

Asst. Prof. SEZER ÖZERİNÇ

Personal Information

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Address: ODTÜ MAKİNA MÜHENDİSLİĞİ BÖLÜMÜ DUMLUPINAR BLV. NO: 1

Education Information

Doctorate, University Of Illinois At Urbana-Champaign, Makine Mühendisliği, United States Of America 2010 - 2015

Post Graduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Makine Mühendisliği (YI) (Tezli), Turkey 2008 - 2010

Under Graduate, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, Turkey 2004 - 2008

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Microscale mechanical characterization of materials for extreme environments, University Of Illinois At Urbana-Champaign, Makine Mühendisliği, 2015

Post Graduate, Heat transfer enhancement with nanofluids, Middle East Technical University, Graduate School of Natural and Applied Sciences, Makine Mühendisliği (YI) (Tezli), 2010

Research Areas

Metallurgical and Materials Engineering, Material science and engineering, Plating, Mechanical Metallurgy, Nanomaterials, Structure-Property Relationship, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 2018 - Continues

Assistant Professor, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 2016 - 2018

Professional Experience

Assistant Manager of Research and Application Center, Middle East Technical University, Presidency Office, ODTÜ Merkez Laboratuvarı, 2017 - 2018

Courses

Mechanical Characterization of Materials, Under Graduate, 2019 - 2020

Machine Elements II, Under Graduate, 2018 - 2019

Advising Theses

Kalay Y. E. , Özerinç S., Micromechanical characterization of metallic glass-crystalline nanocomposite coatings, Post Graduate, M.ABBOUD(Student), 2018

Kalay Y. E. , Özerinç S., Experimental investigation of the mechanical properties of nanolayered metals, Post Graduate, A.TUNCAY(Student), 2018

Jury Memberships

Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, September, 2020

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi, July, 2020

Designed Lessons

Özerinç S., Special Topics in ME: Mechanical Characterization of Materials, Post Graduate, 2018 - 2019

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

- **Effect of fused deposition modeling process parameters on the mechanical properties of recycled polyethylene terephthalate parts**
Bakir A. A. , Atik R., ÖZERİNÇ S.
JOURNAL OF APPLIED POLYMER SCIENCE, 2020 (Journal Indexed in SCI)
- **Improving the ductility of polylactic acid parts produced by fused deposition modeling through polyhydroxyalkanoate additions**
Kaygusuz B., ÖZERİNÇ S.
Journal of Applied Polymer Science, vol.136, 2019 (Journal Indexed in SCI)
- **Size-independent strength of amorphous-HCP crystalline metallic nanolayers**
Abboud M., Özerinç S.
JOURNAL OF MATERIALS RESEARCH, vol.34, pp.2275-2284, 2019 (Journal Indexed in SCI)
- **Nanoscratch Behavior of Metallic Glass/Crystalline Nanolayered Composites**
Abboud M., Motallebzadeh A., Verma N., Özerinç S.
JOM, vol.71, pp.593-601, 2019 (Journal Indexed in SCI)
- **High strength metallic wood from nanostructured nickel inverse opal materials**
Pikul J. H. , ÖZERİNÇ S., Liu B., ZHANG R., BRAUN P. V. , Deshpande V. S. , KING W. P.
SCIENTIFIC REPORTS, vol.9, 2019 (Journal Indexed in SCI)
- **Effect of Sm on thermal and mechanical properties of Cu-Zr-Al bulk metallic glasses**
Sikan F., Atabay S. E. , Motallebzadeh A., Özerinç S., Kalay I., Kalay Y. E.
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING, vol.743, pp.168-174, 2019 (Journal Indexed in SCI)
- **Experimental measurements of interfacial strength at the nanoscale Nanoölçekteki arayüzeylerin kayma dayanımlarının deneysel olarak ölçülmesi**
Özerinç S.

Journal of the Faculty of Engineering and Architecture of Gazi University, vol.34, pp.1645-1652, 2019 (Journal Indexed in SCI)

● **In situ Measurements of Irradiation-Induced Creep of Nanocrystalline Copper at Elevated Temperatures**

ÖZERİNÇ S., AVERBACK R. S., KING W. P.

JOM, vol.68, pp.2737-2741, 2016 (Journal Indexed in SCI)

● **Direct measurements of irradiation-induced creep in micropillars of amorphous Cu₅₆Ti₃₈Ag₆, Zr₅₂Ni₄₈, Si, and SiO₂**

Ozerinc S., KİM H. J., Averback R. S., King W. P.

JOURNAL OF APPLIED PHYSICS, vol.117, 2015 (Journal Indexed in SCI)

● **Effect of irradiation damage on the shear strength of Cu-Nb interfaces**

MAO S., Ozerinc S., King W. P., Averback R. S., Dillon S. J.

SCRIPTA MATERIALIA, pp.29-32, 2014 (Journal Indexed in SCI)

● **In situ creep measurements on micropillar samples during heavy ion irradiation**

Ozerinc S., Averback R. S., King W. P.

JOURNAL OF NUCLEAR MATERIALS, vol.451, pp.104-110, 2014 (Journal Indexed in SCI)

● **Numerical analysis of laminar forced convection with temperature-dependent thermal conductivity of nanofluids and thermal dispersion**

Ozerinc S., YAZICIOGLU A. G., Kakac S.

INTERNATIONAL JOURNAL OF THERMAL SCIENCES, vol.62, pp.138-148, 2012 (Journal Indexed in SCI)

● **Grain boundary doping strengthens nanocrystalline copper alloys**

Ozerinc S., TAİ K., Vo N. Q., BELLON P., Averback R. S., King W. P.

SCRIPTA MATERIALIA, vol.67, pp.720-723, 2012 (Journal Indexed in SCI)

● **Enhanced thermal conductivity of nanofluids: a state-of-the-art review**

Özerinç S., Kakac S., Yazicioglu A. G.

MICROFLUIDICS AND NANOFUIDICS, vol.8, pp.145-170, 2010 (Journal Indexed in SCI)

Articles Published in Other Journals

● **FINITE ELEMENT ANALYSIS OF NANOINDENTATION ON NANOLAMINATED MATERIALS**

Özerinç S.

Eskişehir Technical University Journal of Science and Technology A - Applied Sciences and Engineering, vol.19, pp.991-1000, 2018 (National Refreed University Journal)

● **3 Boyutlu Yazıcı ile Üretilen PLA Bazlı Yapıların Mekanik Özelliklerinin İncelenmesi**

Kaygusuz B., Özerinç S.

Makina Tasarım ve İmalat Dergisi, vol.16, pp.1-6, 2018 (National Refreed University Journal)

Books & Book Chapters

● **Thermophysical Properties of Nanofluids**

ÖZERİNÇ S., KAKAÇ S., GÜVENÇ YAZICIOĞLU A.

in: Microscale and Nanoscale Heat Transfer Analysis Design and Application, Mourad Rebay, Sadık Kakaç, Renato M. Cotta, Editor, CRC Press, Boca Raton, Florida, pp.125-154, 2016

Refereed Congress / Symposium Publications in Proceedings

● **Nanolayered Metallic Glass-crystalline Composites with High Strength and Wear Resistance**

Özerinç S.

- TMS 2020 Annual Meeting & Exhibition, California, United States Of America, 23 - 27 February 2020, pp.1
Mechanical Behavior of Metallic Glass / HCP Crystalline Nanolayers
Abboud M., Motallebzadeh A., Özerinç S.
- TMS 2020 Annual Meeting & Exhibition, California, United States Of America, 23 - 27 February 2020, pp.1
MECHANICAL PROPERTIES OF 3D PRINTED PARTS MADE OF RECYCLED POLYMERS
Bakır A. A. , Atık R., Özerinç S.
- AMCTURKEY Additive Manufacturing Conference 2019, İstanbul, Turkey, 17 - 18 October 2019, pp.1-2
Mechanical Behavior of Metallic Glass / HCP Nanolayered Coatings
Özerinç S., Abboud M., Motallebzadeh A.
- European Congress and Exhibition on Advanced Materials and Processes, Stockholm, Sweden, 1 - 05 September 2019
Effect of Repair Processes on the Mechanical Properties of Composites used in Aerospace Applications
Sonat E., Oğuz F., Özerinç S.
- The 1st International Workshop on Plasticity, Damage and Fracture of Engineering Materials, Ankara, Turkey, 22 - 23 August 2019
Understanding Plasticity of Nanostructured Metals through Advanced Micromechanical Testing
Özerinç S.
- The 1st International Workshop on Plasticity, Damage and Fracture of Engineering Materials, Ankara, Turkey, 22 - 23 August 2019
Finite Element Analysis of Interfacial Shear Strength Measurements Performed on Nanolayered Metals
Kepenekci M., Özerinç S.
- The 1st International Workshop on Plasticity, Damage and Fracture of Engineering Materials, Ankara, Turkey, 22 - 23 August 2019
Metallic Glass/Crystalline Nanolayered Coatings with High Nanoscratch Resistance and Damage Tolerance
Abboud M., Motallebzadeh A., Özerinç S.
- 46th International Conference on Metallurgical Coatings and Thin Films, California, United States Of America, 19 - 24 May 2019, pp.1
Size-Independent High Strength of CuTi/Ti Metallic Glass/Crystalline Nanolayers
Abboud M., Motallebzadeh A., Özerinç S.
- 46th International Conference on Metallurgical Coatings and Thin Films, California, United States Of America, 19 - 24 May 2019, pp.1
A Combinatorial Investigation of Cu-Nb Metallic Glass Thin Films
Abboud M., Motallebzadeh A., Özerinç S.
- TMS Annual Meeting & Exhibition 2019, Texas, United States Of America, 10 - 14 March 2019, pp.1
Mechanical Properties of PLA/PHA Blends for Fused Deposition Modeling Applications
Kaygusuz B., Özerinç S.
- 1st International Conference on Advances in Mechanical and Mechatronics Engineering, Ankara, Turkey, 8 - 09 November 2018, pp.1
Effects of Annealing on the Structure and Mechanical Properties of 3D Printed PLA Components
Aydın S., Yaman U., Özerinç S.
- First International Conference on Advances in Mechanical and Mechatronics Engineering, Ankara, Turkey, 8 - 09 November 2018
Mechanical properties of layered metallic glass – crystalline metal nanocomposites
Abboud M., Motallebzadeh A., Özerinç S.
- 19th International Metallurgy and Materials Congress, İstanbul, Turkey, 25 - 27 October 2018, pp.1
Advanced micromechanical characterization techniques for understanding materials behavior at the nanoscale
Özerinç S., Abboud M., Motallebzadeh A., Kalay Y. E.

- 19th International Metallurgy and Materials Congress, İstanbul, Turkey, 25 - 27 October 2018, pp.1
Probing the Mechanical Behavior of Nanostructured Materials Through Micropillar Compression Experiments
Alpkaya A. T. , Motallebzadeh A., Özerinç S.
- 19th International Metallurgy and Materials Congress, İstanbul, Turkey, 25 - 27 October 2018, pp.1
Mechanical and microstructural evolution of solid graphite nozzle throats in extreme temperature and pressure conditions
Kaygusuz B., Nigar B., Ünlüsoy L., Çöker D., Özerinç S.
- 19th International Metallurgy and Materials Congress, İstanbul, Turkey, 25 - 27 October 2018, pp.1
Mechanical and Microstructural Evolution of Solid Graphite Rocket Nozzle Throats in Extreme Temperature and Pressure Conditions
Kaygusuz B., Nigar B., ÜNLÜSOY L., ÇÖKER D., ÖZERİNÇ S.
- 19th International Metallurgy and Materials Congress, İstanbul, Turkey, 25 - 27 October 2018
Effect of Sm on Mechanical Properties of Cu-Zr-Al Bulk Metallic Glasses
Sıkan F., Kalay İ., Özerinç S., Kalay Y. E.
- Materials Science & Technology 2018, Ohio, United States Of America, 14 - 18 October 2018, pp.1
Multilayered Metallic Glass-Crystalline Nanocomposites with Improved Wear Resistance
Abboud M., Artvin Z., Motallebzadeh A., Özerinç S.
- TMS Annual Meeting & Exhibition 2018, Arizona, United States Of America, 11 - 15 March 2018, pp.1
Strengthening in Multilayered Cu-Nb through Alloying
ÖZERİNÇ S., VERMA N., AVERBACK R.
- 2017 MRS Fall Meeting, Boston, United States Of America, 26 November - 01 December 2017
Solid Solution Strengthening in Nanolayered Metals
Alpkaya A. T. , Motallebzadeh A., Özerinç S.
- NanoTR-13 Conference, Turkey, 22 - 25 October 2017, pp.1
Effects of Annealing and Heavy Ion Irradiation on the Mechanical Properties of AlSc Alloys
VERMA N., ÖZERİNÇ S., AVERBACK R., KİM S.
- 2017 MRS Spring Meeting, Phoenix, United States Of America, 17 - 21 April 2017
Effect of Sm Micro-alloying on the mechanical behavior and crystallization kinetics of Cu-Zr-Al BMGs
Sıkan F., Kalay İ., Özerinç S., Kalay Y. E.
- TMS Annual Meeting & Exhibition, California, United States Of America, 26 February - 02 March 2017, pp.1
Micromechanical Testing of High Strength Copper Niobium Nanostructures
ÖZERİNÇ S., MAO S., TAİ K., VO N., BELLON P., DİLLON S., AVERBACK R., KİNG W.
- 12th Nanoscience and Nanotechnology Conference, Kocaeli, Turkey, 3 - 05 June 2016
In Situ Irradiation Induced Creep Measurements on Micropillar Specimens at Elevated Temperatures
ÖZERİNÇ S., AVERBACK R., KİNG W.
- 2016 TMS Annual Meeting & Exhibition, Nashville, Tennessee, United States Of America, 14 - 18 February 2016
MICRO ARCHITECTED POROUS MATERIAL WITH HIGH STRENGTH AND CONTROLLABLE STIFFNESS
Pikul J. H. , Ozerinc S., ZHANG R., Braun P. V. , King W. P.
- 29th IEEE International Conference on Micro Electro Mechanical Systems (MEMS), Shanghai, China, 24 - 28 January 2016, pp.451-454
HEAT TRANSFER ENHANCEMENT IN LAMINAR CONVECTIVE HEAT TRANSFER WITH NANOFLUIDS
ÖZERİNÇ S., Kakac S., YAZICIOGLU A. G.
- International Symposium on Thermal and Materials Nanoscience and Nanotechnology (TMNN), Antalya, Turkey, 29 May - 03 June 2011
Convective heat transfer enhancement with nanofluids: The effect of temperature-variable thermal conductivity
ÖZERİNÇ S., Yazicioğlu A. G. , Kakaç S.
- ASME 2010 10th Biennial Conference on Engineering Systems Design and Analysis, ESDA2010, İstanbul, Turkey, 12 - 14 July 2010, vol.2, pp.719-731

Supported Projects

- KAZANÇ ÖZERİNÇ F., ÖZERİNÇ S., FATHİPOUR S., Project Supported by Higher Education Institutions, Reaktif Metalik Nanokatmanların Yanma Davranışlarının İncelenmesi, 2020 - Continues
- Özerinç S., TUBITAK Project, Yüksek Kırılma Tokluğuna Sahip Sert Kaplamaların Geliştirilmesi, 2018 - 2020
- Özerinç S., TUBITAK Project, Tümlşik Kaplama Yöntemiyle Zirkonyum Bazlı Metalik Cam Kaplamaların Geliştirilmesi, 2018 - 2019
- ÖZERİNÇ S., ALPKAYA A. T. , Project Supported by Higher Education Institutions, Bakır-Titanyum Nanokompozitlerinin Mekanik Özelliklerinin İncelenmesi, 2018 - 2019
- Özerinç S., TUBITAK Project, Nanokatmanlı Metallerin Mekanik Özelliklerinin Mikrobasma Ölçüleriyle İncelenmesi, 2017 - 2019
- ÖZERİNÇ S., KALAY Y. E. , Abboud M., Project Supported by Higher Education Institutions, Zr-Cu-Al Metalik Camlarının Mekanik Özelliklerinin İncelenmesi, 2017 - 2019
- ÖZERİNÇ S., Project Supported by Higher Education Institutions, Metalik Cam İçeren Nanokompozit Kaplamaların Aşınma ve Sertlik Özelliklerinin İncelenmesi, 2016 - 2019
- Özerinç S., TUBITAK Project, Nanokatmanlı Malzemelerin Nanosertlik ve Akma Dayanımlarının İncelenmesi, 2016 - 2018
- ÖZERİNÇ S., ALPKAYA A. T. , Project Supported by Higher Education Institutions, Metalik Nanokatmanlı İnce Filmlerin Üretimi ve Mekanik Karakterizasyonu, 2017 - 2017
- ÖZERİNÇ S., TURAN E., NİGAR B., Pınar A. Ç. , ERGÜL K., TEMEL S., Project Supported by Higher Education Institutions, Mikroyapıların Mekanik Davranışlarının Sonlu Elemanlar Analizi ile İncelenmesi, 2017 - 2017

Activities in Scientific Journals

Makina Tasarım ve İmalat Dergisi, Assistant Editor, 2016 - Continues

Memberships / Tasks in Scientific Organizations

- Materials Research Society, Member, 2018 - Continues
- Makine Tasarım Ve İmalat Derneği, Board Member, 2016 - Continues
- The Minerals, Metals & Materials Society, Member, 2014 - Continues

Scientific Refereeing

- JOURNAL OF APPLIED POLYMER SCIENCE, SCI Journal, November 2019
- JOURNAL OF APPLIED POLYMER SCIENCE, SCI Journal, November 2019
- MATERIALS RESEARCH EXPRESS, Journal Indexed in SCI-E, September 2019
- MATERIALS RESEARCH EXPRESS, Journal Indexed in SCI-E, July 2019
- JOURNAL OF APPLIED POLYMER SCIENCE, SCI Journal, June 2019
- JOURNAL OF APPLIED POLYMER SCIENCE, SCI Journal, May 2019
- JOURNAL OF APPLIED POLYMER SCIENCE, SCI Journal, April 2019
- JOURNAL OF APPLIED POLYMER SCIENCE, SCI Journal, April 2019
- JOURNAL OF APPLIED POLYMER SCIENCE, SCI Journal, March 2019
- Project Supported by Other Official Institutions, Middle East Technical University, Turkey, September 2018
- INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES, SCI Journal, March 2018

Citations

Total Citations (WOS):515

h-index (WOS):7

Invited Talks

Nanomalzemelerin Mekanik Özellikleri ve Yeni Nesil Mikromekanik Ölçüm Teknikleri, Seminar, TÜBİTAK MAM, Turkey, August 2018

Nanoyapılı Alaşım ve Kaplamaların Üstün Mekanik Özellikleri, Seminar, İstanbul Teknik Üniversitesi, Turkey, January 2018

Awards

Özerinç S., TÜBİTAK U2020 Eşik Üstü Ödülü, Tübitak, March 2018

Özerinç S., TÜBİTAK U2020 Eşik Üstü Ödülü, Tübitak, September 2017

Özerinç S., Marie Skłodowska-Curie Actions Seal of Excellence, European Union, April 2017