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Personal Information

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International Researcher IDs

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Education Information

Post Doctorate, Universitaet Bayreuth, Faculty of Engineering Science, Department of Engineering Thermodynamics and Transport Processes, Germany 2022 - 2022

Doctorate, Erciyes University, Fen Bilimleri Enstitüsü, Sivil Havacılık, Turkey 2013 - 2018

Undergraduate, Erciyes University, Sivil Havacılık Yüksekokulu, Uçak Gövde Motor, Turkey 2002 - 2007

Research Areas

Mechanical Engineering, Fuels and Combustion, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Erzincan Binali Yildirim University, Ali Cavit Çelebioğlu Sivil Havacılık Yüksekokulu, Uçak Gövde-Motor Bölümü, 2021 - Continues

Researcher, Universitaet Bayreuth, Faculty of Engineering Science, Department of Engineering Thermodynamics and Transport Processes, 2022 - 2022

Assistant Professor, Erzincan Binali Yildirim University, Ali Cavit Çelebioğlu Sivil Havacılık Yüksekokulu, Uçak Gövde-Motor Bölümü, 2018 - 2021

Research Assistant, Erzincan Binali Yildirim University, Ali Cavit Çelebioğlu Sivil Havacılık Yüksekokulu, Uçak Gövde-Motor Bölümü, 2016 - 2018

Instructor, Gumushane University, Kelkit Aydın Doğan Vocational School, Ulaştırma Hizmetleri, 2009 - 2016

Academic and Administrative Experience

Director Of Junior College, Erzincan Binali Yildirim University, Ali Cavit Çelebioğlu Sivil Havacılık Yüksekokulu, Uçak Gövde-Motor Bölümü, 2021 - Continues

Head of Department, Erzincan Binali Yildirim University, Ali Cavit Çelebioğlu Sivil Havacılık Yüksekokulu, Uçak Gövde-Motor Bölümü, 2018 - 2021

Gümüşhane Üniversitesi, Kelkit Aydın Doğan Meslek Yüksekokulu, Sivil Hava Ulaştırma İşletmeciliği, 2009 - 2016

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Combustion and emission characteristics of laser-ignited pure methane in a rapid compression machine**
Yilmaz H., Schröder L., Hillenbrand T., Brüggemann D.
JOURNAL OF THE BRAZILIAN SOCIETY OF MECHANICAL SCIENCES AND ENGINEERING, vol.47, pp.1-11, 2025 (SCI-Expanded)
- II. **Effects of hydrogen addition on combustion and flame propagation characteristics of laser ignited methane/air mixtures**
Yilmaz H., Schröder L., Hillenbrand T., Brüggemann D.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.1, no.1, pp.1-16, 2023 (SCI-Expanded)
- III. **Laser and pre-chamber ignition, combustion and flame propagation characteristics of CH₄/air mixtures in a constant volume combustion chamber**
Yilmaz H., Schröder L., Hillenbrand T., Brüggemann D.
ENERGY CONVERSION AND MANAGEMENT, vol.280, pp.1-15, 2023 (SCI-Expanded)
- IV. **Colorless distributed combustion characteristics of hydrogen/air mixtures in a micro combustor**
Yilmaz H., Karyeyen S., Tepe A. Ü., Brüggemann D.
FUEL, vol.332, pp.1-7, 2023 (SCI-Expanded)
- V. **Thermal-hydraulic performance of the circular-slice-shaped-winglet for tube bank heat exchanger**
Tepe A. Ü., Yilmaz H.
INTERNATIONAL JOURNAL OF THERMAL SCIENCES, vol.179, pp.1-14, 2022 (SCI-Expanded)
- VI. **Combustion and emission characteristics of premixed biogas mixtures: An experimental study**
Sivri İ., Yilmaz H., Çam Ö., Yilmaz İ.
International Journal of Hydrogen Energy, vol.47, no.24, pp.12377-12392, 2022 (SCI-Expanded)
- VII. **Experimental Investigation of Flame Characteristics of H₂/CO/CH₄/CO₂ Synthetic Gas Mixtures**
Yilmaz H., Çam Ö., Yilmaz İ.
COMBUSTION SCIENCE AND TECHNOLOGY, vol.193, no.11, pp.1843-1865, 2021 (SCI-Expanded)
- VIII. **Flame and Instability Characteristics of High Hydrogen Content Gas Mixtures**
Yilmaz H., Yilmaz İ.
ENERGY, vol.223, pp.1-10, 2021 (SCI-Expanded)
- IX. **A comparison study on combustion and emission characteristics of actual synthetic gas mixtures**
Yilmaz H., Çam Ö., Yilmaz İ.
FUEL, vol.263, pp.1-6, 2020 (SCI-Expanded)
- X. **Experimental investigation of flame instability in a premixed combustor**
Yilmaz H., Çam Ö., Yilmaz İ.
FUEL, vol.262, 2020 (SCI-Expanded)
- XI. **Investigation of combustion and emission performance of a micro combustor: Effects of bluff body insertion and oxygen enriched combustion conditions**
Yilmaz H.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.44, no.47, pp.25985-25999, 2019 (SCI-Expanded)
- XII. **Effects of synthetic gas constituents on combustion and emission behavior of premixed H₂/CO/CO₂/CNG mixture flames**
Yilmaz H., Yilmaz İ.
JOURNAL OF THE ENERGY INSTITUTE, vol.92, no.4, pp.1091-1106, 2019 (SCI-Expanded)
- XIII. **Combustion and emission characteristics of premixed CNG/H₂/CO/CO₂ blending synthetic gas flames in a combustor with variable geometric swirl number**
Yilmaz H., Yilmaz İ.
ENERGY, vol.172, pp.117-133, 2019 (SCI-Expanded)
- XIV. **Combustion characteristics of premixed hydrogen/air flames in a geometrically modified micro combustor**
Yilmaz İ., Yilmaz H., Cam O., Ilbas M.
FUEL, vol.217, pp.536-543, 2018 (SCI-Expanded)
- XV. **A numerical study on combustion and emission characteristics of premixed hydrogen air flames**

Cam O., Yılmaz H., Tangöz S., Yılmaz İ.

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.42, no.40, pp.25801-25811, 2017 (SCI-Expanded)

XVI. **Effect of different turbulence models on combustion and emission characteristics of hydrogen/air flames**

Yılmaz H., Cam O., Tangöz S., Yılmaz İ.

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.42, no.40, pp.25744-25755, 2017 (SCI-Expanded)

XVII. **Effect of micro combustor geometry on combustion and emission behavior of premixed hydrogen/air flames**

Yılmaz H., Cam O., Yılmaz İ.

ENERGY, vol.135, pp.585-597, 2017 (SCI-Expanded)

Articles Published in Other Journals

- I. **Swirler geometry effects (D_h/d_o ratio) on synthetic gas flames. part 2: Dynamic flame behaviour at externally altered acoustic conditions** Suktuvo geometrijos (D_h/d_o) poveikis sintetinių dujų liepsnoms. 2 dalis: dinaminė liepsnos elgsena veikiant išorėje pakeistomis akustinėmis sąlygomis
YILMAZ H., ÇAM Ö., YILMAZ İ.
Energetika, vol.67, no.1-2, pp.55-61, 2021 (Scopus)
- II. **Swirler geometry effects (D_h/d_o ratio) on synthetic gas flames: Part 1: Combustion and emission characteristics** Suktuvo geometrijos (D_h/d_o) poveikis sintetinių dujų liepsnoms. 1 dalis: degimo ir emisijų charakteristikos
YILMAZ H., ÇAM Ö., YILMAZ İ.
Energetika, vol.67, no.1-2, pp.48-54, 2021 (Scopus)
- III. **Assessment of Combustion and Emission Characteristics of Various Gas Mixtures under Different Combustion Techniques**
Yılmaz H.
International Journal of Energy Studies, vol.5, no.1, pp.13-41, 2020 (Peer-Reviewed Journal)
- IV. **Kaya Gazı Karışımlarının Yanma ve Emisyon Davranışlarının Laboratuvar Ölçekli Bir Yakıcıda Sayısal Olarak İncelenmesi**
Yılmaz H.
Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.12, no.3, pp.1579-1589, 2019 (Peer-Reviewed Journal)
- V. **An experimental study on premixed CNG/H-2/CO₂ mixture flames**
YILMAZ İ., YILMAZ H., Cam O.
OPEN ENGINEERING, vol.8, no.1, pp.32-40, 2018 (ESCI)

Books

- I. **Investigation of an Optimal Operating Condition for a Micro Combustor Regarding Basic Thermophotovoltaic System Requirements**
YILMAZ H., ÇAM Ö., YILMAZ İ.
in: The Role of Exergy in Energy and the Environment, Sandro Nižetić Agis Papadopoulos, Editor, Springer International Publishing AG, part of Springer Nature, Cham, pp.27-41, 2018

Papers Published in Refereed Scientific Meetings

- I. **Dynamic Flame Behavior of 30%H₂ 30%CO 20%CO₂ 20%CNG Synthetic Gas Mixture During Acoustic Forcing**
Çam Ö., Yılmaz H., Yılmaz İ.

16. Uluslararası Yanma Sempozyumuna (16th International Combustion Symposium – INCOS 2022, Aydın, Turkey, 8 - 11 September 2022, vol.1, no.1, pp.1-7
- II. **Experimental Investigation of Combustion Characteristics of Premixed Biogas Flames**
Sivri İ., Yılmaz H., Çam Ö., Yılmaz İ.
8th International Conference on Renewable Fuels, Combustion and Fire (FCE'21), Ankara, Turkey, 5 - 07 March 2021, pp.1-10
- III. **Flameless Distributed Combustion Characteristics of Syngas Mixtures**
YILMAZ H.
3. International Mersin Symposium, Mersin, Turkey, 31 October - 02 November 2019, vol.1, no.1, pp.1
- IV. **Combustion Characteristics of Natural Gas at Oxygen Enriched Conditions: Effects of Oxidizer Composition**
YILMAZ H.
3. International Mersin Symposium, Mersin, Turkey, 31 October - 02 November 2019, vol.1, no.1, pp.1
- V. **Experimental Investigation of Effects of The Ratio of Swirler Hub Diameter to Outer Diameter (Dh/Do) on Synthetic Gas Flames: Part 2: Dynamic Flame Behaviour at Externally Altered Acoustic Conditions**
YILMAZ H., ÇAM Ö., YILMAZ İ.
The 16th International Conference of Young Scientists on Energy Issues (CYSENI 2019), Kaunas, Lithuania, 23 - 24 May 2019, pp.329
- VI. **Experimental Investigation of Effects of The Ratio of Swirler Hub Diameter to Outer Diameter (Dh/Do) on Synthetic Gas Flames: Part 1: Combustion and Emission Characteristics**
YILMAZ H., ÇAM Ö., YILMAZ İ.
The 16th International Conference of Young Scientists on Energy Issues (CYSENI 2019), Kaunas, Lithuania, 23 - 24 May 2019, pp.328
- VII. **Comparison of Combustion and Emission Characteristics of Output Synthetic Gas Compositions of Two Different Power Stations**
Yılmaz H., Çam Ö., Yılmaz İ.
7th International Conference on Renewable Fuels Combustion and Fire, Antalya, Turkey, 10 - 12 March 2019, vol.1, no.1, pp.1-10
- VIII. **YÜKSEK H₂/CO ORANINA SAHİP SENTETİK GAZ YAKITLARIN YANMA KARAKTERİSTİKLERİNİN DENEYSEL İNCELENMESİ**
YILMAZ H., ÇAM Ö., YILMAZ İ.
1. ULUSLARARASI MATEMATİK - MÜHENDİSLİK - FEN VE SAĞLIK BİLİMLERİ KONGRESİ, Şanlıurfa, Turkey, 4 - 07 October 2018, pp.42-49
- IX. **SENTETİK GAZ YAKITLARIN YANMA KARARSIZLIKLARININ DENEYSEL İNCELENMESİ**
YILMAZ İ., YILMAZ H., ÇAM Ö.
1. ULUSLARARASI MATEMATİK - MÜHENDİSLİK - FEN VE SAĞLIK BİLİMLERİ KONGRESİ, Şanlıurfa, Turkey, 4 - 07 October 2018, pp.33-41
- X. **An Experimental Study on Effect of Swirl Number and Gas Composition on Combustion and Emission Behavior of Premixed H₂/CO/CNG Blending Synthetic Gas Flames in a Novel Combustor**
Yılmaz H., Çam Ö., Yılmaz İ.
16th International Conference on Clean Energy (ICCE-2018), Gazimagusa, Cyprus (Kkct), 9 - 11 May 2018, vol.1, no.1, pp.1-10
- XI. **Effect of CO₂ Dilution on Premixed H₂/CO/CNG Blending Synthesis Gas Flames**
YILMAZ İ., YILMAZ H., ÇAM Ö., SOYTÜRK M. A.
16th International Conference on Clean Energy (ICCE-2018), Famagusta, Cyprus (Kkct), 9 - 11 May 2018
- XII. **Dynamic and Static Flame Behavior of Premixed H₂/CO/CNG/CO₂-Air Mixtures under Externally Modified Acoustic Conditions**
Yılmaz H., Çam Ö., Yılmaz İ.
14 th International Conference of Combustion, Karabük, Turkey, 25 - 27 April 2018, pp.1-10
- XIII. **Combustion and Emission Behavior of Premixed CNG/H₂/CO₂ Mixture Flames: Effect of Swirl**

Number and Gas Composition

YILMAZ İ., YILMAZ H., ÇAM Ö.

International Research Conference on Sustainable Energy, Engineering, Materials and Environment (SEEME), Newcastle Upon Tyne, United Kingdom, 26 - 28 July 2017, pp.144-150

- XIV. **Numerical Investigation on Combustion Behavior of Premixed Hydrogen/Air Flames in a Micro Combustor with Varying Geometric Properties: Part - I Effect of Backward Facing Step and Cavity**
YILMAZ H., ÇAM Ö., İLBAŞ M., YILMAZ İ.
6th International Conference on Renewable Fuels, Combustion and Fire (FCE'17), Nevşehir, Turkey, 18 - 21 May 2017, pp.212-224
- XV. **Numerical Investigation on Combustion Behavior of Premixed Hydrogen/Air Flames in a Micro Combustor with Varying Geometric Properties: Part - II Effect of Multi-Channel Arrangement**
YILMAZ H., ÇAM Ö., TANGÖZ S., YILMAZ İ.
6th International Conference on Renewable Fuels, Combustion and Fire (FCE'17), Nevşehir, Turkey, 18 - 21 May 2017, pp.225-236
- XVI. **Investigation of Effects of Equivalence Ratio and Thermal Power on Combustion and Emission Behavior of Premixed Hydrogen Air Mixtures in a Micro Combustor**
YILMAZ H., YILMAZ İ., ÇAM Ö.
9th International Exergy, Energy and Environment Symposium (IEEES-9), Split, Croatia, 14 - 17 May 2017
- XVII. **The Effect of Different Turbulence Models on the Flame and Emissions Characteristics of Hydrogen-Air Flames**
YILMAZ H., ÇAM Ö., TANGÖZ S., YILMAZ İ.
9th International Conference on Sustainable Energy and Environmental Protection, Kayseri, Turkey, 22 - 25 September 2016, pp.200-207
- XVIII. **Numerical Investigation of NO_x Emissions in a Micro-Cylindrical Combustor with Premixed Hydrogen-Air Mixture**
ÇAM Ö., TANGÖZ S., YILMAZ H., YILMAZ İ.
9th International Conference on Sustainable Energy and Environmental Protection, Kayseri, Turkey, 22 - 25 September 2016, pp.324-330

Supported Projects

Yılmaz H., Project Supported by Higher Education Institutions, Plazma Destekli Yanmanın Deneysel İncelenmesi, 2023 - 2024

Yılmaz İ., TUBITAK Project, Sentetik Gaz Yakıtların Yanma Kararsızlığı ve Alev Geri Tepmesinin İncelenmesi, 2016 - 2018

Yılmaz H., Yılmaz İ., Project Supported by Higher Education Institutions, Sentetik Gaz Yakıtların Yanma Karakteristiklerinin Deneysel İncelenmesi, 2016 - 2018

Metrics

Publication: 41

Citation (WoS): 202

Citation (Scopus): 360

H-Index (WoS): 8

H-Index (Scopus): 9