

Seren ÖZER, Ph.D. Candidate

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PERSONAL

Date of Birth	13.01.1993
Place of Birth	Sivas

EDUCATION

2022 - Ongoing	Ph.D. in Metallurgical and Materials Engineering, Middle East Technical University <u>Thesis Topic:</u> Optimization Studies on the Post-Processing of Cold-Spray Deposited Nickel-based Superalloys
2017-2020	M.S. in Metallurgical and Materials Engineering, Middle East Technical University <u>Thesis Topic:</u> Effect of Post-Processing Heat Treatment on the Mechanical Properties of Inconel 718 Fabricated by Selective Laser Melting
2011-2016	B.S. in Materials Science and Engineering, Çankaya University CPGA: 3.43 / 4.00 (3rd row) <u>Thesis Topic:</u> Fabrication of Aluminum Matrix Composites (Al-B ₄ C) via Hot Pressing Method

WORK EXPERIENCES

11/2019 - Ongoing	Research Assistant, Department of Metallurgical and Materials Engineering, Atılım University, TURKEY
6-7/2015	Intern, Turkish Aerospace (TUSAŞ)
6-7/2014	Intern, Ar Group Machinery Industry

COURSES ASSISTED

1	MATE 445 - Heat Treatments and Surface Hardening of Materials (Laboratory)
2	MATE 410 - Material Selection in Design (Laboratory)
3	MATE 314 - Microstructure and Phase Relations (Laboratory)
4	MATE 207 - Introduction to Materials Engineering (Recitation)
5	MATE 202 - Mechanical behavior and testing of materials (Laboratory)

RESEARCH INTERESTS

1	Optimization studies on the post-processing of cold-spray deposited nickel-based superalloys
2	Investigation of the microstructure, crystallographic texture, high temperature mechanical and oxidation behavior of nickel-based superalloys and TiAl alloys fabricated via additive manufacturing methods
3	Investigation of the aging kinetics and corrosion behavior of precipitation hardenable Al-Mg-Si-xCu alloys
4	Wear behavior of austempered ductile cast iron
5	Protective aluminide coatings for turbine blades
6	Production of metal matrix composites

PUBLICATIONS

1	Doğu, M. N., Mussatto, A., Yalçın, M. A., Ozer, S. , Davut, K., Obeidi, M. A., Kumar, A., Hudson, S., O'Neill, D., O'Connor, R., Gu, H., Brabazon, D. (2023). A comprehensive characterization of the effect of spatter powder on IN939 parts fabricated by laser powder bed fusion. Materials & Design, 235, 112406.
2	Doğu, M.N., Ozer, S. , Yalçın, M.A., Davut, K., Bilgin, G.M., Obeidi M.A., Brodin H., Gu H., Brabazon D., (2023). Effect of solution heat treatment on the microstructure and crystallographic texture of IN939 fabricated by powder bed fusion-laser beam. J. Mater. Res. Technol. 24, 8909-8923.
3	Ozer, S. , Bilgin, G. M., Davut, K., Esen, Z., Dericioglu, A. F., Dericioglu (2022). Effect of post fabrication aging treatment on the microstructure, crystallographic texture and elevated temperature mechanical properties of IN718 alloy fabricated by selective laser melting. J. Mater. Process. Technol. 306, 117622.
4	Ozer, S. , Dericioglu, A. F., (2018). Effect of the Cu Alloying on the Precipitation Behavior of Al-Mg-Si Alloys. IMMC'19 International Metallurgy Materials Congress, 193-197.

CONGRESS & SYMPOSIUM

1	ESAFORM 2024, 27th International Conference on Material Forming, FRANCE
2	ESAFORM 2023, 26th International Conference on Material Forming, POLAND
3	IMMC 2022, 21th International Metallurgy and Materials Congress, TURKEY
4	GSI-SLV-TR, 2022, Welding Applications in Defense Industry and Additive Manufacturing Seminar, TURKEY
5	IMMC 2021, 20th International Metallurgy and Materials Congress, TURKEY
6	TMS 2019, 148th Annual Meeting & Exhibition, San Antonio, USA
7	IMMC 2018, 19th International Metallurgy and Materials Congress, TURKEY
8	ASELSAN 2018, 3rd Material Workshop, TURKEY

PROJECTS

2024-2027	METU – Hilase Centre – TUBITAK, Post-processing of the cold-spray additive manufacturing of Inconel alloys using laser shock peening techniques
2024-2025	Atılım University – Academy of Korean Studies, A study comparison between Korean and Turkish traditional ceramics based on historical and material science perspective
2020-2021	Atılım University – ADP (Research Support Project), Production of B ₄ C-SiC Composite via Hot Pressing
2018-2019	METU – BAP – LTP, Effect of Cu Content on Precipitation Behavior in Al-Mg-Si Alloys
6-9/2017	METU – TUBITAK MAM, TUBITAK 1007/MILKANAT, Development and Manufacture of One Set of Stator and One Set of Rotor 3. Stage Turbine Blades of Class E130 MW Gas Turbine by Investment Casting

LANGUAGE SKILLS

1	Turkish (Native)
2	English (Advanced)
3	Korean (Intermediate)

COMPUTER SKILLS

1	Microsoft Office Programs
2	AutoCAD
3	CES (Cambridge Engineering Selector)

AWARDS

1, 2	Buehler – 2023 and 2024 Microstructure Calendar Competition
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