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Personal Information

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Education Information

Doctorate, Sakarya University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, Turkey 2012 - 2017

Postgraduate, Middle East Technical University, Fen-Edebiyat Fakültesi, Biyomedikal Mühendisliği, Turkey 2009 - 2012

Undergraduate, Middle East Technical University, Fen-Edebiyat Fakültesi, Kimya, Turkey 2004 - 2009

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, PERİFERİK SİNİR SİSTEMİ REJENERASYONU İÇİN İLETKEN MATERYALLERİN GELİŞTİRİLMESİ ve

ETKİNLİĞİNİN DEĞERLENDİRİLMESİ, Sakarya University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği, 2017

Postgraduate, PREPARATION AND CHARACTERIZATION OF BIODEGRABLE COMPOSITE SYSTEMS AS HARD TISSUE

SUPPORTS: BONE FILLERS, BONE REGENERATION MEMBRANES AND SCAFFOLDS, Middle East Technical University, Fen

Bilimleri Enstitüsü, Biyomedikal Mühendisliği, 2012

Research Areas

Health Sciences, Pharmacology and Therapeutics, Pharmaceutics Technology, Pharmaceutical Technology, Metallurgical and Materials Engineering, Material science and engineering, Biomaterials, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Suleyman Demirel University, Tıp Fakültesi, Dahili Tıp Bilimleri, 2018 - Continues

Research Assistant, Atilim University, Mühendislik Fakültesi, Kimya Mühendisliği Ve Uygulamalı Kimya Bölümü, 2009 - 2013

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

- I. **Liposomal delivery systems for herbal extracts**
SÖĞÜT O., AYDEMİR SEZER Ü., SEZER S.
JOURNAL OF DRUG DELIVERY SCIENCE AND TECHNOLOGY, vol.61, 2021 (Journal Indexed in SCI)
- II. **Zero-valent iron nanoparticles containing nanofiber scaffolds for nerve tissue engineering**

AYDEMİR SEZER Ü., Yavuz K. O. , Ors G., Bay S., Aru B. A. , SÖĞÜT O., Caglar T. A. , BOZKURT M. R. , Cagavi E. C. , YANIKKAYA DEMİREL G., et al.

JOURNAL OF TISSUE ENGINEERING AND REGENERATIVE MEDICINE, 2020 (Journal Indexed in SCI)

- III. **A review on synthesis and biomedical applications of polyglycolic acid**
Budak K., SÖĞÜT O., AYDEMİR SEZER Ü.
JOURNAL OF POLYMER RESEARCH, vol.27, no.8, 2020 (Journal Indexed in SCI)
- IV. **Cost-effective synthesis of polyricinoleate: Investigation of coating characteristics, in vitro degradation, and antibacterial activity**
Tonta M. M. , AYDEMİR SEZER Ü., Olmez H., GÜREK A. G. , SEZER S.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.136, no.44, 2019 (Journal Indexed in SCI)
- V. **Cytotoxicity, bactericidal and hemostatic evaluation of oxidized cellulose microparticles: Structure and oxidation degree approach**
AYDEMİR SEZER Ü., Sahin I., Aru B., Olmez H., YANIKKAYA DEMİREL G., SEZER S.
CARBOHYDRATE POLYMERS, vol.219, pp.87-94, 2019 (Journal Indexed in SCI)
- VI. **Process optimisation, biocompatibility and anti-cancer efficacy of curcumin loaded gelatine microparticles cross-linked with dialdehyd carboxymethyl cellulose**
Kocer Z., Aru B., AYDEMİR SEZER Ü., YANIKKAYA DEMİREL G., Beker U., SEZER S.
JOURNAL OF MICROENCAPSULATION, vol.36, no.5, pp.485-499, 2019 (Journal Indexed in SCI)
- VII. **A versatile method for the synthesis of poly(glycolic acid): high solubility and tunable molecular weights**
Sanko V., Sahin I., AYDEMİR SEZER Ü., SEZER S.
POLYMER JOURNAL, vol.51, no.7, pp.637-647, 2019 (Journal Indexed in SCI)
- VIII. **Polypropylene composite hernia mesh with anti-adhesion layer composed of polycaprolactone and oxidized regenerated cellulose**
AYDEMİR SEZER Ü., Sanko V., Gulmez M., Aru B., Sayman E., Aktekin A., Aker F. V. , YANIKKAYA DEMİREL G., SEZER S.
MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.99, pp.1141-1152, 2019 (Journal Indexed in SCI)
- IX. **Oxidized regenerated cellulose cross-linked gelatin microparticles for rapid and biocompatible hemostasis: A versatile cross-linking agent**
SEZER U. A. , KOCER Z., SAHIN I., Aru B., Demirel G. Y. , SEZER S.
CARBOHYDRATE POLYMERS, vol.200, pp.624-632, 2018 (Journal Indexed in SCI)
- X. **A Polypropylene-Integrated Bilayer Composite Mesh with Bactericidal and Antiadhesive Efficiency for Hernia Operations**
Aydemir Sezer U., SANKO V., GULMEZ M., SAYMAN E., Aru B., Yuksekdog Z. N. , AKTEKIN A., VARDAR AKER F., Sezer S.
ACS Biomaterials Science and Engineering, vol.3, no.12, pp.3662-3674, 2017 (Journal Indexed in SCI)
- XI. **Zero valent zinc nanoparticles promote neuroglial cell proliferation: A biodegradable and conductive filler candidate for nerve regeneration**
Sezer U. A. , Ozturk K., Aru B., Demirel G. Y. , Sezer S., Bozkurt M. R.
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN MEDICINE, vol.28, no.1, 2017 (Journal Indexed in SCI)
- XII. **Carboxymethyl cellulose/oxidized regenerated cellulose hydrogels as adhesion barriers: comparative study with different molecular weights and substitution degrees**
AKTEKIN A., SAHIN I., Aydemir Sezer U., GULMEZ M., OZKARA S., Sezer S.
Cellulose, vol.23, no.5, pp.3145-3156, 2016 (Journal Indexed in SCI)
- XIII. **Use of oxidized regenerated cellulose as bactericidal filler for food packaging applications**
Sezer U. A. , Sanko V., Yuksekdog Z. N. , Uzundag D., Sezer S.
CELLULOSE, vol.23, no.5, pp.3209-3219, 2016 (Journal Indexed in SCI)
- XIV. **Combination of gelatin and tranexamic acid offers improved haemostasis and safe use on internal hemorrhage control**
Sezer U. A. , Kocer Z., Aru B., Demirel G. Y. , Gulmez M., Aktekin A., Ozkara S., Sezer S.

RSC ADVANCES, vol.6, no.97, pp.95189-95198, 2016 (Journal Indexed in SCI)

- XV. **Development of Metal Ion Binded Oxidized Regenerated Cellulose Powder as Hemostatic Agent: A Comparative Study with in Vivo Performance**
Demirekin Z. B. , Sezer U. A. , Karatopuk D., Sezer S.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.54, no.18, pp.4906-4914, 2015 (Journal Indexed in SCI)
- XVI. **Heparin/Chitosan/Alginate Complex Scaffolds as Wound Dressings: Characterization and Antibacterial Study Against Staphylococcus epidermidis**
AKSOY E. A. , Sezer U. A. , Kara F., HASIRCI N.
JOURNAL OF BIOMATERIALS AND TISSUE ENGINEERING, vol.5, no.2, pp.104-113, 2015 (Journal Indexed in SCI)
- XVII. **In Vivo Performance of Poly(epsilon-caprolactone) Constructs Loaded with Gentamicin Releasing Composite Microspheres for Use in Bone Regeneration**
Sezer U. A. , Billur D., HURİ G., Huri P. Y. , AKSOY E. A. , Terzioğlu H., Konukseven E., Hasirci V., HASIRCI N.
JOURNAL OF BIOMATERIALS AND TISSUE ENGINEERING, vol.4, no.10, pp.786-795, 2014 (Journal Indexed in SCI)
- XVIII. **Poly(epsilon-caprolactone) Composite Scaffolds Loaded with Gentamicin-Containing beta-Tricalcium Phosphate/Gelatin Microspheres for Bone Tissue Engineering Applications**
Sezer U. A. , Arslantunali D., Aksoy E. A. , Hasirci V., HASIRCI N.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.131, no.8, 2014 (Journal Indexed in SCI)
- XIX. **Poly(epsilon-caprolactone) composites containing gentamicin-loaded beta-tricalcium phosphate/gelatin microspheres as bone tissue supports**
Sezer U. A. , Aksoy E. A. , Hasirci V., HASIRCI N.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.127, no.3, pp.2132-2139, 2013 (Journal Indexed in SCI)
- XX. **Semi-IPN chitosan/polyvinylpyrrolidone microspheres and films: sustained release and property optimisation**
Ozerkan T., Sezer U. A. , Gurhan I. D. , Iz S. G. , HASIRCI N.
JOURNAL OF MICROENCAPSULATION, vol.30, no.8, pp.762-770, 2013 (Journal Indexed in SCI)
- XXI. **Semi-IPN Chitosan/PEG Microspheres and Films for Biomedical Applications: Characterization and Sustained Release Optimization**
Gunbas I. D. , Sezer U. A. , Iz S. G. , Gurhan I. D. , HASIRCI N.
INDUSTRIAL & ENGINEERING CHEMISTRY RESEARCH, vol.51, no.37, pp.11946-11954, 2012 (Journal Indexed in SCI)
- XXII. **Gentamicin loaded beta-tricalcium phosphate/gelatin composite microspheres as biodegradable bone fillers**
Sezer U. A. , Aksoy E. A. , DURUCAN C., HASIRCI N.
POLYMER COMPOSITES, vol.33, no.9, pp.1644-1651, 2012 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Nanocellulose Containing Polymethyl Methacrylate Bone Cements:Effect of Production Process and Silanization on Mechanical Characteristics**
AYDEMİR SEZER Ü.
Süleyman Demirel Üniversitesi Sağlık Bilimleri Dergisi, vol.10, no.4, pp.436-443, 2019 (Other Refereed National Journals)
- II. **A design achieved by coaxial electrospinning of polysulfone and sulfonated polysulfone as a core-shell structure to optimize mechanical strength and hemocompatibility**
AYDEMİR SEZER Ü., ARU B., DEMİREL G., SEZER S., öztürk k.
Surfaces and Interfaces, vol.10, pp.176-187, 2018 (Refereed Journals of Other Institutions)

Books & Book Chapters

I. Cellulose-based Hydrogels as Biomaterials

AYDEMİR SEZER Ü., SEZER S., SANKO V., ŞAHİN İ., KOCER Z., ÖZTÜRK K.

in: Cellulose-based superabsorbent hydrogels, İbrahim H. Mondal, Editor, Springer International Publishing, pp.1-27, 2019

II. Cellulose- Based hydrogels as Biomaterials

SEZER S., AYDEMİR SEZER Ü.

in: Cellulose-Based Superabsorbent Hydrogels, İbrahim H. Mondal , Editor, Springer Nature Publishing Group, Cham, pp.1-27, 2018

III. cellulose-based hydrogeks as biomaterials

AYDEMİR SEZER Ü., SEZER S., SEZER S.

in: Cellulose-based superabsorbent hydrogels, Mondal İ. H., Editor, Springer Nature Publishing Group, Cham, pp.1-27, 2018

IV. Interface Engineering with Self- Assembled Monolayers in Biosensors

AYDEMİR SEZER Ü., Taşaltın C., Başarır F., Gürol İ., Taşdemir Z.

in: Rational Design Of Hybrid Organic-Inorganic Interfaces: The Next Step Towards Advanced Functional Materials, Marie Helene Delville, Andreas Taubert, Editor, Wiley-VCH, Weinheim, pp.637-694, 2018

Refereed Congress / Symposium Publications in Proceedings

I. Cartilage Regeneration with 3D Woven Scaffolds

AYDEMİR SEZER Ü.

Uluslararası Biyoteknoloji Kongresi, İstanbul, Turkey, 5 - 07 March 2020, pp.25-26

II. Safety of Dermal Fillers: A Perspective Based on Composition

AYDEMİR SEZER Ü.

3rd International Cosmetic Congress, 7 - 09 November 2019, pp.32-34

III. Poly (ϵ -caprolactone) Scaffolds Containing Gentamicin Loaded Composite Microspheres

AYDEMİR SEZER Ü., BİLLUR D., HURİ G., HURİ P., AKSOY E. A. , HASIRCI V. N. , HASIRCI N.

25th European Conference on Biomaterials, 8 - 12 September 2013

Citations

Total Citations (WOS):138

h-index (WOS):8

Non Academic Experience

Other Public Institution, Biyonomalzemeler