



# Prof. ESİN KASAPOĞLU

## Personal Information

**Email:** [ekasap@cumhuriyet.edu.tr](mailto:ekasap@cumhuriyet.edu.tr)

**Web:** <https://avesis.cumhuriyet.edu.tr/ekasap>

### International Researcher IDs

ORCID: 0000-0002-0893-9210

Yoksis Researcher ID: 5661



## Education Information

1995 - 1999	Doctorate, Sivas Cumhuriyet University, Fen Fakültesi, Fizik Bölümü, Turkey
1992 - 1994	Postgraduate, Sivas Cumhuriyet University, Fen Fakültesi, Fizik Bölümü, Turkey
1984 - 1989	Undergraduate, Sivas Cumhuriyet University, Fen Fakültesi, Fizik Bölümü, Turkey

## Dissertations

1999	DÜŞÜK BOYUTLU YARIİLETKEN HETEROYAPILARDA ELEKTRONİK VE OPTİK ÖZELLİKLERİN ALAN ALTINDAKİ DEĞİŞİMİ, Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Fizik Bölümü, Doctorate
1994	Anharmonik Titreşici, Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Fizik Bölümü, Postgraduate

## Research Areas

Condensed Matter 1: Structural, Mechanical and Thermal Properties, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Natural Sciences

## Academic Titles / Tasks

2009 - Continues	Professor, Sivas Cumhuriyet University, Fen Fakültesi, Fizik Bölümü
2004 - 2009	Associate Professor, Sivas Cumhuriyet University, Fen Fakültesi, Fizik Bölümü
1999 - 2004	Assistant Professor, Sivas Cumhuriyet University, Fen Fakültesi, Fizik Bölümü

## Academic and Administrative Experience

2013 - 2022	Head of Department, Sivas Cumhuriyet University, Fen Fakültesi, Fizik Bölümü
2007 - 2013	Head of Department, Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Fizik Bölümü
2008 - 2010	Head of Department, Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Fizik Bölümü
2004 - 2008	Director of Vocational School, Sivas Cumhuriyet Üniversitesi, Gürün Meslek Yüksekokulu

## Advising Theses

2020	Kasapoğlu E., Doctorate, E.BAHADIR(Student), Manyetik alan altında küresel kuantum noktalarının elektronik ve optik özellikleri
2013	KASAPOĞLU E., Postgraduate, F.ARAYAN(Student), Manyetik alan altında basamaklı asimetric kuantum kuyusunda safsızlık düzeyleri
2012	KASAPOĞLU E., Postgraduate, Y.ÖZDEMİR(Student), Manyetik alan altında basamaklı asimetric kuantum kuyusunda elektronik yapı
2010	Kasapoğlu E., Doctorate, F.ÜNGAN(Student), Binding energies of donor impurity atoms in GaInNAs / GaAs quantum wells under intense laser field
2009	KASAPOĞLU E., Postgraduate, S.KILIN(Student), Eđik elektrik alan altında GaAs/Ga <sub>1-x</sub> Al <sub>x</sub> As kuantum telindeki donör safsızlık atomlarının bağlanma enerjileri
2009	KASAPOĞLU E., Postgraduate, H.CANPOLAT(Student), Manyetik alan altında çift kuantum kuyusundaki donör safsızlık atomları üzerinde hidrostatik basınç ve sıcaklık etkileri
2007	KASAPOĞLU E., Postgraduate, Y.ADIBELLİ(Student), Üçlü kuantum kuyularındaki hidrojenik sistemlerin elektronik ve optik özelliklerinin dış alanlar altındaki deđişimi

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

- I. **Effects of magnetic, electric, and non-resonant intense laser fields on exciton binding energy and exciton absorption in a symmetric Gaussian single quantum well**  
KASAPOĞLU E., YÜCEL M. B.  
European Physical Journal Plus, vol.139, no.10, 2024 (SCI-Expanded)
- II. **Effects of non-resonant intense laser, electric and magnetic fields on exciton binding energy and absorption spectra in the Gaussian double quantum well**  
KASAPOĞLU E.  
European Physical Journal Plus, vol.139, no.9, 2024 (SCI-Expanded)
- III. **Non-resonant intense laser field and electric field effects on the optical characterization of Rosen-Morse quantum wells with different potential functions**  
Kasapoğlu E.  
OPTICAL AND QUANTUM ELECTRONICS, vol.56, pp.1425-1444, 2024 (SCI-Expanded)
- IV. **Hydrostatic pressure and temperature dependent optical properties of double inverse parabolic quantum well under the magnetic field**  
Shaer A., YÜCEL M. B., KASAPOĞLU E.  
Physica B: Condensed Matter, vol.685, 2024 (SCI-Expanded)
- V. **Simultaneous effects of the position dependent mass and magnetic field on quantum well with the improved Tietz potential**  
KASAPOĞLU E., YÜCEL M. B., Duque C. A., Mora-Ramos M. E.  
Physica B: Condensed Matter, vol.679, 2024 (SCI-Expanded)
- VI. **Electronic and optical properties of the exponential and hyperbolic Rosen-Morse types quantum wells under applied magnetic field**  
Kasapoğlu E., Yücel M. B., Duque C. A.  
EUROPEAN PHYSICAL JOURNAL PLUS, vol.138, pp.1026-1034, 2023 (SCI-Expanded)
- VII. **The effects of the variable mass on the electronic and nonlinear optical properties of octic anharmonic oscillators**  
ŞAKIROĞLU S., YÜCEL M. B., KASAPOĞLU E.  
European Physical Journal Plus, vol.138, no.10, 2023 (SCI-Expanded)
- VIII. **Electric field, magnetic field, and hydrostatic pressure effects on the absorption coefficient for GaAs/Al<sub>x</sub>Ga<sub>1-x</sub>As/Al<sub>0.3</sub>Ga<sub>0.7</sub>As staggered core-shell-shell spherical quantum dots**  
Rodríguez-Guijarro G., Rodríguez-Magdaleno K., KASAPOĞLU E., Nava-Maldonado F., ÜNGAN F., Martínez-Orozco J.  
Physica E: Low-Dimensional Systems and Nanostructures, vol.154, 2023 (SCI-Expanded)
- IX. **Position-dependent-mass and laser field impact on the optical characteristics of Manning-like double quantum well**

Dakhlaoui H., Belhadj W., KASAPOĞLU E., UNGAN F.

Physica E: Low-Dimensional Systems and Nanostructures, vol.151, 2023 (SCI-Expanded)

- X. **Parabolic–Gaussian Double Quantum Wells Under a Nonresonant Intense Laser Field**  
Kasapoğlu E., Yücel M. B., Duque C. A.  
NANOMATERIALS, vol.13, pp.1360-1374, 2023 (SCI-Expanded)
- XI. **Spin–Orbit and Zeeman Effects on the Electronic Properties of Single Quantum Rings: Applied Magnetic Field and Topological Defects**  
González J. C. L., -Negrette R. G. T., Morales A. L., Vinasco J. A., Yücel M. B., Sari H., Kasapoğlu E., Şakiroğlu S., Mora-Ramos M. E., Restrepo R. L., et al.  
NANOMATERIALS, vol.13, pp.1461-1479, 2023 (SCI-Expanded)
- XII. **Nonlinear absorption coefficient and relative refractive index change for Konwent potential quantum well as a function of intense laser field effect**  
Rodríguez-Magdaleno K., Nava-Maldonado F., KASAPOĞLU E., Mora-Ramos M., UNGAN F., Martínez-Orozco J.  
Physica E: Low-Dimensional Systems and Nanostructures, vol.148, 2023 (SCI-Expanded)
- XIII. **Harmonic-Gaussian Symmetric and Asymmetric Double Quantum Wells: Magnetic Field Effects**  
KASAPOĞLU E., YÜCEL M. B., Duque C. A.  
Nanomaterials, vol.13, no.5, 2023 (SCI-Expanded)
- XIV. **Effects of external perturbations on light absorption by light/heavy hole excitons in a semi-parabolic quantum well**  
Peter A., KASAPOĞLU E., Mora-Ramos M., UNGAN F.  
Journal of Molecular Structure, vol.1274, 2023 (SCI-Expanded)
- XV. **Diamagnetic susceptibility of an artificial hydrogen molecule ion D<sub>2</sub><sup>+</sup> confined to quantum dots: effects of anisotropy**  
SARİ H., ŞAKİROĞLU S., KASAPOĞLU E., Duque C.  
Philosophical Magazine, vol.103, no.13, pp.1293-1309, 2023 (SCI-Expanded)
- XVI. **Tuning of nonlinear optical characteristics of a cylindrical quantum dot by external fields and structure parameters**  
Jaouane M., Sali A., KASAPOĞLU E., UNGAN F.  
Philosophical Magazine, vol.103, no.7, pp.693-711, 2023 (SCI-Expanded)
- XVII. **Theoretical Study of the Exciton Binding Energy and Exciton Absorption in Different Hyperbolic-Type Quantum Wells under Applied Electric, Magnetic, and Intense Laser Fields**  
YÜCEL M. B., SARİ H., Duque C. M., Duque C. A., KASAPOĞLU E.  
INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, vol.23, no.19, 2022 (SCI-Expanded)
- XVIII. **Optical Properties of Cylindrical Quantum Dots with Hyperbolic-Type Axial Potential under Applied Electric Field**  
KASAPOĞLU E., YÜCEL M. B., ŞAKİROĞLU S., SARİ H., Duque C. A.  
NANOMATERIALS, vol.12, no.19, 2022 (SCI-Expanded)
- XIX. **Photoionization cross section of a D-2(+) complex in quantum dots: the role of donor atoms configuration**  
Al E. B., Sari H., Kasapoglu E., Sakiroglu S., Sökmen I.  
EUROPEAN PHYSICAL JOURNAL PLUS, vol.137, no.8, 2022 (SCI-Expanded)
- XX. **Influence of external fields on the exciton binding energy and interband absorption in a double inverse parabolic quantum well**  
Yücel M. B., Şakiroğlu S., Sari H., Duque C. A., Kasapoğlu E.  
PHYSICA E: LOW-DIMENSIONAL SYSTEMS AND NANOSTRUCTURES, vol.144, pp.115433-115440, 2022 (SCI-Expanded)
- XXI. **Shallow-donor impurity effects on the far infrared electron–electron optical absorption coefficient in single and core/shell spherical quantum dots with Konwent-like confinement potential**  
Al E. B., Kasapoglu E., Sari H., Sökmen I., Duque C. A.  
Optical and Quantum Electronics, vol.54, no.6, 2022 (SCI-Expanded)
- XXII. **Effects of Intense Laser Field on Electronic and Optical Properties of Harmonic and Variable Degree**

## Anharmonic Oscillators

YÜCEL M. B., KASAPOĞLU E., Duque C. A.

Nanomaterials, vol.12, no.10, 2022 (SCI-Expanded)

- XXIII. **Electronic Transport Properties in GaAs/AlGaAs and InSe/InP Finite Superlattices under the Effect of a Non-Resonant Intense Laser Field and Considering Geometric Modifications**  
Gil-Corrales J. A., Morales A. L., YÜCEL M. B., KASAPOĞLU E., Duque C. A.  
INTERNATIONAL JOURNAL OF MOLECULAR SCIENCES, vol.23, no.9, 2022 (SCI-Expanded)
- XXIV. **Electronic and optical properties of a D-2(+) complex in two-dimensional quantum dots with Gaussian confinement potential**  
Sari H., Al E. B., Kasapoglu E., Sakiroglu S., Sökmen I., Toro-Escobar M., Duque C. A.  
EUROPEAN PHYSICAL JOURNAL PLUS, vol.137, no.4, 2022 (SCI-Expanded)
- XXV. **Theoretical study of electronic and optical properties in doped quantum structures with Razavy confining potential: effects of external fields**  
Dakhlaoui H., Gil-Corrales J. A., Morales A. L., Kasapoglu E., Radu A., Restrepo R. L., Tulupenko V., Vinasco J. A., Mora-Ramos M. E., Duque C. A.  
JOURNAL OF COMPUTATIONAL ELECTRONICS, vol.21, no.2, pp.378-395, 2022 (SCI-Expanded)
- XXVI. **Dynamics of nonlinear optical rectification, second, and third harmonic generation in asymmetric triangular double quantum wells due to static electric and magnetic fields**  
Al E. B., Kasapoglu E., Ungan F.  
EUROPEAN PHYSICAL JOURNAL PLUS, vol.137, no.4, 2022 (SCI-Expanded)
- XXVII. **First Study on the Electronic and Donor Atom Properties of the Ultra-Thin Nanoflakes Quantum Dots**  
Belamkadem L., Mommadi O., Boussetta R., Chnafi M., Vinasco J. A., Laroze D., Perez L. M., El Moussaouy A., Meziani Y. M., KASAPOĞLU E., et al.  
NANOMATERIALS, vol.12, no.6, 2022 (SCI-Expanded)
- XXVIII. **Effect of position-dependent effective mass on donor impurity- and exciton-related electronic and optical properties of 2D Gaussian quantum dots**  
Sari H., Kasapoglu E., Sakiroglu S., Sokmen I., Duque C. A.  
EUROPEAN PHYSICAL JOURNAL PLUS, vol.137, no.3, 2022 (SCI-Expanded)
- XXIX. **The effects of external fields on double GaAs/AlGaAs quantum well with Manning potential**  
Kasapoglu E., Duque C. A.  
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.137, 2022 (SCI-Expanded)
- XXX. **Influence of position dependent effective mass on impurity binding energy and absorption in quantum wells with the Konwent potential**  
Al E. B., Kasapoğlu E., Şakiroğlu S., Sari H., Sökmen İ.  
Materials Science in Semiconductor Processing, vol.135, 2021 (SCI-Expanded)
- XXXI. **Shallow Donor Impurity States with Excitonic Contribution in GaAs/AlGaAs and CdTe/CdSe Truncated Conical Quantum Dots under Applied Magnetic Field**  
Pulgar-Velasquez L., Sierra-Ortega J., Vinasco J. A., Laroze D., Radu A., KASAPOĞLU E., Restrepo R. L., Gil-Corrales J. A., Morales A. L., Duque C. A.  
NANOMATERIALS, vol.11, no.11, 2021 (SCI-Expanded)
- XXXII. **Magneto-optical properties of impurity associated photoionization cross-section in laser-driven delta-doped quantum wires**  
Peter A. J., Kasapoglu E., Ungan F.  
PHYSICA B-CONDENSED MATTER, vol.620, 2021 (SCI-Expanded)
- XXXIII. **Position dependent effective mass effect on the quantum wells with three-parameter modified Manning potential**  
Kasapoglu E., Duque C. A.  
OPTIK, vol.243, 2021 (SCI-Expanded)
- XXXIV. **The anisotropy effects on the shallow-donor impurity states and optical transitions in quantum dots**  
Aydin F., Sari H., Kasapoglu E., Sakiroglu S., Sokmen I.  
EUROPEAN PHYSICAL JOURNAL PLUS, vol.136, no.8, 2021 (SCI-Expanded)

- XXXV. **Optical properties of spherical quantum dot in the presence of donor impurity under the magnetic field**  
Al E. B., Kasapoğlu E., Sari H., Sökmen I.  
Physica B: Condensed Matter, vol.613, 2021 (SCI-Expanded)
- XXXVI. **Effects of intense laser field and position dependent effective mass in Razavy quantum wells and quantum dots**  
Kasapoglu E., Sari H., Sokmen I., Vinasco J. A., Laroze D., Duque C. A.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.126, 2021 (SCI-Expanded)
- XXXVII. **Zeeman splitting, Zeeman transitions and optical absorption of an electron confined in spherical quantum dots under the magnetic field**  
Al E. B., Kasapoğlu E., Sari H., Sökmen I.  
PHILOSOPHICAL MAGAZINE, vol.101, no.1, pp.117-128, 2021 (SCI-Expanded)
- XXXVIII. **Binding energies and optical absorption of donor impurities in spherical quantum dot under applied magnetic field**  
Al E. B., Kasapoğlu E., Sakiroglu S., Sari H., Sökmen I., Duque C.  
Physica E: Low-Dimensional Systems and Nanostructures, vol.119, 2020 (SCI-Expanded)
- XXXIX. **Impurity-related optical response in a 2D and 3D quantum dot with Gaussian confinement under intense laser field**  
SARİ H., KASAPOĞLU E., Sakiroglu S., Sokmen I., Duque C. A.  
PHILOSOPHICAL MAGAZINE, vol.100, no.5, pp.619-641, 2020 (SCI-Expanded)
- XL. **Impurity-modulated optical response of a disc-shaped quantum dot subjected to laser radiation**  
Gul Kilic D., Sakiroglu S., KASAPOĞLU E., SARİ H., Sokmen I.  
Photonics and Nanostructures - Fundamentals and Applications, vol.38, 2020 (SCI-Expanded)
- XLI. **Anisotropy dependence of the optical response in an impurity doped quantum dot under intense laser field**  
Aydin F., SARİ H., KASAPOĞLU E., Sakiroglu S., Sokmen I.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.114, 2019 (SCI-Expanded)
- XLII. **Tailoring the optical properties of quantum ring irradiated by THz laser**  
Kilic D. G., Sakiroglu S., UNGAN F., Yesilgul U., KASAPOĞLU E., SARİ H., Sokmen I.  
PHILOSOPHICAL MAGAZINE, vol.99, no.24, pp.3116-3132, 2019 (SCI-Expanded)
- XLIII. **Effect of Intense Laser Field in Gaussian Quantum Well With Position-Dependent Effective Mass**  
SARİ H., KASAPOĞLU E., Sakiroglu S., Sokmen I., Duque C. A.  
PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS, vol.256, no.8, 2019 (SCI-Expanded)
- XLIV. **Effect of the High-Frequency Laser Radiation on the Nonlinear Optical Properties of n-Type Double delta-Doped GaAs Quantum Wells**  
UNGAN F., SARİ H., KASAPOĞLU E., YEŞİLGÜL Ü., ŞAKIROĞLU S., SÖKMEN İ.  
JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY, vol.19, no.7, pp.4167-4171, 2019 (SCI-Expanded)
- XLV. **Intense laser-induced electronic and optical properties in double finite oscillator potential**  
Sari H., Urgan F., Kasapoglu E., Sakiroglu S., Sokmen I.  
PHILOSOPHICAL MAGAZINE, vol.99, no.19, pp.2444-2456, 2019 (SCI-Expanded)
- XLVI. **Electron-related optical responses in triple delta-doped quantum wells**  
Urgan F., Mora-Ramos M. E., Kasapoglu E., Sari H., Sokmen I.  
PHILOSOPHICAL MAGAZINE, vol.99, no.5, pp.644-658, 2019 (SCI-Expanded)
- XLVII. **Electronic states in GaAs-(Al, Ga) As eccentric quantum rings under nonresonant intense laser and magnetic fields**  
Vinasco J. A., Radu A., Niculescu E., Mora-Ramos E., Feddi E., Tulupenko V., Restrepo R. L., Kasapoglu E., Morales A. L., Duque C. A.  
SCIENTIFIC REPORTS, vol.9, 2019 (SCI-Expanded)
- XLVIII. **Binding energy and optical absorption of donor impurity states in "12-6" tuned GaAs/GaAlAs double quantum well under the external fields**  
Kasapoglu E., Sakiroglu S., Sari H., Sokmen I., Duque C. A.

PHYSICA B-CONDENSED MATTER, vol.554, pp.72-78, 2019 (SCI-Expanded)

- XLIX. **Morse quantum well modulated by nonresonant intense laser field: Binding energy and optical absorption related to shallow donor impurities**  
Kasapoglu E., Sakiroglu S., Sari H., Sokmen I., Duque C. A.  
OPTIK, vol.181, pp.432-439, 2019 (SCI-Expanded)
- L. **Nonlinear optical properties of triple delta-doped quantum wells: The impact of the applied external fields**  
Ungan F., Mora-Ramos M. E., Kasapoglu E., Sari H., Sokmen I.  
OPTIK, vol.180, pp.387-393, 2019 (SCI-Expanded)
- LI. **Position-dependent mass effects on the optical responses of the quantum well with Tietz-Hua potential**  
Sari H., Kasapoglu E., Sakiroglu S., Sokmen I.  
OPTIK, vol.178, pp.1280-1284, 2019 (SCI-Expanded)
- LII. **Linear and nonlinear optical properties in the terahertz regime for multiple-step quantum wells under intense laser field: Electric and magnetic field effects**  
Restrepo R. L., Gonzalez-Pereira J. P., Kasapoglu E., Morales A. L., Duque C. A.  
OPTICAL MATERIALS, vol.86, pp.590-599, 2018 (SCI-Expanded)
- LIII. **Study of electron-related optical responses in the Tietz-Hua quantum well: Role of applied external fields**  
Ungan F., Sari H., Kasapoglu E., Yesilgul U., Sakiroglu S., Sokmen I.  
PHOTONICS AND NANOSTRUCTURES-FUNDAMENTALS AND APPLICATIONS, vol.32, pp.47-52, 2018 (SCI-Expanded)
- LIV. **Electron-related optical responses in Gaussian potential quantum wells: Role of intense laser field**  
Sari H., Ungan F., Sakiroglu S., Yesilgul U., Kasapoglu E., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.545, pp.250-254, 2018 (SCI-Expanded)
- LV. **Effects of Geometry on the Electronic Properties of Semiconductor Elliptical Quantum Rings**  
Vinasco J. A., Radu A., Kasapoglu E., Restrepo R. L., Morales A. L., Feddi E., Mora-Ramos M. E., Duque C. A.  
SCIENTIFIC REPORTS, vol.8, 2018 (SCI-Expanded)
- LVI. **Third-harmonic generation of a laser-driven quantum dot with impurity**  
Sakiroglu S., Kilic D. G., Yesilgul U., Ungan F., Kasapoglu E., Sari H., Solunen I.  
PHYSICA B-CONDENSED MATTER, vol.539, pp.101-105, 2018 (SCI-Expanded)
- LVII. **Optical Absorption and Electroabsorption Related to Electronic and Single Dopant Transitions in Holey Elliptical GaAs Quantum Dots**  
Alejandro Vinasco J., Alejandro Londono M., Leon Restrepo R., Eduardo Mora-Ramos M., Feddi E. M., Radu A., KASAPOĞLU E., Luis Morales A., Alberto Duque C.  
PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS, vol.255, no.4, 2018 (SCI-Expanded)
- LVIII. **Electric and magnetic field modulated energy dispersion, conductivity and optical response in double quantum wire with spin-orbit interactions**  
Karaaslan Y., Gisi B., Sakiroglu S., Kasapoglu E., Sari H., Sokmen I.  
PHYSICS LETTERS A, vol.382, no.7, pp.507-515, 2018 (SCI-Expanded)
- LIX. **Optical properties of the Tietz-Hua quantum well under the applied external fields**  
Kasapoglu E., Sakiroglu S., Ungan F., Yesilgul U., Duque C. A., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.526, pp.127-131, 2017 (SCI-Expanded)
- LX. **Effect of the magnetic field on the nonlinear optical rectification and second and third harmonic generation in double delta-doped GaAs quantum wells**  
Martinez-Orozco J. C., Rojas-Briseno J. G., Rodriguez-Magdaleno K. A., Rodriguez-Vargas I., Mora-Ramos M. E., Restrepo R. L., Ungan F., Kasapoglu E., Duque C. A.  
PHYSICA B-CONDENSED MATTER, vol.525, pp.30-35, 2017 (SCI-Expanded)
- LXI. **Nonlinear optical properties of asymmetric n-type double delta-doped GaAs quantum well under intense laser field**  
SARİ H., KASAPOĞLU E., YEŞİLGÜL Ü., ŞAKİROĞLU S., UNGAN F., SÖKMEN İ.

EUROPEAN PHYSICAL JOURNAL B, vol.90, no.9, 2017 (SCI-Expanded)

- LXII. **Intense laser field effects on the third-harmonic generation in a quantum pseudodot system**  
Sakiroglu S., Kilic D. G., Yesilgul U., Ungan F., Kasapoglu E., Sari H., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.521, pp.215-220, 2017 (SCI-Expanded)
- LXIII. **Second and third harmonic generation associated to infrared transitions in a Morse quantum well under applied electric and magnetic fields**  
Restrepo R. L., Kasapoglu E., Sakiroglu S., Ungan F., Morales A. L., Duque C. A.  
INFRARED PHYSICS & TECHNOLOGY, vol.85, pp.147-153, 2017 (SCI-Expanded)
- LXIV. **Donor Impurity-Related Optical Absorption in GaAs Elliptic-Shaped Quantum Dots**  
Londono M. A., Restrepo R. L., Ojeda J. H., Huynh Vinh Phuc H. V. P., Mora-Ramos M. E., Kasapoglu E., Morales A. L., Duque C. A.  
JOURNAL OF NANOMATERIALS, 2017 (SCI-Expanded)
- LXV. **Effects of magnetic field, hydrostatic pressure and temperature on the nonlinear optical properties in symmetric double semi-V-shaped quantum well**  
Yesilgul U., Ungan F., Al E. B., Kasapoglu E., Sari H., Sokmen I.  
OPTICAL AND QUANTUM ELECTRONICS, vol.48, no.12, 2016 (SCI-Expanded)
- LXVI. **Optical coefficients in a semiconductor quantum ring: Electric field and donor impurity effects**  
Duque C. M., Acosta R. E., Morales A. L., Mora-Ramos M. E., Restrepo R. L., Ojeda J. H., Kasapoglu E., Duque C. A.  
OPTICAL MATERIALS, vol.60, pp.148-158, 2016 (SCI-Expanded)
- LXVII. **The effects of the electric and intense laser field on the binding energies of donor impurity states (1s and 2p(+/-)) and optical absorption between the related states in an asymmetric parabolic quantum well**  
Kasapoglu E., Sakiroglu S., Sokmen I., Restrepo R. L., Mora-Ramos M. E., Duque C. A.  
OPTICAL MATERIALS, vol.60, pp.318-323, 2016 (SCI-Expanded)
- LXVIII. **Infrared transitions between hydrogenic states in GaInNAs/GaAs quantum wells**  
Al E. B., Ungan F., Yesilgul U., Kasapoglu E., Sari H., Sokmen I.  
INTERNATIONAL JOURNAL OF MODERN PHYSICS B, vol.30, no.22, 2016 (SCI-Expanded)
- LXIX. **Linear and nonlinear optical properties in an asymmetric double quantum well under intense laser field: Effects of applied electric and magnetic fields**  
Yesilgul U., Al E. B., Martinez-Orozco J. C., Restrepo R. L., Mora-Ramos M. E., Duque C. A., Ungan F., Kasapoglu E.  
OPTICAL MATERIALS, vol.58, pp.107-112, 2016 (SCI-Expanded)
- LXX. **Optical properties of double quantum wires under the combined effect of spin-orbit interaction and in-plane magnetic field**  
Sakiroglu S., Gisi B., Karaaslan Y., Kasapoglu E., Sari H., Sokmen I.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.81, pp.59-65, 2016 (SCI-Expanded)
- LXXI. **Rashba spin-orbit coupling effects on the optical properties of double quantum wire under magnetic field**  
Karaaslan Y., Gisi B., Sakiroglu S., Kasapoglu E., Sari H., Sokmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.93, pp.32-39, 2016 (SCI-Expanded)
- LXXII. **Electron and donor-impurity-related Raman scattering and Raman gain in triangular quantum dots under an applied electric field**  
Tiutiunyk A., Akimov V., Tulupenko V., Mora-Ramos M. E., KASAPOĞLU E., Morales A. L., Alberto Duque C.  
EUROPEAN PHYSICAL JOURNAL B, vol.89, no.4, 2016 (SCI-Expanded)
- LXXIII. **Electronic structure and optical properties of triangular GaAs/AlGaAs quantum dots: Exciton and impurity states**  
Tiutiunyk A., Akimov V., Tulupenko V., Mora-Ramos M. E., Kasapoglu E., Ungan F., Sokmen I., Morales A. L., Duque C. A.  
PHYSICA B-CONDENSED MATTER, vol.484, pp.95-108, 2016 (SCI-Expanded)
- LXXIV. **Effects of an in-plane magnetic field on the energy dispersion, spin texturing and conductance of double quantum wires**  
Gisi B., Karaaslan Y., Sakiroglu S., Kasapoglu E., Sari H., Sokmen I.

- SUPERLATTICES AND MICROSTRUCTURES, vol.91, pp.391-400, 2016 (SCI-Expanded)
- LXXV. **Intense laser field effects on a Woods-Saxon potential quantum well**  
Restrepo R. L., Morales A. L., Akimov V., Tulupenko V., Kasapoglu E., Ugan F., Duque C. A.  
SUPERLATTICES AND MICROSTRUCTURES, vol.87, pp.143-148, 2015 (SCI-Expanded)
- LXXVI. **Linear and nonlinear optical properties in asymmetric double semi-V-shaped quantum well**  
Yesilgul U., Ugan F., Kasapoglu E., Sari H., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.475, pp.110-116, 2015 (SCI-Expanded)
- LXXVII. **The effects of the intense laser field on the nonlinear optical properties of a cylindrical Ga<sub>1-x</sub>Al<sub>x</sub>As/GaAs quantum dot under applied electric field**  
Kasapoglu E., Duque C. A., Mora-Ramos M. E., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.474, pp.15-20, 2015 (SCI-Expanded)
- LXXVIII. **Spin-orbit interaction effects on the optical properties of quantum wires under the influence of in-plane magnetic fields**  
Gisi B., Sakiroglu S., Kasapoglu E., Sari H., Sokmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.86, pp.166-172, 2015 (SCI-Expanded)
- LXXIX. **Spin-orbit interaction and magnetic field effects on the energy dispersion of double quantum wire**  
Karaaslan Y., Gisi B., Sakiroglu S., Kasapoglu E., Sari H., Sokmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.85, pp.401-409, 2015 (SCI-Expanded)
- LXXX. **Effects of applied electric and magnetic fields on the nonlinear optical properties of asymmetric GaAs/Ga<sub>1-x</sub>Al<sub>x</sub>As double inverse parabolic quantum well**  
Al E. B., Ugan F., Yesilgul U., Kasapoglu E., Sari H., Sokmen I.  
OPTICAL MATERIALS, vol.47, pp.1-6, 2015 (SCI-Expanded)
- LXXXI. **Nonlinear optical rectification and second-harmonic generation in a semi-parabolic quantum well under intense laser field: Effects of electric and magnetic fields**  
Ugan F., Martinez-Orozco J. C., Restrepo R. L., Mora-Ramos M. E., Kasapoglu E., Duque C. A.  
SUPERLATTICES AND MICROSTRUCTURES, vol.81, pp.26-33, 2015 (SCI-Expanded)
- LXXXII. **Combined effects of intense laser field, electric and magnetic fields on the nonlinear optical properties of the step-like quantum well**  
Kasapoglu E., Duque C. A., Mora-Ramos M. E., Restrepo R. L., Ugan F., Yesilgul U., Sari H., Sokmen I.  
MATERIALS CHEMISTRY AND PHYSICS, vol.154, pp.170-175, 2015 (SCI-Expanded)
- LXXXIII. **The effects of intense laser field and applied electric and magnetic fields on optical properties of an asymmetric quantum well**  
Restrepo R. L., Ugan F., Kasapoglu E., Mora-Ramos M. E., Morales A. L., Duque C. A.  
PHYSICA B-CONDENSED MATTER, vol.457, pp.165-171, 2015 (SCI-Expanded)
- LXXXIV. **Donor impurity states and related optical responses in triangular quantum dots under applied electric field**  
Kasapoglu E., Ugan F., Sari H., Sokmen I., Mora-Ramos M. E., Duque C. A.  
SUPERLATTICES AND MICROSTRUCTURES, vol.73, pp.171-184, 2014 (SCI-Expanded)
- LXXXV. **The effects of the electric and magnetic fields on the nonlinear optical properties in the step-like asymmetric quantum well**  
Kasapoglu E., Ugan F., Duque C. A., Yesilgul U., Mora-Ramos M. E., Sari H., Sokmen I.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.61, pp.107-110, 2014 (SCI-Expanded)
- LXXXVI. **Electron-related optical responses in triangular quantum dots**  
Tiutiunnyk A., Tulupenko Y., Mora-Ramos M. E., Kasapoglu E., Ugan F., Sari H., Sokmen I., Duque C. A.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.60, pp.127-132, 2014 (SCI-Expanded)
- LXXXVII. **Intense Laser Field Effects on the Shallow-Donor Impurity States in Rectangular-Shaped Quantum Well Wires**  
Duque C. A., Mora-Ramos M. E., Yesilgul U., Ugan F., Sakiroglu S., Kasapoglu E., Sari H., Sokmen I.  
ACTA PHYSICA POLONICA A, vol.125, no.2, pp.198-201, 2014 (SCI-Expanded)
- LXXXVIII. **Linear and nonlinear optical properties in a double inverse parabolic quantum well under applied electric and magnetic fields**



- Ungan F., Mora-Ramos M. E., Duque C. A., Kasapoglu E., Sari H., Sokmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.66, pp.129-135, 2014 (SCI-Expanded)
- LXXXIX. **Effect of intense high-frequency laser field on the linear and nonlinear intersubband optical absorption coefficients and refractive index changes in a parabolic quantum well under the applied electric field**  
Yesilgul U., Ungan F., Sakiroglu S., Mora-Ramos M. E., Duque C. A., Kasapoglu E., Sari H., Sokmen I.  
JOURNAL OF LUMINESCENCE, vol.145, pp.379-386, 2014 (SCI-Expanded)
- XC. **Simultaneous effects of hydrostatic pressure and temperature on the nonlinear optical properties in a parabolic quantum well under the intense laser field**  
Ungan F., Yesilgul U., Sakiroglu S., Mora-Ramos M. E., Duque C. A., Kasapoglu E., Sari H., Sokmen I.  
OPTICS COMMUNICATIONS, vol.309, pp.158-162, 2013 (SCI-Expanded)
- XC1. **Nonlinear optical absorption and refractive index in GaInNAs/GaAs double quantum wells under intense laser field and applied electric field**  
Ungan F., Yesilgul U., Sakiroglu S., Kasapoglu E., Sari H., Sokmen I.  
JOURNAL OF LUMINESCENCE, vol.143, pp.75-80, 2013 (SCI-Expanded)
- XCII. **Impurity-related linear and nonlinear optical response in quantum-well wires with triangular cross section**  
Duque C. A., Mora-Ramos M. E., Kasapoglu E., Ungan F., Yesilgul U., Sakiroglu S., Sari H., Sokmen I.  
JOURNAL OF LUMINESCENCE, vol.143, pp.304-313, 2013 (SCI-Expanded)
- XCIII. **Effects of applied electromagnetic fields on the optical transitions in a V-shaped quantum well**  
Yesilgul U., Ungan F., Sakiroglu S., Kasapoglu E., Sari H., Sokmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.58, pp.87-93, 2013 (SCI-Expanded)
- XCIV. **Electron-related nonlinearities in GaAs-Ga<sub>1-x</sub>Al<sub>x</sub>As double quantum wells under the effects of intense laser field and applied electric field**  
Mora-Ramos M. E., Duque C. A., Kasapoglu E., Sari H., Sokmen I.  
JOURNAL OF LUMINESCENCE, vol.135, pp.301-311, 2013 (SCI-Expanded)
- XCv. **Effects of indium and nitrogen mole concentrations on the optical properties in a GaInNas/GaAs quantum well under the intense laser field**  
Ungan F., Sakiroglu S., Yesilgul U., Erol A., Kasapoglu E., Sari H., Sokmen I.  
JOURNAL OF LUMINESCENCE, vol.134, pp.208-212, 2013 (SCI-Expanded)
- XCvI. **Effects of an intense, high-frequency laser field on bound states in Ga<sub>1-x</sub>In<sub>x</sub>NyAs<sub>1-y</sub>/GaAs double quantum well**  
UNGAN F., YEŞİLGÜL Ü., ŞAKİROĞLU S., KASAPOĞLU E., Erol A., ARIKAN M. C., SARI H., SÖKMEN İ.  
NANOSCALE RESEARCH LETTERS, vol.7, 2012 (SCI-Expanded)
- XCvII. **The effect of magnetic field on the impurity binding energy of shallow donor impurities in a Ga<sub>1-x</sub>In<sub>x</sub>NyAs<sub>1-y</sub>/GaAs quantum well**  
YEŞİLGÜL Ü., UNGAN F., ŞAKİROĞLU S., Duque C., Mora-Ramos M., KASAPOĞLU E., SARI H., SÖKMEN İ.  
NANOSCALE RESEARCH LETTERS, vol.7, 2012 (SCI-Expanded)
- XCvIII. **Study of direct and indirect exciton states in GaAs-Ga<sub>1-x</sub>Al<sub>x</sub>As quantum dots under the effects of intense laser field and applied electric field**  
Mora-Ramos M. E., Duque C. A., Kasapoglu E., Sari H., Sokmen I.  
EUROPEAN PHYSICAL JOURNAL B, vol.85, no.9, 2012 (SCI-Expanded)
- XCIX. **Effects of applied electromagnetic fields on the linear and nonlinear optical properties in an inverse parabolic quantum well**  
Ungan F., Yesilgul U., Kasapoglu E., Sari H., Sokmen I.  
JOURNAL OF LUMINESCENCE, vol.132, no.7, pp.1627-1631, 2012 (SCI-Expanded)
- C. **Electronic band structure of GaAs/Al<sub>x</sub>Ga<sub>1-x</sub>As superlattice in an intense laser field**  
Sakiroglu S., Yesilgul U., Ungan F., Duque C. A., Kasapoglu E., Sari H., Sokmen I.  
JOURNAL OF LUMINESCENCE, vol.132, no.6, pp.1584-1588, 2012 (SCI-Expanded)
- CI. **Nonlinear optical rectification and the second and third harmonic generation in Poschl-Teller quantum well under the intense laser field**

Sakiroglu S., Ungan F., Yesilgul U., Mora-Ramos M. E., Duque C. A., Kasapoglu E., Sari H., Sokmen I.

PHYSICS LETTERS A, vol.376, no.23, pp.1875-1880, 2012 (SCI-Expanded)

- CII. **Linear and nonlinear optical properties in a semiconductor quantum well under intense laser radiation: Effects of applied electromagnetic fields**  
Mora-Ramos M. E., Duque C. A., Kasapoglu E., Sari H., Sokmen I.  
JOURNAL OF LUMINESCENCE, vol.132, no.4, pp.901-913, 2012 (SCI-Expanded)
- CIII. **OPTICAL INTERSUBBAND TRANSITIONS AND BINDING ENERGIES OF DONOR IMPURITIES IN Ga<sub>1-x</sub>In<sub>x</sub>NyAs<sub>1-y</sub>/GaAs/Al<sub>0.3</sub>Ga<sub>0.7</sub>As QUANTUM WELL UNDER THE ELECTRIC FIELD**  
Ungan F., Yesilgul U., Kasapoglu E., Sari H., Sokmen I.  
INTERNATIONAL JOURNAL OF MODERN PHYSICS B, vol.26, no.6, 2012 (SCI-Expanded)
- CIV. **The effects of hydrostatic pressure and intense laser field on the linear and nonlinear optical properties of a square quantum well**  
Ungan F., Yesilgul U., Kasapoglu E., Sari H., Sokmen I.  
OPTICS COMMUNICATIONS, vol.285, no.3, pp.373-377, 2012 (SCI-Expanded)
- CV. **Effects of an intense, high-frequency laser field on the binding energy of excitons confined in a GaInNAs/GaAs quantum well**  
Yesilgul U., Ungan F., Kasapoglu E., Sari H., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.407, no.3, pp.528-532, 2012 (SCI-Expanded)
- CVI. **Combined effects of intense laser field and applied electric field on exciton states in GaAs quantum wells: Transition from the single to double quantum well**  
Duque C. A., Mora-Ramos M. E., Kasapoglu E., Sari H., Sokmen I.  
PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS, vol.249, no.1, pp.118-127, 2012 (SCI-Expanded)
- CVII. **THE INTERSUBBAND TRANSITIONS AND BINDING ENERGY OF SHALLOW DONOR IMPURITIES IN DIFFERENT SHAPED QUANTUM WELLS UNDER THE MAGNETIC FIELD**  
Yesilgul U., Ungan F., Kasapoglu E., Sari H., Sokmen I.  
MODERN PHYSICS LETTERS B, vol.25, no.32, pp.2451-2459, 2011 (SCI-Expanded)
- CVIII. **The effect of the intense laser field on the intersubband transitions in Ga<sub>1-x</sub>In<sub>x</sub>NyAs<sub>1-y</sub>/GaAs single quantum well**  
Ungan F., Kasapoglu E., Duque C. A., Sari H., Sokmen I.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.44, no.2, pp.515-520, 2011 (SCI-Expanded)
- CIX. **THE EFFECTS OF TEMPERATURE AND HYDROSTATIC PRESSURE ON THE DIAMAGNETIC SUSCEPTIBILITY OF A DONOR IN A QUANTUM WELL**  
Yesilgul U., Ungan F., Kasapoglu E., Sari H., Sokmen I.  
SURFACE REVIEW AND LETTERS, vol.18, no.5, pp.147-152, 2011 (SCI-Expanded)
- CX. **Intersubband optical absorption coefficients and refractive index changes in modulation-doped asymmetric double quantum well**  
Ungan F., Kasapoglu E., Sokmen I.  
SOLID STATE COMMUNICATIONS, vol.151, no.20, pp.1415-1419, 2011 (SCI-Expanded)
- CXI. **The linear and nonlinear intersubband optical absorption coefficients and refractive index changes in a V-shaped quantum well under the applied electric and magnetic fields**  
Yesilgul U., Ungan F., Kasapoglu E., Sari H., Sokmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.50, no.4, pp.400-410, 2011 (SCI-Expanded)
- CXII. **Photoionization cross-section and binding energy of shallow donor impurities in Ga<sub>1-x</sub>In<sub>x</sub>NyAs<sub>1-y</sub>/GaAs quantum wires**  
Yesilgul U., Kasapoglu E., Sari H., Sokmen I.  
SOLID STATE COMMUNICATIONS, vol.151, no.17, pp.1175-1178, 2011 (SCI-Expanded)
- CXIII. **Dependence of impurity binding energy on nitrogen and indium concentrations for shallow donors in a GaInNAs/GaAs quantum well under intense laser field**  
Ungan F., Kasapoglu E., Sari H., Sokmen I.  
EUROPEAN PHYSICAL JOURNAL B, vol.82, pp.313-318, 2011 (SCI-Expanded)
- CXIV. **Intense laser field effects on the linear and nonlinear intersubband optical properties of a semi-**

### **parabolic quantum well**

Kasapoglu E., Duque C. A., Sari H., Sokmen I.

EUROPEAN PHYSICAL JOURNAL B, vol.82, no.1, pp.13-17, 2011 (SCI-Expanded)

- CXV. **Effects of an Intense Laser Field and Hydrostatic Pressure on the Intersubband Transitions and Binding Energy of Shallow Donor Impurities in a Quantum Well**  
Yesilgul U., Ungan F., Kasapoglu E., Sari H., Sokmen I.  
CHINESE PHYSICS LETTERS, vol.28, no.7, 2011 (SCI-Expanded)
- CXVI. **Intense laser field effect on impurity states in a semiconductor quantum well: transition from the single to double quantum well potential**  
Duque C. A., Mora-Ramos M. E., Kasapoglu E., Sari H., Sokmen I.  
EUROPEAN PHYSICAL JOURNAL B, vol.81, no.4, pp.441-449, 2011 (SCI-Expanded)
- CXVII. **The effect of hydrostatic pressure on subband structure and optical transitions in modulation-doped quantum well**  
Ungan F., Yesilgul U., Sakiroglu S., Kasapoglu E., Sari H., Sokmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.49, no.6, pp.635-643, 2011 (SCI-Expanded)
- CXVIII. **The effects of the intense laser field on donor impurities in a cylindrical  $GaxIn_{1-x}NyAs_{1-y}/GaAs$  quantum dot under the electric field**  
Kasapoglu E., Duque C. A., Sakiroglu S., Sari H., Sokmen I.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.43, no.8, pp.1427-1432, 2011 (SCI-Expanded)
- CXIX. **Hydrogenic impurities in quantum dots under intense high-frequency laser field**  
Yesilgul U., Sakiroglu S., Kasapoglu E., Sari H., Soekmen I.  
PHYSICA B-CONDENSED MATTER, vol.406, no.8, pp.1441-1444, 2011 (SCI-Expanded)
- CXX. **The effects of the intense laser field on bound states in  $GaxIn_{1-x}NyAs_{1-y}/GaAs$  single quantum well**  
Ungan F., Kasapoglu E., Duque C. A., Yesilgul U., Sakiroglu S., Sokmen I.  
EUROPEAN PHYSICAL JOURNAL B, vol.80, no.1, pp.89-93, 2011 (SCI-Expanded)
- CXXI. **Intense laser effects on nonlinear optical absorption and optical rectification in single quantum wells under applied electric and magnetic field**  
Duque C. A., Kasapoglu E., Sakiroglu S., Sari H., Sokmen I.  
APPLIED SURFACE SCIENCE, vol.257, no.6, pp.2313-2319, 2011 (SCI-Expanded)
- CXXII. **The effects of temperature and hydrostatic pressure on the photoionization cross-section and binding energy of shallow donor impurities in quantum dots**  
Yesilgul U., Kasapoglu E., Sari H., Sokmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.48, no.6, pp.509-516, 2010 (SCI-Expanded)
- CXXIII. **Intense laser effects on donor impurity in a cylindrical single and vertically coupled quantum dots under combined effects of hydrostatic pressure and applied electric field**  
Duque C. A., Kasapoglu E., Sakiroglu S., Sari H., Sokmen I.  
APPLIED SURFACE SCIENCE, vol.256, no.24, pp.7406-7413, 2010 (SCI-Expanded)
- CXXIV. **The effect of nitrogen on the diamagnetic susceptibility of a donor in  $GaxIn_{1-x}NyAs_{1-y}/GaAs$  quantum well under the magnetic field**  
Kilicarslan E., Sakiroglu S., Kasapoglu E., Sari H., Sokmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.48, no.3, pp.305-311, 2010 (SCI-Expanded)
- CXXV. **The effects of temperature and hydrostatic pressure on the photoionization cross-section and binding energy of impurities in quantum-well wires**  
Yesilgul U., Sakiroglu S., Kasapoglu E., Sari H., Soekmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.48, no.1, pp.106-113, 2010 (SCI-Expanded)
- CXXVI. **Effects of an intense, high-frequency laser field on the intersubband transitions and impurity binding energy in semiconductor quantum wells**  
Ungan F., Yesilgul U., Sakiroglu S., Kasapoglu E., Sari H., Sokmen I.  
PHYSICS LETTERS A, vol.374, no.29, pp.2980-2984, 2010 (SCI-Expanded)
- CXXVII. **The hydrostatic pressure and temperature effects on donor impurities in cylindrical quantum wire under the magnetic field**

- Kasapoglu E., Urgan F., Sari H., Sokmen I.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.42, no.5, pp.1623-1626, 2010 (SCI-Expanded)
- CXXVIII. **Inter-sub-band transitions and binding energies of donor impurities in a modulation-doped quantum well in the presence of electric field**  
UNGAN F., KASAPÖĞLU E., Sari H., Soekmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.46, no.6, pp.864-871, 2009 (SCI-Expanded)
- CXXIX. **The diamagnetic susceptibilities of donors in quantum wells with anisotropic effective mass**  
KASAPÖĞLU E., UNGAN F., Sari H., Soekmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.46, no.6, pp.817-822, 2009 (SCI-Expanded)
- CXXX. **FINITE ELEMENT ANALYSIS OF VALENCE BAND STRUCTURE OF SQUARE QUANTUM WELL UNDER THE ELECTRIC FIELD**  
Gunes M., Kasapoglu E., Sari H., Akgungor K., Sokmen I.  
SURFACE REVIEW AND LETTERS, vol.16, no.5, pp.689-696, 2009 (SCI-Expanded)
- CXXXI. **Photoionization cross-section and binding energy of donor impurities in GaAs, Ge and Si quantum wires with infinite barriers**  
Koksal M., Kasapoglu E., Sari H., Sokmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.46, no.3, pp.507-512, 2009 (SCI-Expanded)
- CXXXII. **Binding energy of donor impurities in double inverse parabolic quantum well under electric field**  
Kasapoglu E.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.41, no.7, pp.1222-1225, 2009 (SCI-Expanded)
- CXXXIII. **Binding energies of donor impurities in modulation-doped GaAs/Al<sub>x</sub>Ga<sub>1-x</sub>As double quantum wells under an electric field**  
Kasapoglu E., Urgan F., Sari H., Sokmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.45, no.6, pp.618-623, 2009 (SCI-Expanded)
- CXXXIV. **ELECTRONIC STRUCTURE AND BAND BENDING OF MODULATION-DOPED GaAs/Al<sub>x</sub>Ga<sub>1-x</sub>As SYMMETRIC AND ASYMMETRIC DOUBLE QUANTUM WELLS UNDER AN APPLIED ELECTRIC FIELD**  
Urgan F., Kasapoglu E., Sari H., Sokmen I.  
SURFACE REVIEW AND LETTERS, vol.16, no.1, pp.105-110, 2009 (SCI-Expanded)
- CXXXV. **The hydrostatic pressure and temperature effects on donor impurities in GaAs/Ga<sub>1-x</sub>Al<sub>x</sub>As double quantum well under the external fields**  
Kasapoglu E.  
PHYSICS LETTERS A, vol.373, no.1, pp.140-143, 2008 (SCI-Expanded)
- CXXXVI. **The effects of intense laser field and electric field on intersubband absorption in a double-graded quantum well**  
Kasapoglu E., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.403, pp.3746-3750, 2008 (SCI-Expanded)
- CXXXVII. **Effects of magnetic and electric fields on the hydrogenic impurity in an ellipsoidal parabolic quantum dot**  
Kasapoglu E., Sari H., Sokmen I.  
SURFACE REVIEW AND LETTERS, vol.15, no.3, pp.201-205, 2008 (SCI-Expanded)
- CXXXVIII. **Interband absorption and exciton binding energy in an inverse parabolic quantum well under the magnetic field**  
Kasapoglu E., Sokmen I.  
PHYSICS LETTERS A, vol.372, no.1, pp.56-59, 2007 (SCI-Expanded)
- CXXXIX. **Density of impurity states of hydrogenic impurities in an inverse parabolic quantum well under the magnetic field**  
Kasapoglu E., Sari H., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.392, pp.213-216, 2007 (SCI-Expanded)
- CXL. **Effect of hydrostatic pressure on interband transitions in coupled quantum wires**  
Kasapoglu E., Gunes M., Sokmen I.  
CHINESE PHYSICS LETTERS, vol.24, no.4, pp.1058-1061, 2007 (SCI-Expanded)

- CXLI. **Binding energy of impurity states in an inverse parabolic quantum well under magnetic field**  
Kasapoglu E., Sari H., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.390, pp.216-219, 2007 (SCI-Expanded)
- CXLII. **The electric field dependence of the photoionization cross-section of shallow donor impurities in quantum dots: Infinite and finite model**  
Kasapoglu E., Sari H., Yesilgul U., Sokmen O.  
SURFACE REVIEW AND LETTERS, vol.13, no.6, pp.747-752, 2006 (SCI-Expanded)
- CXLIII. **Shallow donors in a coupled triple graded quantum well under the electric and magnetic fields**  
Kasapoglu E., Sari H., Sokmen I.  
SURFACE REVIEW AND LETTERS, vol.13, no.4, pp.397-401, 2006 (SCI-Expanded)
- CXLIV. **The effect of intense laser field on the photoionization cross-section and binding energy of shallow donor impurities in graded quantum-well wire under an electric field**  
Kasapoglu E., Sari H., Yesilgul U., Sokmen I.  
JOURNAL OF PHYSICS-CONDENSED MATTER, vol.18, no.27, pp.6263-6271, 2006 (SCI-Expanded)
- CXLV. **Shallow donors in the triple-graded quantum well under the hydrostatic pressure and external fields**  
Kasapoglu E., Sari H., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.373, no.2, pp.280-283, 2006 (SCI-Expanded)
- CXLVI. **The effect of hydrostatic pressure on the photoionization cross-section and binding energy of impurities in quantum-well wire under the electric field**  
Kasapoglu E., Yesilgul U., Sari H., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.368, pp.76-81, 2005 (SCI-Expanded)
- CXLVII. **Intersubband transitions in coupled triple-graded quantum wells under an electric field**  
Kasapoglu E., Sari H., Sokmen I.  
PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS, vol.242, no.12, pp.2468-2473, 2005 (SCI-Expanded)
- CXLVIII. **Shallow donor impurities in different shaped double quantum wells under the hydrostatic pressure and applied electric field**  
Kasapoglu E., Sari H., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.362, pp.56-61, 2005 (SCI-Expanded)
- CXLIX. **The effects of hydrostatic pressure and applied electric field on shallow donor impurities in GaAs/GaAlAs graded quantum well**  
Kasapoglu E., Sari H., Sokmen I.  
SURFACE REVIEW AND LETTERS, vol.12, no.2, pp.155-159, 2005 (SCI-Expanded)
- CL. **Shallow donor impurity binding energy in the V-shaped quantum well under the crossed electric and magnetic fields**  
Kasapoglu E., Sokmen I.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.27, pp.198-203, 2005 (SCI-Expanded)
- CLI. **The effect of hydrostatic pressure on optical transitions in quantum-well wires**  
Kasapoglu E., Sari H., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.353, pp.345-350, 2004 (SCI-Expanded)
- CLII. **Effects of crossed electric and magnetic fields on shallow donor impurity binding energy in a parabolic quantum well**  
Kasapoglu E., Sari H., Sokmen I.  
CHINESE PHYSICS LETTERS, vol.21, no.12, pp.2500-2503, 2004 (SCI-Expanded)
- CLIII. **Magnetic field and intense laser radiation effects on the interband transitions in quantum well wires**  
Kasapoglu E., Sari H., Gunes M., Sokmen I.  
SURFACE REVIEW AND LETTERS, vol.11, pp.403-409, 2004 (SCI-Expanded)
- CLIV. **The photoionization cross-section and binding energy of impurities in quantum wires: Effects of the electric and magnetic field**  
Kasapoglu E., Sari H., Yesilgul U., Sokmen I.  
SURFACE REVIEW AND LETTERS, vol.11, pp.411-417, 2004 (SCI-Expanded)

- CLV. **The electric field dependence of a donor impurity in graded GaAs quantum wires**  
Kasapoglu E., Sari H., Sokmen I.  
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.78, no.7, pp.1053-1058, 2004 (SCI-Expanded)
- CLVI. **Shallow donor impurities in different shaped double quantum wells under the electric field**  
Kasapoglu E., Sokmen I.  
PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS, vol.241, no.5, pp.1066-1072, 2004 (SCI-Expanded)
- CLVII. **Barrier thickness dependence of optical absorption of excitons in GaAs coupled quantum wire**  
Kasapoglu E., Gunes M., Sari H., Sokmen I.  
SURFACE REVIEW AND LETTERS, vol.11, no.1, pp.49-55, 2004 (SCI-Expanded)
- CLVIII. **Effect of crossed electric and magnetic fields on donor impurity binding energy**  
Kasapoglu E., Sari H., Sokmen I.  
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.78, no.1, pp.101-105, 2004 (SCI-Expanded)
- CLIX. **Optical transitions in quantum well wires under intense laser radiation**  
Sari H., Kasapoglu E., Sokmen I., Gunes M.  
PHYSICS LETTERS A, vol.319, pp.211-216, 2003 (SCI-Expanded)
- CLX. **Binding energies of shallow donor impurities in different shaped quantum wells under an applied electric field**  
Kasapoglu E., Sari H., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.339, no.1, pp.17-22, 2003 (SCI-Expanded)
- CLXI. **Optical properties of excitons in quantum well wires under the magnetic field**  
Kasapoglu E., Sari H., Sokmen I.  
SURFACE REVIEW AND LETTERS, vol.10, no.5, pp.737-743, 2003 (SCI-Expanded)
- CLXII. **Geometrical effects on shallow donor impurities in quantum wires**  
Kasapoglu E., Sari H., Sokmen I.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.19, no.4, pp.332-335, 2003 (SCI-Expanded)
- CLXIII. **Intense field effects on shallow donor impurities in graded quantum wells**  
Sari H., Kasapoglu E., Sokmen I., Balkan N.  
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.18, no.6, pp.470-474, 2003 (SCI-Expanded)
- CLXIV. **The effect of an intense laser field on magneto donors in semiconductors**  
Sari H., Kasapoglu E., Sokmen I.  
PHYSICS LETTERS A, vol.311, no.1, pp.60-66, 2003 (SCI-Expanded)
- CLXV. **Exciton absorption in quantum-well wires under the electric field**  
Kasapoglu E., Sari H., Bursal M., Sokmen I.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.16, no.2, pp.237-243, 2003 (SCI-Expanded)
- CLXVI. **Binding energy of hydrogenic impurities in a quantum well under the tilted magnetic field**  
Kasapoglu E., Sari H., Sokmen I.  
SOLID STATE COMMUNICATIONS, vol.125, pp.429-434, 2003 (SCI-Expanded)
- CLXVII. **Shallow donors in a triple graded quantum well under electric and magnetic field**  
Sari H., Kasapoglu E., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.325, pp.300-307, 2003 (SCI-Expanded)
- CLXVIII. **Hydrogenic impurities in graded GaAs-(Ga,Al)As quantum-well wires in an electric field**  
Kasapoglu E., Sari H., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.315, no.4, pp.261-266, 2002 (SCI-Expanded)
- CLXIX. **Intersubband optical absorption in a quantum well under a tilted magnetic field**  
Kasapoglu E., Sari H., Sokmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.29, no.1, pp.25-32, 2001 (SCI-Expanded)
- CLXX. **Excitonic structure in a quantum well under the tilted magnetic field**  
Kasapoglu E., Sari H., Sokmen I.  
JOURNAL OF APPLIED PHYSICS, vol.88, no.5, pp.2671-2676, 2000 (SCI-Expanded)
- CLXXI. **Binding energy of excitons in symmetric and asymmetric coupled double quantum wells in a uniform magnetic field**

- Kasapoglu E., Sari H., Balkan N., Sokmen I., Ergun Y.  
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.15, no.2, pp.219-224, 2000 (SCI-Expanded)
- CLXXII. **Improvement in intersubband optical absorption and the effects of device parameter variations in quantum wells with an applied electric field**  
Kasapoglu E., Sari H., Ergun Y., Sokmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.26, no.6, pp.395-404, 1999 (SCI-Expanded)
- CLXXIII. **Binding energies of excitons in symmetric and asymmetric quantum wells in a magnetic field**  
Kasapoglu E., Sari H., Ergun Y., Elagoz S., Sokmen I.  
SUPERLATTICES AND MICROSTRUCTURES, vol.24, no.5, pp.359-368, 1998 (SCI-Expanded)
- CLXXIV. **Subband structure and excitonic binding of graded GaAs/Ga<sub>1-x</sub>Al<sub>x</sub>As quantum wells under an electric field**  
Sari H., Ergun Y., Elagoz S., Kasapoglu E., Sokmen I., Tomak M.  
SUPERLATTICES AND MICROSTRUCTURES, vol.23, no.5, pp.1067-1074, 1998 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Position-Dependent Effective Mass and Asymmetry Effects on the Electronic and Optical Properties of Quantum Wells with Improved Rosen–Morse Potential**  
KASAPOĞLU E., YÜCEL M. B., Duque C. A.  
Computational Condensed Matter, vol.8, pp.86, 2023 (ESCI)
- II. **Optical characterization of laser-driven double Morse quantum wells**  
KASAPOĞLU E., Sakiroglu S., SARI H., Sokmen I., Duque C. A.  
HELIYON, vol.5, no.7, 2019 (ESCI)
- III. **Optical Properties of Tuned Double Quantum Well Under the Electric Field**  
KASAPOĞLU E.  
Cumhuriyet Science Journal, vol.39, no.3, pp.714-719, 2018 (Peer-Reviewed Journal)
- IV. **Nonlinear optical rectification the second and third harmonic generation in asymmetric double quantum well under the intense laser field**  
Yeşilgül Ü., Al E. B., Ungan F., Kasapoğlu E.  
Cumhuriyet Science Journal, vol.37, no.4, 2016 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Mekanik Laboratuvarı**  
Al E. B., Kasapoğlu E.  
Cumhuriyet Üniversitesi Yayınları, Sivas, 2016

## Refereed Congress / Symposium Publications in Proceedings

- I. **OPTICAL PROPERTIES OF FINITE SPHERICAL QUANTUM DOT UNDER MAGNETIC FIELD**  
Al E. B., Kasapoğlu E., Sari H.  
VIII. UMTEB INTERNATIONAL CONGRESS ON VOCATIONAL TECHNICAL SCIENCES, Sivas, Turkey, 11 - 13 October 2019, pp.223-233
- II. **OPTICAL PROPERTIES OF INFINITE SPHERICAL QUANTUM DOT UNDER MAGNETIC FIELD**  
Al E. B., Kasapoğlu E., Sari H.  
VIII. UMTEB INTERNATIONAL CONGRESS ON VOCATIONAL TECHNICAL SCIENCES, Sivas, Turkey, 11 - 13 October 2019, pp.234-244
- III. **Generacion de segundo y tercer armonico en pozos cuanticos con potencial de morse**  
Restrepo Arango R. L., KASAPOĞLU E., UNGAN F., Martinez Orozco J. C., Morales A A. L., Duque E C. A.

La Sociedad Colombiana de Fisica y el Comite Organizador del XXVI Congreso Nacional De Fisica, 3 - 06 October 2017

- IV. **NONLINEAR OPTICAL RECTIFICATION THE SECOND AND THIRD HARMONIC GENERATION IN AN ASYMMETRIC DOUBLE QUANTUM WELL UNDER THE INTENSE LASER FIELD**  
Al E. B., Yeşilgöl Ü., Urgan F., Kasapoğlu E.  
16th International Balkan Workshop on Applied Physics and Materials Science, Constanta, Romania, 7 - 09 July 2016, pp.86-87
- V. **Effect Of An Intense Laser Field On The Nonlinear Optical Rectification And Second Harmonic Generation In Asymmetric Double Quantum Well Under The Hydrostatic Pressure And Temperature**  
UNGAN F., YEŞİLGÜL Ü., KASAPOĞLU E.  
IBWAP 2016, Constanta, Romania, 7 - 09 July 2016
- VI. **Efectos de laser intenso sobre pozos cuanticos asimetricos de GaAsAl GaAs**  
Restrepo R., KASAPOĞLU E., UNGAN F., Mora Ramos M., Morales A., Duque C.  
Octavo Taller de Fisica de la materia condensada y molecular, 12 - 14 January 2015
- VII. **Investigation of the band structure of GaInNAs/GaAs single quantum well with 10-band k.p model**  
UNGAN F., YEŞİLGÜL Ü., ŞAKIROĞLU S., KASAPOĞLU E., SÖKMEN İ.  
E-MRS 2010 Spring Meeting, 7 June - 11 July 2010
- VIII. **Finite element analysis of conduction band structure and intersubband transitions of square quantum well under electric field and stress**  
GÜNEŞ M., YEŞİLGÜL Ü., UNGAN F., KASAPOĞLU E., SARI H., SÖKMEN İ.  
Nano TR5 Nanoscience and Nanotechnology 2009, 8 - 12 June 2009

## Supported Projects

2017 - 2020	Manyetik Alan Altında Küresel Kuantum Noktalarının Elektronik Ve Optik Özellikleri, Project Supported by Higher Education Institutions
2018 - 2019	Elektrik alan altında tek, çift ve üçlü delta katkılı GaAs yapıların altbandları arasındaki ikinci derece lineer olmayan geçişler F-571, Project Supported by Higher Education Institutions
2017 - 2018	Lennard Jones Potansiyelli Çift Kuantum Kuyusundaki Safsızlık Atomlarının Bağlanma Enerjileri ve Optik Geçişler F-557, Project Supported by Higher Education Institutions
2017 - 2018	Binding Energies and Optical Transitions of Impurity Atoms in the Double Quantum Well with Lennard Jones Potential , Project Supported by Higher Education Institutions
2016 - 2018	Cumhuriyet Üniversitesi Ar-Ge Strateji Belgesi (Optik, Elektro Optik ve Fotonik Teknolojileri), TUBITAK Project
2017 - 2017	Tietz-Hua kuantum kuyusunun lineer ve lineer olmayan optik özellikleri üzerine dış alanların etkisi F-516, Project Supported by Higher Education Institutions
2017 - 2017	The effect of external fields on linear and nonlinear optical properties of Tietz-Hua quantum well, Project Supported by Higher Education Institutions
2017 - 2017	Çift delta katkılı GaAs yapıların altbandları arasındaki ikinci derece lineer olmayan geçişler F-519, Project Supported by Higher Education Institutions
2016 - 2016	The effect of external fields on the optical properties of the asymmetric parabolic quantum well., Project Supported by Higher Education Institutions
2016 - 2016	Tek çift ve üçlü delta katkılı GaAs yapıların altbandları arasındaki lineer olmayan geçişler F 473, Project Supported by Higher Education Institutions
2016 - 2016	Asimetrik parabolik kuantum kuyusunun optik özellikleri üzerine dış alanların etkisi F-470, Project Supported by Higher Education Institutions
2014 - 2015	Basamaklı asimetrik kuantum kuyusunun lineer ve lineer olmayan optik özellikleri üzerine elektrik ve manyetik alanların etkisi, Project Supported by Higher Education Institutions
2012 - 2013	Yoğun Lazer Alanı Altında GaInNAs GaAs Kuantum Kuyularındaki Donor Safsızlık Atomlarının Bağlanma Enerjileri, Project Supported by Higher Education Institutions



## Metrics

Publication: 212

Citation (WoS): 3300

Citation (Scopus): 3348

H-Index (WoS): 36

H-Index (Scopus): 36

## Awards

September 2014

Lütfi ABAY Kültür Ve Eğitim Vakfı (LAKEV) Bilim Ödülü , Lütfi Abay Kültür Ve Eğitim Vakfı (Lakev)