

## Prof. MURAT ŐEN

### Personal Information

Office Phone: [+90 312 223 0521](tel:+903122230521)

Office Phone: [+90 312 297 7989](tel:+903122977989)

Fax Phone: [+90 312 299 2163](tel:+903122992163)

Email: [msen@hacettepe.edu.tr](mailto:msen@hacettepe.edu.tr)

Web: [http://www.polymer.hacettepe.edu.tr/webim/msen2web/murat\\_sen.htm](http://www.polymer.hacettepe.edu.tr/webim/msen2web/murat_sen.htm)

Address: Hacettepe Üniversitesi, Kimya Bölümü, 06800, Beytepe, Ankara

### Education Information

Doctorate, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Kimya Abd, Turkey 1988 - 1993

Post Graduate, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Kimya Abd, Turkey 1985 - 1988

Under Graduate, Hacettepe Üniversitesi, Mühendislik Fakültesi, Kimya Bölümü, Turkey 1980 - 1985

### Foreign Languages

English, B2 Upper Intermediate

### Research Areas

Material science and engineering, Composites, Polymeric Materials, Nanomaterials, Cellulosic Materials, Chemistry, Physical Chemistry, Conductive Polymers, Characterization of Polymers, New Technologies in Polymer Chemistry, Polymeric Adsorbents, Polymeric Materials, Medical Applications of Polymers, Recycling of Polymers, Cellulose and its Derivatives, High Performance Polymers, Natural Sciences, Engineering and Technology

### Academic Titles / Tasks

Professor, Hacettepe Üniversitesi, Fen Fakültesi, Kimya Bölümü, 2007 - Continues

Associate Professor, Hacettepe Üniversitesi, Fen Fakültesi, Kimya Bölümü, 2002 - 2007

Assistant Professor, Hacettepe Üniversitesi, Fen Fakültesi, Kimya Bölümü, 1996 - 2002

Research Assistant, Hacettepe Üniversitesi, Fen Fakültesi, Kimya Bölümü, 1985 - 1996

### Professional Experience

Head of Department, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Polimer Bilimi Ve Teknolojisi (YI) (Tezli), 2014 - Continues

Head of Department, Hacettepe Üniversitesi, Fen Fakültesi, Kimya Bölümü, 2009 - 2018

Vice Dean, Hacettepe Üniversitesi, Fen Fakültesi, 2014 - 2015

### Courses

Polimerlerin Karakterizasyonu ve Analizi, Post Graduate, 2017 - 2018

Polimer Karakterizasyon Laboratuvarı, Post Graduate, 2017 - 2018

Polimer Kimyası I, Under Graduate, 2017 - 2018

## Advising Theses

Şen M., Doğal kauçuk esaslı atık lateks eldiven ve poli(etilen-ko-vinil asetat) kullanılarak yeni termoplastik elastomer kompozitlerin hazırlanması ve sönümlenme özelliklerinin incelenmesi, Post Graduate, S.AHİ(Student), 2019

Şen M., EPDM elastomerlerinin gerilme durulma davranışlarını kontrol eden parametrelerin belirlenmesi, Post Graduate, S.CANAN(Student), 2019

Şen M., Silikon sünger kauçuğun hazırlanması için optimum proses koşullarının belirlenmesi, Post Graduate, E.EREFİ(Student), 2018

Şen M., Silikon elastomerlerin durulma özelliklerini kontrol eden parametrelerin belirlenmesi, Post Graduate, M.PARLAK(Student), 2018

Şen M., Dİ (2-Etilhekzil) fitalat baskılı polimerlerin PE/PP dokumasız kumaşlara iyonlaştırıcı radyasyon kullanılarak aşılınması, Post Graduate, B.AYDEMİR(Student), 2018

ŞEN M., Silikon Elastomerlerin Durulma Özelliklerine Hızlandırıcı Tipinin ve Oranının Etkisi, Post Graduate, E.KAYMAZLAR(Student), 2018

ŞEN M., Yüksek yoğunluklu polietilen-hidroksiapatit (YYPE-HA) nanokompozit sistemlerinin hazırlanması ve karakterizasyonu, Post Graduate, E.KARACA(Student), 2017

ŞEN M., İyonlaştırıcı radyasyonla ksantan sakızı esaslı süper emici polimerlerin hazırlanması, Doctorate, H.HAYRABOLULU(Student), 2017

ŞEN M., Determination of the effect of accelerator type and accelerator/sulfur ratio on the vulcanization kinetics and aging properties of natural rubber/chloroprene based rubber compounds, Doctorate, F.AHMADZADEH(Student), 2017

ŞEN M., Epoksi-fonksiyonelli silikat içerikli polimer nanokompozitlerin sentezi ve karakterizasyonu, Post Graduate, K.ŞERİFE(Student), 2015

ŞEN M., Kitosanın radyasyonla bozunmasına deasetilasyon derecesinin etkisi, Post Graduate, P.TAŞKIN(Student), 2015

ŞEN M., Doğal kauçuk/kloropren esaslı silecek lastiği malzemelerinin hazırlanması ve karakterizasyonu, Post Graduate, E.DİKİCİER(Student), 2013

ŞEN M., Yakıt hücresi uygulamaları için stiren-(etilen-bütlen)-stiren (SEBS) esaslı kompozit polielektrolit membran geliştirilmesi, Doctorate, K.POLAT(Student), 2013

ŞEN M., Doğal kauçuk/bütadien kauçuk esaslı silecek lastiği malzemelerinin hazırlanması ve karakterizasyonu, Post Graduate, A.BABAPOUR(Student), 2013

ŞEN M., Akrilik asit sodyum tuzu / keçi boynuzu çekirdeği sakızı yarı iç içe geçmiş ağ yapılarının radyasyonla sentezi ve süper emici davranışlarının incelenmesi, Post Graduate, H.HAYRABOLULU(Student), 2011

ŞEN M., Hidrojellerde adsorplanan ve absorplanan suyun yapısının incelenmesi, Post Graduate, H.YÖNDEMLİ(Student), 2009

ŞEN M., Enhancement of compatibility of polyethylene/polyvinyl acetate blends by irradiation of polyethylene, Post Graduate, Z.YILMAZ(Student), 2007

Şen M., Investigation of gamma rays induced degradation mechanism of polysaccharides, Post Graduate, D.TOPRAK(Student), 2006

Şen M., Synthesis and characterization of macroporous poly(dimethylamino ethyl methacrylate) hydrogels by enhanced phase separation, Post Graduate, O.AĞUŞ(Student), 2005

Şen M., Preparation of poly(n-vinyl-2-pyrrolidone)/kappa-carrageenan hydrogels by ionizing radiation, Post Graduate, E.NAZAN(Student), 2003

Şen M., Ageing characteristics of ethylene-vinyl acetate copolymer and ethylene-vinyl acetate/ carbon black mixture, Post Graduate, M.ÇOPUROĞLU(Student), 2001

Şen M., Radiation synthesis and characterization of poly(N-vinyl 2-pyrrolidone/itaconic acid/ethylene glycol dimethacrylate) hydrogels and their use in the drug delivery systems, Post Graduate, A.YAKAR(Student), 2000

Şen M., Radiation synthesis and characterization of cationic poly (N,N-dimethylaminoethyl methacrylate/N-vinyl 2-

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Regulation of chondrocyte hypertrophy in an osteochondral interface mimicking gel matrix**  
Korpayev S., Toprak O., Kaygusuz G., ŞEN M., Orhan K., Karakeçili A.  
COLLOIDS AND SURFACES B-BIOINTERFACES, vol.193, 2020 (Journal Indexed in SCI)
- II. **Chitosan/collagen based biomimetic osteochondral tissue constructs: A growth factor-free approach**  
Korpayev S., Kaygusuz G., Şen M., Orhan K., Oto Ç., Karakeçili A.  
INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES, vol.156, pp.681-690, 2020 (Journal Indexed in SCI)
- III. **The effect of ionizing radiation on the mechanical properties of NBR elastomers reinforced by lignin**  
Şen M., Aksüt D., Karaağaç B.  
RADIATION PHYSICS AND CHEMISTRY, vol.168, 2020 (Journal Indexed in SCI)
- IV. **The effect of ionizing radiation on the temperature scanning stress relaxation properties of nitrile-butadiene rubber elastomers reinforced by lignin**  
Şen M., Aksüt D., Karaağaç B.  
RADIATION PHYSICS AND CHEMISTRY, vol.168, 2020 (Journal Indexed in SCI)
- V. **Synthesis and characterization of radiation cross-linked PVP hydrogels and investigation of its potential as an antileishmanial drug carrier**  
Ben Ammar N. E. , Essid R., Saied T., Şen M., Elkahoui S., Hamzaoui A. H.  
POLYMER BULLETIN, vol.77, pp.1343-1357, 2020 (Journal Indexed in SCI)
- VI. **Reducing the hydrocarbon gas diffusion and increasing the pressure-impact strength of fuel transfer pipelines for use in the automotive industry using radiation crosslinked polyamide 12**  
Hidroglu M., Aksüt D., Serce O., Karabulut H., Şen M.  
RADIATION PHYSICS AND CHEMISTRY, vol.159, pp.118-123, 2019 (Journal Indexed in SCI)
- VII. **Effect of selective infiltration etching on the bond strength between zirconia and resin luting agents**  
Tanis M. C. , Akay C., Şen M.  
JOURNAL OF ESTHETIC AND RESTORATIVE DENTISTRY, vol.31, pp.257-262, 2019 (Journal Indexed in SCI)
- VIII. **Effect of radiation on vinyl-methyl-polysiloxane and phenyl-vinyl-methyl-polysiloxane elastomers cured with different co-agents: Comparative study of mechanical and relaxation properties**  
Aksüt D., Demeter M., Vancea C., Şen M.  
RADIATION PHYSICS AND CHEMISTRY, vol.158, pp.87-93, 2019 (Journal Indexed in SCI)
- IX. **Strengthen adhesion between zirconia and resin cement using different surface modifications**  
Akay C., Tanis M. C. , Şen M., Kavaklı P.  
International Journal of Applied Ceramic Technology, vol.16, no.3, pp.917-922, 2019 (Journal Indexed in SCI Expanded)
- X. **Effect of radiation on mechanical properties of phenyl-vinyl-methyl-polysiloxane (PVMQ) elastomers cured with peroxide and Type I and Type II coagents**  
Aksüt D., Demeter M., Calma I., Şen M.  
RADIATION PHYSICS AND CHEMISTRY, vol.158, pp.148-152, 2019 (Journal Indexed in SCI)
- XI. **Mechanical characterization and ex vivo evaluation of anticancer and antiviral drug printed bioadhesive film for the treatment of cervical cancer**  
Varan C., Şen M., Sandler N., Aktaş Y., Bilensoy E.  
EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES, vol.130, pp.114-123, 2019 (Journal Indexed in SCI)
- XII. **Partially sulfonated styrene-(ethylene-butylene)-styrene copolymers: Nanostructures, bio and electro-active properties**  
Orujalipoor I., Polat K., Huang Y., İde S., Şen M., Jeng U., Ağçeli G., Cihangir N.  
Materials Chemistry and Physics, vol.225, pp.399-405, 2019 (Journal Indexed in SCI)
- XIII. **E-Beam Processing of Collagen-Poly(N-vinyl-2-pyrrolidone) Double-Network Superabsorbent**

### **Hydrogels: Structural and Rheological Investigations**

DEMETER M., CALINA I., VANCEA C., ŞEN M., KAYA M. G. A. , MANAILA E., DUMITRU M., MELTZER V.  
MACROMOLECULAR RESEARCH, vol.27, no.3, pp.255-267, 2019 (Journal Indexed in SCI)

- XIV. **Identification of temperature scanning stress relaxation behaviors of new grade ethylene propylene diene elastomers**  
Karaagac B., CENGİZ S. C. , Bayram T., ŞEN M.  
ADVANCES IN POLYMER TECHNOLOGY, vol.37, no.8, pp.3027-3037, 2018 (Journal Indexed in SCI)
- XV. **A comparative study between three different methods of hydrogel network characterization: effect of composition on the crosslinking properties using sol-gel, rheological and mechanical analyses**  
BEN AMMAR N. E. , SAIED T., BARBOUCHE M., HOSNI F., HAMZAOUİ A. H. , ŞEN M.  
POLYMER BULLETIN, vol.75, no.9, pp.3825-3841, 2018 (Journal Indexed in SCI)
- XVI. **Comparison of the Mechanical Properties of Platelet-Rich Fibrin and Ankaferd Blood Stopper-loaded Platelet-rich Fibrin**  
Aktaş A., Özer T., Şen M., Türk M., Karabulut E.  
NIGERIAN JOURNAL OF CLINICAL PRACTICE, vol.21, pp.1087-1092, 2018 (Journal Indexed in SCI)
- XVII. **In vitro shear bond strength between fluorinated zirconia ceramic and resin cements**  
Tanis M. C. , Akay C., Akcaboy T. C. , ŞEN M., KAVAKLI P., Sapmaz K.  
Journal of Advanced Prosthodontics, vol.10, no.3, pp.205-210, 2018 (Journal Indexed in SCI Expanded)
- XVIII. **Radiation induced degradation of xanthan gum in aqueous solution**  
Hayrabolulu H., DEMETER M., CUTRUBINIS M., Guven O., ŞEN M.  
RADIATION PHYSICS AND CHEMISTRY, vol.144, pp.189-193, 2018 (Journal Indexed in SCI)
- XIX. **Influence of nano alumina coating on the flexural bond strength between zirconia and resin cement**  
Akay C., TANIS M. C. , Mumcu E., Kilicarslan M. A. , ŞEN M.  
JOURNAL OF ADVANCED PROSTHODONTICS, vol.10, no.1, pp.43-49, 2018 (Journal Indexed in SCI)
- XX. **The Effect of Ascorbic Acid (Vitamin C) on Transepithelial Corneal Cross-Linking in Rabbits**  
KOC M., BOSTANCI B., DEMIREL O. O. , GENÇ F., TEKİN K., Koban Y., Dincel A. S. , ŞEN M., YILMAZBAS P.  
JOURNAL OF OCULAR PHARMACOLOGY AND THERAPEUTICS, vol.33, no.7, pp.525-529, 2017 (Journal Indexed in SCI)
- XXI. **Effects of accelerator type on stress relaxation behavior and network structure of aged natural rubber/chloroprene rubber vulcanizates**  
AZAR F. A. N. , ŞEN M.  
JOURNAL OF ELASTOMERS AND PLASTICS, vol.49, no.5, pp.381-396, 2017 (Journal Indexed in SCI)
- XXII. **Effects of Hot Chemical Etching and 10-Metacryloxydecyl Dihydrogen Phosphate (MDP) Monomer on the Bond Strength of Zirconia Ceramics to Resin-Based Cements**  
Akay C., TANIS M. C. , ŞEN M.  
JOURNAL OF PROSTHODONTICS-IMPLANT ESTHETIC AND RECONSTRUCTIVE DENTISTRY, vol.26, no.5, pp.419-423, 2017 (Journal Indexed in SCI)
- XXIII. **Preparation and characterization of a thermoplastic proton-exchange system based on SEBS and polypropylene blends**  
Polat K., ŞEN M.  
EXPRESS POLYMER LETTERS, vol.11, no.3, pp.209-218, 2017 (Journal Indexed in SCI)
- XXIV. **A polymeric nanocomposite system for potential adhesive applications in restorative dentistry**  
Çopuroğlu M., ŞEN M., KEYF F.  
JOURNAL OF ADHESION SCIENCE AND TECHNOLOGY, vol.31, no.6, pp.602-612, 2017 (Journal Indexed in SCI)
- XXV. **Design and optimization of novel paclitaxel-loaded folate-conjugated amphiphilic cyclodextrin nanoparticles**  
ERDOĞAR N., ESENDAĞLI G., Nielsen T. T. , ŞEN M., ÖNER L., BİLENSOY E.  
INTERNATIONAL JOURNAL OF PHARMACEUTICS, vol.509, pp.375-390, 2016 (Journal Indexed in SCI)
- XXVI. **Radiation induced degradation of xanthan gum in the solid state**  
ŞEN M., Hayrabolulu H., Taskin P., TORUN M., DEMETER M., CUTRUBINIS M., Guven O.  
RADIATION PHYSICS AND CHEMISTRY, vol.124, pp.225-229, 2016 (Journal Indexed in SCI)

- XXVII. **Synthesis and Characterization of a Zr-Containing Silicate-Based Epoxy-Functional Polymer Nanocomposite System**  
Çopuroğlu M., Şen M.  
POLYMER ENGINEERING AND SCIENCE, vol.55, pp.792-798, 2015 (Journal Indexed in SCI)
- XXVIII. **Nano and microstructures of SEBS/PP/wax blend membranes: SAXS and WAXS analyses**  
Polat K., Orujalpoor I., İde S., Şen M.  
JOURNAL OF POLYMER ENGINEERING, vol.35, pp.151-157, 2015 (Journal Indexed in SCI)
- XXIX. **The effect of environmental humidity on radiation-induced degradation of carrageenans**  
Şen M., Toprak D., Guven O.  
CARBOHYDRATE POLYMERS, vol.114, pp.546-552, 2014 (Journal Indexed in SCI)
- XXX. **Curing kinetics of styrene-(ethylene-butylene)-styrene (SEBS) copolymer by peroxides in the presence of co-agents**  
POLAT K., ŞEN M.  
JOURNAL OF POLYMER ENGINEERING, vol.34, no.9, pp.787-792, 2014 (Journal Indexed in SCI)
- XXXI. **Light-Curing of a Sol-Gel-Derived Silicate-Based Epoxy-Functional Polymer Nanocomposite Material System**  
Copuroglu M., Şen M.  
POLYMER COMPOSITES, vol.35, pp.1879-1887, 2014 (Journal Indexed in SCI)
- XXXII. **Synthesis of carboxylated locust bean gum hydrogels by ionizing radiation**  
Hayrabolulu H., Şen M., Celik G., Kavakli P.  
Radiation Physics and Chemistry, vol.94, no.1, pp.240-244, 2014 (Journal Indexed in SCI Expanded)
- XXXIII. **The effect of degree of deacetylation on the radiation induced degradation of chitosan**  
Taskin P., Canisag H., Şen M.  
RADIATION PHYSICS AND CHEMISTRY, vol.94, pp.236-239, 2014 (Journal Indexed in SCI)
- XXXIV. **Identification of relationship between the synthesis/process parameters and properties of a sol-gel-derived polymer nanocomposite system**  
Copuroglu M., Şen M.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.129, pp.3704-3709, 2013 (Journal Indexed in SCI)
- XXXV. **A comprehensive study on the size exclusion chromatography of kappa-carrageenan for the identification of after-peaks**  
Şen M., Yolacan B., Guven O.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.127, pp.494-499, 2013 (Journal Indexed in SCI)
- XXXVI. **Ultraviolet-radiation-curing of an organically modified silicate-based material system with epoxy functionality, and the role of titanium**  
Copuroglu M., Şen M.  
RADIATION PHYSICS AND CHEMISTRY, vol.81, pp.1324-1327, 2012 (Journal Indexed in SCI)
- XXXVII. **Radiation synthesis and characterisation of the network structure of natural/synthetic double-network superabsorbent polymers**  
Şen M., Hayrabolulu H.  
RADIATION PHYSICS AND CHEMISTRY, vol.81, pp.1378-1382, 2012 (Journal Indexed in SCI)
- XXXVIII. **The antioxidant properties of oligo sodium alginates prepared by radiation-induced degradation in aqueous and hydrogen peroxide solutions**  
Şen M., Atik H.  
RADIATION PHYSICS AND CHEMISTRY, vol.81, pp.816-822, 2012 (Journal Indexed in SCI)
- XXXIX. **Swelling and mechanical properties of superabsorbent hydrogels based on Tara gum/acrylic acid synthesized by gamma radiation**  
Abd Alla S. G. , Şen M., El-Naggar A. W. M.  
CARBOHYDRATE POLYMERS, vol.89, pp.478-485, 2012 (Journal Indexed in SCI)
- XL. **EFFECTS OF CRYOGENIC TREATMENT ON THE PROPERTIES OF TYRE PRODUCTION WASTES**  
KARAAĞAÇ B., Deniz V., ŞEN M.  
CHEMICKE LISTY, vol.105, no.5, pp.429-434, 2011 (Journal Indexed in SCI)

- XLI. ELECTROCHEMICAL PREPARATION OF POLY(VINYLFERROCENIUM)-PERCHLORATE-POLYANILINE COMPOSITE-MODIFIED PLATINIUM ELECTRODE IN METHYLENE CHLORIDE**  
Kavanoz M., ŞEN M., Pekmez N. O.  
COLLECTION OF CZECHOSLOVAK CHEMICAL COMMUNICATIONS, vol.76, no.12, pp.1855-1877, 2011 (Journal Indexed in SCI)
- XLII. Effects of molecular weight and ratio of guluronic acid to mannuronic acid on the antioxidant properties of sodium alginate fractions prepared by radiation-induced degradation**  
Sen M.  
APPLIED RADIATION AND ISOTOPES, vol.69, pp.126-129, 2011 (Journal Indexed in SCI)
- XLIII. Determination of critical gelation conditions of kappa-carrageenan by viscosimetric and FT-IR analyses**  
Şen M., Erboz E. N.  
FOOD RESEARCH INTERNATIONAL, vol.43, pp.1361-1364, 2010 (Journal Indexed in SCI)
- XLIV. Effect of G/M ratio on the radiation-induced degradation of sodium alginate**  
Şen M., Rendeovski S., Kavakli P., Sepehrianazar A.  
Radiation Physics and Chemistry, vol.79, no.3, pp.279-282, 2010 (Journal Indexed in SCI Expanded)
- XLV. Effects of gamma and electron beam irradiation on the properties of calendered cord fabrics**  
Aytaç A., Deniz V., Şen M., Hegazy E., Guven O.  
RADIATION PHYSICS AND CHEMISTRY, vol.79, pp.297-300, 2010 (Journal Indexed in SCI)
- XLVI. Intravesical cationic nanoparticles of chitosan and polycaprolactone for the delivery of Mitomycin C to bladder tumors**  
Bilensoy E., Sarisozen C., Esendagli G., Doğan A., Aktas Y., Şen M., Mungan N. A.  
INTERNATIONAL JOURNAL OF PHARMACEUTICS, vol.371, pp.170-176, 2009 (Journal Indexed in SCI)
- XLVII. Development of nonsurfactant cyclodextrin nanoparticles loaded with anticancer drug paclitaxel**  
Bilensoy E., Gurkaynak O., Ertan M., Şen M., Hincal A. A.  
JOURNAL OF PHARMACEUTICAL SCIENCES, vol.97, pp.1519-1529, 2008 (Journal Indexed in SCI)
- XLVIII. Adsorption of Apollo reactive dyes on poly(N,N dimethylamino ethylmethacrylate) hydrogels**  
Solpan D., Şen M., Kolge Z., Guven G.  
RADIATION PHYSICS AND CHEMISTRY, vol.77, pp.428-433, 2008 (Journal Indexed in SCI)
- XLIX. Radiation synthesis of low swelling acrylamide based hydrogels and determination of average molecular weight between cross-links**  
Mahmudi N., Şen M., Rendeovski S., Gueven G.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.265, pp.375-378, 2007 (Journal Indexed in SCI)
- L. Radiation-induced degradation of galactomannan polysaccharides**  
Şen M., Yolacan B., Guven G.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.265, pp.429-433, 2007 (Journal Indexed in SCI)
- LI. Effect of gamma irradiation on the properties of tyre cords**  
Aytaç A., Şen M., Deniz V., Guven O.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.265, pp.271-275, 2007 (Journal Indexed in SCI)
- LII. Recycling of gamma irradiated inner tubes in butyl based rubber compounds**  
Karaagac B., Şen M., Deniz V., Guven O.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.265, pp.290-293, 2007 (Journal Indexed in SCI)
- LIII. Controlling of pore size and distribution of PDMAEMA hydrogels prepared by gamma rays**  
Sen M., Agus O., Safrany A.  
RADIATION PHYSICS AND CHEMISTRY, vol.76, pp.1342-1346, 2007 (Journal Indexed in SCI)
- LIV. Thermosensitive mucoadhesive gel formulation loaded with 5-Fu: cyclodextrin complex for HPV-induced cervical cancer**

Bilensoy E., Cirpanli Y., Sen M., Dogan A. L. , Calis S.

JOURNAL OF INCLUSION PHENOMENA AND MACROCYCLIC CHEMISTRY, vol.57, pp.363-370, 2007 (Journal Indexed in SCI)

- LIV. **Complexation behavior of antiestrogen drug tamoxifen citrate with natural and modified beta-cyclodextrins**  
Bilensoy E., Dogan L., Sen M., Hincal A.  
JOURNAL OF INCLUSION PHENOMENA AND MACROCYCLIC CHEMISTRY, vol.57, pp.651-655, 2007 (Journal Indexed in SCI)
- LVI. **Water sorption and solubility of different luting and restorative dental cements**  
Keyf F., Tuna S. H. , Şen M., Safrany A.  
TURKISH JOURNAL OF MEDICAL SCIENCES, vol.37, pp.47-55, 2007 (Journal Indexed in SCI)
- LVII. **Investigation of heavy metal ion adsorption characteristics of poly(N,N dimethylamino ethylmethacrylate) hydrogels**  
Kavaklı P. A. , Yilmaz Z., Sen M.  
SEPARATION SCIENCE AND TECHNOLOGY, vol.42, pp.1245-1254, 2007 (Journal Indexed in SCI)
- LVIII. **Removal of nitrite ions from aqueous solutions by poly(N,N-dimethylamino ethylmethacrylate) hydrogels**  
Yilmaz Z., Akkas P. K. , Sen M., Guven O.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.102, no.6, pp.6023-6027, 2006 (Journal Indexed in SCI)
- LIX. **Influence of gamma irradiation on the ageing characteristics of poly(ethylene-co-vinyl acetate) and poly(ethylene-co-vinyl acetate)/carbon black mixture**  
Sen M., Copuroglu M.  
JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY, vol.86, pp.223-227, 2006 (Journal Indexed in SCI)
- LX. **Mucoadhesive, thermosensitive, prolonged-release vaginal gel for clotrimazole:  $\beta$ -cyclodextrin complex**  
Bilensoy E., Rouf M. A. , Vural İ., Sen M., Hincal A. A.  
AAPS PharmSciTech, vol.7, no.2, 2006 (Journal Indexed in SCI)
- LXI. **Effect of drug physicochemical properties on in vitro characteristics of amphiphilic cyclodextrin nanospheres and nanocapsules**  
Memisoglu-Bilensoy E., Sen M., Hincal A. A.  
Journal of Microencapsulation, vol.23, no.1, pp.59-68, 2006 (Journal Indexed in SCI)
- LXII. **A comparative study of gamma irradiation of poly (ethylene-co-vinyl acetate) and poly(ethylene-co-vinyl acetate)/carbon black mixture**  
Sen M., Copuroglu M.  
MATERIALS CHEMISTRY AND PHYSICS, vol.93, pp.154-158, 2005 (Journal Indexed in SCI)
- LXIII. **Radiation synthesis of poly(N-vinyl-2-pyrrolidone)-kappa-carrageenan hydrogels and their use in wound dressing applications. I. Preliminary laboratory tests**  
Sen M., Avci E. N.  
JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART A, pp.187-196, 2005 (Journal Indexed in SCI)
- LXIV. **Radiation synthesis and characterization of poly(N,N-dimethylaminoethyl methacrylate-co-N-vinyl 2-pyrrolidone) hydrogels**  
Sen M., Sari M.  
EUROPEAN POLYMER JOURNAL, vol.41, pp.1304-1314, 2005 (Journal Indexed in SCI)
- LXV. **Enhancement of copolymerization of itaconic acid with N-vinyl 2-pyrrolidone by radiation in the presence of cross-linking agent**  
Sen M., Yakar A.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.234, pp.226-234, 2005 (Journal Indexed in SCI)
- LXVI. **A comparative study of UV aging characteristics of poly(ethylene-co-vinyl acetate) and poly(ethylene-co-vinyl acetate)/carbon black mixture**  
Copuroglu M., ŞEN M.

- POLYMERS FOR ADVANCED TECHNOLOGIES, vol.16, no.1, pp.61-66, 2005 (Journal Indexed in SCI)
- LXVII. **A comparative study of thermal ageing characteristics of poly(ethylene-co-vinyl acetate) and poly(ethylene-co-vinyl acetate)/carbon black mixture**  
Çopuroğlu M., Sen M.  
POLYMERS FOR ADVANCED TECHNOLOGIES, vol.15, pp.393-399, 2004 (Journal Indexed in SCI)
- LXVIII. **In vivo biocompatibility studies of poly(n-vinyl 2-pyrrolidone/itaconic acid) hydrogels synthesized by gamma-rays**  
Ozdemir S., Ozdemir E., Tunca R., Haziroglu R., Sen M., Kantoglu O., Guven O.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.208, pp.395-399, 2003 (Journal Indexed in SCI)
- LXIX. **Effect of gamma irradiation conditions on the radiation-induced degradation of isobutylene-isoprene rubber**  
Sen M., Uzun C., Kantoglu O., Erdogan S., Deniz V., Guven O.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.208, pp.480-484, 2003 (Journal Indexed in SCI)
- LXX. **Enhancement and control of cross-linking of dimethylaminoethyl methacrylate irradiated at low dose rate in the presence of ethylene glycol dimethacrylate**  
Uzun C., Hassnisaber M., Sen M., Guven O.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.208, pp.242-246, 2003 (Journal Indexed in SCI)
- LXXI. **Changing of network characteristics of acrylamide/maleic acid hydrogels by alteration of irradiation dose rate**  
Sen M., Uzun C., Safrany A., Kantoglu O., Guven O.  
RADIATION PHYSICS AND CHEMISTRY, vol.67, pp.371-374, 2003 (Journal Indexed in SCI)
- LXXII. **Non-surfactant nanospheres of progesterone inclusion complexes with amphiphilic beta-cyclodextrins**  
Memisoglu E., Bochot A., Sen M., Duchene D., Hincal A.  
INTERNATIONAL JOURNAL OF PHARMACEUTICS, vol.251, pp.143-153, 2003 (Journal Indexed in SCI)
- LXXIII. **Direct formation of nanospheres from amphiphilic beta-cyclodextrin inclusion complexes**  
Memisoglu E., Bochot A., Ozalp M., ŞEN M., Duchene D., Hincal A.  
PHARMACEUTICAL RESEARCH, vol.20, no.1, pp.117-125, 2003 (Journal Indexed in SCI)
- LXXIV. **Amphiphilic beta-cyclodextrins modified on the primary face: Synthesis, characterization, and evaluation of their potential as novel excipients in the preparation of nanocapsules**  
Memisoglu E., Bochot A., Sen M., Charon D., Duchene D., Hincal A.  
JOURNAL OF PHARMACEUTICAL SCIENCES, vol.91, no.5, pp.1214-1224, 2002 (Journal Indexed in SCI)
- LXXV. **Dynamic deswelling studies of poly(N-vinyl-2-pyrrolidone/itaconic acid) hydrogels swollen in water and terbinafine hydrochloride solutions**  
Sen M., Guven O.  
EUROPEAN POLYMER JOURNAL, vol.38, pp.751-757, 2002 (Journal Indexed in SCI)
- LXXVI. **Controlled release of antifungal drug terbinafine hydrochloride from poly(N-vinyl 2-pyrrolidone/itaconic acid) hydrogels**  
Sen M., Yakar A.  
INTERNATIONAL JOURNAL OF PHARMACEUTICS, vol.228, pp.33-41, 2001 (Journal Indexed in SCI)
- LXXVII. **The preparation of ultra narrow molecular weight distribution poly(ethylene glycol)s by fractional crystallization from solution**  
Sen M., Guven O.  
JOURNAL OF APPLIED POLYMER SCIENCE, vol.79, pp.1999-2005, 2001 (Journal Indexed in SCI)
- LXXVIII. **Prediction of the swelling behaviour of amphiphilic hydrogels and the determination of average molecular weight between cross-links**  
Sen M., Guven O.  
COMPUTATIONAL AND THEORETICAL POLYMER SCIENCE, vol.11, pp.475-482, 2001 (Journal Indexed in SCI)



- LXXIX. **Controlled release of terbinafine hydrochloride from pH sensitive poly(acrylamide/maleic acid) hydrogels**  
Sen M., Uzun C., Guven O.  
INTERNATIONAL JOURNAL OF PHARMACEUTICS, vol.203, pp.149-157, 2000 (Journal Indexed in SCI)
- LXXX. **A review on the radiation synthesis of copolymeric hydrogels for adsorption and separation purposes**  
Guven O., Sen M., Karadag E., Saraydin D.  
RADIATION PHYSICS AND CHEMISTRY, vol.56, pp.381-386, 1999 (Journal Indexed in SCI)
- LXXXI. **Adsorption of alpha-amylase onto poly(acrylamide/maleic acid) hydrogels**  
Tumturk H., Caykara T., Sen M., Guven O.  
RADIATION PHYSICS AND CHEMISTRY, vol.55, pp.713-716, 1999 (Journal Indexed in SCI)
- LXXXII. **The effect of external stimuli on the Bovine Serum Albumin adsorption capacity of poly(acrylamide/maleic acid) hydrogels prepared by gamma rays**  
Akkas P., Sari M., Sen M., Guven O.  
RADIATION PHYSICS AND CHEMISTRY, vol.55, pp.717-721, 1999 (Journal Indexed in SCI)
- LXXXIII. **Radiation synthesis of poly(N-vinyl 2-pyrrolidone/itaconic acid) hydrogels and their controlled release behaviours**  
Sen M., Guven O.  
RADIATION PHYSICS AND CHEMISTRY, vol.55, pp.113-120, 1999 (Journal Indexed in SCI)
- LXXXIV. **Determination of average molecular weight between cross-links ( $\bar{M}_c$ ) from swelling behaviours of diprotic acid-containing hydrogels**  
Sen M., Yakar A., Guven O.  
POLYMER, vol.40, pp.2969-2974, 1999 (Journal Indexed in SCI)
- LXXXV. **The effect of external stimuli on the uranyl ions uptake capacity of poly(N-vinyl 2-pyrrolidone/itaconic acid) hydrogels prepared by gamma rays**  
Kantoglu O., Sen M., Guven O.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.151, pp.218-221, 1999 (Journal Indexed in SCI)
- LXXXVI. **The effect of external stimuli on the equilibrium swelling properties of poly(N-vinyl 2-pyrrolidone itaconic acid) poly-electrolyte hydrogels**  
Sen M., Kantoglu O., Guven O.  
POLYMER, vol.40, pp.913-917, 1999 (Journal Indexed in SCI)
- LXXXVII. **Radiation synthesis and characterization of N-vinyl-2-pyrrolidone/N-allylthiourea hydrogels and their use in the adsorption of invertase**  
Sen M., Pekel N., Guven O.  
ANGEWANDTE MAKROMOLEKULARE CHEMIE, vol.257, pp.1-6, 1998 (Journal Indexed in SCI)
- LXXXVIII. **The effect of UV light on the thermooxidative stability of linear low density polyethylene films crosslinked by ionizing radiation**  
Sen M., Basfar A.  
RADIATION PHYSICS AND CHEMISTRY, vol.52, pp.247-250, 1998 (Journal Indexed in SCI)
- LXXXIX. **Prediction of swelling behaviour of hydrogels containing diprotic acid moieties**  
Sen M., Guven O.  
POLYMER, vol.39, pp.1165-1172, 1998 (Journal Indexed in SCI)
- XC. **Determination of solubility parameter of Poly(n-vinyl 2-pyrrolidone/ethylene glycol dimethacrylate) gels by swelling measurements**  
Sen M., Guven O.  
JOURNAL OF POLYMER SCIENCE PART B-POLYMER PHYSICS, vol.36, pp.213-219, 1998 (Journal Indexed in SCI)
- XCI. **A COMPARATIVE-STUDY OF THERMAL AND MECHANICAL STABILITIES OF GAMMA-IRRADIATED ETHYLENE-ETHYL ACRYLATE AND ETHYLENE-VINYL ACETATE COPOLYMERS**  
Sen M., Guven O.  
RADIATION PHYSICS AND CHEMISTRY, vol.46, pp.871-874, 1995 (Journal Indexed in SCI)

- XCII. THE DEPENDENCE OF ENZYME LEAKAGE ON CROSS-LINK DENSITY IN POLY(N-VINYL-2-PYRROLIDONE) HYDROGELS WITH IMMOBILIZED UREASE**  
Güven O., ŞEN M.  
ANGEWANDTE MAKROMOLEKULARE CHEMIE, vol.207, pp.101-109, 1993 (Journal Indexed in SCI)
- XCIII. PREPARATION AND CHARACTERIZATION OF POLY(N-VINYL 2-PYRROLIDONE) HYDROGELS**  
GUVEN O., ŞEN M.  
POLYMER, vol.32, no.13, pp.2491-2495, 1991 (Journal Indexed in SCI)

### Articles Published in Other Journals

- I. Adsorption of Some Dyes on Cationic Poly N N Dimethyl Amino Ethyl methacrylate Hydrogels**  
ŞOLPAN ÖZBAY D., ŞEN M., Kölge Z., TORUN M., Güven O.  
Hacettepe Journal of Biology and Chemistry, 2009 (Refereed Journals of Other Institutions)

### Refereed Congress / Symposium Publications in Proceedings

- I. Mechanical Characterization and ex vivo Evaluation of Inkjet Printed Bioadhesive Film Formulation of Complexed Paclitaxel and Nanoparticulate Cidofovir**  
VARAN C., ŞEN M., SANDLER N., AKTAŞ Y., BİLENSOY E.  
EUFEPS Annual Meeting 2018, Atina, Greece, 24 - 26 May 2018
- II. Enhanced bonding to zirconia surface using different surface modifications/Farklı yüzey modifikasyonları kullanılarak zirkonyum bağlantısının güçlendirilmesi**  
AKAY C., ÇAKIRBAY TANIŞ M., ŞEN M., AKKAŞ KAVAKLI P.  
23. Uluslararası Türk Prostodonti ve İmplantoloji Derneği Bilimsel Kongresi, Turkey, 9 - 12 November 2017
- III. Enhanced bonding to zirconia surface using different surface modifications**  
AKAY C., ÇAKIRBAY TANIŞ M., ŞEN M., AKKAŞ KAVAKLI P.  
23. Uluslararası Türk Prostodonti ve İmplantoloji Derneği Bilimsel Kongresi, 9 - 12 November 2017
- IV. Printing and characterization of antiviral and anticancer drug loaded film formulation by using inkjet printer**  
VARAN C., ŞEN M., SANDLER N., AKTAŞ Y., BİLENSOY E.  
7th BBBB International Conference on Pharmaceutical Sciences, 5 - 07 October 2017
- V. Shear bond strength between fluorinated zirconia and resin cements**  
ÇAKIRBAY TANIŞ M., AKAY C., ŞEN M., AKKAŞ KAVAKLI P.  
41st Annual Conference of European Prosthodontic Association, 28 - 30 September 2017
- VI. Preparation and Characterization of Antiviral and Anticancer Drug Printed Film Formulations for the treatment of Cervical Cancer**  
VARAN C., ŞEN M., SANDLER N., BİLENSOY E.  
SANKO University Innovation in Medicine Summit, 11 - 13 May 2017
- VII. RADIATION INDUCED DEGRADATION OF XHANTAN GUM IN SOLID STATE AND AQUEOUS SOLUTIONS**  
ŞEN M., Hayrabolulu H., Taşkın P., TORUN M., Demeter M., Cutrubinis M., Güven O.  
13th Tihany Symposium on Radiation Chemistry, 29 August - 03 September 2015
- VIII. Düşük Yoğunluklu Polietilen ve Etilen Vinil Asetat Kopolimeri Kullanılarak Isı ile Büzülebilen Tüplerin Hazırlanması**  
KIRAÇ F., ŞEN M.  
3. Ulusal Polimer Bilim ve Teknoloji Kongresi, Kocaeli, Turkey, 12 - 14 May 2010
- IX. Characterization of network structure of polyacrylamide based hydrogels prepared by radiation induced polymerization**  
Mahmudi N., ŞEN M., GUEVEN O., Rendeovski S.  
6th International Conference of the Balkan-Physical-Union, İstanbul, Turkey, 22 - 26 August 2006, vol.899, pp.790

## Supported Projects

- ŞEN M., Babapour A., Nobari AZAR F. A. , Kaymazlar E., Durmuş Y., Aksüt D., Project Supported by Higher Education Institutions, Elektroaktif Elastomer Hareketlendiriciler Kullanılarak Bioesinli Yapay Göz Topları İçin Kontrol Sistemlerinin Geliştirilmesi, 2017 - 2020
- Şen M., TUBITAK Project, Lignin'in Nitril Kauçuğu Vulkanizasyonu Üzerindeki Sinerjik Etkisi ve Yaşlanma Dayanımına Olan Katkısı, 2018 - 2019
- ŞEN M., Aksüt D., Onay M., Project Supported by Higher Education Institutions, Akrilonitril Bütadien Kauçuğunun (NBR) Lignin Varlığında Hızlandırılmış Vulkanizasyonu ve Lignin'in NBR elastomerinin Yaşlanma ve Reolojik Özellikleri Üzerindeki Etkisi, 2018 - 2019
- ŞEN M., Project Supported by Higher Education Institutions, EPDM Elastomerlerin Sıcaklık Taramalı Gerilme Durulma Davranışının İncelenmesi, 2017 - 2017
- ŞEN M., Project Supported by Higher Education Institutions, Silikon Elastomerlerin Radyasyon Kararlılığına Etki Eden Parametrelerin Belirlenmesi, 2017 - 2017
- ŞEN M., TUBITAK Project, Silikon Elastomerlerin Durulma Özelliklerini Kontrol Eden Parametrelerin Belirlenmesi, 2016 - 2017
- ŞEN M., TUBITAK Project, Titreşim Sönümleyici Elastomerik Malzemelerin Geliştirilmesi, 2016 - 2017
- ŞEN M., Project Supported by Higher Education Institutions, Elastomer Esaslı Dielektrik Hareketlendiricilerin Hazırlanması ve Karakterizasyonu, 2016 - 2016
- ŞEN M., Project Supported by Higher Education Institutions, Peroksitlerin Kimyasal Yapısının Silikon Elastomerlerin Mekanik ve Dinamik Özelliklerine Olan Etkisi, 2016 - 2016
- ŞEN M., Project Supported by Higher Education Institutions, Ko-Ajanların Kimyasal Yapısının Silikon Elastomerlerin Zincir Esnekliğine Etkisi ve Bunun Elastomerlerin Mekanik Durulma Davranışlarına Olan Katkısı, 2016 - 2016
- ŞEN M., Project Supported by Higher Education Institutions, Stiren-Etilen -Bütillen-Stiren (SEBS) kopolimerinin yardımcı ajanlar varlığında kür kinetiğinin incelenmesi, 2015 - 2016
- ŞEN M., TUBITAK Project, Termoplastik Esaslı Ayak Protez Sistemlerinde Kullanılacak Gömlek Üretimi, 2015 - 2016
- ŞEN M., Parlak M., Ahmadzadeh Nobari Azar F., Project Supported by Higher Education Institutions, Silikon Elastomerlerin Durulma Özelliklerine Pişirici Tipinin ve Oranının Etkisi, 2015 - 2016
- ŞEN M., Project Supported by Higher Education Institutions, Doğal Kauçuk/Kloropren Kauçuk Esaslı Karışımların Vulkanizasyon Kinetiğine ve Yaşlanma Özelliklerine Hızlandırıcının Tipinin ve Hızlandırıcı/Kükürt Oranının Etkisinin Belirlenmesi, 2014 - 2016
- KIRAÇ F., ŞEN M., Project Supported by Higher Education Institutions, Ksantan Sakızı Polimerinin İyonlaştırıcı Radyasyonla Bozunma Hızına Işınlama Dozunun ve Doz Hızının Etkisi, 2015 - 2015
- BARSBAY M., ŞATIROĞLU N., KARAN B., SALİH B., ŞEN M., Project Supported by Higher Education Institutions, 8. Fen Fakültesi Kariyer Günleri ve Bilim Şenliği Kimya Bölümü Projeleri, 2015 - 2015
- ŞEN M., Project Supported by Higher Education Institutions, Ksantan sakızının katı ve çözelti halinde radyasyonla indüklenmiş bozunması, 2015 - 2015
- KARASOY D., ŞEN M., Project Supported by Higher Education Institutions, 8. FEN FAKÜLTESİ KARİYER GÜNLERİ VE BİLİM ŞENLİĞİ, 2015 - 2015
- ŞEN M., Project Supported by Higher Education Institutions, Sol-Jel Tekniği ile Zirkonyum ve Silikat içerikli, Epoksi Fonksiyonelli Polimerik Nanokompozitlerin Hazırlanması ve Karakterizasyonu, 2015 - 2015
- ŞEN M., Project Supported by Higher Education Institutions, Hacettepe Üniversitesinde Polimer Bilimi ve Teknolojisi Eğitiminde ve Araştırmalarında Son Gelişmeler, 2014 - 2015
- ŞEN M., Project Supported by Higher Education Institutions, EPOKSİ-FONKSİYONELLİ SİLİKAT-İÇERİKLİ POLİMER NANOCOMPOZİTLERİN SENTEZİ VE KARAKTERİZASYONU, 2014 - 2015
- ŞEN M., TUBITAK Project, İyonlaştırıcı Radyasyonla Ksantan Sakızı Esaslı Süper Emici Polimerlerin Hazırlanması İçin Optimum İşleme Koşullarının Belirlenmesi, 2013 - 2015

## Memberships / Tasks in Scientific Organizations

Polimer Bilimi ve Teknolojisi Derneđi, Board Member, 2017 - Continues

## Scientific Consultations

Tübitak- TEYDEB Projesi, Project Consultancy, Hacettepe Üniversitesi, Fen Fakültesi, Kimya Bölümü, Turkey, 2018 - Continues

Tübitak- TEYDEB Projesi, Project Consultancy, Hacettepe Üniversitesi, Fen Fakültesi, Kimya Bölümü, Turkey, 2018 - Continues

Tübitak- 1511 Öncelikli Alanlar Araştırma Teknoloji Geliştirme Ve Yenilik Projeleri Destekleme Programı Projesi, Project Consultancy, Hacettepe Üniversitesi, Fen Fakültesi, Kimya Bölümü, Turkey, 2017 - 2018

## Edit Congress and Symposium Activities

7. Uluslararası Katılımlı Polimer Bilimi ve Teknolojisi Kongresi, Attendee, Eskişehir, Turkey, 2018

International Rubber Congress(IRC2018), Attendee, Kuala-Lumpur, Malaysia, 2018

Ionizing Radiation and Polymers (IRaP2018), Attendee, Moscow, Russia, 2018

RubberCon2018, Attendee, İstanbul, Turkey, 2018

## Citations

Total Citations (WOS):1955

h-index (WOS):25

## Awards

ŞEN M., Paper Award, RubberCon 2019 Organization Committee, May 2019