

## Res. Asst. ALİ ORKUN ÇAĞIRTEKİN

### Personal Information

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### Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Turkey 2020 - Continues

Post Graduate, Gazi University, Fen Bilimleri Enstitüsü, Fizik (YI) (Tezli), Turkey 2017 - 2020

Under Graduate, Gazi University, Fen Fakültesi, Fizik Bölümü, Turkey 2013 - 2016

### Certificates, Courses and Trainings

Education Management and Planning, Pedagojik Formasyon Eğitimi Sertifika Programı, Gazi Üniversitesi, 2018

### Dissertations

Post Graduate, Zn1-XSnXO MOS SENSÖRLERİNDE UV IŞIĞI ALTINDA NO GAZ ALGILAMA PARAMETRELERİNİN İNCELENMESİ, Gazi University, Fen Bilimleri Enstitüsü, 2020

### Research Areas

Physics

### Academic Titles / Tasks

Research Assistant, Gazi University, Fen Fakültesi, Fizik, 2020 - Continues

### Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Bias voltage effect on impedance, modulus and dielectric spectroscopies of HfO<sub>2</sub>-interlayered Si-based Schottky diodes at room temperature**  
ÇAĞIRTEKİN A. O. , Ajjaq A., Barin O., ACAR S.  
PHYSICA SCRIPTA, vol.96, no.11, 2021 (Journal Indexed in SCI)
- II. **Investigation of indium insertion effects on morphological, optical, electrical impedance and modulus properties of ZnO thin films**  
Soltabayev B., ÇAĞIRTEKİN A. O. , Mentbayeva A., YILDIRIM M. A. , Acar S.  
Thin Solid Films, vol.734, 2021 (Journal Indexed in SCI Expanded)
- III. **Effect of Cd dopant on structural, optical and CO<sub>2</sub> gas sensing properties of ZnO thin film sensors fabricated by chemical bath deposition method**  
Altun B., Er I. K. , ÇAĞIRTEKİN A. O. , Ajjaq A., SARF F., ACAR S.  
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.127, no.9, 2021 (Journal Indexed in SCI)

- IV. **Investigation of temperature dependent electrical and impedance characteristics of bulk Zn<sub>0.95</sub>Co<sub>0.05</sub>O**  
TURAN N., ORUÇ P., Demirolmez Y., Seckin A., ÇAĞIRTEKİN A. O. , ÇAVDAR Ş., KORALAY H., Tugluoglu N.  
JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, 2021 (Journal Indexed in SCI)
- V. **Complex electrical impedance and modulus characterizations of ZnO:Sn thin films in a wide temperature range**  
Er I. K. , ÇAĞIRTEKİN A. O. , Ajjaq A., YILDIRIM M. A. , Ates A., ACAR S.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.32, no.10, pp.13594-13609, 2021 (Journal Indexed in SCI)
- VI. **Synthesis of Al/HfO<sub>2</sub>/p-Si Schottky diodes and the investigation of their electrical and dielectric properties**  
Er I. K. , Cagirtekin A. O. , Artuc M., ACAR S.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, 2021 (Journal Indexed in SCI)
- VII. **Influence of isovalent Cd doping concentration and temperature on electric and dielectric properties of ZnO films**  
Altun B., Ajjaq A., ÇAĞIRTEKİN A. O. , Er I. K. , SARF F., ACAR S.  
Ceramics International, 2021 (Journal Indexed in SCI Expanded)
- VIII. **The effect of deposition time on the structural, morphological and H<sub>2</sub>S gas sensing properties of the V<sub>2</sub>O<sub>5</sub> nanostructures deposited by hydrothermal method**  
YILDIRIM M. A. , Yildirim S. T. , Cagirtekin A. O. , Karademir M., Er I. K. , COŞKUN A., Ates A., ACAR S.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.30, no.13, pp.12215-12223, 2019 (Journal Indexed in SCI)
- IX. **Carbon monoxide gas sensing performance of ZnO:Al thin films prepared using different solvent-stabilizer combinations**  
Er I. K. , Nurtayeva T., Sbeta M., Cagirtekin A. O. , Acar S., Yildiz A.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.30, no.11, pp.10560-10570, 2019 (Journal Indexed in SCI)
- X. **Low-level NO gas sensing properties of Zn<sub>1-x</sub>Sn<sub>x</sub>O nanostructure sensors under UV light irradiation at room temperature**  
Er I. K. , Cagirtekin A. O. , Corlu T., YILDIRIM M. A. , ATEŞ A., ACAR S.  
BULLETIN OF MATERIALS SCIENCE, vol.42, no.1, 2019 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. **Effect of Post-Annealing Treatment on the Structural, Optical, and Electrical Properties of V<sub>2</sub>O<sub>5</sub> Thin Films**  
İnceçam S., Saraç A., Erdil E., Çağırtekin A. O. , Acar S.  
Journal of Science PART A: ENGINEERING AND INNOVATION, vol.8, no.2, pp.299-307, 2021 (Other Refereed National Journals)

## Books & Book Chapters

- I. **Enhancement of the NO Gas Sensitivity by UV Light in Sn-Doped ZnO Nanostructures**  
KARADUMAN ER I., ÇAĞIRTEKİN A. O. , ÇORLU T., YILDIRIM M. A. , ATEŞ A., ACAR S.  
in: Advances in Optoelectronic Materials, Dr. Shadia Jamil Ikhmayies, Prof. Dr. Hatice Hilal Kurt, Editor, Springer International Publishing, pp.94-124, 2021

- I. **INVESTIGATION OF GAS DETECTION CHARACTERISTICS OF Cd ADDITIVE ZnO SAMPLES**  
Altun B., Ajjaq A., ÇAĞIRTEKİN A. O. , KARADUMAN ER I., SARF F., ACAR S.  
INTERNATIONAL "BAŞKENT" CONGRESS ON PHYSICAL, SOCIAL AND HEALTH SCIENCES, Ankara, Turkey, 16 July 2021
- II. **ARAYÜZEY TABAKALI SCHOTTKY BARIYER DİYOTUNDA AKIM-İLETİMİNİN İNCELENMESİ**  
EKİZ K., EZGİN H., ÇAĞIRTEKİN A. O. , ÖZER M.  
1. ULUSLARARASI FEN ve UYGULAMALI BİLİMLER KONGRESİ, Adıyaman, Turkey, 13 July 2021
- III. **Enhanced gas sensing properties of IZO thin films using SILAR**  
Soltabayev B., Mentbayeva A., Çağırtekin A. O. , Acar S.  
THE 8TH INTERNATIONAL CONFERENCE ON NANOMATERIALS AND ADVANCED ENERGY STORAGE SYSTEMS, Astana, Kazakhstan, 5 - 08 August 2020, pp.62
- IV. **DIELECTRIC, COMPLEX IMPEDANCE AND H<sub>2</sub>S GAS SENSING PROPERTIES OF V<sub>2</sub>O<sub>5</sub> NANOSTRUCTURE DEPOSITED BY HYDROTHERMAL METHOD**  
TUNA YILDIRIM S., ÇAĞIRTEKİN A. O. , YILDIRIM M. A. , ACAR S.  
2nd International Turkish World Engineering and Science Congress, 7 - 10 November 2019
- V. **İNDİYUM KATKISININ SILAR METODU İLE BÜYÜTÜLEN ZnO İNCE FİMLERE ETKİSİ**  
ACAR S., Soltabayev B., ÇAĞIRTEKİN A. O. , YILDIRIM M. A.  
2nd International Turkish World Engineering and Science Congress, 7 - 10 November 2019
- VI. **IMPEDANCE SPECTROSCOPY ON DOPED-ZnO GAS SENSORS**  
KARADUMAN ER I., ÇORLU T., ÇAĞIRTEKİN A. O. , YILDIRIM M. A. , ATEŞ A., ACAR S.  
The International Aluminium-Themed Engineering and Natural Sciences Conference in Seydişehir/TURKEY (IATENS'19), Konya, Turkey, 4 - 06 October 2019, vol.1, pp.168-170
- VII. **H<sub>2</sub>S GAS SENSING PROPERTIES OF THE V<sub>2</sub>O<sub>5</sub> SENSORS WITH NANOPATE STRUCTURE DEPOSITED BY HYDROTHERMAL METHOD**  
YILDIRIM M. A. , TUNA YILDIRIM S., KARADEMİR M., ÇAĞIRTEKİN A. O. , ATEŞ A., ACAR S.  
MAS INTERNATIONAL CONFERENCE ON MATHEMATICS-ENGINEERING-NATURALMEDICAL SCIENCES-V, 2 - 05 May 2019
- VIII. **THE EFFECT OF DEPOSITION TIME ON OPTICAL AND ELECTRICAL PROPERTIES OF V<sub>2</sub>O<sub>5</sub> NANOSTRUCTURES DEPOSITED BY HYDROTHERMAL METHOD**  
TUNA YILDIRIM S., YILDIRIM M. A. , KARADEMİR M., ÇAĞIRTEKİN A. O. , ATEŞ A., ACAR S.  
MAS INTERNATIONAL CONFERENCE ON MATHEMATICS-ENGINEERING-NATURALMEDICAL SCIENCES-V, 2 - 05 May 2019
- IX. **CO GAS SENSING PROPERTIES OF Cd(OH)<sub>2</sub> THIN FILMS SYNTHESIZED BY SILAR METHOD**  
Müezzinoğlu E. D. , TUNA YILDIRIM S., ÇAĞIRTEKİN A. O. , YILDIRIM M. A. , ATEŞ A., ACAR S.  
MAS INTERNATIONAL CONFERENCE ON MATHEMATICS-ENGINEERING-NATURALMEDICAL SCIENCES-V, 2 - 05 May 2019
- X. **Enhanced Gas Sensing Properties of Indium Doped ZnO Thin Films by Fabricated Silor Method**  
Soltabayev B., Nurtayeva T., ÇAĞIRTEKİN A. O. , YILDIRIM M. A. , ACAR S.  
2ND INTERNATIONAL CONGRESS ON ENGINEERING AND LIFE SCIENCE, 11 - 14 April 2019
- XI. **STUDY OF THE SOLVENT INFLUENCE ON THE STRUCTURAL, MORPHOLOGICAL AND OPTICAL PROPERTIES OF ZnO THIN FILMS COATED SOL-GEL METHOD**  
Sbeta M., Nurtayeva T., ÇAĞIRTEKİN A. O. , Soltabayev B., KARADUMAN ER I., YILDIZ A., ACAR S.  
1st International Symposium on Graduate Research in Science Focus on Entrepreneurship and Innovation (ISGRS 2018), 4 - 06 October 2018
- XII. **Al DOPED ZnO THIN FILM GAS SENSOR FOR CO GAS**  
ÇAĞIRTEKİN A. O. , Soltabayev B., Sbeta M., Nurtayeva T., KARADUMAN ER I., YILDIZ A., ACAR S.  
1st International Symposium on Graduate Research in Science Focus on Entrepreneurship and Innovation (ISGRS 2018), 4 - 06 October 2018
- XIII. **TEMPERATURE DEPENDENCE COMPLEX IMPEDANCE ANALYZES OF Al DOPED ZnO**  
Soltabayev B., Sbeta M., Nurtayeva T., ÇAĞIRTEKİN A. O. , KARADUMAN ER I., YILDIZ A., ACAR S.  
1st International Symposium on Graduate Research in Science Focus on Entrepreneurship and Innovation (ISGRS 2018), 4 - 06 October 2018

2018), 4 - 06 October 2018

- XIV. **Hydrothermal process of V2O5 nanostructures with different morphologies and their structural and optical properties**  
TUNA YILDIRIM S., KARADEMİR M., ÇAĞIRTEKİN A. O. , KARADUMAN ER I., ATEŞ A., ACAR S., YILDIRIM M. A.  
2nd International Congress on Semiconductor Materials Devices, 28 - 30 August 2018
- XV. **The effect of deposition time on the structural, morphological and H2S gas sensing properties of the V2O5 nanostructures deposited by hydrothermal method**  
YILDIRIM M. A. , TUNA YILDIRIM S., ÇAĞIRTEKİN A. O. , KARADUMAN ER I., KARADEMİR M., ATEŞ A., ACAR S.  
2nd International Congress on Semiconductor Materials Devices, 28 - 30 August 2018
- XVI. **The effect of electrode materials on the gas sensing properties of Ni doped ZnO films**  
Sürel H., Çağırtekin A. O. , Soltabayev B., YILDIRIM M. A. , ATEŞ A., ACAR S.  
ANCON 2017, 5 - 07 October 2017, pp.278
- XVII. **Impedance spectroscopy analysis of Sn doped ZnO sensors for NO gas detection**  
Çorlu T., Karaduman I., Çağırtekin A. O. , YILDIRIM M. A. , ATEŞ A., ACAR S.  
ANCON 2017, 5 - 07 October 2017, pp.279
- XVIII. **PPB LEVEL NO GAS DETECTION USING Zn0.90Ni0.100 FILMS WITH DIFFERENT CONTACT MATERIAL**  
ÇAĞIRTEKİN A. O. , Sürel H., KARADUMAN ER I., YILDIRIM M. A. , ATEŞ A., ACAR S.  
2nd International Conference on Material Science and Technology in Cappadocia, 11 - 13 October 2017
- XIX. **ELECTRONIC PROPERTIES OF ARMCHAIR GRAPHENE NANORIBBONS WITHNICKEL TERMINATION**  
ÇAĞIRTEKİN A. O. , NARİN P., LİŞESİVDİN B.  
9th International Physics Conference of the Balkan Physical Union, İstanbul, Turkey, 24 - 27 August 2015

## Supported Projects

TUBITAK Project, Astım Hastalığının Tayininde Kullanılan Elektronik Burun Sistemi İçin Yüksek Duyarlılıklı Kompakt Zeolit Modifiyeli Gaz Sensörünün Tasarımı, Üretimi Ve Karakterizasyonu, 2015 - 2018

## Citations

Total Citations (WOS):17

h-index (WOS):3

## Scholarships

1001 Projesi, TUBITAK, 2018 - 2018