

## Lect. ÇİĞDEM EDEN

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Erzincan Binali Yildirim University, Fen Bilimleri Enstitüsü, Physics, Turkey 2020 - Continues

Postgraduate, Erzincan Binali Yildirim University, Fen Bilimleri Enstitüsü, Physics, Turkey 2011 - 2019

Undergraduate, Ondokuz Mayıs University, Faculty Of Arts And Sciences, Department Of Physics, Turkey 1997 - 2003

### Certificates, Courses and Trainings

Vocational Training, Eğiticilerin Eğitimi, Erzincan Binali Yildirim Üniversitesi, 2021

Vocational Training, XPS , Ege Üniversitesi (Ege Matal), 2021

Vocational Training, AFM All Modes , Park Systems, 2020

Vocational Course, Taramalı Elektron Mikroskobu Sertifika Programı, Orta Doğu Teknik Üniversitesi, 2019

Vocational Training, XRD Eğitimi, Atomika Teknik, 2018

### Dissertations

Postgraduate, Farklı Sıcaklıklarda Sentezlenen TiO<sub>2</sub>/ZnO Nanokompozit Yapıların Karakterizasyonu ve Boya Duyarlı Güneş Pili Performanslarının İncelenmesi, Erzincan Binali Yildirim University, Fen Bilimleri Enstitüsü, 2019

### Research Areas

Physics, Materials Science, Natural Sciences

### Academic Titles / Tasks

Lecturer, Erzincan Binali Yildirim University, Meslek Yüksekokulu, Elektrik ve Enerji Bölümü, 2022 - Continues

### Courses

Bilgisayar Destekli Devre Tasarımı, Associate Degree, 2022 - 2023

Bilgisayar Destekli Tasarım, Associate Degree, 2022 - 2023

Ölçme Tekniği, Associate Degree, 2022 - 2023

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

- I. **Detection performance of flower-like hydrothermally synthesized ZnO in silicon-type photodetector**  
EDEN Ç., KOÇYİĞİT A., AYDOĞAN Ş., ÇIRAK Ç., YILMAZ M.  
Physica Scripta, vol.99, no.6, 2024 (SCI-Expanded)
- II. **Optimizing the structural and photocatalytic performance of Ag-decorated ZnO/Zn(OH)<sub>2</sub> nanoparticles for RhB degradation**  
ERDOĞAN E., EDEN Ç., CANPOLAT N., ÇIRAK Ç., YILMAZ M.  
International Journal of Applied Ceramic Technology, vol.21, no.3, pp.2010-2023, 2024 (SCI-Expanded)
- III. **Gold-Nanoparticles-Decorated ZrO<sub>2</sub>-CuO Nanocomposites: Synthesis, Characterization and A Novel Platform for Electrocatalytic Formaldehyde Oxidation**  
Özdokur K. V., Koçak Ç. C., Eden Ç., Demir Z., Çırak Ç., Yavuz E., Çağlar B.  
ChemistrySelect, vol.7, no.28, 2022 (SCI-Expanded)
- IV. **Facile synthesis and enhanced photo-electrocatalytic performance of TiO<sub>2</sub> nanotube/g-C<sub>3</sub>N<sub>4</sub> composite catalyst by a novel synthesis approach**  
Özdokur K. V., Bozkurt Çırak B., Eden Ç., Ahmad Boda M., Çırak Ç.  
Optik, vol.206, 2020 (SCI-Expanded)
- V. **The enhanced light harvesting performance of dye-sensitized solar cells based on ZnO nanorod-TiO<sub>2</sub> nanotube hybrid photoanodes**  
Bozkurt Çırak B., Eden Ç., Erdoğan Y., Demir Z., Özdokur K. V., Çağlar B., Morkoç Karadeniz S., Kılınç T., Ercan Ekinci A., Çırak Ç.  
Optik, vol.203, 2020 (SCI-Expanded)
- VI. **Synthesis of TiO<sub>2</sub> nanotube/ZnO nanorod hybrid nanocomposite photoanodes for dye-sensitized solar cells**  
Bozkurt Çırak B., Demir Z., Eden Ç., Erdogan Y., Çağlar B., Morkoç Karadeniz S., Kılınç T., Ekinci A. E., Çırak Ç.  
Journal of Materials Science: Materials in Electronics, vol.30, no.7, pp.6335-6341, 2019 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Synthesis, Characterization and Photoelectrochemical Properties of MoS<sub>2</sub> decorated TiO<sub>2</sub> Nanotubes Electrodes**  
Bozkurt Çırak B., Eden Ç.  
SÜLEYMAN DEMİREL ÜNİVERSİTESİ FEN EDEBİYAT FAKÜLTESİ FEN DERGİSİ = SÜLEYMAN DEMİREL UNIVERSITY FACULTY OF ARTS AND SCIENCE JOURNAL OF SCIENCE, vol.16, no.1, pp.279-286, 2021 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **CHARACTERIZATION AND DYE SENSITIZED SOLAR CELL PERFORMANCE OF TiO<sub>2</sub> / ZnO NANOCOMPOSITE NANOSTRUCTURES SYNTHESIZED AT REACTION TIME**  
Çırak B. B., Eden Ç., Demir Z., Erdoğan Y., Kaymakçı M., ÇAĞLAR B., Karadeniz S. M., KILINÇ T., EKİNCİ A. E., ÖZDOKUR K. V., et al.  
International Conference on Material Science and Technology, Ankara, Turkey, 18 - 20 October 2019, pp.902
- II. **CHARACTERIZATION AND DYE SENSITIZED SOLAR CELL PERFORMANCE OF TiO<sub>2</sub> / ZnO NANOCOMPOSITE STRUCTURES SYNTHESIZED AT DIFFERENT REACTION TIME**  
BOZKURT ÇIRAK B., Eden Ç., Demir Z., YEŞİLBAĞ Y. Ö., Kaymakçı M., Kaymakçı M., ÇAĞLAR B., MORKOÇ KARADENİZ

S., SOLAKYILDIRIM T., EKİNCİ A. E., et al.

4. International conference on Materials Science and Technology, Ankara, Turkey, 18 October 2019

III. **PREPARATION, CHARACTERIZATION AND ENHANCED LIGHT HARVESTING PERFORMANCE OF DYE SENSITIZED SOLAR CELL BASED TiO<sub>2</sub> / ZnO NANOCOMPOSITES**

Eden Ç., Demir Z., BOZKURT ÇIRAK B., Erdoğan Y., ÇAĞLAR B., MORKOÇ KARADENİZ S., SOLAKYILDIRIM T., EKİNCİ A. E., ÖZDOKUR K. V., ÇIRAK Ç.

4. International conference on Materials Science and Technology, Ankara, Turkey, 18 October 2019

IV. **CHARACTERIZATION AND DYE SENSITIZED SOLAR CELL PERFORMANCE OF TiO<sub>2</sub> / ZnO NANOCOMPOSITE STRUCTURES SYNTHESIZED AT DIFFERENT REACTION TIME**

BOZKURT ÇIRAK B., Eden Ç., Demir Z., Erdoğan Y., Kaymakçı M., ÇAĞLAR B., MORKOÇ KARADENİZ S., SOLAKYILDIRIM T., EKİNCİ A. E., ÖZDOKUR K. V., et al.

4. International Conference on Material Science and Technology, 18 - 20 October 2019, pp.902

V. **TiO<sub>2</sub> Nanotüp Temelli Boya Duyarlı Güneş Pillerinde Karşıt Elektrotun Performansa Etkileri**

Demir Z., Bozkurt Çırak B., Eden Ç., Kılınç T., Morkoç Karadeniz S., Ekinci A. E., Çırak Ç.

International Symposium on Multidisciplinary Studies (ISMS), Ankara, Turkey, 16 - 17 November 2018, vol.1, no.1, pp.485

VI. **Electrochromic performance of WO<sub>3</sub> nanostructures grown on ZnO/ FTO and NiO/FTO seed layer**

MORKOÇ KARADENİZ S., BOZKURT ÇIRAK B., KILINÇ T., ÇIRAK Ç., Demir Z., Eden Ç., EKİNCİ A. E.

International conference of innovative engineering applications (CIEA 2018), Sivas, Turkey, 20 - 22 September 2018

VII. **Effect of Anodization Voltage on Electrophotocatalytic Performance of TiO<sub>2</sub> Nanotubes**

demir z., eden ç., BOZKURT ÇIRAK B., MORKOÇ KARADENİZ S., KILINÇ T., erdoğan y., GÖKÇE C., ÖZDOKUR K. V., EKİNCİ A. E., ÇIRAK Ç.

INTERNATIONAL CONFERENCE ON INNOVATIVE ENGINEERING APPLICATIONS, Sivas, Turkey, 20 - 22 September 2018

VIII. **Effect of Anodization Time on Electrophotocatalytic Performance of TiO<sub>2</sub> Nanotubes**

eden ç., demir z., BOZKURT ÇIRAK B., MORKOÇ KARADENİZ S., KILINÇ T., erdoğan y., GÖKÇE C., ÖZDOKUR K. V., EKİNCİ A. E., ÇIRAK Ç.

INTERNATIONAL CONFERENCE ON INNOVATIVE ENGINEERING APPLICATIONS, Sivas, Turkey, 20 - 22 September 2018

## Supported Projects

ÇIRAK Ç., EDEN Ç., Project Supported by Higher Education Institutions, Ag/CuO Nanokompozit Yapıların Sentezi Karakterizasyonu ve Uygulamaları, 2023 - Continues

Morkoç Karadeniz S., Çırak Ç., Çağlar B., Ekinci A. E., Kılınç T., Bozkurt Çırak B., TUBITAK Project, TiO<sub>2</sub>/ZnO Nanokompozit Yapıların Sentezi, Karakterizasyonu ve Boya Duyarlı Güneş Pili Performanslarının İncelenmesi, 2017 - 2021

## Metrics

Publication: 15

Citation (WoS): 7

Citation (Scopus): 42

H-Index (WoS): 2

H-Index (Scopus): 4