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Yönetilen Tezler

2023	Aydemir U., Yüksek Lisans, H.ÖZBEK(Öğrenci), Araçlarda yeni bir fiber optik merkezi aydınlatma sistemi kurgusu tasarımı ve analizi
2022	Aydemir U., Yüksek Lisans, S.GİZEM(Öğrenci), Su Altında Görünür Işık Haberleşmesi
2022	Aydemir U., Yüksek Lisans, S.LISKIN(Öğrenci), KIZİLÖTESİ IŞIK İLE İNVAZİV OLМАYAN KAN ŞEKERİÖLÇÜM SİSTEMİNİN GELİŞTİRİLMESİ
2021	Aydemir U., Yüksek Lisans, M.FATİH(Öğrenci), OTONOM ARAÇLAR İÇİN STATİK VE DİNAMİK LOGO PROJEKSİYON LAMBALARININ GELİŞTİRİLMESİ
2021	Aydemir U., Yüksek Lisans, T.Demirtaş(Öğrenci), İki Boyutlu GaSe Katkılı PVP İnce Film Tabanlı Fotodedektörlerin Üretilmesi ve İncelenmesi
2019	Aydemir U., Yüksek Lisans, M.DURMUŞ(Öğrenci), Elektron demet ile işlenmiş Alq3 arayüzey tabakalı metal/yarıiletken diyonların hazırlanması ve işnlamanın aygit performansına etkilerinin incelenmesi

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **Fabrication and Characterization of Printed Phototransistors Based on Monochalcogenide Inks**
Odaci C., Muehleisen W., AYDEMİR U., Roshanghias A.
ACS APPLIED ELECTRONIC MATERIALS, cilt.5, sa.4, ss.2007-2016, 2023 (SCI-Expanded)
- II. **ANN-based estimation of MEMS diaphragm response: An application for three leaf clover diaphragm based Fabry-Perot interferometer**
Yiğit E., Hayber Ş. E., Aydemir U.
Measurement: Journal of the International Measurement Confederation, cilt.199, 2022 (SCI-Expanded)
- III. **Enhanced photoresponse of PVP:GaSe nanocomposite thin film based photodetectors**
Demirtaş T., Odaci C., Aydemir U.
NANOTECHNOLOGY, cilt.33, sa.20, 2022 (SCI-Expanded)
- IV. **Design and simulation of a novel fungus-shaped center embossed diaphragm for fiber optic pressure sensors**
Hayber Ş. E., Aydemir U.
OPTICAL FIBER TECHNOLOGY, cilt.61, 2021 (SCI-Expanded)

- V. High-energy e-Beam-induced effects in Au/n-Si diodes with pre-irradiated PTCDA interfacial layer
AYDEMİR U.
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, cilt.31, sa.7, ss.5779-5788, 2020 (SCI-Expanded)
- VI. Tuning series resistance in Au/Alq3/n-Si diodes with high-energy e-Beam irradiation
AYDEMİR U., Durmus M.
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, cilt.31, sa.5, ss.4287-4293, 2020 (SCI-Expanded)
- VII. The Experimental Validation of Designed Fiber Optic Pressure Sensors With EPDM Diaphragm
Hayber Ş. E., Aydemir U., Tabaru T. E., Saracoğlu Ö. G.
IEEE SENSORS JOURNAL, cilt.19, sa.14, ss.5680-5685, 2019 (SCI-Expanded)
- VIII. Use of 2D In₂Se₃ Single Crystal as a Diaphragm Material for Fabry-Perot Fiber Optic Acoustic Sensors
Hayber Ş. E., Tabaru T. E., Aydemir U., Saracoğlu Ö. G.
JOURNAL OF NANOELECTRONICS AND OPTOELECTRONICS, cilt.14, sa.4, ss.464-469, 2019 (SCI-Expanded)
- IX. Dielectric and optical properties of CdS-polymer nanocomposites prepared by the successive ionic layer adsorption and reaction (SILAR) method
Azizian-Kalandaragh Y., Aydemir U., Altindal Ş.
Journal of Electronic Materials, cilt.43, sa.4, ss.1226-1231, 2014 (SCI-Expanded)
- X. A detailed comparative study on the main electrical parameters of Au/n-Si and Au/PVA:Zn/n-Si Schottky barrier diodes
AYDEMİR U., Tascioglu I., Altindal S., Uslu I.
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, cilt.16, sa.6, ss.1865-1872, 2013 (SCI-Expanded)
- XI. A detailed study on current-voltage characteristics of Au/n-GaAs in wide temperature range
Ozavci E., Demirezen S., AYDEMİR U., Altindal S.
SENSORS AND ACTUATORS A-PHYSICAL, cilt.194, ss.259-268, 2013 (SCI-Expanded)
- XII. Effect of series resistance and interface states on the I-V, C-V and G/omega-V characteristics in Au/Bi-doped polyvinyl alcohol (PVA)/n-Si Schottky barrier diodes at room temperature
Demirezen S., Sonmez Z., AYDEMİR U., Altindal S.
CURRENT APPLIED PHYSICS, cilt.12, sa.1, ss.266-272, 2012 (SCI-Expanded)
- XIII. Forward and reverse bias current-voltage characteristics of Au/n-Si Schottky barrier diodes with and without SnO₂ insulator layer
Gokcen M., Altindal S., Karaman M., AYDEMİR U.
PHYSICA B-CONDENSED MATTER, cilt.406, sa.21, ss.4119-4123, 2011 (SCI-Expanded)
- XIV. Epitaxial growth and electrical characterization of germanium
Bosi M., Attolini G., Ferrari C., Frigeri C., Calicchio M., Gombia E., Asar T., Boyali E., AYDEMİR U., Ozcelik S., et al.
CRYSTAL RESEARCH AND TECHNOLOGY, cilt.46, sa.8, ss.813-817, 2011 (SCI-Expanded)
- XV. Analysis of the forward and reverse bias I-V characteristics on Au/PVA: Zn/n-Si Schottky barrier diodes in the wide temperature range
Tascioglu I., AYDEMİR U., Altindal S., KINACI B., Ozcelik S.
JOURNAL OF APPLIED PHYSICS, cilt.109, sa.5, 2011 (SCI-Expanded)
- XVI. A comparative study on the electrical characteristics of Au/n-Si structures with anatase and rutile phase TiO₂ interfacial insulator layer
Bengi A., AYDEMİR U., Altindal S., Ozen Y., Ozcelik S.
JOURNAL OF ALLOYS AND COMPOUNDS, cilt.505, sa.2, ss.628-633, 2010 (SCI-Expanded)
- XVII. The explanation of barrier height inhomogeneities in Au/n-Si Schottky barrier diodes with organic thin interfacial layer
Tascioglu I., Aydemir U., Altindal S.
JOURNAL OF APPLIED PHYSICS, cilt.108, sa.6, 2010 (SCI-Expanded)
- XVIII. Temperature and voltage dependent current-transport mechanisms in GaAs/AlGaAs single-quantum-well lasers
Uslu H., Bengi A., Cetin S. S., AYDEMİR U., Altindal S., Aghaliyeva S. T., Ozcelik S.
JOURNAL OF ALLOYS AND COMPOUNDS, cilt.507, sa.1, ss.190-195, 2010 (SCI-Expanded)

- XIX. **The interface states and series resistance effects on the forward and reverse bias I-V, C-V and G/omega-V characteristics of Al-TiW-Pd2Si/n-Si Schottky barrier diodes**
 Uslu H., Altindal S., AYDEMİR U., Dokme I., Afandiyeva I. M.
 JOURNAL OF ALLOYS AND COMPOUNDS, cilt.503, sa.1, ss.96-102, 2010 (SCI-Expanded)
- XX. **Temperature-dependent profile of the surface states and series resistance in (Ni/Au)/AlGaN/AlN/GaN heterostructures**
 Tascioglu I., AYDEMİR U., Safak Y., Ozbay E.
 SURFACE AND INTERFACE ANALYSIS, cilt.42, ss.812-815, 2010 (SCI-Expanded)
- XXI. **Interface state density analyzing of Au/TiO₂(rutile)/n-Si Schottky barrier diode**
 Altuntas H., Bengi A., Asar T., AYDEMİR U., Sarikavak B., Ozen Y., Altindal S., Ozcelik S.
 SURFACE AND INTERFACE ANALYSIS, cilt.42, ss.1257-1260, 2010 (SCI-Expanded)
- XXII. **The effects of series resistance on the forward bias I-V characteristics in Au/Bi₄Ti₃O₁₂/SnO₂ (MFM) structures**
 Tataroglu A., Altindal S., AYDEMİR U., Uslu H.
 OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, cilt.4, sa.5, ss.616-619, 2010 (SCI-Expanded)
- XXIII. **The distribution of barrier heights in Au/n-Si Schottky barrier diodes from I-V-T measurements**
 Durmus P., Cuha B., Altindal S., AYDEMİR U.
 OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, cilt.4, sa.4, ss.579-583, 2010 (SCI-Expanded)
- XXIV. **Electrical characterization of current conduction in Au/TiO₂/n-Si at wide temperature range**
 Altuntas H., Bengi A., AYDEMİR U., Asar T., Cetin S. S., Kars I., Altindal S., Ozcelik S.
 MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, cilt.12, sa.6, ss.224-232, 2009 (SCI-Expanded)

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. **Fully Printed GaTe Based Photodetector on PET Substrate**
 ODACI C., Khan M. S., Corzo D., Jose M., Roshanghias A., AYDEMİR U.
 2023 Conference on Lasers and Electro-Optics Europe & European Quantum Electronics Conference, Munich, Almanya, 26 Haziran 2023
- II. **GaSe-Based Fiber Optic Sensor for Human Health Monitoring**
 ODACI C., Khan M. S., Corzo D., Jose M., Roshanghias A., AYDEMİR U.
 2023 Conference on Lasers and Electro-Optics Europe & European Quantum Electronics Conference, Munich, Almanya, 26 Haziran 2023
- III. **The sensitivity improvement via TiInS₂ chalcogen flake-based PVP nanocomposite thin films for Silicon photodiodes**
 UÇMAN Y. K., ÇETİNKAYA H. G., AYDEMİR U.
 2nd International Conference on Innovative Academic Studies, Konya, Türkiye, 28 - 31 Ocak 2023
- IV. **A Novel Fiber Optical Central Lighting System For Today and Futures Vehicles**
 Ozbek H., Aydemir U.
 2022 International Conference on INnovations in Intelligent SysTems and Applications (INISTA), Aquitaine, Fransa, 8 - 12 Ağustos 2022, ss.1-4
- V. **Support Vector Regression Method for Deflection and Frequency Analysis of Center Embossed Diaphragms**
 Durmaz A., AYDEMİR U., HAYBER Ş. E., YİĞİT E.
 1st International Conference on Applied Engineering and Natural Sciences, Konya, Türkiye, 10 Mayıs 2022
- VI. **Machine Learning-Based Estimation of Static and Dynamic Pressure Responses of Specially Designed Diaphragm Based Fabry-Perot Interferometer**
 YİĞİT E., HAYBER Ş. E., AYDEMİR U., ÖZKAYA U.
 1st International Conference on Engineering and Applied Natural Sciences, Konya, Türkiye, 10 Mayıs 2022

- VII. **A Thematic Review of the Present Photonic Education**
YALÇIN H. A., ÇEPNİ S., AYDEMİR U.
Education and Training in Optics and Photonics, Washington, Kiribati, 08 Eylül 2021
- VIII. **A Thematic Review of the Present Photonic Education**
Yalçın H. A., Çepni S., Aydemir U.
Education and Training in Optics and Photonics (ETOP), Washington, Amerika Birleşik Devletleri, 8 - 10 Eylül 2021, ss.4-5
- IX. **A Thematic Review of the Present Photonics Education**
Yalçın H. A., Çepni S., Aydemir U.
The Education and Training in Optics and Photonics Conference (ETOP), 8 - 10 Eylül 2021, ss.1-5
- X. **2D Materials/Ag Nanoparticles Coated Surface Plasmon Resonance Based U-shaped Fiber Optic Sensors for Bio-sensing Applications**
ODACI C., AYDEMİR U.
2nd International Summit on Optics, Photonics and Laser Technologies, Amerika Birleşik Devletleri, 29 Haziran 2021
- XI. **Photoelectric Characteristic of the Silicon Photodiode with BCP Interfacial Layer**
DEMİRTAŞ T., ODACI C., AYDEMİR U.
6TH INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES, Belgrade, Sırbistan, 21 Ekim 2020
- XII. **The investigation of Au/n-Si Schottky diodes with Alq₃ organic interfacial layer: The effect of electron beam irradiation**
Durmuş M., AYDEMİR U.
IV. INSAC Natural and Engineering Sciences Congress, Konya, Türkiye, 11 - 13 Ekim 2019, ss.14-15
- XIII. **A New Diaphragm Material for Fiber Optic Fabry-Perot AcousticSensors with 2D GaSe**
HAYBER Ş. E., TABARU T. E., AYDEMİR U., SARAÇOĞLU Ö. G.
IV. INTERNATIONAL MULTIDISCIPLINARY CONGRESS OF EURASIA (IV-IMCOFE), ROMA, İtalya, 23 - 25 Ağustos 2017, ss.482
- XIV. **Au/n-Si Schottky Diodes with Electron Beam Irradiated PTCDA Interfacial Layer**
AYDEMİR U.
IV. International Multidisciplinary Congress of Eurasia (IMCOFE 17), ROMA, İtalya, 23 - 25 Ağustos 2017, ss.534
- XV. **Using of 2D In₂Se₃ Single Crystal for Fabry-Perot Fiber Optic Acoustic Sensors as a Diaphragm Material**
HAYBER Ş. E., TABARU T. E., AYDEMİR U., SARAÇOĞLU Ö. G.
4th INTERNATIONAL CONFERENCE ON COMPUTATIONAL AND EXPERIMENTAL SCIENCE AND ENGINEERING (ICCESEN-2017), Antalya, Türkiye, 4 - 08 Ekim 2017, ss.462
- XVI. **Illumination Dependent Admittance Characteristics of Au/Zinc Acetate Doped Polyvinyl Alcohol (PVA:Zn)/n-Si Schottky Barrier Diodes (SBDs)**
Tascioğlu I., AYDEMİR U., Altindal S., Tunc T.
1st International Congress on Advances in Applied Physics and Materials Science (APMAS), Antalya, Türkiye, 12 - 15 Mayıs 2011, cilt.1400, ss.307-311
- XVII. **Admittance Spectroscopy Characteristics of Au/PVA/n-Si Schottky Barrier Diodes under Various Illumination Intensities**
AYDEMİR U., TAŞÇIOĞLU İ., ALTINDAL Ş.
TURKISH PHYSICAL SOCIETY 27TH INTERNATIONAL CONGRESS, 14 - 17 Eylül 2010
- XVIII. **Illumination Effect on the main electrical parameters of Schottky Barrier Diodes with organic interfacial alyer**
TAŞÇIOĞLU İ., AYDEMİR U., ALTINDAL Ş.
TURKISH PHYSICAL SOCIETY 27TH INTERNATIONAL CONGRESS, 14 - 17 Eylül 2010
- XIX. **The C-V-f and G/w-V-f Characteristics of Au/SrTiO₃/n-Si Schottky Barrier Diodes (SBDs) with Interfacial Layer**
AYDEMİR U., TAŞÇIOĞLU İ., ASAR T., Mamedova V. J., Mammadov T.

- International Conference "Physics-2010", Baku, Azerbaijan, 30 Haziran - 02 Temmuz 2010, cilt.16, ss.223-224
- XX. The investigation of hysteresis properties on metal-ferroelectric-semiconductor structures by using capacitance-voltage (C-V) measurements
AYDEMİR U., ALTINDAL Ş.
INTERNATIONAL CONFERENCE ON SUPERCONDUCTIVITY AND MAGNETISM (ICSM-2010), 25 - 30 Nisan 2010
- XXI. Interface states density analyzing of Au/TiO₂(Rutile)/n-Si Schottky barrier diodes
ALTUNTAŞ H., Bengi A., ASAR T., AYDEMİR U., LİŞESİVDİN B., ÖZEN Y., ALTINDAL Ş., ÖZCELİK S.
13 th European Conference on Applications of Surface and interface Analysis (ECASIA "19), 18 - 23 Ekim 2009
- XXII. Deep Level Transient Spectroscopy of Au/SrTiO₃/n-Si Structures
AYDEMİR U., ŞAFAK ASAR Y., ALTINDAL Ş.
TURKISH PHYSICAL SOCIETY 26TH INTERNATIONAL CONGRESS, 24 - 27 Eylül 2009
- XXIII. Temperature Dependent profile of the surface states and series resistance in (Ni/Au)/AlGaN/AlN/GaN heterostructures
TAŞÇIOĞLU İ., AYDEMİR U., ŞAFAK ASAR Y., ÖZBAY E.
13 th European Conference on Applications of Surface and interface Analysis (ECASIA "19), 18 - 23 Ekim 2009
- XXIV. ON THE FREQUENCY AND VOLTAGE DEPENDENT INTERFACE STATES AND SERIES RESISTANCE IN Au/SrTiO₃/n-Si STRUCTURES
AYDEMİR U., ŞAFAK ASAR Y., MAMMADOV T., ALTINDAL Ş.
TURKISH PHYSICAL SOCIETY 25TH INTERNATIONAL PHYSICAL CONGRESS, 25 - 29 Ağustos 2008

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