

# Prof. Sebahattin TÜZEMEN

## Personal Information

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## International Researcher IDs

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## Education Information

Doctorate, UMIST and The Victoria University of Manchester, Bilim Ve Teknoloji Enstitüsü, Elektrik Elektronik Mühendisliği, United Kingdom 1998 - 1993

Postgraduate, Ataturk University, Fen Bilimleri Enstitüsü, Fizik, Turkey 1985 - 1987

Undergraduate, Ataturk University, Fen-Edebiyat, Fizik, Turkey 1981 - 1985

## Foreign Languages

English, C1 Advanced

## Dissertations

Doctorate, An Investigation of Reverse-Contrast Centers in Bulk GaAs, The University Of Manchester, Umist, Elektrik Elektronik Mühendisliği, 1993

Postgraduate, P+PP+ Si Yapılarında Akım İletiminin Sıcaklığa Bağlılığının İncelenmesi, Atatürk Üniversitesi, Fen Bilimleri Enstitüsü, Fizik, 1987

## Research Areas

Electrical and Electronics Engineering, Energy, Lighting Technology, Renewable energy, Physics, Astronomy and Astrophysics, Interdisciplinary Physics and Related Science and Technology Areas, Electronic and magnetic devices, microelectronics, Electronics, radio and microwave technologies, Physical Chemistry, Materials Science, Electromagnetism, Acoustics, Heat Transfer, Classical Mechanics and Fluid Dynamics, Optics, General Physics, Relativity and Gravitation, Communication, Education, History and Philosophy, Statistical physics, thermodynamic and nonlinear dynamic systems, Quantum Mechanics, Fields Theory and Relativity, 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 and Administrative Experience

Atatürk Üniversitesi, 2008 - 2013

Atatürk Üniversitesi, 2000 - 2003

Atatürk Üniversitesi, 1998 - 2000

Atatürk Üniversitesi, 1998 - 2000

## Courses

Alan Teorisi, Undergraduate, 2022 - 2023, 2020 - 2021, 2019 - 2020

Fizik II, Undergraduate, 2020 - 2021

Termodinamik ve İstatistik Fiziği, Undergraduate, 2019 - 2020

Physics I, Undergraduate, 2020 - 2021

Rölativite Teorisi, Undergraduate, 2020 - 2021

Mekanik II, Undergraduate, 2019 - 2020

Fizik I, Undergraduate, 2020 - 2021

Fizik II, Undergraduate, 2019 - 2020

Modern Fizik ve Bilim Felsefesi, Postgraduate, 2020 - 2021

Yarıiletken Teknolojisinde Uygulamalı Proses ve Karakterizasyon, Postgraduate, 2019 - 2020

Elektromanyetik Teori, Undergraduate, 2020 - 2021

Termodinamik ve İstatistik Fizik, Undergraduate, 2018 - 2019

Fizik-II, Undergraduate, 2018 - 2019

Modern Fizik, Undergraduate, 2017 - 2018

Fizik I, Undergraduate, 2018 - 2019

Modern Fizik ve Bilim Felsefesi, Doctorate, 2018 - 2019

Kuantum Fiziği-II, Undergraduate, 2016 - 2017

Yarıiletken Teknolojisinde Uygulamalı Process ve Karakterizasyon , Doctorate, 2016 - 2017

Kuantum Fiziği-I, Undergraduate, 2016 - 2017

## Advising Theses

Tüzemen S., Bazı oksit ve m-v yarıiletken mikro ve nano yapıların yüzey fiziği özelliklerinin incelenmesi, Postgraduate, S.YILDIZ(Student), 2020

TÜZEMEN S., Orta Kızılötesi Elektro-optik Uygulamalar için geniş bant anti yansıtıcıların üretimi ve geliştirilmesi, Doctorate, A.Yenisoy(Student), 2019

TÜZEMEN S., Oksit yarıiletken tabanlı optik gaz sensörlerinin geliştirilmesi, Doctorate, Ö.Çoban(Student), 2018

TÜZEMEN S., Al: ZnO anot elektrot uygulamalı hibrit perovskit güneş hücresi ve polimer ışık yayan diyot fabrikasyonu, Doctorate, A.Baltakesmez(Student), 2017

TÜZEMEN S., Grafen tabanlı elektrokromik aygıtların in-situ karakterizasyonu, Doctorate, P.Köç(Student), 2017

TÜZEMEN S., ZnO yarıiletkeninin kusur karakterizasyonunda DLTS tekniği, Postgraduate, B.Kılıç(Student), 2016

TÜZEMEN S., ZnO ince filminin gaz sensör özelliğinin incelenmesi, Postgraduate, Ö.Çoban(Student), 2012

TÜZEMEN S., ZnO aktif tabanlı heteroeklemlerin oluşturulması ve karakterizasyonu, Doctorate, S.Tekmen(Student), 2012

TÜZEMEN S., Elektrokimyasal büyütme tekniği ile elde edilen ZnO tabanlı homoeiklemlerin elektrolüminesansının incelenmesi, Postgraduate, A.Baltakesmez(Student), 2011

TÜZEMEN S., Çinko oksit (ZnO) nano yapılar üzerinde boya ile duyarlı hale getirilmiş güneş pillerinin üretilmesi, Doctorate, B.Kılıç(Student), 2010

TÜZEMEN S., Elektrokimyasal büyütme yöntemi ile elde edilen ZnO ince filmlerin elektriksel ve optiksel özellikleri üzerinde yüksek enerjili elektron bombardımanının etkisi, Postgraduate, P.Köç(Student), 2010

TÜZEMEN S., Çinko oksit yarı iletkeninin yapısal, optik ve elektriksel karakterizasyon teknikleriyle incelenmesi, Doctorate, E.Gür(Student), 2007

TÜZEMEN S., Elektrokimyasal büyütme ile üretilen ZnO'nun katodik potansiyel değişimine bağlı olarak kristalografik ve optik özelliklerinin incelenmesi, Postgraduate, B.Besler(Student), 2007

TÜZEMEN S., Morötesi opto-elektronik uygulamalara aday yarıiletken çinko oksitte olası tip dönüşümü ve bant aralığı

değişiminin incelenmesi: Oksijen boşlukları ve kalay kusurlarının etkisi, Doctorate, T.Yıldırım(Student), 2004  
TÜZEMEN S., II-VI bileşik yarı iletken çinko oksit'te nokta kusurların elektriksel iletkenliğe etkileri, Postgraduate, E.Gür(Student), 2003  
TÜZEMEN S., Bazı III-V ve II-VI bileşik yarı iletkenlerde elektriksel ve optik karakterizasyon, Doctorate, S.Doğan(Student), 2001  
TÜZEMEN S., Yarıyalıtkan ve n-tipi GaAs kristallerinin yakın bant kenarı bölgesinde optik soğurma olaylarının incelenmesi, Postgraduate, T.Yıldırım(Student), 1999  
TÜZEMEN S., Fe katkılanmış yarı yalıtkan InP kristallerinin optik ve elektriksel bakımdan tetkiki, Postgraduate, S.Doğan(Student), 1998

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

- I. **Graphene for switchable flexible smart windows application**  
Köç Bakacak P., Kovalska E., TÜZEMEN S.  
Optical Materials, vol.151, 2024 (SCI-Expanded)
- II. **Synthesis, characterization and tribological properties of solid lubricant graphite films produced by PECVD**  
ÇELİK A., ÖZER H., TÜZEMEN S., Yıldız M., KOVACI H.  
MATERIALS TODAY COMMUNICATIONS, vol.36, 2023 (SCI-Expanded)
- III. **High optical response NiO, Pd/NiO and Pd/WO<sub>3</sub> hydrogen sensors**  
ÇOBAN Ö., Tekmen S., GÜR E., TÜZEMEN S.  
International Journal of Hydrogen Energy, vol.47, no.60, pp.25454-25464, 2022 (SCI-Expanded)
- IV. **Review of the fundamental issues in new generation high efficiency perovskite solar cells**  
BALTAKESMEZ A., BİBER M., TÜZEMEN S.  
Materials Today, 2019 (SCI-Expanded)
- V. **Ni: Fe<sub>2</sub>O<sub>3</sub>, Mg: Fe<sub>2</sub>O<sub>3</sub> and Fe<sub>2</sub>O<sub>3</sub> thin films gas sensor application**  
SARITAŞ S., KUNDAKÇI M., Coban O., TÜZEMEN S., YILDIRIM M.  
PHYSICA B-CONDENSED MATTER, vol.541, pp.14-18, 2018 (SCI-Expanded)
- VI. **Characterization of defect states in Ga-rich gallium arsenide crystals by thermally stimulated current**  
Yıldırım T., Gasanly N. M., TÜZEMEN S.  
IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY TRANSACTION A-SCIENCE, vol.42, pp.947-950, 2018 (SCI-Expanded)
- VII. **Inverted planar perovskite solar cells based on Al doped ZnO substrate**  
Baltakesmez A., Biber M., TÜZEMEN S.  
JOURNAL OF RADIATION RESEARCH AND APPLIED SCIENCES, vol.11, no.2, pp.124-129, 2018 (SCI-Expanded)
- VIII. **Oxygen partial pressure effects on the RF sputtered p-type NiO hydrogen gas sensors**  
Turgut E., Çoban Ö., Sarıtaş S., Tüzemen S., Yıldırım M., Gür E.  
Applied Surface Science, vol.435, pp.880-885, 2018 (SCI-Expanded)
- IX. **Effects of gold nanoparticles on the growth of ZnO thin films and p-Si/ZnO heterostructures**  
Baltakesmez A., YENİSOY A., TÜZEMEN S., GÜR E.  
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.74, pp.249-254, 2018 (SCI-Expanded)
- X. **Improved perovskite film quality and solar cell performances using dual single solution coating**  
Baltakesmez A., Biber M., TÜZEMEN S.  
JOURNAL OF APPLIED PHYSICS, vol.122, no.8, 2017 (SCI-Expanded)
- XI. **Design of hybrid nanoheterostructure systems for enhanced quantum and solar conversion efficiencies in dye-sensitized solar cells**  
Kilic B., TELLİ H., TÜZEMEN S., BAŞARAN A., PİRGE G.  
JOURNAL OF APPLIED PHYSICS, vol.117, no.13, 2015 (SCI-Expanded)
- XII. **Construction of 3-dimensional ZnO-nanoflower structures for high quantum and photocurrent efficiency in dye sensitized solar cell**

- KILIÇ B., GÜNEŞ T., BEŞİRLİ İ., Sezginer M., TÜZEMEN S.  
APPLIED SURFACE SCIENCE, vol.318, pp.32-36, 2014 (SCI-Expanded)
- XIII. **Stimulated electroluminescence emission from n-ZnO/p-GaAs:Zn heterojunctions fabricated by electro-deposition**  
KOC P., TEKMEK S., BALTAKESMEZ A., TÜZEMEN S., MERAL K., ONGANER Y.  
AIP ADVANCES, vol.3, no.12, 2013 (SCI-Expanded)
- XIV. **Detection of oxygen with electrochemically deposited ZnO thin films**  
ÇOBAN Ö., TEKMEK S., TÜZEMEN S.  
Sensors and Actuators, B: Chemical, vol.186, pp.781-788, 2013 (SCI-Expanded)
- XV. **UV-visible detector and LED based n-ZnO/p-Si heterojunction formed by electrodeposition**  
BALTAKESMEZ A., TEKMEK S., KOC P., TÜZEMEN S., MERAL K., ONGANER Y.  
AIP ADVANCES, vol.3, no.3, 2013 (SCI-Expanded)
- XVI. **One-Dimensional (1D) ZnO Nanowires Dye Sensitized Solar Cell**  
KILIÇ B., WANG L., Ozdemir O., Lu M., TÜZEMEN S.  
JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY, vol.13, no.1, pp.333-338, 2013 (SCI-Expanded)
- XVII. **Nanoporous ZnO Photoelectrode for Dye-Sensitized Solar Cell**  
Kilic B., GÜR E., TÜZEMEN S.  
JOURNAL OF NANOMATERIALS, 2012 (SCI-Expanded)
- XVIII. **ZnO homojunction white light-emitting diodes**  
BALTAKESMEZ A., TEKMEK S., TÜZEMEN S.  
JOURNAL OF APPLIED PHYSICS, vol.110, no.5, 2011 (SCI-Expanded)
- XIX. **Structural, optical, and electrical properties of n-ZnO/p-GaAs heterojunction**  
TEKMEK S., GÜR E., ASIL H., CINAR K., COSKUN C., TÜZEMEN S.  
PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE, vol.207, no.6, pp.1464-1467, 2010 (SCI-Expanded)
- XX. **Nanoporous structures on ZnO thin films**  
GÜR E., KILIC B., COSKUN C., TÜZEMEN S., BAYRAKCEKEN F.  
SUPERLATTICES AND MICROSTRUCTURES, vol.47, no.1, pp.182-186, 2010 (SCI-Expanded)
- XXI. **Temperature dependent capacitance and DLTS studies of Ni/n-type 6H-SiC Schottky diode**  
DUMAN S., GÜR E., Dogan S., TÜZEMEN S.  
CURRENT APPLIED PHYSICS, vol.9, no.6, pp.1181-1185, 2009 (SCI-Expanded)
- XXII. **Oxygen effects on radiation hardness of ZnO thin films**  
Gür E., Asil H., Cinar K., Coskun C., Tüzemen S., Meral K., Onganer Y., Şerifoğlu K.  
JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B, vol.27, no.5, pp.2232-2237, 2009 (SCI-Expanded)
- XXIII. **Temperature-dependent electrical characterization of nitrogen-doped ZnO thin film: vacuum annealing effect**  
GÜR E., TÜZEMEN S., DOĞAN S.  
PHYSICA SCRIPTA, vol.79, no.3, 2009 (SCI-Expanded)
- XXIV. **Oxygen deficiency effects on recombination lifetime and photoluminescence characteristics of ZnO thin films; correlation with crystal structure**  
GÜR E., TÜZEMEN S., Meral K., ONGANER Y.  
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.94, no.3, pp.549-554, 2009 (SCI-Expanded)
- XXV. **Optical and structural comparison between nitrogen-doped and oxygen-rich ZnO thin films**  
GÜR E. Y., TÜZEMEN S.  
PHILOSOPHICAL MAGAZINE, vol.89, no.12, pp.1081-1089, 2009 (SCI-Expanded)
- XXVI. **Determination of the transport mechanisms in mixed conduction of reactively sputtered ZnO thin films**  
TÜZEMEN S., GÜR E., DOĞAN S.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.41, no.13, 2008 (SCI-Expanded)
- XXVII. **Optical and structural properties of ZnO thin films; effects of high energy electron irradiation and annealing**

- Gür E., Asıl H., Coskun C., Tüzemen S., Meral K., Onganer Y., Şerifoğlu K.  
 NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH  
 MATERIALS AND ATOMS, vol.266, no.9, pp.2021-2026, 2008 (SCI-Expanded)
- XXVIII. **The barrier-height inhomogeneity in identically prepared Ni/n-type 6H-SiC Schottky diodes**  
 Duman S., Dogan S., Guerbulak B., Tueruet A.  
 Applied Physics A: Materials Science and Processing, vol.91, no.2, pp.337-340, 2008 (SCI-Expanded)
- XXIX. **High energy electron irradiation effects on electrical properties of Au n ZnO Schottky diodes**  
 GÜR E., COŞKUN C., TÜZEMEN S.  
 Journal Of Physics D-Applied Physics, vol.41, pp.105301, 2008 (SCI-Expanded)
- XXX. **The effects of the temperature and annealing on current-voltage characteristics of Ni/n-type 6H-SiC Schottky diode**  
 SEFAOĞLU A., Duman S., DOĞAN S., Guerbulak B., Tuezemen S., Tueruet A.  
 MICROELECTRONIC ENGINEERING, vol.85, no.3, pp.631-635, 2008 (SCI-Expanded)
- XXXI. **Direct recognition of non-radiative recombination centers in semi-insulating LEC InP : Fe using double excitation photoluminescence**  
 Doğan S., TÜZEMEN S.  
 JOURNAL OF LUMINESCENCE, vol.128, pp.232-238, 2008 (SCI-Expanded)
- XXXII. **Principal issues in producing new ultraviolet light emitters based on transparent semiconductor zinc oxide**  
 TUZEMEN S., Gur E.  
 OPTICAL MATERIALS, vol.30, no.2, pp.292-310, 2007 (SCI-Expanded)
- XXXIII. **High-temperature Schottky diode characteristics of bulk ZnO**  
 Gur E., TUZEMEN S., KILIC B., COSKUN C.  
 JOURNAL OF PHYSICS-CONDENSED MATTER, vol.19, no.19, 2007 (SCI-Expanded)
- XXXIV. **An investigation of control mechanisms of the excitonic behavior in reactively sputtered ZnO on (0001) Al<sub>2</sub>O<sub>3</sub>**  
 TUZEMEN S., Gur E., YILDIRIM T., XIONG G., WILLIAMS R. T.  
 JOURNAL OF APPLIED PHYSICS, vol.100, no.10, 2006 (SCI-Expanded)
- XXXV. **Wide-bandgap modification of polycrystalline ZnO using Sn component on the basis of developing quantum-well hetero-structure**  
 YILDIRIM T., Gur E., Tuzemen S., BİLGİN V., KÖSE S., ATAY F., AKYÜZ İ.  
 PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.27, pp.290-295, 2005 (SCI-Expanded)
- XXXVI. **Characteristics of near-band-edge absorption processes in bulk GaAs**  
 Tuzemen S., YILDIRIM T.  
 PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.25, no.1, pp.55-63, 2004 (SCI-Expanded)
- XXXVII. **Modification of exciton binding energy in the horizontal Bridgman-Stockbarger growth of InSe by Ho doping**  
 ATEŞ A., Tuzemen S., Yildirim M.  
 JOURNAL OF APPLIED PHYSICS, vol.96, no.6, pp.3324-3327, 2004 (SCI-Expanded)
- XXXVIII. **Absorption measurements in InSe : Ho single crystal under an electric field**  
 ATEŞ A., Gurbulak B., Yildirim M., Tuzemen S.  
 CZECHOSLOVAK JOURNAL OF PHYSICS, vol.54, no.3, pp.377-385, 2004 (SCI-Expanded)
- XXXIX. **Convertibility of conductivity type in reactively sputtered ZnO thin films**  
 Tuzemen S., Dogan S., ATEŞ A., Yildirim M., XIONG G., WILKINSON J., WILLIAMS R.  
 PHYSICA STATUS SOLIDI A-APPLIED RESEARCH, vol.195, no.1, pp.165-170, 2003 (SCI-Expanded)
- XL. **Control of p- and n-type conductivity in sputter deposition of undoped ZnO**  
 XIONG G., WILKINSON J., MİSCHUCK B., Tuzemen S., UCER K., WILLIAMS R.  
 APPLIED PHYSICS LETTERS, vol.80, no.7, pp.1195-1197, 2002 (SCI-Expanded)
- XLI. **Near bandedge optical absorption processes in semi insulating and N-type GaAs**  
 Yildirim T., TÜZEMEN S., Doğan S., GÜRBULAK B., Ateş A., YILDIRIM M.  
 Turkish Journal of Physics, vol.26, no.1, pp.29-32, 2002 (SCI-Expanded)

- XLII. Temperature dependence of galvanomagnetic properties for lightly doped N-type Si**  
Ateş A., GÜRBULAK B., Doğan S., YILDIRIM M., TÜZEMEN S.  
Turkish Journal of Physics, vol.26, no.1, pp.73-80, 2002 (SCI-Expanded)
- XLIII. Production and properties of p-n junctions in reactively sputtered ZnO**  
Tüzemen S., XIONG G., WILKINSON J., MİSCHUCK B., Ucer K., Williams R.  
Physica B: Condensed Matter, pp.1197-1200, 2001 (SCI-Expanded)
- XLIV. Persistent galvanomagnetic effects related to photo-quenching phenomena in lightly n-type LEC GaAs**  
Yildirim M., Tuzemen S., Gurbulak B., ATEŞ A., AYYILDIZ E.  
PHYSICA SCRIPTA, vol.63, no.2, pp.169-172, 2001 (SCI-Expanded)
- XLV. Effect of hydrostatic pressure on the characteristic parameters of Au/n-GaAs Schottky-barrier diodes**  
ÇANKAYA G., UÇAR N., Ayyildiz E., Efeoglu H., Turut A., Tuzemen S., YOĞURTÇU Y. K.  
PHYSICAL REVIEW B, vol.60, no.23, pp.15944-15947, 1999 (SCI-Expanded)
- XLVI. In situ optical assessment of semi insulating iron doped InP grown by liquid encapsulated Czochralski process**  
Doğan S., TÜZEMEN S., GÜRBULAK B., YILDIRIM M., ATEŞ A.  
JOURNAL OF APPLIED PHYSICS, vol.85, pp.6777-6781, 1999 (SCI-Expanded)
- XLVII. Anomalous behaviour of galvanomagnetic effects in very lightly n type bulk GaAs Possible role of reverse contrast centres**  
TÜZEMEN S., GÜRBULAK B., YILDIRIM M., Doğan S.  
PHYSICA STATUS SOLIDI A-APPLICATIONS AND MATERIALS SCIENCE, vol.174, pp.467-475, 1999 (SCI-Expanded)
- XLVIII. Anomalous behaviour of galvanomagnetic effects in very lightly n-type bulk GaAs: Possible role of reverse-contrast centres**  
TÜZEMEN S., GÜRBULAK B., YILDIRIM M., Doğan S.  
PHYSICA STATUS SOLIDI A-APPLIED RESEARCH, vol.174, no.2, pp.467-475, 1999 (SCI-Expanded)
- XLIX. In situ optical assessment of semi-insulating iron doped InP grown by liquid encapsulated Czochralski process**  
Doğan S., TÜZEMEN S., GÜRBULAK B., Ates A., Yildirim M.  
JOURNAL OF APPLIED PHYSICS, vol.85, no.9, pp.6777-6781, 1999 (SCI-Expanded)
- L. Thermal stability of NiTi alloy contacts on n-type liquid encapsulated Czochralski GaAs**  
Ayyildiz E., Türüt A., TÜZEMEN S.  
Solid State Communications, vol.110, no.8, pp.419-423, 1999 (SCI-Expanded)
- LI. Growth and optical properties of Ho doped n-type indium selenide**  
Gurbulak B., Yildirim M., Abay B., TÜZEMEN S., Alieva M., Yogurtcu Y.  
PHYSICA STATUS SOLIDI A-APPLIED RESEARCH, vol.168, no.2, pp.495-500, 1998 (SCI-Expanded)
- LII. Thermal stability of Cr-Ni-Co alloy Schottky contacts on MBE n-GaAs**  
Turut A., GÜMÜŞ A., Sağlam M., Tuzemen S., Efeoglu H., YALÇIN N., MİSSOUS M.  
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- LIII. Growth and optical properties of Ho doped n type indium selenide**  
ABAY B., GÜRBULAK B., YILDIRIM M., TÜZEMEN S., YOĞURTÇU Y. K.  
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- LIV. Temperature dependence of galvanomagnetic properties for Gd doped and undoped p-type GaSe**  
Gurbulak B., Yildirim M., Tuzemen S., Efeoglu H., Yogurtcu Y.  
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- LV. Growth and Optical Properties of Ho Doped n type InSe**  
GÜRBULAK B., YILDIRIM M., ABAY B., TÜZEMEN S., ALİEVA M., YOĞURTÇU Y. K.  
Physica Status Solidi A-Applications And Materials Science, vol.168, pp.495-500, 1998 (SCI-Expanded)
- LVI. Observations of two separable photoquenching phenomena in lightly n-type bulk GaAs by optical absorption, Hall effect, and positron annihilation**  
TÜZEMEN S., LeBerre C., Corbel C., BROZEL M., Yildirim M.

- APPLIED PHYSICS LETTERS, vol.69, no.23, pp.3462-3464, 1996 (SCI-Expanded)
- LVII. **Temperature dependence of galvanomagnetic properties for Er-doped and undoped n-type InSe**  
YILDIRIM M., GÜRBULAK B., ABAY B., EFEOĞLU H., TÜZEMEN S., YOĞURTÇU Y. K.  
JOURNAL OF APPLIED PHYSICS, vol.80, no.8, pp.4437-4441, 1996 (SCI-Expanded)
- LVIII. **Electrothermal investigation of the switching effect in p-type TlInSe<sub>2</sub>, TlInTe<sub>2</sub>, and TlGaTe<sub>2</sub>, chain chalcogenide semiconductors**  
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- LIX. **Observations of two separable photoquenching phenomena in lightly n type bulk GaAs by optical absorption Hall effect and positron annihilation**  
TÜZEMEN S., CORBEL C., LEBERRE C., BROZEL M.  
APPLIED PHYSICS LETTERS, vol.69, pp.3462-3464, 1996 (SCI-Expanded)
- LX. **Series resistance calculation for the metal-insulator-semiconductor Schottky barrier diodes**  
Saglam M., Ayyıldız E., GÜMÜŞ A., Turut A., Efeoglu H., Tuzemen S.  
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- LXI. **High barrier metallic polymer/p-type silicon Schottky diodes**  
ONGANER Y., SAĞLAM M., Türüt A., EFEOĞLU H., TÜZEMEN S.  
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- LXII. **Effect of series resistance on the forward current-voltage characteristics of Schottky diodes in the presence of interfacial layer**  
Ayyıldız E., Türüt A., EFEOĞLU H., TÜZEMEN S., SAĞLAM M., Yoğurtçu Y. K.  
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- LXIII. **NEAR-BAND-EDGE ABSORPTION AND POSITRON TRAPPING UNDER ILLUMINATION IN SEMIINSULATING GAAS - ROLE OF AS VACANCIES**  
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3th General Conferences of the Balkan Physical Union 2-5 Septenber 1997 Cnuj- Napoca, 2 - 05 September 1997
- LXXI. **Optical Assesment of Bulk and Epitaxial Structures, Optical Spectroscopy of Low Dimensional Semiconductor Structures, NATO-ASI (Advanced Study Institute), September 9-20, 1996, Bilkent University, Ankara-Antalya, (Poster Presentation).**  
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- LXXII. **AIIBVI ve AIIBIII Ternary Yarıiletkenlerini Büyütme Sistemi ve TlInSe<sub>2</sub> ile TlGaSe<sub>2</sub> Tek Kristallerinin Büyütülmesi.**  
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- LXXIII. **Tam Otomatik Fotolüminesans Sisteminin Dizaynı ve Yarıiletken Karakterizasyonunda Uygulaması.**  
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- LXXIV. **LEC Tekniğiyle Büyütülmüş n-Tipi GaAs'xxde Galvanomagnetik Etkilerin Sıcaklığa Bağlı İncelenmesi.**  
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- LXXXI. **1ST OBSERVATIONS OF A VERY DEEP ACCEPTOR LEVEL WHOSE CONCENTRATIONS SPATIALLY ANTICORRELATE WITH EL2 IN BULK GAAS**  
TÜZEMEN S., BREİVİK L., BROZEL M.  
GALLIUM ARSENIDE AND RELATED COMPOUNDS, Jersey, United Kingdom, 24 - 27 September 1990, vol.112, pp.237
- LXXXII. **1ST OBSERVATIONS OF A VERY DEEP ACCEPTOR LEVEL WHOSE CONCENTRATIONS SPATIALLY ANTICORRELATE WITH EL2 IN BULK GAAS**  
TÜZEMEN S., BREİVİK L., BROZEL M.  
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## Supported Projects

TÜZEMEN S., GÜR E., BALTAKEŞMEZ A., Project Supported by Higher Education Institutions, POLİMER IŞIK YAYAN DİYOTLARDA (MAVİ, YEŞİL, KIRMIZI) EMİSYON TABAKASININ OPTİMİZASYONU, 2014 - 2017

TÜZEMEN S., BALTAKEŞMEZ A., Project Supported by Higher Education Institutions, REAKTİF SAÇTIRMA METODU İLE

ZNO TABANLI BEYAZ IŞIK YAYAN DİYOT ( LED ) ÜRETİMİ VE KARAKTERİZASYONU, 2013 - 2016  
TÜZEMEN S., Project Supported by Higher Education Institutions, YÜKSEK VERİMLİ OPTOELEKTRONİK CİHAZ  
UYGULAMALARI İÇİN PLAZMON ÖZELLİĞİ GÖSTEREN NANOYAPILARIN ÜRETİLMESİ İÇİN GEREKLİ ARAŞTIRMA  
BİRİMİNİN KURULMASI., 2010 - 2012

## Activities in Scientific Journals

Asian Journal of Research and Reviews in Physics, First Editor, 2021 - Continues  
Asian Journal of Research and Reviews in Physics, First Editor, 2020 - Continues

## Scientific Refereeing

SENSORS AND ACTUATORS B-CHEMICAL, SCI Journal, December 2021  
SENSORS AND ACTUATORS B-CHEMICAL, SCI Journal, September 2021  
TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Ataturk University,  
Turkey, August 2021  
TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Ataturk University,  
Turkey, August 2021  
JOURNAL OF ALLOYS AND COMPOUNDS, SCI Journal, July 2021  
SENSORS AND ACTUATORS B-CHEMICAL, SCI Journal, June 2021  
TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Ataturk University,  
Turkey, June 2021  
TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Ataturk University,  
Turkey, September 2020  
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Turkey, September 2020  
TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Ataturk University,  
Turkey, September 2020

## Scientific Consultations

US Department of state, Scientific Consultancy, Ataturk University, Turkey, 2021 - Continues

## Metrics

Publication: 178  
Citation (WoS): 1447  
Citation (Scopus): 1408  
H-Index (WoS): 22  
H-Index (Scopus): 21

## Congress and Symposium Activities

4th INTERNATIONAL SYMPOSIUM ON ADVANCED MATERIALS AND NANOTECHNOLOGY (i-SAMN 2020), Invited  
Speaker, Kuala-Lumpur, Malaysia, 2020

Int Conf on Semiconductor Materials and Devices, Invited Speaker, Ardahan, Turkey, 2018

Int Conf on Semiconductor Materials and Devices, Invited Speaker, Konya, Turkey, 2017

## **Representation and Promotion Activities**

Institutional Representation, Erzurum Anadolu İmam Hatip Lisesi, Turkey, Erzurum, 2020 - 2020

## **Non Academic Experience**

Avrasya İpekyolu Üniversiteler Birliđi (ESRUC)

ATATEKNOKENT