

## Res. Asst. BÜŞRA ARSLAN

### Personal Information

Office Phone: [+90 0312 202 8503](tel:+9003122028503)

Email: [busraozdemir@gazi.edu.tr](mailto:busraozdemir@gazi.edu.tr)

Web: <https://avesis.gazi.edu.tr/10645>

### International Researcher IDs

ScholarID: mVbBmTEAAAAJ

ORCID: 0000-0002-1084-013X

Publons / Web Of Science ResearcherID: HTP-0203-2023

ScopusID: 57216656298

Yoksis Researcher ID: 265237

### Education Information

Doctorate, Gazi University, Teknoloji Fakültesi, Enerji Sistemleri Mühendisliği Bölümü, Turkey 2018 - Continues

Postgraduate, Suleyman Demirel University, Fen Bilimleri Enstitüsü, İş Sağlığı Ve İş Güvenliği Anabilim Dalı, Turkey 2016 - 2018

Postgraduate, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Enerji Sistemleri Mühendisliği (YI) (Tezli), Turkey 2014 - 2018

Undergraduate, Suleyman Demirel University, Teknoloji Fakültesi, Enerji Sistemleri Mühendisliği Bölümü, Turkey 2010 - 2014

### Foreign Languages

English, B2 Upper Intermediate

### Certificates, Courses and Trainings

Education Management and Planning, Eğitim Fakültesi Pedagojik Formasyon Eğitimi Sertifikası, Süleyman Demirel Üniversitesi, 2016

### Dissertations

Postgraduate, Güneş enerjisi kaynaklı ev tipi trijenerasyon sisteminin termodinamik analizi, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Enerji Sistemleri Mühendisliği Anabilim Dalı, 2018

### Research Areas

Energy storage technologies, Hydrogen Technologies and Fuel Cells

### Academic Titles / Tasks

Research Assistant, Gazi University, Teknoloji Fakültesi, Enerji Sistemleri Mühendisliği, 2018 - Continues  
Research Assistant, Iskenderun Technical University, Faculty Of Engineering And Natural Sciences, Department Of Energy Systems Engineering, 2017 - 2018

### Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Numerical investigation of the laminar burning velocity and adiabatic flame temperature phenomenon for NH<sub>3</sub>/Hydrogen rich coal gases (HRCGs)/air flames**  
Kekul O., İlbaş M., Arslan B.  
Energy Sources, Part A: Recovery, Utilization, and Environmental Effects , vol.46, no.1, pp.10579-10598, 2024 (SCI-Expanded)
- II. **Characterization and utilization of industrial wastewater in biorefinery systems: A comprehensive approach**  
Castellanos H. G., Aryanfar Y., Fardinnia H., Arslan B., İlbaş M., Keçebaş A.  
Environmental Progress and Sustainable Energy, vol.43, no.4, 2024 (SCI-Expanded)
- III. **Experimental and Numerical Investigation of Macroencapsulated Phase Change Materials for Thermal Energy Storage**  
Arslan B., İlbaş M.  
Materials, vol.17, no.12, pp.1-25, 2024 (SCI-Expanded)
- IV. **Entrainment effects on combustion and emission characteristics of turbulent non-premixed ammonia/air and methane/air swirl flames through a developed perforated burner**  
Sahin M., İLBAŞ M., ARSLAN B.  
CANADIAN JOURNAL OF CHEMICAL ENGINEERING, vol.102, no.3, pp.1066-1077, 2024 (SCI-Expanded)
- V. **Energy, exergy and exergoeconomic analysis of a trans-critical CO<sub>2</sub> cycle powered by a single flash geothermal cycle in with/without economizer working modes**  
Aryanfar Y., Mohtaram S., Garcia Castellanos H., Tag-Eldin E. M., Arslan B., Deifalla A., Ragab A. E., Sun H.  
THERMAL SCIENCE, vol.27, no.5, pp.200-215, 2023 (SCI-Expanded)
- VI. **Experimental analysis of hydrogen storage performance of a LaNi<sub>5</sub>-H<sub>2</sub> reactor with phase change materials**  
ARSLAN B., İLBAŞ M., ÇELİK S.  
International Journal of Hydrogen Energy, vol.48, no.15, pp.6010-6022, 2023 (SCI-Expanded)
- VII. **Numerical investigation of a direct ammonia tubular solid oxide fuel cell in comparison with hydrogen**  
İlbaş M., Kümük B., Alemu M. A., Arslan B.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.45, no.60, pp.35108-35117, 2020 (SCI-Expanded)

### Articles Published in Other Journals

- I. **A numerical study on the melting behaviors of paraffin with and without Al<sub>2</sub>O<sub>3</sub> nanoparticles**  
Arslan B., İlbaş M.  
JOURNAL OF POLYTECHNIC-POLITEKNİK DERGISI, vol.24, no.3, pp.1243-1248, 2021 (ESCI)
- II. **Numerical Investigations of Phase Change Materials (PCMs) for Thermal Energy Storage Systems: An Overview**  
ARSLAN B., İLBAŞ M.  
International Journal of Energy Studies, vol.4, no.9, 2019 (Peer-Reviewed Journal)

### Refereed Congress / Symposium Publications in Proceedings

- I. **Numerical Analysis of Three-Dimensional Isothermal and Non-Isothermal PEM Fuel Cell Model**  
İLBAŞ M., İLHAN G. Ö., KÜMÜK B., ÖZDEMİR B.  
4th International Hydrogen Technologies Congress (IHTEC-2019), Edirne, Turkey, 20 - 23 June 2019, pp.127-130
- II. **Numerical Modeling of a Model Tubular Solid Oxide Fuel Cell Running on Amonia in Comparison with Hydrogen**  
İLBAŞ M., KÜMÜK B., ALEMU M. A., ÖZDEMİR B.  
4th International Hydrogen Technologies Congress (IHTEC-2019), Edirne, Turkey, 20 - 23 June 2019, pp.123-126
- III. **Designing and Numerical Analysis of a High Pressure Hydrogen Storage Tank**  
İLBAŞ M., YILDIRIM S. C., ÖZDEMİR B., KÜMÜK B.  
4th International Conference on Viable Energy Trends (INVENT-2019), İstanbul, Turkey, 26 - 28 April 2019, pp.108-115
- IV. **A Review of Numerical Studies on Energy Storage in Phase Change Materials (PCMs)**  
İLBAŞ M., ÖZDEMİR B., ŞAHİN M.  
International Congress on the World of Technology and Advanced Materials (WITAM-2018), Kırşehir, Turkey, 21 - 23 September 2018

## Supported Projects

Arslan B., İlbaş M., Kümük B., Project Supported by Higher Education Institutions, Faz Değiştiren Malzemeler (FDM) ile Isıl Enerji Depolamanın Sayısal ve Deneysel Analizi, 2020 - 2022

## Metrics

Publication: 13  
Citation (WoS): 27  
Citation (Scopus): 35  
H-Index (WoS): 2  
H-Index (Scopus): 2