

# KAMURAN KARA KOÇ

## ASST. PROF.

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### International Researcher IDs

ORCID: 0000-0002-9598-8108

Publons / Web Of Science ResearcherID: J-1114-2018

ScopusID: 26644165600

Yoksis Researcher ID: 28247

### Learning Knowledge

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Doctorate 2009 - 2013	Cukurova University, Fen Bilimleri Enstitüsü, Fizik/Katıhal Fiziği, Turkey
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Postgraduate 2005 - 2008	Cukurova University, Fen Bilimleri Enstitüsü, Fizik/Katıhal Fiziği, Turkey
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Undergraduate 1999 - 2005	Cukurova University, Fen , Fizik, Turkey
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### Dissertations

Doctorate, PFCVAD SİSTEMİ İLE ÜRETİLEN n- ve p-TİPİ ZnO İNCE FİLMLEİN FOTOİLETKENLİK ÖZELLİKLERİNİN KARŞILAŞTIRILMASI, Cukurova University, Fen Bilimleri Enstitüsü, Fizik/Katıhal Fiziği , 2013

Postgraduate, ATMALI FİLTRELİ KATODİK VAKUM ARK DEPOLAMA YÖNTEMİ İLE p-TİPİ ZnO (ÇİNKO OKSİT) ÜRETİMİ VE YAPISAL ÖZELLİKLERİ, Cukurova University, Fen Bilimleri, Fizik/Katıhal Fiziği, 2008

### Academic Titles / Tasks

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Assistant Professor 2018 - Continues	Istanbul University, Faculty of Science, Department of Physics
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Assistant Professor 2014 - 2018	Istanbul University, Faculty of Science, Department of Physics
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### Supported Projects

- EROL A., SARCAN F., KURUOĞLU F., ÇOKDUYGULULAR E., ÇETİNKAYA Ç., DÖNMEZ Ö., NUTKU F., KARA K., AKALIN E., Project Supported by Higher Education Institutions, Characterization of temperature dependent operation of a GaInNASbased RCEPD designed for 1.3 um, 2018 - 2018
- EROL A., KARA K., SARCAN F., DÖNMEZ Ö., NUTKU F., YILDIRIM S., MUTLU S., KURUOĞLU F., AKALIN E., Project

Supported by Higher Education Institutions, GaInNAs ve GaAsBi yarıiletkenleri ve bunlara dayalı geliştirilen aygıtların karakterizasyonu, 2017 - 2018

3. KARA KOÇ K., DOĞAN Ü., Project Supported by Higher Education Institutions, n- ve p-tipi ZnO Yarıiletken İnce Filmlerin Karakterizasyonu, 2016 - 2018
4. DÖNMEZ Ö., ERUÇAR T., KARA K., EROL A., FONTAINE C., ARNOULT A., Project Supported by Higher Education Institutions, Influence of chemical process on structural and optical properties of as grown and thermal annealed GaAsBi alloys, 2017 - 2017
5. EROL A., DÖNMEZ Ö., ERUÇAR T., KARA K., Project Supported by Higher Education Institutions, Bizmut İçeren III-V Grubu Uyumsuz Yarıiletken Alaşımların Yapısal Optik ve Elektriksel Özelliklerinin İncelenmesi, 2016 - 2017
6. DÖNMEZ Ö., KARA K., EROL A., AKALIN E., Project Supported by Higher Education Institutions, Yarıkararlı örgü uyumsuz alaşımlara ısıl işlem etkisinin spektroskopik yöntemlerle belirlenmesi, 2016 - 2017
7. DÖNMEZ Ö., EROL A., YILDIRIM S., AKALIN E., SARCAN F., NUTKU F., KARA K., KINACI B., Project Supported by Higher Education Institutions, Modülasyon katkılı GaBiAs kuantum kuyulu yapıların optik ve elektrik transport özelliklerinin incelenmesi, 2015 - 2017
8. KARA KOÇ K., Project Supported by Higher Education Institutions, Al-N Birlikte Katkılanmış ZnO Yarıiletken İnce Filmlerin Karakterizasyonu, 2015 - 2016
9. KARA KOÇ K., Project Supported by Higher Education Institutions, Atmalı Filtreli atodik Vakum Ark depolama ZnO Yarıiletken İnce Filmlerin Optik ve Yapısal Özellikleri, 2014 - 2015
10. AKALIN E., KANAT ÖZTÜRK İ., DÖNMEZ Ö., KARA KOÇ K., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, İLERİ LİTOGRAFIK YÖNTEMLER LABORATUVARLARI, 2013 - 2013
11. KARA KOÇ K., Other Supported Projects, Molecular Nanoscience and Surface Chemical Science, 2010 - 2011
12. TÜBİTAK Project, P ve n-tipi ZnO yarıiletken ince filmlerin Atmalı Filtreli Katodik vakum Ark depolama Sistemi ile Üretimi, 2006 - 2008

## Awards

1. KARA KOÇ K., Bilimsel Araştırma Projeleri Koordinasyon Birimi Ödülü, BAP, June 2015
2. KARA KOÇ K., Bilimsel Araştırma Projeleri Koordinasyon Birimi Ödülü, BAP, May 2014

## Scholarships

Fen Bilimleri Enstitüsü Bursu, University, 2012 - 2013

Erasmus, European Commission, 2010 - 2011

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

1. **Effects of annealing temperature on a ZnO thin film-based ultraviolet photodetector**  
Dogan U., SARCAN F., Koc K. K., KURUOĞLU F., EROL A.  
PHYSICA SCRIPTA, vol.97, no.1, 2022 (SCI-Expanded)
2. **Effects of Thermal Annealing and Selective Chemical Etching on Structural and Optical Properties of GaAsBi Epilayer with Droplet Systems**  
Eruçar T., Kara K., Donmez Ö., Erol A., Arnoult A., Fontaine C.  
JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY, vol.19, no.12, pp.7846-7852, 2019 (SCI-Expanded)
3. **Thermal oxidation and hydrofluoric acid treatment on the sandblasted implant surface: A histologic histomorphometric and biomechanical study**  
Qamheya A. H. A., Arisan V., Mutlu Z., Karabagli M., Tekkesin M., Kara K., Erol A., Ersanli S.  
CLINICAL ORAL IMPLANTS RESEARCH, vol.29, no.7, pp.741-755, 2018 (SCI-Expanded)
4. **Raman and AFM studies on nominally undoped, p- and n-type GaAsBi alloys**

- Erol A., Akalin E., Kara K., Aslan M., Bahrami-Yekta V., Lewis R. B., Tiedje T.  
 JOURNAL OF ALLOYS AND COMPOUNDS, vol.722, pp.339-343, 2017 (SCI-Expanded)
5. **Thermal annealing effects on optical and structural properties of GaBiAs epilayers: Origin of the thermal annealing-induced redshift in GaBiAs**  
 Donmez Ö., Kara K., Erol A., Akalin E., Makhloufi H., Arnoult A., Fontaine C.  
 JOURNAL OF ALLOYS AND COMPOUNDS, vol.686, pp.976-981, 2016 (SCI-Expanded)
  6. **Comparison of N-doped ZnO and N-Al codoped ZnO thin films deposited by pulsed filtered cathodic vacuum arc deposition**  
 Tuzemen E. S., Kara K., TAKCI D. K., ESEN R.  
 INDIAN JOURNAL OF PHYSICS, vol.89, no.4, pp.337-345, 2015 (SCI-Expanded)
  7. **Structural and electrical properties of nitrogen-doped ZnO thin films**  
 Tuzemen E. S., Kara K., Elagoz S., TAKCI D. K., ALTUNTAŞ İ., ESEN R.  
 APPLIED SURFACE SCIENCE, vol.318, pp.157-163, 2014 (SCI-Expanded)
  8. **Influence of Al concentration on structural and optical properties of Al-doped ZnO thin films**  
 TAKCI D. K., Tuzemen E. S., Kara K., YILMAZ Ş., ESEN R., Baglayan O.  
 JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.25, no.5, pp.2078-2085, 2014 (SCI-Expanded)
  9. **Bismuth-induced effects on optical, lattice vibrational, and structural properties of bulk GaAsBi alloys**  
 Sarcan F., Donmez Ö., Kara K., Erol A., Akalin E., Arikan M. C., Makhloufi H., Arnoult A., Fontaine C.  
 NANOSCALE RESEARCH LETTERS, vol.9, 2014 (SCI-Expanded)
  10. **Structural, optical and electrical properties of N-doped ZnO thin films prepared by thermal oxidation of pulsed filtered cathodic vacuum arc deposited Zn<sub>x</sub>Ny films**  
 ERDOĞAN N. H., Kara K., Ozdamar H., KAVAK H., ESEN R., Karaagac H.  
 JOURNAL OF ALLOYS AND COMPOUNDS, vol.509, no.36, pp.8922-8926, 2011 (SCI-Expanded)
  11. **Preserving Charge and Oxidation State of Au(III) Ions in an Agent-Functionalized Nanocrystal Model System**  
 Muellegger S., Schoefberger W., Rashidi M., Lengauer T., Klappenberger F., Diller K., Kara K., Barth J. V., Rauls E., Schmidt W. G., et al.  
 ACS NANO, vol.5, no.8, pp.6480-6486, 2011 (SCI-Expanded)
  12. **CHARACTERIZATION OF n AND p TYPE ZNO THIN FILMS DEPOSITED BY CATHODIC PULSED FILTERED VACUUM ARC SYSTEM**  
 KAVAK H., ERDOĞAN N. H., Kara K., Yanis H., Baz Z., ESEN R.  
 INTERNATIONAL JOURNAL OF MODERN PHYSICS B, vol.23, pp.1719-1724, 2009 (SCI-Expanded)

### Articles Published in Other Journals

1. **Annealing effects of ZnO thin films on p-Si(100) substrate deposited by PFCVAD**  
 Kara Koç K., Şenadım Tüzemen E., Esen R.  
 Turkish Journal of Physics, vol.38, pp.238-244, 2014 (Scopus)
2. **XRD, XPS, and optical characterizations of Al-doped ZnO film grown on GaAs substrate**  
 ŞENADIM TÜZEMEN E., Sahin H., Kara K., ELAGÖZ S., ESEN R.  
 TURKISH JOURNAL OF PHYSICS, vol.38, no.1, pp.111-117, 2014 (ESCI)
3. **Effects of Annealing on Reflectance of ZnO Grown by PFCVAD**  
 ŞENADIM TÜZEMEN E., ALAGÖZ S., ŞAHİN H., KARA K., ESEN R., BULUT A.  
 MARMARA ÜNİVERSİTESİ FEN BİLİMLERİ DERGİSİ, vol.25, pp.41-50, 2013 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

### 1. Optical and structural properties of as-grown and annealed GaAsBi epilayers

DÖNMEZ Ö., KARA K., EROL A., Makhloufi ., Arnoult A., Fontaine .

9th International Physics Conference of the Balkan Physical Union-BPU9, İstanbul, Turkey, 24 - 27 August 2015, pp.152

### 2. An investigation of Bismuth-related effects on GaAsBi/GaAs epilayers

AKALIN E., EROL A., ARIKAN Ç. M., KARA K., Aslan M., Lewis R., Tiedje T.

5th International Workshop on Bismuth Containing Semiconductors, Cork, Ireland, 21 - 23 July 2014, pp.1

## Courses

Bilgisayar III, Undergraduate, 2021 - 2022

Malzeme Bilimi, Undergraduate, 2017 - 2018

Bilgisayar I, Undergraduate, 2018 - 2019

Bilgisayar I, Undergraduate, 2018 - 2019

Fizik, Associate Degree, 2017 - 2018

GENEL FİZİK III, Undergraduate, 2016 - 2017

Bilgisayar II, Undergraduate, 2016 - 2017

Bilgisayar II, Undergraduate, 2016 - 2017, 2014 - 2015

Bilgisayar II, Undergraduate, 2016 - 2017

GENEL FİZİK LAB III, Undergraduate, 2016 - 2017

Genel Fizik, Undergraduate, 2014 - 2015

## Advising Theses

Kara Koç K., DESIGN, FABRICATION and CHARACTERISATION OF a ZnO-BASED PHOTODETECTOR, Postgraduate, Ü.Doğan(Student), 2020

## Metrics

Publication: 17

Citation (WoS): 135

Citation (Scopus): 130

H-Index (WoS): 8

H-Index (Scopus): 7

## Congress and Symposium Activities

International Conference Condensed Matter and Materials Science, Attendee, Adana, Turkey, 2017

8th International Workshop on Bismuth-Containing Semiconductors, Attendee, Magdeburg, Germany, 2017

Turkish Physical Society 32nd International Physics Congress, Attendee, Muğla, Turkey, 2016

Turkish Physical Society 31st International Physics Congress, Attendee, Muğla, Turkey, 2014

30. Ulusal Türkiye Fizik Derneği Kongresi/Influence of Doping Concentration on Structural and Optical Properties of Nitrogen Doped ZnO Thin Films, Attendee, İSTANBUL, Turkey, 2013

COST MP0805 Final Meeting/Optical Characterization of Bulk GaBixAs1-x Quantum Well Structures, Attendee, İSTANBUL, Turkey, 2013

Nanotr-9/Structural and Electrical Properties of Nitrogen-Doped ZnO Thin Films, Attendee, ERZURUM, Turkey, 2013

ISWCMMMP-2011 International Student Workshop on Condensed Matter and Materials Physics Workshop/XPS Studies on n-ZnO and p-ZnO Thin Films Prepared by Pulsed Filtered Cathodic Vacuum Arc Deposition System, Attendee, ANTALYA,

Turkey, 2011

28. Ulusal Türkiye Fizik Derneği Kongresi/Characterization of the Carbon Based Thin Films Produced by Electron Cyclotron Resonance Microwave Plasma System, Attendee, BODRUM, Turkey, 2011

ISWCMMP-2009 International Student Workshop on Condensed Matter and Materials Physics Workshop, Attendee, ANTALYA, Turkey, 2009

10. Ulusal Optik ve Fotonik Çalıştayı/n and p-type ZnO Semiconductor Thin Films Which are Grown by PFCVAD System and Characterization, Attendee, KOCAELİ, Turkey, 2008

25. Ulusal Türkiye Fizik Derneği Kongresi/AFKVAD Yöntemi ile Üretilen p-tipi ZnO İnce Filmlerin Optiksel ve Elektriksel Karakterizasyonu, Attendee, BODRUM, Turkey, 2008

9. Ulusal Optik ve Fotonik Çalıştayı/AFKVAD Yöntemi ile Elde Edilen n- ve p-tipi ZnO İnce Filmlerin Karakterizasyonu, Attendee, Ankara, Turkey, 2007

## Research Areas

Physics, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Optical Properties, Spectroscopy of Matter, Natural Sciences