

Prof. KIVANÇ SEL

Personal Information

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Address: Çanakkale Onsekiz Mart Üniversitesi, Fen-Edebiyat Fakültesi, Fizik bölümü Çanakkale

International Researcher IDs

ORCID: 0000-0002-4623-5206

ScopusID: 11141491800

Yoksis Researcher ID: 124299

Education Information

Doctorate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Fizik, Turkey 2002 - 2007

Postgraduate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Fizik, Turkey 2000 - 2002

Undergraduate, Middle East Technical University, Fen Edebiyat Fakültesi, Fizik, Turkey 1994 - 1999

Foreign Languages

English, C2 Mastery

Dissertations

Doctorate, KARBON İÇERİĞİNİN PLAZMA İLE BİRİKTİRİLMİŞ AMORF SİLİSYUM KARBÜR İNCE FİLMLERİN ÖZELLİKLERİNE ETKİLERİ , Middle East Technical University, Fen Bilimleri Enstitüsü, Fizik, 2007

Postgraduate, PLAZMA İLE BÜYÜTÜLMÜŞ AMORF SİLİSYUM KARBÜR FİLM TABANLI IŞIK YAYINLAYAN PIN DİYOTLARIN ÜRETİLMESİ , Middle East Technical University, Fen Bilimleri Enstitüsü, Fizik, 2002

Research Areas

Physics, Condensed Matter 1: Structural, Mechanical and Thermal Properties, Equations of State, Phase Equilibria, and Phase Transitions, Lattice Dynamics, Transport Phenomena in Condensed Matter, Mechanical and Acoustic Properties of Condensed Matter, Surfaces, Interfaces, Thin Films and Nanosystems, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Electronic structure of bulk material, Optical Properties, Spectroscopy of Matter, Natural Sciences

Academic Titles / Tasks

Professor, Canakkale Onsekiz Mart University, Fen Fakültesi, Fizik, 2019 - Continues

Associate Professor, Canakkale Onsekiz Mart University, Fen Fakültesi, Fizik, 2012 - 2019

Assistant Professor, Canakkale Onsekiz Mart University, Fen Fakültesi, Fizik, 2008 - 2012

Research Assistant, Canakkale Onsekiz Mart University, Fen Fakültesi, Fizik, 2007 - 2008

Research Assistant, Middle East Technical University, Fen Edebiyat Fakültesi, Fizik, 2000 - 2007

Academic and Administrative Experience

Canakkale Onsekiz Mart University, Çanakkale Onsekiz Mart Üniversitesi Nanobilim Ve Teknoloji Araştırma Merkezi, 2009 - 2018

Courses

Kuantum mechanics, Undergraduate, 2021 - 2022

Kuantum mekaniği, Undergraduate, 2017 - 2018

Quantum Mechanisc, Undergraduate, 2016 - 2017, 2015 - 2016

14ENV104, Undergraduate, 2016 - 2017

QUANTUM PHYSICS, Undergraduate, 2017 - 2018, 2015 - 2016

GENERAL PHYSICS I, Undergraduate, 2017 - 2018, 2015 - 2016

Kuantum Fiziği, Undergraduate, 2015 - 2016

LİSANSÜSTÜ TEZ YÖNETİMİ, Postgraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011

GENERAL PHYSICS II (ÇEV. MÜH.), Undergraduate, 2014 - 2015

KUANTUM FİZİĞİ, Undergraduate, 2015 - 2016

QUANTUM MECHANICS , Undergraduate, 2014 - 2015

SEMİNER, Postgraduate, 2015 - 2016

UZMANLIK ALAN DERSİ, Postgraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011

KUANTUM MEKANİĞİ (II.ÖĞ.), Undergraduate, 2014 - 2015

GENEL FİZİK (ÇEV.MÜH.), Undergraduate, 2013 - 2014

KUANTUM FİZİĞİ (II.ÖĞ.), Undergraduate, 2014 - 2015, 2010 - 2011, 2009 - 2010, 2008 - 2009

21. YÜZYIL İÇİN FİZİK, Undergraduate, 2013 - 2014

QUANTUM PHYSICS (YAZ OKULU), Undergraduate, 2013 - 2014, 2012 - 2013

QUANTUM PHYSICS (I.ÖĞ.), Undergraduate, 2014 - 2015

SİLİKON TEKNOLOJİSİNİN TEMELLERİ II, Postgraduate, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2008 - 2009

QUANTUM MECHANICS (YAZ OKULU), Undergraduate, 2013 - 2014

GENERAL PHYSICS (ÇEV. MÜH.), Undergraduate, 2014 - 2015, 2013 - 2014

PHYSICS FOR 21TH CENTURY (I.ÖĞ.), Undergraduate, 2013 - 2014

UZMANLIK ALAN DERSİ, Postgraduate, 2014 - 2015

PHYSICS OF SPORTS AND GAMES (I.ÖĞ.), Undergraduate, 2014 - 2015, 2013 - 2014

İLERİ KATIHAL FİZİĞİ I, Postgraduate, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011

SPOR VE OYUNLARIN FİZİĞİ (II.ÖĞ.), Undergraduate, 2013 - 2014

PHYSICS OF SEMICONDUCTOR DEVICES, Undergraduate, 2012 - 2013

OPTOELEKTRONİĞE GİRİŞ II (II.ÖĞ.), Undergraduate, 2012 - 2013, 2011 - 2012

FİZİKTE NANOİLİM VE NANOTEKNOLOJİ (II.ÖĞ.), Undergraduate, 2013 - 2014

SEMİNER, Postgraduate, 2013 - 2014, 2012 - 2013

SİLİKON TEKNOLOJİSİNİN TEMELLERİ I, Postgraduate, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009

GENEL FİZİK I (ÇEV. MÜH.), Undergraduate, 2013 - 2014

FİZİK I (FEF İÇİ - YAZ OKULU), Undergraduate, 2012 - 2013

NANOSCIENCE AND NANOTECHNOLOGY IN PHYSICS (I.ÖĞ.), Undergraduate, 2013 - 2014

OPTOELEKTRONİĞE GİRİŞ II (I.ÖĞ.), Undergraduate, 2012 - 2013, 2011 - 2012

MESLEKİ YABANCI DİL I (I.ÖĞ.), Undergraduate, 2012 - 2013
İLERİ KUANTUM MEKANİĞİ I, Postgraduate, 2011 - 2012
TEMEL FİZİK I, Undergraduate, 2012 - 2013, 2011 - 2012, 2008 - 2009
TEMEL FİZİK (ZOOTEKİNİ), Undergraduate, 2012 - 2013
OPTOELEKTRONİĞE GİRİŞ I (I.ÖĞ.), Undergraduate, 2012 - 2013
OPTOELEKTRONİĞE GİRİŞ I (II.ÖĞ.), Undergraduate, 2012 - 2013, 2011 - 2012
MESLEKİ YABANCI DİL I (II.ÖĞ.), Undergraduate, 2012 - 2013
KUANTUM FİZİĞİ (I.Öğ.), Undergraduate, 2010 - 2011, 2009 - 2010, 2008 - 2009
OPTOELEKTRONİĞE GİRİŞ I, Undergraduate, 2011 - 2012, 2010 - 2011
OPTOELEKTRONİĞE GİRİŞ II, Undergraduate, 2010 - 2011
GENEL FİZİK II (ÇEV. MÜH.), Undergraduate, 2010 - 2011
KUANTUM MEKANİĞİ , Undergraduate, 2010 - 2011
KUANTUM FİZİĞİ (YAZ OKULU), Undergraduate, 2010 - 2011, 2009 - 2010, 2008 - 2009
TEMEL FİZİK (SÜF. II. ÖĞ.), Undergraduate, 2011 - 2012
TEMEL FİZİK (SÜF. I. ÖĞ.), Undergraduate, 2011 - 2012
TEMEL ELEKTRONİK LABORATUVARI, Undergraduate, 2008 - 2009

Advising Theses

Sel K., Fosfor katkılanmış hidrojenlenmiş amorf silisyum karbür ince filmlerin elektriksel özelliklerinin karakterizasyonu, Postgraduate, B.ALÇINKAYA(Student), 2017
Sel K., PLAZMA İLE BÜYÜTÜLMÜŞ HİDROJENLEMİŞ AMORF SİLİSYUM KARBÜR İNCE FİLMLEİN FOTOLÜMİNESAS ÖZELLİKLERİNİN İNCELENMESİ, Postgraduate, İ.GÜNEŞ(Student), 2012

Jury Memberships

Post Graduate, Alper Ömer YAŞAR, Çanakkale Onsekiz Mart Üniversitesi, September, 2013
Post Graduate, Emrah Sarıca Tez Savunması, Çanakkale Onsekiz Mart Üniversitesi, January, 2012
Post Graduate, Barbaros DEMİRSELÇUK, Çanakkale Onsekiz Mart Üniversitesi, January, 2010

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Effects of phosphorus on the electrical characteristics of plasma deposited hydrogenated amorphous silicon carbide thin films**
ALCINKAYA B., SEL K.
SOLID-STATE ELECTRONICS, vol.139, pp.109-114, 2018 (SCI-Expanded)
- II. **Effects of carbon content and plasma power on room temperature photoluminescence characteristics of hydrogenated amorphous silicon carbide thin films deposited by PECVD**
GÜNEŞ İ., SEL K.
THIN SOLID FILMS, vol.636, pp.85-92, 2017 (SCI-Expanded)
- III. **Covalent organic framework based on melamine and dibromoalkanes for versatile use**
ŞAHİNER N., DEMİRCİ S., SEL K.
JOURNAL OF POROUS MATERIALS, vol.23, no.4, pp.1025-1035, 2016 (SCI-Expanded)
- IV. **Conductivity of p(AAc) Cryogel and Its Li⁺, Na⁺, and K⁺ Salts for NH₃ Sensing**
ŞAHİNER N., DEMİRCİ S., SEL K.
JOURNAL OF ELECTRONIC MATERIALS, vol.45, no.7, pp.3759-3765, 2016 (SCI-Expanded)
- V. **Synthesis and characterization of new microgel from tris(2-aminoethyl)amine and glycerol diglycidyl ether as poly(TAEA-co-GDE)**

URREHMAN S., Sahiner M., SEL K., SIDDIQ M., ŞAHİNER N.

Colloids and Surfaces B: Biointerfaces, vol.136, pp.1156-1165, 2015 (SCI-Expanded)

- VI. **Ionic liquid colloids based on PEI for versatile use**
Demirci S., SEL K., ŞAHİNER N.
SEPARATION AND PURIFICATION TECHNOLOGY, vol.155, pp.66-74, 2015 (SCI-Expanded)
- VII. **NH₃ gas sensing applications of metal organic frameworks**
SEL K., DEMIRCI S., ÖZTÜRK Ö. F., Aktaş N., ŞAHİNER N.
MICROELECTRONIC ENGINEERING, vol.136, pp.71-76, 2015 (SCI-Expanded)
- VIII. **Benign Preparation of Metal-Organic Frameworks of Trimesic Acid and Cu, Co or Ni for Potential Sensor Applications**
SEL K., DEMIRCI S., MEYDAN E., YILDIZ S., ÖZTÜRK Ö. F., Al-Lohedan H., ŞAHİNER N.
JOURNAL OF ELECTRONIC MATERIALS, vol.44, no.1, pp.136-143, 2015 (SCI-Expanded)
- IX. **Facile synthesis and characterization of trimesic acid-Cu based metal organic frameworks**
ŞAHİNER N., SEL K., ÖZTÜRK Ö. F., DEMIRCI S., TERZI G.
APPLIED SURFACE SCIENCE, vol.314, pp.663-669, 2014 (SCI-Expanded)
- X. **Detection of relative [Na⁺] and [K⁺] levels in sweat with optical measurements**
Al-Omari M., SEL K., Mueller A., Edwards J., Kaya T.
JOURNAL OF APPLIED PHYSICS, vol.115, no.20, 2014 (SCI-Expanded)
- XI. **The optical properties of plasma polymerized polyaniline thin films**
Goktas H., DEMIRCI OGLU Z., SEL K., Gunes T., KAYA İ.
THIN SOLID FILMS, vol.548, pp.81-85, 2013 (SCI-Expanded)
- XII. **The effect of Na⁺ and K⁺ doping on the properties of sol-gel deposited 2-hydroxy-1,4-naphthoquinone thin films**
Al-Omari M., SEL K., Mueller A., Mellinger A., Kaya T.
JOURNAL OF APPLIED PHYSICS, vol.113, no.20, 2013 (SCI-Expanded)
- XIII. **Room temperature photoluminescence spectrum modeling of hydrogenated amorphous silicon carbide thin films by a joint density of tail states approach and its application to plasma deposited hydrogenated amorphous silicon carbide thin films**
SEL K., GUNES İ.
THIN SOLID FILMS, vol.520, no.24, pp.7062-7065, 2012 (SCI-Expanded)
- XIV. **Hydrogel templated CdS quantum dots synthesis and their characterization**
ŞAHİNER N., SEL K., Meral K., ONGANER Y., Butun S., ÖZAY Ö., SILAN C.
COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS, vol.389, pp.6-11, 2011 (SCI-Expanded)
- XV. **Effects of tail states on the conduction mechanisms in silicon carbide thin films with high carbon content**
SEL K., Akaoglu B., Atilgan I., Katircioglu B.
SOLID-STATE ELECTRONICS, vol.57, no.1, pp.1-8, 2011 (SCI-Expanded)
- XVI. **Determination of the refractive index of a dielectric film continuously by the generalized S-transform**
COŞKUN E., SEL K., ÖZDER S.
OPTICS LETTERS, vol.35, no.6, pp.841-843, 2010 (SCI-Expanded)
- XVII. **Study of minority carrier injection phenomenon on Schottky and plasma deposited p-n junction diodes**
ÖZDEMİR O., SEL K.
MATERIALS SCIENCE IN SEMICONDUCTOR PROCESSING, vol.12, pp.175-184, 2009 (SCI-Expanded)
- XVIII. **Electroluminescence properties of a PIN structure made by nearly stoichiometric a-SiC_x:H active layer**
SEL K., Akaoglu B., ÖZDEMİR O., Atilgan I.
VACUUM, vol.83, no.5, pp.813-818, 2009 (SCI-Expanded)
- XIX. **Refractive index and extinction coefficient determination of an absorbing thin film by using the**

continuous wavelet transform method

COŞKUN E., SEL K., ÖZDER S., KURT M.

APPLIED OPTICS, vol.47, no.27, pp.4888-4894, 2008 (SCI-Expanded)

- XX. **Carbon content influence on the optical constants of hydrogenated amorphous silicon carbon alloys**
Akaoglu B., Sel K., Atilgan I., Katircioglu B.
OPTICAL MATERIALS, vol.30, no.8, pp.1257-1267, 2008 (SCI-Expanded)
- XXI. **Frequency dependence of conductivity in intrinsic amorphous silicon carbide film, assessed through admittance measurement of metal insulator semiconductor structure**
OZDEMİR O., ATILGAN İ., AKAOĞLU B., Sel K., KATIRCIOĞLU B.
THIN SOLID FILMS, vol.497, pp.149-156, 2006 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

- I. **Sensing behavior of the Al-doped graphene structure toward ethylene and 1-methylcyclopropen (1-MCP) molecules: A DFT study**
Aydin F., Sel K.
6th International Eurasian Conference on Biological and Chemical Sciences (EurasianBioChem 2023), Ankara, Turkey, 11 - 13 October 2023, pp.145
- II. **Characterization Of Room Temperature Photoluminescence Of Phosphorus Doped Hydrogenated Amorphous Silicon Carbide Thin Films**
SEL K.
Türk Fizik Derneği 33. Uluslararası Fizik Kongresi, BODRUM, Turkey, 6 - 10 September 2017
- III. **The Effects Of Phosphorus On The Electrical Properties And Conduction Mechanisms Of Hydrogenated Amorphous Silicon Carbide Thin Films**
ALÇINKAYA B., SEL K.
Türk Fizik Derneği 33. Uluslararası Fizik Kongresi, BODRUM, Turkey, 6 - 10 September 2017
- IV. **The Electrical Characterization of Plasma Deposited Phosphorus Doped N Type Hydrogenated Amorphous Silicon Carbide Thin Films**
ALÇINKAYA B., SEL K.
2ND INTERNATIONAL CONFERENCE ON ORGANIC ELECTRONIC MATERIAL TECHNOLOGIES, 17 - 19 May 2016
- V. **Superporous cryogels and their composites for versatile use**
ŞAHİNER N., DEMİRCİ Ş., SEL K., AKTAŞ N.
International Porous and Powder Materials Symposium and Exhibition, 15 - 18 September 2015, pp.172
- VI. **9-AMİNOAKRİDİN VE TÜREVLERİNİN İNCE FİLMLEİNİN BİRİKTİRİLMESİ VE KARAKTERİZASYONU**
SEL K., AYDIN F.
Türk Fizik Derneği, BODRUM-İZMİR, Turkey, 21 - 24 July 2014
- VII. **Fotovoltaik Güneş Gözesi Uygulamaları İçin CdO İnce Filmlerin Sol-Gel Spin Kaplama Yöntemi İle Büyütülmesi Ve Fiziksel Özellikleri Üzerine Tavlamanın Etkisi**
DEMİRSELÇUK B., SARICA E., SEL K., BİLGİN V.
14. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştay, Turkey, 14 September 2012
- VIII. **A-SiCx:H İnce Filmlerin Oda Sıcaklığındaki Fotoluminesans Spektrumunun Bant Uzantı Durumlarının Bileşke Durum Yoğunlukları Yaklaşımı İle Modellenmesi Ve Karakterizasyonu**
SEL K., GÜNEŞ İ.
Yoğun Madde Fiziği İzmir Toplantısı, Turkey, 06 April 2012
- IX. **Effects Of Plasma Power Density On The Photoluminescence Characteristics Of Hydrogenated Amorphous Silicon Carbide Thin Films**
GÜNEŞ İ., SEL K., AKAOĞLU B.
Türk Fizik Derneği 28. Uluslararası Fizik Kongresi, 6 - 09 September 2011
- X. **Photoluminescence Characteristics Of A-SiCx:H Films Deposited By Plasma Enhanced Chemical Vapour Deposition**

Supported Projects

SEL K., TUBITAK Project, Kriyojel/İletken Polimer Kompozitlerinin Hazırlanması Ve Sensör Olarak Uygulanabilirliğinin İncelenmesi, 2015 - 2017

SEL K., Project Supported by Other Official Institutions, Seramik yer ve duvar karolarının kızılötesi ve mikrodalga teknolojileri ile pişirme ve kurutma sistemlerinin geliştirilmesi, 2012 - 2013

SEL K., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Silisyum tabanlı ışılan diyotların üretilmesi, zaman çözünürlü ışılma, 2002 - 2005

SEL K., Project Supported by Other Official Institutions, Gözenekli silisyum ışılan yapıların üretilmesi, 2001 - 2002

SEL K., TUBITAK Project, Silisyum tabanlı ışılan yapıların üretilmesi, 1999 - 2001

Scientific Refereeing

Journal of Materials Chemistry C, SCI Journal, October 2015

Journal of Materials Chemistry C, SCI Journal, September 2015

Materials Science in Semiconductor Processing, SCI Journal, April 2015

Journal of Chemistry, SCI Journal, January 2015

Journal of Chemistry, SCI Journal, December 2014

Materials Science in Semiconductor Processing, SCI Journal, October 2014

Materials Science in Semiconductor Processing, SCI Journal, May 2014

Materials Science in Semiconductor Processing, SCI Journal, January 2014

Materials Science in Semiconductor Processing, SCI Journal, December 2013

Materials Science in Semiconductor Processing, SCI Journal, September 2013

Materials Science in Semiconductor Processing, SCI Journal, March 2013

Materials Science in Semiconductor Processing, SCI Journal, January 2013

Materials Science in Semiconductor Processing, SCI Journal, January 2013

Materials Science in Semiconductor Processing, SCI Journal, September 2012

Journal of Chemistry , SCI Journal, January 2010

Scientific Consultations

Çanakkale Seramik Ar-Ge Merkezi, Scientific Consultancy, Canakkale Onsekiz Mart University, Fen Fakültesi, Fizik, Turkey, 2012 - 2013

Metrics

Publication: 53

Citation (WoS): 373

Citation (Scopus): 351

H-Index (WoS): 11

H-Index (Scopus): 12

Congress and Symposium Activities

LİSE ÖĞRETMENLERİ- FİZİK, KİMYA, BİYOLOJİ, MATEMATİK - PROJE DANIŞMANLIĞI EĞİTİM ÇALIŞTAYI, Invited Speaker,
Çanakkale, Turkey, 2014

Scholarships

YÖK Doktora Sonrası Yurt Dışı Araştırma Bursu. Central Michigan University, Graduate Faculty of The Science of
Advanced Materials, Michigan, ABD, YOK, 2012 - 2012
BDP, TÜBİTAK, 2005 - 2007

Visual Activities

SEL K., TV Show, 2014 - 2014