

Assoc. Prof. Neslihan ÜZAR KILIÇ

Personal Information

Office Phone: [+90 212 455 5700](tel:+902124555700)

Email: neslihanuzar@istanbul.edu.tr

Web: <http://aves.istanbul.edu.tr/neslihanuzar/>

International Researcher IDs

ORCID: 0000-0002-1804-1068

Publons / Web Of Science ResearcherID: AAD-2970-2020

Yoksis Researcher ID: 108662

Education Information

Associate Degree, Anadolu University, Open Education Faculty, Department Of Law, Turkey 2018 - 2020

Doctorate, Istanbul University, Institute of Graduate Studies In Sciences, Katıhal Fiziği, Turkey 2007 - 2012

Postgraduate, Istanbul University, Institute of Graduate Studies In Sciences, Katıhal Fiziği, Turkey 2003 - 2007

Masters (Non-Thesis), Istanbul University, Institute of Graduate Studies In Sciences, Ortaöğretim Alan Öğretmenliği, Turkey 2002 - 2003

Undergraduate, Istanbul University, Faculty Of Science, Fizik, Turkey 1998 - 2002

Certificates, Courses and Trainings

Education Management and Planning, "Eğitimde Ölçme-Değerlendirme İlkelerine Uygun Sınav Hazırlama Yöntemleri, İstanbul Üniversitesi, 2021

IT, Güneş Gözelerinin Fiziği ve Teknolojisi, Sivas Cumhuriyet Üniversitesi, 2010

IT, ICFA, İstanbul Teknik Üniversitesi, 2002

Dissertations

Doctorate, Klasik ve Kesirli Yaklaşım Temelinde Etkileşimli Bozon Gazlarının Bose-Einstein Yoğuşması ve Dinamiğinin İncelenmesi, Istanbul University, Faculty of Science, Fizik, 2012

Postgraduate, Katalitik Büyütme ile Elde Edilen II-VI Grubu Nanotellerin Fiziksel Özelliklerinin İncelenmesi, Istanbul University, Faculty of Science, Fizik, 2007

Research Areas

Physics, Statistical physics, thermodynamic and nonlinear dynamic systems, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Mechanical and Acoustic Properties of Condensed Matter, Thermal Properties of Condensed Matter, Surfaces, Interfaces, Thin Films and Nanosystems, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Natural Sciences

Academic Titles / Tasks

Associate Professor, Istanbul University, Faculty of Science, Department of Physics, 2020 - Continues
Assistant Professor, Istanbul University, Faculty of Science, Department of Physics, 2018 - 2020
Assistant Professor, Istanbul University, Faculty of Science, Department of Physics, 2017 - 2018
Research Assistant PhD, Istanbul University, Faculty of Science, Department of Physics, 2013 - 2017
Research Assistant, Istanbul University, Faculty of Science, Department of Physics, 2005 - 2013

Courses

Yenilenebilir Enerji kaynakları ve uygulamaları, Undergraduate, 2022 - 2023
Fizik III, Undergraduate, 2019 - 2020
Nanosensör Teknolojileri, Postgraduate, 2019 - 2020
Fizik III, Undergraduate, 2018 - 2019
Elektronik I, Undergraduate, 2018 - 2019
İleri Fizik Uygulamaları II, Undergraduate, 2017 - 2018
İleri Fizik Uygulamaları I, Undergraduate, 2018 - 2019
Mesleki Matematik II, Associate Degree, 2017 - 2018
Genel Fizik, Undergraduate, 2017 - 2018

Advising Theses

Üzar Kılıç N., Fotovoltaik uygulamalar için metal katkılı ZnO nanoyapıların üretilmesi ve fiziksel özelliklerinin incelenmesi,
Postgraduate, U.ABDULAZİZ(Student), 2023

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Investigation of structural, optical, electrical, and optoelectronic properties of Co-doped ZnO thin films**
Uzar N., Abdulaziz U.
Journal of Optoelectronics and Advanced Materials, vol.26, no.7-8, pp.288-306, 2024 (SCI-Expanded)
- II. **Enhancement of structural, optical, electrical, optoelectronic and thermoelectric properties of ZnO thin film via Ni doping and Ni-B co-doping**
Üzar N., Abdulaziz U., Erbaş Ö. G., Aydın M., Dolgun M. F.
PHYSICA SCRIPTA, vol.99, pp.1-20, 2024 (SCI-Expanded)
- III. **Investigation of the effects of coating numbers of thin films and metal contact type on physical properties of undoped ZnO, Fe-doped ZnO, and Fe-B co-doped ZnO thin films**
Üzar N., Abdulaziz U.
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.35, no.17, 2024 (SCI-Expanded)
- IV. **Chaotic and regular behaviours of classical and fractional Gross-Pitaevskii equations including two-body, three-body and higher-order interactions**
Üzar N.
Pramana - Journal of Physics, vol.97, no.1, 2023 (SCI-Expanded)
- V. **Detailed investigation of dynamic of Bose-Einstein condensation with two, three body and higher-order interactions**
Üzar N.
International Journal Of Modern Physics B, vol.35, no.6, pp.2150088-21500111, 2021 (SCI-Expanded)
- VI. **Investigation of detailed physical properties and solar cell performances of various type rare earth elements doped ZnO thin films**
Uzar N.

- JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.29, no.12, pp.10471-10479, 2018 (SCI-Expanded)
- VII. **Enhanced optical and electrical properties of Y-doped ZnO nanoparticles having different Y concentrations**
Uzar N.
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.124, no.4, 2018 (SCI-Expanded)
- VIII. **Structural, optical, electrical and humidity sensing properties of (Y/Al) co-doped ZnO thin films**
Üzar Kılıç N., Algün G., Akçay N., Akcan D., Arda L.
Journal Of Materials Science-Materials In Electronics, vol.28, no.16, pp.11861-11870, 2017 (SCI-Expanded)
- IX. **Europium dependent absorption properties of Zn_{1-(y+0.01)}(Al-0.01, Eu (y))O (y=0.00, 0.01, 0.03 and 0.05) thin films grown on the soda-lime glass substrates by spin coating**
Akçay N., Algün G., Kılıç N., Shawuti S., Can M. M.
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.28, pp.4492-4497, 2017 (SCI-Expanded)
- X. **Zinc oxide nanoparticles induced cyto- and genotoxicity in kidney epithelial cells**
Uzar N., Abudayyak M. F., Akçay N., Algün G., Ozhan G.
TOXICOLOGY MECHANISMS AND METHODS, vol.25, no.4, pp.334-339, 2015 (SCI-Expanded)
- XI. **Lower Thermal Conductivity and Higher Thermoelectric Performance of Fe-Substituted and Ce, Yb Double-Filled p-Type Skutterudites**
Ballıkaya S., Uzar N., Yildirim S., Chi H., Su X., Tan G., Tang X., Uher C.
JOURNAL OF ELECTRONIC MATERIALS, vol.42, no.7, pp.1622-1627, 2013 (SCI-Expanded)
- XII. **Investigation of classical and fractional Bose-Einstein condensation for harmonic potential**
Uzar N., Ballıkaya S.
PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS, vol.392, no.8, pp.1733-1741, 2013 (SCI-Expanded)
- XIII. **Electrical and thermal properties of Fe substituted double-filled Ba_xY_bFe_zCo_{4-z}Sb₁₂ skutterudites**
Ballıkaya S., Uzar N., Yildirim S., Salvador J. R.
JOURNAL OF SOLID STATE CHEMISTRY, vol.197, pp.440-446, 2013 (SCI-Expanded)
- XIV. **High thermoelectric performance of In, Yb, Ce multiple filled CoSb₃ based skutterudite compounds**
Ballıkaya S., Uzar N., Yildirim S., Salvador J. R., Uher C.
JOURNAL OF SOLID STATE CHEMISTRY, vol.193, pp.31-35, 2012 (SCI-Expanded)
- XV. **Synthesis and humidity sensing analysis of ZnS nanowires**
Okur S., Uzar N., Tekgüzel N., Erol A., Arikan M. C.
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.44, no.6, pp.1103-1107, 2012 (SCI-Expanded)
- XVI. **Investigation of humidity sensing properties of ZnS nanowires synthesized by vapor liquid solid (VLS) technique**
Uzar N., Okur S., Arikan M. C.
SENSORS AND ACTUATORS A-PHYSICAL, vol.167, pp.188-193, 2011 (SCI-Expanded)
- XVII. **Synthesis and investigation of optical properties of ZnS nanostructures**
Uzar N., Arikan M. C.
BULLETIN OF MATERIALS SCIENCE, vol.34, no.2, pp.287-292, 2011 (SCI-Expanded)

Articles Published in Other Journals

I. **Approximate Soliton Solutions of Real Order Sine- Gordon Equations**

Üzar Kılıç N.

Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, vol.17, pp.415-425, 2017 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Enhanced transmittance and resistivity of Y doped ZnO nanoparticles depending on Y concentration**
Üzar Kılıç N.
Turkish Physical Society 33rd International Physics Congress, Muğla, Turkey, 6 - 10 September 2017, pp.166
- II. **Synthesis and Optical Properties of Rare Earth Elements (Yb, Eu) Doped ZnO Thin Films**
Üzar Kılıç N.
2ND INTERNATIONAL CONGRESS ON THE WORLD OF TECHNOLOGY AND ADVANCED MATERIALS, Kırşehir, Turkey, 28 September - 02 October 2016, pp.107
- III. **Synthesis and Toxicity Profiles of ZnO Nanoparticles**
Üzar Kılıç N., Akçay N., Algün G., Dağ M., Özhan G., Abudayyak M.
Turkish Physical Society 31th International Physics Congress, Muğla, Turkey, 21 - 24 July 2014, pp.153
- IV. **The Effect of ZnO Nanoparticles on Sensing Properties of Porous Silicon**
Algün G., Akçay N., Üzar Kılıç N., Dağ M.
Turkish Physical Society 31th International Physics Congress, Muğla, Turkey, 21 - 24 July 2014, pp.118
- V. **Structural Properties of Nano Zinc Oxide Synthesized By Sol-Gel Method**
DAĞ M., AKÇAY N., ALGÜN G., ÜZAR KILIÇ N.
Turkish Physical Society 31th International Physics Congress, Muğla, Turkey, 21 - 24 July 2014, pp.126
- VI. **Electrical Properties of ZnO Nanoparticles on Porous Silicon**
Akçay N., Algün G., Dağ M., Üzar Kılıç N.
Turkish Physical Society 31th International Physics Congress, Muğla, Turkey, 21 - 24 July 2014, pp.117
- VII. **Investigation of the Bose-Einstein condensation based on classical and fractional approach**
Üzar N., Aydiner E.
Turkish Physical Society 29th International Physics Congress,, Muğla, Turkey, 1 - 04 September 2012, pp.235
- VIII. **Lower Thermal Conductivity and Higher Thermoelectric Performance of Fe-Substituted and Ce, Yb Double-Filled P-type Skutterudites**
BALLIKAYA S., ÜZAR N., Yıldırım S., Su X., Tan G., Tang X., Uher C.
The 31st International and 10th European Conference on Thermoelectrics,, Aalborg, Denmark, 9 - 12 July 2012, pp.235-239
- IX. **Thermoelectric enhancement in CoSb₃ skutterudite compounds with double and triple filling of In, Yb, Ce**
Ballıkaya S., Üzar Kılıç N., Salvador J. R., Uher C.
9th European Conference on Thermoelectrics,, Thessaloniki, Greece, 28 September 2011, pp.22
- X. **High Temperature Thermoelectric Properties Of Yb, In And Sr Filled Cosb₃ Based Skutterudite Compounds**
Yildirim S., Ballıkaya S., Uzar N.
Turkish Physical Society 28th International Physics Congress, Muğla, Turkey, 1 - 04 September 2011, vol.28, pp.187
- XI. **Recent Developments In Thermoelectric Materials; Nano-Structure And Multiple Filling Skutterudite Compounds**
Ballıkaya S., Uzar N., Yildirim S.
Turkish Physical Society 28th International Physics Congress, Muğla, Turkey, 1 - 04 September 2011, vol.28, pp.134
- XII. **Synthesis and Humidity Sensing Analysis of ZnS Nanowires**
Üzar N., Erol A., Okur S., Arıkan M. Ç.
European Materials Research Society (E-MRS) Spring Meeting 2010, Strasbourg, France, 1 - 04 June 2010, pp.20
- XIII. **Investigation of Humidity Sensing Properties of ZnS Nanowires**
Okur S., Tekgüzel N., Erol A., Üzar N., Arıkan M. Ç.
Nanobilim ve Nanoteknoloji Konferansı VI (NanoTR6-2010), İzmir, Turkey, 1 - 04 June 2010, pp.700
- XIV. **ZnS nanoyapıların sentezlenmesi ve sensör özelliklerinin incelenmesi**
Üzar Kılıç N.
IV. Akyaka Nano-elektronik Taşınım Sempozyumu, Muğla, Turkey, 4 - 11 November 2009
- XV. **Humidity Detection Measurement of ZnO Nanodots Using Quartz Crystal Microbalance (QCM) Technique**
Erol A., Comba B., Okur S., Üzar N., Tekgüzel N.

14th International Conference on II-VI Compounds, Sankt-Peterburg, Russia, 23 - 28 August 2009, pp.4

XVI. Synthesis and investigation of optical properties of ZnS nanostructures.

Üzar Kılıç N., Arıkan Ç., Erol A.

International Conference on Nanomaterials and Nanosystems (NanoMats2009), İstanbul, Turkey, 10 - 13 August 2009, pp.23

XVII. Catalytic Growth and Physical Characterization of ZnS Nanostructures”

Üzar N., Arıkan M. Ç.

Nanobilim ve Nanoteknoloji 2009 – NanoTR-5, Eskişehir, Turkey, 1 - 04 June 2009, pp.299

XVIII. An Investigation of Physical Properties of ZnS Nanostructures Obtained With Catalytic Growth

Üzar N., Arıkan M. Ç.

Nanobilim ve Nanoteknoloji 2007 – NanoTR-III, Ankara, Turkey, 1 - 04 June 2007, pp.177

XIX. Synthesizes and structural characterization of ZnS nanostructures

Üzar N., Arıkan M. Ç.

International Conference on Superlattices, Nanostructures and Nanodevices ICSNN 2006, İstanbul, Turkey, 1 - 04 July 2006, pp.220

XX. Formation of ZnS nanostructures by vapour-liquid-solid method.

Üzar N., Arıkan M. Ç.

Nanobilim ve Nanoteknoloji 2006 – NanoTR-II, Ankara, Turkey, 1 - 04 May 2006, pp.123

XXI. Synthesizes and the structural characterization of ZnS nanorods

Üzar N., Erol A., Arıkan M. Ç.

23.Uluslararası Fizik Kongresi, Muğla, Turkey, 1 - 04 September 2005, pp.582

Supported Projects

Üzar Kılıç N., Kınacı B., Çetinkaya Ç., TUBITAK Project, Bor ve Metal Katkılı ZnO İnce Film Şeklindeki Güneş Pili ve Termoelektrik Jeneratörlerden Oluşan Hibrit Sistemin Verimliliğinin Araştırılması, 2022 - 2023

ÜZAR KILIÇ N., ABDULAZİZ U., Project Supported by Higher Education Institutions, Fotovoltaik Hücreler için Metal Katkılı ZnO Nanoyapıların Üretimi ve Karakterizasyonu, 2021 - 2023

BALLIKAYA S., UHER C., TOPRAK M., ÖNER Y., SERTKOL M., ŞAHİN M., ÜZAR KILIÇ N., TİRYAKİ H., MUMCU T. V., ADIGÜZEL F., et al., Project Supported by Higher Education Institutions, Atık Isının Elektrik Enerjisi Olarak Geri Kazanımına Yönelik Yüksek Verimli Termoelektrik Malzemelerin Geliştirilmesi, 2017 - 2020

ÜZAR KILIÇ N., Project Supported by Higher Education Institutions, III-N-V grubu çoklu kuantum kuyulu yarıiletken sistemlerinin optik özelliklerinin incelenmesi, 2008 - 2009

Üzar Kılıç N., Project Supported by Higher Education Institutions, H.1. Katalitik Büyütme ile Elde Edilen II-VI Grubu Nanotellerin Fiziksel Özelliklerinin İncelenmesi, 2005 - 2007

Patent

Üzar Kılıç N., Yılmaz Y. K., Abdulaziz U., ÇOK FONKSİYONLU DALDIRMALI KAPLAMA CİHAZI , Patent, CHAPTER G Physics, The Invention Recourse Number: 2021/020564 , Standard Registration, 2021

Scientific Refereeing

APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, SCI Journal, July 2022

APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, SCI Journal, October 2021

JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS,, SCI Journal, May 2019

International Journal of Modern Physics B, SCI Journal, July 2018

Sensors & Actuators: A. Physical, SCI Journal, August 2012

Sensors & Actuators: A. Physical, SCI Journal, May 2012
Physica E, SCI Journal, April 2012
Journal of Crystal Growth, SCI Journal, October 2011
The Korean Journal of Chemical Engineering, SCI Journal, August 2011

Metrics

Publication: 39
Citation (WoS): 277
Citation (Scopus): 291
H-Index (WoS): 10
H-Index (Scopus): 10

Congress and Symposium Activities

2ND INTERNATIONAL CONGRESS ON THE WORLD OF TECHNOLOGY AND ADVANCED MATERIALS,, Attendee, Turkey, 2016
Turkish Physical Society 31st International Physics Congress, Attendee, Turkey, 2014
Turkish Physical Society 29th International Physics Congress, Attendee, Turkey, 2012
Nanobilim ve Nanoteknoloji 2010 – NanoTR-VI, Attendee, Turkey, 2010
European Materials Research Society (E-MRS) Spring Meeting 2010, Attendee, France, 2010
Güneş Gözelerinin Fiziği ve Teknolojisi, Attendee, Cumhuriyet Üniversitesi/Sivas, Turkey, 2010
COST ACTION ISTANBUL MEETING, Attendee, İstanbul, Turkey, 2010
4. Nano-elektronik Taşınım Sempozyumu, Attendee, MUĞLA, Turkey, 2009
International Conference on Nanomaterials and Nanosystems, Attendee, İstanbul, Turkey, 2009
Nanobilim ve Nanoteknoloji 2009 – NanoTR-V, Attendee, Turkey, 2009
Nanobilim ve Nanoteknoloji 2007 – NanoTR-III, Attendee, Turkey, 2007
International Conference on Superlattices, Nanostructures and Nanodevices ICSNN 2006, Attendee, İstanbul, Turkey, 2006
Nanobilim ve Nanoteknoloji 2006 – NanoTR-II, Attendee, Turkey, 2006
23.Uluslararası Fizik Kongresi, Attendee, Muğla, Turkey, 2005
Istanbul-ICFA Instrumentation Center, First Regional ICFA Instrumentation School,, Attendee, Turkey, 2002

Awards

Üzar Kılıç N., Bilime yapılan katkı, İstanbul Üniversitesi Bilimsel Araştırma Projeleri Koordinasyon Birimi, December 2013
Üzar Kılıç N., Arıkan Ç., Erol A., Okur S., Synthesis and Humidity Sensing Analysis of ZnS Nanowires, European Materials Research Society (E-Mrs) Spring Meeting 2010, June 2010

Non Academic Experience

Özel İstek Kemal Atatürk Lisesi