

## Prof. EMRE GÜR

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: GWP-4725-2022

ScopusID: 7006531071

Yoksis Researcher ID: 38906

### Education Information

Doctorate, Ataturk University, Fen Bilimleri Enstitüsü, Fizik Anabilim Dalı, Turkey 2003 - 2007

Postgraduate, Ataturk University, Fen Bilimleri Enstitüsü, Fizik Anabilim Dalı, Turkey 2001 - 2003

Undergraduate, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Physics, Turkey 1993 - 1999

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Çinko Oksit Yarıiletkeninin Yapısal, Optik ve Elektriksel Karakterizasyon Teknikleriyle İncelenmesi, Ataturk University, Fen Bilimleri Enstitüsü, 2007

Postgraduate, II-VI Bileşik Yarıiletken Çinko Oksitte Nokta Kusurların Elektriksel İletkenliğe Etkileri, Ataturk University, Fen Bilimleri Enstitüsü, 2003

### Research Areas

Physics, Materials Science, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties

### Academic Titles / Tasks

Professor, Eskişehir Osmangazi University, Fen Fakültesi, Fizik Bölümü, 2022 - Continues

Professor, Ataturk University, Fen Fakültesi, Fizik, 2018 - 2022

Professor, The University of Manchester, Malzeme Okulu, Ulusal Grafen Enstitüsü, 2018 - 2018  
Associate Professor, Ataturk University, Fen Fakültesi, Fizik, 2013 - 2018  
Associate Professor, Ihsan Dogramaci Bilkent University, Faculty Of Science, Department Of Physics, 2015 - 2015  
Assistant Professor, Ataturk University, Fen Fakültesi, 2007 - 2013  
Assistant Professor, Ohio State University, Department of Electrical and Computer Engineering , 2010 - 2012  
Assistant Professor, Ohio State University, Department of Electrical and Computer Engineering, 2009 - 2010  
Research Assistant, Ataturk University, Fen Bilimleri Enstitüsü, Fizik Anabilim Dalı, 2001 - 2007

## Academic and Administrative Experience

Assistant Director of the Institute, Ataturk University, Fen Bilimleri Enstitüsü, 2021 - 2022  
Deputy Director of the Center, Ataturk University, 2019 - 2022  
Deputy Director of the Center, Ataturk University, 2015 - 2018  
Deputy Head of Department, Ataturk University, Fen Bilimleri Enstitüsü, Nanobilim Ve Nanomühendislik Anabilim Dalı, 2013 - 2017

## Courses

Nanoscience and Nanotechnology, Postgraduate, 2021 - 2022, 2020 - 2021  
Malzeme bilimi, Undergraduate, 2021 - 2022  
Yarıiletken Aygıt Fiziği , Postgraduate, 2020 - 2021  
Optik, Undergraduate, 2020 - 2021  
Yarıiletken Aygıtlar , Postgraduate, 2021 - 2022  
Nanofizik, Undergraduate, 2021 - 2022  
Yarıiletken Fiziği, Undergraduate, 2020 - 2021

## Advising Theses

Gür E., Geçiş metal dikalkojenitlerin süperkapasitör aygıtlarda elektrot olarak kullanılması, Doctorate, U.PERİŞANOĞLU(Student), 2023  
Gür E., Saçırma yöntemiyle 2-boyutlu WS<sub>2</sub> katmanlarının büyüme dinamiğinin incelenmesi, Doctorate, Y.KOÇAK(Student), 2019  
Gür E., RF saçırma yöntemi ile büyütülen GaN filmlerinde AlN tampon varlığının incelenmesi, Postgraduate, A.COŞKUN(Student), 2018  
Gür E., Geçiş metal oksit tabanlı katodik elektrokromik aygıt uygulamaları, Doctorate, G.MERHAN(Student), 2018  
Gür E., Geçirgen iletken oksit ince filmlerin büyütülmesi ve karakteristiklerinin optimizasyonu, Postgraduate, S.MOBTAKERI(Student), 2017  
Gür E., Molibden oksit ince filmlerin saçırma metodu ile büyütülmesi ve karakteristiklerinin incelenmesi, Postgraduate, A.FEIZOLLAHI(Student), 2016  
Gür E., Development of ITO (In<sub>2</sub>O<sub>3</sub> – SnO<sub>2</sub>) based gas sensors, Postgraduate, S.İŞİK(Student), 2015

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

- Layered Transition Metal Sulfides for Supercapacitor Applications**  
ÖZTÜRK O., Gur E.  
CHEMELECTROCHEM, 2024 (SCI-Expanded)
- Influence of Highly Efficient Carbon Doping on Al<sub>x</sub>Ga<sub>1-x</sub>As Layers with Different Al Compositions (x) Grown by MOVPE**

Perkitel I., Kekuel R., ALTUNTAŞ İ., GÜR E., DEMİR İ.

JOURNAL OF ELECTRONIC MATERIALS, vol.52, no.9, pp.6042-6051, 2023 (SCI-Expanded)

- III. **Structural, optical, and H<sub>2</sub> gas sensing analyses of Cr doped CuO thin films grown by ultrasonic spray pyrolysis**  
Güldüren M. E., İSKENDEROĞLU D., GÜNEY H., MORKOÇ KARADENİZ S., ACAR M., GÜR E.  
International Journal of Hydrogen Energy, vol.48, no.54, pp.20804-20814, 2023 (SCI-Expanded)
- IV. **Effect of growth pressure on sulfur content of RF-magnetron sputtered WS<sub>2</sub> films and thermal oxidation properties of them toward using Pd decorated WO<sub>3</sub> based H<sub>2</sub> gas sensor**  
Mobtakeri S., Habashyani S., ÇOBAN Ö., BUDAK H. F., KASAPOĞLU A. E., GÜR E.  
Sensors and Actuators B: Chemical, vol.381, 2023 (SCI-Expanded)
- V. **Investigation of the growth temperature effect on H-2 gas detection for ZnO thin films**  
Sag H. K., GÜR E., Ertug M.  
OPTICAL MATERIALS, vol.137, 2023 (SCI-Expanded)
- VI. **Comprehensive growth and characterization study of GeO<sub>x</sub>/Si**  
Baghdedi D., Hopoğlu H., SARITAŞ S., DEMİR İ., ALTUNTAŞ İ., Abdelmoula N., GÜR E., Tüzemen E. Ş.  
Journal of Molecular Structure, vol.1274, 2023 (SCI-Expanded)
- VII. **Experimental and theoretical insights on the structural and optical properties of GeO<sub>x</sub> thin films deposited via RF magnetron sputtering under varying oxygen percentage**  
ŞENADIM TÜZEMEN E., Hopoğlu H., SARITAŞ S., AYDINOĞLU H. S., ERTUĞRUL M., Maslov M., KAYA S., UNGAN F., GÜR E.  
Physica B: Condensed Matter, vol.650, 2023 (SCI-Expanded)
- VIII. **Investigating the influence of Ni doping on the CuO thin films deposited via ultrasonic spray pyrolysis: Structural, optical and H<sub>2</sub> gas sensing analyses**  
Güldüren M. E., İSKENDEROĞLU D., GÜNEY H., GÜR E., ACAR M., MORKOÇ KARADENİZ S.  
International Journal of Hydrogen Energy, vol.48, no.2, pp.828-839, 2023 (SCI-Expanded)
- IX. **In-situ controlled oxidation of sputtered WS<sub>2</sub> nano-walls for high-performance WO<sub>3</sub> electrochromic devices**  
Habashyani S., Mobtakeri S., GÜR E.  
Electrochimica Acta, vol.437, 2023 (SCI-Expanded)
- X. **Transfer-free, scalable vertical heterostructure FET on MoS<sub>2</sub>/WS<sub>2</sub> continuous films**  
ACAR M., ERTUĞRUL M., GÜR E.  
NANOTECHNOLOGY, vol.33, no.47, 2022 (SCI-Expanded)
- XI. **High optical response NiO, Pd/NiO and Pd/WO<sub>3</sub> hydrogen sensors**  
ÇOBAN Ö., Tekmen S., Gur E., TÜZEMEN S.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.47, no.60, pp.25454-25464, 2022 (SCI-Expanded)
- XII. **Highly Responsive Pd-Decorated MoO<sub>3</sub> Nanowall H-2 Gas Sensors Obtained from In-Situ-Controlled Thermal Oxidation of Sputtered MoS<sub>2</sub> Films**  
Mobtakeri S., Habashyani S., Gur E.  
ACS APPLIED MATERIALS & INTERFACES, vol.14, no.22, pp.25741-25752, 2022 (SCI-Expanded)
- XIII. **Efficient CdS quantum dot sensitized solar cells based on electrochemically reduced graphene oxide (ERGO)/ZnO nanowall photoanodes and MoS<sub>2</sub>, WS<sub>2</sub>, CuS cascaded counter electrodes**  
Eryigit M., Mobtakeri S., Gur E. P., Temur E., ÖZNLÜER ÖZER T., Demir U., GÜR E.  
SOLAR ENERGY, vol.234, pp.348-359, 2022 (SCI-Expanded)
- XIV. **Solution-Processable Growth and Characterization of Dandelion-like ZnO:B Microflower Structures**  
Erat S., Braun A., cetinkaya S., Yildirimcan S., KASAPOĞLU A. E., Guer E., Harputlu E., Ocakoglu K.  
CRYSTALS, vol.12, no.1, 2022 (SCI-Expanded)
- XV. **Ultra-conductive wires with cascaded carbon nanotube/Cu structure**  
Ozmen A., Mobtakeri S., Kocak Y., Akbaba U., ERTUĞRUL M., GÜR E.  
DIAMOND AND RELATED MATERIALS, vol.120, 2021 (SCI-Expanded)
- XVI. **Characterization of multilayer Al doping in ZnO**  
ŞENADIM TÜZEMEN E., Muglu G. M., ALAYDİN B. Ö., ALTUN D., KILIÇ ÇETİN S., GÜR E.

- JOURNAL OF THE AUSTRALIAN CERAMIC SOCIETY, vol.57, no.4, pp.1039-1047, 2021 (SCI-Expanded)
- XVII. **Production of novel carbon nanostructures by electrochemical reduction of polychlorinated organic rings under mild conditions for supercapacitors**  
Kudas Z., ÇEPNİ E., GÜR E., EKİNCİ D.  
NEW JOURNAL OF CHEMISTRY, vol.45, no.32, pp.14765-14778, 2021 (SCI-Expanded)
- XVIII. **The effect of the change in the amount of Sb doping in ZnO nanorods for hydrogen gas sensors**  
KASAPOĞLU A. E., Habashyani S., Baltakesmez A., İSKENDEROĞLU D., GÜR E.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.46, no.41, 2021 (SCI-Expanded)
- XIX. **Influence of the PALE growth temperature on quality of MOVPE grown AlN/Si (111)**  
ALTUNTAŞ İ., Kocak M. N., Yolcu G., BUDAK H. F., KASAPOĞLU A. E., Horoz S., GÜR E., DEMİR İ.  
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.127, 2021 (SCI-Expanded)
- XX. **Photoluminescence and structural properties of zirconium dioxide thin films produced by RF sputtering technique**  
Bakacak P. K., GÜR E., Bayram O., TÜZEMEN S., Simsek O.  
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.32, no.6, pp.7541-7549, 2021 (SCI-Expanded)
- XXI. **Platinum activated WO<sub>3</sub> optical hydrogen sensors**  
ÇOBAN Ö., GÜR E., TÜZEMEN S.  
MATERIALS TODAY : PROCEEDINGS, vol.46, pp.6913-6915, 2021 (SCI-Expanded)
- XXII. **Gallium oxide films deposition by RF magnetron sputtering; a detailed analysis on the effects of deposition pressure and sputtering power and annealing**  
Mobtakeri S., AKALTUN Y., ÖZER A., Kilic M., ŞENADIM TÜZEMEN E., GÜR E.  
CERAMICS INTERNATIONAL, vol.47, no.2, pp.1721-1727, 2021 (SCI-Expanded)
- XXIII. **Single-step, large-area, variable thickness sputtered WS<sub>2</sub> film-based field effect transistors**  
ACAR M., Mobtakeri S., EFEOĞLU H., ERTUĞRUL M., GÜR E.  
CERAMICS INTERNATIONAL, vol.46, no.17, pp.26854-26860, 2020 (SCI-Expanded)
- XXIV. **Influences of thickness and temperature of low temperature GaAs buffer layer on two-step MOVPE grown GaAs/Ge heterostructures**  
DEMİR İ., KASAPOĞLU A. E., BUDAK H. F., GÜR E., Elagoz S.  
EUROPEAN PHYSICAL JOURNAL-APPLIED PHYSICS, vol.90, no.2, 2020 (SCI-Expanded)
- XXV. **Growth Control of WS<sub>2</sub>: From 2D Layer by Layer to 3D Vertical Standing Nanowalls**  
Kocak Y., GÜR E.  
ACS APPLIED MATERIALS & INTERFACES, vol.12, no.13, pp.15785-15792, 2020 (SCI-Expanded)
- XXVI. **X-ray photoelectron spectroscopy (XPS) and gamma-ray shielding investigation of boro-silicate glasses contained alkali/alkaline modifier**  
Kaky K. M., ŞAKAR E., Akbaba U., KASAPOĞLU A. E., Sayyed M. I., GÜR E., Baki S. O., Mahdi M. A.  
RESULTS IN PHYSICS, vol.14, 2019 (SCI-Expanded)
- XXVII. **AlGaN/AlN MOVPE heteroepitaxy: pulsed co-doping SiH<sub>4</sub> and TMIn**  
DEMİR İ., Kocak Y., KASAPOĞLU A. E., Razeghi M., GÜR E., Elagoz S.  
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.34, no.7, 2019 (SCI-Expanded)
- XXVIII. **Single, co-doping and triple doping Fe element in the ZnO crystal matrices**  
FİDAN M., İSKENDEROĞLU D., Kocak Y., Benzait Z., GÜR E.  
MATERIALS RESEARCH EXPRESS, vol.6, no.4, 2019 (SCI-Expanded)
- XXIX. **Distributed contact flip chip InGaN/GaN blue LED; comparison with conventional LEDs**  
Genc M., Sheremet V., Elci M., KASAPOĞLU A. E., ALTUNTAŞ İ., DEMİR İ., Egin G., Islamoglu S., GÜR E., Muzafferoglu N., et al.  
SUPERLATTICES AND MICROSTRUCTURES, vol.128, pp.9-13, 2019 (SCI-Expanded)
- XXX. **Valance band properties of MgZnO thin films with increasing Mg content; phase separation effects**  
İSKENDEROĞLU D., Kasapoglu E., GÜR E.  
MATERIALS RESEARCH EXPRESS, vol.6, no.3, 2019 (SCI-Expanded)
- XXXI. **Formation of carbon nanowalls by pulsed filtered cathodic vacuum arc deposition**

- ŞENADİM TÜZEMEN E., Kilic M., Zeyrek B. K., KASAPÖĞLU A. E., GÜR E., ALAYDİN B. Ö., ESEN M., ESEN R.  
DIAMOND AND RELATED MATERIALS, vol.93, pp.200-207, 2019 (SCI-Expanded)
- XXXII. **Microstructural Evolution of MOVPE Grown GaN by the Carrier Gas**  
DEMİR İ., ALTUNTAŞ İ., KASAPÖĞLU A. E., Mobtakeri S., Guer E., Elagoz S.  
SEMICONDUCTORS, vol.52, no.16, pp.2030-2038, 2018 (SCI-Expanded)
- XXXIII. **Gamma and neutron irradiation effects on multi-walled carbon nanotubes**  
Akbara U., KASAPÖĞLU A. E., GÜR E.  
DIAMOND AND RELATED MATERIALS, vol.87, pp.242-247, 2018 (SCI-Expanded)
- XXXIV. **Synthesis of Graphene-like Films by Electrochemical Reduction of Polyhalogenated Aromatic Compounds and their Electrochemical Capacitor Applications**  
Kudas Z., GÜR E., EKİNCİ D.  
LANGMUIR, vol.34, no.27, pp.7958-7970, 2018 (SCI-Expanded)
- XXXV. **Stress evolution of Ge nanocrystals in dielectric matrices**  
Bahariqushchi R., Raciti R., Kasapoglu A. E., GÜR E., Sezen M., KALAY Y. E., Mirabella S., Aydinli A.  
NANOTECHNOLOGY, vol.29, no.18, 2018 (SCI-Expanded)
- XXXVI. **Oxygen partial pressure effects on the RF sputtered p-type NiO hydrogen gas sensors**  
TURGUT E., ÇOBAN Ö., SARITAŞ S., TÜZEMEN S., YILDIRIM M., GÜR E.  
APPLIED SURFACE SCIENCE, vol.435, pp.880-885, 2018 (SCI-Expanded)
- XXXVII. **Effects of gold nanoparticles on the growth of ZnO thin films and p-Si/ZnO heterostructures**  
Baltakesmez A., Yenisoy A., TÜZEMEN S., GÜR E.  
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.74, pp.249-254, 2018 (SCI-Expanded)
- XXXVIII. **Interfacial engineering of CuO nanorod/ZnO nanowire hybrid nanostructure photoanode in dye-sensitized solar cell**  
Kilic B., Turkdogan S., ASTAM A., Baran S. S., Asgin M., GÜR E., Kocak Y.  
JOURNAL OF NANOPARTICLE RESEARCH, vol.20, no.1, 2018 (SCI-Expanded)
- XXXIX. **The effects of two-stage HT-GaN growth with different V/III ratios during 3D-2D transition**  
ALTUNTAŞ İ., DEMİR İ., KASAPÖĞLU A. E., Mobtakeri S., GÜR E., Elagoz S.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.51, no.3, 2018 (SCI-Expanded)
- XL. **Synthesis and characterization of p-GaSe thin films and the analyses of I-V and C-V measurements of p-GaSe/p-Si heterojunction under electron irradiation**  
Demir K. C., AYDOĞAN Ş., GÜR E., Coskun C., Aygun Z.  
RADIATION EFFECTS AND DEFECTS IN SOLIDS, vol.172, no.7-8, pp.650-663, 2017 (SCI-Expanded)
- XLI. **Deep level defects in N-rich and In-rich In<sub>x</sub>Ga<sub>1-x</sub>N: in composition dependence**  
GÜR E., Akyol F., Krishnamoorthy S., Rajan S., Ringel S. A.  
SUPERLATTICES AND MICROSTRUCTURES, vol.99, pp.67-71, 2016 (SCI-Expanded)
- XLII. **Impurity-free quantum well intermixing for large optical cavity high-power laser diode structures**  
Kahraman A., GÜR E., Aydinli A.  
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.31, no.8, 2016 (SCI-Expanded)
- XLIII. **Band gap engineering and modifying surface of TiO<sub>2</sub> nanostructures by Fe<sub>2</sub>O<sub>3</sub> for enhanced-performance of dye sensitized solar cell**  
Kilic B., Gedik N., Mucur S. P., HERGÜL A. S., GÜR E.  
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.31, pp.363-371, 2015 (SCI-Expanded)
- XLIV. **Deep levels in a-plane, high Mg-content Mg<sub>x</sub>Zn<sub>1-x</sub>O epitaxial layers grown by molecular beam epitaxy**  
GÜR E., Tabares G., Arehart A., Chauveau J. M., Hierro A., Ringel S. A.  
JOURNAL OF APPLIED PHYSICS, vol.112, no.12, 2012 (SCI-Expanded)
- XLV. **Nanoporous ZnO Photoelectrode for Dye-Sensitized Solar Cell**  
Kilic B., GÜR E., TÜZEMEN S.  
JOURNAL OF NANOMATERIALS, vol.2012, 2012 (SCI-Expanded)
- XLVI. **Detailed characterization of deep level defects in InGaN Schottky diodes by optical and thermal deep level spectroscopies**

- GÜR E., Zhang Z., Krishnamoorthy S., Rajan S., Ringel S. A.  
APPLIED PHYSICS LETTERS, vol.99, no.9, 2011 (SCI-Expanded)
- XLVII. **N-Polar III-Nitride Green (540 nm) Light Emitting Diode**  
Akyol F., Nath D. N., GÜR E., Park P. S., Rajan S.  
JAPANESE JOURNAL OF APPLIED PHYSICS, vol.50, no.5, 2011 (SCI-Expanded)
- XLVIII. **Growth model for plasma-assisted molecular beam epitaxy of N-polar and Ga-polar In<sub>x</sub>Ga<sub>1-x</sub>N**  
Nath D. N., Guer E., Ringel S. A., Rajan S.  
JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B, vol.29, no.2, 2011 (SCI-Expanded)
- XLIX. **Molecular beam epitaxy of N-polar InGaN**  
Nath D. N., GÜR E., Ringel S. A., Rajan S.  
APPLIED PHYSICS LETTERS, vol.97, no.7, 2010 (SCI-Expanded)
- L. **Structural, optical, and electrical properties of n-ZnO/p-GaAs heterojunction**  
Tekmen 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)
- LI. **The effect of the electron irradiation on the series resistance of Au/Ni/6H-SiC and Au/Ni/4H-SiC Schottky contacts**  
Cinar K., Coskun C., AYDOĞAN Ş., Asil H., GÜR E.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.268, no.6, pp.616-621, 2010 (SCI-Expanded)
- LII. **Nanoporous structures on ZnO thin films**  
GÜR E., Kilic B., Coskun C., TÜZEMEN S., BAYRAKÇEKEN NİŞANCI F.  
SUPERLATTICES AND MICROSTRUCTURES, vol.47, no.1, pp.182-186, 2010 (SCI-Expanded)
- LIII. **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)
- LIV. **Oxygen effects on radiation hardness of ZnO thin films**  
GÜR E., Asil H., Cinar K., Coskun C., TÜZEMEN S., Meral K., ONGANER Y., ŞERİFOĞLU K.  
JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B, vol.27, no.5, pp.2232-2237, 2009 (SCI-Expanded)
- LV. **Electrochemical growth of n-ZnO onto the p-type GaN substrate: p-n heterojunction characteristics**  
Asil H., GÜR E., Cinar K., Coskun C.  
APPLIED PHYSICS LETTERS, vol.94, no.25, 2009 (SCI-Expanded)
- LVI. **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)
- LVII. **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)
- LVIII. **Radiation effects on ohmic and Schottky contacts based on 4H and 6H-SiC**  
Cinar K., Coskun C., Guer E., AYDOĞAN Ş.  
NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION B-BEAM INTERACTIONS WITH MATERIALS AND ATOMS, vol.267, no.1, pp.87-90, 2009 (SCI-Expanded)
- LIX. **Optical and structural comparison between nitrogen-doped and oxygen-rich ZnO thin films**  
GÜR E., TÜZEMEN S.  
PHILOSOPHICAL MAGAZINE, vol.89, no.12, pp.1081-1089, 2009 (SCI-Expanded)
- LX. **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)

- LXI. **Optical and structural properties of ZnO thin films; effects of high energy electron irradiation and annealing**  
GÜR E., Asil H., Coskun C., TÜZEMEN S., Meral K., ONGANER Y., ŞERİFOĞLU 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)
- LXII. **High energy electron irradiation effects on electrical properties of Au/n-ZnO Schottky diodes**  
Guer E., Coskun C., Tuezemen S.  
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.41, no.10, 2008 (SCI-Expanded)
- LXIII. **Principal issues in producing new ultraviolet light emitters based on transparent semiconductor zinc oxide**  
Tuzemen S., GÜR E.  
OPTICAL MATERIALS, vol.30, no.2, pp.292-310, 2007 (SCI-Expanded)
- LXIV. **High-temperature Schottky diode characteristics of bulk ZnO**  
GÜR E., Tuzemen S., Kilic B., Coskun C.  
JOURNAL OF PHYSICS-CONDENSED MATTER, vol.19, no.19, 2007 (SCI-Expanded)
- LXV. **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., GÜR E., Yildirim T., Xiong G., Williams R. T.  
JOURNAL OF APPLIED PHYSICS, vol.100, no.10, 2006 (SCI-Expanded)
- LXVI. **Wide-bandgap modification of polycrystalline ZnO using Sn component on the basis of developing quantum-well hetero-structure**  
Yildirim T., GÜR E., Tuzemen S., Bilgin V., Kose S., Atay F., AKYÜZ İ.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.27, pp.290-295, 2005 (SCI-Expanded)

## Articles Published in Other Journals

- I. **PHOTOCONDUCTIVITY OF GADOLINIUM-DOPED CARBON NANOTUBES**  
Mammadov A. G., Abaszade R. G., Babanli M. B., Kotsyubynsky V. O., GÜR E., Soltabayev B. D., Margitych T. O., Stetsenko M. O.  
International Journal on Technical and Physical Problems of Engineering, vol.15, no.3, pp.53-58, 2023 (Scopus)
- II. **Influence of gadolinium doping on structural properties of carbon nanotubes Вплив допування гадолінієм на структурні властивості вуглецевих нанотрубок**  
Abaszade R., Babanli M., Kotsyubynsky V., Mammadov A., GÜR E., Kapush O., Stetsenko M., Zapukhlyak R.  
Physics and Chemistry of Solid State, vol.24, no.1, pp.153-158, 2023 (ESCI)
- III. **Investigation of thermal properties of carbon nanotubes and carboxyl group-functionalized carbon nanotubes Дослідження теплових властивостей вуглецевих нанотрубок і карбоксильних груп – функціоналізованих вуглецевих нанотрубок**  
Abaszade R., Aliyev E., Babanli M., Kotsyubynsky V., Zapukhlyak R., Mammadov A., Budak H., Kasapoglu A., GÜR E., Margitych T., et al.  
Physics and Chemistry of Solid State, vol.24, no.3, pp.530-535, 2023 (ESCI)
- IV. **PHOTOCONDUCTIVITY OF CARBON NANOTUBES**  
Mammadov A., Abaszade R., Kotsyubynsky V., GÜR E., Bayramov I., Khanmamadova E., Kapush O.  
International Journal on Technical and Physical Problems of Engineering, vol.14, no.3, pp.155-160, 2022 (Scopus)
- V. **MODELING OF VOLTAGE-AMPERE CHARACTERISTIC STRUCTURES ON THE BASIS OF GRAPHENE OXIDE/SULFUR COMPOUNDS**  
Abaszade R., Mammadov A., Kotsyubynsky V., GÜR E., Bayramov I., Khanmamadova E., Kapush O.  
International Journal on Technical and Physical Problems of Engineering, vol.14, no.2, pp.302-306, 2022 (Scopus)
- VI. **Structural and Electrical Properties of the Sulfur-Doped Graphene Oxide/Graphite Oxide Nanocomposite**  
Abaszade R. G., Mamedov A. G., Bayramov I. Y., Khanmamadova E. A., Kotsyubynsky V. O., Kapush O. A., Boychuk V.

M., Gur E.

PHYSICS AND CHEMISTRY OF SOLID STATE, vol.23, no.2, pp.256-260, 2022 (ESCI)

VII. **ITO gas sensors for CO<sub>2</sub> and H<sub>2</sub> detection**

Işık S., ÇOBAN Ö., Shafai C., GÜR E.

Journal of Anatolian Physics and Astronomy, 2022 (Peer-Reviewed Journal)

VIII. **Fabrication and Analysis Of 2D/3D Heterojunction Between Continuous Few-layer WS<sub>2</sub> Film and Si (100)**

ACAR M., Mobtakeri S., ERTUĞRUL M., GÜR E.

Hittite Journal of Science and Engineering, vol.8, 2021 (Peer-Reviewed Journal)

IX. **Sputtered 2D transition metal dichalcogenides: from growth to device applications**

ACAR M., GÜR E.

TURKISH JOURNAL OF PHYSICS, vol.45, no.3, pp.131-147, 2021 (ESCI)

X. **Characterization of Gallium Oxide/glass thin films grown by RF magnetron sputtering**

Mobtakeri S., ŞENADIM TÜZEMEN E., ÖZER A., GÜR E.

CUMHURİYET SCIENCE JOURNAL, vol.41, no.4, pp.929-937, 2020 (Peer-Reviewed Journal)

XI. **Effective annealing of ZnO thin films grown by electrochemical deposition technique**

Coşkun C., GÜNEY H., GÜR E., TÜZEMEN S.

Turkish Journal of Physics, vol.33, no.1, pp.49-56, 2009 (ESCI)

## Refereed Congress / Symposium Publications in Proceedings

I. **Defects in III-V nitride materials and devices**

GÜR E.

4 International Symposium on Advanced Materials and Nanotechnology 2020 (iSAMN2020), Kuala-Lumpur, Malaysia, 1 - 03 December 2020

II. **PECVD grown SiN photonic crystal micro-domes for the light extraction enhancement of GaN LEDs**

Genç M., V S., ALTUNTAŞ İ., DEMİR İ., GÜR E., elagöz s., GÜLSEREN O., AYDINLI A., Özgür Ü., v a., et al.

GALLIUM NITRIDE MATERIALS AND DEVICES XV, San-Francisco, Costa Rica, 4 - 06 February 2020, vol.11280

III. **CZTS Growth for Solar Cell Application by Electrochemical Deposition: pH Effect**

GÜR E., SARITAŞ S., Demir E., Demir K. C., Coskun C.

2019 IEEE Regional Symposium on Micro and Nanoelectronics, RSM 2019, Genting Highland, Pahang, Malaysia, 21 - 23 August 2019, pp.123-125

IV. **Outstanding Optical and Electrical Hydrogen Gas Sensing Performance of WO<sub>3</sub> Nano-Walls**

GÜR E., Mobtakeri S., ÇOBAN Ö., Habashyani S.

2019 IEEE Regional Symposium on Micro and Nanoelectronics, RSM 2019, Genting Highland, Pahang, Malaysia, 21 - 23 August 2019, pp.50-52

V. **Growth and Characterization of InGaN Thin Films on Si (111) Substrate by RF Magnetron Sputtering: N-2 Gas Flow Effect**

ERDOĞAN E., KUNDAKÇI M., KASAPOĞLU A. E., GÜR E.

33rd International Physics Congress of the Turkish-Physical-Society (TPS), Bodrum, Turkey, 6 - 10 September 2017, vol.1935

VI. **Magnetron sputtered WS<sub>2</sub>; optical and structural analysis**

KOÇAK Y., Akaltun Y., Gur E.

International Physics Conference at the Anatolian Peak (IPCAP), Erzurum, Turkey, 25 - 27 February 2016, vol.707

VII. **Growth conditions effects on the H<sub>2</sub> and CO<sub>2</sub> gas sensing properties of Indium Tin Oxide**

Isik S., ÇOBAN Ö., Shafai C., TÜZEMEN S., GÜR E.

International Physics Conference at the Anatolian Peak (IPCAP), Erzurum, Turkey, 25 - 27 February 2016, vol.707

VIII. **Oxygen partial pressure effects on the magnetron sputtered WO<sub>3</sub> films**

Muglu G. M., Gur E.

International Physics Conference at the Anatolian Peak (IPCAP), Erzurum, Turkey, 25 - 27 February 2016, vol.707



**IX. Improved growth quality of the ZnO thin films on Au nano-particles/p-Si**

GÜR E., Baltakesmez A., TÜZEMEN S., Yenisoy A.

10th IEEE Regional Symposium on Micro and Nano Electronics, RSM 2015, Kuala-Terengganu, Malaysia, 19 - 21 August 2015

**X. Enhancement of free exciton peak intensity in reactively sputtered ZnO thin films on (0001) Al<sub>2</sub>O<sub>3</sub>**

Tuezemen S., Guer E., Yildirim T., Xiong G., Williams R. T.

6th International Conference of the Balkan-Physical-Union, İstanbul, Turkey, 22 - 26 August 2006, vol.899, pp.287-288

## Supported Projects

Gür E., Ertuğrul M., TUBITAK Project, Kuantum Çağlayan Lazerler, Aygıtlar Ve Uygulamaları (Kuantay), 2023 - 2027

Gür E., Gürbulak B., TUBITAK Project, 2B Inse, Gase Ve Mos<sub>2</sub> Katmanlı Yapıların Grafine Edilmiş Knt-Pamuk Üzerine Saçtırma İle Büyütülmesi Ve/Veya Yüklmesi İle Oluşturulan Kompozit Süperkapasitör Aygıtlar, 2023 - 2025

Gür E., Kavaz E., TUBITAK Project, Geçiş Metal Diselenidli Esnek Süperkapasitör Elektrotların Üretimi/Karakterizasyonu Ve Süperkapasitör Aygıt Tasarımı, 2023 - 2025

Gür E., Ceyhun S. B., TUBITAK Project, Floresan İşaretli Polistren Nanoplastik Parçacıkların Zebra Balığı Beynindeki Hücre İnteraksiyonunun ve Muhtemel Hasar Mekanizmalarının Tespiti, 2022 - 2025

Gür E., İskenderoğlu D., TUBITAK Project, Ms-Cvd Tekniği İle Platin Grubu 2b Dikalkojenlerin Büyütülmesi Ve Fotodedektör Fabrikasyonu Ve Testleri, 2022 - 2024

Gür E., Demir Ü., TUBITAK Project, Enerji ve Çevresel Uygulamalar İçin TiO<sub>2</sub> Fotokatalizörün Elektroedüktif Katkıları ile Görünür Bölgede Aktifleştirilmesi, 2022 - 2024

Gür E., Akyol F., TUBITAK Project, Ultra Geniş Bant Aralıklı Rutil-Geo<sub>2</sub> Tek Kristal Yapıların Düşük Basınçlı Kimyasal Buhar Biriktirme Yöntemiyle Büyütülmesi Ve Karakterizasyonu, 2022 - 2024

Gür E., TUBITAK Project, Dikey Nano-Duvar Yapılı MoS<sub>2</sub>'xxlerin MoO<sub>3</sub>'xxe Dönüştürülmesiyle Yüksek Performanslı Aygıt Uygulamaları, 2021 - 2024

Gür E., TUBITAK Project, Yüksek Performanslı Dikey Nano-Duvarlı Mos<sub>2</sub>-Moo<sub>3</sub> Tabanlı Hidrojen Gaz Sensörü Geliştirilmesi, 2021 - 2022

Gür E., Akyol F., TUBITAK Project,  $\beta$ -(Al<sub>x</sub>In<sub>y</sub>Ga(1-x-y))<sub>2</sub>O<sub>3</sub> tabakalarının düşük basınç kimyasal biriktirme (LPCVD) ile büyütülmesi ve aygıt uygulamalarının gerçekleştirilmesi, 2019 - 2022

Gür E., Demir İ., TUBITAK Project, Yüksek güç-frekans uygulamaları için MOCVD ile epitaksiyel AlN kristalinin büyütülmesi, katkılanması, karakterizasyonu ve aygıt üretimi, 2019 - 2021

Gür E., Genç R., TUBITAK Project, Flüoresans Karbon Nanoparçacıkların Üçüncü Nesil Perovskit Güneş Hücre Performansı Üzerindeki Etkilerinin İncelenmesi, 2017 - 2020

Gür E., Demir Ü., TUBITAK Project, Kuantum Parçacık Duyarlı Güneş Hücreleri için Yeni Nesil Nanokompozit Elektrotlar, 2017 - 2020

Gür E., Çınar Demir K., TUBITAK Project, Elektrokimyasal Büyütme Tekniği ile CZTS Tabanlı Güneş Pillerinin Oluşumu ve Karakterizasyonu, 2017 - 2020

Gür E., Ertuğrul M., TUBITAK Project, Karbon Nanomalzeme-Bakır Kompozit Yapıların Tellerin Akım Tasıma Kapasitelerinin Vellletkenliklerinin Araştırılması, 2016 - 2019

Gür E., Gülseren O., TUBITAK Project, Prototip LED Çip Geliştirilmesi, 2015 - 2019

Gür E., Coşkun C., TUBITAK Project, Geniş ve Direk Bant Aralıklı ZnO in Elektrokimyasal Yöntemle Tek Kristal Büyütülmesi Karakterizasyonu ve Mümkün Elektronik Uygulamalarının Araştırılması, 2010 - 2013

Gür E., Tüzemen S., TUBITAK Project, Geniş Bant Aralıklı Yarıiletkenlerden ZnO Aktif Tabakalı Morötesi LED ve Foto sensörlerin Geliştirilmesi, 2010 - 2013

## Activities in Scientific Journals

NanoEra, Editor, 2021 - Continues

JOURNAL OF ANATOLIAN PHYSICS AND ASTRONOMY, Editor, 2021 - Continues

TURKISH JOURNAL OF PHYSICS, Editor, 2021 - Continues

Gazi Üniversitesi Fen Fakültesi Dergisi , Editor, 2020 - Continues

## **Scientific Consultations**

SVT Associates, Scientific Consultancy, Atatürk Üniversitesi, Fen Fakültesi, Fizik, Turkey, 2021 - 2023

ERMAKSAN, Scientific Consultancy, Atatürk Üniversitesi, Fen Fakültesi, Fizik, Turkey, 2019 - 2021

## **Metrics**

Publication: 87

Citation (WoS): 892

Citation (Scopus): 969

H-Index (WoS): 18

H-Index (Scopus): 19

## **Entrepreneurship Activities**

Other, EMRE GÜR, 31 January 2022, Founder Owner