

Asst. Prof. MEHMET MASUM TUNÇAY

Personal Information

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Biography

Mehmet Masum TUNÇAY earned Bachelors both for Materials and for Mechanical Engineering from Marmara University in 2009 and 2010, respectively. He started to work as a research assistant at Marmara University Metallurgical and Materials Engineering Department in 2011 and completed a Master of Science in Materials Engineering from the same university in 2012. He received his Ph.D. degree in Materials Engineering from McGill University in 2018. He is still working as a research assistant at Marmara University Metallurgical and Materials Engineering Department in Istanbul.

Education Information

Doctorate, McGill University, Engineering, Mining and Materials Engineering, Canada 2012 - 2018

Post Graduate, Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Metalurji Ve Malzeme Mühendisliği (YI) (Tezli), Turkey 2009 - 2012

Undergraduate Double Major, Marmara University, Faculty of Engineering, Mechanical Engineering, Turkey 2006 - 2010

Under Graduate, Marmara University, Faculty of Engineering, Metallurgical and Material Engineering, Turkey 2004 - 2009

Foreign Languages

English, C1 Advanced

Certificates, Courses and Trainings

Vocational Training, An Introduction to Total Materia: Application Use Cases, Marmara Üniversitesi, 2018

Vocational Training, Solver Setting for Effective Analysis in COMSOL Multiphysics, AltaSim Technologies, LLC, 2014

Vocational Training, Comsol Multiphysics 2-Day Intensive, COMSOL, 2013

Other, Learning to Teach, McGill University, 2013

Dissertations

Doctorate, Evaluation of spark plasma sintering and forging of aluminum based powders for near-net shapes, McGill University, Engineering, Mining and Materials Engineering, 2018

Post Graduate, Profile optimization of the plastic pipes having large diameters, Marmara University, Fen Bilimleri Enstitüsü, Metalurji Ve Malzeme Mühendisliği (İngilizce) Anabilim Dalı, 2012

Research Areas

Metallurgical and Materials Engineering, Material science and engineering, Mechanical Properties, Plating, Metallic Materials, Powder Metallurgy

Academic Titles / Tasks

Assistant Professor, Marmara University, Faculty Of Engineering, Metallurgical And Material Engineering, 2020 - Continues

Research Assistant PhD, Marmara University, Faculty Of Engineering, Metallurgical And Material Engineering, 2019 - 2020

Research Assistant, Marmara University, Faculty Of Engineering, Metallurgical And Material Engineering, 2011 - 2019

Courses

Materials Laboratory, Under Graduate, 2019 - 2020, 2020 - 2021

Introduction to Materials Science, Under Graduate, 2018 - 2019, 2019 - 2020, 2020 - 2021

Powder Technology, Under Graduate, 2018 - 2019, 2019 - 2020, 2020 - 2021

Materials Science II, Under Graduate, 2018 - 2019, 2019 - 2020

Introduction to Materials Science, Under Graduate, 2018 - 2019, 2019 - 2020

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

- I. **Effect of heating rate on structure, morphology and photocatalytic properties of TiO₂ particles: thermal kinetic and thermodynamic studies**
Dikici T., DEMİRCİ S., TÜNÇAY M. M. , Yildirim B. K. , KAYA N.
JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, 2021 (Journal Indexed in SCI)
- II. **A study of heating rate effect on the photocatalytic performances of ZnO powders prepared by sol-gel route: Their kinetic and thermodynamic studies**
DEMİRCİ S., Dikici T., TÜNÇAY M. M. , KAYA N.
APPLIED SURFACE SCIENCE, vol.507, 2020 (Journal Indexed in SCI)
- III. **Spark Plasma Sintering and Upsetting of a Gas-Atomized/Air-Atomized Al Alloy Powder Mixture**
Tuncay M. M. , Muniz-Lerma J. A. , Bishop D. P. , Brochu M.
JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE, vol.26, no.10, pp.5097-5106, 2017 (Journal Indexed in SCI)
- IV. **Spark plasma sintering and spark plasma upsetting of an Al-Zn-Mg-Cu alloy**
Tuncay M. M. , Muniz-Lerma J. A. , Bishop D. P. , Brochu M.
MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING, vol.704, pp.154-163, 2017 (Journal Indexed in SCI)
- V. **Evaluation of the Particle Bonding for Aluminum Sample Produced by Spark Plasma Sintering**
Tuncay M. M. , Nguyen L., Hendrickx P., Brochu M.
JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE, vol.25, no.10, pp.4521-4528, 2016 (Journal Indexed in SCI)
- VI. **Recyclability assessment of Al 7075 chips produced by cold comminution and consolidation using spark plasma sintering**
Hendrickx P., TÜNÇAY M. M. , Brochu M.
CANADIAN METALLURGICAL QUARTERLY, vol.55, no.1, pp.94-103, 2016 (Journal Indexed in SCI)
- VII. **Modeling residual porosity in thick components consolidated by spark plasma sintering**

Refereed Congress / Symposium Publications in Proceedings

- I. **PRODUCTION AND CHARACTERIZATION OF BIOGLASS-YIG CERAMIC COMPOSITE**
DEMİRCİ S., ÇINAR Ö., ÇETİNER B. N. , TÜNÇAY M. M. , GÜLLÜOĞLU A. N.
6.ULUSLARARASI MUHENDİSLİK MİMARLIK VE TASARIM KONGRESİ, İstanbul, Turkey, 17 - 18 December 2020
- II. **Composite Material Selection in Avionic Radome**
Kaya B., Dağaçan Ç., Beşer D., TÜNÇAY M. M. , ÇINAR Ö., GÜLLÜOĞLU A. N.
5. International Conference on Material Science and Technology, Nevşehir, Turkey, 16 - 18 October 2020
- III. **EFFECT OF THERMAL OXIDATION ATMOSPHERE ON PHOTOELECTROCHEMICAL (PEC) WATER SPLITTING OF HEMATITE PRODUCED FROM ELECTRODEPOSITED Fe FILM**
DEMİRCİ S., TÜNÇAY M. M. , DİKİCİ T., SARIOĞLU C.
19th International Metallurgy and Materials Congress, 25 - 27 October 2018
- IV. **Investigation of tool stresses during isothermal SPS forging of Al-Zn-Mg-Cu alloy**
Tünçay M. M. , Choi J., Brochu M.
REGAL Students' Day – JER2017, Montreal, Canada, 27 September 2017
- V. **Improvement of the sintering of Al-Zn-Mg-Cu alloy via upsetting using Spark Plasma Sintering**
Tünçay M. M. , Brochu M.
REGAL Student's Day-JER2016, Quebec, Canada, 03 October 2016
- VI. **Improvement of the sintering of aluminum by Spark Plasma Sintering**
Tünçay M. M. , Brochu M.
REGAL's Students Day 2015, Chicoutimi-Jonquiere, Canada, 11 November 2015
- VII. **The Influence of Surface Powder State on Neck Development and Diffusion during Spark Plasma Sintering**
Brochu M., TÜNÇAY M. M. , Rudinsky S., Nguyen L.
Materials Science Technology 2015, United States Of America, 4 - 08 October 2015
- VIII. **Direct Pressing of Aluminum and AA7075 Near net Shapes by Spark Plasma Sintering**
TÜNÇAY M. M. , Nguyen L., Brochu M.
Materials Science Technology 2015, United States Of America, 4 - 08 October 2015
- IX. **The Stress Distribution on the Buried Flexible Pipes having no Internal Pressure**
Abduliyev Z., BULUT O., ATAÖĞLU Ş., TÜNÇAY M. M.
International Conference on Advances in Applied and Computational Mechanics, İzmir, Turkey, 5 - 07 August 2015
- X. **Modeling densification of Al Mg and Al Zn alloys consolidated by Spark Plasma Sintering**
TÜNÇAY M. M. , Hendrickx P., Nguyen L., Brochu M.
27th Canadian Materials Science Conference Materials Processing, Properties and Performance, 2 - 05 June 2015
- XI. **Evaluation of near net shapes for Spark Plasma Sintering of AA7075**
Tünçay M. M. , Ghosh A., Aydın H., Brochu M.
62nd CASI Aeronautics Conference, Montreal, Canada, 19 - 21 May 2015
- XII. **Evaluation of triangular die geometries for spark plasma sintering of AA7075**
Tünçay M. M. , Brochu M.
REGAL's Students Day 2014, Sherbrooke, Canada, 18 November 2014
- XIII. **Sintering of Al 7075 by SPS with Different Die Geometries**
Tünçay M. M. , Brochu M.
REGAL's Students Day 2013, Montreal, Canada, 22 October 2013
- XIV. **Investigation of Porosity in Thick SPS Pucks and Finite Element Modeling of Gear Production**
Tünçay M. M. , Brochu M.
REGAL's Students Day 2012, Quebec, Canada, 15 November 2012
- XV. **Comparison of Mechanical Properties of AISI 1040 4140 420 and 316 Steels after Boronizing**

Process

ÇINAR Ö., ÇETİNER B. N. , TÜNÇAY M. M. , TOPCU İ., GÜLLÜOĞLU A. N.

International Iron and Steel Symposium 2012 Karabük, Karabük, Turkey, 2 - 04 April 2012

- XVI. **Comparison of Mechanical Properties of AISI 1040 4140 420 and 316 Steels after Coating with Vecalloy B P MET 297 and Alloys of These Two Components by Arc Spray**

ÇINAR Ö., ÇETİNER B. N. , TÜNÇAY M. M. , TOPCU İ., GÜLLÜOĞLU A. N.

International Iron and Steel Symposium 2012 Karabük, Karabük, Turkey, 2 - 04 April 2012

- XVII. **Comparison of Mechanical Properties of AISI 1040 4140 420 and 316 Steels after Nitriding**

ÇINAR Ö., ÇETİNER B. N. , TÜNÇAY M. M. , TOPCU İ., GÜLLÜOĞLU A. N.

International Iron and Steel Symposium 2012 Karabük, Karabük, Turkey, 2 - 04 April 2012

Supported Projects

Gürtuğ Y., Güllüoğlu A. N. , Tünçay M. M. , Çınar Ö., Project Supported by Higher Education Institutions, DOĞAL VE SENTETİK ZEOLİTİN ZEMİN İYİLEŞTİRMEYE OLAN ETKİSİNİN ARAŞTIRILMASI, 2018 - 2020

Citations

Total Citations (WOS):22

h-index (WOS):3

Scholarships

YÖK yurtdışı doktora bursu, YOK, 2012 - 2017

Awards

Tünçay M. M. , The price of Quebec Metallurgy Center, Quebec Metallurgy Center, October 2013