

## Res. Asst. ŞULENUR ASAL

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: CCI-4741-2022

ScopusID: 57220862930

Yoksis Researcher ID: 304240

### Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Energy Systems Engineering , Turkey 2021 - Continues

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Energy Systems Engineering , Turkey 2018 - 2020

Undergraduate, Gazi University, Teknoloji Fakültesi, Enerji Sistemleri Mühendisliği, Turkey 2014 - 2018

### Foreign Languages

English, C1 Advanced

### Dissertations

Postgraduate, INVESTIGATION OF FISSION FUEL AND HYDROGEN PRODUCTION POTENTIAL IN A LASER DRIVER FUSION REACTOR WITH THORIUM NUCLEAR FUEL, Gazi University, Fen Bilimleri Enstitüsü, 2020

### Research Areas

Energy, Nuclear Energy, Hydrogen Technologies and Fuel Cells, Engineering and Technology

### Academic Titles / Tasks

Research Assistant, Gazi University, Teknoloji Fakültesi, Enerji Sistemleri Mühendisliği, 2019 - Continues

Researcher, Ontario Tech University, Clean Energy Research Laboratory (CERL), 2023 - 2024

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

- Comparative assessment of chloride family hydrogen production cycles driven by a nuclear-geothermal energy system**  
Asal Ş., Acir A., Dincer I.  
Computers and Chemical Engineering, vol.194, 2025 (SCI-Expanded)

- II. **Development and assessment of an integrated multigenerational energy system with cobalt-chlorine hydrogen generation cycle**  
Asal Ş., Acir A., Dincer I.  
Energy, vol.309, 2024 (SCI-Expanded)
- III. **Assessment of hydrogen production potential of APEX fusion blanket via cobalt-chlorine and copper-chlorine cycles**  
Asal Ş., Genç G., Acir A.  
Process Safety and Environmental Protection, vol.190, pp.1536-1545, 2024 (SCI-Expanded)
- IV. **A sustainable cruise ship development with cleaner production of electricity, heat, cooling, freshwater and hydrogen**  
Asal Ş., Acir A., Dincer I.  
Journal of Cleaner Production, vol.467, 2024 (SCI-Expanded)
- V. **A study on integrated HTR-PM driven hydrogen production using thermochemical cycles**  
Asal Ş., Acir A., Dincer I.  
Energy Conversion and Management, vol.307, 2024 (SCI-Expanded)
- VI. **Multi-objective optimization of the hydrogen fuel production of a solar-based cobalt-chlorine (Co-Cl) thermochemical cycle with grey relational analysis**  
Çakroğlu R., Çinici O. K., Asal Ş., Acir A.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, no.68, pp.360-373, 2024 (SCI-Expanded)
- VII. **Evaluation and comparison of hydrogen production potential of the LIFE fusion reactor by using copper-chlorine (Cu-Cl), cobalt-chlorine (Co-Cl) and sulfur-iodine (S-I) cycles**  
Asal Ş., Acir A.  
International Journal of Hydrogen Energy, vol.48, no.60, pp.22791-22805, 2023 (SCI-Expanded)
- VIII. **A study of hydrogen production by using SMR, S-I and HTE methods in a PACER fusion concept based on thorium molten salt fuel**  
ASAL Ş., ÖZKAYA M., ACIR A.  
Fuel, vol.333, 2023 (SCI-Expanded)
- IX. **A study on nuclear hydrogen production using a novel approach cobalt-chlorine thermochemical cycle in a laser driver fission fusion blanket for various molten salt fuels**  
ASAL Ş., ACIR A.  
Progress in Nuclear Energy, vol.153, 2022 (SCI-Expanded)
- X. **Utilization of the Cu-Cl thermochemical cycle for hydrogen production using a laser driver thorium molten salts**  
Asal Ş., Acir A.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.46, no.61, pp.31133-31142, 2021 (SCI-Expanded)
- XI. **Investigation of the hydrogen production of a laser FUSION driver thorium breeder using various coolants**  
ACIR A., ASAL Ş.  
International Journal of Hydrogen Energy, vol.46, no.10, pp.7087-7098, 2021 (SCI-Expanded)
- XII. **THERMAL ANALYSIS OF THE VVER-1000 REACTOR WITH THORIUM FUEL AND COOLANT CONTAINING Al<sub>2</sub>O<sub>3</sub>, CuO, AND TiO<sub>2</sub> NANOPARTICLES**  
ACIR A., Uzun S., Genc Y., ASAL Ş.  
HEAT TRANSFER RESEARCH, vol.52, no.4, pp.79-93, 2021 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Uranyum Yakıtlı Bir Lazer Sürücülü Füzyon Reaktöründe (LIFE) Nötronik Performansın Hidrojen Üretimine Etkisi**  
Asal Ş., Acir A.  
Journal of Polytechnic, vol.24, no.2, pp.609-617, 2021 (ESCI)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Design and Assessment of The ARC Fusion Reactor Integrated Energy System to Produce Power and Hydrogen**  
Asal Ş., Acir A.  
7th International Conference on Nuclear and Renewable Energy Resources (NURER-2024), Antalya, Turkey, 27 - 30 October 2024, pp.156-160
- II. **A Study on Geothermal-Based H<sub>2</sub>S-FeCl Hybrid Process for Hydrogen Production and H<sub>2</sub>S Removal**  
Asal Ş., Acir A., Dincer İ.  
8th International Hydrogen Technologies Congress (IHTEC-2024), Diyarbakır, Turkey, 12 - 15 May 2024, pp.240-242
- III. **A Study on Nuclear-Based Trigeration System with Cobalt-Chlorine Thermochemical Cycle**  
Asal Ş., Acir A., Dincer İ.  
12th Global Conference on Global Warming (GCGW-2024), Şanlıurfa, Turkey, 16 - 19 May 2024, pp.95-97
- IV. **A Study on Nuclear-Based Hydrogen Production System via Three- and Four-Step Magnesium Chlorine Cycles**  
Asal Ş., Acir A., Dincer İ.  
14th International Conference on Hydrogen Production (ICH2P-2023), Ar-Rayyan, Qatar, 19 - 21 December 2023, pp.161-163
- V. **Comparison of Hydrogen Production of the LIFE Fusion Reactor Fueled Thorium via Different Hydrogen Production Methods**  
Asal Ş., Acir A.  
6th International Hydrogen Technologies Congress (IHTEC-2022), Çanakkale, Turkey, 23 - 26 January 2022, pp.28-30

## Activities in Scientific Journals

Politeknik Dergisi , Technical Redactor, 2020 - Continues

## Metrics

Publication: 20

Citation (WoS): 62

Citation (Scopus): 57

H-Index (WoS): 6

H-Index (Scopus): 5

## Non Academic Experience

Company, Üntes Air Conditioning Systems , Export