

## **Prof. SELİM ACAR**

### **Personal Information**

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### **International Researcher IDs**

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ScopusID: 6701827296

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### **Education Information**

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Fizik (Dr), Turkey 1997 - 2003

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Fizik (YI) (Tezli), Turkey 1993 - 1997

Undergraduate, Gazi University, Fen-Edebiyat Fakültesi, Fizik Pr., Turkey 1987 - 1993

### **Foreign Languages**

English, C1 Advanced

### **Dissertations**

Doctorate, GaAs ve InP yarıiletkenlerde elektriksel karakterizasyon, Gazi University, Fen Bilimleri Enstitüsü, Fizik (Dr), 2003

Postgraduate, Yüksek sıcaklık firmı tasarımları ve yapımı, Gazi University, Fen Bilimleri Enstitüsü, Fizik (YI) (Tezli), 1996

### **Research Areas**

Physics of Plasmas, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties

### **Academic Titles / Tasks**

Professor, Gazi University, Fen Fakültesi, Fizik, 2011 - Continues

Associate Professor, Gazi University, Fen Fakültesi, Fizik, 2008 - 2011

Expert, Gazi University, Fen Fakültesi, Fizik, 1993 - 2008

### **Academic and Administrative Experience**

Academic Performance D. Board Member, Gazi University, 2021 - Continues  
Rectorate Commissioner, Gazi University, 2019 - Continues  
Head of Department, Gazi University, Fen Bilimleri Enstitüsü, İleri Teknolojiler Anabilim Dalı (Disiplinlerarası), 2017 - 2022  
Gazi University, Fen Fakültesi, 2012 - 2013  
Gazi University, Fen Fakültesi, Fizik Bölümü, 2011 - 2012

## Advising Theses

Acar S., DETECTION OF CERTAIN GASES ASSOCIATED WITH LIVER DISEASES WITH ELECTRONIC NOSE TECHNOLOGY, Postgraduate, M.KEREM(Student), 2022  
ACAR S., Investigation of no gas detection parameters under the uv light in Zn<sub>1-x</sub>Sn<sub>x</sub>O mos sensors, Postgraduate, A.Orkun(Student), 2020  
Acar S., INVESTIGATION OF MAGNETIC FIELDS IN DC REACTOR STRUCTURE UNDER DIFFERENT NETWORK CONDITIONS AND IMPROVEMENT OF STRUCTURE, Postgraduate, K.GHORBANYAN(Student), 2020  
ACAR S., The Effect Of Nickel And Indium Dopant On Gas Sensing Properties Of Zno Semiconductor, Doctorate, B.Soltabayev(Student), 2019  
ACAR S., Zn<sub>1-x</sub>Sn<sub>x</sub>O mos sensörlerinde uv ışığı altında no gaz algılama parametrelerinin incelenmesi, Postgraduate, A.ORKUN(Student), 2019  
ACAR S., ZnO yarıiletkenine nikel ve indiyum katkılamanın gaz sensör algılama özelliklerine etkisi, Doctorate, B.SOLTABAYEV(Student), 2019  
ACAR S., Investigation Of Dielectric And Gas Sensing Properties For Co Gas Of Al Doped Zno Grown By Sol-Gel Spin-Coating Method, Postgraduate, T.NURTAYEVA(Student), 2019  
ACAR S., Kompakt zeolit modifiyeli gaz sensörünün tasarıımı üretimi ve karakterizasyonu, Doctorate, I.KARADUMAN(Student), 2017  
ACAR S., Investigation Of Zn<sub>1-x</sub>CuxO Complex Mos Sensors To Gas Detection Features Depends On Temperature, Postgraduate, T.ÇORLU(Student), 2017  
ACAR S., Kompakt Zeolite Modifiyeli Gaz Sensörünün Tasarımı Üretimi Ve Karakterizasyonu, Doctorate, I.Karaduman(Student), 2017  
ACAR S., Investigation Of Gas Sensing Parameters Of Ni Doped Zno Metal Oxide Semiconductors, Postgraduate, H.SÜREL(Student), 2017  
ACAR S., Determination Of Electrical Parameters Of Si Based Semiconductors Depending Nitrogen Dioxide (NO<sub>2</sub>), Postgraduate, M.MÜRŞİT(Student), 2016  
ACAR S., Determination Of Gas Sensing Properties Of HfO<sub>2</sub> Based Semiconductors Gas Sensors Under Uv Light Irradiation, Postgraduate, Ö.BARİN(Student), 2016  
ACAR S., The effect of Co<sub>2</sub> and co gases on the electrical properties of Al/Al<sub>2</sub>O<sub>3</sub>/p-Si structure, Postgraduate, N.DEMİREL(Student), 2013  
ACAR S., Peculiarities of novel gas discharge electronic device based on nanoporous zeolite material, Doctorate, K.KÖSEOĞLU(Student), 2013  
ACAR S., Electrical characterization of graphene structures in carbon oxide environment, Postgraduate, I.KARADUMAN(Student), 2013  
ACAR S., GaP yarı iletkeninde optik ve elektriksel karakterizasyon, Postgraduate, M.DEMİR(Student), 2011  
ACAR S., Physical analyse of electromagnetic compatibility tests and, assesment of conducted and radiated tests to 900/1800 mhz gsm bandwith, Postgraduate, T.KARABULUT(Student), 2011  
ACAR S., RADYOTERAPİDE SİMETRİK VE ASİMETRİK ALAN DOZİMETRİ PARAMETRELERİNİN ARAŞTIRILMASI, Postgraduate, T.TAŞ(Student), 2010

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

- I. **CO gas sensing properties of Cd(OH)2/CdO thin films synthesized by SILAR method**  
 Müezzinoğlu E. D., TUNA YILDIRIM S., ÇAĞIRTEKİN A. O., ATEŞ A., ACAR S., YILDIRIM M. A.  
*Journal of Sol-Gel Science and Technology*, vol.109, no.3, pp.639-653, 2024 (SCI-Expanded)
- II. **Advanced NH<sub>3</sub> Detection by 1D Nanostructured La:ZnO Sensors with Novel Intrinsic p-n Shifting and Ultrahigh Baseline Stability**  
 Ajjaq A., Bulut F., Ozturk O., ACAR S.  
*ACS SENSORS*, vol.9, pp.895-911, 2024 (SCI-Expanded)
- III. **Effect of SILAR cycle on gas sensing properties of In2O3 thin films for CO gas sensor**  
 Horoz B., TUNA YILDIRIM S., Soltabayev B., ATEŞ A., ACAR S., YILDIRIM M. A.  
*Journal of Materials Science: Materials in Electronics*, vol.35, no.2, 2024 (SCI-Expanded)
- IV. **ZnO seed-mediated hydrothermal growth of advanced 1-D ZnO and 2-D CuO nanostructured oxide ceramics for gas sensing applications**  
 Ajjaq A., Barin Ö., ÇAĞIRTEKİN A. O., Soltabayev B., ACAR S.  
*CERAMICS INTERNATIONAL*, vol.49, no.24, pp.40853-40865, 2023 (SCI-Expanded)
- V. **Room-temperature gas sensing properties of Zn, Sn and Cu-doped TiO<sub>2</sub> films**  
 ÇORLU T., Tekin S., Karaduman Er I., ACAR S.  
*JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS*, vol.34, no.34, 2023 (SCI-Expanded)
- VI. **Temperature-dependent dielectric properties of p-n heterojunction diodes based on hydrothermally synthesized ZnO nanostructures**  
 ÇAĞIRTEKİN A. O., Ajjaq A., Barin Ö., ACAR S.  
*PHYSICA SCRIPTA*, vol.98, no.10, 2023 (SCI-Expanded)
- VII. **Surface activation of Si-based Schottky diodes by bacterial biosynthesized AgInSe<sub>2</sub> trimetallic alloy nanoparticles with evidenced negative capacitance and enhanced electro-dielectric performance**  
 ÇAKICI T., Ajjaq A., ÇAĞIRTEKİN A. O., Barin Ö., ÖZDAL M., ACAR S.  
*APPLIED SURFACE SCIENCE*, vol.631, 2023 (SCI-Expanded)
- VIII. **Ultrasensitive nitric oxide gas sensors based on Ti-doped ZnO nanofilms prepared by RF magnetron sputtering system**  
 Soltabayev B., Ajjaq A., Yergaliuly G., Kadyrov Y., Turlybekuly A., ACAR S., Mentbayeva A.  
*Journal of Alloys and Compounds*, vol.953, 2023 (SCI-Expanded)
- IX. **Some sol-gel processing parameters effect on the properties of dip coated TiO<sub>2</sub> thin films**  
 Karaduman Er I., Uysal S., ATEŞ A., ACAR S.  
*Journal of Materials Science: Materials in Electronics*, vol.34, no.20, 2023 (SCI-Expanded)
- X. **Structural, optical, and gas sensing properties of CdSe thin films deposited by SILAR method**  
 Er I. K., Ilbak S. N., Ates A., ACAR S.  
*JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS*, vol.33, no.36, pp.27062-27075, 2022 (SCI-Expanded)
- XI. **Pivotal role of nucleation layers in the hydrothermally-assisted growth of ZnO and its H-2 gas sensing performance**  
 Barin O., Ajjaq A., ÇAĞIRTEKİN A. O., Er I. K., YILDIRIM M. A., ATEŞ A., ACAR S.  
*SENSORS AND ACTUATORS B-CHEMICAL*, vol.371, 2022 (SCI-Expanded)
- XII. **Effect of reaction pH on the microstructural, optical and electrical behaviour of ZnO/CuO heterostructured nanocomposite films**  
 Er I. K., Ajjaq A., ATEŞ A., ACAR S.  
*BULLETIN OF MATERIALS SCIENCE*, vol.45, no.4, 2022 (SCI-Expanded)
- XIII. **Quick NO Gas Sensing by Ti-Doped Flower-Rod-like ZnO Structures Synthesized by the SILAR Method**  
 Soltabayev B., Yergaliuly G., Ajjaq A., Beldeubayev A., Acar S., Bakenov Z., Mentbayeva A.  
*ACS APPLIED MATERIALS & INTERFACES*, vol.14, no.36, pp.41555-41570, 2022 (SCI-Expanded)
- XIV. **Investigation of temperature-dependent electrical parameters in a Schottky barrier diode with multi-walled carbon nanotube (MWCNT) interface**  
 Ezgin H., Demir E., ACAR S., ÖZER M.  
*MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING*, vol.147, 2022 (SCI-Expanded)

- XV. **Effect of Ni and Al doping on structural, optical, and CO<sub>2</sub> gas sensing properties of 1D ZnO nanorods produced by hydrothermal method**  
Bulut F., Ozturk O., ACAR S., Yildirim G.  
MICROSCOPY RESEARCH AND TECHNIQUE, vol.85, no.4, pp.1502-1517, 2022 (SCI-Expanded)
- XVI. **Varying electrical and dielectric properties of Ni:SnO<sub>2</sub> films by MWCNTs and GNPs coating**  
SARF F., Er I. K., Ajjaq A., ÇAĞIRTEKİN A. O., YAKAR E., ACAR S.  
PHYSICA SCRIPTA, vol.97, no.2, 2022 (SCI-Expanded)
- XVII. **Low-energy ball milling effect on the dielectric response and electrical transport mechanisms of natural clinoptilolite zeolites in a wide temperature range**  
Cura Ö., Ajjaq A., ÇAĞIRTEKİN A. O., ÇAVDAR Ş., ACAR S.  
Materials Today Communications, vol.29, 2021 (SCI-Expanded)
- XVIII. **Substrate critical effect on the structural and H-2 Gas sensing characteristics of solution-processed Zn0.075Cu0.0250 films**  
SARF F., Er I. K., YAKAR E., ACAR S.  
MATERIALS RESEARCH EXPRESS, vol.8, no.12, 2021 (SCI-Expanded)
- XIX. **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 (SCI-Expanded)
- XX. **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, vol.47, no.19, pp.27251-27266, 2021 (SCI-Expanded)
- XXI. **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., Çağırtekin A. O., Ajjaq A., Sarf F., Acar S.  
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.127, no.9, 2021 (SCI-Expanded)
- XXII. **Investigation of indium insertion effects on morphological, optical, electrical impedance and modulus properties of ZnO thin films**  
Soltabayev B., Çağırtekin A. O., Mentyayeva A., Yıldırım M. A., Acar S.  
THIN SOLID FILMS, vol.734, 2021 (SCI-Expanded)
- XXIII. **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 (SCI-Expanded)
- XXIV. **Structural, morphological and gas sensing properties of Zn<sub>1-x</sub>Sn<sub>x</sub>O thin films by SILAR method**  
Er I. K., YILDIRIM M. A., ÖRKCÜ H. H., ATEŞ A., ACAR S.  
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.127, no.4, 2021 (SCI-Expanded)
- XXV. **The Dependence of the Gas Sensing Properties of ZnO Thin Films on the Zinc Concentration**  
Er I. K., Yildiz I. A., Bayraktar T., Acar S., Ates A.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.32, no.6, pp.8122-8135, 2021 (SCI-Expanded)
- XXVI. **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, vol.32, no.2, pp.1677-1690, 2021 (SCI-Expanded)
- XXVII. **The role of rare-earth metal (Y, Ru and Cs)-doped ZnO thin films in NH<sub>3</sub> gas sensing performances at room temperature**  
SARF F., Er I. K., YAKAR E., ACAR S.

- JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.31, no.13, pp.10084-10095, 2020 (SCI-Expanded)
- XXVIII. Influence of Temperature on the Peculiarities of Electret State in Microporous Zeolite**  
Soltabayev B., KURT H. H., Acar S., Salamov B. G.  
JOURNAL OF ELECTRONIC MATERIALS, vol.48, no.11, 2019 (SCI-Expanded)
- XXIX. The effect of indium doping concentration on structural, morphological and gas sensing properties of IZO thin films deposited SILAR method**  
Soltabayev B., YILDIRIM M. A., Ates A., ACAR S.  
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.101, pp.28-36, 2019 (SCI-Expanded)
- XXX. Influence of Ni doping on the nitric oxide gas sensing properties of Zn<sub>1-x</sub>Ni<sub>x</sub>O thin films synthesized by silar method**  
Soltabayev B., Er I. K., Surel H., Coskun A., Yildirim M. A., Ates S., Acar S.  
MATERIALS RESEARCH EXPRESS, vol.6, no.8, 2019 (SCI-Expanded)
- XXXI. 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 (SCI-Expanded)
- XXXII. 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 (SCI-Expanded)
- XXXIII. 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 (SCI-Expanded)
- XXXIV. Enhancing the Co gas sensing properties of ZnO thin films with the decoration of MWCNTs**  
Ozutok F., Er I. K., Acar S., Demiri S.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.30, no.1, pp.259-265, 2019 (SCI-Expanded)
- XXXV. Influence of Different Aluminum Sources on the NH<sub>3</sub> Gas-Sensing Properties of ZnO Thin Films**  
Ozutok F., Karaduman I., Demiri S., ACAR S.  
JOURNAL OF ELECTRONIC MATERIALS, vol.47, no.5, pp.2648-2657, 2018 (SCI-Expanded)
- XXXVI. Low level NO gas sensing properties of Cu doped ZnO thin films prepared by SILAR method**  
Corlu T., Karaduman I., Galioglu S., AKATA KURÇ B., Yildirim M. A., Ates A., Acar S.  
MATERIALS LETTERS, vol.212, pp.292-295, 2018 (SCI-Expanded)
- XXXVII. Zeolite A coated Zn<sub>1-X</sub>Cu<sub>X</sub>O MOS sensors for NO gas detection**  
Galioglu S., Karaduman I., Corlu T., AKATA KURÇ B., YILDIRIM M. A., ATEŞ A., Acar S.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.29, no.2, pp.1356-1368, 2018 (SCI-Expanded)
- XXXVIII. The effect of different doping elements on the CO gas sensing properties of ZnO nanostructures**  
Karaduman I., Yildirim M. A., Yildirim S. T., Ates A., Ozdemir Y. A., Acar S.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.28, no.23, pp.18154-18163, 2017 (SCI-Expanded)
- XXXIX. Green synthesis of gamma-Fe<sub>2</sub>O<sub>3</sub> nanoparticles for methane gas sensing**  
Karaduman I., Gungor A. A., NADAROĞLU H., ALTUNDAŞ A., ACAR S.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.28, no.21, pp.16094-16105, 2017 (SCI-Expanded)
- XL. The gas sensing properties of hafnium oxide thin films depending on the annealing environment**  
Karaduman I., ACAR S.  
MODERN PHYSICS LETTERS B, vol.31, no.30, 2017 (SCI-Expanded)

- XLI. Room-temperature ammonia gas sensor based on reduced graphene oxide nanocomposites decorated by Ag, Au and Pt nanoparticles  
Karaduman I., ER E., ÇELİKKAN H., ERK N., ACAR S.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.722, pp.569-578, 2017 (SCI-Expanded)
- XLII. Effect of Doping Materials on the Low-Level NO Gas Sensing Properties of ZnO Thin Films  
Corlu T., Karaduman I., YILDIRIM M. A., ATEŞ A., ACAR S.  
JOURNAL OF ELECTRONIC MATERIALS, vol.46, no.7, pp.3995-4002, 2017 (SCI-Expanded)
- XLIII. Hydrogen Gas Sensing Characteristics of Nanostructured NiO Thin Films Synthesized by SILAR Method  
Karaduman I., Corlu T., YILDIRIM M. A., ATEŞ A., ACAR S.  
JOURNAL OF ELECTRONIC MATERIALS, vol.46, no.7, pp.4017-4023, 2017 (SCI-Expanded)
- XLIV. NH<sub>3</sub> sensing properties of nanostructure ZnO thin film prepared by silar method  
Corlu T., Karaduman I., YILDIRIM M. A., ATEŞ A., ACAR S.  
HIGH TEMPERATURES-HIGH PRESSURES, vol.46, no.2, pp.155-165, 2017 (SCI-Expanded)
- XLV. Low-Concentration NO<sub>2</sub> Gas Sensor Based on HfO<sub>2</sub> Thin Films Irradiated by Ultraviolet Light  
Karaduman I., Barin O., ÖZER M., ACAR S.  
JOURNAL OF ELECTRONIC MATERIALS, vol.45, no.8, pp.3914-3920, 2016 (SCI-Expanded)
- XLVI. UV-assisted room-temperature gas sensing by HfO<sub>2</sub> thin films  
Karaduman I., Barin O., ACAR S.  
JOURNAL OF THE KOREAN PHYSICAL SOCIETY, vol.68, no.11, pp.1334-1340, 2016 (SCI-Expanded)
- XLVII. Fabrication and characterization of PVA/ODA-MMT-poly(MA-alt-1-octadecene)-g-graphene oxide e-spun nanofiber electrolytes and their response to bone cancer cells  
Rzayev Z. M. O., Salimi K., Bunyatova U., ACAR S., Salamov B., TÜRK M.  
MATERIALS SCIENCE & ENGINEERING C-MATERIALS FOR BIOLOGICAL APPLICATIONS, vol.61, pp.257-268, 2016 (SCI-Expanded)
- XLVIII. Novel Colloidal Nanofiber Electrolytes From PVA-Organoclay/Poly(MA-alt-MVE), and Their NaOH and Ag-Carrying Polymer Complexes  
Simsek M., Rzayev Z. M. O., ACAR S., Salamov B., Bunyatova U.  
POLYMER ENGINEERING AND SCIENCE, vol.56, no.2, pp.204-213, 2016 (SCI-Expanded)
- XLIX. A new generation gas sensing material based on high-quality graphene  
Karaduman I., ER E., ÇELİKKAN H., ACAR S.  
SENSORS AND ACTUATORS B-CHEMICAL, vol.221, pp.1188-1194, 2015 (SCI-Expanded)
- L. The effect of ultraviolet irradiation on the ultra-thin HfO<sub>2</sub> based CO gas sensor  
Karaduman I., Barin O., YILDIZ D. E., ACAR S.  
JOURNAL OF APPLIED PHYSICS, vol.118, no.17, 2015 (SCI-Expanded)
- LI. Novel multifunctional colloidal carbohydrate nanofiber electrolytes with excellent conductivity and responses to bone cancer cells  
Gokmen F. O., Rzayev Z. M. O., Salimi K., Bunyatova U., ACAR S., Salamov B., TÜRK M.  
CARBOHYDRATE POLYMERS, vol.133, pp.624-636, 2015 (SCI-Expanded)
- LII. CO<sub>2</sub> gas detection properties of a TiO<sub>2</sub>/Al<sub>2</sub>O<sub>3</sub> heterostructure under UV light irradiation  
Karaduman I., Demir M., YILDIZ D. E., ACAR S.  
PHYSICA SCRIPTA, vol.90, no.5, 2015 (SCI-Expanded)
- LIII. Effects of temperature and electric field on the transport mechanisms in the porous microstructure  
Koseoglu K., Karaduman I., Demir M., Ozer M., ACAR S., Salamov B. G.  
SUPERLATTICES AND MICROSTRUCTURES, vol.81, pp.97-106, 2015 (SCI-Expanded)
- LIV. UV light activated gas sensor for NO<sub>2</sub> detection  
Karaduman I., YILDIZ D. E., Sincar M. M., ACAR S.  
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.28, pp.43-47, 2014 (SCI-Expanded)
- LV. Hydrogen discharges operating at atmospheric pressure in a semiconductor gas discharge system  
Aktas K., ACAR S., Salamov B. G.  
PLASMA SOURCES SCIENCE & TECHNOLOGY, vol.20, no.4, 2011 (SCI-Expanded)

- LVI. **Influence of the microstructure on the charge transport in semiconductor gas discharge electronic devices**  
Sadiq Y., Aktas K., ACAR S., Salamov B. G.  
SUPERLATTICES AND MICROSTRUCTURES, vol.47, no.6, pp.648-660, 2010 (SCI-Expanded)
- LVII. **Stokes shift and band gap bowing in  $\text{In}_x\text{Ga}_{1-x}\text{N}$  ( $0.060 \leq x \leq 0.105$ ) grown by metalorganic vapour phase epitaxy**  
Yildiz A., Dagdelen F., ACAR S., LİŞESİVDİN S. B., Kasap M., AYDOĞDU Y., Bosi M.  
ACTA PHYSICA POLONICA A, vol.113, no.2, pp.731-739, 2008 (SCI-Expanded)
- LVIII. **Determination of two-dimensional electron and hole gas carriers in  $\text{AlGaN}/\text{GaN}/\text{AlN}$  heterostructures grown by Metal Organic Chemical Vapor Deposition**  
ACAR S., LİŞESİVDİN S. B., Kasap M., Oezcelik S., Oezbay E.  
THIN SOLID FILMS, vol.516, no.8, pp.2041-2044, 2008 (SCI-Expanded)
- LIX. **The effect of strain relaxation on electron transport in undoped  $\text{Al}_{0.25}\text{Ga}_{0.75}\text{N}/\text{GaN}$  heterostructures**  
LİŞESİVDİN S. B., Yildiz A., ACAR S., Kasap M., Oezcelik S., Oezbay E.  
PHYSICA B-CONDENSED MATTER, vol.399, no.2, pp.132-137, 2007 (SCI-Expanded)
- LX. **Electron transport in Ga-rich  $\text{In}_x\text{Ga}_{1-x}\text{N}$  alloys**  
Yildiz A., LİŞESİVDİN S. B., ACAR S., Kasap M., Bosi M.  
CHINESE PHYSICS LETTERS, vol.24, no.10, pp.2930-2933, 2007 (SCI-Expanded)
- LXI. **Electronic transport characterization of  $\text{AlGaN}/\text{GaN}$  heterostructures using quantitative mobility spectrum analysis**  
LİŞESİVDİN S. B., Yildiz A., ACAR S., Kasap M., Ozcelik S., Ozbay E.  
APPLIED PHYSICS LETTERS, vol.91, no.10, 2007 (SCI-Expanded)
- LXII. **Temperature-dependent electron transport in  $\text{In}_{0.5}\text{Ga}_{0.5}\text{P}/\text{GaAs}$  grown by MOVPE**  
ACAR S., Yildiz A., Kasap M., Bosi M.  
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- LXIII. **Scattering analysis of 2DEG carrier extracted by QMSA in undoped  $\text{Al}_{0.25}\text{Ga}_{0.75}\text{N}/\text{GaN}$  heterostructures**  
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ÇORLU T., KARADUMAN I., YILDIRIM M. A., ATEŞ A., ACAR S.  
3rd International Conference on Thernophysical And Mechanical Properties of Advanced Materials (THERMAM), Izmir, Turkey, 1 - 03 September 2016
- LV. **Effect of Doping Materials on the Gas Sensing Properties of The ZnO Nanostructures**  
ÇORLU T., KARADUMAN I., YILDIRIM M. A., ATEŞ A., ACAR S.  
4. European Conference on Renewable Energy Systems, İstanbul, Turkey, 28 - 31 August 2016
- LVI. **The Influence of Deposition Cycle on the Gas Sensing Properties of NiO Nanostructures Grown by Successive Ionic Layer Adsorption And Reaction Method**  
KARADUMAN I., ÇORLU T., YILDIRIM M. A., ATEŞ A., ACAR S.  
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- LVII. **Structural Morphological and Gas Sensing Properties of Zn<sub>0.25</sub>Cu<sub>0.75</sub>O Thin Films**  
 KARADUMAN I., ÇORLU T., YILDIRIM M. A., ATEŞ A., ACAR S.  
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- LIX. **NO<sub>2</sub> GAS SENSING PROPERTIES OF Al HfO<sub>2</sub> P Si Schottky DIODE**  
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- LX. **Effect of Temperature on Low Cost CuO Thin Films Gas Sensing Properties Grown by Successive Ionic Layer Adsorption and Reaction SILAR Method**  
 KARADUMAN I., ÇORLU T., YILDIRIM M. A., ATEŞ A., ACAR S.  
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- LXI. **H<sub>2</sub> Gas Sensing Properties of Silar Deposited Nanocrystalline NiO Thin Films**  
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- LXII. **A schottky Diode Type Nitrogen Dioxide Gas Sensor with HfO<sub>2</sub> Nanostructures**  
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- LXIII. **Effects of thickness on gas sensing properties of HfO<sub>2</sub> thin films**  
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- LXV. **Influence of annealing atmosphere on the HfO<sub>2</sub> Based Gas Sensors**  
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- LXVI. **Long Term Stability and Sensitivity on the Metal Oxide Sensing Surface**  
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- LXVII. **Influence of annealing temperature under Uv Light Irradiation for room temperature NO<sub>2</sub> Gas Sensor**  
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- LXVIII. **Atomic Layer Deposition of HfO<sub>2</sub> Thin Films for Gas Sensing Applications**  
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- LXX. **The effect of contact configurations on the HfO<sub>2</sub> based gas sensors**  
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- LXXI. **The Temperature Dependent Characteristics of Al HfO<sub>2</sub> p Si structure using different oxide thickness**  
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- LXXII. **ppm Level NO<sub>2</sub> detection using metal oxide gas sensor at room temperature**  
 BARİN Ö., DEMİR M., KARADUMAN I., YILDIZ D. E., ACAR S.  
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- LXXIII. **Low Concentration of CO<sub>2</sub> gas sensor by Atomic Layer Deposition**  
 DEMİR M., BARİN Ö., KARADUMAN I., YILDIZ D. E., ACAR S.  
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## **Supported Projects**

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ACAR S., CURA Ö., Project Supported by Higher Education Institutions, Doğal Zeolit Malzemelerin Sıcaklığa Bağlı Akım İletim Analizleri, 2020 - 2022

ACAR S., KARADUMAN ER I., ALTUN B., Project Supported by Higher Education Institutions, Cd Katkılı Numunelerinin Gaz Algılama Özelliklerinin İncelenmesi, 2020 - 2021

ACAR S., Project Supported by Higher Education Institutions, DC reaktör yapısındaki manyetik alanların farklı ağ koşulları altında incelenmesi ve yapının iyileştirilmesi, 2019 - 2020

Acar S., Yıldırım M. A., TUBITAK Project, H<sub>2</sub>S Gazına Duyarlı V205 Gaz Sensörünün Fabrikasyonu Ve Karakterizasyonu, 2017 - 2019

EBEGİL M., ACAR S., Project Supported by Higher Education Institutions, Zn<sub>1-x</sub>CuxO Kompleks MOS Sensörlerinde Sıcaklığa Bağlı Gaz Algılama Özelliklerinin İncelenmesi, 2016 - 2019

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

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ACAR S., TUBITAK Project, Nanogözenekli Zeolite Dayalı Geniş Emisyon Alanlı Ve Kompakt Taşınabilir Atmosfer Basıncında Çalışan Plazma Işık Kaynağının Tasarımı Ve Geliştirilmesi, 2014 - 2016

ACAR S., Project Supported by Higher Education Institutions, Otomotiv Kabinlerinde Patlayıcı Gaz Sızıntısının Tayini, 2015 - 2015

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ACAR S., Project Supported by Higher Education Institutions, Gaz basıncı ve akış hızının sensör parametreleri üzerindeki etkisi, 2011 - 2012

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## **Metrics**

Publication: 179

Citation (WoS): 687

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H-Index (WoS): 14

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## **Non Academic Experience**

Gazi Üniversitesi

Gazi Üniversitesi