

## Assoc. Prof. HAYRİYE GÖKÇEN ÇETİNKAYA

### Personal Information

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### International Researcher IDs

ORCID: 0000-0002-4681-3037

Publons / Web Of Science ResearcherID: CAG-0770-2022

Yoksis Researcher ID: 164921

### Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Fizik (Dr), Turkey 2012 - 2015

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Fizik (YI) (Tezli), Turkey 2010 - 2011

Undergraduate, Gazi University, Gazi Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, Turkey 2005 - 2010

### Dissertations

Doctorate, Au/(1 grafen (GP) katkılı)-Ca<sub>1.9</sub>Pr<sub>0.1</sub>Co<sub>4</sub>O<sub>x</sub>/n-Si Schottky engel diyotların hazırlanması ve elektrik ile dielektrik özelliklerinin sıcaklık ve frekansa bağlı incelenmesi, Gazi University, Fen Bilimleri Enstitüsü, Fizik (Dr), 2015

Postgraduate, Au/(Bi-katkılı) polivinil alkol/n-si schottky engel diyotlarının elektriksel özelliklerinin sıcaklığa ve aydınlatma şiddetine bağlı incelenmesi, Gazi University, Fen Bilimleri Enstitüsü, Fizik (YI) (Tezli), 2011

### Research Areas

Natural Sciences

### Academic Titles / Tasks

Associate Professor, Gazi University, Sağlık Hizmetleri Meslek Yüksekokulu, Tıbbi Hizmetler Ve Teknikler Bölümü, 2018 - Continues

Lecturer, Gazi University, Sağlık Hizmetleri Meslek Yüksekokulu, Tıbbi Hizmetler Ve Teknikler Bölümü, 2012 - 2018

### Academic and Administrative Experience

Assistant Director of Vocational School, Gazi University, Sağlık Hizmetleri Meslek Yüksekokulu, Tıbbi Hizmetler ve Teknikleri Bölümü, 2022 - Continues

Head of Department, Gazi University, Sağlık Hizmetleri Meslek Yüksekokulu, Tıbbi Hizmetler ve Teknikleri Bölümü, 2022 - Continues

Deputy Head of Department, Gazi University, Sağlık Hizmetleri Meslek Yüksekokulu, Tıbbi Hizmetler ve Teknikleri Bölümü, 2020 - 2022

Farabi Program Institutional Coordinator, Gazi University, Sağlık Hizmetleri Meslek Yüksekokulu, 2019 - 2022

Mevlana Exchange Program Institutional Coordinator, Gazi University, Sağlık Hizmetleri Meslek Yüksekokulu, 2019 -

2022

Erasmus Program Institutional Coordinator, Gazi University, Sağlık Hizmetleri Meslek Yüksekokulu, 2018 - 2022

## Courses

Doğrusal Olmayan Optik Özellikler, Postgraduate, 2022 - 2023

MESLEKİ UYGULAMA, Associate Degree, 2020 - 2021

BİYOMEDİKAL TEKNOLOJİ, Associate Degree, 2020 - 2021

MESLEKİ İNGİLİZCE, Associate Degree, 2020 - 2021

SOSYAL SORUMLULUK, Associate Degree, 2020 - 2021

Biyofizik, Associate Degree, 2020 - 2021

SOSYAL SORUMLULUK, Associate Degree, 2017 - 2018, 2016 - 2017

GENEL FİZİK-1, Undergraduate, 2017 - 2018, 2016 - 2017

NÜKLEER TIP, Associate Degree, 2017 - 2018, 2016 - 2017

MEKANİK LABORATUVARI, Undergraduate, 2017 - 2018, 2016 - 2017

TEMEL FİZİK, Associate Degree, 2017 - 2018, 2016 - 2017

BİYOMEDİKAL, Associate Degree, 2017 - 2018, 2016 - 2017

GENEL FİZİK 2, Undergraduate, 2017 - 2018

BİYOFİZİK, Associate Degree, 2017 - 2018, 2016 - 2017

BİYOMEDİKAL TEKNOLOJİ, Associate Degree, 2017 - 2018, 2016 - 2017

MEDİKAL TEKNOLOJİ, Associate Degree, 2017 - 2018, 2016 - 2017

ARAŞTIRMA PROJESİ, Associate Degree, 2017 - 2018, 2016 - 2017

MESLEKİ İNGİLİZCE, Associate Degree, 2017 - 2018, 2016 - 2017

ELEKTRİK LABORATUVARI, Undergraduate, 2017 - 2018, 2016 - 2017

GENEL FİZİK 1, Undergraduate, 2017 - 2018

GENEL FİZİK-2, Undergraduate, 2016 - 2017

TEKNOLOJİNİN BİLİMSEL İLKELERİ, Associate Degree, 2016 - 2017

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

- I. **Frequency-dependent electrical parameters and extracted voltage-dependent surface states in Al/DLC/p-Si structure using the conductance method**  
ŞAFAK ASAR Y., Feizollahi Vahid A., Basman N., ÇETİNKAYA H. G., ALTINDAL Ş.  
Applied Physics A: Materials Science and Processing, vol.129, no.5, 2023 (SCI-Expanded)
- II. **On the wide range frequency and voltage dependence of electrical features and density of surface states of the Al/(Cu:DLC)/p-Si/Au Schottky diodes (SDs)**  
ÇETİNKAYA H. G., Feizollahi Vahid A., Basman N., Demirezen S., ŞAFAK ASAR Y., ALTINDAL Ş.  
Journal of Materials Science: Materials in Electronics, vol.34, no.9, 2023 (SCI-Expanded)
- III. **Vertical CdTe:PVP/p-Si - Based Temperature Sensor by Using Aluminum Anode Schottky Contact**  
ÇETİNKAYA H. G., Cicek O., ALTINDAL Ş., Badali Y., Demirezen S.  
IEEE Sensors Journal, vol.22, no.23, pp.22391-22397, 2022 (SCI-Expanded)
- IV. **Doping rate, Interface states and Polarization Effects on Dielectric Properties, Electric Modulus, and AC Conductivity in PCBM/NiO:ZnO/p-Si Structures in Wide Frequency Range**  
Demirezen S., Cetinkaya H. G., ALTINDAL Ş.  
SILICON, vol.14, no.14, pp.8517-8527, 2022 (SCI-Expanded)
- V. **Electrical parameters of Au/(%1Ni-PVA)/n-Si (MPS) structure: Surface states and their lifetimes**  
Cetinkaya H. G., Demirezen S., Yeriskin S. A.  
PHYSICA B-CONDENSED MATTER, vol.621, 2021 (SCI-Expanded)

- VI. **Synthesis, electrical and photo-sensing characteristics of the Al/(PCBM/NiO: ZnO)/p-Si nanocomposite structures**  
Demirezen S., Cetinkaya H. G., Kara M., Yakuphanoglu F., ALTINDAL Ş.  
SENSORS AND ACTUATORS A-PHYSICAL, vol.317, 2021 (SCI-Expanded)
- VII. **The fabrication of Al/p-Si (MS) type photodiode with (%2 ZnO-doped CuO) interfacial layer by sol gel method and their electrical characteristics**  
ÇETİNKAYA H. G., SEVGİLİ Ö., ALTINDAL Ş.  
PHYSICA B-CONDENSED MATTER, vol.560, pp.91-96, 2019 (SCI-Expanded)
- VIII. **Frequency and Voltage Dependent Profile of Dielectric Parameters and Electric Modulus for Al/(HgS-PVA)/p-Si Capacitor via Impedance Spectroscopy Method**  
Cetinkaya H. G.  
JOURNAL OF NANOELECTRONICS AND OPTOELECTRONICS, vol.13, no.3, pp.421-427, 2018 (SCI-Expanded)
- IX. **Diode-to-diode variation in dielectric parameters of identically prepared metal-ferroelectric-semiconductor structures**  
Cetinkaya H. G., Yildirim M., Durmus P., Altindal Ş.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.728, pp.896-901, 2017 (SCI-Expanded)
- X. **Correlation between barrier height and ideality factor in identically prepared diodes of Al/Bi<sub>4</sub>Ti<sub>3</sub>O<sub>12</sub>/p-Si (MFS) structure with barrier inhomogeneity**  
Cetinkaya H. G., Yildirim M., Durmus P., Altindal Ş.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.721, pp.750-756, 2017 (SCI-Expanded)
- XI. **Electrical characteristics of Au/n-Si (MS) Schottky Diodes (SDs) with and without different rates (graphene + Ca<sub>1.9</sub>Pr<sub>0.1</sub>Co<sub>40x</sub>-doped poly(vinyl alcohol)) interfacial layer**  
Cetinkaya H. G., Altindal Ş., Orak I., Uslu I.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.28, no.11, pp.7905-7911, 2017 (SCI-Expanded)
- XII. **A comparative study on the electrical parameters of Au/n-Si Schottky diodes with and without interfacial (Ca<sub>1.9</sub>Pr<sub>0.1</sub>Co<sub>40x</sub>) layer**  
Kaya A., Cetinkaya H. G., Altindal Ş., Uslu I.  
INTERNATIONAL JOURNAL OF MODERN PHYSICS B, vol.30, no.16, 2016 (SCI-Expanded)
- XIII. **On the temperature dependent forward bias current-voltage (I-V) characteristics in Au/2% graphene-cobalt doped (Ca<sub>3</sub>Co<sub>4</sub>Ga<sub>0.0010x</sub>)/n-Si structure**  
Maril E., Kaya A., Cetinkaya H. G., Kocyigit S., Altindal Ş.  
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.39, pp.332-338, 2015 (SCI-Expanded)
- XIV. **Electrical and dielectric properties of Au/1% graphene (GP)+Ca<sub>1.9</sub>Pr<sub>0.1</sub>Co<sub>40x</sub> doped poly(vinyl alcohol)/n-Si structures as function of temperature and voltage**  
Cetinkaya H. G., Kaya A., Altindal Ş., Kocyigit S.  
CANADIAN JOURNAL OF PHYSICS, vol.93, no.10, pp.1213-1220, 2015 (SCI-Expanded)
- XV. **Investigation of negative dielectric constant in Au/1 % graphene (GP) doped-Ca<sub>1.9</sub>Pr<sub>0.1</sub>Co<sub>40x</sub>/n-Si structures at forward biases using impedance spectroscopy analysis**  
Cetinkaya H. G., Alialy S., Altindal Ş., Kaya A., Uslu I.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.26, no.5, pp.3186-3195, 2015 (SCI-Expanded)
- XVI. **On the negative capacitance behavior in the forward bias of Au/n-4H-SiC (MS) and comparison between MS and Au/TiO<sub>2</sub>/n-4H-SiC (MIS) type diodes both in dark and under 200 W illumination intensity**  
Cetinkaya H. G., Yildiz D. E., Altindal Ş.  
INTERNATIONAL JOURNAL OF MODERN PHYSICS B, vol.29, no.1, 2015 (SCI-Expanded)
- XVII. **Photovoltaic characteristics of Au/PVA (Bi-doped)/n-Si Schottky barrier diodes (SBDs) at various temperatures**  
Cetinkaya H. G., Tecimer H., Uslu H., Altindal Ş.  
CURRENT APPLIED PHYSICS, vol.13, no.6, pp.1150-1156, 2013 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Aynı Şartlarda Hazırlanmış Al/Bi<sub>3</sub>Ti<sub>4</sub>O<sub>12</sub>/n-Si (MFS) diyotların (60 Adet) Engel Yükseklikleri İle İdealite Faktörlerindeki Dağılım**  
ÇETİNKAYA H. G.  
Fen Bilimleri Dergisi PART C: TASARIM VE TEKNOLOJİ, vol.5, no.3, pp.89-96, 2017 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Investigation of frequency and voltage dependent dielectric properties, electric modulus and electrical conductivity in the Al/(5 Coumarin doped PVA)/p-Si (MPS) capacitors using impedance spectroscopy method**  
DEMİREZEN S., SEÇKİN A. Y., ÇETİNKAYA H. G.  
International Materials Science and Nanotechnology for Next Generation (MSNG2018), 4 - 07 October 2018
- II. **A comparative Study on the Au/p-Si diodes with and without different rate (0,1, 0,5, 2) ZnO-doped CuO interfacial layer**  
ÇETİNKAYA H. G., ALTINDAL Ş., DEMİREZEN S.  
International Materials Science and Nanotechnology for Next Generation (MSNG2018), 4 - 07 October 2018
- III. **Photocurrent characteristics of Au/ p-Si (MS) type photo-diode with (2 ZnO-doped CuO)/ Interfacial layer by sol gel method**  
ALTINDAL Ş., ÇETİNKAYA H. G.  
International Materials Science and Nanotechnology for Next Generation (MSNG2018), 4 - 07 October 2018
- IV. **A Comparative Study on The Electrical Characteristics of Au/p-Si diodes with and without different rate (0.1, 0.5 and 2) ZnO-doped CuO interfacial layer**  
ÇETİNKAYA H. G., ALTINDAL Ş., DEMİREZEN S.  
5th International conference on materials science and nanotechnology for next generation (MSNG2018), 4 - 06 October 2018
- V. **Çeşitli oranlarda ZnO katkılı CuO arayüzey tabakalı Al/p-Si (MS) Diyotlarının Akım-Voltaj (I-V) Karakteristiklerinin Oda Sıcaklığında İncelenmesi**  
ÇETİNKAYA H. G., SEÇKİN A. Y.  
VII. YOĞUN MADDE FİZİĞİİZMİR TOPLANTISI, Turkey, 13 April 2018
- VI. **Farklı Oranlarda ZnO Katkılı CuO Arayüzey Tabakalı Al/p-Si (MS) Diyotların Kapasitans-Voltaj (C-V) ve Kondüktans-Voltaj (G/ -V) Karakteristiklerinin İncelenmesi**  
ÇETİNKAYA H. G., SEÇKİN A. Y.  
VII. YOĞUN MADDE FİZİĞİİZMİR TOPLANTISI, Turkey, 13 April 2018
- VII. **Dielectric Constant, Electric Modulus and Electrical Conductivity in Identically Prepared Diodes of Al/Bi<sub>4</sub>Ti<sub>3</sub>O<sub>12</sub>/p-Si (MFS) Structure with Barrier and Thickness Inhomogeneity**  
DURMUŞ P., ÇETİNKAYA H. G., YILDIRIM M., ALTINDAL Ş., DÖKME İ.  
4th International conference on materials science and nanotechnology for next generation (MSNG2017), 28 - 30 June 2017
- VIII. **Surface States, Series Resistance and Interfacial Bi<sub>4</sub>Ti<sub>3</sub>O<sub>12</sub> Layer Effects on the Electrical and dielectric Properties of Al/Bi<sub>4</sub>Ti<sub>3</sub>O<sub>12</sub>/p-Si (MFS) Structure**  
ÇETİNKAYA H. G., YILDIRIM M., DURMUŞ P., ALTINDAL Ş.  
4th International conference on materials science and nanotechnology for next generation (MSNG2017), 28 - 30 June 2017
- IX. **Complex Dielectric Constant and Complex Electric Modulus of Al/Bi<sub>4</sub>Ti<sub>3</sub>O<sub>12</sub>/p-Si (MFS) Structures as Function of Voltage at Room Temperature**  
ÇETİNKAYA H. G., ALTINDAL Ş.  
4th International conference on materials science and nanotechnology for next generation (MSNG2017), 28 - 30 June 2017

- X. **The correlation between barrier heights (BHs) and ideality factors (n) in identically prepared Al/Bi<sub>3</sub>Ti<sub>4</sub>O<sub>12</sub>/n-Si (MFS) structures**  
 ÇETİNKAYA H. G.  
 NANOSCIENCE NANOTECHNOLOGY FOR NEXT GENERATION (NanoNG 2016), 20 - 22 October 2016
- XI. **Electrical and Dielectric Properties in identically fabricated Al/Bi<sub>3</sub>Ti<sub>4</sub>O<sub>12</sub>/n-Si (MFS) structures by Capacitance/Conductance-Voltage Measurements**  
 ÇETİNKAYA H. G., ALTINDAL Ş.  
 2nd International Advanced and Functional Materials Technologies (AFMAT 2016), 20 - 22 October 2016
- XII. **Electrical and Dielectric Properties in identically fabricated Al Bi<sub>3</sub>Ti<sub>4</sub>O 2ln Si MFS structures by Capacitance Conductance Voltage Measurements**  
 ÇETİNKAYA H. G., ALTINDAL Ş.  
 2nd international Advanced and Functional Materials Technologies (AFMAT) 2016, 20 - 22 October 2016
- XIII. **Electrical Characterization and Sources of Energy Losses in Solar Cells**  
 ALTINDAL Ş., ÇETİNKAYA H. G.  
 1st International Underground Resources and Energy Conference, 6 - 08 October 2016
- XIV. **Electrical properties of Au/3 Graphene (GP)-doped PVA/n-Si structures as function of frequency**  
 ÇETİNKAYA H. G., KAYA A., ALTINDAL Ş., ORAK İ.  
 International Semiconductor Science and Technology Conference 2015 (ISSTC2015), 11 - 13 May 2015
- XV. **Frequency and voltage-dependent electrical and dielectric properties of Au/Graphene Oxide Calcined/n-Si structures at room temperature**  
 ALTINDAL Ş., KAYA A., ÇETİNKAYA H. G., USLU İ.  
 International Semiconductor Science and Technology Conference 2015 (ISSTC2015), 11 - 13 May 2015
- XVI. **Some Electrical Properties of Au/n-Si Structures with and without Graphene doped PVA Interfacial Layer**  
 ÇETİNKAYA H. G., KAYA A., ALTINDAL Ş.  
 International Semiconductor Science and Technology Conference 2015 (ISSTC2015), 11 - 13 May 2015
- XVII. **Frequency and voltage Dependent electrical and Dielectrical Properties of AU Graphene Oxide Calcined n Si Structures at Room Temperature**  
 ALTINDAL Ş., KAYA A., ÇETİNKAYA H. G., USLU İ.  
 International Semiconductor Science Technology Conference, İzmir, Turkey, 10 - 13 May 2015, pp.72
- XVIII. **Temperature and Voltage Dependence of Electrical and Dielectric Properties of Au/1 graphene doped- Ca<sub>1.9</sub>Pr<sub>0.1</sub>Co<sub>4</sub>O<sub>x</sub>/n-Si Structure**  
 ÇETİNKAYA H. G., KAYA A., ALTINDAL Ş., KOÇYİĞİT S.  
 Nanoscience Nanotechnology for Next Generation (NanoNGe'14), 20 - 22 August 2014
- XIX. **On the Origin of Capacitance and Anomalous Peak in the Forward Bias Capacitance-Voltage plots in Au/1 graphene doped-Ca<sub>1.9</sub>Pr<sub>0.1</sub>Co<sub>4</sub>O<sub>x</sub>/n-Si Structure.**  
 ÇETİNKAYA H. G., ALTINDAL Ş., KAYA A., KOÇYİĞİT S.  
 Nanoscience Nanotechnology for Next Generation, 20 - 22 August 2014
- XX. **Investigation of Negative Dielectric Constant at Forward Biases Using Impedance Spectroscopy Analysis in Au/1 graphene doped- Ca<sub>1.9</sub>Pr<sub>0.1</sub>Co<sub>4</sub>O<sub>x</sub>/n-Si Structure**  
 ÇETİNKAYA H. G., ALİALY S., ALTINDAL Ş., USLU İ., KAYA A.  
 Nanoscience Nanotechnology for Next Generation, 20 - 22 August 2014
- XXI. **On the Temperature and Voltage Dependence Forward Bias Current-Voltage (I-V) Characteristics in Au/Ca<sub>3</sub>Co<sub>4</sub>Ga<sub>0.001</sub>O<sub>x</sub>(2 graphene cobalt)/n-Si Structure**  
 MARIL E., KAYA A., ÇETİNKAYA H. G., KOÇYİĞİT S., ALTINDAL Ş.  
 Nanoscience Nanotechnology for Next Generation (NanoNGe'14), 20 - 22 August 2014
- XXII. **The Effect of Series Resistance on Current-Voltage (I-V) Characteristics of Au/PVA/n-Si Schottky Barrier Diodes (SBDs) in Dark and Under Illumination Conditions**  
 ÇETİNKAYA H. G., TECİMER H., USLU H.  
 Mini-Workshop on Surface Science for Inauguration of the Turkish Surface Science Society (TuSSS), Turkey, 23 May 2011

## Supported Projects

ŞAFAK ASAR Y., TATAROĞLU A., ÇETİNKAYA H. G., Project Supported by Higher Education Institutions, 05/2019-26, 2019 - Continues

Güzel A., Fırat S., Çetinkaya H. G., Erasmus Project, EQF oriented assessment tools for prior learning in adult education, 2018 - 2021

ŞAFAK ASAR Y., ÇETİNKAYA H. G., TATAROĞLU A., Project Supported by Higher Education Institutions, 05/2018-10, 2018 - 2019

ÇETİNKAYA H. G., Project Supported by Higher Education Institutions, Aynı koşullarda ve aynı yarıiletken üzerinde büyütülen BTO arayüzey tabakalı (MFS) yapıların temel elektriksel parametrelerinin kıyaslanması, 2017 - 2018

ŞAFAK ASAR Y., ÇETİNKAYA H. G., Project Supported by Higher Education Institutions, Polimer (Perylene) Arayüzey Tabakasının Diyotun Elektriksel Özellikleri Üzerine Etkisi, 2012 - 2013

## Metrics

Publication: 40

Citation (WoS): 305

Citation (Scopus): 310

H-Index (WoS): 11

H-Index (Scopus): 12

## Congress and Symposium Activities

9th International Conference on Materials Science and Nanotechnology for Next Generation , Attendee, Ankara, Turkey, 2022