Assoc. Prof. MEHMET AYVAZ

Personal Information

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International Researcher IDs
ScholarID: EWxdlMAAAAAJ
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Yoksis Researcher ID: 25267

Education

Doctorate, Turkey 2010 - 2016
Postgraduate, Turkey 2008 - 2010
Undergraduate, Turkey 2004 - 2008

Foreign Languages

English

Dissertations

Doctorate, T/M yöntemi ile üretilen katman içeren, çok katmanlı kompozit zırh plakalarının balistik dayanımının incelenmesi, 2016
Postgraduate, İki farklı alüminyum alaşımının,tıg kaynak yöntemi kullanılarak,iki farklı elektrot teli ile kaynatılması ve mekanik özelliklerinin incelenmesi, 2010

Research Areas

Avesis Research Areas: Construction and Manufacturing
WoS Research Areas: Engineering Computing & Technology (Eng), Materials Science
Scopus Research Areas: General Materials Science

Academic Positions

Associate Professor, Manisa Celal Bayar University, Manisa Teknik Bilimler Meslek Yüksekokulu, Elektronik Ve Otomasyon, 2017 - Present
Research Assistant, Osmaniye Korkut Ata University, 2016 - 2017
Research Assistant, 2012 - 2016
Research Assistant, Osmaniye Korkut Ata University, 2010 - 2012

Courses

Courses

Associate Degree

Teknik ve Meslek Resmi, Associate Degree, 2021-2022, 2020-2021
Malzeme Teknolojisi, Associate Degree, 2021-2022, 2020-2021, 2019-2020, 2018-2019, 2017-2018
Araştırma Yöntem ve Teknikleri, Associate Degree, 2021-2022, 2020-2021, 2019-2020
İleri İmalat Yöntemleri, Associate Degree, 2021-2022, 2018-2019
Mekanizmalar, Associate Degree, 2021-2022, 2020-2021, 2019-2020, 2018-2019
Hidrolik-Pnömatik, Associate Degree, 2021-2022, 2020-2021, 2019-2020, 2018-2019
İşletmede Mesleki Eğitim, Associate Degree, 2021-2022
Sayısal Kontrollü Tezgahlar, Associate Degree, 2021-2022, 2020-2021, 2019-2020, 2018-2019
İş Yeri Uygulama Eğitimi, Associate Degree, 2020-2021, 2019-2020, 2018-2019, 2017-2018
Makine Elemanları II, Associate Degree, 2019-2020
Matematik, Associate Degree, 2019-2020, 2018-2019
Endüstriyel Robotlar, Associate Degree, 2019-2020, 2018-2019
Talaşsız İmalat Yöntemleri, Associate Degree, 2018-2019
Malzeme ve Teknolojisi I, Associate Degree, 2018-2019
Hidrolik ve Pnömatik, Associate Degree, 2017-2018
Malzeme Teknolojisi I, Associate Degree, 2017-2018

Undergraduate Minor

Toz Metalurjisi, Undergraduate Minor, 2021-2022

Supervised Theses

AYVAZ M., Mikrodalga sinterleme ile üretilen alüminyum alaşımı esaslı sic ve gr takviyeli hibrit kompozitlerin tribolojik özelliklerinin incelenmesi, Postgraduate, M.SERT(Student), 2024

Articles

I. **Effect of nano hydroxyapatite addition on microstructural, mechanical, in vitro corrosion and tribological properties of biodegradable Mg2Zn1Mn/HA composites**
Zalaoğlu D., AYVAZ M., Özer E., Übeyli M., Aksu U., Dokak Y.
Materials Chemistry and Physics, vol.355, 2026 (SCI-Expanded, Scopus)

II. **In vitro tribological behavior of Mg2Zn1Mn/HA-Al2O3 nano-biocomposites**
AYVAZ M., Özer E., Zalaoäylu D., Übeyli M., Aksu U., Eryä±lmaz M.
Materialpruefung/Materials Testing, vol.68, no.2, pp.377-398, 2026 (SCI-Expanded, Scopus)

III. **Microstructural, mechanical and in vitro degradation properties of magnesium hybrid nanocomposites for orthopedic applications**
Özer E., Zalaoğlu D., AYVAZ M., Übeyli M., Aksu U., Eryılmaz M.
Ceramics International, vol.51, no.28, pp.57483-57502, 2025 (SCI-Expanded, Scopus)

IV. **Microstructural, mechanical, wear and corrosion properties of Mg3Zn/TiB2-CNT nanocomposites**
Özer E., AYVAZ M., Zalaoğlu D., Übeyli M., Özdoğru T.
Materials Chemistry and Physics, vol.334, 2025 (SCI-Expanded, Scopus)

V. **Effect of Heat Treatment and Reinforcement Content on the Wear Behavior of Al–4Cu/Al2O3–CNT Nanocomposites**
Özer E., AYVAZ M., Übeyli M., Sarpkaya İ.
Arabian Journal for Science and Engineering, vol.49, no.11, pp.14911-14926, 2024 (SCI-Expanded, Scopus)

VI. **Dry tribological behaviour of microwave-assisted sintered AA2024 matrix hybrid composites reinforced by TiC/B4C/nano-graphite particles**
Özer E., AYVAZ M.
Materialpruefung/Materials Testing, vol.66, no.2, pp.233-247, 2024 (SCI-Expanded, Scopus)

VII. **Properties of Aluminum Nano Composites Bearing Alumina Particles and Multiwall Carbon Nanotubes Manufactured by Mechanical Alloying and Microwave Sintering**
Özer E., AYVAZ M., Übeyli M., Sarpkaya İ.
Metals and Materials International, vol.29, no.2, pp.402-419, 2023 (SCI-Expanded, Scopus)

VIII. **Investigation of mechanical and tribological behavior of SiC and B4C reinforced Al-Zn-Mg-Si-Cu alloy matrix surface composites fabricated via friction stir processing**
İPEK AYVAZ S., Arslan D., AYVAZ M.
Materials Today Communications, vol.31, 2022 (SCI-Expanded, Scopus)

IX. **Characterization and Tribological Properties of Novel AlCu4.5SiMg Alloy–(B4C/TiO2/nGr) Quaternary Hybrid Composites Sintered via Microwave**
AYVAZ M.
Metals and Materials International, vol.28, no.3, pp.710-721, 2022 (SCI-Expanded, Scopus)

X. **Hydroxyapatite coating processes with EPD method and investigation of mechanical properties of coatings**
AYDIN İ., BAHÇEPINAR A. İ., AYVAZ M.
International Advanced Researches and Engineering Journal, vol.6, no.2, pp.106-112, 2022 (TRDizin)

XI. **Microstructure and Dry Sliding Wear Behaviors of Microwave-Sintered Al-4.4Cu-0.7 Mg-0.6Si-B4C/nGr Hybrid Composites**
AYVAZ M.
Transactions of the Indian Institute of Metals, vol.74, no.6, pp.1397-1408, 2021 (SCI-Expanded, Scopus)

XII. **Ballistic performance of powder metal Al5Cu-B4C composite as monolithic and laminated armor**
AYVAZ M., ÇETİNEL H.
Materialpruefung/Materials Testing, vol.63, no.6, pp.512-518, 2021 (SCI-Expanded, Scopus)

XIII. **Mechanical properties of Al-Cu/B4C and Al-Mg/B4C metal matrix composites**
AYVAZ M., ÇETİNEL H.
Materialpruefung/Materials Testing, vol.63, no.4, pp.350-355, 2021 (SCI-Expanded, Scopus)

XIV. **Numerical Simulation on Balistic Performance of SiC/Light Metal Laminated Composite Armor against .30 APM2**
KURAL S., Ayvaz M.
Celal Bayar Üniversitesi Fen Bilimleri Dergisi, vol.16, no.4, pp.409-418, 2020 (TRDizin)

XV. **Microstructural properties and tribological behaviours of ultra-high frequency induction rapid sintered Al-WC composites Propiedades microestructurales y comportamiento tribológico de composites Al-WC sinterizados mediante inducción rápida a ultra alta frecuencia**
Çavdar U., Gezici L. U., Gül B., AYVAZ M.
Revista de Metalurgia, vol.56, no.1, 2020 (SCI-Expanded, Scopus)

XVI. **A novel method for determining effects of fire damage on the safety of the Type I pressure hydrogen storage tanks**
AYVAZ M., İPEK AYVAZ S., AYDIN İ.
International Journal of Hydrogen Energy, vol.43, no.44, pp.20271-20283, 2018 (SCI-Expanded, Scopus)

XVII. **The ballistic behavior of type 1 metallic pressurized hydrogen storage tanks against ballistic threats**
KURAL S., AYVAZ M.
International Journal of Hydrogen Energy, vol.43, no.44, pp.20284-20292, 2018 (SCI-Expanded, Scopus)

XVIII. **The effect of aging parameters and roughness on the wear properties of aluminum alloy 6082**
ÇETİNEL H., AYVAZ M.
Materialpruefung/Materials Testing, vol.56, no.11-12, pp.988-993, 2014 (SCI-Expanded, Scopus)

XIX. **Microstructure and Mechanical Properties of AA 5083 and AA 6061 Welds Joined with AlSi5 and AlSi12 Wires**
Cetine H., AYVAZ M.
MATERIALS TESTING, vol.56, no.10, pp.884-890, 2014 (SCI-Expanded, Scopus)

Papers Presented at Peer-Reviewed Scientific Conferences

I. **Effect of SiC on Wear Resistance in Microwave Sintered Al-SiC Composites**
AYVAZ M.
6th International Students Science Congress, Turkey, 20 - 21 May 2022, (Summary Text)

II. **ON THE WEAR BEHAVIOR OF HYBRID Al-4Cu NANOCOMPOSITES REINFORCED WITH NANOSIZED ALUMINA PARTICLES AND MWCNT**
ÖZER E., AYVAZ M., ÜBEYLİ M., Sarpkaya İ.
V. International Ege Composite Materials Symposium, Turkey, 4 - 06 November 2021, (Summary Text)

III. **Investigation of the Wear Behavior of AA6082 Against Different Counterparts**
İPEK AYVAZ S., AYVAZ M.
5 th International Students Science Congress, Turkey, 21 - 22 May 2021, (Full Text)

IV. **Effect of the Counterpart on the Dry Sliding Friction and Wear Performance of the AISI 316L**
İPEK AYVAZ S., AYVAZ M.
International Online Conferences On Engineering And Natural Sciences, Turkey, 5 - 07 July 2021, (Summary Text)

V. **Abrasive wear behaviour of the hardfaced AISI 4140 by different welding methods**
UZUN R. O., AYVAZ M., ÇOBAN ÖZKAN D., ARSLAN D.
INTERNATIONAL IZMIR DEMOCRACY UNIVERSITY ENGINEERING SYMPOSIUM (IES'20), İzmir, Turkey, 05 December 2020, pp.106-113, (Full Text)

VI. **Investigation of the Mechanical Characteristics of TIG Welded And Post-Welded Annealed AA6013 Aluminum Alloy**
UZUN R. O., ARSLAN D., ÇOBAN ÖZKAN D., AYVAZ M.
International Engineering Symposium, Turkey, 5 December - 13 October 2020, (Full Text)

VII. **Al5083H116 Malzemesinin Balistik Performansı**
KURAL S., AYVAZ M.
3rd International Students Science Congress, Turkey, 3 - 04 May 2019, (Summary Text)

VIII. **Influence of Sintering Parameters on Densification and Hardness of Aluminum Hybrid Composites Reinforced with B4C And Al2O3 Particles**
KÜÇÜKOĞLU B., ZALAOĞLU D., ÖZER E., AYVAZ M.
The International Conference on Materials Science, Mechanical and Automotive Engineerings and Technology in CAPPADOCIA, Nevşehir, Turkey, 21 - 23 June 2019, (Summary Text)

IX. **X-RAY Diffraction Analysis on Mechanically Alloyed Aluminum Composite Powders Consisting of Nano Alumina Particles and Multiwall Carbon Nanotubes**
ÖZER E., AYVAZ M., ZALAOĞLU D., ÜBEYLİ M.
MME SEE 2019 Metallurgical and Materials Engineering Congress of South East Europe, Serbia, 5 - 07 June 2019, (Summary Text)

X. **TI6AL4V TİTANYUM ALAŞIMLARININ BORLAMA SONRASI ÖZELLİKLERİNİN İNCELENMESİ**
İPEK AYVAZ S., AYVAZ M., AYDIN İ.
International Science and Technology Conference, Paris, France, 18 July 2018, pp.652, (Summary Text)

XI. **3D PLA Numunelerde Yazdırma Katman Kalınlığının Sürtünme Karakterine Etkisi**
KURAL S., İPEK AYVAZ S., AYVAZ M.
2. International Students Science Congress, Turkey, 4 - 05 May 2018, (Summary Text)

XII. **Üç Boyutlu Yazdırma Teknolojisinde Yazdırma Sıcaklığının Numunelerin Sürtünme Karakterine Etkisinin İncelenmesi**
KURAL S., AYVAZ M., İPEK AYVAZ S.
2. International Students Science Congress, 4 - 05 May 2018, (Summary Text)

XIII. **Ti6Al4V Titanyum Alaşımlarının Borlama Sonrası Özelliklerinin İncelenmesi**
İPEK AYVAZ S., AYVAZ M., AYDIN İ.
International Science and Technology Conference, France, 18 - 20 July 2018, (Summary Text)

XIV. **A Novel Approach for Determining Effects of Fire Temperature on the Safety of the Type I Metallic Hydrogen Storage Tanks**

AYVAZ M., İPEK AYVAZ S., AYDIN İ.
International Advanced Researches Engineering Congress, Turkey, 16 - 18 November 2017, (Full Text)

XV. **The Determination of the Minimum Safe Thickness of the Metallic Hydrogen Storage Tank Materials against Ballistic Threats**
KURAL S., AYVAZ M.
International Advanced Researches Engineering Congress, Turkey, 16 - 18 November 2017, (Full Text)

XVI. **Dental Biyomalzemelerin Biyouyumunun İncelenmesi ve Mekanik Analizi**
AYVAZ M., HALICIOĞLU R., KIRLI AKIN H.
MCBU-ULEK2017, 12 - 14 May 2017, (Summary Text)

XVII. **TIG Kaynak Yöntemiyle AA 5083 ve AA 2024 Alüminyum alaşımlarının Kaynağı ve Mekanik Özelliklerinin Belirlenmesi**
ÇETİNEL H., AYVAZ M.
3rd International Conference on Welding Technologies and Exhibition, Turkey, 21 May 2014, (Full Text)

XVIII. **AA 5083 ve AA 7075 Alüminyum Alaşımlarının TIG Kaynak Yöntemi ile Birleştirilmesi ve Mekanik Özelliklerin İncelenmesi**
ÇETİNEL H., AYVAZ M.
3rd International Conference on Welding Technologies and Exhibition, Turkey, 21 May 2014, (Full Text)

XIX. **Investigation of Microstructural And Mechanical Properties of AA5083 - AA6061 Weldment Joined with ASsi5 And AlSi12 Wires**
ÇETİNEL H., AYVAZ M.
3rd International Conference on Welding Technologies and Exhibition, Turkey, 21 May 2014, (Full Text)

XX. **Determination of Mechaical Properties of AA5083 and AA 7075 TIG Weldment**
ÇETİNEL H., AYVAZ M.
3rd International Conference on Welding Technologies and Exhibition, Manisa, Turkey, 21 - 23 May 2014, (Full Text)

XXI. **Investigation of Microstructural and Mechanical Properties of AA5083 - AA6061 Weldment joined with AlSi5 and AlSi12 Wires**
ÇETİNEL H., AYVAZ M.
3rd International Conference on Welding Technologies and Exhibition, Manisa, Turkey, 21 May 2014, (Full Text)

XXII. **Determination of Mechaical Properties of AA5083 and AA 2024 TIG Weldment**
ÇETİNEL H., AYVAZ M.
3rd International Conference on Welding Technologies and Exhibition, Manisa, Turkey, 14 May 2014, (Full Text)

XXIII. **Effects of The Projectıle Shape on the Ballıstıc Resıstance of the AA6061-T6**
ÇETİNEL H., AYVAZ M.
4th International Conference on Mathematical and Computational Applications, Turkey, 11 - 13 June 2013, (Full Text)

XXIV. **Effects of the Projectile Shape on the Ballistic Resistance of the AA6061-T6**
AYVAZ M., ÇETİNEL H.
4th International Conference on Mathematical and Computational Applications, Manisa, Turkey, 03 June 2013, vol.1, pp.417-423, (Full Text)

XXV. **Mechanical Characteristics of AA5083 - AA6013 Weldment Joined with AlSi12 and AlSi5 Wires**
AYVAZ M., ÇETİNEL H.
6th International Conference on Advanced Computational Engineering and Experimenting, İstanbul, Turkey, 02 July 2012, (Full Text)

Funded Projects

AYVAZ M., SARIYEL E. B., Project Supported by Higher Education Institutions, BAP MSc, Hidroksiapatit-Si3n4 Karma Takviyeli Biyobozunur Magnezyum Alaşımı Nanokompozitlerde Takviye Oranının Mekanik Özellik, Aşınma ve Korozyon Dayanımına Etkisinin İncelenmesi, 2025 - Present

AYVAZ M., YILDIRIM M., Project Supported by Higher Education Institutions, BAP PhD, Ceo2 Takviyesinin B4c-Sic Takviyeli Alüminyum Alaşımı Matrisli Nano Kompozitin Mikroyapısal, Mekanik ve Tribolojik Özelliklere Etkisinin İncelenmesi, 2025 - Present
Yıldırım M., Ayvaz M., Project Supported by Higher Education Institutions, BAP PhD, CeO2 Takviyesinin B4C-SiC Takviyeli Alüminyum Alaşımı Matrisli Nano Kompozitin Mikroyapısal, Mekanik, Korozyon ve Tribolojik Özelliklere Etkisinin İncelenmesi, 2025 - 2026
AYVAZ M., Project Supported by Higher Education Institutions, Mikrodalga Sinterlenmiş Aa2024-B4c/Tic/Ngr Hibrit Kompozitlerin Mikroyapısal, Mekanik ve Tribolojik Özelliklerinin İncelenmesi, 2021 - Present
BAHÇEPINAR A. İ., AYVAZ M., AYDIN İ., Project Supported by Higher Education Institutions, Elektroliz Yöntem İle Hidroksiapatit Kaplama İşlemleri ve Kaplamaların Mekanik Özelliklerinin İncelenmesi, 2019 - 2021
AYVAZ M., Project Supported by Higher Education Institutions, Toz Metalurjisi Yöntemi İle Üretilen Al-Cu-Mg-B4C Kompozitlerinin Mekanik Özelliklerine Isıl İşlemin Etkisinin İncelenmesi, 2015 - 2017
AYVAZ M., Project Supported by Higher Education Institutions, T M Yöntemi ile Üretilen Katman İçeren Çok Katmanlı Kompozit Zırh Plakalarının Balistik Dayanımının İncelenmesi, 2015 - 2016
ÇETİNEL H., AYVAZ M., Project Supported by Higher Education Institutions, BAP PhD, T/M Yöntemi İle Üretilen Katman İçeren, Çok Katmanlı Kompozit Zırh Plakalarının Balistik Dayanımının İncelenmesi, 2013 - 2014
AYVAZ M., Project Supported by Higher Education Institutions, Kompozit Zırh Plakası Üretimi İçin Laboratuvar Kurulumu, 2010 - 2014

Metrics

Publication: 49
Citation (WoS): 91
Citation (Scopus): 174
H-Index (WoS): 6
H-Index (Scopus): 9