTICAL CHEMISTRY, vol.45, no.10, pp.2179-2185, 2006 (SCI-Expanded)
- XII. **Theoretical study of facial selectivity and regioselectivity in electrophilic addition reaction of chlorine to exo-tricyclo[4.2.1.0(2,5)]nona-3,7-diene**
Abbasoglu R., Yilmaz S.
INDIAN JOURNAL OF CHEMISTRY SECTION B-ORGANIC CHEMISTRY INCLUDING MEDICINAL CHEMISTRY, vol.45, no.7, pp.1722-1728, 2006 (SCI-Expanded)
- XIII. **Ab initio and DFT study on the electrophilic addition of bromine to endo-tricyclo[3.2.1.0(2,4)]oct-6-ene**
Abbasoglu R., Yilmaz S.
JOURNAL OF MOLECULAR MODELING, vol.12, no.3, pp.290-296, 2006 (SCI-Expanded)
- XIV. **A quantum chemical investigation of electrophilic addition reaction of bromine to bicyclo[3.2.2]nona-6,8-diene**
Abbasoglu R., Yilmaz S., GOK Y.
INDIAN JOURNAL OF CHEMISTRY SECTION A-INORGANIC BIO-INORGANIC PHYSICAL THEORETICAL & ANALYTICAL CHEMISTRY, vol.44, no.2, pp.221-226, 2005 (SCI-Expanded)
- XV. **A quantum chemical investigation of electrophilic addition reaction of bromine to exo-tricyclo[3.2.1.0(2,4)]oct-6-ene**
Abbasoglu R., Yilmaz S.
INDIAN JOURNAL OF CHEMISTRY SECTION A-INORGANIC BIO-INORGANIC PHYSICAL THEORETICAL & ANALYTICAL CHEMISTRY, vol.43, no.12, pp.2497-2502, 2004 (SCI-Expanded)
- XVI. **A molecular mechanics and semiempirical molecular orbital study on the conformation of polynorbornene chains**
Yilmaz S., Abbasoglu R., HAZER B.
JOURNAL OF MOLECULAR MODELING, vol.9, no.4, pp.230-234, 2003 (SCI-Expanded)
- XVII. **Quantum chemical investigation of molecular complexes formed with bromine molecule of bicyclo[3.3.1]nonylidenebicyclo[3.3.1]nonane and its derivatives**
Abbasoglu R., Yilmaz S.
INDIAN JOURNAL OF CHEMISTRY SECTION A-INORGANIC BIO-INORGANIC PHYSICAL THEORETICAL & ANALYTICAL CHEMISTRY, vol.42, no.7, pp.1557-1563, 2003 (SCI-Expanded)
- XVIII. **A quantum-chemical investigation on the addition of chlorine to homobenzobarrelene**
Abbasoglu R., Yilmaz S.
INDIAN JOURNAL OF CHEMISTRY SECTION B-ORGANIC CHEMISTRY INCLUDING MEDICINAL CHEMISTRY, vol.41, no.12, pp.2625-2629, 2002 (SCI-Expanded)
- XIX. **Quantum-chemical investigation of electrophilic addition of bromine to norbornadiene**
Abbasoglu R., Yilmaz S.
INDIAN JOURNAL OF CHEMISTRY SECTION A-INORGANIC BIO-INORGANIC PHYSICAL THEORETICAL &

ANALYTICAL CHEMISTRY, vol.41, no.9, pp.1773-1776, 2002 (SCI-Expanded)

- XX. **The quantum chemical investigation of molecular complexes formed with bromine molecule of adamantylideneadamantan and its derivatives: electronic and steric effects**

Abbasoglu R., Yilmaz S.

JOURNAL OF MOLECULAR STRUCTURE-THEOCHEM, vol.589, pp.431-438, 2002 (SCI-Expanded)

- XXI. **A quantum-chemical study on the electrophilic addition of bromine to homobenzonorbornadiene**

Abbasoglu R., Yilmaz S.

INDIAN JOURNAL OF CHEMISTRY SECTION A-INORGANIC BIO-INORGANIC PHYSICAL THEORETICAL & ANALYTICAL CHEMISTRY, vol.40, no.10, pp.1029-1032, 2001 (SCI-Expanded)

Articles Published in Other Journals

- I. **Flame retardancy and mechanical properties of polypropylene composites containing intumescent flame retardants, preceramic polymers, and other additives**

Donmez S., Tuzenli Z., BAYRAM G., SAVAŞKAN YILMAZ S.

SPE Polymers, 2024 (Scopus)

Books & Book Chapters

- I. **Synthesis of Polyethylene-Based Materials, Ion Exchanger, Superabsorbent, Radiation Shielding and Laser Ablation Applications**

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

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

- II. **Boron and Boron Compounds in Radiation Shielding Materials**

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

in: Boron, Boron Compounds and Boron-Based Materials and Structures, Metin AYDIN, Editor, IntechOpen, Glasgow, pp.1-22, 2023

- III. **KİMYASAL KİNETİK**

SAVAŞKAN YILMAZ S.

in: GENEL KİMYA İLKELER VE İÇYÜZÜ KAVRAMA, Ali Rehber TÜRKER, Editor, PALME YAYINCILIK, Ankara, pp.561-610, 2013

Refereed Congress / Symposium Publications in Proceedings

- I. **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

- II. **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

- III. **PS-PEG Block Copolymers and PS-PEG-BN Nanocomposites-Gamma Ray Interaction**

Cinan Z. M., Başkan T., Mısırlıoğlu Y., Erol B., Savaşkan Yılmaz S., Şahin M., Yılmaz A. H.

Turkish Physical Society 36th International Physics Congress (TPS-36), Muğla, Turkey, 1 - 05 September 2020, pp.22

- IV. **The Gamma Ray Sorption of PS-PEG-OPC Composites and PS-PEG-OPC-BN Nanocomposites**
Erol B., Cinan Z. M., Başkan T., Mısırlıoğlu Y., Savaşkan Yılmaz S., Şahin M., Yılmaz A. H.
Turkish Physical Society 36th International Physics Congress (TPS-36), Muğla, Turkey, 1 - 05 September 2020, pp.21
- V. **The Gamma-Ray Attenuations of Hyperbranched PCL Copolymer-Plaster of PARIS Composites Sorbed As and Pb Atoms**
Mısırlıoğlu Y., SAVAŞKAN YILMAZ S., BAYRAM T., YILMAZ A. H., Şentürk Ş., Küçük A., CİNAN Z. M.
XI. International Conference on Nuclear Structure Properties (NSP-2018), Trabzon, Turkey, 12 - 14 September 2018
- VI. **Spectroscopic Analysis and DFT Calculation of poy(epichlorhydrin-b-ε-caprolactone) and poy(ε-caprolactone-b-tetrahydrofurane-b-ε-caprolactone) Block Copolymers**
ÇAKMAK İ., SAVAŞKAN YILMAZ S., MISIR M.
"III. International Turkish Congress on Molecular Spectroscopy (TURCMOS2017), 26 - 29 August 2017
- VII. **Synthesis, Characterization of a New Macroperoxy Initiator Based Polystyrene by ATRP: The Quantum Chemical Investigations**
EMİRİK M., Akçay A., SAVAŞKAN YILMAZ S.
6.Fiziksel Kimya Kongresi, Karabük, Turkey, 15 - 18 May 2017
- VIII. **PEO Merkez ve PtBA Kabuklu Yıldız Şekilli Blok Kopolimerlerin ATRP ile Sentezi ve Özellikleri**
KUL D., VAN RENTERGHEM L., SAVAŞKAN YILMAZ S., DU PREZ F.
I. Ulusal Polimer Bilim ve Teknoloji Kongresi ve Sergisi, Ankara, Turkey, 21 - 23 June 2006
- IX. **Star Shaped Block Copolymers with a PEO Core and a PtBA Shell**
KUL D., VAN RENTERGHEM L., SAVAŞKAN YILMAZ S., DU PREZ F.
BPG Annual Meeting, La Roche en Ardenne, Belgium, 19 - 20 May 2005
- X. **Metil Metakrilatın BBP CuCl Başlatıcı Sistemi ile Atom Transfer Radikal Polimerizasyonu ATRP**
ÖZTÜRK T., MISIR M., VOLGA C., KUL D., SAVAŞKAN YILMAZ S., HAZER B.
XVIII. Ulusal Kimya Kongresi, Kars, Turkey, 5 - 09 July 2004
- XI. **Katyonik Polimerizasyon ile Poli THF EPH İçeren Makroperoksi İnimerlerin Sentezi**
MISIR M., ÖZTÜRK T., VOLGA C., KUL D., SAVAŞKAN YILMAZ S., HAZER B.
XVIII. Ulusal Kimya Kongresi, Kars, Turkey, 5 - 09 July 2004
- XII. **Preparation of Sorbent Containing Polystyrene 2,3 : 8,9:14,15-Tribenzo-4,13-dithia-6,11-dioxa-1,7,10,16-tetraazahexadecane dimethacrylate and their sorption ability for Na+, Hg2+, Pb2+,**
SAVAŞKAN YILMAZ S., KUL D., KANTEKİN H., OCAK Ü., GÖK Y.
40th IUPAC World Polymer Congress, Paris France, Paris, France, 4 - 07 July 2004, pp.61
- XIII. **The Synthesis of a New Macromonomeric Peroxy Initiator via Cationic Polymerization**
SAVAŞKAN YILMAZ S., USTA C., KUL D., HAZER B.
International Symposium on Ionic Polymerization (IUPAC), Boston, United States Of America, 30 June - 04 July 2003
- XIV. **Poli THF İnimerlerin MMA ile Serbest Radikal Polimerizasyon Kinetiği**
VOLGA C., KUL D., SAVAŞKAN YILMAZ S., HAZER B.
XVI. Ulusal Kimya Kongresi, Konya, Turkey, 10 - 13 September 2002
- XV. **Mono t BuBP ve Tetrabromometil Benzoil Peroksit BDBP ZnCl2 Başlatıcı Sistemi ile Tetrahidrofuranın THF Katyonik Polimerizasyonu**
SAVAŞKAN YILMAZ S., HAZER B., VOLGA C., KUL D.
XIII. Ulusal Kimya Kongresi, Samsun, Turkey, 31 August - 04 September 1999

Supported Projects

ASLAN M., ÇUVALCI H., SAVAŞKAN YILMAZ S., ALVER Ü., TEMİZ A., GÜMRÜK R., BEYAZLI D., ÇANAKÇI A., USTAÖMER D.,
Project Supported by Higher Education Institutions, Geri dönüşüm plastiklerinden 3B yazıcı filamenti ile farklı disiplinlerde öğretim materyali tasarımı ve üretimi, 2022 - Continues

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

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

ASLAN M., GEDİKLİ H., AYDEMİR Ö., KORKMAZ Y. T., TÜZÜNER T., YAZAR U., ÇUVALCI H., GÜMRÜK R., PUL S., KÜÇÜKÖMEROĞLU T., et al., Project Supported by Higher Education Institutions, Medikal Ürün Gelişimi için Tasarım ve Üretim Süreçlerinin Kurulumu ve Geliştirilmesi, 2019 - 2021

SAVAŞKAN YILMAZ S., KAYGUSUZ K., KOLCUOĞLU Y., ALTIN İ., BACAKSIZ E., Project Supported by Higher Education Institutions, INTERNATIONAL CONFERENCE ON CHEMICAL ENERGY AND SEMICONDUCTOR PHOTOCHEMISTRY, 2019 - 2020

SAVAŞKAN YILMAZ S., Project Supported by Higher Education Institutions, Atom transfer reaksiyonu (ATRP) ile yıldız şekilli PEO merkezli ve PtBA kabuklu yıldız şekilli blok kopolimerlerin sentezi ve misel özelliklerinin araştırılması, 2006 - 2018

SAVAŞKAN YILMAZ S., Project Supported by Higher Education Institutions, Yeni süperabsorbent polimerlerin sentezi, fizikokimyasal, analitik ve biyolojik özelliklerinin incelenmesi, 2008 - 2011

Metrics

Publication: 41

Citation (WoS): 156

Citation (Scopus): 171

H-Index (WoS): 7

H-Index (Scopus): 8

Non Academic Experience

KOSGEB

KOSGEB