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Publons / Web Of Science ResearcherID: K-9802-2013

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Education Information

Doctorate, Istanbul University, Institute of Graduate Studies In Sciences, Katıhal Fiziği Programı, Turkey 2009 - 2013

Postgraduate, Istanbul University, Institute of Graduate Studies In Sciences, Katıhal Fiziği Programı, Turkey 2006 - 2009

Undergraduate, Istanbul University, Faculty Of Science, Fizik, Turkey 2000 - 2004

Foreign Languages

English, B2 Upper Intermediate

Certificates, Courses and Trainings

Personal Evolution, Trusted Reviewer, Institute of Physics, 2023

Entrepreneurship, Outstanding Reviewer Awards: Journal of Physics D, IOP Publishing: Journal of Physics D, 2023

Measurement and Evaluation, Outstanding Reviewer Awards:Nano Express, IOP Publishing:Nano Express, 2023

Innovative Product Design, New Frontiers in Optical Technology, Tampere University of Technology, 2011

Vocational Training, Theoretical Techniques in Semiconductor Research, Dokuz Eylül University, 2011

Vocational Training, Material and Physical Characterisation, Institute of Physics Wroclaw University of Technology, 2010

Innovative Product Design, Güneş Gözelerinin Fiziği ve Teknolojisi, Sivas Cumhuriyet Üniversitesi, 2010

Innovative Product Design, Training school on Nitride Semiconductor Metarials, University of Patras, 2009

Vocational Training, Gravitasyon ve String/M teori, TUBITAK/Feza Gürsey Enstitüsü, 2004

Vocational Training, Gravitasyon ve Kozmoloji, TUBITAK/Feza Gürsey Enstitüsü, 2002

Dissertations

Doctorate, Investigation of low dimensional semiconductor structure with modulation spectroscopy, Istanbul University, Institute of Graduate Studies In Sciences, Fen Fakültesi Bölümü, 2013

Postgraduate, Investigation of quantum well structure with modulation spectroscopy, Istanbul University, Institute of Graduate Studies In Sciences, Fen Fakültesi Bölümü, 2009

Competence In Art, Einstein Gravitasyon Alan Denklemlerinin Reissner-Nordstrom Çözümü, Istanbul University, Faculty

Research Areas

Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Electrical properties of electronic structures, interfaces, thin films and low-dimensional structures, Magnetic Properties and Materials, Optical Properties, Spectroscopy of Matter, Electronic transport in condensed matter

Academic and Administrative Experience

Fen Fakültesi Mal Alımları ve Kabul Komisyonu, Istanbul University, Faculty Of Science, 2016 - Continues

Ders Kurulu Başkanı, Istanbul University, Institute of Graduate Studies In Sciences, 2018 - 2019

Courses

Semiconductor Devices, Doctorate, 2021 - 2022

Physics II, Undergraduate, 2021 - 2022

Physics I, Undergraduate, 2020 - 2021

Katıların Optik Özellikleri, Postgraduate, 2017 - 2018, 2016 - 2017

Yarıiletkenler Fiziği II, Postgraduate, 2017 - 2018

General Physics, Undergraduate, 2018 - 2019

Katıhal Fiziği, Undergraduate, 2018 - 2019

Yarıiletkenler Fiziği, Undergraduate, 2017 - 2018, 2016 - 2017

İleri Fizik Uygulamaları, Undergraduate, 2016 - 2017

Katıhal Fiziği, Undergraduate, 2017 - 2018

Yarıiletkenler Fiziği I, Postgraduate, 2017 - 2018, 2016 - 2017

Yarıiletkenler Fiziği II, Postgraduate, 2016 - 2017

İleri Fizik Uygulamaları, Undergraduate, 2015 - 2016

Yarıiletkenler Fiziği, Undergraduate, 2015 - 2016

Optoelektronik, Undergraduate, 2016 - 2017

Optoelektronik, Undergraduate, 2015 - 2016

Yarıiletkenler Fiziği, Undergraduate, 2014 - 2015

Optoelektronik, Undergraduate, 2014 - 2015

Advising Theses

Dönmez Ö., Örgü uyumsuz alaşımlarda optik süreçlerin incelenmesi, Postgraduate, İ.Özcan(Student), Continues

Dönmez Ö., Geniş Bant Aralıklı Yarıiletkenlerde Elektriksel Kontak Oluşum Mekanizmaları, Postgraduate, S.Nur(Student), Continues

Dönmez Ö., Geniş bant aralıklı yarıiletkenlerde transport olaylarının incelenmesi, Doctorate, S.Amanova(Student), Continues

Dönmez Ö., Bizmut içeren III-V grubu yarıiletkenlerde elektronik transport mekanizmalarının incelenmesi, Doctorate, M.Aydın(Student), 2023

Dönmez Ö., Düşük boyutlu ferromanyetik alaşımların optoelektronik özelliklerinin kristal yönelimlerine bağlı olarak incelenmesi, Postgraduate, S.KERIMOVA(Student), 2021

Jury Memberships

Doctorate, Doctorate, İstanbul Üniversitesi, June, 2021

Doctoral Examination, Doctoral Examination, İstanbul Üniversitesi, January, 2020

Doctoral Examination, Doctoral Examination, İstanbul Üniversitesi, December, 2019

Post Graduate, Post Graduate, İstanbul Üniversitesi, May, 2019

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, İstanbul Üniversitesi, March, 2019

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, İstanbul Üniversitesi, July, 2017

Post Graduate, Yüksek Lisans, Tez Savunma Juri Üyesi, İstanbul Üniversitesi, Fen Bilimleri Enstitüsü, June, 2016

Designed Lessons

Dönmez Ö., Nano Yapılarda Transport-II: Gerçek düşük boyutlu yapılar, Doctorate, 2023 - 2024

Dönmez Ö., Yarıiletken Aygıtlar, Doctorate, 2023 - 2024

Dönmez Ö., Nano Yapılarda Transport-1: Sanki/Yapay düşük boyutlu Yapılar, Doctorate, 2023 - 2024

Dönmez Ö., Optical Properties of Solids-II, Doctorate, 2022 - 2023

Dönmez Ö., Optical Properties of Solids-I, Doctorate, 2022 - 2023

Dönmez Ö., Yarıiletken tabanlı biyosensörler, Postgraduate, 2019 - 2020

Research Infrastructure Information

Erol A., Kuruoğlu F., Sarcan F., Dönmez Ö., Mutlu S., Advance Lithography Laboratories, June 2015

Erol A., Dönmez Ö., Sarcan F., Kuruoğlu F., Nano and Optoelectronics Research Laboratory, March 2001

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Determination of electronic band structure of quaternary ferromagnetic Ga_{0.97-y}Mn_{0.03}CryAs epitaxial layers**
Dönmez Ö., Gunes M., Henini M., Erol A.
PHYSICA B-CONDENSED MATTER, vol.665, 2023 (SCI-Expanded)
- II. **Analysis of mixed optical transitions in dilute magnetic AlAs/GaAs/ GaMnAs quantum wells grown on high substrate index by molecular beam epitaxy**
Kerimova S., Dönmez Ö., Gunes M., Kuruoğlu F., Aydın M., Gümüş C., Erol A.
MATERIALS SCIENCE AND ENGINEERING B-ADVANCED FUNCTIONAL SOLID-STATE MATERIALS, vol.290, 2023 (SCI-Expanded)
- III. **Comprehensively analysis of hot electron transport in as-grown and thermally annealed n-type modulation-doped Al_{0.15}Ga_{0.85}As/GaAs_{0.96}Bi_{0.4} quantum well structure**
Dönmez Ö., Aydın M., Mutlu S., Puustinen J., Hilska J., Guina M., Erol A.
Materials Science in Semiconductor Processing, vol.154, 2023 (SCI-Expanded)
- IV. **High-Field Electron-Drift Velocity in n-Type Modulation-Doped GaAs_{0.96}Bi_{0.04} Quantum Well Structure**
Aydın M., Mutlu S., Erol A., Puustinen J., Hilska J., Guina M., Dönmez Ö.
PHYSICA STATUS SOLIDI-RAPID RESEARCH LETTERS, vol.16, no.11, 2022 (SCI-Expanded)
- V. **A quantitative analysis of electronic transport in n- and p-type modulation-doped GaAsBi/AlGaAs quantum well structures**
Dönmez Ö., Erol A., Çetinkaya Ç., Cokduygulular E., Aydın M., Yıldırım S., Puustinen J., Hilska J., Guina M.
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.36, no.11, 2021 (SCI-Expanded)

- VI. **Temperature-dependent sandwich and in-plane optical characterization of ternary chalcogenide TiSbS_2**
Sarcan F., Aydin M., Kuruoğlu F., Dönmez Ö., Yildirim S., Erol A.
Materials Science and Engineering B: Solid-State Materials for Advanced Technology, vol.272, 2021 (SCI-Expanded)
- VII. **Photoluminescence characteristic of as-grown and thermally annealed n-and p-type modulation-doped $\text{Ga}(0.68)\text{In}(0.32)\text{N}(x)\text{As}(1-x)/\text{GaAs}$ quantum well structures**
Donmez O., Sarcan F., Erol A., Urgan F., Sari H.
THIN SOLID FILMS, vol.732, 2021 (SCI-Expanded)
- VIII. **Determination of the acoustic phonon-hot carriers interaction in n- and p-type modulation-doped $\text{GaInNAs}/\text{GaAs}$ quantum wells**
Dönmez Ö., Sarcan F., Erol A.
Physica B: Condensed Matter, vol.612, 2021 (SCI-Expanded)
- IX. **The effect of strain and spatial Bi distribution on the band alignment of GaAsBi single quantum well structure**
Gunes M., Dönmez Ö., Gumus C., Erol A., Alghamdi H., Alhassan S., Alhassni A., Alotaibi S., Schmidbauer M., Galeti H. V. A., et al.
PHYSICA B-CONDENSED MATTER, vol.602, 2021 (SCI-Expanded)
- X. **Power loss mechanisms in n-type modulation-doped $\text{AlGaAs}/\text{GaAsBi}$ quantum well heterostructures**
Dönmez Ö., Aydın M., Ardali S., Yildirim S., Tiras E., Erol A., Puustinen J., Hilska J., Guina M.
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.35, 2020 (SCI-Expanded)
- XI. **Electronic transport in n-type modulation-doped $\text{AlGaAs}/\text{GaAsBi}$ quantum well structures: influence of Bi and thermal annealing on electron effective mass and electron mobility**
Donmez Ö., Aydın M., Ardali S., Yildirim S., Tiras E., Nutku F., Cetinkaya Ç., Cokduygulular E., Puustinen J., Hilska J., et al.
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.35, no.2, 2020 (SCI-Expanded)
- XII. **Effects of Thermal Annealing and Selective Chemical Etching on Structural and Optical Properties of GaAsBi Epilayer with Droplet Systems**
Erucar T., Kara K., Donmez Ö., Erol A., Arnoult A., Fontaine C.
JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY, vol.19, no.12, pp.7846-7852, 2019 (SCI-Expanded)
- XIII. **Characterization of a $\text{GaAs}/\text{GaAsBi}$ pin solar cell**
Muhammetgulyyev A., Erbas Ö. G., Kinaci B., Donmez Ö., Celebi Y. G., Erol A.
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.34, no.8, 2019 (SCI-Expanded)
- XIV. **Optical properties of $\text{GaAs}_{1-x}\text{Bi}_x/\text{GaAs}$ quantum well structures grown by molecular beam epitaxy on (100) and (311)B GaAs substrates**
Gunes M., Ukelge M. O., Donmez Ö., Erol A., Gumus C., Alghamdi H., Galeti H. V. A., Henini M., Schmidbauer M., Hilska J., et al.
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.33, no.12, 2018 (SCI-Expanded)
- XV. **A study of electric transport in n- and p-type modulation-doped $\text{GaInNAs}/\text{GaAs}$ quantum well structures under a high electric field**
Sarcan F., Mutlu S., Cokduygulular E., Donmez Ö., Erol A., Puustinen J., Guina M.
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.33, no.6, 2018 (SCI-Expanded)
- XVI. **Optical properties of n- and p-type modulation doped $\text{GaAsBi}/\text{AlGaAs}$ quantum well structures**
Cetinkaya C., Cokduygulular E., Nutku F., Donmez Ö., Puustinen J., Hilska J., Erol A., Guina M.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.739, pp.987-996, 2018 (SCI-Expanded)
- XVII. **Characterization of emitted light from travelling Gunn domains in $\text{Al}_{0.08}\text{Ga}_{0.92}\text{As}$ alloy based Gunn devices**
Cetinkaya C., Mutlu S., Donmez Ö., Erol A.
SUPERLATTICES AND MICROSTRUCTURES, vol.111, pp.744-753, 2017 (SCI-Expanded)
- XVIII. **Effect of thermal annealing and nitrogen composition on quantum transport in GaInNAs alloy based modulation doped quantum well structures**

Nutku F., Donmez Ö., Cokduygular E., Sarcan F., Kuruoglu F., Mutlu S., Yildirim S., Erol A.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.695, pp.404-409, 2017 (SCI-Expanded)

- XIX. **Thermal annealing effects on optical and structural properties of GaBiAs epilayers: Origin of the thermal annealing-induced redshift in GaBiAs**
Donmez Ö., Kara K., Erol A., Akalin E., Makhloufi H., Arnoult A., Fontaine C.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.686, pp.976-981, 2016 (SCI-Expanded)
- XX. **Optical properties of GaBiAs single quantum well structures grown by MBE**
Donmez Ö., Erol A., Arikan M. C., Makhloufi H., Arnoult A., Fontaine C.
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.30, no.9, 2015 (SCI-Expanded)
- XXI. **Quantum oscillations and interference effects in strained n- and p-type modulation doped GaInNAs/GaAs quantum wells**
Sarcan F., Nutku F., Donmez Ö., Kuruoglu F., Mutlu S., Erol A., Yildirim S., Arikan M. C.
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.48, no.30, 2015 (SCI-Expanded)
- XXII. **Negative and positive magnetoresistance in GaInNAs/GaAs modulation-doped quantum well structures**
Nutku F., Donmez Ö., Sarcan F., Erol A., Puustinen J., Arikan M. C., Guina M.
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.118, no.3, pp.823-829, 2015 (SCI-Expanded)
- XXIII. **Analytic modeling of temperature dependence of 2D carrier mobility in as-grown and annealed GaInNAs/GaAs quantum well structures**
Donmez Ö., Sarcan F., Lisesivdin S. B., Vaughan M. P., Erol A., Gunes M., Arikan M. C., Puustinen J., Guina M.
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.29, no.12, 2014 (SCI-Expanded)
- XXIV. **Anisotropic electron g factor as a probe of the electronic structure of GaBixAs1-x/GaAs epilayers**
Broderick C. A., Mazzucato S., Carrere H., Amand T., Makhloufi H., Arnoult A., Fontaine C., Donmez Ö., Erol A., Usman M., et al.
PHYSICAL REVIEW B, vol.90, no.19, 2014 (SCI-Expanded)
- XXV. **Magnetotransport study on as-grown and annealed n- and p-type modulation-doped GaInNAs/GaAs strained quantum well structures**
Donmez Ö., Sarcan F., Erol A., Gunes M., Arikan M. C., Puustinen J., Guina M.
NANOSCALE RESEARCH LETTERS, vol.9, 2014 (SCI-Expanded)
- XXVI. **Bismuth-induced effects on optical, lattice vibrational, and structural properties of bulk GaAsBi alloys**
Sarcan F., Donmez Ö., Kara K., Erol A., Akalin E., Arikan M. C., Makhloufi H., Arnoult A., Fontaine C.
NANOSCALE RESEARCH LETTERS, vol.9, 2014 (SCI-Expanded)
- XXVII. **Influence of nitrogen on hole effective mass and hole mobility in p-type modulation doped GaInNAs/GaAs quantum well structures**
Sarcan F., Donmez Ö., Erol A., Gunes M., Arikan M. C., Puustinen J., Guina M.
APPLIED PHYSICS LETTERS, vol.103, no.8, 2013 (SCI-Expanded)
- XXVIII. **Excitation energy-dependent nature of Raman scattering spectrum in GaInNAs/GaAs quantum well structures**
Erol A., Akalin E., Sarcan F., Donmez Ö., Akyuz S., Arikan C. M., Puustinen J., Guina M.
NANOSCALE RESEARCH LETTERS, vol.7, 2012 (SCI-Expanded)
- XXIX. **A study of photomodulated reflectance on staircase-like, n-doped GaAs/Al (x) Ga1-x As quantum well structures**
Donmez Ö., Nutku F., Erol A., Arikan C. M., Ergun Y.
NANOSCALE RESEARCH LETTERS, vol.7, 2012 (SCI-Expanded)
- XXX. **An analysis of Hall mobility in as-grown and annealed n- and p-type modulation-doped GaInNAs/GaAs quantum wells**
Sarcan F., Donmez Ö., Gunes M., Erol A., Arikan M. C., Puustinen J., Guina M.
NANOSCALE RESEARCH LETTERS, vol.7, 2012 (SCI-Expanded)
- XXXI. **The role of dislocation-induced scattering in electronic transport in GaxIn1-xN alloys**
Donmez Ö., Gunes M., Erol A., Arikan C. M., Balkan N., Schaff W. J.

NANOSCALE RESEARCH LETTERS, vol.7, 2012 (SCI-Expanded)

- XXXII. **High carrier concentration induced effects on the bowing parameter and the temperature dependence of the band gap of $Ga_{1-x}In_xN$**

Donmez Ö., Gunes M., Erol A., Arikan M. C., Balkan N.

JOURNAL OF APPLIED PHYSICS, vol.110, no.10, 2011 (SCI-Expanded)

- XXXIII. **Influence of high electron concentration on band gap and effective electron mass of InN**

Donmez Ö., YILMAZ M., Erol A., ULUĞ B., Arikan M. C., Ulug A., Ajagunna A. O., Iliopoulos E., Georgakilas A.

PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS, vol.248, no.5, pp.1172-1175, 2011 (SCI-Expanded)

Articles Published in Other Journals

- I. **Optical characterization of $Ga_{0.965}Mn_{0.03}Cr_{0.005}As$ thin film grown by molecular beam epitaxy**

Dönmez Ö., Güneş M., Erol A.

Artıbilim: Adana Alparslan Türkeş Bilim ve Teknoloji Üniversitesi Fen Bilimleri Dergisi, vol.4, no.2, pp.44-49, 2021 (Peer-Reviewed Journal)

- II. **Investigating above-bandgap and below-bandgap optical transition in GaBiAs epilayers by photoreflectance spectroscopy**

DÖNMEZ Ö., EROL A.

TURKISH JOURNAL OF PHYSICS, vol.44, no.4, pp.384-393, 2020 (ESCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **An electric field induced hot electron transport in GaAsBi alloys**

Aydın M., Mutlu S., Dönmez Ö., Erol A.

NANOTR, Ankara, Turkey, 5 - 08 September 2022, pp.1

- II. **OPTICAL AND STRUCTURAL CHARACTERISATION OF TERNARY CHALCOGENIDE TLSEBSE2**

Aydın M., Kuruoğlu F., Sarcan F., Dönmez Ö., Yıldırım S., Erol A.

International Marmara Sciences Congress (Autumn) 2020, Kocaeli, Turkey, 4 - 05 December 2020, pp.49

- III. **EFFECT OF BI ALLOYING ON THE OPTICAL PROPERTIES OF MODULATION DOPED GAASBI/ALGAAS QUANTUM WELL STRUCTURES**

ÇETİNKAYA Ç., ÇOKDUYGULULAR E., NUTKU F., DÖNMEZ Ö., EROL A.

Türk Fizik Derneği 34. Uluslararası Fizik Kongresi, Muğla, Turkey, 5 - 09 September 2018, pp.273

- IV. **Electronic Transport Properties of $Ga_{1-x}Mn_xCr_yAs$ Films**

ÇOKDUYGULULAR E., DÖNMEZ Ö., EROL A., Güneş M.

Türk Fizik Derneği 34. Uluslararası Fizik Kongresi, Muğla, Turkey, 5 - 09 September 2018, pp.277

- V. **Electrical Properties Of Modulation Doped Bi-Containing Highly Mismatched Quantum Well Structures**

ÇETİNKAYA Ç., ÇOKDUYGULULAR E., DÖNMEZ Ö., EROL A., NUTKU F., YILDIRIM S.

Turkish Physical Society 34th International Physics Congress, Muğla, Turkey, 5 - 09 September 2018, vol.34, pp.273

- VI. **ELECTRONIC TRANSPORT IN n-type MODULATION DOPED GaInAs/GaAs and GaInNAs/GaAs QUANTUM WELL STRUCTURES**

Rajhi A., Aydın M., ÇOKDUYGULULAR E., ÇETİNKAYA Ç., DÖNMEZ Ö., YILDIRIM S., SARCAN F., EROL A.

Türk Fizik Derneği 34. Uluslararası Fizik Kongresi, Muğla, Turkey, 5 - 09 September 2018, pp.161

- VII. **A study on deep level defect assisted absorption in dilute GaBiAs alloys**

Dönmez Ö., Erol A.

Turkish Physical Society 34. International Physics Congress, Muğla, Turkey, 3 - 07 September 2018, vol.1, no.1, pp.260

- VIII. **A study on deep level defect assisted absorption in dilute GaBiAs alloys**

Dönmez Ö.

Turkish Physical Society 34. International Physics Congress, Muğla, Turkey, 3 - 07 September 2018, vol.1, no.1, pp.260

- IX. A Comparison Of Characteristics of Heterojunction pin Solar Cells Based On Dilute Bismide And Dilute Nitride Alloys**
Muhammedgulyev A., SARCAN F., Göksel Ö., KINACI B., DÖNMEZ Ö., ÇELEBİ Y. G., EROL A.
International Conference On Condensed Matter And Materials science, Adana, Turkey, 11 - 15 October 2017, pp.25
- X. Optical and Electrical Properties of n- and p-type Modulation Doped GaAs_{1-x}Bix/Al_{0.15}Ga_{0.85}As Single Quantum Well Heterostructure**
ÇETİNKAYA Ç., ÇOKDUYGULULAR E., NUTKU F., DÖNMEZ Ö., Puustinen J., EROL A., Guina M.
International Conference on Condensed Matter and Material Sciences, Adana, Turkey, 11 - 15 October 2017, pp.125
- XI. Photoluminescence Study of GaAs/AlGaAs and GaAsBi/AlGaAs Modulation Doped Quantum Well Structures**
ÇETİNKAYA Ç., ÇOKDUYGULULAR E., NUTKU F., DÖNMEZ Ö., Puustinen J., EROL A., Guina M.
Türk Fizik Derneği 33. Uluslararası Fizik Kongresi, Muğla, Turkey, 6 - 10 September 2017, pp.125
- XII. Influence of chemical process on structural and optical properties of as-grown and thermal annealed GaAsBi alloys**
Eruçar T., DÖNMEZ Ö., EROL A.
8th International Workshop on Bismuth-Containing Semiconductors, Marburg, Germany, 23 - 26 July 2017, vol.1, no.1, pp.1
- XIII. Characterization Of Heterojunction pin solar Cells Based On Dilute Bismide And Dilute Nitride**
Muhammedgulyev A., SARCAN F., KINACI B., DÖNMEZ Ö., EROL A.
8th International Workshop on Bismuth-Containing Semiconductors, Marburg, Germany, 23 July 2017 - 26 July 2016, pp.97
- XIV. Optical characterization of n- and p-type modulation doped GaAsBi/AlGaAs quantum well structures**
ÇETİNKAYA Ç., ÇOKDUYGULULAR E., NUTKU F., DÖNMEZ Ö., Puustinen J., EROL A., Guina M.
8. International Workshop on Bismuth-Containing Semiconductors Philipps-Universitat Marburg, Marburg, Germany, 23 - 26 July 2017, pp.125
- XV. Electronic bandstructure of semiconductor dilute bismide structures**
ERUCAR T., NUTKU F., DÖNMEZ Ö., EROL A.
Turkish Physical Society 32nd International Physics Congress, TPS 2016, Konacik-Bodrum, Turkey, 6 - 09 September 2016, vol.1815
- XVI. CHARACTERIZATION OF HETERO-STRUCTURE SINGLE PIN JUNCTION SOLAR CELL BASED ON III-N-V AND III-BI-V ALLOYS**
Muhammetgulyyev A., KINACI B., DÖNMEZ Ö., EROL A.
SOLARTR 2016, İstanbul, Turkey, 6 - 08 December 2016, pp.212
- XVII. Light Emission from Al_{0.08}Ga_{0.92}As Gunn Device**
ÇETİNKAYA Ç., MUTLU S., DÖNMEZ Ö., EROL A.
Nanophotonics and Micro/Nano Optics International Conference, Paris, France, 1 - 10 December 2016, pp.10
- XVIII. Investigation of Electronic Transport Properties in GaInNAs/GaAs Quantum Well Structures**
NUTKU F., DÖNMEZ Ö., ÇOKDUYGULULAR E., SARCAN F., KURUOĞLU F., MUTLU S., YILDIRIM S., EROL A.
Türk Fizik Derneği 32. Uluslararası Fizik Kongresi, Muğla, Turkey, 6 - 09 September 2016, pp.125
- XIX. Electronic transport properties of p-type GaInNAs/GaAs quantum well structures**
MUTLU S., ÇOKDUYGULULAR E., ÇETİNKAYA Ç., SARCAN F., DÖNMEZ Ö., EROL A.
Türk Fizik Derneği 32. Uluslararası Fizik Kongresi, Muğla, Turkey, 6 - 09 September 2016, pp.125
- XX. INVESTIGATION OF ELECTRONIC TRANSPORT PROPERTIES IN GaInNAs/GaAs QUANTUM WELL STRUCTURES**
NUTKU F., DÖNMEZ Ö., Çokduygulular E., SARCAN F., KURUOĞLU F., MUTLU S., YILDIRIM S., EROL A.
Turkish Physical Society 32nd International Physics Congress, Muğla, Turkey, 6 - 09 September 2016, vol.32, pp.129
- XXI. Stimulated Light Emission from Gunn Domains in Fabry Pérot Al_{0.08} Ga_{0.92}As Gunn Device**

ÇETİNKAYA Ç., MUTLU S., DÖNMEZ Ö., EROL A.

Turkish Physical Society 32nd International Physics Congress, Muğla, Turkey, 6 - 10 September 2016, pp.89

XXII. Investigation of Light Emission Based on Gunn Effect in n -type GaAs

ÇETİNKAYA Ç., MUTLU S., DÖNMEZ Ö., EROL A.

9th International Physics Conference of the Balkan Physical Union, İstanbul, Turkey, 24 - 27 August 2015, pp.421

XXIII. Temperature and electric field dependence of localization in modulation doped GaInNAs/GaAs quantum well structures

YILDIRIM S., EROL A., SARCAN F., NUTKU F., KURUOĞLU F., DÖNMEZ Ö.

9th International Physics Conference of the Balkan Physical Union-BPU9, İstanbul, Turkey, 24 - 27 August 2015, vol.9, pp.161

XXIV. Optical and structural properties of as-grown and annealed GaAsBi epilayers

DÖNMEZ Ö., KARA K., EROL A., Makhloufi ., Arnoult A., Fontaine .

9th International Physics Conference of the Balkan Physical Union-BPU9, İstanbul, Turkey, 24 - 27 August 2015, pp.152

XXV. Weak Localization and Weak Antilocalization in n- and p-type Modulation Doped GaInNAs/GaAs Quantum Wells

NUTKU F., SARCAN F., DÖNMEZ Ö., KURUOĞLU F., MUTLU S., EROL A., YILDIRIM S., ARIKAN M. Ç.

İstanbul Üniversitesi Dünya Teknoloji, İnovasyon ve Girişimcilik Konferansı, İSTANBUL, TÜRKİYE, 28-30 Mayıs 2015, İstanbul, Turkey, 28 - 30 May 2015, pp.80

XXVI. Magnetoresistance in n- and p-type GaInNAs GaAs Modulation Doped Quantum Well Structures

NUTKU F., SARCAN F., DÖNMEZ Ö., EROL A., ARIKAN M. Ç.

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Scientific Research / Working Group Memberships

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Mobility Activity

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Optical characterization of bulk GaBiAs_{1-x} and GaAs/ GaBiAs_{1-x} quantum well structures, Novel Gain Materials and Devices Based on III-V-N/Bi Compounds, 24-26 SEPTEMBER 2013, ISTANBUL, TURKEY, Oral, Attendee, Istanbul, Turkey, 2013

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Non-destructive room temperature optical characterization of bulk and low dimensional semiconductor structures using modulation spectroscopy, "TPS 29. International Physics Congress", Attendee, Bodrum, Turkey, 2012

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Analysis of Line Shape and Modulation Mechanisms on Low Dimensional Dilute Nitride structures, E-MRS 2012 Spring Meeting (Poster), Attendee, Strasbourg, France, 2012

Electronic transport properties of p-type GaInNAs/GaAs as-grown and annealed modulation doped quantum well structures,“ICTON2011”, Attendee, Sweden, 2011

Optical characterization of the GaInNAs/GaAs n-type as-grown and annealed modulation doped quantum well structures, International Conference on Transparant Optical Networks (ICTON), (Poster), Attendee, Stockholm, Sweden, 2011

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Spectral dependence and the Effect of Trapping in the Performance of GaInNAs / GaAs Multi-Quantum Well Solar Cells at Low Temperatures,(E-MRS) 2010 Spring Meeting, Attendee, Strasbourg, Germany, 2010

Electronic transport in In-rich Ga_xIn_{1-x}N,“European Materials Research Society (E-MRS) 2010 Spring Meeting”, Attendee, Strasbourg, Germany, 2010

Electronic transport in GaInAs/GaAs and dilute nitride GaInNAs/GaAs Quantum Wells: Effect of Nitrogen on momentum relaxation of holes,(E-MRS) 2010 Spring Meeting, Attendee, Strasbourg, Germany, 2010

An investigation of electronic transport properties of the 2D carriers in GaInNAs/GaAs modulation doped quantum well structure,(E-MRS) 2010 Spring Meeting,, Attendee, Strasbourg, Germany, 2010

Influence of high electron concentration on band gap and effective electron mass of InN,“European Materials Research Society (E-MRS) 2010 Spring Meeting”, Attendee, Strasbourg, Germany, 2010

Hall measurement in n-type modulation doped Ga_{0,7}In_{0,3}N_{0,004}As_{0,996}/GaAs multi-quantum well structure under 950 nm IR light illumination,“Nano-TR V”, Attendee, Eskişehir, Turkey, 2010

The effects of quantum well numbers and thermal annealing on optical properties of GaInNAs/GaAs quantum well structures, MRS 2010 Spring Meeting, Attendee, Strasbourg, France, 2010

Optical and electrical properties of In-rich Ga_xIn_{1-x}N structures ,“European Materials Research Society (E-MRS) 2010 Spring Meeting”,, Attendee, Strasbourg, Germany, 2010

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Reflectance and Photomodulated Reflectance Studies of Al_xGa_{1-x}As/GaAs Hot Electron Lasing and Light Emitting in Semiconductor Heterostructures, ICO-PHOTONICS-DELPHI, Attendee, Delphi, Greece, 2009

Scholarships

TUBİTAK-BİDEB, TUBİTAK, 2007 - 2008

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Üstün Başarı Bursu, University, 2004 - 2005

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Non Academic Experience

Ekrem BATUK Dershaneleri