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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, Renewable Energy Systems, 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 I.  
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)

## Refereed Congress / Symposium Publications in Proceedings

**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 Trigeneration 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 (IEEEES-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 (IEEEES-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

2023 - Continues	Temiz Hidrojen Enerji Teknolojilerinin Geliştirilmesi, Project Supported by Higher Education Institutions
2024 - 2025	Experimental Investigation of Novel Thermochemical Cycles for Hydrogen production, TUBITAK Project
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): 335

H-Index (WoS): 6

H-Index (Scopus): 9