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Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Nanoteknoloji-Nanotıp, Turkey 2007 - 2011

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Biyomühendislik, Turkey 2001 - 2004

Associate Degree, Ankara University, Fen Fakültesi, Biyoloji, Turkey 1992 - 1996

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Sinir doku onarımı için polimerik nanofiber doku iskeleleri, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Nanoteknoloji Ve Nanotıp (YI) (Tezli), 2011

Postgraduate, Cu(II)/1,4,8,11-tetra-azasiklotetradekan ("cyclam") ve Cu(II)-cyclam/poliakrilik asit kompleksinin tümör hücreleri (HeLa) üzerine etkilerinin araştırılması, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Biyomühendislik (YI) (Tezli), 2004

Research Areas

Biomedical Engineering, Engineering and Technology

Academic Titles / Tasks

Expert, Hacettepe University, Rektörlük, 2011 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- Evaluation of triacetin on mechanical strength and free surface energy of PHBHHx: The prevention of intra-abdominal adhesion**
Akkurt Yıldırım M., DEMİRBİLEK M., Kızılbaş K., KAPLAN E., TÜRKOĞLU N.
Journal of Bioactive and Compatible Polymers, vol.38, no.3, pp.270-283, 2023 (SCI-Expanded)

- II. **In vitro comparison of nanofibrillar and macroporous-spongy composite tissue scaffolds for periodontal tissue engineering**
ŞAHBAZOĞLU K. B., DEMİRBİLEK M., BAYARI S., BÜBER E., Toklucu S., TÜRK M., KARABULUT E., AKALIN F. A.
CONNECTIVE TISSUE RESEARCH, vol.63, no.2, pp.183-197, 2022 (SCI-Expanded)
- III. **Manipulating cell behavior on a bacterial macro-polymer poly (3-hydroxybutyrate-co-3-hydroxyhexanoate) via tuning the S-doped graphene ratio**
Yildirim M. A., DEMİRBİLEK M., GÜRSU H., ŞAHİN Y., TÜRKÖĞLU N.
INTERNATIONAL JOURNAL OF BIOLOGICAL MACROMOLECULES, vol.182, pp.2076-2086, 2021 (SCI-Expanded)
- IV. **Evaluation of paraffin wax and poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) blend patch for tissue engineering**
Yildirim M. A., DEMİRBİLEK M., TÜRKÖĞLU N.
MATERIALS TECHNOLOGY, vol.36, pp.105-117, 2021 (SCI-Expanded)
- V. **Dual delivery of platelet-derived growth factor and bone morphogenetic factor-6 on titanium surface to enhance the early period of implant osseointegration**
KEÇELİ H. G., BAYRAM C., Celik E., Ercan N., DEMİRBİLEK M., NOHUTCU R. M.
JOURNAL OF PERIODONTAL RESEARCH, vol.55, no.5, pp.694-704, 2020 (SCI-Expanded)
- VI. **Development of an Anti-Inflammatory Drug-Incorporated Biomimetic Scaffold for Corneal Tissue Engineering**
Celebier S. K., Pehlivan S., DEMİRBİLEK M., Akinci M., VURAL İ., AKDAĞ ÇAYLI Y., Yuruker S., Unlu N.
Journal of Ocular Pharmacology and Therapeutics, vol.36, no.6, pp.433-446, 2020 (SCI-Expanded)
- VII. **3-Hydroxyhexanoate-based polycationic nanoparticle system for delivering reprogramming factors**
VARLI H. S., Alkan F., Kirmizitas F. C., DEMİRBİLEK M., Lacin N. T.
JOURNAL OF MICROENCAPSULATION, vol.37, no.4, pp.332-340, 2020 (SCI-Expanded)
- VIII. **A study on bone tissue engineering: Injectable chitosan-g-stearic acid putty**
Yalman V., Celik E., Arslan O., Alkan F., TÜRKÖĞLU N., Sirin H. T., Arslan A. K., DEMİRBİLEK M.
TECHNOLOGY AND HEALTH CARE, vol.28, no.3, pp.227-239, 2020 (SCI-Expanded)
- IX. **A virus-free vector for the transfection of somatic cells to obtain IPSC**
VARLI H. S., Alkan F., DEMİRBİLEK M., TÜRKÖĞLU N.
JOURNAL OF NANOPARTICLE RESEARCH, vol.21, no.11, 2019 (SCI-Expanded)
- X. **Bacterial hyaluronic acid production through an alternative extraction method and its characterization**
Gungor G., Gedikli S., Toptas Y., Akgun D. E., DEMİRBİLEK M., YAZIHAN N., ÇELİK P. A., Denkbaz E. B., ÇABUK A.
JOURNAL OF CHEMICAL TECHNOLOGY AND BIOTECHNOLOGY, vol.94, no.6, pp.1843-1852, 2019 (SCI-Expanded)
- XI. **In vitro and in vivo bacterial antifouling properties of phosphite of plasma-treated- silicone**
Akdogan E., DEMİRBİLEK M., Sen Y., ONUR M. A., AZAP Ö., Sonmez E., Sirin H. T., MUTLU M.
SURFACE INNOVATIONS, vol.7, no.2, pp.122-132, 2019 (SCI-Expanded)
- XII. **Experimental Exploration of Thermostable Poly (-Hydroxybutyrates) by Geobacillus kaustophilus Using Box-Behnken Design**
Gedikli S., ÇELİK P. A., DEMİRBİLEK M., Mutlu M. B., DENKBAŞ E. B., ÇABUK A.
JOURNAL OF POLYMERS AND THE ENVIRONMENT, vol.27, no.2, pp.245-255, 2019 (SCI-Expanded)
- XIII. **A Comparative Study of Receptor-Targeted Magnetosome and HSA-Coated Iron Oxide Nanoparticles as MRI Contrast-Enhancing Agent in Animal Cancer Model**
Erdal E., DEMİRBİLEK M., Yeh Y., Akbal Ö., Ruff L., Bozkurt D., Cabuk A., Senel Y., Gumuskaya B., ALGIN O., et al.
Applied Biochemistry and Biotechnology, vol.185, no.1, pp.91-113, 2018 (SCI-Expanded)
- XIV. **Optimization of hyaluronic acid production and its cytotoxicity and degradability characteristics**
Gedikli S., Gungor G., Toptas Y., Sezgin D. E., DEMİRBİLEK M., YAZIHAN N., ÇELİK P. A., DENKBAŞ E. B., BÜTÜN V., ÇABUK A.
PREPARATIVE BIOCHEMISTRY & BIOTECHNOLOGY, vol.48, no.7, pp.610-618, 2018 (SCI-Expanded)
- XV. **Regenerative potential of chitosan-coated poly-3-hydroxybutyrate conduits seeded with mesenchymal stem cells in a rat sciatic nerve injury model**
Ozer H., BOZKURT H., Bozkurt G., DEMİRBİLEK M.

INTERNATIONAL JOURNAL OF NEUROSCIENCE, vol.128, no.9, pp.828-834, 2018 (SCI-Expanded)

- XVI. **Magnetic silk fibroin e-gel scaffolds for bone tissue engineering applications**
Karahaliloglu Z., YALCIN E., DEMİRBİLEK M., DENKBAŞ E. B.
JOURNAL OF BIOACTIVE AND COMPATIBLE POLYMERS, vol.32, no.6, pp.596-614, 2017 (SCI-Expanded)
- XVII. **In Vitro Evaluation of Biocompatibility and Immunocompatibility of 2,3 Dialdehyde Cellulose Hydrogel Membranes for Wound Healing**
Lacin N., Kaplan E., DEMİRBİLEK M., MAZMANCI M. A., MAZMANCI B., ÇAVAŞ T.
JOURNAL OF BIOMATERIALS AND TISSUE ENGINEERING, vol.7, no.9, pp.822-828, 2017 (SCI-Expanded)
- XVIII. **Active nano/microbilayer hemostatic agents for diabetic rat bleeding model**
Karahaliloglu Z., DEMİRBİLEK M., ULUSOY I., Gumuskaya B., DENKBAŞ E. B.
JOURNAL OF BIOMEDICAL MATERIALS RESEARCH PART B-APPLIED BIOMATERIALS, vol.105, no.6, pp.1573-1585, 2017 (SCI-Expanded)
- XIX. **Targeted delivery of etoposide to osteosarcoma cells using poly(3-hydroxybutyrate-co-3-hydroxyvalerate) (PHBV) nanoparticles**
Alp E., Cirak T., DEMİRBİLEK M., TÜRK M., GÜVEN E.
TURKISH JOURNAL OF BIOLOGY, vol.41, no.5, pp.719-733, 2017 (SCI-Expanded)
- XX. **N-Acetylglucoseamine modified alginate sponges as scaffolds for skin tissue engineering**
DEMİRBİLEK M., Turkoglu Lacin N., AKTÜRK S.
TURKISH JOURNAL OF BIOLOGY, vol.41, no.5, pp.796-807, 2017 (SCI-Expanded)
- XXI. **VitD3-loaded solid lipid nanoparticles: stability, cytotoxicity and cytokine levels**
DEMİRBİLEK M., TÜRKÖĞLU N., AKTÜRK S., AKÇA C.
JOURNAL OF MICROENCAPSULATION, vol.34, no.5, pp.454-462, 2017 (SCI-Expanded)
- XXII. **Hemostatic activities of nano/microporous bilayer dressings in a femoral artery bleeding rat model**
KARAHALİLOĞLU Z., DEMİRBİLEK M., Ulusoy I., GÜMÜŞKAYA ÖCAL B., DENKBAŞ E. B.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.133, no.28, 2016 (SCI-Expanded)
- XXIII. **Surface-modified bacterial nanofibrillar PHB scaffolds for bladder tissue repair**
KARAHALİLOĞLU Z., DEMİRBİLEK M., ŞAM M., SAĞLAM N., Mizrak A. K., DENKBAŞ E. B.
ARTIFICIAL CELLS NANOMEDICINE AND BIOTECHNOLOGY, vol.44, no.1, pp.74-82, 2016 (SCI-Expanded)
- XXIV. **Aligned bacterial PHBV nanofibrous conduit for peripheral nerve regeneration**
Demirbilek M., Sakar M., Karahaliloglu Z., Erdal E., YALCIN E., Bozkurt G., KORKUSUZ P., BİLGİÇ E., TEMUÇİN Ç. M., DENKBAŞ E. B.
ARTIFICIAL CELLS NANOMEDICINE AND BIOTECHNOLOGY, vol.43, no.4, pp.243-251, 2015 (SCI-Expanded)
- XXV. **Silk fibroin/nylon-6 blend nanofilter matrix for copper removal from aqueous solution**
yalçın e., Gedikli S., ÇABUK A., KARAHALİLOĞLU Z., DEMİRBİLEK M., BAYRAM C., ŞAM M., SAĞLAM N., DENKBAŞ E. B.
CLEAN TECHNOLOGIES AND ENVIRONMENTAL POLICY, vol.17, no.4, pp.921-934, 2015 (SCI-Expanded)
- XXVI. **Effect of tributyl citrate on chitosan scaffold: chemical, physical properties, pro/anti inflammation cytokines**
Demirbilek M.
JOURNAL OF POROUS MATERIALS, vol.22, no.2, pp.395-402, 2015 (SCI-Expanded)
- XXVII. **Chlorogenic Acid Containing Bioinspired Polyurethanes: Biodegradable Medical Adhesive Materials**
ATEŞ B., KÖYTEPE S., Karaaslan M. G., Balcioglu S., Gulgen S., DEMİRBİLEK M., DENKBAŞ E. B.
INTERNATIONAL JOURNAL OF POLYMERIC MATERIALS AND POLYMERIC BIOMATERIALS, vol.64, no.12, pp.611-619, 2015 (SCI-Expanded)
- XXVIII. **The effect of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) (PHBHHx) and human mesenchymal stem cell (hMSC) on axonal regeneration in experimental sciatic nerve damage**
Sakar M., KORKUSUZ P., DEMİRBİLEK M., Cetinkaya D. U., Arslan S., DENKBAŞ E. B., TEMUÇİN Ç. M., BİLGİÇ E., Hazer D. B., Bozkurt G.
INTERNATIONAL JOURNAL OF NEUROSCIENCE, vol.124, no.9, pp.685-696, 2014 (SCI-Expanded)
- XXIX. **Photocatalytic performance of melt-electrospun polypropylene fabric decorated with TiO2 nanoparticles**

- KARAHALİLOĞLU Z., Hacker C., DEMİRBİLEK M., Seide G., DENKBAŞ E. B., Gries T.
JOURNAL OF NANOPARTICLE RESEARCH, vol.16, no.9, 2014 (SCI-Expanded)
- XXX. **Osteoblast response on co-modified titanium surfaces via anodization and electrospinning**
BAYRAM C., DEMİRBİLEK M., YALCIN E., Bozkurt M., Dogan M., DENKBAŞ E. B.
APPLIED SURFACE SCIENCE, vol.288, pp.143-148, 2014 (SCI-Expanded)
- XXXI. **Plasma polymerization-modified bacterial polyhydroxybutyrate nanofibrillar scaffolds**
KARAHALİLOĞLU Z., DEMİRBİLEK M., ŞAM M., Erol-Demirbilek M., SAĞLAM N., DENKBAŞ E. B.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.128, no.3, pp.1904-1912, 2013 (SCI-Expanded)
- XXXII. **Preparation and Characterization of Magnetically Responsive Bacterial Polyester Based Nanospheres for Cancer Therapy**
ERDAL E., KAVAZ D., ŞAM M., DEMİRBİLEK M., Demirbilek M. E., SAĞLAM N., DENKBAŞ E. B.
JOURNAL OF BIOMEDICAL NANOTECHNOLOGY, vol.8, no.5, pp.800-808, 2012 (SCI-Expanded)
- XXXIII. **Characterization and optimization of poly(3-hydroxybutyrate) produced by bacteria isolated from hydrocarbon polluted soil**
Gungormedi G., DEMİRBİLEK M., ÇABUK A., MUTLU M. B., ŞAM M., DENKBAŞ E. B.
NEW BIOTECHNOLOGY, vol.29, 2012 (SCI-Expanded)
- XXXIV. **Osteoblast Activity on Anodized Titania Nanotubes: Effect of Simulated Body Fluid Soaking Time**
BAYRAM C., DEMİRBİLEK M., CALISKAN N., Demirbilek M. E., DENKBAŞ E. B.
JOURNAL OF BIOMEDICAL NANOTECHNOLOGY, vol.8, no.3, pp.482-490, 2012 (SCI-Expanded)
- XXXV. **Comparative evaluation of cyclosporine A/HP beta CD-incorporated PLGA nanoparticles for development of effective ocular preparations**
AKSUNGUR AYDIN P., DEMİRBİLEK M., DENKBAŞ E. B., Unlu N.
JOURNAL OF MICROENCAPSULATION, vol.29, no.6, pp.605-613, 2012 (SCI-Expanded)
- XXXVI. **Preparation and characterization of poly(3-hydroxybutyrate-co-3-hydroxyhexanoate) (PHBHHX) based nanoparticles for targeted cancer therapy**
KILIÇAY E., DEMİRBİLEK M., TÜRK M., GÜVEN E., HAZER B., DENKBAŞ E. B.
EUROPEAN JOURNAL OF PHARMACEUTICAL SCIENCES, vol.44, no.3, pp.310-320, 2011 (SCI-Expanded)
- XXXVII. **Oxidative Stress Parameters of L929 Cells Cultured on Plasma-Modified PDLLA Scaffolds**
Demirbilek M. E., Demirbilek M., Karahaliloglu Z., Erdal E., VURAL T., YALÇIN E., SAĞLAM N., DENKBAŞ E. B.
APPLIED BIOCHEMISTRY AND BIOTECHNOLOGY, vol.164, no.6, pp.780-792, 2011 (SCI-Expanded)
- XXXVIII. **Development and characterization of Cyclosporine A loaded nanoparticles for ocular drug delivery: Cellular toxicity, uptake, and kinetic studies**
AKSUNGUR AYDIN P., DEMİRBİLEK M., DENKBAŞ E. B., Vandervoort J., Ludwig A., Unlu N.
JOURNAL OF CONTROLLED RELEASE, vol.151, no.3, pp.286-294, 2011 (SCI-Expanded)
- XXXIX. **Bleomycin Loaded Magnetic Chitosan Nanoparticles as Multifunctional Nanocarriers**
Kavaz D., Odabas S., GÜVEN E., DEMİRBİLEK M., DENKBAŞ E. B.
JOURNAL OF BIOACTIVE AND COMPATIBLE POLYMERS, vol.25, no.3, pp.305-318, 2010 (SCI-Expanded)
- XL. **Apoptosis and proliferation in gastric epithelium due to Helicobacter pylori: An immunohistochemical and ultrastructural study**
KARABAY G., Nacar A., CAN F., DEMİRBİLEK M., BACANLI D., TAKE G., YAZICI A. C.
ACTA GASTRO-ENTEROLOGICA BELGICA, vol.69, no.2, pp.191-196, 2006 (SCI-Expanded)
- XLI. **A quasi-static analysis for a class of induced-current EIT systems using discrete coils**
Koksal A., Eyuboglu B., Demirbilek M.
IEEE TRANSACTIONS ON MEDICAL IMAGING, vol.21, no.6, pp.688-694, 2002 (SCI-Expanded)
- XLII. **Distinguishability analysis of an induced current EIT system using discrete coils**
Eyuboglu B., Koksal A., Demirbilek M.
PHYSICS IN MEDICINE AND BIOLOGY, vol.45, no.7, pp.1997-2009, 2000 (SCI-Expanded)

Articles Published in Other Journals

- I. **Effectiveness of carbonic anhydrase inhibitor loaded nanoparticles in the treatment of diabetic retinopathy**
UĞURLU N., ERDAL E., Malekghasemi S., Demirbilek M.
Biomedical physics & engineering express, vol.10, no.1, 2023 (ESCI)
- II. **Preparation and Characterization of Polyhydroxybutyrate Scaffolds to be Used in Tissue Engineering Applications**
GÜVEN E., DEMİRBİLEK M., SAĞLAM N., KARAHALİLOĞLU Z., ERDAL E., BAYRAM C., DENKBAŞ E. B.
Hacettepe Journal of Biology and Chemistry, vol.4, pp.305-311, 2008 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Preparation and Characterization of Cerium Oxide Nanoparticles for Biomedical Applications**
ERDAL E., MALEKGHASAME S., AKBAL Ö., VURAL T., DEMİRBİLEK M., UĞURLU N., DENKBAŞ E. B.
Nanotech / Biotech / Surtech Middle East 2017, 4 - 06 December 2017
- II. **In vitro comparison of nanofiber and macroporous-spongy composite tissue- scaffolds in periodontal tissue engineering**
Şahbazoglu K. B., AKALIN F. A., DEMİRBİLEK M., TÜRK M., BAYARI S.
Turkish Society of Periodontology 47th International Scientific Congress and 26th Scientific Symposium 17-18 November 2017, Istanbul, Turkey, 17 - 18 November 2017, pp.51
- III. **Porous Thermoplastic Polyurethane Films by Breath Figure Approach**
DABAN G., BAYRAM C., DEMİRBİLEK M., DENKBAŞ E. B.
MACRO 2016 WORLD POLYMER CONGRESS, 17 - 21 July 2016
- IV. **Ciliates in Nanotechnology A Separation Experiment by Using Magnetic Nanoparticles**
Eyice N. D., KAVAZ D., DEMİRBİLEK M., DENKBAŞ E. B., ÇAPAR DİNÇER S.
Nano TR VIII, 8th Nanotechnology Congress, Ankara, Turkey, 25 - 28 June 2012
- V. **Nanoplatfoms for Detection, Remediation and Protection Against Chem-Bio Warfare Nanoplatfoms Against Chem-Bio Warfare**
DENKBAŞ E. B., BAYRAM C., Kavaz D., Cirak T., DEMİRBİLEK M.
Conference on Technological Innovations in Detection and Sensing of Chemical, Biological, Radiological, Nuclear Threats and Ecological Terrorism, Chisinau, Moldova, 6 - 17 June 2010, pp.191-203

Supported Projects

DEMİRBİLEK M., TUBITAK Project, İlaç Tarama ve Geliştirme Testlerinde Kullanıma Yönelik Üç Boyutlu Mikroakışkan Çip Üstü Organ Platformu Geliştirilmesi, 2017 - Continues

DEMİRBİLEK M., ARSLAN Ö., TÜRKÖĞLU LAÇİN N., ÇELİK E., Project Supported by Higher Education Institutions, Enjekte edilebilir sert doku greftlerin hazırlanması ve karakterize edilmesi, 2018 - 2019

DEMİRBİLEK M., BAYRAM C., Project Supported by Higher Education Institutions, Octadecanamide nanopartiküllerinin sitotoksitesi, 2016 - 2017

DEMİRBİLEK M., TUBITAK Project, Vitamin D3 Yüklü Katı Lipid Nanopartiküller Proje kodu 3001No 115Z018, 2015 - 2017

DEMİRBİLEK M., Project Supported by Higher Education Institutions, 2023 Vizyonunda Üniversitelerin Araştırma Laboratuvarları Çalıştayına katılım, 2016 - 2016

DEMİRBİLEK M., Project Supported by Higher Education Institutions, İleri Teknolojiler Araştırma ve Uygulama Merkezi Sitotoksikite Çalışmaları, 2015 - 2016

DEMİRBİLEK M., BAYRAM C., Industrial Thesis Project, Biyoyapay Pankreas Pankreas Hücrelerinin Enkapsülasyonu ile Hücre Tedavileri, 2014 - 2016

DEMİRBİLEK M., Industrial Thesis Project, Midkin uygulamasının sıçanlarda oluşturulacak yara modellerinde etkisinin belirlenmesi Farklı modellerde uygulanabilir yeni bir yara örtüsü geliştirilmesi, 2014 - 2016

DEMİRBİLEK M., LAÇIN TÜRKOĞLU N., KARAHALİLOĞLU Z., Project Supported by Higher Education Institutions, Etkin madde içeren yara örtü malzemeleri, 2015 - 2015

DEMİRBİLEK M., TUBITAK Project, Kemik Doku Mühendisliği Uygulamaları İçin Manyetik İpek Fibroin E Jel Doku İskeleleri Proje kodu 1002Proje no 114S775, 2014 - 2015

Metrics

Publication: 49

Citation (WoS): 574

Citation (Scopus): 477

H-Index (WoS): 10

H-Index (Scopus): 11