

Assoc. Prof. MURAT IŞIK

Personal Information

Web: <https://avesis.uludag.edu.tr/muratisik>

International Researcher IDs

ScholarID: AAB-3379-2020

ORCID: 0000-0002-6116-1882

Publons / Web Of Science ResearcherID: GQP-1784-2022

ScopusID: 57439755400

Yoksis Researcher ID: 365820

Education Information

Doctorate, Tohoku University, Department of Engineering, Metallurgy, Materials Science and Processing, Japan 2013 - 2016

Research Areas

Mechanical Engineering, Material science and engineering, Production Metallurgy

Academic and Administrative Experience

Deputy Head of Department, Bursa Uludağ University, 2023 - 2026

Head of Department, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, OTOMOTİV MÜHENDİSLİĞİ, 2022 - 2025

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Crack elimination of laser powder directed energy deposition Inconel 738LC using in-situ addition of Inconel 718: A comprehensive study on the mechanical and corrosion resistivity properties**
Işık M.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.175805, pp.1-35, 2024 (SCI-Expanded)
- II. **The effect of additively and subtractively created center internal features on microstructure and mechanical performance of inconel-718 parts**
Işık M.
RAPID PROTOTYPING JOURNAL, vol.30, no.2, pp.287-304, 2024 (SCI-Expanded)
- III. **Fabrication of Electron Beam Melted Titanium Aluminide: The Effects of Machining Parameters and Heat Treatment on Surface Roughness and Hardness**
Işık M.
METALS, vol.13, no.12, pp.1952-1969, 2023 (SCI-Expanded)
- IV. **Investigation of the Influence of High-Pressure Torsion and Solution Treatment on Corrosion and Tribocorrosion Behavior of CoCrMo Alloys for Biomedical Applications**
Işık M.
CRYSTALS, vol.13, no.4, pp.590-604, 2023 (SCI-Expanded)
- V. **Additive manufacturing and characterization of a stainless steel and a nickel alloy**

- Isik M.
MATERIALPRUEFUNG/MATERIALS TESTING, vol.65, no.3, pp.378-388, 2023 (SCI-Expanded)
- VI. **A thermal finite element model with efficient computation of surface heat fluxes for directed-energy deposition process and application to laser metal deposition of IN718**
Dortkasli K., Isik M., Demir E.
Journal of Manufacturing Processes, vol.79, pp.369-382, 2022 (SCI-Expanded)
- VII. **High-speed machining of additively manufactured Inconel 718 using hybrid cryogenic cooling methods**
Bagherzadeh A., Koc B., Budak E., Isik M.
VIRTUAL AND PHYSICAL PROTOTYPING, vol.17, no.3, pp.419-436, 2022 (SCI-Expanded)
- VIII. **A numerical methodology for monitoring stress distributions and experimental proof of the concept on metal embedded thin polymer-matrix composites using X-ray Diffraction**
Demir E., Sas H. S., Isik M., Gungor E. A., Davut K.
THIN-WALLED STRUCTURES, vol.173, 2022 (SCI-Expanded)
- IX. **Alumina and tricalcium phosphate added CoCr alloy for load-bearing implants**
Isik M., Avila J. D., Bandyopadhyay A.
ADDITIVE MANUFACTURING, vol.36, 2020 (SCI-Expanded)
- X. **Titanium-Silicon on CoCr Alloy for Load-Bearing Implants Using Directed Energy Deposition-Based Additive Manufacturing**
Avila J. D., Isik M., Bandyopadhyay A.
ACS APPLIED MATERIALS & INTERFACES, vol.12, no.46, pp.51263-51272, 2020 (SCI-Expanded)
- XI. **Additively manufactured calcium phosphate reinforced CoCrMo alloy: Bio-tribological and biocompatibility evaluation for load-bearing implants**
Bandyopadhyay A., Shivaram A., Isik M., Avila J. D., Dernell W. S., Bose S.
ADDITIVE MANUFACTURING, vol.28, pp.312-324, 2019 (SCI-Expanded)
- XII. **Microstructural evolution and mechanical properties of biomedical Co-Cr-Mo alloy subjected to high-pressure torsion**
Isik M., Niinomi M., Cho K., Nakai M., Liu H., Yilmazer H., Horita Z., Sato S., Narushima T.
JOURNAL OF THE MECHANICAL BEHAVIOR OF BIOMEDICAL MATERIALS, vol.59, pp.226-235, 2016 (SCI-Expanded)
- XIII. **The Effect of Post-Heat Treatment on Microstructure of 316L Cold-Sprayed Coatings and Their Corrosion Performance**
DİKİCİ B., YILMAZER H., Ozdemir I., Isik M.
JOURNAL OF THERMAL SPRAY TECHNOLOGY, vol.25, no.4, pp.704-714, 2016 (SCI-Expanded)
- XIV. **Grain Refinement Mechanism and Evolution of Dislocation Structure of Co-Cr-Mo Alloy Subjected to High-Pressure Torsion**
Isik M., Niinomi M., Liu H., Cho K., Nakai M., Horita Z., Sato S., Narushima T., YILMAZER H., Nagasako M.
MATERIALS TRANSACTIONS, vol.57, no.7, pp.1109-1118, 2016 (SCI-Expanded)
- XV. **Optimization of Microstructure and Mechanical Properties of Co-Cr-Mo Alloys by High-Pressure Torsion and Subsequent Short Annealing**
Isik M., Niinomi M., Liu H., Cho K., Nakai M., Horita Z., Narushima T., Ueda K.
MATERIALS TRANSACTIONS, vol.57, no.11, pp.1887-1896, 2016 (SCI-Expanded)
- XVI. **Microstructural Analysis of Biomedical Co-Cr-Mo Alloy Subjected to High-Pressure Torsion Processing**
IŞIK M.
KEY ENGINEERING MATERIALS, vol.616, 2014 (SCI-Expanded)

Articles Published in Other Journals

- I. **The influence of selective laser melting and directed energy deposition applications on the**

microstructure of Inconel 718 alloy

Isik M.

Niğde Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi, vol.12, no.1, pp.272-279, 2023 (Peer-Reviewed Journal)

II. Directed energy deposition process development for functionally gradient Copper-Inconel 718 materials

IŞIK M.

Journal of Additive Manufacturing Technologies, vol.1, no.3, pp.581, 2021 (Peer-Reviewed Journal)

III. Topology optimization and finite elemental analysis for an inconel 718 engine mounting bracket manufactured via electron beam melting

IŞIK M.

Topology optimization and manufacturing of engine bracket using electron beam melting, vol.1, no.3, pp.583, 2021 (Peer-Reviewed Journal)

Supported Projects

Işık M., TUBITAK Project, Elektrikli Taşıtlar İçin Batarya Teknolojileri Araştırma Ve Geliştirme Platformu (Bateg), 2023 - 2026

Işık M., TUBITAK Project, Eklemeli İmalat ile üretilmiş parça yüzeylerinin iyileştirilmesi için kuru elektro-parlatma yöntemi geliştirilmesi, 2022 - 2025

IŞIK M., Koç B., TUBITAK Project, YENİ NESİL 3BOYUTLU YAZICI İMALAT TEKNOLOJİLERİ, 2021 - 2025

Metrics

Publication: 20

Citation (WoS): 164

Citation (Scopus): 175

H-Index (WoS): 8

H-Index (Scopus): 8