

## Prof. MURAT AYDIN

### Personal Information

Office Phone: [+90 462 377 4131](tel:+904623774131)

Email: [maydin@ktu.edu.tr](mailto:maydin@ktu.edu.tr)

Web: <https://avesis.ktu.edu.tr//maydin>

Address: KTÜ Makine Mühendisliği Bölümü 61080 Ortahisar-TRABZON

### Education Information

Doctorate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Makina Mühendisliği Anabilimdalı, Turkey 1995 - 2001

Postgraduate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Makina Mühendisliği Anabilimdalı, Turkey 1992 - 1995

Undergraduate, Karadeniz Technical University, Mühendislik-Mimarlık Fakültesi, Makina Mühendisliği Bölümü, Turkey 1988 - 1992

### Foreign Languages

English, B2 Upper Intermediate

### Certificates, Courses and Trainings

Occupational Health and Safety, İşyeri hekimliği ve iş güvenliği uzmanlığı eğitici belgesi, Çalışma ve Sosyal Güvenlik Bakanlığı İş Sağlığı ve İş Güvenliği Genel Müdürlüğü, 2013

### Dissertations

Doctorate, Çinko-Alüminyum Esaslı Alaşımların Değişik Ortamlardaki Yorulma Davranışlarının İncelenmesi, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Makina Mühendisliği Anabilimdalı, 2001

Postgraduate, Çinko-Alüminyum Esaslı Alaşımların Yorulma Özelliklerinin İncelenmesi, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Makina Mühendisliği Anabilimdalı, 1995

### Research Areas

Mechanical Engineering, Construction and Manufacturing, Non-traditional manufacturing methods, Material, Mechanical, Mechanical Testing, Engineering and Technology

### Academic Titles / Tasks

Professor, Karadeniz Technical University, Mühendislik Fakültesi, Makine Mühendisliği, 2018 - Continues

Associate Professor, Karadeniz Technical University, Mühendislik Fakültesi, Makine Mühendisliği, 2013 - 2018

Assistant Professor, Karadeniz Technical University, Mühendislik Fakültesi, Makine Mühendisliği, 2008 - 2013

Assistant Professor, Karadeniz Technical University, Beşikdüzü Meslek Yüksekokulu, Teknik Prgramlar, 2005 - 2008

Lecturer PhD, Karadeniz Technical University, Beşikdüzü Meslek Yüksekokulu, Teknik Programlar, 2001 - 2005  
Research Assistant, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Makine Mühendisliği, 1993 - 2001

## Academic and Administrative Experience

Karadeniz Technical University, Bmyo Teknik Programlar, 2005 - 2008  
Karadeniz Technical University, Bmyo, 2003 - 2004  
Karadeniz Technical University, Bmyo Teknik Programlar, 2001 - 2002

## Courses

MALZEME BİLGİSİ-II, Undergraduate, 2013 - 2014  
MANUFACTURING PROCESSES-II, Undergraduate, 2013 - 2014  
ÜRETİM YÖNTEMLERİ, Undergraduate, 2013 - 2014  
KOMPOZİT MALZEMELER, Undergraduate, 2013 - 2014  
MECHANICAL BEHAVIOUR OF MATERIALS, Undergraduate, 2013 - 2014  
MALZEME SEÇİMİ, Undergraduate, 2013 - 2014  
HAFİF METALLER VE ALAŞIMLAR, Postgraduate, 2013 - 2014  
ÜRETİM YÖNTEMLERİ-I, Undergraduate, 2013 - 2014  
MAKİNA MÜHENDİSLİĞİNDE DENEYLER-I, Undergraduate, 2013 - 2014  
TASARIM PROJESİ, Undergraduate, 2013 - 2014  
MALZEMELERİN MEKANİK DAVRANIŞI, Undergraduate, 2013 - 2014  
MALZEME BİLGİSİ-I, Undergraduate, 2013 - 2014

## Advising Theses

AYDIN M., Bakır Katkısının Al-20Zn Alaşımının Yorulma Davranışına Etkisi, Postgraduate, A.Doğansoy(Student), Continues  
AYDIN M., Plazma Nitrürleme İşleminin Düşük Alaşımli AISI 4140 Çeliğinin Yapı ve Mekanik Özelliklerine Etkisi, Postgraduate, M.Anıl(Student), 2017  
AYDIN M., Yaşlandırma Süresinin Zn-27Al-1Cu Alaşımının Yapı ve Mekanik Özelliklerine Etkisi, Postgraduate, F.Şenaslan(Student), 2016  
AYDIN M., Metal Oksit Esaslı Kontak Malzemesi Üretimi ve Özelliklerinin İncelenmesi, Doctorate, S.Bıyık(Student), 2015  
AYDIN M., Eş Kanalda Açısal Ekstrüzyon Yönteminin Zn-60Al ve Zn-80Al Alaşımının Yorulma Özelliklerine Etkisi, Postgraduate, Y.Heyal(Student), 2011

## Jury Memberships

Doctorate, Doktora yeterlik sınavı, Karadeniz Teknik Üniversitesi, February, 2014  
Doctorate, Doktora yeterlik sınavı, Karadeniz Teknik Üniversitesi, February, 2014  
Academic Staff Examination, Sınav Komisyonu, KTÜ Arsin Meslek Yüksekokulu, June, 2013  
Post Graduate, Yüksek Lisans Tez Savunması, Karadeniz Teknik Üniversitesi, December, 2012  
Doctorate, Tez izleme komitesi, Karadeniz Teknik Üniversitesi, March, 2012  
Doctorate, Doktora yeterlik sınavı, Karadeniz Teknik Üniversitesi, February, 2012  
Doctorate, Doktora yeterlik sınavı, Karadeniz Teknik Üniversitesi, September, 2011  
Post Graduate, Yüksek Lisans Tez Savunması, Karadeniz Teknik Üniversitesi, June, 2011  
Academic Staff Examination, Sınav Komisyonu, KTÜ Beşikdüzü Meslek Yüksekokulu, November, 2009  
Academic Staff Examination, Sınav Komisyonu, KTÜ Beşikdüzü Meslek Yüksekokulu, March, 2008

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

- I. **Comparison of two pandemics: H1N1 and SARS-CoV-2**  
Kant A., KOSTAKOĞLU U., Saral O. B. , Comoglu S., Arslan M., Karakoc H. N. , Erkan G., Ertunc B., Demir H. D. , AYDIN M., et al.  
REVISTA DA ASSOCIACAO MEDICA BRASILEIRA, vol.67, no.1, pp.115-119, 2021 (Journal Indexed in SCI)
- II. **The "MICE" scoring system in differentiating the identical twins leptospirosis and hantavirus infection**  
KAYA S., YILMAZ G., AYDIN M., AKSOY F., Koksal I.  
INFECTİON, vol.48, no.1, pp.99-107, 2020 (Journal Indexed in SCI)
- III. **The effect of quench-aging on the mechanical properties of Zn-27Al-1Cu alloy**  
AYDIN M., Senaslan F.  
INTERNATIONAL JOURNAL OF MATERIALS RESEARCH, vol.109, no.8, pp.699-707, 2018 (Journal Indexed in SCI)
- IV. **Optimization of Mechanical Alloying Parameters of Cu25W Electrical Contact Material**  
BIYIK S., AYDIN M.  
ACTA PHYSICA POLONICA A, vol.132, no.3, pp.909-912, 2017 (Journal Indexed in SCI)
- V. **Fabrication and Arc-Erosion Behavior of Ag8SnO2 Electrical Contact Materials under Inductive Loads**  
BIYIK S., AYDIN M.  
ACTA PHYSICA POLONICA A, vol.131, pp.339-342, 2017 (Journal Indexed in SCI)
- VI. **Fabrication and Arc-Erosion Behavior of Ag8SnO(2) Electrical Contact Materials under Inductive Loads**  
BIYIK S., AYDIN M.  
ACTA PHYSICA POLONICA A, vol.131, no.3, pp.339-342, 2017 (Journal Indexed in SCI)
- VII. **Investigation of the Effect of Different Current Loads on the Arc-Erosion Performance of Electrical Contacts**  
BIYIK S., AYDIN M.  
ACTA PHYSICA POLONICA A, vol.129, no.4, pp.656-660, 2016 (Journal Indexed in SCI)
- VIII. **The Effect of Milling Speed on Particle Size and Morphology of Cu25W Composite Powder**  
AYDIN M., BIYIK S.  
ACTA PHYSICA POLONICA A, no.127, pp.1255-1260, 2015 (Journal Indexed in SCI Expanded)
- IX. **The Effect of Milling Speed on Particle Size and Morphology of Cu25W Composite Powder**  
BIYIK S., AYDIN M.  
ACTA PHYSICA POLONICA A, vol.127, no.4, pp.1255-1260, 2015 (Journal Indexed in SCI)
- X. **Arc-Erosion Behavior of Boric Oxide-Reinforced Silver-Based Electrical Contact Materials Produced by Mechanical Alloying**  
BIYIK S., Arslan F., AYDIN M.  
JOURNAL OF ELECTRONIC MATERIALS, vol.44, no.1, pp.457-466, 2015 (Journal Indexed in SCI)
- XI. **Effect of equal channel angular pressing on microstructural and mechanical properties of as cast Al-20 wt-%Zn alloy**  
AYDIN M., HEYAL Y.  
MATERIALS SCIENCE AND TECHNOLOGY, vol.29, no.6, pp.679-688, 2013 (Journal Indexed in SCI)
- XII. **Is grayanotoxin directly responsible for mad honey poisoning-associated seizures**  
GÜNDÜZ A., AYDIN M., Akca M., Turkmen S., Turedi S., Eryigit U., CANSU A., Yildirim M.  
TURKISH JOURNAL OF MEDICAL SCIENCES, vol.42, no.6, pp.1086-1092, 2012 (Journal Indexed in SCI)
- XIII. **High-cycle fatigue behavior of severe plastically deformed binary Zn-60Al alloy by equal-channel angular extrusion**  
Aydin M.

- JOURNAL OF MATERIALS PROCESSING TECHNOLOGY, vol.212, no.8, pp.1780-1789, 2012 (Journal Indexed in SCI)
- XIV. **Mechanical Properties Of Equal-Channel Angular Extrusion-Processed Al-20Zn Alloy**  
AYDIN M., HEYAL Y.  
MATERIALS AND MANUFACTURING PROCESSES, no.445, pp.195-200, 2012 (Journal Indexed in SCI Expanded)
- XV. **Enhancement of Tensile Ductility of Severe Plastically Deformed Two-Phase Zn-12Al Alloy by Equal Channel Angular Extrusion**  
AYDIN M., PÜRÇEK G., KÜÇÜKÖMEROĞLU T., SARAY O.  
Materials Science Forum, vol.633-634, pp.437-447, 2010 (Journal Indexed in SCI Expanded)
- XVI. **Enhancement of Tensile Ductility of Severe Plastically Deformed Two-Phase Zn-12Al Alloy by Equal Channel Angular Extrusion**  
PÜRÇEK G., AYDIN M., Saray O., KÜÇÜKÖMEROĞLU T.  
DUCTILITY OF BULK NANOSTRUCTURED MATERIALS, pp.437-447, 2010 (Journal Indexed in SCI)
- XVII. **Ischemia-modified albumin levels in cerebrovascular accidents**  
GÜNDÜZ A., TÜREDİ S., MENTEŞE A., Altunayoglu V., Turan I., KARAHAN S. C. , TOPBAŞ M., AYDIN M., Eraydin I., Akcan B.  
AMERICAN JOURNAL OF EMERGENCY MEDICINE, vol.26, no.8, pp.874-878, 2008 (Journal Indexed in SCI)
- XVIII. **Fatigue properties of zinc-aluminium alloys in 3.5% NaCl and 1% HCl solutions**  
Aydin M., Savaskan T.  
INTERNATIONAL JOURNAL OF FATIGUE, vol.26, no.1, pp.103-110, 2004 (Journal Indexed in SCI)
- XIX. **Fatigue behaviour of Zn-Al casting alloys**  
Savaskan T., Aydin M., Odabaşioğlu H. A.  
MATERIALS SCIENCE AND TECHNOLOGY, vol.17, no.6, pp.681-685, 2001 (Journal Indexed in SCI)

### Articles Published in Other Journals

- I. **Idiopathic CD4 Lymphocytopenia (HIV-Negative AIDS): Case Report and Literature Review**  
AKSOY F., AYDIN M., YILMAZ G., GÜVERCİN A. R. , EYÜBOĞLU İ., SARI A., BAYRAMOĞLU G., Koksal I.  
MEDITERRANEAN JOURNAL OF INFECTION MICROBES AND ANTIMICROBIALS, vol.8, 2019 (Journal Indexed in ESCI)
- II. **A Case of Intestinal Tuberculosis Mimicking Crohn's Disease and Behcet's Disease**  
AYDIN M., KAYA S., AKSOY F., SAYGIN İ., Koksal I.  
MEDITERRANEAN JOURNAL OF INFECTION MICROBES AND ANTIMICROBIALS, vol.8, 2019 (Journal Indexed in ESCI)
- III. **Enhancement of tensile ductility of severe plastically deformed two-phase Zn-12Al alloy by equal channel angular extrusion**  
PÜRÇEK G., AYDIN M., SARAY O., KÜÇÜKÖMEROĞLU T.  
Materials Science Forum, vol.633, no.633, pp.437-447, 2010 (Refereed Journals of Other Institutions)
- IV. **Çinko-Alüminyum Esaslı Alaşımların Yorulma Özelliklerinin İncelenmesi**  
AYDIN M., SAVAŞKAN T., KÜÇÜKÖMEROĞLU T.  
Mühendis ve Makina, vol.38, no.444, pp.40-45, 1997 (Other Refereed National Journals)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Optimization of Mechanical Alloying Parameters in Cu25W Electrical Contact Material**  
AYDIN M., BIYIK S.  
3rd International Conference on Computational and Experimental Science and Engineering, Antalya, Turkey, 19 - 24 October 2018, pp.475
- II. **Effect of TiO<sub>2</sub> on Physical and Mechanical Properties of Electrical Contact Materials**  
AYDIN M., BIYIK S.

15th European Mechanics of Materials Conference, Brussels, Belgium, 7 - 09 September 2018, pp.459

- III. **Effect Of Quenching Process On The Microstructure And Mechanical Properties Of Cold Formed Aisi 4140 Low Alloy Steel**  
KAYA M. A. , AYDIN M.  
1. INTERNATIONAL TECHNOLOGICAL SCIENCES AND DESIGN SYMPOSIUM, Giresun, Turkey, 27 - 29 June 2018
- IV. **Effect of Quench-Ageing on Microstructural Evolution and Damping Behaviour of Zn-27Al-1Cu Alloy**  
ŞENASLAN F., AYDIN M.  
ISLAC'18 "1st International Symposium on Light Alloys and Composite Materials", Karabük, Turkey, 22 - 24 March 2018, pp.277
- V. **Optimization of Mechanical Alloying Parameters in Cu25W Electrical Contact Material**  
BIYIK S., AYDIN M.  
3rd International Conference on Computational and Experimental Science and Engineering, 19 - 24 October 2016
- VI. **Optimization of Mechanical Alloying Parameters in Cu25W Electrical Contact Material**  
BIYIK S., AYDIN M.  
3rd International Conference on Computational and Experimental Science and Engineering, Antalya, Turkey, 19 - 24 October 2016, pp.475
- VII. **Fabrication and Arc-Erosion Behavior of Ag8SnO2 Electrical Contact Materials under Inductive Loads**  
BIYIK S., AYDIN M.  
6th The International Advances in Applied Physics and Materials Science Congress & Exhibition, İstanbul, Turkey, 1 - 03 June 2016, pp.128
- VIII. **Effect of TiO2 Dopant on Particle Size and Morphology of Ag8SnO2 Composite Powder**  
AYDIN M., BIYIK S.  
Proceedings of the International Porous and Powder Materials Symposium and Exhibition, İzmir, Turkey, 15 - 18 September 2015, pp.170-175
- IX. **Influence of Sintering Temperature on Physical and Mechanical Properties of Ag8SnO2 Electrical Contact Material**  
AYDIN M., BIYIK S.  
Proceedings of the International Porous and Powder Materials Symposium and Exhibition, İzmir, Turkey, 15 - 18 September 2015, pp.164-169
- X. **Investigation of the Effect of Different Current Loads on the Arc-Erosion Performance of Electrical Contacts Using New Life-Test Equipment**  
AYDIN M., BIYIK S.  
5th The International Advances in Applied Physics and Materials Science Congress & Exhibition, Muğla, Turkey, 16 - 19 April 2015
- XI. **The Effect of Ball-to-Powder Weight Ratio on Particle Size and Morphology of Cu25W Composite Powder**  
AYDIN M., BIYIK S.  
7th International Powder Metallurgy Conference & Exhibition, Ankara, Turkey, 12 - 15 November 2014, pp.186-187
- XII. **The effect of the amount of process control agent on the properties of Cu25W composite powder**  
AYDIN M., BIYIK S.  
2014 International Conference on High Performance and Optimum Design of Structures and Materials,, Ostend, Belgium, 9 - 11 June 2014, pp.189-200
- XIII. **The Effect of Milling Speed on Particle Size and Morphology of Cu25W Composite Powder**  
BIYIK S., AYDIN M.  
4th The International Advances in Applied Physics and Materials Science Congress & Exhibition, Muğla, Turkey, 24 - 27 April 2014, pp.981
- XIV. **The Effect of Milling Speed on Particle Size and Morphology of Cu25W Composite Powder**  
AYDIN M., BIYIK S.  
4th International Advances in Applied physics and Materials Science Congress & Exhibition, Muğla, Turkey, 24 - 27

April 2014, pp.981

- XV. **A New Life-Test Equipment Designed for Medium-Duty Electromagnetic Contactors**  
AYDIN M., BIYIK S.  
15th International Conference on Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems, Gent, Belgium, 7 - 09 April 2014, pp.1-7
- XVI. **A new life-test equipment designed for medium-duty electromagnetic contactors**  
BIYIK S., AYDIN M.  
IEEE 15th International Conference on Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems (EurosimE), Ghent, Belgium, 7 - 09 April 2014, pp.1-7
- XVII. **Investigation of the Compaction Behaviour of Ag8ZnO Composite Produced by Mechanical Alloying**  
AYDIN M., BIYIK S.  
1st International Porous and Powder Materials Symposium and Exhibition PPM 2013, İzmir, Turkey, 3 - 06 September 2013, pp.145-149
- XVIII. **Mechanical properties of equal-channel angular extrusion-processed Al-20Zn alloy**  
AYDIN M., HEYAL Y.  
Advanced Materials Research, İstanbul, Turkey, 23 - 24 July 2012, vol.445, pp.195-200
- XIX. **Mechanical Properties of Equal-Channel Angular Extrusion-Processed Al-20Zn Alloy**  
AYDIN M., HEYAL Y.  
14th International Conference on Advances in Materials and Processing Technologies (AMPT), İstanbul, Turkey, 13 - 16 July 2011, vol.445, pp.195-200
- XX. **Is Grayanotoxin Directly Responsible For Mad Honey Poisoning-Associated Seizures?**  
GÜNDÜZ A., AYDIN M., YILDIRIM M., TÜRKMEN S., TÜREDİ S., AKÇA M., CANSU A.  
Acil Tıp Uzmanları Derneği VII. Ulusal Acil Tıp Kongresi, Antalya, Turkey, 26 - 29 May 2011, pp.48-49
- XXI. **Aşırı Plastik Deformasyon Yöntemiyle Üretilmiş Olan Metalik Biyomalzemelerin Yorulma Özelliklerinin İncelenmesi**  
AYDIN M.  
III. Tıbbi Cihazlar ve İmalatı Kongre ve Sergisi, Samsun, Turkey, 6 - 07 November 2009, pp.59-63
- XXII. **Fatigue Behaviour of Zinc-Aluminium Alloys in Air and 1 % HCl Solution**  
AYDIN M., SAVAŞKAN T.  
5th International Fracture Conference, Elazığ, Turkey, 6 - 08 September 2001, pp.143-150

## **Memberships / Tasks in Scientific Organizations**

TMMOB Makina Mühendisleri Odası, Member, 1993 - Continues

TMMOB Makina Mühendisleri Odası, Board Member, 1996 - 2000

## **Scientific Refereeing**

Metallography, Microstructure, and Analysis , SCI Journal, October 2017

Journal of Materials Research, Other Indexed Journal, December 2015

Materials Research Innovation, SCI Journal, November 2014

Journal of Mechanical Engineering Science, Other Indexed Journal, October 2014

G.Ü. Mühendislik-Mimarlık Fakültesi Dergisi, SCI Journal, April 2014

## **Edit Congress and Symposium Activities**

5th International Fracture Conference, Attendee, Elazığ, Turkey, 2011

AMPT 2011 14th International Conference on Advances in Materials & Processing Technologies, Attendee, İstanbul,

Turkey, 2011

III. Tıbbi Cihazlar ve İmalatı Kongre ve Sergisi, Attendee, Samsun, Turkey, 2009

## **Citations**

Total Citations (WOS):263

h-index (WOS):8