

Asst. Prof. SEMİHA DUYGU SÜTEKİN

Personal Information

Office Phone: [+90 312 297 6394](tel:+903122976394)

Fax Phone: [+90 312 297 7977](tel:+903122977977)

Email: duygu@hacettepe.edu.tr

Web: <https://avesis.hacettepe.edu.tr/duygu>

Address: Hacettepe Üniversitesi Beytepe Kampüsü Kimya Bölümü 06800 Çankaya Ankara

International Researcher IDs

ScholarID: RE-D5oAAAAJ

ORCID: 0000-0002-4605-1116

Publons / Web Of Science ResearcherID: HOF-7491-2023

ScopusID: 57193328712

Yoksis Researcher ID: 170165

Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Kimya Anabilimdalı, Turkey 2011 - 2016

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Kimya Anabilimdalı, Turkey 2008 - 2011

Undergraduate, Hacettepe University, Fen Fakültesi, Kimya Bölümü, Turkey 2003 - 2008

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Gama ışınları ile başlatılan raft polimerizasyonu ile poli(akrilik asit) (PAA) - poli(n-vinil pirolidon) (PVP) blok kopolimerlerinin sentezi ve nanojellerinin hazırlanması, Hacettepe University, Fen Bilimleri Enstitüsü, 2016

Postgraduate, Preparation of poly(vinyl pyrrolidone) nanogels by radiation-induced crosslinking of dilute aqueous solutions, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Kimya (YI) (Tezli), 2011

Research Areas

Chemistry, Natural Sciences

Academic Titles / Tasks

Research Assistant PhD, Hacettepe University, Fen Fakültesi, Kimya Bölümü, 2009 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Composite Track-Etched Membranes: Synthesis and Multifaced Applications**
Mashentseva A. A., SÜTEKİN S. D., Rakisheva S. R., BARSBAY M.
POLYMERS, no.18, 2024 (SCI-Expanded)
- II. **Macromolecular design of pH sensitive, folic acid functionalized double hydrophilic block copolymer nanogels as methotrexate carriers to breast cancer cells**
Ghaffarlou M., SÜTEKİN S. D., Hammamchi H., BARSBAY M.
Journal of Drug Delivery Science and Technology, vol.89, 2023 (SCI-Expanded)
- III. **Environmentally friendly loading of palladium nanoparticles on nanoporous PET track-etched membranes grafted by poly(1-vinyl-2-pyrrolidone) via RAFT polymerization for the photocatalytic degradation of metronidazole**
Parmanbek N., SÜTEKİN S. D., BARSBAY M., Aimanova N. A., Mashentseva A. A., Alimkhanova A. N., Zhumabayev A. M., Yanevich A., Almanov A. A., Zdorovets M. V.
RSC Advances, vol.13, no.27, pp.18700-18714, 2023 (SCI-Expanded)
- IV. **Additive-free synthesis of poly(n-vinyl pyrrolidone) and poly(n-isopropylacrylamide) nanogels with controlled sizes**
Sütekin S. D., KIRAÇ F., GUVEN O.
Turkish Journal of Chemistry, vol.47, no.2, pp.386-398, 2023 (SCI-Expanded)
- V. **Folic acid-modified biocompatible Pullulan/poly(acrylic acid) nanogels for targeted delivery to MCF-7 cancer cells**
Ghaffarlou M., SÜTEKİN S. D., KARACAOĞLU E., KARAHİSAR TURAN S., İnci Ö. G., Güven O., BARSBAY M.
European Journal of Pharmaceutics and Biopharmaceutics, vol.184, pp.189-201, 2023 (SCI-Expanded)
- VI. **Poly(acrylic acid)-b-Poly(vinylamine) Copolymer: Decoration with Silver Nanoparticles, Antibacterial Properties, Quorum Sensing Activity, and Cytotoxicity on Breast Cancer and Fibroblast Cell Lines**
Ghaffarlou M., SÜTEKİN S. D., Hammamchi H., İlk S., Guven O., BARSBAY M.
ACS APPLIED POLYMER MATERIALS, vol.4, no.10, pp.7268-7281, 2022 (SCI-Expanded)
- VII. **Hybrid PET Track-Etched Membranes Grafted by Well-Defined Poly(2-(dimethylamino)ethyl methacrylate) Brushes and Loaded with Silver Nanoparticles for the Removal of As(III)**
Parmanbek N., Sutekin D. S., BARSBAY M., Mashentseva A. A., Zheltov D. A., Aimanova N. A., Jakupova Z. Y., Zdorovets M.
POLYMERS, vol.14, no.19, 2022 (SCI-Expanded)
- VIII. **Poly(vinyl amine) microparticles derived from N-Vinylformamide and their versatile use**
Demirci S., SÜTEKİN S. D., Kurt S. B., Guven O., ŞAHİNER N.
POLYMER BULLETIN, vol.79, no.9, pp.7729-7751, 2022 (SCI-Expanded)
- IX. **P(HMA-co-ATU) hydrogel synthesis via gamma radiation and its use for in situ metal nanoparticle preparation and as catalyst in 4-nitrophenol reduction**
Güven O., Demirci S., SÜTEKİN S. D., Ari B., ŞAHİNER N.
Radiation Physics and Chemistry, vol.198, 2022 (SCI-Expanded)
- X. **Thiourea-Isocyanate-Based Covalent Organic Frameworks with Tunable Surface Charge and Surface Area for Methylene Blue and Methyl Orange Removal from Aqueous Media**
Suner S. S., Demirci S., Sutekin D. S., YILMAZ S., ŞAHİNER N.
MICROMACHINES, vol.13, no.6, 2022 (SCI-Expanded)
- XI. **Biocompatible poly(galacturonic acid) micro/nanogels with controllable degradation via tunable chemical crosslinking**
SUNER S. C., Ari B., SÜTEKİN S. D., ŞAHİNER N.
International Journal of Biological Macromolecules, vol.201, pp.351-363, 2022 (SCI-Expanded)
- XII. **Tunable fluorescent and antimicrobial properties of poly(vinyl amine) affected by the acidic or basic hydrolysis of poly(N-vinylformamide)**
SÜTEKİN S. D., Demirci S., Kurt S. B., Guven O., ŞAHİNER N.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.138, no.42, 2021 (SCI-Expanded)
- XIII. **Preparation of poly(tert-butyl acrylate)-poly(acrylic acid) amphiphilic copolymers via radiation-**

induced reversible addition-fragmentation chain transfer mediated polymerization of tert-butyl acrylate

SÜTEKİN S. D., Guven O.

POLYMER INTERNATIONAL, vol.69, no.8, pp.693-701, 2020 (SCI-Expanded)

- XIV. **Effect of brush length of stabilizing grafted matrix on size and catalytic activity of metal nanoparticles**
BARSBAY M., Ozgur T. C., SÜTEKİN S. D., Guven O.
EUROPEAN POLYMER JOURNAL, vol.134, 2020 (SCI-Expanded)
- XV. **Application of radiation for the synthesis of poly(n-vinyl pyrrolidone) nanogels with controlled sizes from aqueous solutions**
Duygu Sütেকin S. D., Güven O.
Applied Radiation and Isotopes, vol.145, pp.161-169, 2019 (SCI-Expanded)
- XVI. **Preparation of multifunctional poly(acrylic acid)-poly(ethylene oxide) nanogels from their interpolymer complexes by radiation-induced intramolecular crosslinking**
Rattanawongwiboon T., Ghaffarlou M., SÜTEKİN S. D., Pasanphan W., Güven O.
Colloid and Polymer Science, vol.296, no.9, pp.1599-1608, 2018 (SCI-Expanded)
- XVII. **Controlling of free radical copolymerization of styrene and maleic anhydride via RAFT process for the preparation of acetaminophen drug conjugates**
SÜTEKİN S. D., Atıcı A. B., Güven O., Hoffman A. S.
Radiation Physics and Chemistry, vol.148, pp.5-12, 2018 (SCI-Expanded)
- XVIII. **Preparation of nanogels by radiation-induced cross-linking of interpolymer complexes of poly(acrylic acid) with poly(vinyl pyrrolidone) in aqueous medium**
Ghaffarlou M., SÜTEKİN S. D., Güven O.
Radiation Physics and Chemistry, vol.142, pp.130-136, 2018 (SCI-Expanded)
- XIX. **Radiation-induced controlled polymerization of acrylic acid by RAFT and RAFT-MADIX methods in protic solvents**
SÜTEKİN S. D., Güven O.
Radiation Physics and Chemistry, vol.142, pp.82-87, 2018 (SCI-Expanded)

Articles Published in Other Journals

- I. **Poly(Vinylamine) Derived N-Doped C-Dots with Antimicrobial and Antibiofilm Activities**
SÜTEKİN S. D., ŞAHİNER M., Suner S. S., Demirci S., Guven O., ŞAHİNER N.
C-JOURNAL OF CARBON RESEARCH, vol.7, no.2, 2021 (ESCI)
- II. **Polymeric Composites Based on Carboxymethyl Cellulose Cryogel and Conductive Polymers: Synthesis and Characterization**
Demirci S., SÜTEKİN S. D., ŞAHİNER N.
JOURNAL OF COMPOSITES SCIENCE, vol.4, no.2, 2020 (ESCI)

Books & Book Chapters

- I. **Nanogel Synthesis by Irradiation of Aqueous Polymer Solutions**
SÜTEKİN S. D., GÜVEN O., ŞAHİNER N.
in: Emerging Technologies for Nanoparticle Manufacturing, Patel Jayvadan K., Pathak Yashwant V., Editor, Springer, Cham, pp.167-202, 2021
- II. **Surface and Bulk Nanostructuring of Polymers by Radiation Engineering for Biomedical Applications**
Olgun G., BARSBAY M., AKBULUT SÖYLEMEZ M., SÜTEKİN S. D.
in: Nanoscale Radiation Engineering of Advanced Materials for Biomedical Applications, , Editor, IAEA, Viyana, pp.189-199, 2015

Refereed Congress / Symposium Publications in Proceedings

- I. **Modification of Silica Particles with Poly(vinyl pyrrolidone) (PVP) in a Controlled-Manner by RAFT Mediated Graft Polymerization**
BARSBAY M., Çaylan T., SÜTEKİN S. D., Güven O.
2nd International Conference on Civil and Environmental Engineering (Cappadocia-2017), Kapadokya, Turkey, 8 - 10 May 2017
- II. **Amphiphilic Block Copolymer Synthesis by RAFT-mediated Radiation-induced Polymerization, Invited Lecture**
Sütekin S. D., Güven O.
The 12th meeting of the "Ionizing radiation and polymers" symposium, IRaP 2016, Alpes-De-Haute-Provence, France, 25 - 30 September 2016, pp.1-2
- III. **PREPARATION OF POLY ACRYLIC ACID POLY ETHYLENE OXIDE NANOGELS FROM THEIR INTERPOLYMER COMPLEXES BY RADIATION INDUCED CROSSLINKING**
Rattanawongwiboon T., Pasanphan W., Ghaffarlou M. R., SÜTEKİN S. D., Güven O.
13th "TIHANY" SYMPOSIUM ON RADIATION CHEMISTRY, Balatonalmadi, Hungary, 29 August - 03 September 2015
- IV. **RADIATION INDUCED POLYMERIZATION OF N VINYLFORMAMIDE IN THE PRESENCE AND ABSENCE OF RAFT AGENT**
Rattanawongwiboon T., Pasanphan W., SÜTEKİN S. D., Güven O.
13th "TIHANY" SYMPOSIUM ON RADIATION CHEMISTRY, Balatonalmadi, Hungary, 29 August - 03 September 2015
- V. **CONTROLLING OF HOMOPOLYMERIZATION OF ACRYLIC ACID AND T BUTYL ACRYLATE BY INITIATED RAFT TECHNIQUE**
SÜTEKİN S. D., Güven O.
13th "TIHANY" SYMPOSIUM ON RADIATION CHEMISTRY, Balatonalmadi, Hungary, 29 August - 03 September 2015
- VI. **Controlling of Radiation induced Free Radical Homo and Block Copolymerization of N Vinyl Pyrrolidone and t Butyl Acrylate by RAFT Technique**
Güven O., SÜTEKİN S. D.
15th International Congress of Radiation Research (ICRR 2015), Kyoto, Japan, 25 - 29 May 2015

Supported Projects

- ŞAHAL G., DÖNMEZ H. G., SÜTEKİN S. D., KARAHİSAR TURAN S., SEYİS BİLKAY I., GÜVEN O., TANER A., Project Supported by Higher Education Institutions, Bitkisel madde içerikli hidrojel ve mikrobiyal selülozların antimikrobiyal ve antibiyofilm etkileri ile sitotoksik potansiyellerinin araştırılması, 2020 - 2023
- BARSBAY M., SÜTEKİN S. D., Çaylan T., Project Supported by Higher Education Institutions, Radyasyon başlatıcılı RAFT aşılı-polimerizasyonu tekniğiyle Poli(N-izopropilakrilamit) (PNIPAAm) aşılınmış Polistiren (PS) yüzeylerin (PS-g-PNIPAAm) sentezi ve sıcaklık duyarlı davranışlarının tespiti, 2016 - 2017
- SÜTEKİN S. D., Project Supported by Higher Education Institutions, RAFT Vasıtalı Radyasyon Başlatıcılı Polimerizasyon ile Amfifilik Blok Kopolimer Sentezi, 2016 - 2016
- SÜTEKİN S. D., Project Supported by Higher Education Institutions, Akriklik Asit ve t-Bütül Akriklatın Gama Başlatıcılı Raft Yöntemi ile Kontrollü Homopolimerizasyonu, 2015 - 2015

Metrics

- Publication: 30
Citation (WoS): 98
Citation (Scopus): 115
H-Index (WoS): 6
H-Index (Scopus): 6