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Personal Information

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Education Information

Doctorate, Erciyes University, Fen Bilimleri Enstitüsü, Fizik (Dr), Turkey 2001 - 2007

Postgraduate, Erciyes University, Fen Bilimleri Enstitüsü, Fizik (YI) (Tezli), Turkey 1998 - 2001

Undergraduate, Ataturk University, Fen-Edebiyat Fakültesi, Fizik Bölümü, Turkey 1994 - 1998

Dissertations

Doctorate, Au, Cu ve Al/n-InP Schottky eklemlerin karakteristik parametrelerinin belirlenmesi, Erciyes University, Fen Bilimleri Enstitüsü, Fizik (Dr), 2007

Postgraduate, Amorf silikon ve selenyum güneş pillerinde voltaj kontrollü fotoakımın ölçülmesi, Erciyes University, Fen Bilimleri Enstitüsü, Fizik (YI) (Tezli), 2001

Academic Titles / Tasks

Professor, Yozgat Bozok University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2015 - Continues

Associate Professor, Yozgat Bozok University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2010 - Continues

Assistant Professor, Yozgat Bozok University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 2007 - 2010

Research Assistant, Erciyes University, Yozgat Fen-Edebiyat Fakültesi, Fizik Pr., 2002 - 2007

Academic and Administrative Experience

Yozgat Bozok University, 2012 - 2015

Courses

MİKROÇİP FABRİKASYONU II, Undergraduate, 2013 - 2014

YARIİLETKENLER FİZİĞİ I, Undergraduate, 2013 - 2014

MİKROÇİP FABRİKASYONU I, Undergraduate, 2013 - 2014

YARIİLETKENLER FİZİĞİ II, Undergraduate, 2013 - 2014

ELEKTRONİK I, Undergraduate, 2013 - 2014

ELEKTRONİK LABORATUARI I, Undergraduate, 2013 - 2014

ELEKTRONİK II, Undergraduate, 2013 - 2014

Advising Theses

ÇETİN H., Doğal boyayla duyarlılaştırılmış güneş pili üretimi ve yapının sensör karakteristiklerinin belirlenmesi,

Doctorate, M.ÖZBAY(Student), 2017

ÇETİN H., Yeni türdeki jellerin boya duyarlı güneş pillerinde kullanılması, Postgraduate, T.ÖNEN(Student), 2016

ÇETİN H., Gama ve beta ışınlarının grafen alan etkili transistör karakteristikleri üzerine etkisi, Postgraduate, M.EREN(Student), 2015

ÇETİN H., Grafen esash elektronik devre elemanlarının elektriksel karakteristiklerinin incelenmesi, Doctorate, B.BOYARBAY(Student), 2015

ÇETİN H., Grafen alan etkili transistörlerde litografik kalıntıların SERS yöntemiyle incelenmesi, Postgraduate, A.ŞİMŞEK(Student), 2014

ÇETİN H., TLM metodu ile grafen üzerine yapılan metal kontakların direncinin belirlenmesi, Postgraduate, E.YAYAN(Student), 2014

ÇETİN H., Grafen transistörlerin elektriksel parametrelerinin belirlenmesi, Postgraduate, M.ÖZTÜRK(Student), 2011

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A roadmap for hydrogel-based quasi-solid electrolyte preparation for use in dye-sensitized solar cell**
Özbay Karakuş M., Eren Yakışıklar M., Delibaş A., Çetin H.
ELECTROCHIMICA ACTA, vol.427, no.140841, pp.140841-140850, 2022 (Journal Indexed in SCI Expanded)
- II. **Solution-processed nanostructured ZnO/CuO composite films and improvement its physical properties by lustrous transition metal silver doping**
Akkaya A., Sahin B., Aydin R., cetin H., Ayyildiz E.
JOURNAL OF MATERIALS SCIENCE-MATERIALS IN ELECTRONICS, vol.31, no.17, pp.14400-14410, 2020 (Journal Indexed in SCI)
- III. **Tuning the morphological, structural, optical and dielectric properties of hausmannite (Mn₃O₄) films by doping heavy metal lead**
ŞAHİN B., AYDIN R., ÇETİN H.
SUPERLATTICES AND MICROSTRUCTURES, vol.143, 2020 (Journal Indexed in SCI)
- IV. **Anionic and cationic polymer-based quasi-solid-state dye-sensitized solar cell with poly(aniline) counter electrode**
ÖZBAY KARAKUŞ M., EREN YAKIŞIKLIER M., DELİBAŞ A., AYYILDIZ E., ÇETİN H.
SOLAR ENERGY, vol.195, pp.565-572, 2020 (Journal Indexed in SCI)
- V. **Reaching stability at DSSCs with new type gel electrolytes**
Onen T., ÖZBAY KARAKUŞ M., COŞKUN R., ÇETİN H.
JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY A-CHEMISTRY, vol.385, 2019 (Journal Indexed in SCI)
- VI. **Variation of the key morphological, structural, optical and electrical properties of SILAR CdO with alkaline earth Ca²⁺ ions doping**
ŞAHİN B., Aydi R., ÇETİN H.
CERAMICS INTERNATIONAL, vol.45, no.14, pp.16748-16758, 2019 (Journal Indexed in SCI)
- VII. **A Study on the Electronic Properties of SiO_xNy/p-Si Interface**
Akkaya A., Boyarbay B., Cetin H., Yildizli K., Ayyildiz E.
SILICON, vol.10, no.6, pp.2717-2725, 2018 (Journal Indexed in SCI)
- VIII. **Dye ingredients and energy conversion efficiency at natural dye sensitized solar cells**
ÖZBAY KARAKUŞ M., KOCA İ., Er O., ÇETİN H.
OPTICAL MATERIALS, vol.66, pp.552-558, 2017 (Journal Indexed in SCI)
- IX. **The effects of lithographic residues and humidity on graphene field effect devices**
Kantar B. B. , Ozturk M., ÇETİN H.
BULLETIN OF MATERIALS SCIENCE, vol.40, no.1, pp.239-245, 2017 (Journal Indexed in SCI)
- X. **A comparison of the magnetic properties of Ni and Co nanowires deposited in different templates and on different substrates**
Yalcin O., Kartopu G., Cetin H., Demiray A. S. , Kazan S.

JOURNAL OF MAGNETISM AND MAGNETIC MATERIALS, vol.373, pp.207-212, 2015 (Journal Indexed in SCI)

- XI. **Effect of thermal annealing on electrical and structural properties of Ni/Au/n-GaN Schottky contacts**
Akkaya A., Esmer L., Kantar B. B., Cetin H., Ayyildiz E.
MICROELECTRONIC ENGINEERING, vol.130, pp.62-68, 2014 (Journal Indexed in SCI)
- XII. **Electrical characterization of heterojunction between polyaniline titanium dioxide tetradecyltrimethylammonium bromide and n-silicon**
Cetin H., Boyarbay B., Akkaya A., Uygun A., Ayyildiz E.
SYNTHETIC METALS, vol.161, pp.2384-2389, 2011 (Journal Indexed in SCI)
- XIII. **Electrical characterization of the polyaniline/p-silicon and polyaniline titanium dioxide tetradecyltrimethylammonium bromide/p-silicon heterojunctions**
Boyarbay B., Cetin H., Uygun A., Ayyildiz E.
THIN SOLID FILMS, vol.518, no.8, pp.2216-2221, 2010 (Journal Indexed in SCI)
- XIV. **On barrier height inhomogeneities of Au and Cu/n-InP Schottky contacts**
Cetin H., Ayyildiz E.
PHYSICA B-CONDENSED MATTER, vol.405, no.2, pp.559-563, 2010 (Journal Indexed in SCI)
- XV. **Correlation between barrier heights and ideality factors of H-terminated Sn/p-Si(100) Schottky barrier diodes**
Boyarbay B., Cetin H., Kaya M., Ayyildiz E.
MICROELECTRONIC ENGINEERING, vol.85, no.4, pp.721-726, 2008 (Journal Indexed in SCI)
- XVI. **Temperature dependence of the current-voltage characteristics of Sn/PANI/p-Si/Al heterojunctions**
Kaya M., Cetin H., Boyarbay B., Gok A., Ayyildiz E.
JOURNAL OF PHYSICS-CONDENSED MATTER, vol.19, no.40, 2007 (Journal Indexed in SCI)
- XVII. **Electrical characteristics of Au, Al, Cu/n-InP Schottky contacts formed on chemically cleaned and air-exposed n-InP surface**
Cetin H., Ayyildiz E.
PHYSICA B-CONDENSED MATTER, vol.394, no.1, pp.93-99, 2007 (Journal Indexed in SCI)
- XVIII. **The electrical properties of metal-oxide-semiconductor devices fabricated on the chemically etched n-InP substrate**
Cetin H., Ayyildiz E.
APPLIED SURFACE SCIENCE, vol.253, no.14, pp.5961-5966, 2007 (Journal Indexed in SCI)
- XIX. **Barrier height enhancement and stability of the Au/n-InP Schottky barrier diodes oxidized by absorbed water vapor**
Cetin H., Ayyildiz E., Turut A.
JOURNAL OF VACUUM SCIENCE & TECHNOLOGY B, vol.23, no.6, pp.2436-2443, 2005 (Journal Indexed in SCI)
- XX. **Temperature dependent electrical characteristics of Sn/p-Si Schottky diodes**
Ayyildiz E., Cetin H., Horvath Z.
APPLIED SURFACE SCIENCE, vol.252, no.4, pp.1153-1158, 2005 (Journal Indexed in SCI)
- XXI. **The effect of series resistance on capacitance-voltage characteristics of Schottky barrier diodes**
Sahin B., Cetin H., Ayyildiz E.
SOLID STATE COMMUNICATIONS, vol.135, no.8, pp.490-495, 2005 (Journal Indexed in SCI)
- XXII. **Ti/p-Si Schottky barrier diodes with interfacial layer prepared by thermal oxidation**
Cetin H., Sahin B., Ayyildiz E., Turut A.
PHYSICA B-CONDENSED MATTER, vol.364, pp.133-141, 2005 (Journal Indexed in SCI)
- XXIII. **Temperature dependence of electrical parameters of the Au/n-InP Schottky barrier diodes**
Cetin H., Ayyildiz E.
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.20, no.6, pp.625-631, 2005 (Journal Indexed in SCI)
- XXIV. **The barrier-height inhomogeneity in identically prepared H-terminated Ti/p-Si Schottky barrier diodes**
Cetin H., Sahin B., Ayyildiz E., Turut A.
SEMICONDUCTOR SCIENCE AND TECHNOLOGY, vol.19, no.9, pp.1113-1116, 2004 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Fabrication and Characterization of Polyaniline and Polyaniline/Nanostructured-ZnO FET Hydrogen Gas Sensors**
ÖZBAY KARAKUŞ M., ÇETİN H.
Erciyes Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.37, no.1, pp.99-109, 2021 (Other Refereed National Journals)

Refereed Congress / Symposium Publications in Proceedings

- I. **Yarı Katı Jel Üretimi Ve Çapraz Bağ Miktarının Boyayla Duyarlılaştırılmış Güneş Pili Verimine Etkisi**
ÖZBAY KARAKUŞ M., ÇETİN H., DELİBAŞ A.
AEGEAN SUMMIT 2nd INTERNATIONAL APPLIED SCIENCES CONGRESS, İzmir, Turkey, 27 - 28 March 2021, pp.52-54
- II. **A New Type Quasi-Solid Gel Usage at Dye-Sensitized Solar Cell**
ÇETİN H., ÖZBAY KARAKUŞ M., EREN YAKIŞIKLIER M., DELİBAŞ A.
2nd International Turkish World Engineering and Science Congress, Antalya, Turkey, 7 - 10 November 2019, vol.5, pp.9
- III. **GRAPHENE FIELD EFFECT SENSOR FOR DETECTION OF ESCHERICHIA COLI K-12 STRAIN**
ÇETİN H., ÖZBAY KARAKUŞ M., EREN YAKIŞIKLIER M., DELİBAŞ A.
2nd International Turkish World Engineering and Science Congress, Antalya, Turkey, 7 - 10 November 2019, vol.5, pp.161
- IV. **POLYANILINE FIELD EFFECT MEMORY DEVICE**
ÇETİN H., ÖZBAY KARAKUŞ M., EREN YAKIŞIKLIER M., DELİBAŞ A.
2nd International Turkish World Engineering and Science Congress, Antalya, Turkey, 7 - 10 November 2019, vol.5, pp.267
- V. **New Type Gels for Dye Sensitized Solar Cells**
Önen T., ÖZBAY KARAKUŞ M., COŞKUN R., Eren Yakışıklar M., ÇETİN H.
1st International Underground Resources and Energy Conference, Bozok University (Yozgat-TURKEY), October 6-8, 2016, Yozgat, Turkey, 6 - 08 November 2016
- VI. **New Type Gels for Dye Sensitized Solar Cells**
ÖNEN T., ÖZBAY KARAKUŞ M., COŞKUN R., EREN YAKIŞIKLIER M., ÇETİN H.
First International Underground Resources and Energy Conference, Yozgat, Turkey, 6 - 08 October 2016
- VII. **Dyes Extracted From Pelargonium Flowers A Solar Cell Application and Dyes Ingredients Analysis Study**
ÖZBAY KARAKUŞ M., KOCA İ., KOCA A., GÜMÜŞ M., ER O., ÇETİN H.
First International Underground Resources and Energy Conference, Yozgat, Turkey, 6 - 08 October 2016
- VIII. **ORGANIC DYES FOR TiO₂ DYE SENSITIZED SOLAR CELLS**
ÖZBAY KARAKUŞ M., Önen T., ÇETİN H.
Fifth Bozok Science Workshop Nano Carbon Materials and Their Applications, 28 - 29 April 2016
- IX. **A NEW NATURAL DYE SOURCE-PELARGONIUM FLOWERS FOR DYESENSITIZED SOLAR CELLS**
ÖZBAY KARAKUŞ M., ÇETİN H.
9th International Physics Conference of the Balkan Physical Union, İstanbul, Turkey, 24 - 27 August 2015, vol.9, pp.226
- X. **CO SENSING PROPERTIES OF POLYANILINE BASED SENSOR**
ÖZBAY KARAKUŞ M., DELİBAŞ A., ÇETİN H.
9th INTERNATIONAL PHYSICS CONFERENCE OF THE BALKAN PHYSICAL UNION – BPU9, 24-27 AUGUST 2015, İSTANBUL UNIVERSITY, İSTANBUL / TURKEY, İstanbul, Turkey, 24 - 27 August 2015, pp.255

Citations

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