

Assoc. Prof. AHMET TÜRKER TÜZEMEN

Personal Information

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International Researcher IDs

ORCID: 0000-0002-6120-6008

ScopusID: 55246634900

Yoksis Researcher ID: 103130

Education Information

Doctorate, Cukurova University, Fen-Edebiyat Fakültesi, Fizik, Turkey 1999 - 2006

Postgraduate, Cukurova University, Fen-Edebiyat Fakültesi, Fizik, Turkey 1997 - 1999

Undergraduate, Cukurova University, Fen-Edebiyat Fakültesi, Fizik, Turkey 1991 - 1996

Foreign Languages

English, B1 Intermediate

Research Areas

Physics

Academic Titles / Tasks

Associate Professor, Sivas Cumhuriyet University, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2024 - Continues

Assistant Professor, Sivas Cumhuriyet University, Eğitim Fakültesi, Matematik Ve Fen Bilimleri Eğitimi Bölümü, 2013 - 2024

Lecturer, Sivas Cumhuriyet University, Eğitim Fakültesi, Orta Öğretim Fen Ve Matematik Alanlar Eğitimi Bölümü, 2008 - 2013

Courses

Genel Fizik Lab - III, Undergraduate, 2019 - 2020

Modern Fiziğe Giriş, Undergraduate, 2018 - 2019

İstatistik, Undergraduate, 2019 - 2020

Öğretmenlik Uygulaması, Undergraduate, 2018 - 2019

Fizik - I, Undergraduate, 2019 - 2020

Fizik - 3, Undergraduate, 2019 - 2020

Genel Fizik - III, Undergraduate, 2019 - 2020

Fizik - II, Undergraduate, 2018 - 2019

Topluma Hizmet Uygulaması, Undergraduate, 2018 - 2019
Genel Fizik - III, Undergraduate, 2019 - 2020
Fen Eğitiminde İleri Fizik, Postgraduate, 2017 - 2018
Modern Fiziğe Giriş, Undergraduate, 2017 - 2018
Topluma Hizmet Uygulamaları, Undergraduate, 2017 - 2018
Seminer Dersi, Postgraduate, 2017 - 2018
Genel Fizik, Undergraduate, 2017 - 2018
Öğretmenlik Uygulaması, Undergraduate, 2017 - 2018
Bilgisayar - II, Undergraduate, 2016 - 2017
Okul Deneyimi, Undergraduate, 2017 - 2018
Topluma Hizmet Uygulaması, Undergraduate, 2016 - 2017
Fizik - II, Undergraduate, 2016 - 2017
Bilgisayar - II, Undergraduate, 2016 - 2017
Genel Fizik - II, Undergraduate, 2016 - 2017
Bilgisayar - I, Undergraduate, 2016 - 2017
Genel Fizik - I, Undergraduate, 2015 - 2016
Genel Fizik - II, Undergraduate, 2016 - 2017
Öğretim Teknolojileri ve Materyal Tasarımı, Undergraduate, 2016 - 2017
Öğretmenlik Meslek Etiği, Undergraduate, 2015 - 2016
Genel Fizik Lab - III, Undergraduate, 2016 - 2017
Öğretmenlik Uygulaması - I, Undergraduate, 2016 - 2017
Genel Fizik - I, Undergraduate, 2016 - 2017
Fizik - I, Undergraduate, 2016 - 2017
Öğretmenlik Uygulaması - II, Undergraduate, 2014 - 2015
Öğretmenlik Uygulaması - II, Undergraduate, 2014 - 2015
İstatistik, Undergraduate, 2015 - 2016
Özel Öğretim Yöntemleri, Undergraduate, 2015 - 2016
Fizik II, Undergraduate, 2014 - 2015
Topluma Hizmet Uygulamaları, Undergraduate, 2014 - 2015
İstatistik, Undergraduate, 2015 - 2016
Topluma Hizmet Uygulamaları, Undergraduate, 2014 - 2015
Okul Deneyimi, Undergraduate, 2014 - 2015
Okul Deneyimi, Undergraduate, 2014 - 2015
İnsan Anatomisi ve Fizyolojisi, Undergraduate, 2014 - 2015
Öğretmenlik Uygulaması - I, Undergraduate, 2014 - 2015
Öğretmenlik Uygulaması, Undergraduate, 2014 - 2015
Fizik II, Undergraduate, 2013 - 2014
Temel Bilgisayar Bilimleri, Undergraduate, 2013 - 2014
Genel Fizik, Undergraduate, 2013 - 2014
Fizik I, Undergraduate, 2013 - 2014
Fizik I, Undergraduate, 2013 - 2014
Temel Bilgisayar Teknolojileri Kullanımı, Undergraduate, 2013 - 2014
Temel Bilgi Teknolojileri Kullanımı, Undergraduate, 2012 - 2013
Temel Bilgisayar Teknolojileri Kullanımı, Undergraduate, 2012 - 2013
Temel Bilgi Teknolojileri Kullanımı, Undergraduate, 2012 - 2013
Genel Fizik, Undergraduate, 2012 - 2013
Bilgisayar - II, Undergraduate, 2010 - 2011
Fizik IV, Undergraduate, 2011 - 2012
Temel Bilgisayar Bilimleri, Undergraduate, 2010 - 2011
Bilgisayar - II, Undergraduate, 2010 - 2011
Bilgisayar - I, Undergraduate, 2010 - 2011

Bilgisayar - I, Undergraduate, 2010 - 2011
Fizik III, Undergraduate, 2008 - 2009
Bilgisayar - II, Undergraduate, 2008 - 2009
Bilgisayar Destekli Matematik Öğretimi (Seçmeli), Undergraduate, 2008 - 2009
Konu Alanı Ders Kitabı İncelemesi, Undergraduate, 2007 - 2008
Fen Bilgisi Lab. Uygulamaları I, Undergraduate, 2008 - 2009
Konu Alanı Ders Kitabı İncelemesi, Undergraduate, 2007 - 2008

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Nonlinear optical properties of GaAs/AlGaAs asymmetric triple quantum wells designed for quantum cascade lasers: Effect of externally applied electric and magnetic fields**
Turker Tuzemen A. T., Dakhlaoui H., Mora-Ramos M., Al E. B., Ungan F.
Physica B: Condensed Matter, vol.690, 2024 (SCI-Expanded)
- II. **Effects of external fields and structural parameters on third harmonic generation of GaAs/AlGaAs Manning-like double quantum well structure**
TÜZEMEN A. T.
European Physical Journal Plus, vol.139, no.6, 2024 (SCI-Expanded)
- III. **Second harmonic generation in Harmonic-Gaussian asymmetric double quantum well: effect of magnetic and intense laser fields**
TÜZEMEN A. T., Demir M., Dakhlaoui H., Mora-Ramos M., UNGAN F.
Physica Scripta, vol.99, no.5, 2024 (SCI-Expanded)
- IV. **Effects of external electric and magnetic field on the nonlinear optical rectification, second, and third-harmonic generations in GaAs/AlGaAs asymmetric triple quantum well**
Tuzemen A. T., Al E. B., Dakhlaoui H., Ungan F.
European Physical Journal Plus, vol.138, no.7, 2023 (SCI-Expanded)
- V. **Effects of external fields on the nonlinear optical rectification and second harmonic generation of GaAs/GaAlAs zigzag quantum well**
TÜZEMEN A. T., Dakhlaoui H., UNGAN F.
Journal of Molecular Structure, vol.1274, 2023 (SCI-Expanded)
- VI. **The nonlinear optical properties of "12-6" tuned GaAs/GaAlAs double quantum well under the external fields**
Tuzemen A. T., Dakhlaoui H., Al E. B., Ungan F.
European Physical Journal Plus, vol.138, no.2, 2023 (SCI-Expanded)
- VII. **Modeling and simulation of the influence of quantum dots density on solar cell properties**
Jaouane M., Fakkahi A., Ed-Dahmouny A., El-Bakkari K., TÜZEMEN A. T., Arraoui R., Sali A., UNGAN F.
European Physical Journal Plus, vol.138, no.2, 2023 (SCI-Expanded)
- VIII. **Investigation of linear and nonlinear optical absorption coefficients and refractive index changes of a zigzag quantum well with structure parameters and applied external fields**
TÜZEMEN A. T., Mora-Ramos M., UNGAN F.
Physica B: Condensed Matter, vol.647, 2022 (SCI-Expanded)
- IX. **The nonlinear optical properties of GaAs/GaAlAs triple quantum well: Role of the electromagnetic fields and structural parameters**
TÜZEMEN A. T., Dakhlaoui H., Mora-Ramos M., UNGAN F.
Physica B: Condensed Matter, vol.646, 2022 (SCI-Expanded)
- X. **Effects of hydrostatic pressure and temperature on the nonlinear optical properties of GaAs/GaAlAs zigzag quantum well**
TÜZEMEN A. T., Dakhlaoui H., Ungan F.
PHILOSOPHICAL MAGAZINE, vol.102, no.23, pp.2428-2443, 2022 (SCI-Expanded)
- XI. **Scaling characteristics of bunching and no bunching regions of semiconductor mounds**

- TÜZEMEN A. T.
JOURNAL OF CRYSTAL GROWTH, vol.546, 2020 (SCI-Expanded)
- XII. **The investigation of the morphology of a decaying conic mound in the presence of repulsive and attractive step interactions**
Tuzemen A. T., Esen M., Ozdemir M.
JOURNAL OF CRYSTAL GROWTH, vol.501, pp.1-6, 2018 (SCI-Expanded)
- XIII. **Scaling properties of equilibrating semiconductor mounds of various initial shapes**
Tuzemen A. T., Esen M., Ozdemir M.
JOURNAL OF CRYSTAL GROWTH, vol.470, pp.94-98, 2017 (SCI-Expanded)
- XIV. **Mobility of large clusters on a semiconductor surface: Kinetic Monte Carlo simulation results**
Esen M., Tuzemen A. T., Ozdemir M.
CHINESE PHYSICS B, vol.25, no.1, 2016 (SCI-Expanded)
- XV. **Equilibration of a cone: KMC simulation results**
Esen M., Tuzemen A. T., Ozdemir M.
EUROPEAN PHYSICAL JOURNAL B, vol.85, no.4, 2012 (SCI-Expanded)

Articles Published in Other Journals

- I. **Analyzing of the Evolution and the Scaling Properties of a Sinusoidal Mound**
Tüzemen A. T.
CUMHURİYET SCIENCE JOURNAL, vol.44, no.1, pp.203-208, 2023 (Peer-Reviewed Journal)
- II. **The Effects of Repulsive and Attractive Interactions on Step Bunching Formed on Stepped Surfaces**
TÜZEMEN A. T.
Cumhuriyet Science Journal, vol.39, pp.642-649, 2018 (Peer-Reviewed Journal)
- III. **A Research on the effects of computer assisted science teaching**
HANÇER A. H., TÜZEMEN A. T.
World Applied Science Journal, vol.4, no.2, pp.199-205, 2008 (Peer-Reviewed Journal)
- IV. **Koni Şeklindeki Bir Kristalin Basamak Akış Modeli Altında İncelenmesi**
TÜZEMEN A. T., ÖZDEMİR M.
Çukurova Üniversitesi Fen Bilimleri Enstitüsü, Fen ve Mühendislik Bilimleri Dergisi, vol.15, no.3, pp.155, 2006 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Decay of a sinusoidal mound: determining the evolution properties**
TÜZEMEN A. T.
3. BASKENT INTERNATIONAL CONFERENCE ON MULTIDISCIPLINARY STUDIES, Ankara, Turkey, 23 September 2022
- II. **FORMATION OF STEP BUNCHES ON A DECAYING CONIC MOUND**
TÜZEMEN A. T.
2ND INTERNATIONAL ISTANBUL CONGRESS OF MULTIDISCIPLINARY SCIENTIFIC RESEARCH, İstanbul, Turkey, 28 September 2022
- III. **The Evolution of a Conic Mound According to Repulsive and Attractive Interactions Between Steps**
TÜZEMEN A. T., ESEN M., ÖZDEMİR M.
5th International conference on materials science and advanced-nanotechnologies for nextgeneration (MSNG2018), 4 - 06 October 2018
- IV. **The Effects of Repulsive and Attractive Interactions on Step Bunching Formed on Stepped Surfaces**
TÜZEMEN A. T.
5th International conference on materials science and advanced-nanotechnologies for nextgeneration

(MSNG2018), 4 - 06 October 2018

- V. **Step bunching under the effect of repulsive and attractive step interactions**
TÜZEMEN A. T., ÖZDEMİR M.
INTERNATIONAL CONFERENCE ON CONDENSED MATTER AND MATERIAL SCIENCES, 11 - 15 October 2017
- VI. **THE INVESTIGATION OF THE MORPHOLOGY OF A DECAYING MOUND IN THE PRESENCE OF REPULSIVE AND ATTRACTIVE STEP INTERACTIONS**
TÜZEMEN A. T., ESEN M., ÖZDEMİR M.
1st International Conference on Materials Science and Nanotechnology For next Generation (MSNG-2017) , Sarajevo, BOSNIA, 28 - 30 June 2017
- VII. **Investigation of Equilibration and Growth of Stepped Surfaces by Kinetic Monte Carlo in one Dimension**
Turkan A., Esen M., TÜZEMEN A. T., Ozdemir M.
32nd International Physics Congress of Turkish-Physical-Society (TPS), Bodrum, Turkey, 6 - 09 September 2016, vol.1815
- VIII. **Geçirgen Basamaklardan Oluşan Koni Şeklindeki Kristal Bir Yüzeyin Büyümesi**
TÜZEMEN A. T., ESEN M., ÖZDEMİR M.
Türk Fizik Derneği 28. Uluslararası Fizik Kongresi, 6 - 09 September 2011
- IX. **The Electronic Structure of Wurtzite MnS**
ÖZKENDİR O. M., TÜZEMEN A. T., UFUKTEPE Y.
International Conference of Neutron and X-Ray Scattering 2007, Serpong and Bandung (Indonesia), 23 - 31 July 2007, vol.989
- X. **Yarıiletken Yüzeylerdeki Atomik Basamakların Kinetiği**
TÜZEMEN A. T., ÖZDEMİR M.
Türk Fizik Derneği 23. Uluslararası Fizik Kongresi, 13 - 16 September 2005
- XI. **AlGaAs GaAs Tipi Heteroeklemlerde Oluşan İki Boyutlu Elektron Gazı için Monte Carlo Yöntemi ile Mobilite Hesabı**
TÜZEMEN A. T., YILMAZER İ., ÖZDEMİR M.
Türk Fizik Derneği 18. Ulusal Fizik Kongresi, Turkey, 25 - 28 October 1999

Supported Projects

Tüzemen A. T., Project Supported by Higher Education Institutions, Bir kristalin bozulma sürecinde yüzey morfolojisinin itici ve çekici etkileşmeler etkisi altında incelenmesi, 2017 - 2018

Tüzemen A. T., Project Supported by Higher Education Institutions, KONİ ŞEKLİNDEKİ BİR KRİSTALİN BOZULMA SÜRECİNDE YÜKSEKLİĞİNİN ZAMANLA DEĞİŞİMİNİN İNCELENMESİ, 2016 - 2017

Metrics

Publication: 30

Citation (WoS): 7

Citation (Scopus): 33

H-Index (WoS): 2

H-Index (Scopus): 4

Non Academic Experience

Milli Eğitim Bakanlığı