

## Assoc. Prof. SERKAN BIYIK

### Personal Information

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### Education Information

Doctorate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Makine Mühendisliği, Turkey 2008 - 2015

Post Graduate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Metalurji Ve Malzeme Mühendisliği, Turkey 2005 - 2008

Under Graduate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Makine Mühendisliği, Turkey 2001 - 2005

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, TiO<sub>2</sub> Takviyesi İçeren AgSnO<sub>2</sub> Esaslı Elektrik Kontak Malzemelerinin Toz Metalurjisi Yöntemiyle Üretimi ve Ark-Erozyon Davranışlarının İncelenmesi, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Makine Mühendisliği, 2015

Post Graduate, Toz Metalurjisi Yöntemiyle Gümüş-Bor Oksit Esaslı Kontak Malzemesi Üretimi ve Özelliklerinin İncelenmesi, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Metalurji Ve Malzeme Mühendisliği, 2008

### Research Areas

Mechanical Engineering, Construction and Manufacturing, Tribology, Metallurgical and Materials Engineering, Material science and engineering, Composites, Material Characterization, Production Metallurgy, Powder Metallurgy, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Karadeniz Technical University, Abdullah Kanca Meslek Yüksekokulu, Makine Ve Metal Teknolojileri, 2018 - Continues

Assistant Professor, Karadeniz Technical University, Abdullah Kanca Meslek Yüksekokulu, Makine Ve Metal Teknolojileri, 2016 - 2018

Research Assistant, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Metalurji Ve Malzeme Mühendisliği, 2007 - 2014

### Professional Experience

## Courses

İmalat İşlemleri - I, Associate Degree, 2015 - 2016, 2016 - 2017

İmalat İşlemleri - II, Associate Degree, 2015 - 2016, 2016 - 2017

Temel İmalat İşlemleri, Associate Degree, 2016 - 2017

İmalat İşlemleri - I, Associate Degree, 2016 - 2017

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

- I. **Effect of Cubic and Hexagonal Boron Nitride Additions on the Synthesis of Ag-SnO<sub>2</sub> Electrical Contact Material**  
BIYIK S.  
JOURNAL OF NANOELECTRONICS AND OPTOELECTRONICS, vol.14, no.7, pp.1010-1015, 2019 (Journal Indexed in SCI)
- II. **Influence of Type of Process Control Agent on the Synthesis of Ag<sub>8</sub>ZnO Composite Powder**  
Biyik S.  
ACTA PHYSICA POLONICA A, vol.135, no.4, pp.778-781, 2019 (Journal Indexed in SCI)
- III. **Effect of Polyethylene Glycol on the Mechanical Alloying Behavior of Cu-W Electrical Contact Material**  
Biyik S.  
ACTA PHYSICA POLONICA A, vol.134, no.1, pp.208-212, 2018 (Journal Indexed in SCI)
- IV. **Optimization of Mechanical Alloying Parameters of Cu<sub>25</sub>W Electrical Contact Material**  
BIYIK S., AYDIN M.  
ACTA PHYSICA POLONICA A, vol.132, no.3, pp.909-912, 2017 (Journal Indexed in SCI)
- V. **Characterization of Nanocrystalline Cu<sub>25</sub>Mo Electrical Contact Material Synthesized via Ball Milling**  
Biyik S.  
ACTA PHYSICA POLONICA A, vol.132, no.3, pp.886-888, 2017 (Journal Indexed in SCI)
- VI. **Fabrication and Arc-Erosion Behavior of Ag<sub>8</sub>SnO(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 Cu<sub>25</sub>W Composite Powder**  
Biyik S., Aydin M.  
ACTA PHYSICA POLONICA A, vol.127, no.4, pp.1255-1260, 2015 (Journal Indexed in SCI)
- IX. **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)

## Articles Published in Other Journals

- I. **Cu<sub>25</sub>W Kompozit Tozunun Bilyeli Öğütme Yöntemiyle Üretimine Farklı İşlem Kontrol Katkılarının Etkisinin İncelenmesi**  
BIYIK S.  
Gümüşhane Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.9, no.2, pp.222-228, 2019 (Other Refereed National Journals)
- II. **Effect of Reinforcement Ratio on Physical and Mechanical Properties of Cu-W Composites Synthesized by Ball Milling**  
BIYIK S.  
MATERIALS FOCUS, vol.7, no.4, pp.535-541, 2018 (Journal Indexed in ESCI)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Influence of Type of Process Control Agent on the Synthesis of Ag<sub>8</sub>ZnO Composite Powder**  
BIYIK S.  
8th The International Advances in Applied Physics and Materials Science Congress & Exhibition, Muğla, Turkey, 24 - 30 April 2018, pp.105
- II. **Influence of Refractory Metal Additions on the Synthesis of Cu-Based Composite Powders**  
Biyık S.  
Chemistry Conference for Young Scientists (ChemCYS), Bruges, Belgium, 21 - 23 February 2018, pp.221
- III. **Effect of Reinforcement Ratio on Physical and Mechanical Properties of Cu-W Composites Synthesized by Ball Milling**  
BIYIK S.  
4th International Conference on Computational and Experimental Science and Engineering, Antalya, Turkey, 4 - 08 October 2017, pp.624
- IV. **Effect of Cubic and Hexagonal Boron Nitride Additions on the Synthesis of Ag-SnO<sub>2</sub> Electrical Contact Material**  
BIYIK S.  
4th International Conference on Computational and Experimental Science and Engineering, Antalya, Turkey, 4 - 08 October 2017, pp.623
- V. **Investigation of Particle Size Effect on the Synthesis of W-Reinforced Cu-Based Composite Powder**  
Biyık S.  
9th International Conference on Porous Media & Annual Meeting, Rotterdam, Netherlands, 8 - 11 May 2017, pp.55
- VI. **Effect of Type of Process Control Agent on the Synthesis and Characterization of Cu<sub>25</sub>W Composite Powder**  
BIYIK S.  
9th International Conference on Porous Media & Annual Meeting, Rotterdam, Netherlands, 8 - 11 May 2017, pp.48
- VII. **Effect of Polyethylene Glycol on the Synthesis of Cu<sub>25</sub>W Electrical Contact Material**  
BIYIK S.  
7th The International Advances in Applied Physics and Materials Science Congress & Exhibition, Muğla, Turkey, 22 - 26 April 2017, pp.89
- VIII. **Optimization of Mechanical Alloying Parameters in Cu<sub>25</sub>W 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
- IX. **Synthesis and Characterization of Nanocrystalline Cu<sub>25</sub>Mo Electrical Contact Material via Ball Milling**  
BIYIK S.  
3rd International Conference on Computational and Experimental Science and Engineering, Antalya, Turkey, 19 - 24 October 2016, pp.474
- X. **Effect of TiO<sub>2</sub> on Physical and Mechanical Properties of Electrical Contact Materials**

- Bıyık S., Aydın M.  
15th European Mechanics of Materials Conference, Brussels, Belgium, 7 - 09 September 2016, pp.459
- XI. **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
- XII. **Effect of TiO2 Dopant on Particle Size and Morphology of Ag8SnO2 Composite Powder**  
Bıyık S., Aydın M.  
International Porous and Powder Materials Symposium and Exhibition, İzmir, Turkey, 15 - 18 September 2015, pp.170-175
- XIII. **Influence of Sintering Temperature on Physical and Mechanical Properties of Ag8SnO2 Electrical Contact Material**  
Bıyık S., Aydın M.  
International Porous and Powder Materials Symposium and Exhibition, İzmir, Turkey, 15 - 18 September 2015, pp.164-169
- XIV. **Investigation of the Effect of Different Current Loads on the Arc Erosion Performance of Electrical Contacts Using New Life Test Equipment**  
Bıyık S., Aydın M.  
5th The International Advances in Applied Physics and Materials Science Congress & Exhibition, Muğla, Turkey, 16 - 19 April 2015, pp.323
- XV. **The Effect of Ball to Powder Weight Ratio on Particle Size and Morphology of Cu25W Composite Powder**  
Bıyık S., Aydın M.  
7th International Powder Metallurgy Conference & Exhibition, Ankara, Turkey, 24 - 28 June 2014, pp.76-77
- XVI. **The effect of the amount of process control agent on the properties of Cu25W composite powder**  
Bıyık S., Aydın M.  
International Conference on High Performance and Optimum Design of Structures and Materials, HPSM/OPTI 2014, Ostend, Belgium, 9 - 11 June 2014, vol.137, pp.189-200
- XVII. **The Effect of Milling Speed on Particle Size and Morphology of Cu25W Composite Powder**  
Bıyık S., Aydın M.  
4th The International Advances in Applied Physics and Materials Science Congress & Exhibition, Muğla, Turkey, 24 - 27 April 2014, pp.981
- XVIII. **A new life test equipment designed for medium duty electromagnetic contactors**  
Bıyık S., Aydın 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
- XIX. **Investigation of the Compaction Behaviour of Ag8ZnO Composite Produced by Mechanical Alloying**  
Bıyık S., Aydın M.  
International Porous and Powder Materials Symposium and Exhibition, İzmir, Turkey, 3 - 06 September 2013, pp.145-149
- XX. **Toz Metalurjisi Yöntemiyle Gümüş-Bor Oksit Esaslı Elektrik Kontak Malzemelerinin Üretimi ve Özelliklerinin İncelenmesi**  
Bıyık S.  
METALİK FİKİRLER 1. Ar-Ge Proje Pazarı, İstanbul, Turkey, 31 October 2012, pp.150
- XXI. **Investigation of Properties of Silver - Boric Oxide Based Contact Materials Produced by Powder Metallurgy**  
BIYIK S., ARSLAN F.  
6th International Powder Metallurgy Conference & Exhibition, Ankara, Turkey, 5 - 09 October 2011, pp.671-678

## Scientific Refereeing

INTERNATIONAL JOURNAL OF APPLIED CERAMIC TECHNOLOGY, Journal Indexed in SCI-E, January 2021  
Journal of Mechanical Engineering and Sciences, Journal Indexed in ESCI, December 2020  
Project Supported by Higher Education Institutions, BAP Research Project, Recep Tayyip Erdogan University, Turkey, November 2020  
TRANSACTIONS OF NONFERROUS METALS SOCIETY OF CHINA, Journal Indexed in SCI-E, August 2020  
DIAMOND AND RELATED MATERIALS, Journal Indexed in SCI-E, August 2020  
ACTA Materialia Turcica, Other Indexed Journal, March 2020  
Vacuum, SCI Journal, March 2020  
Fullerenes, Nanotubes and Carbon Nanostructures, SCI Journal, March 2020  
ACTA Materialia Turcica, Other Indexed Journal, March 2020  
Transactions of Nonferrous Metals Society of China, SCI Journal, February 2020  
Journal of Alloys and Compounds, SCI Journal, February 2020  
Vacuum, SCI Journal, February 2020  
Fırat Üniversitesi Mühendislik Bilimleri Dergisi, National Scientific Refreed Journal, February 2020  
ACTA Materialia Turcica, Other Indexed Journal, February 2020  
Desalination and Water Treatment, SCI Journal, June 2019  
Vacuum, SCI Journal, February 2019  
Journal of Mechanical Engineering and Sciences, Other Indexed Journal, December 2018  
ACTA Materialia Turcica, Other Indexed Journal, December 2018  
Journal of Mechanical Engineering and Sciences, Other Indexed Journal, November 2018  
ACTA Physica Polonica A, SCI Journal, October 2018  
Vacuum, SCI Journal, October 2018  
ACTA Physica Polonica A, SCI Journal, October 2018  
ACTA Materialia Turcica, Other Indexed Journal, September 2018  
Transactions of Nonferrous Metals Society of China, SCI Journal, September 2018  
Gümüşhane Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, June 2018  
ACTA Physica Polonica A, SCI Journal, December 2017  
ACTA Materialia Turcica, Other Indexed Journal, July 2017  
Karadeniz Fen Bilimleri Dergisi, National Scientific Refreed Journal, May 2017  
Gümüşhane Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, April 2017  
Vacuum, SCI Journal, February 2017  
Vacuum, SCI Journal, October 2016  
Transactions of Nonferrous Metals Society of China, SCI Journal, January 2016  
ACTA Physica Polonica A, SCI Journal, November 2015  
Transactions of Nonferrous Metals Society of China, SCI Journal, June 2015

## Tasks In Event Organizations

Bıyık S., 3rd International Conference on Advanced Engineering Technologies (ICADET 2019), Scientific Congress, Bayburt, Turkey, Eylül 2019  
Bıyık S., 2nd International Conference on Advanced Engineering Technologies (ICADET 2017), Scientific Congress, Bayburt, Turkey, Eylül 2017

## Invited Congress and Symposium Activities

8th The International Advances in Applied Physics and Materials Science Congress & Exhibition, Attendee, Muğla, Turkey, 2018

Chemistry Conference for Young Scientists (ChemCYS), Attendee, Bruges, Belgium, 2018  
4th International Conference on Computational and Experimental Science and Engineering, Attendee, Antalya, Turkey, 2017  
9th International Conference on Porous Media & Annual Meeting, Attendee, Rotterdam, Netherlands, 2017  
7th The International Advances in Applied Physics and Materials Science Congress & Exhibition, Attendee, Muğla, Turkey, 2017  
3rd International Conference on Computational and Experimental Science and Engineering, Attendee, Antalya, Turkey, 2016  
15th European Mechanics of Materials Conference, Attendee, Brussel, Belgium, 2016  
6th The International Advances in Applied Physics and Materials Science Congress & Exhibition, Attendee, İstanbul, Turkey, 2016  
International Porous and Powder Materials Symposium and Exhibition, Attendee, İzmir, Turkey, 2015  
5th The International Advances in Applied Physics and Materials Science Congress & Exhibition, Attendee, Muğla, Turkey, 2015  
7th International Powder Metallurgy Conference & Exhibition, Attendee, Ankara, Turkey, 2014  
International Conference on High Performance and Optimum Design of Structures and Materials (HPSM/OPTI), Attendee, Oostende, Belgium, 2014  
4th The International Advances in Applied Physics and Materials Science Congress & Exhibition, Attendee, Muğla, Turkey, 2014  
IEEE 15th International Conference on Thermal, Mechanical and Multi-Physics Simulation and Experiments in Microelectronics and Microsystems (EurosimE), Attendee, Gent, Belgium, 2014  
International Porous and Powder Materials Symposium and Exhibition, Attendee, İzmir, Turkey, 2013  
METALİK FİKİRLER 1. Ar-Ge Proje Pazarı, Attendee, İstanbul, Turkey, 2012  
6th International Powder Metallurgy Conference & Exhibition, Attendee, Ankara, Turkey, 2011

## Citations

Total Citations (WOS):122

h-index (WOS):7

## Scholarships

ERASMUS Öğrenci Değişim Programı Bursu (Ghent University-BELGIUM), University, 2004 - Continues