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Education Information

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

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

Under Graduate, 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

Post Graduate, 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, Post Graduate, M.TÜRKMENOĞLU(Student), 2011

KATIRCIOĞLU Ş., The adsorption and dissociation of AsH_3 and B_2H_6 molecules on stepped ge(100) surface, Post Graduate, 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, Post Graduate, S.SAED(Student), 1997

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

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

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

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 (Journal Indexed in SCI)

- II. **First-principles calculations for mechanical and electronic features of strained GaP nanowires**
Mohammad R., KATIRCIOĞLU Ş.
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- III. **First-principles calculations for the structural and electronic properties of GaAs_{1-x}P_x nanowires**
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- IV. **Structural and electronic properties of GaP nanowires**
Mohammad R., KATIRCIOĞLU Ş.
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.73, pp.213-219, 2015 (Journal Indexed in SCI)
- V. **Structural properties of Aluminum nitride compound**
Mohammad R., KATIRCIOĞLU Ş.
INDIAN JOURNAL OF PHYSICS, vol.88, no.10, pp.1021-1029, 2014 (Journal Indexed in SCI)
- 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 (Journal Indexed in SCI)
- 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 (Journal Indexed in SCI)
- 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 (Journal Indexed in SCI)
- 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 (Journal Indexed in SCI)
- X. **The structural and electronic properties of BN and BP compounds and BN_xP_{1-x} alloys**
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- 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 (Journal Indexed in SCI)
- XII. **Adsorption and dissociation of PH₃ on SiGe(100) (2x1) surface**
Turkmenoglu M., KATIRCIOĞLU Ş.
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- 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 (Journal Indexed in SCI)
- 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 (Journal Indexed in SCI)
- 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 (Journal Indexed in SCI)
- 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 (Journal Indexed in SCI)
- 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 (Journal Indexed in SCI)
- XVIII. The electronic structure of Ga_nP_{n+m} ($n+m = 5, 17, 29, 35$), $Ga_{13}P_4$ (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 (Journal Indexed in SCI)
- XIX. Electronic structure of Ge-5, Ge-17, Ge-5-0, and Ge-5-SiO₂ nanoparticles**
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JOURNAL OF MOLECULAR STRUCTURE-THEOCHEM, vol.680, pp.83-89, 2004 (Journal Indexed in SCI)
- XX. Adsorption sites of the products of GeH₄ on asymmetric Si(100)(2 x 1) surface**
Katircioglu S.
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- XXI. Decomposition of Ge₂H₆ on the Si(100)(2x1) surface**
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- XXII. Structure and stability of Ga_nCm_n clusters**
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- XXIII. Decomposition of CH₄ on S-A type stepped Si(100) surface**
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- XXIV. Decomposition of SiH₄ on the S-A type stepped Si(100) surface**
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- XXV. Density functional theory calculations of small Zn_mSn_n clusters**
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- XXVI. Adsorption of water on single and double layer stepped Si(100) surfaces**
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- XXVII. Adsorption of hydrogen and oxygen on single and double layer stepped Si(100) surfaces**
Salman S., Katircioglu S., Erkoc S.
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Erkoc S., Katircioglu S., Yilmaz T.
JOURNAL OF MOLECULAR STRUCTURE-THEOCHEM, vol.542, pp.101-105, 2001 (Journal Indexed in SCI)
- XXIX. Structural and electronic properties of bare and hydrogenated silicon clusters**
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- XXX. Electronic band structure of stepped Si(100) surfaces**
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INTERNATIONAL JOURNAL OF MODERN PHYSICS C, vol.11, no.5, pp.1067-1076, 2000 (Journal Indexed in SCI)
- XXXIII. Atomic and electronic properties of spherical silicon clusters**
Erkoc S., Katircioglu S.
PHYSICA E, vol.4, no.3, pp.185-191, 1999 (Journal Indexed in SCI)
- XXXIV. Adsorption of oxygen and hydrogen on stepped Si(100) surface**

- Salman S., Katircioglu S.
PHYSICA STATUS SOLIDI B-BASIC RESEARCH, vol.213, no.2, pp.333-341, 1999 (Journal Indexed in SCI)
- 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 (Journal Indexed in SCI)
- XXXVI. **Optical transitions in InSe/GaSe superlattices**
Katircioglu S., Erkoc S., Allahverdi K.
THIN SOLID FILMS, vol.323, pp.194-198, 1998 (Journal Indexed in SCI)
- XXXVII. **Adsorption of H₂O on double layer stepped Si(111) surface**
Katircioglu S., Erkoc S.
SURFACE SCIENCE, vol.374, pp.208-214, 1997 (Journal Indexed in SCI)
- XXXVIII. **Optical transitions in Si/Ge superlattices**
Erkoc S., Katircioglu S.
THIN SOLID FILMS, vol.295, pp.206-209, 1997 (Journal Indexed in SCI)
- 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 (Journal Indexed in SCI)
- XL. **ADSORPTION SITES OF GE ADATOMS ON STEPPED SI(110) SURFACE**
KATIRCIOGLU S., ERKOC S.
SURFACE SCIENCE, vol.311, no.3, 1994 (Journal Indexed in SCI)
- 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.
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- 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 (Journal Indexed in SCI)
- XLIII. **WATER-ADSORPTION ON THE SI(110) SURFACE**
ALHAYEK I., KATIRCIOGLU S.
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- 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 (Journal Indexed in SCI)
- 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 (Journal Indexed in SCI)
- 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 (Journal Indexed in SCI)
- XLVII. **MOLECULAR-DYNAMICS SIMULATION OF GALLIUM MICROCLUSTERS**
KATIRCIOGLU S., ERKOC S.
JOURNAL OF CRYSTAL GROWTH, vol.94, no.3, pp.807-809, 1989 (Journal Indexed in SCI)
- XLVIII. **METALLIC PHASE OF AMORPHOUS-SILICON**
ERKOC S., KATIRCIOGLU S.
JOURNAL OF NON-CRYSTALLINE SOLIDS, vol.107, pp.328-329, 1989 (Journal Indexed in SCI)
- 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 (Journal Indexed in SCI)

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

Citations

Total Citations (WOS):235

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