

## Assoc. Prof. AYHAN ATIZ

### Personal Information

**Email:** aatiz@cu.edu.tr

**Web:** <https://avesis.cu.edu.tr/aatiz>

**Address:** Çukurova Üniversitesi Fen Edebiyat Fakültesi Fizik Bölümü Balcalı Sarıçam/Adana

### International Researcher IDs

ORCID: 0000-0002-1292-5161

Yoksis Researcher ID: 261183

### Research Areas

Natural Sciences

### Academic Titles / Tasks

Assistant Professor, Cukurova University, Fen-Edebiyat Fakültesi, Fizik, 2021 - Continues

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

- I. **Evaluation of energy, exergy, economic, and carbon savings analyses, along with green hydrogen production of PVs and PVTs under daily solar radiation for various tilt angles and mass flow ratios**  
ATIZ A.  
International Journal of Hydrogen Energy, vol.98, pp.657-672, 2025 (SCI-Expanded)
- II. **A comparative review of ORC and R-ORC technologies in terms of energy, exergy, and economic performance**  
Damarseckin S., Junior Kane S. Y., ATIZ A., KARAKILÇIK M., Sogukpinar H., Bozkurt I., Oyucu S., AKSÖZ A.  
Heliyon, vol.10, no.23, 2024 (SCI-Expanded)
- III. **Integrating renewable energy technologies in green ships for mobile hydrogen, electricity, and freshwater generation**  
ATIZ A., Erden M., KARAKILÇIK H., KARAKILÇIK M.  
International Journal of Hydrogen Energy, vol.89, pp.1368-1382, 2024 (SCI-Expanded)
- IV. **Solar pond integrated with parabolic trough solar collector for producing electricity and hydrogen**  
Damarseckin S., ATIZ A., KARAKILÇIK M.  
International Journal of Hydrogen Energy, vol.52, pp.115-126, 2024 (SCI-Expanded)
- V. **Hydrogen production of flat plate solar collectors integrated with photovoltaic thermal panels**  
ATIZ A., Erden M., KARAKILÇIK M.  
International Journal of Hydrogen Energy, vol.52, pp.1408-1424, 2024 (SCI-Expanded)
- VI. **Investigation of the energetic, exergetic performance, environmental, economic, and hydrogen production analyses of PV-T for increasing surface areas and mass flow rates compared to PV**  
ATIZ A., KARAKILÇIK M., Sogukpinar H., Bozkurt I.  
International Journal of Hydrogen Energy, vol.49, pp.424-436, 2024 (SCI-Expanded)
- VII. **Assessment of hydrogen generation and thermodynamic efficiencies of PEM coupled with PV and PV-T under diverse circumstances**

ATIZ A., KARAKILÇIK M.

International Journal of Hydrogen Energy, 2024 (SCI-Expanded)

VIII. **Experimental room heating applications relative to increasingly evacuated vacuum tube solar collectors**

ATIZ A., KARAKILÇIK M.

HEAT AND MASS TRANSFER, vol.59, no.6, pp.1059-1071, 2023 (SCI-Expanded)

IX. **Energy and exergy analyses and electricity generation of PV-T combined with a solar collector for varying mass flow rate and ambient temperature**

ATIZ A., Erden M., KARAKILÇIK M.

HEAT AND MASS TRANSFER, vol.58, no.7, pp.1263-1278, 2022 (SCI-Expanded)

X. **The integration of parabolic trough solar collectors and evacuated tube collectors to geothermal resource for electricity and hydrogen production**

ATIZ A., KARAKILÇIK H., Erden M., KARAKILÇIK M.

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.46, no.57, pp.29027-29037, 2021 (SCI-Expanded)

## Articles Published in Other Journals

I. **Energy and exergy analysis of PV-T cooled with air and water for four different conditions**

ATIZ A.

Pamukkale Üniversitesi Mühendislik Bilimleri Dergisi, vol.29, no.2, pp.110-119, 2023 (Peer-Reviewed Journal)

II. **Comparison of heat efficiency of flat-plate and vacuum tube collectors integrated with Organic Rankine Cycle in Adana climate conditions**

ATIZ A., KARAKILÇIK M.

PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.26, no.1, pp.106-112, 2020 (ESCI)

III. **The Theoretical Investigation of Performance of the Hydrogen Attainment System with Electricity from a Solar Pond**

ATIZ A., KARAKILÇIK M.

Çukurova Üniversitesi Mühendislik-Mimarlık Fakültesi Dergisi, vol.34, no.4, pp.1-8, 2018 (Peer-Reviewed Journal)

## Books

I. **Investigation of Cushion Gas / Working Gas Ratios of Underground Salt Caverns Hydrogen Gas Storage**

San S., KARAKILÇIK M., KARAKILÇIK H., Erden M., ATIZ A.

in: Emerging Trends in Energy Storage Systems and Industrial Applications, Prabhansu, Nayan Kumar, Editor, Elsevier, Oxford, pp.67-78, 2022

II. **Thermal Energy Storage Performance Analysis of Different Model Solar Ponds**

KARAKILÇIK M., ATIZ A., BOZKURT İ., Erden M., Çiloğulları M., Saxena A.

in: Renewable Energy Based Solutions, Uyar Tanay Sıdkı, Javani Nader, Editor, Springer, Cham, pp.465-487, 2022

III. **Performance Improving of Low Temperature Geothermal Sources with the Assist of a Solar Pond**

KARAKILÇIK H., ATIZ A., Erden M., KARAKILÇIK M.

in: Renewable Energy Based Solutions, Uyar Tanay Sıdkı, Javani Nader, Editor, Springer, Cham, pp.451-463, 2022

IV. **Hydrogen production and space heating using water heated by solar radiation**

ATIZ A., KARAKILÇIK H., KARAKILÇIK M.

in: Solar Water Heating: Fundamentals and Applications, Khalil Kassmi, Editor, Nova Science Publishers, Inc., Hauppauge NY, pp.177-202, 2021

V. **Daily comparison energy and exergy analysis and thermal energy storage performance of solar collectors**

ATIZ A., KARAKILÇIK H., SAXENA A., KARAKILÇIK M.

in: Solar Water Heating: Fundamentals and Applications, Khalil Kassmi, Editor, Nova Science Publishers, Inc., Hauppauge NY, pp.59-83, 2021

**VI. 100 Renewable Energy Generation with Integrated Solar Energy Systems**

ATIZ A., KARAKILÇIK M.

in: Accelerating the Transition to a 100 Renewable Energy Era, Tanay Sıtkı Uyar, Editor, Springer Nature, Cham, pp.259-274, 2020

## **Papers Published in Refereed Scientific Meetings**

**I. INVESTIGATION OF ELECTRICITY, HYDROGEN AND CLEAN WATER PRODUCTION WITH RENEWABLE ENERGY SYSTEM INTEGRATED ONTO A SHIP: MOBILE ENERGY PRODUCTION ON A SHIP**

Erden M., ATIZ A., KARAKILÇIK H., KARAKILÇIK M.

23rd World Hydrogen Energy Conference (WHEC2022), İstanbul, Turkey, 26 - 30 June 2022, vol.1, pp.170-172

## **Metrics**

Publication: 30

Citation (WoS): 6

Citation (Scopus): 9

H-Index (WoS): 2

H-Index (Scopus): 1