

ALTUĞ ÖZÇELİKKALE

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Bölümü Dumlupınar Caddesi No: 1 06800 Çankaya/Ankara



Öğrenim Bilgisi

Doktora 2010 - 2015	Purdue University, Amerika Birleşik Devletleri
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Yüksek Lisans 2008 - 2010	Orta Doğu Teknik Üniversitesi, Türkiye
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Lisans 2004 - 2008	Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Türkiye
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Yabancı Diller

İngilizce, C2 Ustalık

Yaptığı Tezler

Doktora, Freezing-Induced Deformation of Biomaterials in Cryomedicine, Purdue University, 2015

Yüksek Lisans, Development of an incompressible, laminar flow solver based on least squares spectral element method with P-type adaptive refinement capabilities, Orta Doğu Teknik Üniversitesi, 2010

Akademik Unvanlar / Görevler

Dr.Öğr.Üyesi 2020 - Devam Ediyor	Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Makina Mühendisliği Bölümü
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Araştırmacı 2017 - 2019	University of Maryland, College Park, Institute for Physical Science and Technology, Department of Physics
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Arařtırmacı
2016 - 2017

Johns Hopkins University, School of Engineering, Department of Mechanical
Engineering

Arařtırmacı
2015 - 2016

Purdue University, College of Engineering, School of Mechanical Engineering

Arařtırma Grevlisi
2010 - 2015

Purdue University, College of Engineering, School of Mechanical Engineering

Burslar

Ross Graduate Fellowship, niversite, 2010 - 2011

National Scholarship for M.S. Students, TBİTAK, 2008 - 2010

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- Cytotoxic T Lymphocyte Activation Signals Modulate Cytoskeletal Dynamics and Mechanical Force Generation**
Pathni A., Ozcelikkale A., Rey-Suarez I., Li L., Davis S., Rogers N., Xiao Z., Upadhyaya A.
FRONTIERS IN IMMUNOLOGY, cilt.13, 2022 (SCI İndekslerine Giren Dergi)
- An engineered pancreatic cancer model with intra-tumoral heterogeneity of driver mutations**
Moon H., Ozcelikkale A., Yang Y., Elzey B. D. , Konieczny S. F. , Han B.
LAB ON A CHIP, cilt.20, sa.20, ss.3720-3732, 2020 (SCI İndekslerine Giren Dergi)
- Differential response to doxorubicin in breast cancer subtypes simulated by a microfluidic tumor model**
Ozcelikkale A., Shin K., Noe-Kim V., Elzey B. D. , Dong Z., Zhang J., Kim K., Kwon I. C. , Park K., Han B.
JOURNAL OF CONTROLLED RELEASE, cilt.266, ss.129-139, 2017 (SCI İndekslerine Giren Dergi)
- Effects of dynamic matrix remodelling on en masse migration of fibroblasts on collagen matrices**
Ozcelikkale A., Dutton J. C. , Grinnell F., Han B.
JOURNAL OF THE ROYAL SOCIETY INTERFACE, cilt.14, sa.135, 2017 (SCI İndekslerine Giren Dergi)
- In vitro microfluidic models of tumor microenvironment to screen transport of drugs and nanoparticles**
Ozcelikkale A., Moon H., Linnes M., Han B.
WILEY INTERDISCIPLINARY REVIEWS-NANOMEDICINE AND NANOBIO TECHNOLOGY, cilt.9, sa.5, 2017 (SCI İndekslerine Giren Dergi)
- Enzyme-Induced Matrix Softening Regulates Hepatocarcinoma Cancer Cell Phenotypes**
Liang Y., Clay N. E. , Sullivan K. M. , Leong J., Ozcelikkale A., Rich M. H. , Lee M. K. , Lai M., Jeon H., Han B., et al.
MACROMOLECULAR BIOSCIENCE, cilt.17, sa.9, 2017 (SCI İndekslerine Giren Dergi)
- Subcellular domain-dependent molecular hierarchy of SFK and FAK in mechanotransduction and cytokine signaling**
Wan Q., ThucNhi TruongVo T. T. , Steele H. E. , Ozcelikkale A., Han B., Wang Y., Oh J., Yokota H., Na S.
SCIENTIFIC REPORTS, cilt.7, 2017 (SCI İndekslerine Giren Dergi)
- Modulation of Matrix Softness and Interstitial Flow for 3D Cell Culture Using a Cell-Microenvironment-on-a-Chip System**
Clay N. E. , Shin K., Ozcelikkale A., Lee M. K. , Rich M. H. , Kim D. H. , Han B., Kong H.
ACS BIOMATERIALS SCIENCE & ENGINEERING, cilt.2, sa.11, ss.1968-1975, 2016 (SCI İndekslerine Giren Dergi)

9. **Role of intracellular poroelasticity on freezing-induced deformation of cells in engineered tissues**
Ghosh S., Ozcelikkale A., Dutton J. C. , Han B.
JOURNAL OF THE ROYAL SOCIETY INTERFACE, cilt.13, sa.123, 2016 (SCI İndekslerine Giren Dergi)
10. **DNA Walker-Regulated Cancer Cell Growth Inhibition**
Li F., Cha T., Pan J., Ozcelikkale A., Han B., Choi J. H.
CHEMBIOCHEM, cilt.17, sa.12, ss.1138-1141, 2016 (SCI İndekslerine Giren Dergi)
11. **Thermal Destabilization of Collagen Matrix Hierarchical Structure by Freeze/Thaw**
Ozcelikkale A., Han B.
PLOS ONE, cilt.11, sa.1, 2016 (SCI İndekslerine Giren Dergi)
12. **Simulation of complex transport of nanoparticles around a tumor using tumor-microenvironment-on-chip**
Kwak B., Ozcelikkale A., Shin C. S. , Park K., Han B.
JOURNAL OF CONTROLLED RELEASE, cilt.194, ss.157-167, 2014 (SCI İndekslerine Giren Dergi)
13. **Role of Cells in Freezing-Induced Cell-Fluid-Matrix Interactions Within Engineered Tissues**
Seawright A., Ozcelikkale A., Dutton C., Han B.
JOURNAL OF BIOMECHANICAL ENGINEERING-TRANSACTIONS OF THE ASME, cilt.135, sa.9, 2013 (SCI İndekslerine Giren Dergi)
14. **Multifaceted Transport Characteristics of Nanomedicine: Needs for Characterization in Dynamic Environment**
Ozcelikkale A., Ghosh S., Han B.
MOLECULAR PHARMACEUTICS, cilt.10, sa.6, ss.2111-2126, 2013 (SCI İndekslerine Giren Dergi)
15. **Least-squares spectral element solution of incompressible Navier-Stokes equations with adaptive refinement**
Ozcelikkale A., SERT C.
JOURNAL OF COMPUTATIONAL PHYSICS, cilt.231, sa.9, ss.3755-3769, 2012 (SCI İndekslerine Giren Dergi)

Diğer Dergilerde Yayınlanan Makaleler

1. **Spatiotemporal characterization of extracellular matrix microstructures in engineered tissue: A whole-field spectroscopic imaging approach**
Xu Z., ÖZÇELİKKALE A., Kim Y. L. , Han B.
Journal of Nanotechnology in Engineering and Medicine, cilt.4, sa.1, 2013 (Diğer Kurumların Hakemli Dergileri)

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

1. **Rapid Low-Cost Prototyping of Organ-on-Chip Platforms by 3D-Printed Microfluidics**
Dedekargınoğlu B., Akalın A. A. , Özcelikkale A.
3rd Annual European Organ-on-Chip Society Meeting, Uppsala, İsveç, 01 Temmuz 2021
2. **Regulation of Cytoskeletal Dynamics during T Cell Activation by Substrate Stiffness**
Özcelikkale A., Upadhyaya A.
American Physical Society March Meeting, California, Amerika Birleşik Devletleri, 07 Mart 2018, ss.1
3. **NANOSCALE FLUID-STRUCTURE INTERACTIONS IN CYTOPLASM DURING FREEZING**
Ozcelikkale A., Han B.
ASME International Mechanical Engineering Congress and Exposition, Texas, Amerika Birleşik Devletleri, 9 - 15 Kasım 2012, ss.711-716
4. **EFFECTS OF FREEZING ON COLLAGEN NANOSCALE STRUCTURE IN ENGINEERED TISSUES**
Ozcelikkale A., Li Y., Xu X., Han B.
2nd ASME Global Congress on NanoEngineering for Medicine and Biology, Massachusetts, Amerika Birleşik Devletleri, 4 - 06 Şubat 2013, ss.29-30

5. **FUNCTIONAL IMAGING OF MATRIX STRUCTURE OF CRYOPRESERVED ENGINEERED TISSUES USING BACK-DIRECTIONAL GATED MESOSCOPIC IMAGING**
Kim Y. L. , Xu Z., Ozcelikkale A., Han B.
ASME Summer Bioengineering Conference (SBC), Fajardo, Porto Riko, 20 - 23 Haziran 2012, ss.259-260
6. **ROLE OF CELLS IN FREEZING-INDUCED CELL-FLUID MATRIX INTERACTIONS WITHIN ENGINEERED TISSUES**
Seawright A., Ozcelikkale A., Dutton J. C. , Han B.
ASME Summer Bioengineering Conference (SBC), Fajardo, Porto Riko, 20 - 23 Haziran 2012, ss.409-410
7. **h- and p-Adaptive Incompressible Flow Solutions on Cartesian Grids Using Least Squares Spectral Element Method**
Özcelikkale A., Sert C.
5th European Conf. on CFD (ECCOMAS CFD), Lisbon, Portekiz, 14 - 17 Haziran 2010, ss.1-16

Atıflar

Toplam Atıf Sayısı (WOS):294

h-indeksi (WOS):9

Araştırma Alanları

Biyoenstrümantasyon ve MEMS, Biyoenstrümantasyon ve MEMS, Biyomedikal Görüntü İşleme, Biyomekanik, Yapay Organlar ve Biyomateryaller, Geleneksel olmayan imalat yöntemleri, Biyomekanik, Isı ve Madde Transferi