

Res. Asst. PhD Berrak ÇALIŞKAN

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: GXW-6908-2022

ScopusID: 57772784100

Yoksis Researcher ID: 331149

Education Information

2017 - 2024	Doctorate, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, Turkey
2014 - 2017	Postgraduate, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, Turkey
2009 - 2013	Undergraduate, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, Turkey

Foreign Languages

English, B2 Upper Intermediate

Certificates, Courses and Trainings

2023	Bilimsel Bir Makale Nasıl Yazılır ve Yayınlanır Eğitimi, Vocational Training, TÜBİTAK Yüzey ve Ötesi 2022: XPS ile Karakterizasyon Çalışmaları ve Analiz Verilerinin Yorumlanmasına
2022	Yönelik İpuçları, Other, Ege Üniversitesi EGE MATAL (TÜBİTAK 2237-A Bilimsel Eğitim Etkinliklerini Destekleme Programı)
2021	7th RENEWABLE ENERGY SYSTEMS SUMMER SCHOOL, Renewable Energy Sources, Afyon Kocatepe Üniversitesi
2015	C SINIFI İŞ GÜVENLİĞİ UZMANI, Occupational Health and Safety, T.C. ÇALIŞMA VE SOSYAL GÜVENLİK BAKANLIĞI
2011	ATATÜRK ÜNİVERSİTESİ MÜHENDİSLİK FAKÜLTESİ KALİTE ÇEMBERLERİ EĞİTİMİ KATILIM VE TEŞEKKÜR BELGESİ, Quality Management, ATATÜRK ÜNİVERSİTESİ MÜHENDİSLİK FAKÜLTESİ

Dissertations

2024	Metal Katkılı TiO ₂ ve İndirgenmiş Grafen Oksit Temelli Elektrotlar Kullanılarak Boya Duyarlı Güneş Hücrelerinin Üretilmesi, Karakterizasyonu ve Performanslarının İncelenmesi, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, Doctorate
2017	Cu ²⁺ , Zn ²⁺ ve Ni ²⁺ İYONLARI İHTİVA EDEN SULU ÇÖZELTİLERDEN Cu ²⁺ 'NİN ULTRASES YARDIMIYLA ALKALİ EMDİRİLEREK HAZIRLANMIŞ AKTİF KARBONLAR ÜZERİNE SEÇİMLİ ADSORPSİYONUN OPTİMİZASYONU, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği, Postgraduate

Research Areas

Academic Titles / Tasks

2020 - Continues Research Assistant, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği

Academic and Administrative Experience

2022 - 2024 Program Coordinator, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği

2021 - 2024 Fakülte Tanıtım Komisyonu, Ataturk University, Mühendislik Fakültesi, Kimya Mühendisliği

Courses

2023 - 2024 Kimya Mühendisliği Laboratuvarı II, Undergraduate

2022 - 2023 Kimya Mühendisliği Laboratuvarı I, Undergraduate

2023 - 2024 Kimya Laboratuvarı, Undergraduate

2022 - 2023 Kimya Mühendisliği Laboratuvarı 3, Undergraduate

2021 - 2022 Kimya Mühendisliği Laboratuvar I, Undergraduate

2022 - 2023 Kimya Mühendisliği Laboratuvarı II, Undergraduate

2021 - 2022 Kimya Mühendisliği Laboratuvar III, Undergraduate

2021 - 2022 Genel Kimya Laboratuvarı, Undergraduate

2021 - 2022 Organik Kimya Laboratuvarı, Undergraduate

2020 - 2021 Kimya Mühendisliği Laboratuvar 1 , Undergraduate

2021 - 2022 Kimya Mühendisliği Laboratuvarı 2, Undergraduate

2020 - 2021 Kimya Mühendisliği Laboratuvar 3, Undergraduate

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Review on TiO₂ nanotubes in dye-sensitized solar cells: electrochemical anodization and hydrothermal method**
ÇALIŞKAN B., ŞAYAN E.
Journal of Solid State Electrochemistry, 2025 (SCI-Expanded)
- II. **The Use of Ultrasound in Hydrometallurgical Studies: A Review on the Comparison of Ultrasound-Assisted and Conventional Leaching**
Şayan E., Çalışkan B.
Journal of Sustainable Metallurgy, vol.10, no.4, pp.1933-1958, 2024 (SCI-Expanded)
- III. **A brief overview of the effects of ultrasound on the adsorption/desorption process: a review**
ÇALIŞKAN B., ŞAYAN E.
INTERNATIONAL JOURNAL OF ENVIRONMENTAL ANALYTICAL CHEMISTRY, vol.104, no.16, pp.3821-3851, 2024 (SCI-Expanded)

Articles Published in Other Journals

- I. **Photoelectrode FTO/ Anodized TiO₂ Production and Characterization for Methylene Blue Affected Photoelectrochemical Decomposition**
Çalışkan B., Şayan E., Kiziltas H.

RECENT INNOVATIONS IN CHEMICAL ENGINEERING, vol.17, no.2, pp.83-93, 2024 (Scopus)

II. OPTIMIZATION OF SELECTIVE CU²⁺ ADSORPTION WITHIN THE MULTI-ION SYSTEM BY USING ACTIVATED CARBON PREPARED BY ULTRASOUND

BAŞAR B., ŞAYAN E.

ESKİŞEHİR TECHNICAL UNIVERSITY JOURNAL OF SCIENCE AND TECHNOLOGY, vol.19, pp.893-906, 2018 (Peer-Reviewed Journal)

III. Adsorption of Cu²⁺, Ni²⁺ And Zn²⁺ from Aqueous Solutions on Activated Carbons Prepared from Ultrasound-Assisted KOH-Impregnated Hazelnut Shell in Multi-Ion System

Şayan E., Çalışkan B.

International Journal of Natural and Engineering Sciences, vol.10, no.1, pp.28-30, 2016 (Peer-Reviewed Journal)

Books & Book Chapters

I. ONE-DIMENSIONAL (1D) STRUCTURES: TYPES OF NANOTUBES AND APPLICATIONS

Şayan E., Çalışkan B.

in: The Trends In Nano Materials Synthesis And Applications 2, Tuba ÇAKICI, Editor, EFE ACADEMY, İstanbul, pp.69-79, 2023

II. ONE-DIMENSIONAL NANOMATERIAL: NANOWIRES

Çalışkan B., Şayan E.

in: THE TRENDS IN NANO MATERIALS SYNTHESIS AND APPLICATIONS 2 , Tuba ÇAKICI, Editor, EFE ACADEMY, İstanbul, pp.61-68, 2023

III. SUSTAINABILITY OF SOLAR ENERGY FROM RENEWABLE ENERGY SOURCES: ENERGY OF THE FUTURE

Çalışkan B.

in: Contemporary Research Paradigms of Sustainability, Şule BAŞAR, Editor, Scholars' Press, Chisinau, pp.151-159, 2021

Refereed Congress / Symposium Publications in Proceedings

I. Effect of Synthesized Nanocomposite Photo-Cathode Electrodes on the Performance of Dye-Sensitized Solar Cells

ÇALIŞKAN B., ŞAYAN E.

International Scientific Research Congress, İstanbul, Turkey, 20 - 21 December 2024

II. RESEARCH ON THE REMOVAL OF DIFFERENT DYEING MATERIALS FROM RED MUD

ÇALIŞKAN B., ŞAYAN E., Alsaleh M., Korkmaz R., Tirpancı B., Tüzün O.

I. INTERNATIONAL İSTIKLAL SYMPOSIUM, Kahramanmaraş, Turkey, 6 - 08 February 2024

III. Production and Performance of Dye Sensitive Solar Cells Using Co²⁺ Doped Photo-Anodes

ÇALIŞKAN B., ŞAYAN E.

1st International Conference on Contemporary Academic Research ICCAR 2023, Konya, Turkey, 17 - 19 May 2023, pp.132-137

IV. Production of Graphene-Based Cathodes for Solar Cell Applications

ÇALIŞKAN B., ŞAYAN E., KIZILTAŞ H.

1st International Conference on Scientific and Academic Research, Turkey, 10 December 2022

V. Synthesis and Photoelectrocatalytic Characterization of Anodic TiO₂ Electrode for Orange G Degradation

ÇALIŞKAN B., ŞAYAN E., KIZILTAŞ H.

4th International Conference on Applied Engineering and Natural Sciences, Turkey, 10 - 13 November 2022

VI. Production and Characterization of Anodic TiO₂ Structures on FTO as Electrode for Effective Photocatalytic Decomposition of Rhodamine B

ÇALIŞKAN B., ŞAYAN E., KIZILTAŞ H.

2nd International Conference on Engineering and Applied Natural Sciences, Turkey, 15 October 2022

VII. **Preparation and Anodization of Ti Film on FTO Surface in Different Conditions**

Çalışkan B., Şayan E., Kızıldağ H.

1st International Conference on Innovative Academic Studies, Konya, Turkey, 10 - 13 September 2022, pp.964-971

VIII. **Adsorption of Cu²⁺, Ni²⁺ and Zn²⁺ from aqueous solutions on activated carbons prepared from ultrasound assisted KOH impregnated hazelnut shell in multi ion system**

Şayan E., Çalışkan B.

INTERNATIONAL CONGRESS ON NATURAL AND ENGINEERING SCIENCES, Berovo, Macedonia, 1 - 05 May 2016, pp.52

Supported Projects

2021 - 2023	FOTOANOT OLARAK METAL VE LANTANİT KATKILANMIŞ TiO ₂ NANOTÜP KULLANILAN BOYA DUYARLI GÜNEŞ PİLLERİNİN ÜRETİMİ KARAKTERİZASYONU VE PERFORMANSLARININ İNCELENMESİ, Project Supported by Higher Education Institutions
2021 - 2021	The Collaborative Research on Sustainability, EU Supported Other Project

Scientific Refereeing

September 2024	Journal of Sustainable Metallurgy, SCI Journal
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Tasks In Event Organizations

10 Kasım 2023	Arzutuğ M. E., Yetim A. F., Afşar F., Çalışkan B., The effect of temperature parameter in experimental researchs., Workshop Organization, Erzurum, Turkey
27 Ekim 2023	Çalışkan B., Yanma Sistemleri, Yakıtlar ve Çevre, Workshop Organization, Erzurum, Turkey
17 Ağustos 2023	Çalışkan B., Mass Transfer in Engineering Applications and Mass Transfer Measurement Techniques , Workshop Organization, Erzurum, Turkey

Metrics

Publication: 17
Citation (WoS): 3
Citation (Scopus): 5
H-Index (WoS): 1
H-Index (Scopus): 1

Congress and Symposium Activities

2023	1ST INTERNATIONAL CONFERENCE ON CONTEMPORARY ACADEMIC RESEARCH ICCAR 2023, Attendee, Konya, Turkey
2022	1st International Conference on Scientific and Academic Research, Attendee, Konya, Turkey
2022	4th International Conference on Applied Engineering and Natural Sciences, Attendee, Konya, Turkey
2022	2nd International Conference on Engineering and Applied Natural Sciences, Attendee, Konya, Turkey
2022	1st International Conference on Innovative Academic Studies, Attendee, Konya, Turkey

2022	2. International Congress of Engineering and Natural Sciences Studies, Audience, Ankara, Turkey
2021	International Congress on Multidisciplinary Natural Sciences and Engineering, Audience, Ankara, Turkey

Scholarships

2020 - 2023	2211-C YURT İÇİ ÖNCELİKLİ ALANLAR BURSUSU , TUBİTAK
2018 - 2020	YÖK 100/2000 ÖNCELİKLİ ALANLAR MİKRO VE NANOTEKNOLOJİ ALANI DOKTORA BURSUSU, YOK

Awards

May 2012	KİMYA MÜHENDİSLİĞİ KARIYER GÜNLERİ POSTER TASARIM YARIŞMASI İKİNCİLİK ÖDÜLÜ, Atatürk Üniversitesi Nanoteknoloji Kulübü
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Representation and Promotion Activities

2023 - 2023	Institutional Representation, Recep Tayyip Erdoğan Fuar Merkezi, Turkey, Erzurum, 2023 - 2023
2023 - 2023	Institutional Representation, MNG Alış Veriş ve Yaşam Merkezi, Turkey, Erzurum, 2023 - 2023
2022 - 2022	Institutional Representation, Havuzbaşı Kent Meydanı, Turkey, Erzurum, 2022 - 2022

Non Academic Experience

2016 - 2018	Technology Development Zone, Erzurum Atatürk Üniversitesi TEKNOKENT EMA Araştırma Teknoloji Danışmanlık Şirketi, KOSGEB AR-GE ve İnovasyon destekleri kapsamında finanse edilen "EMA Quality Measure Hizmet Kalitesi Ölçümü ve Yazılımı Geliştirilmesi" isimli proje
2016 - 2018	ATATÜRK ÜNİVERSİTESİ TEKNOKENT EMA ARAŞTIRMA TEKNOLOJİ DANIŞMANLIK ŞİRKETİ