

## Assoc. Prof. BUĞRAHAN ALABAŞ

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAL-7747-2020

Yoksis Researcher ID: 277491

### Education Information

Post Doctorate, Universidad Polit cnica de Madrid, Spain 2023 - Continues

Doctorate, Erciyes University, Fen Bilimleri Enstit s , Sivil Havacılık, Turkey 2018 - 2021

Postgraduate, Erciyes University, Fen Bilimleri Enstit s , Makine M hendisliđi, Turkey 2012 - 2016

Postgraduate, Universidad del Pais Vasco, School of Engineer of Bilbao, Mechanical Engineering, Spain 2013 - 2014

Undergraduate, Erciyes University, M hendislik Fak ltesi, Makine M hendisliđi, Turkey 2006 - 2012

### Foreign Languages

Spanish, B1 Intermediate

English, C1 Advanced

### Dissertations

Postgraduate,  ift fazlı  eliklerin farklı  alıřma Őartlarında eroziv ařınma davranıřı, Erciyes  niversitesi, Fen Bilimleri Enstit s , Makine M hendisliđi, 2016

### Research Areas

Technical Sciences, Aeronautical and Space Engineering, Aeronautical Engineering

### Academic Titles / Tasks

Lecturer, Erciyes University, Havacılık ve Uzay Bilimleri Fak ltesi, U ak G vde ve Motor Bakımı, 2018 - Continues

### Courses

Hava Aracı Malzeme ve Donanım, Undergraduate, 2018 - 2019

Termodinamik, Undergraduate, 2017 - 2018

Akıřkanlar Mekaniđi, Undergraduate, 2018 - 2019

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

- I. **Experimental investigation of the effect of air/fuel ratio change on JP8 swirl flame characteristics with image processing methods**  
Alabaş B., Taştan M., Arenillas I. A., Özcan A.  
CASE STUDIES IN THERMAL ENGINEERING, vol.59, no.59, pp.1-14, 2024 (SCI-Expanded)
- II. **Experimental investigation of the effect of the electromagnetic field on the stability of the hydrogen enriched methane flame under acoustic enforcement**  
Taştan M., Ozturk O., Alabaş B., Mutlu K., Yılmaz İ.  
ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS, vol.46, no.1, pp.5290-5305, 2024 (SCI-Expanded)
- III. **N<sub>2</sub> and Ar dilution on the premixed biogas jet flame under external acoustic enforcement**  
ALABAŞ B., YILMAZ İ., ÇAM Y.  
Propulsion and Power Research, vol.12, no.4, pp.486-504, 2023 (SCI-Expanded)
- IV. **Experimental investigation of the combustion instability behaviors and NO<sub>x</sub> emissions in an ammonia/methane fueled low eddy premixed burner**  
İLBAŞ M., Kumuk O., ALABAŞ B.  
Journal of the Energy Institute, vol.108, 2023 (SCI-Expanded)
- V. **Effect of oxygen enrichment of Biogas-Hydrogen mixtures in a premixed combustor on the combustion instability and emissions**  
ALABAŞ B., TUNÇ G., TAŞTAN M., YILMAZ İ.  
Fuel, vol.340, 2023 (SCI-Expanded)
- VI. **Effect of biogas addition on combustion instability of propane flame at different external acoustic enforcement frequencies**  
ALABAŞ B.  
Fuel, vol.317, 2022 (SCI-Expanded)
- VII. **Examination of combustion characteristics of oxygen enriched synthetic gases mixtures at various acoustic frequencies**  
Alabaş B., Tunç G., Taştan M., Yılmaz İ.  
International Journal of Hydrogen Energy, vol.47, no.24, pp.12365-12376, 2022 (SCI-Expanded)
- VIII. **Experimental investigation of the flame characteristics of a fuel mixture with high hydrogen content enriched with oxygen under the externally acoustic enforcement conditions**  
Yılmaz İ., Tunç G., Taştan M., Alabaş B.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.47, no.24, pp.12432-12442, 2022 (SCI-Expanded)
- IX. **Effect of N<sub>2</sub> dilution on combustion instabilities and emissions in biogas flame**  
YILMAZ İ., ÇAM Y., ALABAŞ B.  
FUEL, vol.308, 2022 (SCI-Expanded)
- X. **Experimental investigation of the emission behaviour and flame stability of the oxygen and hydrogen enriched methane under acoustic enforcement**  
ALABAŞ B., TUNÇ G., TAŞTAN M., YILMAZ İ.  
FUEL, vol.290, 2021 (SCI-Expanded)
- XI. **Effect of oxygen enrichment on the flame stability and emissions during biogas combustion: An experimental study**  
Yılmaz İ., Alabaş B., Taştan M., Tunç G.  
FUEL, vol.280, 2020 (SCI-Expanded)
- XII. **Experimental investigation of the oxygen enrichment in synthetic gases flames**  
Alabaş B., Tunç G., Taştan M., Yılmaz İ.  
FUEL, vol.270, 2020 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Optimization of Plenum for Control of Boundary Layer-Shock Interaction in Supersonic Inlet**  
Türkkahraman Z., Özcan M. E., Alabaş B.  
JOURNAL OF POLYTECHNIC-POLITEKNİK DERGISI, no.1, pp.1-12, 2024 (ESCI)
- II. **Performance and thrust analysis of J4/Biodiesel mixtures at different ratios in a high bypass ratio gas turbine engine**  
POLATLI G., ÇİTİL Ş., AKBUDAK M., ALABAŞ B.  
International journal of energy studies (Online), vol.9, no.2, pp.279-290, 2024 (Peer-Reviewed Journal)
- III. **Effect of oxy-colorless distributed combustion of methane flame behaviour in a premixed gas turbine burner**  
Alabaş B., Türkkahraman Z.  
International journal of energy studies (Online), vol.8, no.3, pp.465-476, 2023 (Peer-Reviewed Journal)
- IV. **Equivalence Ratio Effect on Helium Diluted Methane Jet Flame Temperature and Pollutant Emission for a Swirl Assisted Gas Turbine Burner**  
Alabaş B., Altınay A.  
Havacılık ve Uzak Teknolojileri Dergisi, vol.16, no.1, pp.50-63, 2023 (Peer-Reviewed Journal)
- V. **Effect of helium dilution on the dynamic stability of lean premixed methane flame in a model gas turbine combustor**  
Alabaş B., Altınay A.  
International journal of energy studies (Online), vol.7, no.2, pp.113-126, 2022 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Effect of Oxygen Enrichment on Flame Instability for A High Hydrogen Content Fuel Mixture**  
TUNÇ G., TAŞTAN M., YILMAZ İ., ALABAŞ B.  
8th International Conference on Renewable Fuels, Combustion and Fire (FCE'21), Ankara, Turkey, 5 - 07 March 2021, vol.1, pp.212-216
- II. **The Effect of Oxygen Enrichment on Combustion Instabilities for Synthetic Gases Fuels with Different H<sub>2</sub>/CO Ratios**  
Alabaş B., Tunç G., Taştan M., Yılmaz İ.  
15th International Combustion Symposium (INCOS 2020), Kayseri, Turkey, 17 - 19 September 2020, pp.313-319
- III. **EFFECT OF N<sub>2</sub> DILUTION ON EMISSION AND COMBUSTION INSTABILITIES FOR A BIOGAS MIXTURE USED IN INDUSTRIAL SYSTEMS**  
Çam Y., Alabaş B., Yılmaz İ.  
15th INTERNATIONAL COMBUSTION SYMPOSIUM, Kayseri, Turkey, 17 - 19 September 2020
- IV. **Experimental Investigation of the Effect of Swirl Number on the Burning of Synthetic Gases in a Burner**  
ALABAŞ B., TUNÇ G., TAŞTAN M., YILMAZ İ.  
VII. Mühendislikte Yakıtlar, Yanma ve Yangın Konferansı (7th International Conference on Renewable Fuels Combustion and Fire – FCE2019), 10 - 12 March 2019
- V. **Laboratuvar ölçekli bir yakıcıda metan hidrojen karışımlarının deneysel incelenmesi**  
Alabaş B., Tunç G., Taştan M., Yılmaz İ.  
International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2018), Ankara, Turkey, 22 - 23 November 2018

## Supported Projects

ALABAŞ B., TAŞTAN M., MUTLU K., Project Supported by Higher Education Institutions, Bir Gaz Türbin Yanma Odasında Alternatif Yakıt ilavesinin Jet Yakıtının Yanma Karakteristiği ve Kirlenici Emisyon Değerlerine Olan Etkisinin Deneysel İncelenmesi, 2022 - Continues

Alabaş B., Project Supported by Public Organizations in Other Countries, Improving energy production and circularity of anaerobic digestion by integrating advanced oxidation and electrochemical processes in the treatment strategy, 2024 - 2027

Alabaş B., Project Supported by Private Organizations in Other Countries, Experimental investigation of the effect of hydrogen enrichment on the combustion characteristics and emission performance of biogas mixtures with different calorific values, 2024 - 2024

Alabaş B., TUBITAK Project, Oksi-renksiz Dağıtılmış Yanma Şartlarında Jet A-1 (Jet Yakıtı) ve Alternatif Yakıtların Yanma Karakteristiği ve Emisyon Davranışlarının Deneysel İncelenmesi, 2023 - 2024

ALABAŞ B., ALTINAY A., Project Supported by Higher Education Institutions, Ön Karışımli Bir Model Gaz Türbin Yakıcısında Helyum Seyreltmesinin Metan Alev Karakteristiğine Etkisi, 2022 - 2023

YILMAZ İ., ALABAŞ B., Project Supported by Higher Education Institutions, OKSİJENLE ZENGİNLEŞTİRİLEN SENTETİK GAZ YAKITLARIN YANMA KARARSIZLIĞININ DENEYSEL İNCELENMESİ, 2019 - 2021

## Metrics

Publication: 22

Citation (WoS): 81

Citation (Scopus): 92

H-Index (WoS): 6

H-Index (Scopus): 7