

## Lect. PhD NECDET HAKAN ERDOĞAN

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: J-1932-2018

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### Education Information

Doctorate, Cukurova University, Fen Bilimleri Enstitüsü, Fizik, Turkey 2004 - 2010

Postgraduate, Cukurova University, Fen Bilimleri Enstitüsü, Fizik, Turkey 1997 - 2001

Undergraduate, Ankara University, Fen Fakültesi, Fizik Bölümü, Turkey 1990 - 1996

### Research Areas

Metallurgical and Materials Engineering, Material science and engineering, Semiconductor and Superconductor Materials, Optical Properties, Plating, Material Characterization, Nanomaterials, Physics, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Surfaces, Interfaces, Thin Films and Nanosystems, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Electrical properties of electronic structures, interfaces, thin films and low-dimensional structures, Natural Sciences, Engineering and Technology

### Academic Titles / Tasks

Lecturer PhD, Cukurova University, İmamoğlu Meslek Yüksekokulu, Bilgisayar Teknolojisi, 2012 - Continues

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

- I. **Tailoring Sb doping concentration to achieve p-type nanostructured ZnO thin film grown by sol-gel method**  
Sedefoglu N., Erdogan N. H., Kutlu T., Kavak H.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.34, no.3, 2023 (SCI-Expanded)
- II. **Effect of Na doping on microstructures, optical and electrical properties of ZnO thin films grown by sol-gel method**  
ERDOĞAN N. H., Kutlu T., Sedefoglu N., KAVAK H.  
JOURNAL OF ALLOYS AND COMPOUNDS, vol.881, 2021 (SCI-Expanded)
- III. **Effect of the oxidation temperature on microstructure and conductivity of Zn<sub>x</sub>Ny thin films and their conversion into p-type ZnO:N films**  
ERDOĞAN N. H., Kara K., Ozdamar H., ESEN R., KAVAK H.  
APPLIED SURFACE SCIENCE, vol.271, pp.70-76, 2013 (SCI-Expanded)
- IV. **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)

#### **V. 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)

### **Refereed Congress / Symposium Publications in Proceedings**

#### **I. Fabrication of Sb doped ZnO Nanoparticels and Structural and Optical Properties**

SEDEFOĞLU N., ERDOĞAN N. H., Kutlu T., KAVAK H., ESEN R.

9th International Physics Conference of the Balkan Physical Union, 24 - 27 August 2015

#### **II. FABRICATION OF SB DOPED ZNO NANOPARTICLES AND STRUCTURAL AND OPTICAL PROPERTIES**

SEDEFOĞLU N., ERDOĞAN N. H., KUTLU T., KAVAK H., ESEN R.

9th INTERNATIONAL PHYSICS CONFERENCE OF THE BALKAN PHYSICAL UNION – BPU9, 24-27 AUGUST 2015, İSTANBUL UNIVERSITY, İSTANBUL / TURKEY, Singapore, 24 - 27 August 2015

#### **III. XPS analysis and surface morphology of N doped ZnO Thin Films**

ERDOĞAN N. H., SEDEFOĞLU N., kutlu t., KAVAK H., ESEN R.

9th International Physics conference of the balkan Physical Union, 24 - 27 August 2015

#### **IV. XPS ANALYSIS AND SURFACE MORPHOLOGY OF N DOPED ZNO THIN FILMS**

ERDOĞAN N. H., ESEN R., KAVAK H.

9th INTERNATIONAL PHYSICS CONFERENCE OF THE BALKAN PHYSICAL UNION, İstanbul, Turkey, 24 - 27 August 2015, pp.425

#### **V. Investigation of Electrical and Optical Properties ZnO:Al Compounds Prepared by Pulsed Filtered Cathodic Vacuum Arc Deposition Technique**

TAKCI D. K., ERDOĞAN N. H., SEDEFOĞLU N., YILMAZ Ş., ESEN R., KAVAK H.

TFD 29. Uluslararası Fizik Kongresi, 5 - 08 September 2012, pp.619

#### **VI. X-Ray Photoelectron Spectroscopy and Photoluminescence Analysis 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., TAKCI D. K., SEDEFOĞLU N., ESEN R., KAVAK H.

TFD 29. Uluslararası Fizik Kongresi, 5 - 08 September 2012, pp.618

### **Supported Projects**

ERDOĞAN N. H., SEDEFOĞLU N., KUTLU T., Project Supported by Higher Education Institutions, Soljel Yöntemiyle Elde Edilen Saf ve Na Katkılı ZnO İnce Filmlerin Optiksel Yapısal ve Elektriksel Özelliklerinin Araştırılması, 2018 - 2021

ERDOĞAN N. H., Project Supported by Higher Education Institutions, PFCVAD Sistemi ile Üretilen ZnO İnce Filmlerin Yüzey Morfolojisinin Araştırılması, 2012 - 2015

### **Metrics**

Publication: 11

Citation (WoS): 45

Citation (Scopus): 48

H-Index (WoS): 3

H-Index (Scopus): 3

## Scholarships

Atmalı Filtreli Katodik Vakum Ark Depolama (PFCVAD) Sistemiyle n ve p Tipi ZnO Üretimi ve Aygıt Uygulamaları,  
TUBITAK, 2007 - 2009