

**Asst. Prof. Fatih
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Personal Information

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International Researcher IDs

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Biography

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Education Information

2016 - 2023	Doctorate, Yıldız Technical University, Graduate School Of Natural And Applied Sciences, Mechanical Engineering/Energy Ph.D. Program, Turkey
2014 - 2016	Postgraduate, Yalova University, Faculty Of Engineering, Enerji Sistemleri Mühendisliği , Turkey
2007 - 2013	Undergraduate, Erciyes University, Mühendislik Fakültesi, Makine Mühendisliği , Turkey

Dissertations

2023	Experimental and Modeling Studies on Green Hydrogen Production and Blending with Natural Gas through Integrated Systems, Yıldız Technical University, Graduate School Of Natural And Applied Sciences, Mechanical Engineering/Energy Ph.D. Program, Doctorate
2016	Polimer Elektrolit Membranlı Yakıt Hücresi için Model Geliştirilmesi ve COMSOL Programı ile Simülasyonu, Yalova Üniversitesi, Mühendislik Fakültesi , Enerji Sistemleri Mühendisliği , Postgraduate

Research Areas

Mechanical Engineering, Energy, Alternative Energy Resources, Energy storage technologies, Solar energy, Hydrogen Technologies and Fuel Cells, Wind power, Thermodynamics, Engineering and Technology

Academic Titles / Tasks

2023 - Continues	Assistant Professor, Yıldız Technical University, Faculty Of Mechanical Engineering, Department Of Mechanical Engineering
2017 - 2023	Research Assistant, Yıldız Technical University, Faculty Of Mechanical Engineering, Department Of Mechanical Engineering

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Effect of burner head geometry on flame dispersion in gas stoves with hydrogen and natural gas blends**
SORGULU F., ÖZTÜRK M., JAVANI N., DİNCER İ.
Process Safety and Environmental Protection, vol.183, pp.1135-1151, 2024 (SCI-Expanded)
- II. **Experimental investigation of various burner heads in residential gas stoves tested with hydrogen and natural gas blends**
ÖZTÜRK M., SORGULU F., JAVANI N., DİNCER İ.
International Journal of Hydrogen Energy, vol.53, pp.1344-1349, 2024 (SCI-Expanded)
- III. **Experimental investigation for combustion performance of hydrogen and natural gas fuel blends**
SORGULU F., ÖZTÜRK M., JAVANI N., DİNCER İ.
International Journal of Hydrogen Energy, vol.48, no.88, pp.34476-34485, 2023 (SCI-Expanded)
- IV. **Development of an integrated thermochemical cycle-based hydrogen production and effective utilization**
SORGULU F., DİNCER İ.
International Journal of Hydrogen Energy, vol.48, no.71, pp.27502-27512, 2023 (SCI-Expanded)
- V. **An experimental study on the environmental impact of hydrogen and natural gas blend burning**
Öztürk M., Sorgulu F., Javani N., Dincer İ.
Chemosphere, vol.329, 2023 (SCI-Expanded)
- VI. **A solar energy driven thermochemical cycle based integrated system for hydrogen production**
Sorgulu F., Dincer İ.
Energy, vol.269, 2023 (SCI-Expanded)
- VII. **Development and performance assessment of a calcium-iron bromide cycle-based hydrogen production integrated system**
SORGULU F., DİNCER İ.
Energy Conversion and Management, vol.277, 2023 (SCI-Expanded)
- VIII. **Thermoeconomic and impact assessments of trigeneration systems with various fuels**
Sorgulu F., Dincer İ.
FUEL, vol.317, 2022 (SCI-Expanded)
- IX. **Development and assessment of renewable hydrogen production and natural gas blending systems for use in different locations**
Sorgulu F., Dincer İ.
ENERGY SCIENCE & ENGINEERING, vol.10, no.5, pp.1739-1751, 2022 (SCI-Expanded)
- X. **Analysis and techno-economic assessment of renewable hydrogen production and blending into natural gas for better sustainability**
SORGULU F., DİNCER İ.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.47, no.46, pp.19977-19988, 2022 (SCI-Expanded)
- XI. **A new experimentally developed integrated organic Rankine cycle plant**
Sorgulu F., Akgul M. B., Cebeci E., Yilmaz T. O., Dincer I.
APPLIED THERMAL ENGINEERING, vol.187, 2021 (SCI-Expanded)
- XII. **Development and assessment of a biomass-based cogeneration system with desalination**
SORGULU F., DİNCER İ.
APPLIED THERMAL ENGINEERING, vol.185, 2021 (SCI-Expanded)
- XIII. **Development of a hythane based cogeneration system integrated with gasification and landfill subsystems**

SORGULU F., DİNCER İ.

Energy, vol.215, 2021 (SCI-Expanded)

XIV. **Design and analysis of a solar tower power plant integrated with thermal energy storage system for cogeneration**

Sorgulu F., Dincer İ.

INTERNATIONAL JOURNAL OF ENERGY RESEARCH, vol.43, no.12, pp.6151-6160, 2019 (SCI-Expanded)

XV. **Cost evaluation of two potential nuclear power plants for hydrogen production**

Sorgulu F., Dincer İ.

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.43, no.23, pp.10522-10529, 2018 (SCI-Expanded)

XVI. **A renewable source based hydrogen energy system for residential applications**

Sorgulu F., Dincer İ.

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.43, no.11, pp.5842-5851, 2018 (SCI-Expanded)

XVII. **Thermodynamic analyses of a solar-based combined cycle integrated with electrolyzer for hydrogen production**

SORGULU F., DİNCER İ.

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.43, no.2, pp.1047-1059, 2018 (SCI-Expanded)

Articles Published in Other Journals

I. **Hidrojen ve Doğal Gaz Karışımının Evsel Cihazlarda Kullanımının Deneysel ve Teorik Olarak İncelenmesi**

Sorgulu F., Öztürk M., Javani N., Dinçer İ.

Cihannüma Teknoloji Fen ve Mühendislik Bilimleri Akademi Dergisi, vol.1, pp.23-38, 2022 (Peer-Reviewed Journal)

Papers Published in Refereed Scientific Meetings

I. **A geothermal energy-based thermochemical cycle integrated with a cement factory for carbon capture for methane production**

SORGULU F., DİNCER İ.

Global Conference on Global Warming (GCGW-2023), İstanbul, Turkey, 14 - 16 June 2023

II. **A Geothermal Driven Thermochemical Cycle Based Integrated System for Hydrogen Production and Effective Utilization**

SORGULU F., DİNCER İ.

The 7th International Hydrogen Technologies Congress (IHTEC-2023), 10-12 May, Elazığ, Turkey, 10 - 12 May 2023

III. **Assessment of Trigeration Energy Systems with Storage Options**

SORGULU F., DİNCER İ., JAVANI N., ÖZTÜRK M.

The 2nd World Energy Storage Conference (WESC-2022), İstanbul, Turkey, 18 - 21 December 2022

IV. **A Hybrid Sulfur-Bromine Cycle-Based Hydrogen Production and Utilization for Residential Purposes by Blending with Natural Gas**

SORGULU F., DİNCER İ.

13th International Conference on Hydrogen Production (ICH2P-22), Islamabad, Pakistan, 11 - 14 December 2022

V. **Assessment of Hydrogen and Natural Gas Blending for Use in Different Locations**

SORGULU F., DİNCER İ.

13th International Exergy, Energy and Environment Symposium (IEEES-13), Mekke, Saudi Arabia, 14 - 17 March 2022

VI. **A Solar Energy Driven Thermochemical Cycle for Hydrogen Production**

SORGULU F., DİNCER İ.

6th International Hydrogen Technologies Congress (IHTEC-2022), Çanakkale, Turkey, 23 - 26 January 2022

- VII. **PERFORMANCE ASSESSMENT OF A CALCIUM-IRON BROMIDE CYCLE BASED MULTIGENERATION SYSTEM**
 SORGULU F., DİNCER İ.
 23rd World Hydrogen Energy Conference: Bridging Continents by H2, WHEC 2022, İstanbul, Turkey, 26 - 30 June 2022, pp.1042-1043
- VIII. **Techno-Economic and Environmental Impact Assessments of Trigeneration Systems with Various Fuels**
 SORGULU F., DİNCER İ.
 TUBA World Conference on Energy Science and Technology, August 8-12, 2021, Online, Turkey, 8 - 12 August 2021
- IX. **Analysis of an Ocean and Wind Energy Based Pumped Hydro Storage System**
 SORGULU F., DİNCER İ.
 World Energy Strategies Congress and Exhibition 2019 (WESCE'19), 26 - 28 August 2019
- X. **Exergetic Assessment of a Combined Cycle Integrated with Gasification, Anaerobic Digestion, and Distillation Units**
 Sorgulu F., Dincer İ.
 11th International Exergy, Energy and Environment Symposium (IEEES-11), July 14-18, 2019, Chennai, India, Chennai, India, 14 - 18 July 2019
- XI. **Analyses of an Ocean Current and Wind Energy Based Hydrogen Production and Desalination**
 SORGULU F., DİNCER İ.
 4th International Hydrogen Technologies Congress, Edirne, Turkey, 20 - 23 June 2019
- XII. **Development of a Hythane Based Combined Cycle Integrated with Gasification and Anaerobic Digestion Subsystems**
 Sorgulu F., Dincer İ.
 10th International Conference on Hydrogen Production (ICH2P-2019), Cluj-Napoca, Romania, Cluj-Napoca, Romania, 15 - 17 May 2019
- XIII. **Analysis of an Ocean Current Energy Based Cogenerational System**
 SORGULU F., DİNCER İ.
 8th Global Conference on Global Warming (GCGW-2019), 22 - 25 April 2019
- XIV. **Exergoenvironmental Analysis of a Solar Tower Based Integrated System: Comparison with Various Fuels**
 SORGULU F., DİNCER İ.
 7th Global Conference on Global Warming (GCGW-2018), İzmir, Turkey, 24 - 28 June 2018
- XV. **Thermodynamic and Economic Analyses of a Renewable Energy Based Hydrogen Production System**
 SORGULU F., DİNCER İ.
 3. International Hydrogen Technologies Congress (IHTEC-2018), 15 - 18 March 2018
- XVI. **Design and Analysis of a Solar Tower based Integrated System with Thermal Energy Storage**
 SORGULU F., DİNCER İ.
 14. International Conference on Energy Storage, 25 - 28 April 2018, pp.1065-1070
- XVII. **A Renewable Energy Based and Integrated Hydrogen Energy System for Residential Applications**
 SORGULU F., DİNCER İ.
 9th International Exergy, Energy and Environment Symposium (IEEES-9), Split, Croatia, 14 - 17 May 2017
- XVIII. **Computational Modelling And Simulation Of Polymer Electrolyte Membrane Fuel Cell With Comsol**
 ÇAKMAK M. E., SORGULU F.
 INTERNATIONAL CONFERENCE ON ENERGY AND THERMAL ENGINEERING: ISTANBUL 2017, İstanbul, Turkey, 25 - 28 April 2017, vol.1, pp.594-596
- XIX. **Nuclear-based Hydrogen Production Cost Evaluation for Two Possible Nuclear Power Plants**
 SORGULU F., DİNCER İ.
 2nd International Hydrogen Technologies Congress (IHTEC-2017), 15 - 18 March 2017
- XX. **Thermodynamic Analyses of a Solar Based Combined Cycle Integrated with Electrolyzer**
 SORGULU F., DİNCER İ.
 2ND INTERNATIONAL CONFERENCE ON ENERGY SYSTEMS, 21 - 23 December 2016

- XXI. **Deneyisel Ve Hesaplamalı Olarak Elde Edilen Isı Transferi Verileri Arasındaki Farklılıkların Belirlenmesi**
Soylu E., Coşkun C., SORGULU F., ÇAKMAK M. E., MERT M. S.
20. Ulusal Isı Bilimi Ve Tekniği Kongresi, Balıkesir, Turkey, 02 September 2015 - 05 September 2016
- XXII. **Simulation of Single Phase Flow in 2 D Porous Media Implications for Water Management in PEMFCs**
SORGULU F., ÇAKMAK M. E.
4th Renewable Energy Systems Winter School, Afyon, 15 - 18 January 2015
- XXIII. **Pore Scale Simulation of Fluid Flow and Mass Transport in Energy Related Systems**
SORGULU F., ÇAKMAK M. E.
Turkish - German Conference on Energy Technologies, 13 - 15 October 2014

Supported Projects

2024 - 2025	Experimental Investigation of Novel Thermochemical Cycles for Hydrogen production, TUBITAK Project
2023 - 2023	Hydrogen Energy: Fundamentals, Systems and Applications (Supported by: EPIAŞ), Project Supported by Other Private Institutions
2022 - 2023	Farklı geometrilere sahip ocak başlıklarının doğal gaz hidrojen karışımının yanma performansına etkisi, Project Supported by Higher Education Institutions
2022 - 2022	Doğal gazın hidrojen ilavesiyle ocaklardaki yanma performansının deneysel incelenmesi, Project Supported by Higher Education Institutions
2020 - 2021	Türkiye Doğalgaz Sektöründe Hidrojen Yol Haritası, Project Supported by Other Private Institutions

Metrics

Publication: 41
Citation (WoS): 196
Citation (Scopus): 364
H-Index (WoS): 6
H-Index (Scopus): 10