

HÜSEYİN AVCI

ASSOC. PROF.

Email : havci@ogu.edu.tr

Office Phone : [+90 222 239 3750](tel:+902222393750) Extension: 3688

Address : avcibio.com

International Researcher IDs

ORCID: 0000-0002-2475-1963

ScopusID: 54419396700

Yoksis Researcher ID: 155906

Learning Knowledge

Doctorate 2010 - 2013	North Carolina State University, Fiber Ve Polimer Bilimi, United States Of America
Postgraduate 2008 - 2010	North Carolina State University {North Carolina}, Tekstil Kimyası, United States Of America
Undergraduate 1999 - 2005	Dokuz Eylul University, Mühendislik Fakültesi, Tekstil Mühendisliği Bölümü, Turkey

Dissertations

Doctorate, Unusual formation of precursors for crystallization of ultra-high performance polypropylene and poly (ethylene terephthalate) fibers by utilization of ecologically friendly horizontal isothermal bath, North Carolina State University, Fiber Ve Polimer Bilimi, 2013

Postgraduate, Novel approaches to the development and characterization of antimicrobial conventional and nanostructured materials, North Carolina State University {North Carolina}, Tekstil Kimyası, 2010

Academic Titles / Tasks

Associate Professor 2019 - Continues	Eskisehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, METALURJİ VE MALZEME MÜHENDİSLİĞİ BÖLÜMÜ
Assistant Professor 2014 - 2019	Eskisehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, METALURJİ VE MALZEME MÜHENDİSLİĞİ BÖLÜMÜ
Research Assistant 2015 - 2016	Harvard-Mit Health Sciences And Technology
Research Assistant 2015 - 2016	Harvard University, Medical School

Research Assistant

2013 - 2014

North Carolina State University

Research Assistant

2013 - 2014

Istanbul Technical University, Uçak Ve Uzay Bilimleri Fakültesi

Research Assistant

2008 - 2013

North Carolina State University

Supported Projects

1. AVCI H., GHORBANPOOR H., GENÇ B., Project Supported by Higher Education Institutions, Mikroakışkan Platformunda Otomasyonun Entegrasyonu ve İncelenmesi, 2024 - Continues
2. AVCI H., GULUZADE L., Project Supported by Higher Education Institutions, İlaçla uyarılmış karaciğer hasarında mezenşimal kök hücre kaynaklı rejeneratif etkinin araştırılması, 2024 - Continues
3. AVCI H., SEYIDOVA N., Project Supported by Higher Education Institutions, Kemoteröpoitlere bağlı hepatotoksistide mezenkimal kök hücrelerin karaciğer rejenerasyonu üzerine etkisinin araştırılması, 2024 - Continues
4. AVCI H., JAVANIFAR R., GHORBANPOOR H., Project Supported by Higher Education Institutions, Mikroakışkan içerisinde membran bazlı filtrasyon sisteminin geliştirilmesi ve incelenmesi, 2024 - Continues
5. AVCI H., ŞENGEL T., Project Supported by Higher Education Institutions, Üç Boyutlu Hücre Kültür Teknikleri İle Karaciğer Modellemesi ve Ölçeklenebilir Prototiplendirilmesi, 2024 - Continues
6. AVCI H., DOĞAN GÜZEL F., Other International Funding Programs, Tam-Entegre ve Hızlı Bir Çip-Üstü Antibiyotik Duyarlılık Testi - Mikobakterium Tüberküloz İçin Örnek Bir Durum Analizi, 2018 - Continues
7. Avcı H., GHORBANPOOR H., TUBITAK Project, Nash'Ten İlerleyen Hepatosellüler Karsinomada Stellat Hücre Hedefli Flavonoid Destekli Nano Tedavi Yaklaşımı, 2024 - 2027
8. Ghorbanpoor H., Doğan Güzel F., Avcı H., Darcan C., Çetin Kılıçaslan G., TUBITAK Project, Tek-Kanal Elektrofizyolojisi ile Acinetobacter Baumannii Bakterisinin Porinlerinin (OmpA, OmpW, HMP-BA) Karakterizasyonu , 2024 - 2026
9. Güneş Bağış S., Eker Sarıboyacı A., Uysal O., Kara S. G., Avcı H., TUBITAK Project, Crush Sendromu Oluşturulmuş Rat Modelinde Gelişen Akut Böbrek Hasarında Silastatin, Deferoksamin, Tempol ve Mezenkimal Kök Hücrelerden Elde Edilen Eksozomun Tedavi Potansiyellerinin Araştırılması, 2023 - 2026
10. Atalay E., Özalp O., Uysal O., Ghorbanpoor H., Eroğlu S., Korkmaz O. T., Avcı H., Eker Sarıboyacı A., TUBITAK Project, Plateletten Zengin Plazma, Limbal-Kaynaklı Stromal Mezenkimal Kök Hücre Ve Pro-Rejeneratif Özellikli Eksozom İle Enkapsüle Edilmiş Terapötik Biyomalzeme Uygulamasının Oküler Yüzey Kimyasal Ve Termal Yanıklı Hayvan Modellerinde Klinik Etkinliğinin Araştırılması, 2023 - 2026
11. İstanbullu Ö. B., Yasan Ö. B., Ghorbanpoor H., Demir Cevizlidere B., Avcı H., Eker Sarıboyacı A., TUBITAK Project, Hegzagonal Bor Nitrid ve Tantalum Mikropartikül Takviyesi ile 3D Yazdırılabilir Biyobozunur Malzemeler İçin Hedef Doku ile Mekanik Uyumluluğun ve X-Işınlı Tıbbi Görüntüleme Sistemleri İle Görüntülenebilme Özelliğinin İyileştirilmesi, 2024 - 2025
12. Ghorbanpoor H., Avcı H., Doğan Güzel F., Bütün Şengel S., Semerci Sevimli T., Pat S., Darcan C., Eker Sarıboyacı A., TUBITAK Project, Mikroakışkan Çip İçerisinde Nanolif: Bakteri Duvarının Giderilmesinde Mikro-Filtrasyon Platformunun Geliştirilmesi, 2023 - 2025
13. Bütün Şengel S., Eker Sarıboyacı A., Güneş Bağış S., Avcı H., Özer İ., Karakaya İ. B., Şengel T., Kara S. G., TUBITAK Project, Kısa Bağırsak Sendromu Tedavisinde Terapötik miRNA Transfekte Wharton Jeli Kaynaklı Mezenkimal Kök Hücre Uygulaması: Kapsülleme Teknolojisinin Sıçan Modelinde Oral Uygulaması, 2022 - 2025

14. Avcı H., Uysal O., Eker Sarıboyacı A., Güneş S., Semerci Sevimli T., TUBITAK Project, Klinik Tanılamada Mikroakışkan Çip İçerisinde 3-Boyutlu Karaciğer Kitinin Geliştirilmesi, 2021 - 2025
15. Ghorbanpoor H., Avcı H., Kaya B. M., Doğan Güzel F., Semerci Sevimli T., Eker Sarıboyacı A., TUBITAK Project, Farklı Hücre Besiyeri Ortamlarında Bulunan Ph Değerlerinin Sürekli Bir Şekilde Ve Yüksek Hassasiyette Ölçümü İçin Optik Temelli Ph Sensörünün Geliştirilmesi, 2023 - 2024
16. AVCI H., GASIMZADE N., Project Supported by Higher Education Institutions, ÇİP ÜZERİNDE KARACİĞER KANSERİ PLATFORMUNDA İLACA BAĞLI KARACİĞER ENDOTEL HASARININ İNCELENMESİ, 2023 - 2024
17. Avcı H., Ghorbanpoor H., Doğan Güzel F., Ebrahimi A., Şengel T., Topal A. E., Özel C., Kaya M., Project Supported by Higher Education Institutions, Mikroakışkan Yonga Üzerinde Üç Boyutlu Karaciğer Kanseri Modeli ve Hedefe Yönelik Tanılama ve İlaç Taraması Kitinin Geliştirilmesi, 2022 - 2024
18. Atalay E., Eroğlu S., Avcı H., Uysal O., Güneş S., TUBITAK Project, Oküler Yüzeyin Kimyasal Yaralanmasında Plateletten Zengin Plazma Yüklü Bioadeziv Hidrojel Üretimi; Ico-Reg Hidrojel'In Pre-Klinik Kavram Kanıt Çalışması, 2021 - 2023
19. SEMERCİ SEVİMLİ T., ÇEMREK F., SEVİMLİ M., ŞAHİNTÜRK V., AVCI H., EKER SARIBOYACI A., QOMI EKENEL E., ALTUĞ TASA B., GHORBANI A., GÜNEŞ S., et al., Project Supported by Higher Education Institutions, Küçük Hücreli Dışı Akciğer Kanseri (KHDAK) Kökenli Kanser Kök Hücrelerinde (Stem-Like NSCLC Cells) Epitelial Mezenkimal Geçişte Borik Asitin Etkilerinin İncelenmesi, 2020 - 2022
20. EKER SARIBOYACI A., GÜNEŞ S., TUNCER S., SEMERCİ SEVİMLİ T., AVCI H., SEVİMLİ M., QOMI EKENEL E., UYSAL O., Project Supported by Higher Education Institutions, Domoik Asidin İnsan Amniyotik Sıvı Kökenli Mezenkimal Kök Hücrelerin (IAS-MKH) DNA Tamir Mekanizması Üzerine Etkisinin Araştırılması, 2019 - 2022
21. Eker Sarıboyacı A., Avcı H., Uysal O., Özkurt M., TUBITAK Project, Mezenkimal Kök Hücre Yüklü Kompozit Canlı Fibrillerin Saten Dkoumasıyla Üretilen Yapı İskeletlerinde İlaç Kontrolü Salınımın Değerlendirilmesi, 2020 - 2021
22. Avcı H., Morali U., Erol S., Project Supported by Higher Education Institutions, Geliştirilecek Yüksek Hassasiyetteki Elektrokimyasal Sensör Sistemi ile Ülkemiz Deniz Canlılarında Domoik Asidin ve Deniz Kirliliğinin İncelenmesi, 2018 - 2021
23. Avcı H., TUBITAK Project, Geliştirilen Çevre Dostu Yöntem ile Yeni Nesil Yüksek Performanslı ve Fonksiyonel Polietilen Bazlı Fiberlerin Geliştirilmesi, 2018 - 2020
24. Nurbaş M., Avcı H., Project Supported by Higher Education Institutions, Fonksiyonel çekirdek/kabuk nanolif esaslı biyomalzemelerin geliştirilmesi, 1998 - 2020
25. Nurbaş M., Avcı H., Ghorbanpoor H., Project Supported by Higher Education Institutions, Geliştirilmiş Üç Boyutlu (3D) Fiber Takviyeli Çevre Dostu Biyo-Kompozit Yapıların Tasarımı, 2016 - 2018
26. AVCI H., Project Supported by Higher Education Institutions, Çevre Dostu ve Doğal İçerikli Bileşikleri İçeren Antibakteriyel Nanofiber ve Yara İyileştirici Örtü Eldesi, 2015 - 2017
27. Nurbaş M., Avcı H., Project Supported by Higher Education Institutions, Gelişmiş Üç Boyutlu (3B) Çevre Dostu Fiberle Güçlendirilmiş Biyo-Kompozit Yapıların Tasarımı, 2015 - 2017
28. Ghorbanpoor H., Nurbaş M., Avcı H., Project Supported by Higher Education Institutions, Design of Advanced Three-Dimensional (3D) Eco-Friendly Fiber Reinforced Bio-Composite Structures., 2015 - 2017
29. Ghorbanpoor H., Avcı H., Project Supported by Higher Education Institutions, Termoplastik Elastomer olan Poly styrene b ethylene co butylene b styrene nin dinamik manipulasyonla fonksiyonel elektrospun nanofiber mühendisliği, 2015 - 2016
30. AVCI H., BAKSAN B., Project Supported by Higher Education Institutions, Termoplastik Elastomer olan Poly styrene b ethylene co butylene b styrene nin dinamik manipulasyonla fonksiyonel elektrospun nanofiber mühendisliği, 2015 - 2016
31. Other International Funding Programs, Novel Melt Spun Melt Ordered Process for Producing High Performance Polyester Fibers, 2010 - 2013

Published journal articles indexed by SCI, SSCI, and AHCI

1. **Improved bacterial filtration and DNA retention by a novel microfiltration process including composite membranes**

- Javanifar R., GHORBANPOOR H., AVCI H.
SEPARATION AND PURIFICATION TECHNOLOGY, vol.357, 2025 (SCI-Expanded)
2. **A novel green Microfiltration approach by developing a Lab-on-a-Chip System: A case study for Escherichia coli**
Javanifar R., Dabagh S., Kaya M., Bütün Şengel S., Ebrahimi A., Ghorbanpoor H., Avci H.
Separation and Purification Technology, vol.353, 2025 (SCI-Expanded)
 3. **Convenient rapid prototyping microphysiological niche for mimicking liver native basement membrane: Liver sinusoid on a chip**
Ebrahimi A., Ghorbanpoor H., Apaydin E., Demir Cevizlidere B., Özel C., Tüfekçioğlu E., Koç Y., Topal A. E., Tomsuk Ö., Güleç K., et al.
Colloids and Surfaces B: Biointerfaces, vol.245, 2025 (SCI-Expanded)
 4. **A Comprehensive Electrochemical Investigation of AuNPs-Modified Screen-Printed Carbon Electrodes for Domoic Acid Detection and Its Effect on Endothelial Cells**
Koc Y., AVCI H.
CHEMISTRYSELECT, vol.9, no.37, 2024 (SCI-Expanded)
 5. **Establishment, culture and characterization of gemcitabine hydrochloride-resistant human non-small cell lung carcinoma cell line derived cancer stem cells**
Cevizlidere B., Uysal O., Avci H., Bagis S. G., Sevimli T., Dincer M., Ekenel E. Q., Kara S. G., Soykan M. N., Sariboyaci A.
Cell Biochemistry and Function, vol.42, no.4, 2024 (SCI-Expanded)
 6. **Molecular Separation by Using Active and Passive Microfluidic chip Designs: A Comprehensive Review**
Ebrahimi A., İÇÖZ K., Didarian R., Shih C., Tarim E. A., Nasseri B., AKPEK A., Cecen B., Bal-Ozturk A., Güleç K., et al.
Advanced Materials Interfaces, vol.11, no.2, 2024 (SCI-Expanded)
 7. **Advances in xenogeneic donor decellularized organs: A review on studies with sheep and porcine-derived heart valves**
Inal M. S., AVCI H., Hassan S., DARCAN C., Shin S. R., AKPEK A.
Bioengineering and Translational Medicine, 2024 (SCI-Expanded)
 8. **Molecular Separation by Using Active and Passive Microfluidic chip Designs: A Comprehensive Review (Adv. Mater. Interfaces 2/2024)**
Ebrahimi A., Icoz K., Didarian R., Shih C., Tarim E. A., Nasseri B., Akpek A., Cecen B., Bal-Ozturk A., Güleç K., et al.
ADVANCED MATERIALS INTERFACES, vol.11, no.2, pp.1, 2024 (SCI-Expanded)
 9. **High-throughput microfluidic chip with silica gel-C18 channels for cyclotide separation**
Ebrahimi A., Didarian R., GHORBANPOOR H., DOĞAN GÜZEL F., Hashempour H., AVCI H.
Analytical and Bioanalytical Chemistry, vol.415, no.27, pp.6873-6883, 2023 (SCI-Expanded)
 10. **Simple and low-cost antibiotic susceptibility testing for Mycobacterium tuberculosis using screen-printed electrodes**
GHORBANPOOR H., AKÇAKOCA İ., Norouz Dizaji A., Butterworth A., Corrigan D., Kocagoz T., Ebrahimi A., AVCI H., DOĞAN GÜZEL F.
Biotechnology and Applied Biochemistry, vol.70, no.3, pp.1397-1406, 2023 (SCI-Expanded)
 11. **CLINICAL-GRADE HUMAN SYNOVIAL FLUID-DERIVED MESENCHYMAL STEM CELLS FOR DEGENERATIVE MENISCUS THERAPY**
Uysal O., Avci H., Bagis S. G., Semerci Sevimli T., Ozel C., Cevizlidere B., Soykan M. N., Kara S. G., Ekenel E. Q., Tasa B. A., et al.
CYTOTHERAPY, no.6, 2023 (SCI-Expanded)
 12. **Revealing the single-channel characteristics of OprD (OccAB1) porins from hospital strains of Acinetobacter baumannii**
Ebrahimi A., Ergün T., KAYGUSUZ İZGÖRDÜ Ö., DARCAN C., AVCI H., Öztürk B., GÜNER H. R., GHORBANPOOR H., DOĞAN GÜZEL F.
European Biophysics Journal, vol.52, no.3, pp.131-143, 2023 (SCI-Expanded)
 13. **A multifunctional sateen woven dressings for treatment of skin injuries**
Ozel C., Apaydin E., EKER SARIBOYACI A., Tamayol A., AVCI H.

Colloids and Surfaces B: Biointerfaces, vol.224, 2023 (SCI-Expanded)

14. **On chip microfluidic separation of cyclotides**
Didarian R, EBRAHIMI A, GHORBANPOOR H, Bagheroghli H, GÜZEL F. D., faradpour m, Lotfibakhshaiesh N, Hashempour H, AVCI H.
Turkish Journal of Chemistry, vol.47, no.1, pp.253-262, 2023 (SCI-Expanded)
15. **Improvement of polyethylene fiber wettability and mechanical properties through an environmentally sustainable spinning process**
Seyhan A, Gunaydin B. N., Polat Y., Kılıç A., Demir A., AVCI H.
International Journal of Adhesion and Adhesives, vol.119, 2022 (SCI-Expanded)
16. **Immunomodulating Hydrogels as Stealth Platform for Drug Delivery Applications**
Rezaei Z, Yilmaz-Aykut D., Tourk F. M., Bassous N., Barroso-Zuppa M., Shawl A. I., Ashraf S. S., AVCI H., Hassan S.
Pharmaceutics, vol.14, no.10, 2022 (SCI-Expanded)
17. **Developing an in-Line method to improve mechanical and flame retardancy performance of polyethylene fiber**
Gunaydin B., Seyhan A., Polat Y., Kilic A., Demir A., Ureyen M. E., Avci H.
JOURNAL OF INDUSTRIAL TEXTILES, vol.52, no.1, pp.1-15, 2022 (SCI-Expanded)
18. **A fully integrated rapid on-chip antibiotic susceptibility test-A case study for Mycobacterium smegmatis**
Ghorbanpoor H., Dizaji A. N., Akçakoca İ., Blair E. O., Ozturk Y., Hoskisson P., Kocagoz T., Avci H., Corrigan D. K., Doğan Güzel F.
SENSORS AND ACTUATORS A-PHYSICAL, vol.339, 2022 (SCI-Expanded)
19. **An electrochemical biosensor with integrated microheater to improve the sensitivity of electrochemical nucleic acid biosensors**
AKÇAKOCA İ., GHORBANPOOR H., Blair E., Ozturk Y., Dizaji A. N., Kocagoz T., AVCI H., Corrigan D., DOĞAN GÜZEL F.
JOURNAL OF MICROMECHANICS AND MICROENGINEERING, vol.32, no.4, 2022 (SCI-Expanded)
20. **Label-free molecular detection of antibiotic susceptibility for Mycobacterium smegmatis using a low cost electrode format**
Guzel F. D., Ghorbanpoor H., Dizaji A. N., Akçakoca İ., Ozturk Y., Kocagoz T., Corrigan D. K., Avci H.
BIOTECHNOLOGY AND APPLIED BIOCHEMISTRY, vol.68, no.6, pp.1159-1166, 2021 (SCI-Expanded)
21. **Investigation of electrochemical behavior of potassium ferricyanide/ferrocyanide redox probes on screen printed carbon electrode through cyclic voltammetry and electrochemical impedance spectroscopy**
Koç Y., Morali U., Erol S., Avci H.
Turkish Journal Of Chemistry, vol.45, no.6, pp.1895-1915, 2021 (SCI-Expanded)
22. **Electrochemical-based “antibiotsensor” for the whole-cell detection of the vancomycin-susceptible bacteria**
Norouz Dizaji A., Ali Z., Ghorbanpoor H., Ozturk Y., Akçakoca İ., Avci H., Doğan Güzel F.
Talanta, vol.234, 2021 (SCI-Expanded)
23. **Determination of therapeutic agents efficiencies of microsatellite instability high colon cancer cells in post-metastatic liver biochip modeling**
Bayir Garbioglu D., DEMİR N., Ozel C., AVCI H., DİNCER M.
FASEB Journal, vol.35, no.9, 2021 (SCI-Expanded)
24. **Current strategies for the regeneration of skeletal muscle tissue**
Alarçin E., Bal-Öztürk A., Avci H., Ghorbanpoor H., Guzel F. D., Akpek A., Yesiltas G., Canak-İpek T., Avci-Adali M.
International Journal of Molecular Sciences, vol.22, no.11, 2021 (SCI-Expanded)
25. **Electrochemical Investigation of Gold Based Screen Printed Electrodes: An Application for a Seafood Toxin Detection**
Koc Y., Morali U., Erol S., Avci H.
Electroanalysis, vol.33, no.4, pp.1033-1048, 2021 (SCI-Expanded)
26. **Tissue adhesives: From research to clinical translation**
Bal-Ozturk A., Cecen B., Avci-Adali M., Topkaya S. N., ALARÇIN E., YAŞAYAN G., Li Y. E., Bulkurcuoglu B., Akpek A.,

AVCI H., et al.

Nano Today, vol.36, 2021 (SCI-Expanded)

27. **On-chip label-free impedance-based detection of antibiotic permeation**
Kaur J., Ghorbanpoor H., Öztürk Y., Kaygusuz Ö., Avci H., Darcan C., Trabzon L., Güzel F. D.
IET Nanobiotechnology, vol.15, no.1, pp.100-106, 2021 (SCI-Expanded)
28. **Investigation of the Effect of Channel Structure and Flow Rate on On-Chip Bacterial Lysis**
Dizaji A. N., Ozturk Y., Ghorbanpoor H., Cetak A., AKÇAKOCA İ., Kocagoz T., AVCI H., Corrigan D., Guzel F. D.
IEEE Transactions on Nanobioscience, vol.20, no.1, pp.86-91, 2021 (SCI-Expanded)
29. **Self-assembled fibrillar polyethylene crystals with tunable properties**
Seyhan A., Gunaydin B. N., POLAT Y., Kılıç A., Demir A., AVCI H.
POLYMER ENGINEERING AND SCIENCE, vol.60, no.9, pp.2176-2189, 2020 (SCI-Expanded)
30. **Recent Advances in 4D Bioprinting**
AKPEK A., BAL ÖZTÜRK A., ALARÇİN E., AVCI H., avci adali m.
Research Journal of Biomedical and Biotechnology, vol.1, no.1, pp.20-23, 2020 (SCI-Expanded)
31. **Flexible poly(styrene-ethylene-butadiene-styrene) hybrid nanofibers for bioengineering and water filtration applications**
Avci H., Akkulak E., Gergeroglu H., Ghorbanpoor H., Uysal O., Eker Sarıboyacı A., Demir B., Soykan M. N., Pat S., Mohammadigharehbagh R., et al.
Journal of Applied Polymer Science, vol.137, no.26, 2020 (SCI-Expanded)
32. **Decellularized inner body membranes for tissue engineering: a review**
Inci I., Norouz Dizaji A., Ozel C., MORALI U., Dogan Guzel F., Avci H.
JOURNAL OF BIOMATERIALS SCIENCE-POLYMER EDITION, vol.31, no.10, pp.1287-1368, 2020 (SCI-Expanded)
33. **Customizable Composite Fibers for Engineering Skeletal Muscle Models**
Fallahi A., Yazdi I. K., Serex L., Leshia E., Faramarzi N., Tarlan F., Avci H., Costa-Almeida R., Sharifi F., Rinoldi C., et al.
ACS BIOMATERIALS SCIENCE & ENGINEERING, vol.6, no.2, pp.1112-1123, 2020 (SCI-Expanded)
34. **Synergistic effects of plant extracts and polymers on structural and antibacterial properties for wound healing**
AVCI H., Gergeroglu H.
POLYMER BULLETIN, vol.76, no.7, pp.3709-3731, 2019 (SCI-Expanded)
35. **Preparation of origanum minutiflorum oil-loaded core-shell structured chitosan nanofibers with tunable properties**
Avci H., Ghorbanpoor H., Nurbaş M.
Polymer Bulletin, vol.75, no.9, pp.4129-4144, 2018 (SCI-Expanded)
36. **Reversible Redox Activity by Ion-pH Dually Modulated Duplex Formation of i-Motif DNA with Complementary G-DNA**
Chang S., Kilic T., Lee C. K., AVCI H., Bae H., Oskui S. M., Jung S. M., Shin S. R., Kim S. J.
NANOMATERIALS, vol.8, no.4, 2018 (SCI-Expanded)
37. **Fabrication of Nanopores in an Ultra-Thin Polyimide Membrane for Biomolecule Sensing**
Guzel F. D., Avci H.
IEEE SENSORS JOURNAL, vol.18, no.7, pp.2641-2646, 2018 (SCI-Expanded)
38. **Cell-laden composite suture threads for repairing damaged tendons**
Costa-Almeida R., Domingues R. M. A., Fallahi A., Avci H., Yazdi I. K., Akbari M., Reis R. L., Tamayol A., Gomes M. E., Khademhosseini A.
JOURNAL OF TISSUE ENGINEERING AND REGENERATIVE MEDICINE, vol.12, no.4, pp.1039-1048, 2018 (SCI-Expanded)
39. **Rapid prototyping of whole-thermoplastic microfluidics with built-in microvalves using laser ablation and thermal fusion bonding**
Shaegh S. A. M., Pourmand A., Nabavina M., Avci H., Tamayol A., Mostafalu P., Ghavifekr H. B., Aghdam E. N., Dokmeci M. R., Khademhosseini A., et al.
SENSORS AND ACTUATORS B-CHEMICAL, vol.255, pp.100-109, 2018 (SCI-Expanded)
40. **A Review of Cellulose and Cellulose Blends for Preparation of Bio-derived and Conventional**

Membranes, Nanostructured Thin Films, and Composites

Douglass E. F., AVCI H., Boy R., Rojas O. J., Kotek R.

POLYMER REVIEWS, vol.58, no.1, pp.102-163, 2018 (SCI-Expanded)

41. **Recent advances in organ-on-a-chip technologies and future challenges: a review**
AVCI H., Dogan Guzel F., EROL S., Akpek A.
TURKISH JOURNAL OF CHEMISTRY, vol.42, no.3, pp.587-610, 2018 (SCI-Expanded)
42. **An eco-friendly approach to synthesis and characterization of magnetite (Fe₃O₄) nanoparticles using *Platanus Orientalis L.* leaf extract**
Nurbas M., Ghorbanpoor H., Avci H.
Digest Journal of Nanomaterials and Biostructures, vol.12, no.4, pp.993-1000, 2017 (SCI-Expanded)
43. **Label-Free and Regenerative Electrochemical Microfluidic Biosensors for Continual Monitoring of Cell Secretomes**
Shin S. R., Kilic T., Zhang Y. S., Avci H., Hu N., Kim D., Branco C., Aleman J., Massa S., Silvestri A., et al.
ADVANCED SCIENCE, vol.4, no.5, 2017 (SCI-Expanded)
44. **Multisensor-integrated organs-on-chips platform for automated and continual in situ monitoring of organoid behaviors**
Zhang Y. S., Aleman J., Shin S. R., Kilic T., Kim D., Shaegh S. A. M., Massa S., Riahi R., Chae S., Hu N., et al.
PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, vol.114, no.12, 2017 (SCI-Expanded)
45. **Investigation and recycling of paint sludge with cement and lime for producing lightweight construction mortar**
Avci H., Ghorbanpoor H., Topçu İ. B., Nurbaş M.
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58. **3D Örgülü Ve Tavuk Tüyü Takviyeli Biyokompozitler**
NURBAŞ M., Ghorbanpoor H., AVCI H.
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59. **Green and Sustainable Approach for Design of Antibacterial Wound Care Dressings**
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60. **Boya Çamurunun Geri Dönüşümü ile Isı ve Ses İzolasyonlu Hafif Konut İnşaat Yapısının Üretimi**
NURBAŞ M., GHORBANPOOR H., AVCI H.
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61. **Design of antibacterial and eco friendly wound dressings by using natural additives substance**
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62. **Fiber Textile Technology for Musculoskeletal Tissue Engineering Applications**
Yazdi I., Fallahi A., Costa Almeida R., AVCI H., Tamayol A., Khademhosseini A.
Biomedical Engineering Society (BMES) Annual Meeting, 5 - 08 October 2016
63. **Investigation of 3d Bio Composite Structures Using Vacuum Infusion Method via Chicken Feathers Fibers**
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" IAARHIES 28th International Conference on Engineering & Technology ICET, 18-19 September 2016, Shanghai, China, 18 - 20 September 2016
64. **DEVELOPMENT OF COMPOSITE POLYURETHANE FOAM USING ENVIRONMENTALLY FRIENDLY MATERIALS**
Ozdemir A. U., Gergeroglu H., AVCI H.
28. Ulusal Kimya Kongresi, Turkey, 15 - 21 August 2016
65. **Study of Paint Sludge Emissions from Polymeric Composites**
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66. **Textile Platform for Musculoskeletal Tissue Engineering**
Yazdi I., Fallahi A., AVCI H., Tamayol A., Khademhosseini A.
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67. **A textile platform using mechanically reinforced hydrogel fibres towards engineering tendon niche**
Almeida R., Tamayol A., Yazdi I., AVCI H., Fallahi A., Annabi N., Reis R., Gomes M., Khademhosseini A.
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68. **Dynamic Manipulation of Thermoplastic Elastomer of Poly styrene b ethylene cobutylene b styrene for Engineering Functional Electrospun Nanofibers**
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69. **Production of Antibacterial and Wound Healing Nano Fibers Containing Eco Friendly and Natural Compounds**
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70. **Textile Tissue Engineering: A Path Towards Organ Weaving**
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72. **Mechanically Reinforced Hydrogel Fibers for Tendon Tissue Engineering**
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73. **Effect of Reinforced Materials on Mechanical Properties of 3D Composite Structure**
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74. **Effects of Reinforced Materials on Mechanical Properties of 3D Composite Structure**
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76. **Production of New Generation Functional Fiber By Ecofriendly Isothermal Bath**
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77. **Development of an alternative carbon fiber precursor via eco friendly method**
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VII. International R&D Brokerage Event, 27 May 2015
79. **Development of New Generation Radiation Shielding Ecofriendly 3D Knitted Biocomposites**
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80. **Development of an Alternative Carbon Fiber Precursor via Eco-Friendly Methods**
AVCI H., GHORBANPOOR H., Gergeroglu H., NURBAŞ M., kotek R., Akkulak E.
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81. **Design of Advanced Green 3D Fiber Reinforced Composite Structures**
Nurbaş M., Ghorbanpoor H., Avci H.
6th World Conference on 3D Fabrics and their Applications, North Carolina, United States Of America, 26 - 28 May 2015
82. **Development of Novel 3D Reinforced Composites for Advanced Materials**
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Proceedings of the 6th World Conference on 3D Fabrics and their Applications, South Carolina, United States Of America, 26 - 28 May 2015, pp.124-128
83. **A New Generation of High Performance Functional Composite Fibers**
AVCI H., Kotek R.
1st International Conference of Sustainable Composite Technologies, 3 - 05 November 2014
84. **Design Strategy For Novel Nanohybrid Photocatalytic Cabin Air Filters**
Kucuksari A., AVCI H., CEBECİ H., KILIÇ A.
14th World Textile Conference, AUTEX, 26 - 28 May 2014
85. **Unique Polyamide Fibers by hIB Process**
Najafi M., Kotek R., AVCI H.
The Fiber Society, 21 - 23 May 2014
86. **Modifying Mechanical Properties of Nylon 6 Multifilament Yarn by Eco friendly Isothermal Bath**
Najafi M., AVCI H., Boy R., Kotek R.
127th NC ACS Sectional Conference, United States Of America, 01 November 2013
87. **Investigation on the Effect of Precursors on the Formation of Crystallization for Ultra High Performance Fibers**
AVCI H., Yoon J., Kotek R.
The Fiber Society, 23 - 25 October 2013
88. **Development and Testing of Nanofiber Filtration System for Removal of Volatile Organic Compounds VOC in Aircraft Cabins**
Kucuksari A., AVCI H., CEBECİ H., KILIÇ A.
Nanotechnology Student Conference NanoTR-Student, Turkey, 22 October 2013
89. **Developing an Unusual Formation of a Precursor for Crystallization of High Performance PET Fibers Using a Low Molecular Weight Polymer**
AVCI H., Yoon J., Kotek R.
245th ACS National Meeting and Exposition, United States Of America, 7 - 11 April 2013
90. **Green Engineering for Obtaining a New Class of High Performance Polyolefin Nylon Polyester Nonwovens**
AVCI H., Hudson S., Kotek R.
V. International RD Brokerage Event, 4 - 05 April 2013
91. **Green Engineering for Obtaining a New Class of High Performance Polyolefin Yarns**
AVCI H., Hudson S., Kotek R.
V. International RD Brokerage Event, 4 - 05 April 2013
92. **Green Engineering for Obtaining a New Class of High Performance Nylon Polyester Yarns**
AVCI H., Hudson S., Kotek R.
V. International RD Brokerage Event, 4 - 05 April 2013
93. **Green Engineering for Obtaining a New Class of High Performance Fibers**
AVCI H., Kotek R.
The 8th Annual NC State University Graduate Student Research Symposium, United States Of America, 19 March 2013
94. **Determination of skin friction drag force in the modified melt spinning process of ultra high teacity PET fibers**
Yoon J., AVCI H., Kotek R., Hudson S.
The Southeastern Regional Meeting of the American Chemical Society (SERMACS), United States Of America, 14 - 17 November 2012

95. **Developing an Environmentally Friendly Isothermal Bath to Obtain a New Class of High Performance Fibers**
AVCI H., Yoon J., Kotek R.
The Fiber Society, United States Of America, 7 - 09 November 2012
96. **Melt Spinning of High Performance Poly ethylene terephthalate PET Yarn via Utilizing a Horizontal Isothermal Bath HIB in the Threadline**
Yoon J., AVCI H., Kotek R.
4th Triangle Soft Matter Workshop, United States Of America, 14 May 2012
97. **A New Approach to Produce Eco friendly Natural Based Antibacterial PVA and PEO Nanofibers Mats**
AVCI H.
COT, NC State University-Wednesday Seminar, United States Of America, 22 February 2012
98. **Preparation of Antibacterial PVA and PEO Nanofibers Containing Lawsonia Inermis henna Leaf Extracts**
Yoon J., AVCI H., Kotek R., Hudson S.
10th World Textile Conference, AUTEX, 21 - 23 June 2010

Courses

NANO POLİMERİK MALZEMELERİN YAPISI VE ÖZELLİKLERİ, Postgraduate, 2017 - 2018, 2016 - 2017
POLİMER MÜHENDİSLİĞİNİN TEMELLERİ, Postgraduate, 2017 - 2018
KLİNİK DOKU MÜHENDİSLİĞİ, Doctorate, 2017 - 2018
LİF VE LİFLİ YAPILARIN ÖZELLİKLERİ VE KULLANIMI, Doctorate, 2017 - 2018, 2016 - 2017
Polimer Malzemeler, Undergraduate, 2017 - 2018, 2016 - 2017
POLİMER MALZEMELER VE TASARIM, Undergraduate, 2017 - 2018, 2016 - 2017
İLERİ BİYOMALZEMELER VE UYGULAMALARI, Postgraduate, 2017 - 2018, 2016 - 2017

Metrics

Publication: 181
Citation (WoS): 702
Citation (Scopus): 1862
H-Index (WoS): 13
H-Index (Scopus): 18

Research Areas

Material science and engineering

Non Academic Experience

Kadifeteks Mensucat
Calik Denim-Gap Güneydoğu Tekstil
Superhome Tekstil-Sanko