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International Researcher IDs

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Publons / Web Of Science ResearcherID: HIR-3565-2022

ScopusID: 57216132354

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Education Information

Doctorate, Istanbul University, Institute Of Graduate Studies In Sciences, Fen Fakültesi Bölümü, Turkey 2017 - 2023

Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Turkey 2010 - 2014

Undergraduate, Istanbul University, Faculty Of Science, Department Of Physics, Turkey 2006 - 2010

Research Areas

Surfaces, Interfaces, Thin Films and Nanosystems, Electronic structure of bulk material, Electrical properties of electronic structures, interfaces, thin films and low-dimensional structures, Electronic transport in condensed matter

Academic Titles / Tasks

Assistant Professor, Istanbul University, Faculty Of Science, Department Of Physics, 2023 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Electric field dependence of the electron drift velocity in n-type $\text{In}_x\text{Ga}_{1-x}\text{As}_{1-y}\text{Bi}_y$ epilayer**
AYDIN M., Bork J., Zide J., EROL A., DÖNMEZ Ö.
Physica B: Condensed Matter, vol.685, 2024 (SCI-Expanded)
- II. **Relation between thermal quenching of photoluminescence and negative capacitance on InGaN/GaN multiple quantum wells in p-i-n structure**
ÖZDEMİR O., Baş H., AYARCI KURUOĞLU N., BOZKURT K., Aydın M., SARCAN F., EROL A., Alshehri B., Dogheche K., Dogheche E.
JOURNAL OF LUMINESCENCE, vol.257, 2023 (SCI-Expanded)
- III. **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)

- IV. **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_{0.04} 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)
- V. **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)
- VI. **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)
- VII. **Temperature-dependent sandwich and in-plane optical characterization of ternary chalcogenide TlSbS₂**
Sarcen F., Aydın M., Kuruoğlu F., Dönmez Ö., Yıldırım S., Erol A.
Materials Science and Engineering B: Solid-State Materials for Advanced Technology, vol.272, 2021 (SCI-Expanded)
- VIII. **Power loss mechanisms in n-type modulation-doped AlGaAs/GaAsBi quantum well heterostructures**
Dönmez Ö., Aydın M., Ardali S., Yıldırım S., Tiras E., Erol A., Puustinen J., Hilska J., Guina M.
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.35, 2020 (SCI-Expanded)
- IX. **Electronic transport in n-type modulation-doped AlGaAs/GaAsBi quantum well structures: influence of Bi and thermal annealing on electron effective mass and electron mobility**
Donmez Ö., Aydın M., Ardali S., Yıldırım 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)

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 TlSbS₂**
Aydın M., Kuruoğlu F., Sarcen F., Dönmez Ö., Yıldırım S., Erol A.
International Marmara Sciences Congress (Autumn) 2020, Kocaeli, Turkey, 4 - 05 December 2020, pp.49
- III. **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

Metrics

Publication: 12

Citation (WoS): 25

Citation (Scopus): 34

H-Index (WoS): 3

H-Index (Scopus): 4