

**Fahrettin Kılıç**  
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## Education

### **2018-2021 MSc, Metallurgical and Materials Engineering Department, Middle East Technical University, Ankara, Turkey**

Thesis topic: *Combinatorial Development of LSF based cathode materials for Intermediate Temperature Solid Oxide Fuel Cells (The support was provided by the Scientific and Technological Research Council of Turkey, TUBITAK)*

Advisor: Prof. Dr. Tayfur Ozturk

### **2013-2018 BSc, Metallurgical and Materials Engineering Department, Middle East Technical University, Ankara, Turkey**

Design project: *Design and Development of Novel Cooling Plates for Electronic Devices (The support was provided by ASELSAN Military Electronic Industries Inc.)*

## Research Interests

- Solid Oxide Fuel Cells
- Energy storage materials
- Nanomaterial synthesis (Sol-Gel, RF Thermal Plasma)
- Thin film coating (RF Magnetron Sputter)
- Ceramic Production and Processing (Tape Casting, Screen Printing)
- Electrochemical Characterization (EIS, Open Flanges™ Test Setup)

## Skills

- Rigaku (D/MAX-2200) and Bruker (D8-Advance) Powder Diffractometers XRD user
- Scanning Electron Microscope (FEI NanoSEM 430) user
- Rietveld Refinement (Maud, GSAS)
- Computer Skills: Solidworks, Origin 2019, CMPR, ANSYS (thermal), Basic programming with Python

## Work and Research Experiences

**January 2020-(ongoing) Research Assistant, Metallurgical and Materials Engineering, Gazi University, Ankara, Turkey,** Teaching Assistant of Heat Treatment, Casting Laboratory, Basic Metal Forming Techniques and Basic Metal Casting Techniques

**2019 Organization Assistant,** <sup>m</sup>ESC-IS 2019, 4<sup>th</sup> Int. Symposium on Materials for Energy Storage and Conversion, Akyaka , Mugla

**2018-(ongoing) Project Assistant, The Scientific and Technological Research Council of Turkey, Combinatorial Development of LSF based cathode materials for Intermediate Temperature Solid Oxide Fuel Cells, Middle East Technical University, Ankara, Turkey**

**June 2018 Undergraduate Project, Design and Development of Novel Cooling Plates for Electronic Devices, METU, Ankara, Turkey (2018 Engineering Day Design Poster Competition Winner, funded by FNSS Defense Systems Inc. and ASELSAN Military Electronic Industries Inc.)**

**June 2017 Summer Internship, Akdas Casting Industry and Trade Co. Inc., Ankara, Turkey**

**June 2016 Summer Internship, Cemas Foundry, Kirsehir, Turkey**

## **Conference Presentations**

**2019 mESC-IS** F. Kılıç, H. E. Aysal, T. Öztürk, “*Synthesis of anode (NiO-ScSZ)-electrolyte(ScSZ) double layer via tape casting for IT-SOFC*”, mESC-IS 2019, 4<sup>th</sup> Int. Symposium on Materials for Energy Storage and Conversion, Poster Presentation, Akyaka , Mugla

## **Languages**

- Turkish (Native)
- English (Fluent)
- German (Basic)

## **Interests**

- Table tennis, playing guitar, video games, computer hardware,

## **References**

Prof. Dr. Tayfur Öztürk, Professor of Metallurgical and Materials Engineering Department, Middle East Technical University Phone: (+90) 312-210-5935 Email: ozturk@metu.edu.tr

Bilgehan Ögel, Professor of Metallurgical and Materials Engineering Department, Middle East Technical University Phone: (+90) 312-210-5930 Email: bogel@metu.edu.tr