

## Res. Asst. PINAR ORUÇ

### Personal Information

Office Phone: [+90 312 202 1523](tel:+903122021523)

Email: [pinaroruc@gazi.edu.tr](mailto:pinaroruc@gazi.edu.tr)

Web: <https://avesis.gazi.edu.tr/12936>

### International Researcher IDs

ScholarID: f4ENzn8AAAAJ

ORCID: 0000-0002-5837-7412

Publons / Web Of Science ResearcherID: AAQ-3174-2021

ScopusID: 57219865183

Yoksis Researcher ID: 302139

### Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Fizik (Dr), Turkey 2020 - Continues

Postgraduate, Ankara University, Fen Bilimleri Enstitüsü, Fizik (YI) (Tezli), Turkey 2018 - 2020

Undergraduate, Ankara University, Fen Fakültesi, Fizik Bölümü, Turkey 2011 - 2017

### Dissertations

Postgraduate, İki Boyutlu Topolojik Yalıtkanlarda Elektron-Fonon Etkileşmesi, Ankara University, Fen Bilimleri Enstitüsü, Fizik (YI) (Tezli), 2020

### Research Areas

Mathematical Methods in Physics, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties

### Academic Titles / Tasks

Research Assistant, Gazi University, Fen Fakültesi, Fizik, 2019 - Continues

### Courses

Fizik Laboratuvarı IV (Elektronik), Undergraduate, 2024 - 2025, 2023 - 2024

Fizik Laboratuvarı (Mühendislik Fakültesi), Undergraduate, 2023 - 2024, 2022 - 2023, 2019 - 2020

Fizik Laboratuvarı (Teknoloji Fakültesi), Undergraduate, 2024 - 2025, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021

Fizik Laboratuvarı III (Dalgalar ve Optik), Undergraduate, 2023 - 2024, 2021 - 2022, 2020 - 2021, 2019 - 2020

Fizik Laboratuvarı V (Kuantum Fiziği), Undergraduate, 2023 - 2024, 2020 - 2021, 2019 - 2020

Fizik II (Uygulama), Undergraduate, 2023 - 2024, 2022 - 2023

Fizik Laboratuvarı II (Elektrik), Undergraduate, 2024 - 2025, 2021 - 2022, 2020 - 2021, 2019 - 2020

Fizik I (Uygulama), Undergraduate, 2023 - 2024, 2022 - 2023

Physics Laboratory I (Mechanics), Undergraduate, 2022 - 2023, 2018 - 2019

Temel Fizik Laboratuvarı (Biyoloji Bölümü), Undergraduate, 2023 - 2024, 2022 - 2023

Genel Fizik Laboratuvarı (Kimya Bölümü), Undergraduate, 2021 - 2022, 2020 - 2021, 2018 - 2019

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

- I. **Impact of voltage and frequency on electrical characteristics of MIS capacitors with triphenylamine layer**  
Izmirli S., ÇAVDAR Ş., ORUÇ P., Eymur S., TUĞLUOĞLU N.  
PHYSICA B-CONDENSED MATTER, vol.696, 2025 (SCI-Expanded)
- II. **Frequency-dependent capacitance and conductance characteristics and current transport mechanisms of Schottky diodes with TPA-IFA organic interfacial layer**  
Çavdar Ş., Oruç P., Eymur S., Tuğluoğlu N.  
PHYSICA SCRIPTA, vol.99, no.9, pp.1-17, 2024 (SCI-Expanded)
- III. **Photosensitive properties of Schottky type photodiodes prepared by spin coating of isoniazid Schiff base thin film on p-Si**  
Tezcan A. O., Oruç P., Tuğluoğlu N., Eymur S.  
OPTICAL AND QUANTUM ELECTRONICS, vol.56, no.989, pp.1-20, 2024 (SCI-Expanded)
- IV. **Investigation of photosensitive and photodetector characteristics of n-TPA-IFA/p-Si heterojunction structure**  
Çavdar Ş., Oruç P., Eymur S., Tuğluoğlu N.  
JOURNAL OF MATERIALS SCIENCE: MATERIALS IN ELECTRONICS, vol.35, no.1022, pp.1-19, 2024 (SCI-Expanded)
- V. **Investigation of illumination-dependent electrical and photodiode properties and conduction mechanism of the Al/p-Si contact with Schiff base compound (Pyr-Pic) interlayer**  
Oruç P., Tezcan A. O., Eymur S., Tuğluoğlu N.  
PHYSICA SCRIPTA, vol.99, no.055906, pp.1-16, 2024 (SCI-Expanded)
- VI. **Investigation of Terp-Pyr/p-Si diode using complex impedance spectroscopy depending on measurement temperatures and frequencies**  
Oruç P., Tuğluoğlu N., Eymur S.  
JOURNAL OF MATERIALS SCIENCE: MATERIALS IN ELECTRONICS, vol.35, no.314, pp.1-13, 2024 (SCI-Expanded)
- VII. **Investigation of dielectric properties of amorphous, anatase, and rutile TiO<sub>2</sub> structures**  
Oruç P., Turan N., Çavdar Ş., Koray H., Tuğluoğlu N.  
JOURNAL OF MATERIALS SCIENCE: MATERIALS IN ELECTRONICS, vol.34, no.498, pp.1-13, 2023 (SCI-Expanded)
- VIII. **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., Demiroılmaz Y., Seckin A., Çağırtekin A. O., Çavdar Ş., Koray H., Tuğluoğlu N.  
JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, vol.100, no.1, pp.147-159, 2021 (SCI-Expanded)
- IX. **AC conductivity, dielectric and electrical modulus studies of bulk Zn<sub>0.95</sub>Co<sub>0.05</sub>O ceramic**  
Oruç P., Turan N., Demiroılmaz Y., Seckin A., Çavdar Ş., Koray H., Tuğluoğlu N.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.32, no.12, pp.15837-15850, 2021 (SCI-Expanded)

## Refereed Congress / Symposium Publications in Proceedings

- I. **INVESTIGATION OF DIELECTRIC PARAMETERS OF ZnO/p-Si DIODE AT ROOM TEMPERATURE**  
Çağırtekin A. O., Ajjaq A., Barin Ö., Oruç P., Acar S.  
87 Annual Meeting of DPG and DPG Spring Meeting of the Condensed Matter Section (SKM) 2024, Berlin, Germany, 17 - 22 March 2024
- II. **Investigation of Electrical Properties of Metal Oxide Semiconductors Thinfilms**

Oruç P., Çağırtekin A. O., Çavdar Ş., Tuğluoğlu N., Koralay H.

87th Annual Meeting of DPG and DPG-Frühjahrstagung (DPG Spring Meeting) of the Condensed Matter Section (SKM, Berlin, Germany, 17 - 22 March 2024, pp.1

**III. Investigation of frequency dependent electrical properties of multilayer metal oxide structures**

ORUÇ P., SEÇKİN A., KORALAY H.

Turkish Physical Society 39th International Physics Congress, Muğla, Turkey, 31 August 2023

**IV. Investigation of voltage dependent electrical properties of layered metal oxide structure**

SEÇKİN A., ORUÇ P., KORALAY H.

Turkish Physical Society 39th International Physics Congress, Muğla, Turkey, 31 August 2023

## Supported Projects

Koralay H., Oruç P., Project Supported by Higher Education Institutions, Polimer/Metal Oksit Çok Katmanlı Yapıların Aygıt Karakterizasyonu, 2022 - 2024

ÇAVDAR Ş., TUĞLUOĞLU N., ORUÇ P., EYMÜR S., Project Supported by Higher Education Institutions, TPA-DA-IFA:ZnCo2O4 Hibrit Arayüzey Katmanlı Aygıt Üretimi ve Karakterizasyonu, 2022 - 2024

Kandemir B. S., TUBITAK Project, Substrates-induced effects on topological superconductivity and the formation of Majorana Fermions, 2021 - 2024

Kandemir B. S., TUBITAK Project, From Graphene to Topological Insulators-Dirac Materials: Electron-phonon interactions, Dichroism and analog gravity, 2016 - 2019

## Metrics

Publication: 13

Citation (WoS): 19

Citation (Scopus): 20

H-Index (WoS): 3

H-Index (Scopus): 3

## Scholarships

ARDEP, TUBITAK, 2021 - Continues

ARDEP, TUBITAK, 2018 - 2019

## Non Academic Experience

Institut de Ciència Molecular - ICMOL (University of Valencia)