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Education Information

Doctorate, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, Turkey 1982 - 1987

Postgraduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, Turkey 1979 - 1982

Undergraduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, Turkey 1974 - 1979

Dissertations

Doctorate, Two dimensional systems in solid state physics, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 1987

Postgraduate, Electronic Properties of Si (Schottky) Diodes, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 1982

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 1998 - Continues

Associate Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 1989 - 1998

Lecturer, Middle East Technical University, Faculty of Arts and Sciences, Department of Physics, 1988 - 1989

Advising Theses

KATIRCIOĞLU Ş., The adsorption and dissociation of AsH_3 ve B_2H_6 molecules on stepped Ge(100) surface, Postgraduate, M.TÜRKMENOĞLU(Student), 2011

KATIRCIOĞLU Ş., The adsorption and dissociation of AsH_3 and B_2H_6 molecules on stepped ge(100) surface, Postgraduate, M.Türkmenoğlu(Student), 2011

KATIRCIOĞLU Ş., The electronic band structure of III (In, Al, Ga)-V (N,As, Sb) compounds and ternary alloys, Doctorate, R.MOHAMMAD(Student), 2005

KATIRCIOĞLU Ş., Electronic band structure of stepped Si(100) and water stepped Si(100) systems, Doctorate, S.SAED(Student), 2000

KATIRCIOĞLU Ş., Adsorption of O, H and water and stepped Si (100) surface, Postgraduate, S.SAED(Student), 1997

KATIRCIOĞLU Ş., Adsorption of O,H and water on stepped SI(100) surface, Postgraduate, S.A(Student), 1997

KATIRCIOĞLU Ş., The Water adsorption on silicon (110) surface, Postgraduate, I.AL(Student), 1992

Published journal articles indexed by SCI, SSCI, and AHCI

1. Structural stability and electronic properties of different cross-sectional unstrained and rectangular

cross-sectional strained GaP nanowires

Mohammad R., KATIRCIOĞLU Ş.

INTERNATIONAL JOURNAL OF MODERN PHYSICS B, vol.33, no.4, 2019 (SCI-Expanded)

- II. **First-principles calculations for mechanical and electronic features of strained GaP nanowires**
Mohammad R., KATIRCIOĞLU Ş.
INTERNATIONAL JOURNAL OF MODERN PHYSICS C, vol.28, no.3, 2017 (SCI-Expanded)
- III. **First-principles calculations for the structural and electronic properties of GaAs_{1-x}P_x nanowires**
Mohammad R., KATIRCIOĞLU Ş.
INTERNATIONAL JOURNAL OF MODERN PHYSICS C, vol.27, no.3, 2016 (SCI-Expanded)
- IV. **Structural and electronic properties of GaP nanowires**
Mohammad R., KATIRCIOĞLU Ş.
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.73, pp.213-219, 2015 (SCI-Expanded)
- V. **Structural properties of Aluminum nitride compound**
Mohammad R., KATIRCIOĞLU Ş.
INDIAN JOURNAL OF PHYSICS, vol.88, no.10, pp.1021-1029, 2014 (SCI-Expanded)
- VI. **FIRST-PRINCIPLES CALCULATIONS FOR THE STRUCTURAL AND ELECTRONIC PROPERTIES OF Sc_xAl_{1-x}N ALLOYS**
Mohammad R., KATIRCIOĞLU Ş.
INTERNATIONAL JOURNAL OF MODERN PHYSICS C, vol.24, no.10, 2013 (SCI-Expanded)
- VII. **THE STRUCTURAL AND ELECTRONIC PROPERTIES OF BN_xAs_{1-x} ALLOYS**
Mohammad R., KATIRCIOĞLU Ş.
SURFACE REVIEW AND LETTERS, vol.19, no.5, 2012 (SCI-Expanded)
- VIII. **A comparative study for structural and electronic properties of single-crystal ScN**
Mohammad R., KATIRCIOĞLU Ş.
CONDENSED MATTER PHYSICS, vol.14, no.2, 2011 (SCI-Expanded)
- IX. **The structural and electronic properties of BAs and BP compounds and BP_xAs_{1-x} alloys**
Mohammad R., KATIRCIOĞLU Ş.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.485, pp.687-694, 2009 (SCI-Expanded)
- X. **The structural and electronic properties of BN and BP compounds and BN_xP_{1-x} alloys**
Mohammad R., KATIRCIOĞLU Ş.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.478, pp.531-537, 2009 (SCI-Expanded)
- XI. **The electronic band structures of InN_xAs_{1-x}, InN_xSb_{1-x} and InAs_xSb_{1-x}, alloys**
Mohammad R., KATIRCIOĞLU Ş.
JOURNAL OF ALLOYS AND COMPOUNDS, vol.469, pp.504-511, 2009 (SCI-Expanded)
- XII. **Adsorption and dissociation of PH₃ on SiGe(100) (2x1) surface**
Turkmenoglu M., KATIRCIOĞLU Ş.
SURFACE REVIEW AND LETTERS, vol.15, no.3, pp.307-317, 2008 (SCI-Expanded)
- XIII. **The electronic band structure of InN, InAs and InSb compounds**
Mohammad R., KATIRCIOĞLU Ş., El-Hasan M.
JOURNAL OF MATERIALS SCIENCE, vol.43, no.8, pp.2935-2946, 2008 (SCI-Expanded)
- XIV. **The electronic structure of capped and uncapped CdS nanoparticles**
Ercan I., KATIRCIOĞLU Ş.
JOURNAL OF NANOSCIENCE AND NANOTECHNOLOGY, vol.8, no.2, pp.645-649, 2008 (SCI-Expanded)
- XV. **The electronic band structure of Gan, GaAs and In_xGa_{1-x}As_{1-y}N_y alloys**
Mohammad R., KATIRCIOĞLU Ş.
INTERNATIONAL JOURNAL OF MODERN PHYSICS B, vol.21, no.25, pp.4357-4375, 2007 (SCI-Expanded)
- XVI. **Dissociation of Ph-3 and AsH₃ on Ge(100)(2x1) surface**
Katircioglu S.
SURFACE REVIEW AND LETTERS, vol.14, no.3, pp.507-515, 2007 (SCI-Expanded)
- XVII. **The electronic band structure of AlN, AlSb, AlAs and their ternary alloys with In**
Mohammad R., Katircioglu S.

- INTERNATIONAL JOURNAL OF MODERN PHYSICS B, vol.20, no.22, pp.3199-3221, 2006 (SCI-Expanded)
- XVIII. The electronic structure of $\text{GaN}(\text{m} = 5, 17, 29, 35)$, Ga_{13}P_4 (in SiO_2) and Ga_{13}P_4 (in sodalite) clusters**
Katircioglu S., Kokten H.
JOURNAL OF MOLECULAR STRUCTURE-THEOCHEM, vol.712, pp.67-73, 2004 (SCI-Expanded)
- XIX. Electronic structure of Ge-5, Ge-17, Ge-5-0, and Ge-5-SiO₂ nanoparticles**
Katircioglu S.
JOURNAL OF MOLECULAR STRUCTURE-THEOCHEM, vol.680, pp.83-89, 2004 (SCI-Expanded)
- XX. Adsorption sites of the products of GeH_4 on asymmetric $\text{Si}(100)(2 \times 1)$ surface**
Katircioglu S.
INTERNATIONAL JOURNAL OF MODERN PHYSICS B, vol.18, no.8, pp.1191-1202, 2004 (SCI-Expanded)
- XXI. Decomposition of Ge_2H_6 on the $\text{Si}(100)(2 \times 1)$ surface**
Katircioglu S.
SURFACE REVIEW AND LETTERS, vol.10, no.4, pp.577-583, 2003 (SCI-Expanded)
- XXII. Structure and stability of Ge_nC_m -n clusters**
Katircioglu S.
JOURNAL OF MOLECULAR STRUCTURE-THEOCHEM, vol.629, pp.295-302, 2003 (SCI-Expanded)
- XXIII. Decomposition of CH_4 on S-A type stepped $\text{Si}(100)$ surface**
Katircioglu S.
INTERNATIONAL JOURNAL OF MODERN PHYSICS B, vol.16, no.16, pp.2191-2200, 2002 (SCI-Expanded)
- XXIV. Decomposition of SiH_4 on the S-A type stepped $\text{Si}(100)$ surface**
Katircioglu S., Erkoç S.
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- XXV. Density functional theory calculations of small Zn_mSn_n clusters**
Katircioglu S., Erkoç A.
JOURNAL OF MOLECULAR STRUCTURE-THEOCHEM, vol.546, pp.99-106, 2001 (SCI-Expanded)
- XXVI. Adsorption of water on single and double layer stepped $\text{Si}(100)$ surfaces**
Katircioglu S., Salman S., Erkoç S.
SURFACE REVIEW AND LETTERS, vol.8, pp.251-259, 2001 (SCI-Expanded)
- XXVII. Adsorption of hydrogen and oxygen on single and double layer stepped $\text{Si}(100)$ surfaces**
Salman S., Katircioglu S., Erkoç S.
INTERNATIONAL JOURNAL OF MODERN PHYSICS B, vol.15, no.16, pp.2261-2274, 2001 (SCI-Expanded)
- XXVIII. Structural and electronic properties of In_mSn_n microclusters: density functional theory calculations**
Erkoç S., Katircioglu S., Yilmaz T.
JOURNAL OF MOLECULAR STRUCTURE-THEOCHEM, vol.542, pp.101-105, 2001 (SCI-Expanded)
- XXIX. Structural and electronic properties of bare and hydrogenated silicon clusters**
Katircioglu S., Erkoç S.
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- XXX. Electronic band structure of stepped $\text{Si}(100)$ surfaces**
Salman S., Katircioglu S., Erkoç S.
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- XXXI. Molecular-dynamics simulation of stepped $\text{Si}(100)$ surface**
Katircioglu S., Salman S., Erkoç S.
INTERNATIONAL JOURNAL OF MODERN PHYSICS C, vol.11, no.5, pp.999-1011, 2000 (SCI-Expanded)
- XXXII. Decomposition of C-60 molecules on $\text{Si}(100)(2 \times 1)$ surface**
Erkoç S., Katircioglu S.
INTERNATIONAL JOURNAL OF MODERN PHYSICS C, vol.11, no.5, pp.1067-1076, 2000 (SCI-Expanded)
- XXXIII. Atomic and electronic properties of spherical silicon clusters**
Erkoç S., Katircioglu S.
PHYSICA E, vol.4, no.3, pp.185-191, 1999 (SCI-Expanded)
- XXXIV. Adsorption of oxygen and hydrogen on stepped $\text{Si}(100)$ surface**

- Salman S., Katircioglu S.
PHYSICA STATUS SOLIDI B-BASIC RESEARCH, vol.213, no.2, pp.333-341, 1999 (SCI-Expanded)
- XXXV. **Dependence of energy levels and optical transitions on layer thicknesses in InSe/GaSe superlattices**
Erkoc S., Katircioglu S.
JOURNAL OF CRYSTAL GROWTH, vol.194, pp.331-335, 1998 (SCI-Expanded)
- XXXVI. **Optical transitions in InSe/GaSe superlattices**
Katircioglu S., Erkoc S., Allahverdi K.
THIN SOLID FILMS, vol.323, pp.194-198, 1998 (SCI-Expanded)
- XXXVII. **Adsorption of H₂O on double layer stepped Si(111) surface**
Katircioglu S., Erkoc S.
SURFACE SCIENCE, vol.374, pp.208-214, 1997 (SCI-Expanded)
- XXXVIII. **Optical transitions in Si/Ge superlattices**
Erkoc S., Katircioglu S.
THIN SOLID FILMS, vol.295, pp.206-209, 1997 (SCI-Expanded)
- XXXIX. **Water adsorption on the stepped Si(110) surface**
Katircioglu S., Erkoc S.
PHYSICA STATUS SOLIDI B-BASIC RESEARCH, vol.196, no.1, pp.77-84, 1996 (SCI-Expanded)
- XL. **ADSORPTION SITES OF GE ADATOMS ON STEPPED SI(110) SURFACE**
KATIRCIOGLU S., ERKOC S.
SURFACE SCIENCE, vol.311, no.3, 1994 (SCI-Expanded)
- XLI. **DEPENDENCE OF RESONANCE STATES ON DOPING LEVEL AND DOPING DISTRIBUTION TYPE IN GAAS GA_{0.75}AL_{0.25}AS SUPERLATTICE**
KATIRCIOGLU S., ERKOC S.
SURFACE SCIENCE, vol.311, 1994 (SCI-Expanded)
- XLII. **EMPIRICAL TIGHT-BINDING TOTAL ELECTRONIC-ENERGY CALCULATION FOR SINH₂M (N = 1 TO 6, M = 1 TO 3) CLUSTERS**
KATIRCIOGLU S., ERKOC S.
PHYSICA STATUS SOLIDI B-BASIC RESEARCH, vol.177, no.2, pp.373-378, 1993 (SCI-Expanded)
- XLIII. **WATER-ADSORPTION ON THE SI(110) SURFACE**
ALHAYEK I., KATIRCIOGLU S.
SURFACE SCIENCE, vol.286, pp.92-96, 1993 (SCI-Expanded)
- XLIV. **ELECTRONIC-ENERGY CALCULATION OF C-60 CLUSTERS**
KATIRCIOGLU S., ERKOC S., HALICIOGLU T.
MATERIALS CHEMISTRY AND PHYSICS, vol.34, no.1, pp.78-80, 1993 (SCI-Expanded)
- XLV. **STRUCTURAL STABILITY AND ENERGETICS OF SI₄ ISOMERS - TOTAL ELECTRONIC-ENERGY CALCULATION**
KATIRCIOGLU S., ERKOC S.
CHEMICAL PHYSICS LETTERS, vol.184, pp.118-120, 1991 (SCI-Expanded)
- XLVI. **STRUCTURAL STABILITY AND ENERGETICS OF AS, SB AND BI MICROCLUSTERS - EMPIRICAL MANY-BODY POTENTIAL-ENERGY FUNCTION CALCULATION**
KATIRCIOGLU S., ERKOC S.
CHEMICAL PHYSICS LETTERS, vol.182, no.5, pp.451-454, 1991 (SCI-Expanded)
- XLVII. **MOLECULAR-DYNAMICS SIMULATION OF GALLIUM MICROCLUSTERS**
KATIRCIOGLU S., ERKOC S.
JOURNAL OF CRYSTAL GROWTH, vol.94, no.3, pp.807-809, 1989 (SCI-Expanded)
- XLVIII. **METALLIC PHASE OF AMORPHOUS-SILICON**
ERKOC S., KATIRCIOGLU S.
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.107, pp.328-329, 1989 (SCI-Expanded)
- XLIX. **DISSOCIATION OF Au-n (n=3,4) MICROCLUSTERS: A MOLECULAR DYNAMICS SIMULATION**
Katircioglu S., Erkoc S.
MOLECULAR SIMULATION, vol.4, no.4, pp.247-250, 1989 (SCI-Expanded)

- L. **MOLECULAR-DYNAMICS SIMULATION OF GOLD MICROCLUSTERS**
ERKOC S., KATIRCIOGLU S.
CHEMICAL PHYSICS LETTERS, vol.147, no.5, pp.476-478, 1988 (SCI-Expanded)
- LI. **INTERACTION OF WATER MOLECULE WITH SILICON SURFACES**
KATIRCIOGLU S.
SURFACE SCIENCE, vol.187, pp.569-579, 1987 (SCI-Expanded)
- LII. **Dihydride Phase on Si (110) Surface**
Katirciođlu Ő., Őıracı S.
Solid State Communications, vol.56, no.10, pp.877-880, 1985 (SCI-Expanded)

Articles Published in Other Journals

- I. **A comparative study of the electronic properties of aluminum nitride compounds**
Mohammad R., KATIRCIOĐLU Ő.
TURKISH JOURNAL OF PHYSICS, vol.40, no.3, pp.219-230, 2016 (ESCI)

Metrics

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