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Advising Theses

TOMAK M., Growth and morphological characterization of intrinsic hydrogenated amorphous silicon thin film for a-Si:H/c-Si heterojunction solar cells, Doctorate, Ö.PEHLİVAN(Student), 2013

TOMAK M., First-principles study of GaAs/AlAs nanowire heterostructures, Doctorate, S.ŞENÖZAN(Student), 2012

TOMAK M., Density functional investigation of nano-structures, Doctorate, O.ÜZENGİ(Student), 2010

TOMAK M., Nonlinear optical properties of semiconductor heterostructures, Doctorate, H.YILDIRIM(Student), 2006

TOMAK M., Non-linear optical properties of two dimensional quantum well structures, Postgraduate, R.Ağanoğlu(Student), 2006

TOMAK M., Ensemble monte carlo simulation of quantum well infrared photodetectors, Doctorate, S.MEMİŞ(Student), 2006

TOMAK M., Non-linear optical properties of tow dimensional quantum well structures, Postgraduate, R.AĞANOĞLU(Student), 2006

TOMAK M., Numerical studies of the electronic properties of low dimensional semiconductor heterostructures, Doctorate, B.Dikmen(Student), 2004

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TOMAK M., Molecular-dynamics investigation of the dynamic properties of Pd and Al metals, and their alloys, Doctorate, A.ÇORUH(Student), 2003

TOMAK M., The Role of different interaction potentials in Bose-Einstein condensation., Postgraduate, Y.YILDIRIM(Student), 2002

TOMAK M., Wigner crystallization in semiconductor quantum wires and model calculations for HE-HE mixture, Doctorate, I.AI(Student), 1999

TOMAK M., Wigner crystallization in semiconductor quantum wires and model calculations for 3HE-4HE mixture, Doctorate, I.AL(Student), 1999

TOMAK M., Electron-electron interactions in a two dimensional quantum dot, Doctorate, N.AKMAN(Student), 1999

TOMAK M., Molecular dynamics computer simulation of solid and liquid metal alloys, Postgraduate, D.GÜLTOPRAK(Student), 1999

TOMAK M., Dielectric response of a quasi-one-dimensional electron gas, Postgraduate, U.SUNAR(Student), 1998

TOMAK M., The Optical properties of quantum well structure, Postgraduate, K.TURHAN(Student), 1998

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TOMAK M., Molecular dynamics computer simulation of palladium and platinum-palladium alloy, Postgraduate, S.BEKKAYA(Student), 1997

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GÜNALP N., TOMAK M., Dielectric formulation of the three - and two - dimensional quantum many-electron systems, Doctorate, C.Bulutay(Student), 1997

TOMAK M., Spline fuction method applied to the low dimensional electronic structures, Postgraduate, B.DİKMEN(Student), 1996

TOMAK M., Molecular-dynamics computer simulation of pure metals and metal alloys, Postgraduate, M.ULUDOĞAN(Student), 1996

TOMAK M., An Analytical approach for electronic properties of semiconductor quantum well-wires, Doctorate, A.SALİM(Student), 1995

TOMAK M., An analytical approach for electronic properties of semiconductor quantum-well wires, Doctorate, A.Nassar(Student), 1995

TOMAK M., Oscillatory magnetoresistance in two-dimensional semiconductor structures, Doctorate, B.Uslu(Student), 1995

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TOMAK M., The electronic structure of delta doped semiconductors, Postgraduate, S.Honarkhah(Student), 1994

TOMAK M., The Electronic and transport properties of modulation doped heterostructures, Doctorate, M.AYMAN(Student), 1994

TOMAK M., The electronic structure and optical absorption in modulation doped semiconductor heterostructures, Doctorate, R.Abdalla(Student), 1994

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TOMAK M., Properties of shallow impurities in quantum wells and wires, Doctorate, M.KHALİL(Student), 1990

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TOMAK M., Description of the electronic structure of solids by the recursion methods, Doctorate, M.EL(Student), 1987

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TOMAK M., Localized orbital description of electronic band structures, alloys, vacancies in semiconductors., Doctorate, E.Erbarut(Student), 1986

TOMAK M., Impurities in semiconductors., Doctorate, Ç.Tuncay(Student), 1984

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- I. The effect of Coulomb interaction on optical absorption of a quantum well wire
Ustoglu Unal V., TOMAK M., Aksahin E.

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- II. **Exciton related nonlinear optical properties of a quantum wire**
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- III. **Nonlinear Optical Properties of Low Dimensional Quantum Systems**
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- IV. **Exciton related nonlinear optical properties of a spherical quantum dot**
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- V. **Adsorption of RuSex (x=1-5) cluster on Se-doped graphene: First principle calculations**
AKTÜRK O. Ü., TOMAK M.
APPLIED SURFACE SCIENCE, vol.347, pp.808-815, 2015 (SCI-Expanded)
- VI. **Study of the a-Si:H/c-Si Heterointerface by Ex-Situ Spectroscopic Ellipsometry, Infrared Spectroscopy, and Solar Cell Modeling**
Pehlivan O., KARATAŞ S., Yilmaz O., Kodolbas A. O., Duygulu O., DUYGULU N., İSKENDER İ., TOMAK M.
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- VII. **Exciton related optical absorption in a spherical quantum dot**
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- VIII. **Spin-orbit effects on the nonlinear optical properties of a quantum dot in simultaneous electric and magnetic fields**
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- IX. **Electronic and geometric structure of AuxCuy clusters studied by density functional theory**
KADIOĞLU Y., AKTÜRK O. Ü., TOMAK M.
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- X. **Nonlinear optical properties of a Woods-Saxon quantum dot under an electric field**
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PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.54, pp.257-261, 2013 (SCI-Expanded)
- XI. **Structural characterization of intrinsic a-Si:H thin films for silicon heterojunction solar cells**
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- XII. **Nonlinear optical properties of a Poschl-Teller quantum well under electric and magnetic fields**
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- XIII. **Lithium and antimony adsorbed on graphene studied by first-principles calculations**
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- XIV. **A continuum model for dephasing in mesoscopic systems**
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- XV. **Thermodynamics of a two-dimensional interacting Bose gas trapped in a quartic potential**
Karabulut E. O., Koyuncu M., ATAV Ü., TOMAK M.
PHYSICS LETTERS A, vol.375, no.3, pp.339-345, 2011 (SCI-Expanded)
- XVI. **NH3 and H2S adsorption on Au3Pt3 cluster studied by a first principles calculation**
Akturk O. U., TOMAK M.
THIN SOLID FILMS, vol.518, no.18, pp.5195-5203, 2010 (SCI-Expanded)
- XVII. **Au-8 cluster adsorption on Si(100):2 x 1 asymmetric surface studied by a first principles calculation**

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- XVIII. **Thermodynamics of Bose-Einstein gas trapped in D-dimensional quartic potentials**
Karabulut E. O., Koyuncu M., TOMAK M.
PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS, vol.389, no.7, pp.1371-1379, 2010 (SCI-Expanded)
- XIX. **Bismuth doping of graphene**
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APPLIED PHYSICS LETTERS, vol.96, no.8, 2010 (SCI-Expanded)
- XX. **VIBRATIONAL MODES IN SMALL Ag-n, Au-n CLUSTERS: A FIRST PRINCIPLE CALCULATION**
Aktuerk O. U., GÜLSEREN O., TOMAK M.
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- XXI. **AunPtn clusters adsorbed on graphene studied by first-principles calculations**
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- XXII. **Transferability of Sutton-Chen Potential Parameters in Au-Ni Binary Metal Alloys**
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JOURNAL OF COMPUTATIONAL AND THEORETICAL NANOSCIENCE, vol.6, no.4, pp.942-949, 2009 (SCI-Expanded)
- XXIII. **Can Sobolev Inequality Be Written for Sharma-Mittal Entropy?**
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INTERNATIONAL JOURNAL OF THEORETICAL PHYSICS, vol.47, no.12, pp.3310-3320, 2008 (SCI-Expanded)
- XXIV. **Excitonic effects on the nonlinear optical properties of small quantum dots**
KARABULUT İ., Safak H., TOMAK M.
JOURNAL OF PHYSICS D-APPLIED PHYSICS, vol.41, no.15, 2008 (SCI-Expanded)
- XXV. **Intersubband resonant enhancement of the nonlinear optical properties in compositionally asymmetric and interdiffused quantum wells**
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- XXVI. **Theoretical investigation of intersubband nonlinear optical rectification in Al_xIn_{1-x}Ga_{1-x}As/GaAs/Al_xGa_{1-x}As asymmetric rectangular quantum wells**
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- XXVII. **Second harmonic generation in an asymmetric rectangular quantum well under hydrostatic pressure**
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- XXVIII. **Linear and nonlinear intersubband optical absorptions in an asymmetric rectangular quantum well**
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- XXIX. **Third-harmonic generation in a quantum well with adjustable asymmetry under an electric field**
Yildirim H., Tomak M.
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- XXX. **Structural, thermodynamical, and transport properties of undercooled binary Pd-Ni alloys**
Kart S. O., Tomak M., Uludogan M., Cagin T.
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- XXXII. **Nonlinear intersubband optical absorption of Si delta-doped GaAs under an electric field**
Yildirim H., Tomak M.
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- XXXIII. **Intensity-dependent refractive index of a Poschl-Teller quantum well**
Yildirim H., Tomak M.
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- XXXIV. **Optical absorption of a quantum well with an adjustable asymmetry**
Yildirim H., Tomak M.
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- XXXV. **A parabolic quantum dot with N electrons and an impurity**
Gulveren B., Atav U., Sahin M., Tomak M.
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- XXXVI. **Electronic structure of a many-electron spherical quantum dot with an impurity**
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- XXXVII. **Electronic properties of a large quantum dot at a finite temperature**
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PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.28, no.4, pp.482-490, 2005 (SCI-Expanded)
- XXXVIII. **Nonlinear optical properties of a Poschl-Teller quantum well**
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- XXXIX. **Nonlinear optical rectification in asymmetrical semiparabolic quantum wells**
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- XL. **Quantum genetic algorithm method in self-consistent electronic structure calculations of a quantum dot with many electrons**
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- XLIII. **Thermomagnetic effects of nondegenerate Kane semiconductors under the conditions of mutual electron-phonon drag in high electric and arbitrary magnetic fields**
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- LIII. **Short-range correlations in a one-dimensional electron gas**
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- LIV. **Influence of mutual drag of the carrier-phonon system on the thermopower and transverse Nernst-Ettingshausen effect**
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- LX. **Binding energies of helium-like impurities in parabolic quantum wells under an applied electric field**
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- LXI. **The Wigner molecule in a 2D quantum dot**
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- LXII. **The exciton transition energies in symmetric double GaAs/Al_xGa_{1-x}As quantum wells**
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- LXVII. **Electronic structure of modulation-doped heterostructures: electric field effects**
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- LXX. **Effect of valley-spin degeneracy on the screening of charged-impurity centers in two- and three-dimensional electronic devices**
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- LXXI. **Thermal and mechanical properties of Pt-Rh alloys**
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- LXXVII. **CASIMIR ENERGIES OF LOCALIZED LIGHT AND ELECTRONS IN DISORDERED MATERIALS**
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