

## Assoc. Prof. BERRİN ÖZDEMİR

### Personal Information

Office Phone: [+90 322 338 6084](tel:+903223386084) Extension: 2480

Fax Phone: [+90 322 338 6070](tel:+903223386070)

Email: [bozdemir@cu.edu.tr](mailto:bozdemir@cu.edu.tr)

Web: <http://fizik.cu.edu.tr>

Address: Çukurova Üniversitesi, Fizik Bölümü 01330 Adana

### Education Information

Under Graduate, Middle East Technical University, Fen Edebiyat, Fizik, Turkey 1980 - 1985

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Oscillatory magnetoresistance in two dimensional semiconductor structures, Middle East Technical University, Fen Bilimleri Enstitüsü, Fizik, 1995

Post Graduate, Self-consistent field calculations for the electronic properties of semiconductor superlattices, Middle East Technical University, Fen Bilimleri Enstitüsü, Fizik, 1988

### Research Areas

Physics, Intensive Article 2: Electronic Structure, Electric, Magnetic and Optical Properties, Electrical properties of electronic structures, interfaces, thin films and low-dimensional structures, Natural Sciences

### Academic Titles / Tasks

Assistant Professor, Cukurova University, Fen Edebiyat, Fizik, 2018 - Continues

Assistant Professor, Cukurova University, Fen Edebiyat, Fizik, 1996 - 2018

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

- I. **Transport Properties of Graphene and Suspended Graphene with EMC: The Role of Various Scattering Mechanisms**  
Ozdemir M. D. , ATASEVER O. S. , ÖZDEMİR B., Yarar Z., ÖZDEMİR M.  
JOURNAL OF ELECTRONIC MATERIALS, vol.45, pp.4468-4475, 2016 (Journal Indexed in SCI)
- II. **Electron-Transport Properties of a ZnMgO/ZnO Hetero Structure and the Effect of Interface Roughness and ZnMgO Thickness**  
ÖZDEMİR B., Yarar Z., Ozdemir M. D. , ATASEVER O. S. , ÖZDEMİR M.

- JOURNAL OF ELECTRONIC MATERIALS, vol.44, is.10, pp.3733-3737, 2015 (Journal Indexed in SCI)
- III. **A comparative study of transport properties of monolayer graphene and AlGa<sub>N</sub>-Ga<sub>N</sub> heterostructure**  
Ozdemir M. D. , ATASEVER O., ÖZDEMİR B., YARAR Z., ÖZDEMİR M.  
AIP ADVANCES, vol.5, is.7, 2015 (Journal Indexed in SCI)
- IV. **Tritium activity levels in drinking water of Adana, Turkey**  
Goren E., Turhan S., Ugur F. A. , Gezer F., ÖZDEMİR B., UFUKTEPE Y.  
JOURNAL OF RADIOANALYTICAL AND NUCLEAR CHEMISTRY, vol.299, is.3, pp.1427-1431, 2014 (Journal Indexed in SCI)
- V. **Transport and mobility properties of bulk indium nitride (InN) and a two-dimensional electron gas in an InGa<sub>N</sub>/Ga<sub>N</sub> quantum well**  
YARAR Z., Ozdemir B., OZDEMIR M.  
JOURNAL OF ELECTRONIC MATERIALS, vol.36, is.10, pp.1303-1312, 2007 (Journal Indexed in SCI)
- VI. **Electron mobility in a modulation doped AlGa<sub>N</sub>/Ga<sub>N</sub> quantum well**  
YARAR Z., Ozdemir B., OZDEMIR M.  
EUROPEAN PHYSICAL JOURNAL B, vol.49, no.4, pp.407-414, 2006 (Journal Indexed in SCI)
- VII. **Mobility of electrons in a AlGa<sub>N</sub>/Ga<sub>N</sub> QW: Effect of temperature, applied field, surface roughness and well width**  
YARAR Z., Ozdemir B., OZDEMIR M.  
PHYSICA STATUS SOLIDI B-BASIC SOLID STATE PHYSICS, vol.242, no.14, pp.2872-2884, 2005 (Journal Indexed in SCI)
- VIII. **SELF-CONSISTENT FIELD CALCULATIONS FOR GAAS/GAALAS SAWTOOTH SUPERLATTICES**  
USLU B., ERKOC S.  
SOLID STATE COMMUNICATIONS, vol.68, is.2, pp.277-281, 1988 (Journal Indexed in SCI)

### Articles Published in Other Journals

- I. **MANYETİK ALAN ALTINDAKİ İKİ BOYUTLU ELEKTRON GAZININ KİMYASAL POTANSİYELİ ISI SIĞASI VE MANYETİZASYONU**  
Tekin M., ÖZDEMİR B.  
Ç.Ü. Fen ve Mühendislik Bilimleri Dergisi, 2016 (Other Refereed National Journals)
- II. **KATMANLI GRAFENİN ELEKTRONİK ÖZELLİKLERİNİN MONTE CARLO YÖNTEMİ İLE HESABI VE GRAFENİN OPTİK ÖZELLİKLER**  
Atasever Ö., ÖZDEMİR B.  
Ç.Ü Fen ve Mühendislik Bilimleri Dergisi, vol.33, no.1, 2015 (Other Refereed National Journals)
- III. **Adana İçme Sularında Tritiyum Aktivitesinin Belirlenmesi**  
Gören E., ÖZDEMİR B.  
ÇÜ Fen Bilimleri Enstitüsü Fen ve Mühendislik Bilimleri Dergisi, vol.30, is.5, pp.65-68, 2013 (Other Refereed National Journals)
- IV. **Delta Katkılı Yarıiletkenlerin Elektronik Özellikleri**  
Öznur S., ÖZDEMİR B.  
ÇÜ Fen Bilimleri Enstitüsü Fen ve Mühendislik Bilimleri Dergisi, vol.25, is.2, pp.190-199, 2011 (Other Refereed National Journals)
- V. **ELECTRON TRANSPORT AND MOBILITY CALCULATION IN A ALGAAS GAAS 2DEG BY MONTE CARLO METHOD**  
YARAR Z., ÖZDEMİR B., ÖZDEMİR M.  
Erciyes Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.21, pp.13-23, 2005 (Other Refereed National Journals)
- VI. **Variation of Chemical Potential Oscillations of a 2DEG in a Quantum Well Under a Magnetic Field for Multiple Sub-Band Occupation as Function of Temperature and Level-Broadening**  
Özdemir B., YARAR Z., ÖZDEMİR M.  
Turkish Journal of Physics, vol.28, pp.1-15, 2004 (Other Refereed National Journals)

- VII. **Manyetik Alan Altındaki İki Boyutlu Bir Elektron Gazında Fermi Enerjisinin Sıcaklığa Bağımlılığı**  
ÖZDEMİR B.  
SDÜ Fen Bilimleri Enstitüsü Dergisi, vol.8, is.2, pp.193-196, 2004 (Other Refereed National Journals)

### **Refereed Congress / Symposium Publications in Proceedings**

- I. **Electron Transport Properties of Silicene: Intrinsic and Dirty Cases with Screening Effects**  
ÖZDEMİR M. D. , ÇEKİL H. C. , YARAR Z., ATASEVER Ö., ÖZDEMİR B., ÖZDEMİR M.  
5th International Conference on Materials Science and Nanotechnology For Next Generation (MSNG2018),  
Nevşehir, Turkey, 4 - 06 October 2018
- II. **Transport properties of ZnMgO/ZnO structure with screening effects**  
YARAR Z., Uslu S., ÖZDEMİR M. D. , ÖZDEMİR B., Atasever Ö., ÖZDEMİR M.  
INTERNATIONAL CONFERENCE ON CONDENSED MATTER AND MATERIAL SCIENCES, 11 - 15 October 2017
- III. **Various Scattering Mechanisms in AlGa<sub>N</sub>/Ga<sub>N</sub> Hetero Structure and Investigation of Screening Effect**  
YARAR Z., Cessur D., ÖZDEMİR M. D. , ÖZDEMİR B., Atasever Ö., ÖZDEMİR M.  
INTERNATIONAL CONFERENCE ON CONDENSED MATTER AND MATERIAL SCIENCES, 11 - 15 October 2017
- IV. **A Comparison of Silicene and Graphene Mobilities with an EMC Technique**  
ÖZDEMİR M. D. , Çekil C., Atasever Ö., ÖZDEMİR B., YARAR Z., ÖZDEMİR M.  
INTERNATIONAL CONFERENCE ON CONDENSED MATTER AND MATERIAL SCIENCES, 11 - 15 October 2017
- V. **Various Scattering Mechanisms in AlGa<sub>N</sub>/Ga<sub>N</sub> Hetero Structure and Investigation of Screening Effect**  
YARAR Z., Cessur D., ÖZDEMİR M. D. , ÖZDEMİR B., Atasever Ö., ÖZDEMİR M.  
INTERNATIONAL CONFERENCE ON CONDENSED MATTER AND MATERIAL SCIENCES, 11 - 15 October 2017
- VI. **TRANSPORT CHARACTERISTICS OF AL DOPED GAN**  
YARAR Z., Cessur D., ÖZDEMİR M. D. , ÖZDEMİR B., Atasever Ö., ÖZDEMİR M.  
TURKISH PHYSICAL SOCIETY 33rd INTERNATIONAL PHYSICS CONGRESS, 6 - 10 September 2017
- VII. **THE EFFECT OF SCREENING ON THE PHONON SCATTERINGS IN ZNMGO/ZNO STRUCTURES**  
YARAR Z., Uslu S., ÖZDEMİR M. D. , ÖZDEMİR B., Atasever Ö., ÖZDEMİR M.  
TURKISH PHYSICAL SOCIETY 33rd INTERNATIONAL PHYSICS CONGRESS, 6 - 10 September 2017
- VIII. **Ensemble Monte Carlo Analysis of Electron transport in Silicene**  
ÖZDEMİR M. D. , Atasever Ö., ÖZDEMİR B., YARAR Z., ÖZDEMİR M.  
Türk Fizik Derneği 33. Uluslararası Fizik Kongresi, 6 - 10 September 2017
- IX. **Transport Properties of Intrinsic and Dirty Graphene with EMC The Role of Various Scattering Mechanisms**  
ÖZDEMİR M. D. , Atasever Ö., ÖZDEMİR B., YARAR Z., ÖZDEMİR M.  
European Symposium on Surface Science, 21 - 23 September 2016
- X. **Transport properties of intrinsic and dirty graphene The role of surface roughness scattering**  
ÖZDEMİR M. D. , atasever ö., YARAR Z., ÖZDEMİR B., ÖZDEMİR M.  
European Graphene Forum, Advanced Materials World Congress 2015, 23 - 25 August 2015
- XI. **Calculation of The Low Field Mobility of Bilayer Graphene With Monte Carlo Method**  
Atasever Ö., ÖZDEMİR M. D. , ÖZDEMİR B., YARAR Z., ÖZDEMİR M.  
9th International Physics Conference of the Balkan Physical Union, 24 - 27 August 2015
- XII. **Transport properties of intrinsic and dirty graphene The role of interface roughness scattering**  
ÖZDEMİR M. D. , Atasever Ö., YARAR Z., ÖZDEMİR B., ÖZDEMİR M.  
European Graphene Forum 2015, 23 - 26 August 2015
- XIII. **A Comparative Study of Transport Properties of Monolayer Graphene and AlGa<sub>N</sub>/Ga<sub>N</sub> Heterostructure**  
Özdemir M. D. , ATASEVER Ö. S. , ÖZDEMİR B., YARAR Z., ÖZDEMİR M.  
European Symposium on Surface Science, Roma, Italy, 26 November 2014, pp.1
- XIV. **Dynamical Conductivity of a Single Layer Graphene**  
Atasever Ö., ÖZDEMİR M. D. , ÖZDEMİR B.

GRM2014-Graphene and Related Materials, İzmir, Turkey, 9 - 11 July 2014

**XV. İki Boyutlu Yapılarda Perdeleme ve Elektron Saçılma Mekanizmalarına Etkisi**

Atasever Ö., ÖZDEMİR M. D. , ÖZDEMİR B.

Türk Fizik Derneği 30. Uluslararası Fizik Kongresi, 2 - 05 September 2013

**XVI. Değiş Tokuş Potansiyelin Delta Katkılı Yarıiletkenlerin Elektronik Özelliklerine Etkisi**

Öznur S., ÖZDEMİR B.

Türk Fizik Derneği 27. Uluslararası Fizik Kongresi, 14 - 17 September 2010

**XVII. Manyetik Alan Altındaki İki Boyutlu Bir Elektron Gazında Fermi Enerjisinin Sıcaklığa Bağımlılığı**

ÖZDEMİR B.

Türk Fizik Derneği 21. Fizik Kongresi, 11 - 14 September 2002

## Other Publications

**I. Optics**

Özdemir M., Özdemir B., Kurt M. Z. , Esen M., Karadağ F., Özdemir M. D.

Other, pp.650, 2014

**II. classical Dynamics of Particles and Systems**

Özdemir M., Ufuktepe Y., Özdemir B., Eşkut E., Akyüz A., Esen M., Kurt M. Z. , Polatöz A., Tüzemen A. T. , Karadağ F.

Other, pp.650-700, 2011

**III. Fen Bilimcileri ve Mühendisler için FİZİK (Bölüm çevirisi)**

Önengüt G., Özdemir B., Özdemir M.

Other, pp.1200, 2009

## Citations

Total Citations (WOS):56

h-index (WOS):5