

Assoc. Prof. DURMUŞ ALİ ALDEMİR

Personal Information

Office Phone: [+90 246 211 4045](tel:+902462114045)

Fax Phone: [+90 246 211 4399](tel:+902462114399)

Email: durmusaldemir@sdu.edu.tr

Web: <https://avesis.sdu.edu.tr/durmusaldemir>

Education Information

Doctorate, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Fizik, Turkey Continues

Postgraduate, Suleyman Demirel University, Fen Bilimleri Enstitüsü, --, Turkey Continues

Undergraduate, Suleyman Demirel University, Fen-Edebiyat Fakültesi, Fizik, Turkey Continues

Research Areas

Physics, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Natural Sciences

Academic Titles / Tasks

Assistant Professor, Suleyman Demirel University, Fen Edebiyat Fakültesi, Fizik Bölümü, 2021 - Continues

Research Assistant, Suleyman Demirel University, Fen Bilimleri Enstitüsü, Fizik Anabilim Dalı, 2006 - 2010

Courses

Fizik Laboratuvarı II, Undergraduate, 2017 - 2018

Fizikte Özel Konular, Undergraduate, 2017 - 2018

Fizik Laboratuvarı I, Undergraduate, 2017 - 2018

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **The response of high barrier Schottky diodes to light illumination**
Lapa H. E., KÖKCE A., ALDEMİR D. A., ÖZDEMİR A. F.
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, 2021 (Journal Indexed in SCI)
- II. **Effect of illumination on electrical parameters of Au/(P3DMTFT)/n-GaAs Schottky barrier diodes**
Lapa H. E., KÖKCE A., ALDEMİR D. A., ÖZDEMİR A. F., ALTINDAL Ş.
INDIAN JOURNAL OF PHYSICS, vol.94, no.12, pp.1901-1908, 2020 (Journal Indexed in SCI)
- III. **Photodiode based on Al-doped SnO₂: Fabrication, current-voltage and capacitance-conductance-voltage measurements**
ALDEMİR D. A., Benhaliliba M., Benouis C. E.
OPTIK, vol.222, 2020 (Journal Indexed in SCI)
- IV. **The interfacial properties of Au/n-4H-SiC structure with (Zn-doped PVA) interfacial layer**
Lapa H. E., KÖKCE A., ALDEMİR D. A., ÖZDEMİR A. F., ALTINDAL Ş.
PHYSICA SCRIPTA, vol.95, no.11, 2020 (Journal Indexed in SCI)

- V. **The origin of anomalous peak and negative capacitance on dielectric behavior in the accumulation region in Au/(0.07 Zn-doped polyvinyl alcohol)/n-4H-SiC metal-polymer-semiconductor structures/diodes studied by temperature-dependent impedance measurements**
Al-Dharob M. H. , KÖKCE A., ALDEMİR D. A. , ÖZDEMİR A. F. , Altındal S.
JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS, vol.144, 2020 (Journal Indexed in SCI)
- VI. **Electrical and photoelectric properties of Yb/CIGS thin film Schottky photodiode**
Aldemir D. A. , Kaleli M., Yavru A. C.
SENSORS AND ACTUATORS A-PHYSICAL, vol.311, 2020 (Journal Indexed in SCI)
- VII. **The evaluation of the current-voltage and capacitance-voltage-frequency measurements of Yb/p-Si Schottky diodes with a high zero-bias barrier height**
Lapa H. E. , Guclu C. S. , ALDEMİR D. A. , ÖZDEMİR A. F.
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.126, no.6, 2020 (Journal Indexed in SCI)
- VIII. **Analysis of current-voltage and capacitance-voltage characteristics of Zr/p-Si Schottky diode with high series resistance**
ALDEMİR D. A.
MODERN PHYSICS LETTERS B, vol.34, no.10, 2020 (Journal Indexed in SCI)
- IX. **The Effects of Thermal Neutron Irradiation on Current-Voltage and Capacitance-Voltage Characteristics of Au/n-Si/Ag Schottky Barrier Diodes**
ALDEMİR D. A. , ALDEMİR R., KÖKCE A., Duman S., ÖZDEMİR A. F.
SILICON, vol.11, no.6, pp.2647-2657, 2019 (Journal Indexed in SCI)
- X. **The presence of C/omega-V and G/omega-V peaks profile of Ag/SnO2/n-Si/Au MOS junction for capacitor applications**
BENHALİLİBA M., Benouis C. E. , ALDEMİR D. A.
PHYSICA B-CONDENSED MATTER, vol.572, pp.175-183, 2019 (Journal Indexed in SCI)
- XI. **Structural, morphological and optical properties of Yb2Cu2O5 thin films**
ALDEMİR D. A.
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.30, no.21, pp.19457-19462, 2019 (Journal Indexed in SCI)
- XII. **The investigation of current-conduction mechanisms (CCMs) in Au/(0.07Zn-PVA)/n-4H-SiC (MPS) Schottky diodes (SDs) by using (I-V-T) measurements**
Al-Dharob M. H. , Lapa H. E. , KÖKCE A., ÖZDEMİR A. F. , ALDEMİR D. A. , Altındal S.
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.85, pp.98-105, 2018 (Journal Indexed in SCI)
- XIII. **Temperature effects on the electrical characteristics of Al/PTh-SiO2/p-Si structure**
ALDEMİR D. A. , KÖKCE A., ÖZDEMİR A. F.
BULLETIN OF MATERIALS SCIENCE, vol.40, no.7, pp.1435-1439, 2017 (Journal Indexed in SCI)
- XIV. **Effect of Layer Thickness on I-V Characteristics of GaInP Nanofibers Fabricated by Electrospinning on n-Si Substrates**
Bezir N., Evcin A., OKCU H., KAYALI R., KALELİ M., ALDEMİR D. A.
ACTA PHYSICA POLONICA A, vol.132, no.3, pp.638-641, 2017 (Journal Indexed in SCI)
- XV. **Electric and photoelectric properties of n-AgInSe2/p-Si heterojunction diode fabricated by successive layer deposition**
KALELİ M., ALDEMİR D. A. , PARLAK M.
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.123, no.9, 2017 (Journal Indexed in SCI)
- XVI. **The analysis of hydrostatic pressure dependence of the Au/native oxide layer/n-GaAs/Au-Ge Schottky diode parameters**
ÖZDEMİR A. F. , OZSOY T., KANSIZ Y., SANCAK M., KÖKCE A., UÇAR N., ALDEMİR D. A.
EUROPEAN PHYSICAL JOURNAL-APPLIED PHYSICS, vol.60, no.1, 2012 (Journal Indexed in SCI)
- XVII. **Temperature dependent ideality factor and barrier height of Ni/n-GaAs/In Schottky diodes**
ALDEMİR D. A. , KÖKCE A., ÖZDEMİR A. F.
MICROELECTRONIC ENGINEERING, vol.98, pp.6-11, 2012 (Journal Indexed in SCI)
- XVIII. **Time Dependence of Current-Voltage Characteristics of Pb/p-Si Schottky Diode under Hydrostatic**

Pressure

UÇAR N., Özdemir A. F., ALDEMİR D. A., Cankaya G.

ZEITSCHRIFT FÜR NATURFORSCHUNG SECTION A-A JOURNAL OF PHYSICAL SCIENCES, vol.66, pp.576-580, 2011
(Journal Indexed in SCI)

- XIX. **Analysis of current-voltage and capacitance-voltage-frequency characteristics in Al/p-Si Schottky diode with the polythiophene-SiO₂ nanocomposite interfacial layer**
ALDEMİR D. A., Esen M., KÖKCE A., KARATAS S., ÖZDEMİR A. F.
THIN SOLID FILMS, vol.519, no.18, pp.6004-6009, 2011 (Journal Indexed in SCI)
- XX. **Electrical and optical properties of p-type silicon based on polypyrrole-derivative polymer**
ÖZDEMİR A. F., AYDIN S. G., ALDEMİR D. A., Sen GURSOY S.
SYNTHETIC METALS, vol.161, pp.692-697, 2011 (Journal Indexed in SCI)
- XXI. **Neutron irradiation effects on I-V characteristics of Au/n-GaAs Schottky diodes**
AKKURT İ., AKYILDIRIM H., ÖZDEMİR A. F., ALDEMİR D. A.
RADIATION MEASUREMENTS, vol.45, no.10, pp.1381-1383, 2010 (Journal Indexed in SCI)
- XXII. **The effect of hydrostatic pressure on the electrical characterization of Au/n-InP Schottky diodes**
UÇAR N., ÖZDEMİR A. F., ALDEMİR D. A., ÇAKMAK S., CALIK A., YILDIZ H., Cimilli F.
SUPERLATTICES AND MICROSTRUCTURES, vol.47, no.5, pp.586-591, 2010 (Journal Indexed in SCI)
- XXIII. **Electrical properties of Al/conducting polymer (P2ClAn)/p-Si/Al contacts**
ÖZDEMİR A. F., ALDEMİR D. A., KÖKCE A., Altındal S.
SYNTHETIC METALS, vol.159, no.14, pp.1427-1432, 2009 (Journal Indexed in SCI)
- XXIV. **The effects of the temperature on I-V and C-V characteristics of Al/P2ClAn(C₂H₅COOH)/p-Si/Al structure**
Özdemir A. F., KOTAN Z., ALDEMİR D. A., Altındal S.
EUROPEAN PHYSICAL JOURNAL-APPLIED PHYSICS, vol.46, no.2, 2009 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Ultrasonik Sprey Piroiliz Yöntemi ile Üretilen Güneş Soğurucu CH₃NH₃PbI₃-xCl_x Perovskit Yapısının Optik, Morfolojik ve Yapısal Özelliklerinin İncelenmesi**
AKYÜREKLİ S., KALELİ M., KOÇ M., ALDEMİR D. A.
Süleyman Demirel Üniversitesi Fen Edebiyat Fakültesi Fen Dergisi, vol.15, no.2, pp.253-263, 2020 (Other Refereed National Journals)
- II. **Doğal Oksit Arayüzey Tabakalı Zr/p-Si Schottky Diyotlarının Yüksek Frekanslarda Kapasite-Gerilim ve İletkenlik-Gerilim Karakteristiklerinin Analizi**
ALDEMİR D. A., LAPA H. E., ÖZDEMİR A. F., UÇAR N.
Bitlis Eren Üniversitesi Fen Bilimleri Dergisi, vol.9, no.3, pp.1024-1030, 2020 (Other Refereed National Journals)
- III. **Ultrasonik Sprey Piroiliz ile Üretilen Flor Katkılı Kalay Oksit İnce Filmlerin Yapısal, Morfolojik, Optiksel ve Elektriksel Analizleri**
KALELİ M., ALDEMİR D. A., BAYRAM A. B., YAVRU C. A.
Düzce Üniversitesi Bilim ve Teknoloji Dergisi, vol.7, no.3, pp.2107-2115, 2019 (Other Refereed National Journals)
- IV. **Mo/n-Si Schottky Diyotların Akım-Voltaj ve Kapasite-Voltaj Karakteristiklerinin Analizi**
GÜÇLÜ Ç. Ş., ÖZDEMİR A. F., ALDEMİR D. A.
Düzce Üniversitesi Bilim ve Teknoloji Dergisi, vol.7, no.3, pp.2142-2155, 2019 (Refereed Journals of Other Institutions)
- V. **n-AgInSe₂/p-Si Heteroeklem Diyodunun Sıcaklığa Bağlı Akım-Gerilim Karakteristikleri**
ALDEMİR D. A., KALELİ M.
Süleyman Demirel Üniversitesi Fen Edebiyat Fakültesi Fen Dergisi, vol.13, no.2, pp.18-24, 2018 (Other Refereed National Journals)
- VI. **Schottky diyot parametrelerini belirlemede kullanılan metotların geniş bir sıcaklık aralığı için kıyaslanması**

Refereed Congress / Symposium Publications in Proceedings

- I. **The Reverse Bias Current- Voltage-Temperature (I-V-T) Characteristics of the (Au/Ti)/Al₂O₃/n-GaAs Schottky Barrier Diodes (SBDs) in Temperature Range of 80-380K**
GÜÇLÜ Ç. Ş. , ÖZDEMİR A. F. , ALDEMİR D. A.
6th International conference on materials science and nanotechnology for next generation (MSNG2019), 16 - 18 October 2019, pp.111
- II. **The Illumination Effects on nearly Ideal Yb/p-Si Schottky Diodes with a High Zero-Bias Barrier Height**
LAPA H. E. , KÖKCE A., ALDEMİR D. A. , ÖZDEMİR A. F.
6th International conference on materials science and nanotechnology for next generation (MSNG2019), 16 - 18 October 2019, pp.111
- III. **The Analysis of Capacitance-Voltage and Conductance voltage Characteristics of Zr/p-Si Schottky Diodes with a Native Oxide Interfacial Layer at High Frequencies**
ALDEMİR D. A. , ÖZDEMİR A. F. , UÇAR N.
International Natural Science, Engineering and Materials Technology Conference (NEM 2019), 9 - 10 September 2019, pp.87
- IV. **Uv-Visible study of Yb₂Cu₂O₅ thin film grown by thermal oxidation of Yb/Cu layers**
ALDEMİR D. A. , ÖZDEMİR A. F.
2nd International Congress on Semiconductor materials and Devices, 28 - 30 August 2018, pp.110
- V. **Annealing Effects on Current-Voltage Characteristics of Yb/p-Si Schottky Diodes**
ALDEMİR D. A.
Turkish Physical Society 34th International Physics Congress, Bodrum/Muğla, Turkey, 5 - 09 September 2018, pp.264
- VI. **Analysis of Current-Voltage and Capacitance-Voltage Characteristics of Mo/n-Si Schottky Diodes**
GÜÇLÜ Ç. Ş. , ÖZDEMİR A. F. , ALDEMİR D. A.
5th International conference on materials science and nanotechnology for next generation (MSNG2018), 4 - 06 October 2018, pp.130
- VII. **The current-voltage and capacitance-voltage characteristics of Gd/p-Si Schottky diodes, Turkish Physical Society 33rd International Physics Congress, Bodrum/TURKEY, September 6-10 2017, Abstract Book p. 348.**
ALDEMİR D. A. , ÖZDEMİR A. F. , KÖKCE A.
Turkish Physical Society 33rd International Physics Congress, 6 - 10 September 2017, pp.348
- VIII. **The current-voltage and capacitance-voltage characteristics of Gd/p-Si Schottky diodes**
ALDEMİR D. A. , ÖZDEMİR A. F. , KÖKCE A.
Turkish Physical Society 33rd International Physics Congress, Bodrum/TURKEY, Muğla, Turkey, 6 - 10 September 2017, vol.1, no.1, pp.348
- IX. **Al/CIGS/Mo SCHOTTKY DİYOTLARININ ELEKTRİKSEL KARAKTERİZASYONU**
ALDEMİR D. A. , Alsaedi S., KALELİ M., Yavru C. A. , KOÇ M., Akyurekli S.
ADIM FİZİK GÜNLERİ VI, Balıkesir, Turkey, 19 - 21 July 2017, pp.71
- X. **Al/CIGS/Mo Schottky Diyotlarının Elektriksel Karakterizasyonu, ADIM FİZİK GÜNLERİ VI, Balıkesir Üniversitesi, Fen-Edebiyat Fakültesi, Fizik Bölümü, 19 - 21 TEMMUZ 2017, BALIKESİR / TÜRKİYE, Özet Kitapçığı s. 71.**
ALDEMİR D. A. , ALSAEDİ S., KALELİ M., YAVRU C. A. , KOÇ M., AKYÜREKLİ S.
ADIM FİZİK GÜNLERİ VI, Turkey, 19 - 21 July 2017
- XI. **Characterization of GaInP Nanofibers Prepared by Electrospinning Process**
ÇİÇEK BEZİR N., EVCİN A., OKÇU H., KAYALI R., KALELİ M., ALDEMİR D. A.

iccesen 2016, 19 - 24 October 2016

- XII. **Investigation of Capacitance-Voltage Characteristics of Au/Conductive Ploymer (P3DMTFT)/n-GaAs Schottky Diode**
Kansız Y., KÖKCE A., ALDEMİR D. A. , ALTINDAL Ş., ÖZDEMİR A. F.
ADIM FİZİK GÜNLERİ III, Süleyman Demirel Üniversitesi, Fen-Edebiyat Fakültesi Fizik Bölümü, Isparta, Turkey, 17 - 18 April 2014, vol.1, no.1, pp.172
- XIII. **The Effects of Illumination on Capacitance-Voltage Characteristics of Au/Conducting Polymer (P3DMTFT)/n-GaAs Schottky Diodes**
LAPA H. E. , KÖKCE A., ALDEMİR D. A. , ALTINDAL Ş., ÖZDEMİR A. F.
ADIM FİZİK GÜNLERİ III, Süleyman Demirel Üniversitesi, Fen-Edebiyat Fakültesi Fizik Bölümü, Isparta, Turkey, 17 - 18 April 2014, vol.1, no.1, pp.162
- XIV. **Investigation of current-voltage-temperature characteristics in Al/p-SiSchottky diode with the polythiophene SiO₂ nanocomposite interfacial layer**
ALDEMİR D. A. , KÖKCE A., ÖZDEMİR A. F.
International Semiconductor Science and Technology Conference (ISSTC-2014), 13 - 15 January 2014, pp.99
- XV. **D. A. Aldemir, A. Kökce, A. F. Özdemir, Investigation of current-voltage-temperature characteristics in Al/p-SiSchottky diode with the polythiophene SiO₂ nanocomposite interfacial layer**
ALDEMİR D. A. , KÖKCE A., ÖZDEMİR A. F.
International Semiconductor Science and Technology Conference, Istanbul, Turkey, January 13-15 2014, ISSTC-2014, İstanbul, Turkey, 13 - 14 January 2014, pp.98
- XVI. **Analysis of electrical and photovoltaic characteristics of Au/ poly (3-substituted thiophene) (P3DMTFT) / n-GaAs Schottky diode**
LAPA H. E. , KÖKCE A., ALDEMİR D. A. , Sevgili Ö., ÖZDEMİR A. F.
Türk Fizik Derneği 30. Uluslararası Fizik Kongresi, İstanbul/Türkiye, Abstract Book p. 527., İstanbul, Turkey, 2 - 05 September 2013, vol.1, no.1, pp.527
- XVII. **Analysis of current-voltage (I-V) characteristics in Au/ poly (3-substituted thiophene) (P3DMTFT) / n-GaAs Schottky diodes, 05 -08 Eylül 2012, Türk Fizik Derneği 29. Uluslararası Fizik Kongresi.**
KÖKCE A., LAPA H. E. , ALDEMİR D. A. , ÖZDEMİR A. F.
05 -08 Eylül 2012, Türk Fizik Derneği 29. Uluslararası Fizik Kongresi, Muğla, Turkey, 5 - 08 September 2012, vol.1, no.1, pp.605
- XVIII. **Analysis of current-voltage (I-V) characteristics in Au/ poly (3-substituted thiophene) (P3DMTFT) / n-GaAs Schottky diodes**
KÖKCE A., LAPA H. E. , ALDEMİR D. A. , ÖZDEMİR A. F.
Türk Fizik Derneği 29. Uluslararası Fizik Kongresi, 5 - 08 September 2012, pp.605
- XIX. **The comparison of important contact parameters of Ni/n-GaAs/In Schottky diodes obtained by different methods**
ALDEMİR D. A. , KÖKCE A., ÖZDEMİR A. F.
Türk Fizik Derneği 28. Uluslararası Fizik Kongresi, Bodrum, Muğla, Turkey, 6 - 09 September 2011, vol.1, no.1, pp.655
- XX. **The analysis of hydrostatic pressure dependence of Au/n-GaAs/Au-Ge Schottky diode parameters with different methods**
ÖZDEMİR A. F. , UÇAR N., ALDEMİR D. A. , KANSIZ Y., ÖZSOY T., SANCAK M.
Türk Fizik Derneği 28. Uluslararası Fizik Kongresi, 6 - 09 September 2011, pp.743
- XXI. **Neutron irradiation effects on I- V characteristics of Au/n-GaAs Schottky diodes**
AKKURT İ., AKYILDIRIM H., ÖZDEMİR A. F. , ALDEMİR D. A.
11th Neutron and Ion Dosimetry Symposium (NEUDOS-11), 12 - 16 October 2009, pp.25
- XXII. **Radiation hazards on electrical properties of Schottky diodes**
AKYILDIRIM H., ALDEMİR D. A. , GÜNOĞLU K., ÖZDEMİR A. F. , AKKURT İ.
Türk Fizik Derneği 26. Uluslararası Fizik Kongresi, 24 - 27 August 2009
- XXIII. **Electrical characterization of p-type Silicon based on conducting polymer**
ÖZDEMİR A. F. , GÜRKAN AYDIN S., ALDEMİR D. A. , ŞEN GÜR SOY S.

- Türk Fizik Derneği 26. Uluslararası Fizik Kongresi, 24 August 2009, pp.448
- XXIV. **Analysis of current-voltage characteristic in Al/p-Si Schottky diode with the polythiophene-SiO₂ nanocomposite interfacial layer,**
ALDEMİR D. A. , ESEN M., KÖKCE A., ÖZDEMİR A. F.
Türk Fizik Derneği 26. Uluslararası Fizik Kongresi, 24 - 27 August 2009, pp.437
- XXV. **Temperature dependence of electrical parameters of Al/P2ClAn(C₂H₅COOH)/p-Si/Al structure**
ÖZDEMİR A. F. , KOTAN Z., ALDEMİR D. A. , KÖKCE A., ALTINDAL Ş.
Türk Fizik Derneği 24. Uluslararası Fizik Kongresi, 28 - 31 August 2007, pp.529
- XXVI. **ÖZDEMİR A.F., ALDEMİR D. A , KÖKCE A., ALTINDAL S., Current-Voltage(I-V) and Capacitance-Voltage-Frequency(C-V-f) Characteristics of Al/P2ClAn(C₂H₅COOH)/p-Si/Al Schottky diode**
ÖZDEMİR A. F. , ALDEMİR D. A. , KÖKCE A., ALTINDAL Ş.
Türk Fizik Derneği 24. Uluslararası Fizik Kongresi, Malatya, Turkey, 28 - 31 August 2007, vol.1, no.1, pp.130
- XXVII. **Current-Voltage(I-V) and Capacitance-Voltage-Frequency(C-V-f) Characteristics of Al/P2ClAn(C₂H₅COOH)/p-Si/Al Schottky diode**
ÖZDEMİR A. F. , ALDEMİR D. A. , KÖKCE A., ALTINDAL Ş.
Türk Fizik Derneği 24. Uluslararası Fizik Kongresi, 28 - 31 August 2007, pp.534

Activities in Scientific Journals

Süleyman Demirel Üniversitesi Fen Edebiyat Fakültesi Fen Dergisi , Committee Member, 2017 - Continues

Scientific Refereeing

Solid-State Electronics, SCI Journal, May 2019

Citations

Total Citations (WOS):152

h-index (WOS):6