

# Prof. ALİ GÜNER

## Personal Information

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## Education Information

Postgraduate, Hacettepe University, Fen Fakültesi, Kimya/Polimer, Turkey 1972 - 1978

## Foreign Languages

English, B2 Upper Intermediate

## Research Areas

Chemistry, Natural Sciences

## Academic Titles / Tasks

Professor, Hacettepe University, Fen Fakültesi, Kimya Bölümü, 2001 - Continues

Associate Professor, Hacettepe University, Fen Fakültesi, Kimya Bölümü, 1994 - 2001

Assistant Professor, Hacettepe University, Fen Fakültesi, Kimya Bölümü, 1990 - 1994

## Academic and Administrative Experience

Hacettepe Üniversitesi, Fen Fakültesi, Kimya Bölümü, 2006 - 2009

Hacettepe Üniversitesi, Fen Fakültesi, Kimya Bölümü, 1997 - 2003

## Advising Theses

GÜNER A., Doksorubisin ve 5-florourasil'in kimyasal ilgi profilleri, moleküler baskılanması, nanopartiküllerin hazırlanması, karakterizasyonu ve ilaç salım davranışları, Doctorate, L.TALAVAT(Student), 2017

GÜNER A., Polietilenoksit (PEO) ve polivinilpirolidon (PVP)'un kimyasal ilgi profilleri ve karışabilirlikleri, Postgraduate, M.KOÇ(Student), 2016

GÜNER A., Mikotoksinlerin, çözücü karışımları ve toksin bağlayıcılarla kimyasal ilgi ve çözünürlük profillerinin belirlenmesi, Postgraduate, N.ÇANKAYA(Student), 2011

GÜNER A., Synthesis and characterization of new polyfunctional polymers containing vinylphosphonic acid, Doctorate, S.KAVLAK(Student), 2009

GÜNER A., Algorithmic calculations, solution thermodynamics and spectroscopic investigation of poly(ethylene glycol)/solvent systems, Doctorate, C.ÖZDEMİR(Student), 2006

GÜNER A., Miscibility studies of some water soluble polymer blends, Postgraduate, D.KARS(Student), 2003

GÜNER A., Thermodynamics of dextran solutions, Postgraduate, E.ÇATIKER(Student), 1999

GÜNER A., Poli (vinilpirolidon) sulu çözeltilerinin çeşitli parametrelerine yapı bozucu maddelerin etkisi, Postgraduate, M.KARA(Student), 1997

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Thermodynamic computational calculations for preparation 5-fluorouracil magnetic molecularly imprinted polymers and their application in controlled drug release**  
TALAVAT L., GÜNER A.  
INORGANIC CHEMISTRY COMMUNICATIONS, vol.103, pp.119-127, 2019 (SCI-Expanded)
- II. **Preparation, characterization and dynamical mechanical properties of dextran-coated iron oxide nanoparticles (DIONPs)**  
KAPLAN CAN H., KAVLAK S., ParviziKhosroshahi S., GÜNER A.  
ARTIFICIAL CELLS NANOMEDICINE AND BIOTECHNOLOGY, vol.46, no.2, pp.421-431, 2018 (SCI-Expanded)
- III. **Experimental Approaches to Investigation of the Interaction in Between Anhydride Containing Copolymer and Poly N vinyl Pyrrolidone Blends**  
KAPLAN CAN H., KAVLAK S., GÜNER A.  
Polymers & Polymer Composites, vol.24, pp.213-224, 2016 (SCI-Expanded)
- IV. **Poly(HEMA)/Cyclodextrin-Based Hydrogels for Subconjunctival Delivery of Cyclosporin A**  
Basbag A. B., GÜMÜŞDERELİOĞLU M., Simsek M., GÜNER A.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.131, no.12, 2014 (SCI-Expanded)
- V. **Determining the influence of fibre post light transmission on polymerization depth and viscoelastic behaviour of dual-cured resin cement.**  
DOGAR A., Altintas S. C., KAVLAK S., GUNER A.  
International endodontic journal, vol.45, pp.1135-40, 2012 (SCI-Expanded)
- VI. **Functional terpolymers containing vinylphosphonic acid: The synthesis and characterization of poly(vinylphosphonic acid-co-styrene-co-maleic anhydride)**  
KAVLAK S., GÜNER A., RZAYEV Z. M. O.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.125, no.5, pp.3617-3629, 2012 (SCI-Expanded)
- VII. **Experimental Approaches to Adsorption-Desorption Dynamism of Human Serum Albumin (HSA) onto Crosslinked N,N '-Diethylaminoethyl (DEAE) Dextran Microbeads**  
KAPLAN CAN H., GÜNER A.  
JOURNAL OF MACROMOLECULAR SCIENCE PART A-PURE AND APPLIED CHEMISTRY, vol.49, no.11, pp.986-996, 2012 (SCI-Expanded)
- VIII. **Functional copolymer/organo-MMT nanoarchitectures. III. Dynamic mechanical behavior of poly(IA-co-BMA)-organo-MMT clay nanocomposites**  
RZAYEV Z. M. O., GÜNER A., SOYLEMEZ E. A., KAVLAK S.  
POLYMERS FOR ADVANCED TECHNOLOGIES, vol.22, no.9, pp.1349-1358, 2011 (SCI-Expanded)
- IX. **Functional Copolymer/Organo-MMT Nanoarchitectures. II. Dynamic Mechanical Behavior of Poly(MA-co-BMA)s-organo-MMT Clay Nanocomposites**  
RZAYEV Z. M. O., GÜNER A., SOYLEMEZ E. A., KAVLAK S.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.118, no.5, pp.2904-2913, 2010 (SCI-Expanded)
- X. **Solubility Profiles of Poly(ethylene glycol)/Solvent Systems. II. Comparison of Thermodynamic Parameters from Viscosity Measurements**  
DİNÇ C. Ö., KIBARER G., GÜNER A.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.117, no.2, pp.1100-1119, 2010 (SCI-Expanded)
- XI. **A New Approach for the Electrochemical Detection of Phenolic Compounds. Part I: Modification of Graphite Surface by Plasma Polymerization Technique and Characterization by Raman Spectroscopy**  
Gunaydin B., Sir N., KAVLAK S., GÜNER A., Mutlu M.  
FOOD AND BIOPROCESS TECHNOLOGY, vol.3, no.3, pp.473-479, 2010 (SCI-Expanded)

- XII. **The synthesis and characterization of functional poly(citraconic anhydride-co-styrene-co-vinylphosphonic acid)s**  
KAVLAK S., GÜNER A., Rzaev Z. M. O.  
POLYMER, vol.51, no.10, pp.2125-2132, 2010 (SCI-Expanded)
- XIII. **Investigation of Cytotoxic Effects of New Maleic Anhydride Binary and Ternary Copolymers on L929 Mouse Fibroblasts**  
KAPLAN CAN H., GÜRPINAR Ö. A., ONUR M. A., Rzaev Z. M. O., GÜNER A.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.115, no.3, pp.1366-1370, 2010 (SCI-Expanded)
- XIV. **In Vitro Release Kinetics of Bovine Serum Albumin from Highly Swellable Dextran Hydrogels**  
İMREN KOÇ D., GÜMÜŞDERELİOĞLU M., GÜNER A.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.115, no.2, pp.740-747, 2010 (SCI-Expanded)
- XV. **Spectral characterization of lysozyme adsorption on dye-affinity beads**  
Basar N., UZUN L., GÜNER A., DENİZLİ A.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.108, no.6, pp.3454-3461, 2008 (SCI-Expanded)
- XVI. **Solution dynamics of the dextran/crosslinking agent systems**  
Ozdemir C., Colak N., Guner A.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.105, no.3, pp.1177-1187, 2007 (SCI-Expanded)
- XVII. **Miscibility of dextran and poly(ethylene glycol) in solid state: Effect of the solvent choice**  
Barsbay M., Guner A.  
CARBOHYDRATE POLYMERS, vol.69, no.2, pp.214-223, 2007 (SCI-Expanded)
- XVIII. **Synthesis and characterization of dextran hydrogels prepared with chlor- and nitrogen-containing crosslinkers**  
Imren D., Gumusderelioglu M., Guner A.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.102, no.5, pp.4213-4221, 2006 (SCI-Expanded)
- XIX. **Experimental and theoretical approaches to investigating the miscibility of anhydride-containing copolymers and dextran**  
CAN H. K., Barsbay M., Guner A., RZAEV Z. M. O.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.102, no.3, pp.2132-2141, 2006 (SCI-Expanded)
- XX. **A thermodynamic study of the binding of human serum albumin onto N,N'-diethylaminoethyl dextran microbeads**  
Can H., Guner A.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.101, no.6, pp.3942-3947, 2006 (SCI-Expanded)
- XXI. **Solution thermodynamics of poly(ethylene glycol)/water systems**  
Ozdemir C., Guner A.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.101, no.1, pp.203-216, 2006 (SCI-Expanded)
- XXII. **Miscibility of dextran and poly(ethylene glycol) in dilute aqueous solutions. II. Effect of temperature and composition**  
Barsbay M., GÜNER A.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.100, no.6, pp.4587-4594, 2006 (SCI-Expanded)
- XXIII. **Intermolecular interactions between bovine serum albumin and certain water-soluble polymers at various temperatures**  
KAVLAK S., GÜNER A.  
Journal of Applied Polymer Science, vol.100, no.2, pp.1554-1560, 2006 (SCI-Expanded)
- XXIV. **Design and properties of new functional water-soluble polymers of citraconic anhydride (CA) and related copolymers**  
Barsbay M., CAN H., RZAEV Z., GUNER A.  
POLYMER BULLETIN, vol.53, pp.305-314, 2005 (SCI-Expanded)
- XXV. **Synthesis of new hydrogels based on the macromolecular reaction of citraconic anhydride copolymers with gamma-aminopropyltriethoxysilane (APTS)**  
Barsbay M., CAN H., GUNER A., RZAEV Z.  
POLYMERS FOR ADVANCED TECHNOLOGIES, vol.16, no.1, pp.32-37, 2005 (SCI-Expanded)

- XXVI. **Synthesis of dextran dicarboxylic acid and investigation of its complexes with metal ions in aqueous solutions**  
Senoz H., GÜNER A., TUNOĞLU N.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.93, no.5, pp.2262-2265, 2004 (SCI-Expanded)
- XXVII. **Biodegradation of polyvinylchloride (PVC) by white rot fungi**  
Kirbas Z., Keskin N., Guner A.  
BULLETIN OF ENVIRONMENTAL CONTAMINATION AND TOXICOLOGY, vol.63, no.3, pp.335-342, 1999 (SCI-Expanded)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Preparation and characterization of magnetic molecular imprinted 5-Fluorouracil polymer nanoparticles based on algorithmic calculation (I)**  
Talavat L., GÜNER A.  
16th World nano Conference, 5 - 06 June 2017
- II. **Release of anti.cancer agent, Doxorubicin, from molecular imprinted nanoparticle polymer coated multiwalled carbon nanotubes, based on chemical affinity profiles (Hansen Method) II**  
Talavat L., GÜNER A.  
16th World nano Conference, 5 - 06 June 2017
- III. **Solid-State Characterization of Poly(ethylene glycol) Samples Prepared By Solvent Cast Technique**  
ÖZDEMİR DİNÇ C., GÜNER A.  
3rd International Conference on New Trends in Chemistry, Helsinki, Finland, 28 - 30 April 2017, pp.99
- IV. **Molecular Imprinting for Determination of Anti Cancer Drugs and Controlled Released Systems II**  
Talavat L., GÜNER A.  
2nd World Chemistry Conference, 8 - 10 August 2016
- V. **Chemical Affinity Profiles of Certain Effectively Used Anti Cancer Drugs in Controlled Released systems I**  
Talavat L., GÜNER A.  
International Conference on Dermal Drug Delivery by nanocarriers, 14 - 16 March 2016
- VI. **Synthesis and Dynamic Mechanical and Rheological Behaviors of Some Maleic Anhydride Functionalized Copolymer Layered Silicate Nanocomposites**  
KAVLAK S., UZGÖREN BARAN A., RZAYEV Z., GÜNER A.  
8th Nanoscience and Nanotechnology Conference, Ankara, Turkey, 25 - 29 June 2012
- VII. **Characterization and Miscibility Dynamics of Dextran-Poly(vinylpyrrolidone)-Water System**  
Mete D., Goksel C., GÜNER A.  
10th International Workshop on Polymer Reaction Engineering, Hamburg, Germany, 10 - 13 October 2010, vol.302, pp.257-265

## Supported Projects

GÜNER A., TALAVAT L., Project Supported by Higher Education Institutions, ETKİN KULLANILAN İKİ ANTI-KANSER İLACININ , DOXORUBICINE ve 5-FLUOROURACİL, MOLEKÜLER BASKILAMA ve KONTROLLÜ SALIM SİSTEMLERİNDEKİ KİMYASAL İLGİ PROFİLLERİ, 2014 - 2017

GÜNER A., Project Supported by Higher Education Institutions, Biouyumlu suda çözünebilir polimerlerin çözünme ve etkilşme dinamiği ve termodinamiği, 2010 - 2017

## Metrics

Publication: 34

Citation (WoS): 250

Citation (Scopus): 268

H-Index (WoS): 9

H-Index (Scopus): 9