

# Prof. FATİH UNGAN

## Personal Information

**Office Phone:** [+90 346 219 1010](tel:+903462191010) Extension: 2335

**Fax Phone:** [+90 346 219 1241](tel:+903462191241)

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

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

## Education Information

Doctorate, Sivas Cumhuriyet University, Fen Bilimleri Enstitüsü, Fizik , Turkey 2006 - 2010

Post Graduate, Sivas Cumhuriyet University, Fen Bilimleri Enstitüsü, Fizik , Turkey 2001 - 2004

Under Graduate, Karadeniz Technical University, Hukuk Müşavirliği, Turkey 1996 - 2001

## Foreign Languages

English, C1 Advanced

## Dissertations

Doctorate, Yoğun lazer alanı altında GaInNAs/GaAs kuantum kuyularındaki donör safsızlık atomlarının bağlanma enerjileri, Sivas Cumhuriyet University, Fen Bilimleri Enstitüsü, Fizik, 2010

Post Graduate, Simetrik katkılı çift kuantum kuyusunun potansiyel profilleri ve altband yapısı, Sivas Cumhuriyet University, Fen Bilimleri Enstitüsü, Fizik, 2004

## Research Areas

Physics, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Electrical properties of electronic structures, interfaces, thin films and low-dimensional structures, Optical Properties, Spectroscopy of Matter, Natural Sciences

## Academic Titles / Tasks

Professor, Sivas Cumhuriyet Üniversitesi, Teknoloji Fakültesi, Optik Mühendisliği Bölümü, 2019 - Continues

Associate Professor, Sivas Cumhuriyet Üniversitesi, Teknoloji Fakültesi, Optik Mühendisliği Bölümü, 2015 - 2019

Associate Professor, Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, 2013 - 2015

Assistant Professor, Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Fizik Bölümü, 2012 - 2013

Research Assistant, Sivas Cumhuriyet Üniversitesi, Fen Fakültesi, Fizik Bölümü, 2001 - 2011

## Professional Experience

Head of Department, Sivas Cumhuriyet Üniversitesi, Fen Bilimleri Enstitüsü, Optik Mühendisliği Anabilim Dalı (Disiplinlerarası), 2019 - Continues

Head of Department, Sivas Cumhuriyet Üniversitesi, Teknoloji Fakültesi, Optik Mühendisliği Bölümü, 2019 - Continues

Head of Department, Sivas Cumhuriyet Üniversitesi, Teknoloji Fakültesi, Optik Mühendisliği Bölümü, 2019 - Continues

Head of Department, Sivas Cumhuriyet Üniversitesi, Fen Bilimleri Enstitüsü, Optik Mühendisliği (YI) (Tezli), 2015 - 2016

Head of Department, Sivas Cumhuriyet Üniversitesi, Teknoloji Fakültesi, Optik Mühendisliği Bölümü, 2015 - 2016

## Courses

İleri Geometrik Optik, Post Graduate, 2019 - 2020  
Dinamik, Under Graduate, 2018 - 2019  
Seminer Dersi, Post Graduate, 2019 - 2020  
Doğrusal Olmayan Optik, Post Graduate, 2019 - 2020  
Uzmanlık Alan Dersi, Post Graduate, 2019 - 2020  
Yarı İletken Optoelektronik Aygıtlar, Post Graduate, 2019 - 2020  
Dinamik, Under Graduate, 2018 - 2019  
Dinamik, Under Graduate, 2017 - 2018  
Yarıiletken Optoelektronik Aygıtlar, Post Graduate, 2016 - 2017  
İleri Geometrik Optik, Post Graduate, 2016 - 2017  
Yarıiletken Optoelektronik, Post Graduate, 2014 - 2015  
Dinamik, Under Graduate, 2014 - 2015  
Dinamik, Under Graduate, 2014 - 2015  
Seminer Dersi, Post Graduate, 2014 - 2015  
Dinamik, Under Graduate, 2014 - 2015  
Uzmanlık Alan Dersi, Post Graduate, 2014 - 2015  
Dinamik, Under Graduate, 2014 - 2015  
Katihal Fiziği, Under Graduate, 2014 - 2015  
Genel Fizik II, Under Graduate, 2013 - 2014  
Genel Fizik II, Under Graduate, 2013 - 2014  
Katihal Fiziği, Under Graduate, 2014 - 2015  
Katihal Fiziği - I, Under Graduate, 2014 - 2015  
Genel Fizik I, Under Graduate, 2014 - 2015  
Genel Fizik I, Under Graduate, 2014 - 2015  
Genel Fizik II, Under Graduate, 2013 - 2014  
Genel Fizik II, Under Graduate, 2013 - 2014  
Fizik II, Under Graduate, 2013 - 2014  
Temel Fizik, Associate Degree, 2012 - 2013  
Genel Fizik I, Under Graduate, 2012 - 2013  
Fizik-II, Under Graduate, 2011 - 2012  
Temel Bilgisayar Bilimleri, Under Graduate, 2011 - 2012  
Temel Bilgisayar Bilimleri, Under Graduate, 2011 - 2012  
Fizik-II, Under Graduate, 2011 - 2012  
Genel Fizik I, Under Graduate, 2012 - 2013  
Temel Fizik, Associate Degree, 2011 - 2012

## Advising Theses

Ungan F., TERS V-ŞEKİLLİ BİR KUANTUM KUYUSUNUN DOĞRUSAL VE DOĞRUSAL OLMAYAN OPTİK ÖZELLİKLERİ, Post Graduate, A.Bilgin(Student), 2019  
Ungan F., Çift görüş açılı mekanik objektif tasarımı, Post Graduate, Ç.KOÇ(Student), 2019  
Ungan F., Elektromanyetik Alan Altındaki Ters Parabolik Bir Kuantum Kuyusunun Optik Özellikleri, Post Graduate, A.TUNCER(Student), 2019  
Ungan F., YARIM V-ŞEKİLLİ KUANTUM KUYUSUNUN OPTİKSEL ÖZELLİKLERİ, Post Graduate, S.Alım(Student), 2019  
Ungan F., GÖRÜNTÜ KALİTESİNİN ARTTIRILMASINDA OPTİK YÜZEYLERİN ETKİSİNİN İNCELENMESİ, Post Graduate, L.Açıkgöz(Student), 2019  
Ungan F., Asimetrik Çift Eğimli Kuantum Kuyusunun Optiksel Özellikleri, Post Graduate, H.Seda(Student), 2018  
UNGAN F., Safsızlık düzeyleri arasındaki kızılötesi geçişler üzerine elektrik alan etkisi, Post Graduate, Y.EMRE(Student), 2015

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

- **The laser field controlling on the nonlinear optical specifications of the electric field-triggered Rosen-Morse quantum well**  
UNGAN F., BAHAR M. K.  
PHYSICS LETTERS A, vol.384, 2020 (Journal Indexed in SCI)
- **Optical properties of n-type asymmetric triple delta-doped quantum well under external fields**  
UNGAN F., BAHAR M. K. , Mora-Ramos M. E.  
PHYSICA SCRIPTA, vol.95, 2020 (Journal Indexed in SCI)
- **Studies on the nonlinear optical properties of two-step GaAs/Ga<sub>1-x</sub>Al<sub>x</sub>As quantum well**  
Martinez-Orozco J. C. , UNGAN F., Rodriguez-Magdaleno K. A.  
PHYSICA SCRIPTA, vol.95, 2020 (Journal Indexed in SCI)
- **Magneto-optical specifications of Rosen-Morse quantum dot with screw dislocation**  
BAHAR M. K. , UNGAN F.  
INTERNATIONAL JOURNAL OF QUANTUM CHEMISTRY, vol.120, 2020 (Journal Indexed in SCI)
- **Intersubband optical properties of a laser-dressed asymmetric triple quantum well nanostructure**  
UNGAN F., Mora-Ramos M. E. , Barseghyan M. G. , Perez L. M. , Laroze D.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.114, 2019 (Journal Indexed in SCI)
- **The optimal ranges for the optical properties of two-electron quantum dot immersed in plasmas**  
Bahar M. K. , UNGAN F., Soylu A.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.114, 2019 (Journal Indexed in SCI)
- **Nonlinear optical properties of morse quantum well modulated by THz laser fields**  
UNGAN F., Pal S., Bahar M. K. , Mora-Ramos M. E.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.113, pp.86-91, 2019 (Journal Indexed in SCI)
- **Tailoring the optical properties of quantum ring irradiated by THz laser**  
Kilic D. G. , Sakiroglu S., UNGAN F., Yesilgul U., KASAPOĞLU E., SARI H., Sokmen I.  
PHILOSOPHICAL MAGAZINE, vol.99, pp.3116-3132, 2019 (Journal Indexed in SCI)
- **A theoretical study on the optical properties of a quantum well with short-range bottomless exponential potential**  
UNGAN F., Mora-Ramos M. E. , Sakiroglu S., SARI H., Sokmen I.  
INTERNATIONAL JOURNAL OF MODERN PHYSICS B, vol.33, 2019 (Journal Indexed in SCI)
- **The functionality of the external electric and magnetic field on optical specifications of Rosen-Morse quantum well**  
Ungan F., Bahar M. K.  
PHYSICA SCRIPTA, vol.94, 2019 (Journal Indexed in SCI)
- **Effect of applied external fields on the nonlinear optical properties of a Woods-Saxon potential quantum well**  
Ungan F., Mora-Ramos M. E. , Yesilgul U., Sari H., Sokmen I.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.111, pp.167-171, 2019 (Journal Indexed in SCI)
- **Effect of the High-Frequency Laser Radiation on the Nonlinear Optical Properties of n-Type Double delta-Doped GaAs Quantum Wells**  
UNGAN F., SARI H., KASAPOĞLU E., YEŞİLGÜL Ü., ŞAKIROĞLU S., SÖKMEN İ.  
JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY, vol.19, pp.4167-4171, 2019 (Journal Indexed in SCI)
- **Computation of the nonlinear optical properties of n-type asymmetric triple delta-doped GaAs quantum well**  
Ungan F., Pal S., Bahar M. K. , Mora-Ramos M. E.  
SUPERLATTICES AND MICROSTRUCTURES, vol.130, pp.76-86, 2019 (Journal Indexed in SCI)
- **Hydrostatic Pressure and Temperature Effect on the Electron-Related Optical Responses in Symmetric and Asymmetric n-Type Double Delta-Doped GaAs Quantum Well Under Terahertz Laser Field**  
Ungan F., Mora-Ramos M. E. , Sari H., Sokmen I.  
JOURNAL OF ELECTRONIC MATERIALS, vol.48, pp.3537-3546, 2019 (Journal Indexed in SCI)
- **Intense laser-induced electronic and optical properties in double finite oscillator potential**

Sari H., Ungan F., Kasapoglu E., Sakiroglu S., Sokmen I.

PHILOSOPHICAL MAGAZINE, vol.99, pp.2444-2456, 2019 (Journal Indexed in SCI)

- **Hydrogenic donor impurities in delta-doped cylindrical quantum dots under intense laser field**

Sari H., Ungan F., Sakiroglu S., Yesilgul U., Sokmen I.

LASER PHYSICS, vol.29, 2019 (Journal Indexed in SCI)

- **Optical specifications of laser-induced Rosen-Morse quantum well**

UNGAN F., Bahar M. K.

OPTICAL MATERIALS, vol.90, pp.231-237, 2019 (Journal Indexed in SCI)

- **Electron-related optical responses in triple delta-doped quantum wells**

Ungan F., Mora-Ramos M. E. , Kasapoglu E., Sari H., Sokmen I.

PHILOSOPHICAL MAGAZINE, vol.99, pp.644-658, 2019 (Journal Indexed in SCI)

- **Effect of applied electric field on the nonlinear optical properties of modulation-doped GaAs/Al<sub>x</sub>Ga<sub>1-x</sub>As double quantum well**

Ungan F., Martinez-Orozco J. C. , Restrepo R. L. , Mora-Ramos M. E. , Duque C. A.

SUPERLATTICES AND MICROSTRUCTURES, vol.126, pp.89-97, 2019 (Journal Indexed in SCI)

- **Nonlinear optical properties of a semi-exponential quantum wells: Effect of high-frequency intense laser field**

Yesilgul U., UNGAN F., Sakiroglu S., SARI H., KASAPOĞLU E., Sokmen I.

OPTIK, vol.185, pp.311-316, 2019 (Journal Indexed in SCI)

- **The electron-related optical responses for the square tangent quantum well: Role of applied external fields**

UNGAN F., Pal S., Mora-Ramos M. E. , Martinez-Orozco J. C.

OPTIK, vol.188, pp.12-18, 2019 (Journal Indexed in SCI)

- **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 (Journal Indexed in SCI)

- **The nonlinear optical properties of GaAs-based quantum wells with Kratzer Fues confining potential: Role of applied static fields and non-resonant laser radiation**

UNGAN F., Martinez-Orozco J. C. , Restrepo R. L. , Mora-Ramos M. E.

OPTIK, vol.185, pp.881-887, 2019 (Journal Indexed in SCI)

- **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

(Journal Indexed in SCI)

- **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 (Journal Indexed in SCI)

- **Impurity-related optical response in cylindrical quantum dots with a delta-doped axial potential under an intense laser field**

Sari H., Ungan F., Sakiroglu S., Yesilgul U., Sokmen I.

JOURNAL OF PHYSICS AND CHEMISTRY OF SOLIDS, vol.120, pp.279-286, 2018 (Journal Indexed in SCI)

- **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 (Journal Indexed in SCI)

- **Intermediate band formation in a delta-doped like QW superlattices of GaAs/Al<sub>x</sub>Ga<sub>1-x</sub>As for solar cell design**

Del Rio-De Santiago A., Martinez-Orozco J. C. , Rodriguez-Magdalen K. A. , Contreras-Solorio D. A. , Rodriguez-Vargas I., Ungan F.

SUPERLATTICES AND MICROSTRUCTURES, vol.115, pp.191-196, 2018 (Journal Indexed in SCI)

- **Nonlinear optical properties of asymmetric double-graded quantum wells**

Aydinoglu H. S. , Sakiroglu S., Sari H., Ungan F., Sokmen I.

PHILOSOPHICAL MAGAZINE, vol.98, pp.2151-2163, 2018 (Journal Indexed in SCI)

- **The effects of intense laser field on optical responses of n-type delta doped GaAs quantum well under**

**applied electric and magnetic fields**

Sari H., Ugan F., Sakiroglu S., Yesilgul U., Sokmen I.  
OPTIK, vol.162, pp.76-80, 2018 (Journal Indexed in SCI)

- **Optical properties of the Tietz-Hua quantum well under the applied external fields**  
Kasapoglu E., Sakiroglu S., Ugan F., Yesilgul U., Duque C. A. , Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.526, pp.127-131, 2017 (Journal Indexed in SCI)
- **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. , Ugan F., Kasapoglu E., Duque C. A.  
PHYSICA B-CONDENSED MATTER, vol.525, pp.30-35, 2017 (Journal Indexed in SCI)
- **Intense laser field effects on the third-harmonic generation in a quantum pseudodot system**  
Sakiroglu S., Kilic D. G. , Yesilgul U., Ugan F., Kasapoglu E., Sari H., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.521, pp.215-220, 2017 (Journal Indexed in SCI)
- **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., Ugan F., Morales A. L. , Duque C. A.  
INFRARED PHYSICS & TECHNOLOGY, vol.85, pp.147-153, 2017 (Journal Indexed in SCI)
- **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., UGAN F., SÖKMEN İ.  
EUROPEAN PHYSICAL JOURNAL B, vol.90, 2017 (Journal Indexed in SCI)
- **Combined effects of the intense laser field, electric and magnetic fields on the optical properties of n-type double delta-doped GaAs quantum well**  
Sari H., Kasapoglu E., Sakiroglu S., Yesilgul U., Ugan F., Sokmen I.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.90, pp.214-217, 2017 (Journal Indexed in SCI)
- **Intense laser field effects on the intersubband optical absorption and refractive index change in the delta-doped GaAs quantum wells**  
Sari H., Yesilgul U., Ugan F., Sakiroglu S., Kasapoglu E., Sokmen I.  
CHEMICAL PHYSICS, vol.487, pp.11-15, 2017 (Journal Indexed in SCI)
- **The effects of the intense laser field on the optical properties of the asymmetric parabolic quantum well**  
Kasapoglu E., UGAN F., YEŞİLGÜL Ü.  
OPTICAL AND QUANTUM ELECTRONICS, vol.49, 2017 (Journal Indexed in SCI)
- **Optical response in a laser-driven quantum pseudodot system**  
Kilic D. G. , Sakiroglu S., Ugan F., Yesilgul U., Kasapoglu E., Sari H., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.509, pp.10-15, 2017 (Journal Indexed in SCI)
- **Effects of electromagnetic fields on the nonlinear optical properties of CrossMaric asymmetric double quantum well under intense laser field**  
Yesilgul U., Sari H., Ugan F., Martinez-Orozco J. C. , Restrepo R. L. , Mora-Ramos M. E. , Duque C. A. , Sokmen I.  
CHEMICAL PHYSICS, vol.485, pp.81-87, 2017 (Journal Indexed in SCI)
- **The effect of the intense laser field on the electronic states and optical properties of n-type double delta-doped GaAs quantum wells**  
Kasapoglu E., Yesilgul U., Ugan F., Sokmen I., Sari H.  
OPTICAL MATERIALS, vol.64, pp.82-87, 2017 (Journal Indexed in SCI)
- **Electron Raman scattering in a double quantum well tuned by an external nonresonant intense laser field**  
Tiutiunyk A., Mora-Ramos M. E. , Morales A. L. , Duque C. M. , Restrepo R. L. , Ugan F., Martinez-Orozco J. C. , Kasapoglu E., Duque C. A.  
OPTICAL MATERIALS, vol.64, pp.496-501, 2017 (Journal Indexed in SCI)
- **Effects of applied electric and magnetic fields on the nonlinear optical rectification and second-harmonic generation in a graded quantum well under intense laser field**  
UGAN F.  
EUROPEAN PHYSICAL JOURNAL B, vol.90, 2017 (Journal Indexed in SCI)

- **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, 2016 (Journal Indexed in SCI)
- **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, 2016 (Journal Indexed in SCI)
- **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 (Journal Indexed in SCI)
- **Electronic structure and optical properties of triangular GaAs/AlGaAs quantum dots: Exciton and impurity states**  
Tiutiunnyk 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 (Journal Indexed in SCI)
- **Intense laser field effects on a Woods-Saxon potential quantum well**  
Restrepo R. L. , Morales A. L. , Akimov V., Tulupenko V., Kasapoglu E., Ungan F., Duque C. A.  
SUPERLATTICES AND MICROSTRUCTURES, vol.87, pp.143-148, 2015 (Journal Indexed in SCI)
- **Linear and nonlinear optical properties in asymmetric double semi-V-shaped quantum well**  
Yesilgul U., Ungan F., Kasapoglu E., Sari H., Sokmen I.  
PHYSICA B-CONDENSED MATTER, vol.475, pp.110-116, 2015 (Journal Indexed in SCI)
- **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. , Ungan F., Yesilgul U., Kasapoglu E., Sari H., Sokmen I.  
OPTICAL MATERIALS, vol.47, pp.1-6, 2015 (Journal Indexed in SCI)
- **Nonlinear optical rectification and second-harmonic generation in a semi-parabolic quantum well under intense laser field: Effects of electric and magnetic fields**  
Ungan 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 (Journal Indexed in SCI)
- **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. , Ungan F., Yesilgul U., Sari H., Sokmen I.  
MATERIALS CHEMISTRY AND PHYSICS, vol.154, pp.170-175, 2015 (Journal Indexed in SCI)
- **The effects of intense laser field and applied electric and magnetic fields on optical properties of an asymmetric quantum well**  
Restrepo R. L. , Ungan F., Kasapoglu E., Mora-Ramos M. E. , Morales A. L. , Duque C. A.  
PHYSICA B-CONDENSED MATTER, vol.457, pp.165-171, 2015 (Journal Indexed in SCI)
- **Donor impurity states and related optical responses in triangular quantum dots under applied electric field**  
Kasapoglu E., Ungan F., Sari H., Sokmen I., Mora-Ramos M. E. , Duque C. A.  
SUPERLATTICES AND MICROSTRUCTURES, vol.73, pp.171-184, 2014 (Journal Indexed in SCI)
- **The effects of the electric and magnetic fields on the nonlinear optical properties in the step-like asymmetric quantum well**  
Kasapoglu E., Ungan 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 (Journal Indexed in SCI)
- **Electron-related optical responses in triangular quantum dots**  
Tiutiunnyk A., Tulupenko Y., Mora-Ramos M. E. , Kasapoglu E., Ungan F., Sari H., Sokmen I., Duque C. A.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.60, pp.127-132, 2014 (Journal Indexed in SCI)
- **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., Ungan F., Sakiroglu S., Kasapoglu E., Sari H., Sokmen I.  
ACTA PHYSICA POLONICA A, vol.125, pp.198-201, 2014 (Journal Indexed in SCI)

- **Intersubband optical absorption coefficients and refractive index changes in a graded quantum well under intense laser field: Effects of hydrostatic pressure, temperature and electric field**  
Ungan F., Restrepo R. L. , Mora-Ramos M. E. , Morales A. L. , Duque C. A.  
PHYSICA B-CONDENSED MATTER, vol.434, pp.26-31, 2014 (Journal Indexed in SCI)
- **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 (Journal Indexed in SCI)
- **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 (Journal Indexed in SCI)
- **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 (Journal Indexed in SCI)
- **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 (Journal Indexed in SCI)
- **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 (Journal Indexed in SCI)
- **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 (Journal Indexed in SCI)
- **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 (Journal Indexed in SCI)
- **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 (Journal Indexed in SCI)
- **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 (Journal Indexed in SCI)
- **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, pp.1627-1631, 2012 (Journal Indexed in SCI)
- **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, pp.1584-1588, 2012 (Journal Indexed in SCI)
- **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, pp.1875-1880, 2012 (Journal Indexed in SCI)

- **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, 2012 (Journal Indexed in SCI)
- **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, pp.528-532, 2012 (Journal Indexed in SCI)
- **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, pp.373-377, 2012 (Journal Indexed in SCI)
- **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, pp.2451-2459, 2011 (Journal Indexed in SCI)
- **Intensity-dependent nonlinear optical properties in a modulation-doped single quantum well**  
 Ungan F.  
 JOURNAL OF LUMINESCENCE, vol.131, pp.2237-2243, 2011 (Journal Indexed in SCI)
- **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, pp.515-520, 2011 (Journal Indexed in SCI)
- **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, pp.400-410, 2011 (Journal Indexed in SCI)
- **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, pp.1415-1419, 2011 (Journal Indexed in SCI)
- **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, pp.147-152, 2011 (Journal Indexed in SCI)
- **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 (Journal Indexed in SCI)
- **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, 2011 (Journal Indexed in SCI)
- **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, pp.635-643, 2011 (Journal Indexed in SCI)
- **The effects of the intense laser field on bound states in Ga<sub>x</sub>In<sub>1-x</sub>NyAs<sub>1-y</sub>/GaAs single quantum well**  
 Ungan F., Kasapoglu E., Duque C. A. , Yesilgul U., Sakiroglu S., Sokmen I.  
 EUROPEAN PHYSICAL JOURNAL B, vol.80, pp.89-93, 2011 (Journal Indexed in SCI)
- **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, pp.2980-2984, 2010 (Journal Indexed in SCI)

- **The hydrostatic pressure and temperature effects on donor impurities in cylindrical quantum wire under the magnetic field**

Kasapoglu E., Ungan F., Sari H., Sokmen I.

PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.42, pp.1623-1626, 2010 (Journal Indexed in SCI)

- **The diamagnetic susceptibilities of donors in quantum wells with anisotropic effective mass**

KASAPOĞLU E., UNGAN F., SARI H., SOEKMEN I.

SUPERLATTICES AND MICROSTRUCTURES, vol.46, pp.817-822, 2009 (Journal Indexed in SCI)

- **Inter-sub-band transitions and binding energies of donor impurities in a modulation-doped quantum well in the presence of electric field**

UNGAN F., KASAPOĞLU E., SARI H., SOEKMEN I.

SUPERLATTICES AND MICROSTRUCTURES, vol.46, pp.864-871, 2009 (Journal Indexed in SCI)

- **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., Ungan F., Sari H., Sokmen I.

SUPERLATTICES AND MICROSTRUCTURES, vol.45, pp.618-623, 2009 (Journal Indexed in SCI)

- **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**

Ungan F., Kasapoglu E., Sari H., Sokmen I.

SURFACE REVIEW AND LETTERS, vol.16, pp.105-110, 2009 (Journal Indexed in SCI)

- **The variation of electronic properties with the doping concentration of modulation-doped Al<sub>x</sub>Ga<sub>1-x</sub>As-GaAs double quantum wells**

Ungan F., Ozturk E., Ergun Y., Sokmen I.

SUPERLATTICES AND MICROSTRUCTURES, vol.41, pp.22-28, 2007 (Journal Indexed in SCI)

- **Subband structure and band bending in symmetric modulation-doped double quantum wells**

Ungan F., Ozturk E., Ergun Y., Sokmen I.

EUROPEAN PHYSICAL JOURNAL-APPLIED PHYSICS, vol.29, pp.27-31, 2005 (Journal Indexed in SCI)

## Articles Published in Other Journals

- **Nonlinear Optical Properties of a Quantum Well With Short-Range Bottomless Exponential Potential**

UNGAN F.

Cumhuriyet Science Journal, vol.39, pp.934-939, 2018 (Refereed Journals of Other Institutions)

- **The Effect of Electric Field on the Nonlinear Optical Properties in Asymmetric Parabolic Quantum Well Under Intense Laser Field**

UNGAN F., YEŞİLGÜL Ü., SARI H.

Cumhuriyet Science Journal, vol.37, pp.86, 2016 (Other Refereed National Journals)

- **Nonlinear optical rectification the second and third harmonic generation in asymmetric double quantum well under the intense laser field**

YEŞİLGÜL Ü., AL E. B. , UNGAN F., KASAPOĞLU E.

Cumhuriyet Science Journal, vol.37, 2016 (Refereed Journals of Other Institutions)

- **SAFSIZLIK DÜZEYLERİ ARASINDAKİ KIZILÖTESİ GEÇİŞLER ÜZERİNE ELEKTRİK ALAN ETKİSİ**

AL E. B. , YILDIZ Y. E. , UNGAN F.

Cumhuriyet Science Journal, vol.36, pp.153-173, 2015 (Other Refereed National Journals)

## Refereed Congress / Symposium Publications in Proceedings

- **Studies on the nonlinear optical properties of two-step GaAs/GaAlAs quantum well**

Rodríguez-Magdaleno K., UNGAN F., Rodríguez-Magdaleno K., De Santiago A. D. R.

APS March Meeting 2019, 4 - 08 Mart 2019

- **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 Ekim 2017
- **Effect of electric field on the nonlinear optical properties in asymmetric double Semi-V-Shaped quantum well**  
YEŞİLGÜL Ü., UNGAN F., ŞAKİROĞLU S., SÖKMEN İ., SARİ H., KASAPOĞLU E.  
4 th International Conference on Materials Science and Nanotechnology for Next Generation, 28 - 30 Haziran 2017
- **The effects of intense laser field and applied electric and magnetic fields on optical properties of n-type delta doped GaAs quantum well**  
YEŞİLGÜL Ü., UNGAN F., ŞAKİROĞLU S., KASAPOĞLU E., SÖKMEN İ., SARİ H.  
4 th International Conference on Materials Science and Nanotechnology for Next Generation, 28 - 30 Haziran 2017
- **Nonlinear optical properties of asymmetric double graded quantum well under intense laser field**  
Aydinoğlu H. S. , UNGAN F., YEŞİLGÜL Ü., KASAPOĞLU E., SARİ H., SÖKMEN İ.  
4 th International Conference on Materials Science and Nanotechnology for Next Generation, 28 - 30 Haziran 2017
- **Optical properties of Tietz-Hua quantum well under the external fields**  
KASAPOĞLU E., UNGAN F., YEŞİLGÜL Ü., ŞAKİROĞLU S., SÖKMEN İ.  
4 th International Conference on Materials Science and Nanotechnology for Next Generation, 28 - 30 Haziran 2017
- **Nonlinear optical rectification and second and third harmonic generation in n-type double delta doped GaAs quantum well under intense laser field**  
UNGAN F., YEŞİLGÜL Ü., ŞAKİROĞLU S., KASAPOĞLU E., SÖKMEN İ., SARİ H.  
4 th International Conference on Materials Science and Nanotechnology for Next Generation, 28 - 30 Haziran 2017
- **Nonlinear optical properties of double graded quantum well under intense laser field**  
UNGAN F., YEŞİLGÜL Ü., KASAPOĞLU E., SARİ H., SÖKMEN İ.  
3 rd International Conference on Engineering and Natural Sciences, 3 - 07 Mayıs 2017
- **Nonlinear optical properties of asymmetric n-type double delta doped GaAs quantum well**  
UNGAN F., ŞAKİROĞLU S., martinez orozco J. C. , restrepo R. L. , Duque C. A.  
3 rd International Conference on Engineering and Natural Sciences, 3 - 07 Mayıs 2017
- **COMPUTATION OF THE NONLINEAR OPTICAL RECTIFICATION AND SECOND AND THIRD HARMONIC GENERATION IN DOUBLE DOPED GaAs QUANTUM WELLS**  
Martnez Orozco J. C. , Rojas Briseo J. G. , Mora Ramos M. E. , Duque Echeverri C. A. , UNGAN F., Restrepo Arango R. L.  
The Nanostructured Materials and Nanotechnology Symposium at the XXV International Materials Research Congress, Cancun, Mexico, 14 Ağustos - 19 Nisan 2016
- **NONLINEAR OPTICAL RECTIFICATION THE SECOND AND THIRD HARMONIC GENERATION IN AN ASYMMETRIC DOUBLE QUANTUM WELL UNDER THE INTENSE LASER FIELD**  
AL E. B. , YEŞİLGÜL Ü., UNGAN F., KASAPOĞLU E.  
16th International Balkan Workshop on Applied Physics and Materials Science, 7 - 09 Temmuz 2016
- **Nonlinear optical rectification the second and third harmonic generation in asymmetric double quantum well under the intense laser field**  
AL E. B. , YEŞİLGÜL Ü., UNGAN F., KASAPOĞLU E.  
The 16 th International Balkan Workshop on Applied Physics, Constanta, Romania, 7 - 09 Temmuz 2016
- **Effects 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.  
The 16 th International Balkan Workshop on Applied Physics, Costanta, Romania, 7 - 09 Temmuz 2016
- **The effect of electric field on the nonlinear optical properties in asymmetric parabolic quantum well under intense laser field**  
YEŞİLGÜL Ü., UNGAN F., AL E. B. , KASAPOĞLU E.  
The 16 th International Balkan Workshop on Applied Physics, Constanta, Romania, 7 - 09 Temmuz 2016
- **Optical properties of asymmetric parabolic quantum well under the intense laser field**  
KASAPOĞLU E., UNGAN F., YEŞİLGÜL Ü.  
The 16 th International Balkan Workshop on Applied Physics, Constanta, Romania, 7 - 09 Temmuz 2016

- **Nonlinear optical rectification and second and third harmonic generation in double doped GaAs Quantum Wells Magnetic field effects**

Martinez Orozco J. C. , RojasBriseo J. G. , Mora Ramos M. E. , Duque C. A. , UNGAN F., Restrepo R. L.  
The International Conference on Terahertz Emission, Metamaterials and Nanophotonics, Cartagena, Colombia, 3 - 10 Nisan 2016

- **Propiedades opticas no lineales en pozos cuanticos semiconductores Efectos de laser intenso**

Restrepo R., UNGAN F., Mora Ramos M., Morales A., Duque C.  
8 vo Taller de Fisica de la Materia Condensada y Molecular, Mexico, 12 - 15 Ocak 2015

- **Efectos de laser intenso sobre pozos cuanticos asimetricos de GaAsAl GaAl**

Restrepo R., KASAPÖĞLU E., UNGAN F., Mora Ramos M., Morales A., Duque C.  
8 vo Taller de Fisica de la Materia Condensada y Molecular, Mexico, 12 - 15 Ocak 2015

- **Investigation of the band structure of GaInNAs/GaAs single quantum well with 10-band k.p model**

UNGAN F., YEŞİLGÜL Ü., ŞAKİROĞLU S., KASAPÖĞLU E., SÖKMEN İ.  
E-MRS 2010 Spring Meeting, 7 Haziran - 11 Temmuz 2010

- **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., KASAPÖĞLU E., SARI H., SÖKMEN İ.  
Nano TR5 Nanoscience and Nanotechnology 2009, 8 - 12 Haziran 2009

## Citations

Total Citations (WOS):992

h-index (WOS):19