

ÖZGEÇMİŞ

Hüseyin OYMAK

Atılım Üniversitesi
Mühendislik Fakültesi
Fizik Grubu

GENEL BİLGİLER

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EĞİTİM DURUMU

Derece	Bölüm/Program	Üniversite	Yıl
Lisans	Fizik Öğretmenliği	ODTÜ	1999
Lisans	Fizik (Çift Anadal)	ODTÜ	1999
Y. Lisans	Fizik	ODTÜ	2000
Doktora	Fizik	ODTÜ	2004

YAPTIĞI GÖREVLER

Görev Ünvanı	Görev Yeri	Yıl
Araştırma Görevlisi	Orta Doğu Teknik Üniversitesi, Fizik Bölümü	1999-2000
Araştırma Görevlisi	Georgia Institute of Technology, Physics Department, USA	2000-2000
Araştırma Görevlisi	Orta Doğu Teknik Üniversitesi, Fizik Bölümü	2001-2004
Doktora Sonrası Araştırmacı	Seoul National University, BK21 Physics Research Division, School of Physics, Seoul, South Korea	2004-2005
Doktora Sonrası Araştırmacı	Seoul National University, Center for Theoretical Physics, School of Physics, Seoul, South Korea	2005-2006
Doktora Sonrası Araştırmacı	Seoul National University, BK21 Frontier of Physics, Physics Research Division, Department of Physics and Astronomy, Seoul, South Korea	2006-2007
Doktora Sonrası Araştırmacı	Chungbuk National University, BK21 Frontier of Physics, Physics Research Division, Department of Physics, Cheongju, South Korea	2007-2008
Öğretim Görevlisi Doktor	Atılım Üniversitesi, Mühendislik Fakültesi Fakültesi, Fizik Grubu	2009-2010
Yardımcı Doçent Doktor	Atılım Üniversitesi, Mühendislik Fakültesi Fakültesi, Fizik Grubu	2010-2010
Doçent Doktor	Atılım Üniversitesi, Mühendislik Fakültesi Fakültesi, Fizik Grubu	2011-

YAPTIĞI TEZLER

- Yüksek Lisans: *N Eşit Nokta Yükün Çok İnce, İletken Bir Disk Üzerinde Minimum Enerji Dağılımı*, Prof. Dr. Şakir Erkoç danışmanlığında.
- Doktora: *AlTiNi Üçlü Topaklarının Kuramsal Olarak İncelenmesi: Yoğunluk Fonksiyoneli Kuramı Hesapları ve Moleküler Dinamik Simulasyonları*, Prof. Dr. Şakir Erkoç danışmanlığında.

ÖDÜLLER VE BURSLAR

1. 8-13 Eylül 2002 tarihleri arasında, İtalya-Torino'da düzenlenen "MSSC 2002 Ab Initio Modeling In Solid State Chemistry" adlı yaz okulu için bir burs.
2. 26 Haziran 2004'te, İspanya-Barselona'da, "Research Unit on Biomedical Informatics of IMIM/UPF"de doktora tezinin sunumu için bir burs.
3. 16 Aralık 2004 - 31 Ekim 2005 arasında, doktora sonrası araştırma yapmak üzere "BK21 Physics Research Division, School of Physics, Seoul National University, Korea" tarafından verilen burs.
4. 1 Aralık 2005 - 31 Temmuz 2006 arasında, doktora sonrası araştırma yapmak üzere "Center for Theoretical Physics, School of Physics, Seoul National University, Korea" tarafından verilen burs.
5. 1 Ağustos 2006 - 30 Haziran 2007 arasında, doktora sonrası araştırma yapmak üzere "BK21 Frontier of Physics, Physics Research Division, Department of Physics and Astronomy, Seoul National University, Korea" tarafından verilen burs.
6. 1 Ekim 2007 - 30 Eylül 2008 arasında, doktora sonrası araştırma yapmak üzere "BK21 Frontier of Physics, Physics Research Division, Department of Physics, Chungbuk National University, Korea" tarafından verilen burs.

ÖĞRETİM TECRÜBESİ

1. Lisans seviyesinde:

- Genel Fizik laboratuvarları (ODTÜ, Georgia Tech)
- Modern Fizik (ODTÜ)
- Genel Fizik (Atılım Üniversitesi)

2. Lisans üstü seviyesinde:

- Kuantum Mekaniği (ODTÜ)
- Elektromanyetik Teori (ODTÜ)

3. Doktora seviyesinde:

- Elektromanyetik Teori (ODTÜ)

YABANCI DİL BİLGİSİ

- İngilizce (ileri seviyede)
- Fransızca (orta seviyede)
- Korece (orta seviyede)

BİLGİSAYAR / YAZILIM BİLGİSİ

- UNIX/LINUX (orta/üst seviyede)
- FORTRAN (ileri seviyede)
- MATHEMATICA (ileri seviyede)
- GAUSSIAN (ileri seviyede)

ESERLERİ

A. Uluslararası hakemli dergilerde yayınlanan makaleler:

- A01. S. Erkoc and H. Oymak,
Rules for the distribution of point charges on a conducting disk,
Phys. Rev. E 62, 3075 (2000).
- A02. H. Oymak and S. Erkoc,
Distribution of point charges on a thin conducting disk,
Int. J. Mod. Phys. C 11, 891 (2000).
- A03. H. Oymak and S. Erkoc,
Energetics and stability of discrete charge distribution on the surface of a sphere,
Int. J. Mod. Phys. C 12, 293 (2001).
- A04. S. Erkoc and H. Oymak,
Energetics and stability of discrete charge distribution on a conducting disk,
Phys. Lett. A 290, 28 (2001).
- A05. H. Oymak and S. Erkoc,
Structural and electronic properties of AlTiNi microclusters: density functional theory calculations,
Phys. Rev. A 66, 33202 (2002).
- A06. S. Erkoc and H. Oymak,
AlTiNi ternary alloy clusters: molecular dynamics simulations and density functional theory calculations,
J. Phys. Chem. B 107, 12118 (2003).
- A07. H. Oymak and S. Erkoc,
Structural and energetic features of AlTiNi nanoparticles: Molecular dynamics simulations,
Model. Simul. Mater. Sci. Eng. 12, 109 (2004).
- A08. H. Oymak and S. Erkoc, *Titanium coverage on a single wall carbon nanotube: molecular dynamics simulations,*
Chem. Phys. 300, 277 (2004).
- A09. Z. El-Bayyari, H. Oymak, and H. Kokten,
On the structural and energetic features of small metal clusters: Ni, Cu, Pd, Pt, and Pb,
Int. J. Mod. Phys. C 15, 917 (2004).

- A10. H. Oymak, D. Shin, and J. Hong,
Time dependent phonon assisted tunneling through a single molecular device: Ricatti matrix approach,
Europhys. Lett., 77, 37005 (2007).
- A11. D. Shin, H. Oymak, and J. Hong,
Phonon photon assisted tunneling through an Aharonov Bohm ring,
J. Phys.: Condens. Matter. 19, 226211 (2007).
- A12. T. Fukuda, H. Oymak, and J. Hong,
Electron transport from a one- to a two-dimensional system: scanning tunneling microscopy of an adatom on a metal surface,
Phys. Rev. B 75, 195428 (2007).
- A13. T. Fukuda, H. Oymak, and J. Hong,
Electron transport from a one-dimensional lead to a two-dimensional graphene sheet through a single site,
J. Phys.: Condens. Matter. 20, 055207 (2008).
- A14. H. Oymak and S. Erkoc,
On the SmCo dimer: a detailed density functional theory analysis,
J. Phys. Chem. A 114, 1897 (2010).
- A15. H. Oymak and S. Erkoc,
Group 12 elements and their small clusters: electric dipole polarizability of Zn, Cd, and Hg, Zn₂ dimer and higher Zn_n microclusters and neutral, cationic, and anionic zinc oxide molecules (ZnO, ZnO⁺, and ZnO⁻),
Int. J. Mod. Phys. B 26, 1230003 (2012).

B. Uluslararası bilimsel toplantılarda sunulan ve bildiri kitabında basılan bildiriler:

- B01. H. Oymak and S. Erkoc,
Titanium coverage on a single-wall carbon nanotube,
NATO-ASI, Nanoengineered Nanofibrous Materials, Antalya,
Turkey, 1-12 September 2003. (Poster).
- B02. D. Shin, H. Oymak, and J. Hong,
A systematic study of phonon-assisted resonant tunneling,
Turkish Physical Society, 23rd International Physics Congress,
Mugla, Turkey, 13-16 September 2005. (Poster).
- B03. H. Oymak, D. Shin, and J. Hong,
*Resonant electron transport through an Aharonov Bohm pump
coupled to optical phonons,*
BPU6 - 6th International Conference, Balkan Physical Union,
22-26 Aug. 2006, Istanbul, Turkey. (Presentation).

ATIF LİSTESİ

Bu liste, yazarın (H. Oymak) yayınlarına uluslararası hakemli dergilerde yayınlanmış makalelerde yapılan atıfları verir; yazar (H. Oymak) ya da diğer ortak yazarlar (S. Erkoc, Z. El-Bayyari, H. Kokten, D. Shin, J. Hong ve T. Fukuda) tarafından yapılan atıfları içermez.

- C01. L. Brito and M. Fiolhais,
Energetics of charge distributions,
Eur. J. Phys. 23, 427 (2002).
- C02. A.N. Enyashin and A.L. Ivanovskii,
*Structural and electronic properties of the TiC nanotubes:
density functional-based tight binding calculations,*
Physica E 30 164 (2005).
- C03. B.N. Papas and H.F. Schaefer III,
Homonuclear transition-metal trimers,
J. Chem. Phys. 123, 074321 (2005).

- C04. S.B. Fagan, A. Fazzio, and R. Mota,
Titanium monomers and wires adsorbed on carbon nanotubes: a first principles study,
Nanotechnology 17, 1154 (2006).
- C05. C. Huiqun, Z. Meifang, and L. Yaogang,
Decoration of carbon nanotubes with iron oxide,
J. Solid State Chem. 179, 1208 (2006).
- C06. K. Saitoh,
Atomic dynamics and energetics of martensitic transformation in nickel titanium shape memory alloy,
Mater. T. JIM 47, 742 (2006).
- C07. D.R. Belcher,
Structure and stability of small bimetallic Al based clusters: an ab initio DFT study,
Mater. T. JIM 48, 689 (2007).
- C08. A.A. Dzhurakhalov and M. Hou,
Equilibrium properties of binary and ternary metallic immiscible nanoclusters,
Phys. Rev. B 76, 045429 (2007).
- C09. H. Fengyou, Z. Yongfang, L. Xinying, and L. Fengli,
A density functional study of nickel aluminum microclusters,
J. Mol. Struct.: THEOCHEM 807, 153 (2007).
- C10. R. Mota, S.B. Fagan, and A. Fazzio,
First principles study of titanium coated carbon nanotubes as sensors for carbon monoxide molecules,
Surf. Sci. 601, 4102 (2007).
- C11. M. Boyukata and J.C. Belchior,
Structural and energetic analysis of copper clusters: MD study of Cu,
J. Braz. Chem. Soc. 19, 884 (2008).
- C12. Z. Dong, K. Ma, J. He, J. Wang, R. Li, and J. Ma,
Decorating carbon nanotubes with cobalt nanoparticles,
Mater. Lett. 62, 4059 (2008).
- C13. A.A. Dzhurakhalov, I. Atanasov, and M. Hou,
Calculation of binary and ternary metallic immiscible clusters with icosahedral structures,
Phys. Rev. B 77, 115415 (2008).

- C14. Y.M. Kim and B.J. Lee, *Modified embedded atom method interatomic potentials for the TiC and TiN binary systems*, Acta Mater. 56, 3481 (2008).
- C15. N.S. Venkataramanan, *Structures of small NiTi clusters: a DFT study*, J. Mol. Struc.: THEOCHEM 856, 9 (2008).
- C16. M. Wu, W. Shi, N. Liu, Y. Ou, F. Wu, and Z. Jiao, *Study of the catalytic characteristics of nanooxide decorated carbon nanotubes for waste water processing*, Colloid Surface A 313-314, 264 (2008).
- C17. S. Capet and G. Friesecke, *Minimum energy configurations of classical charges: large N asymptotics*, Appl. Math. Res. Express, 2009, 47 (2009).
- C18. J. Houska, J.E. Klemberg-Sapieha, and L. Martinu, *Atomistic simulations of the characteristics of TiSiN nanocomposites of various compositions*, Surf. Coat. Tech. 203, 3348 (2009).
- C19. Y.F. Ouyang, *A density functional study of aluminum iron zirconium and cerium microclusters*, Eur. Phys. J. D 54, 629 (2009).
- C20. N.M.R. Peres, L. Yang, and S.-W Tsai, *Local density of states and scanning tunneling currents in graphene*, New J. Phys. 11, 095007 (2009).
- C21. N.M.R. Peres, S.-W. Tsai, J.E. Santos, and R.M. Ribeiro, *Scanning tunneling microscopy currents on locally disordered graphene*, Phys. Rev. B 79, 155442 (2009).
- C22. Y. Yin, S. Yu, W.W. Zhang, and H. Ye, *Electronic and magnetic properties of bimetallic FeAl clusters*, J. Mol. Struc. THEOCHEM 902, 1 (2009).
- C23. S. Zhao, Y.L. Ren, J.J. Wang, and W.P. Yin, *A density functional study of the interaction of NCO with small copper clusters*, J. Phys. Chem. A 113, 1075 (2009).

- C24. A.A. Buchachenko,
Electronic structure and spin coupling of the manganese dimer,
J. Chem. Phys. 132, 024312 (2010).
- C25. W.D. Jones, V.K. Rangari, T.A. Hassan, and S. Jeelani,
Synthesis and characterization of Fe₃O₄ MWCNT) epoxy nanocomposites,
J. Appl. Polym. Sci. 116, 2783 (2010).
- C26. C.H. Yan,
Current density waves in open mesoscopic rings driven by time periodic magnetic fluxes,
J. Phys.: Condens. Matter 22, 185301 (2010).
- C27. C.H. Yan and L.F. Wei,
Photon assisted tunneling through open mesoscopic rings threaded by time periodic magnetic fluxes,
Physica B 405, 5 (2009).
- C28. X. Chen, K. Song, B. Zhou, H. Wang, and G. Zhou,
Dependence of transport on adatom location for armchair edge graphene nanoribbons,
Appl. Phys. Lett. 98, 093111 (2011).
- C29. X. Chen, H. Wan, K. Song, D. Tang, and G. Zhou,
Scanning tunneling microscopy image modeling for zigzag edge graphene nanoribbons,
Appl. Phys. Lett. 98, 263103 (2011).
- C30. X. Chen, H. Wang, H. Wan, K. Song, and Gu. Zhou,
Semiconducting states and transport in metallic armchair edged graphene nanoribbons,
J. Phys.: Condens. Matter 23 315304 (2011).
- C31. T.R. Cundari, S.S. Janardan, O. Olatunji-Ojo, B.R. Wilson,
A first principles study of diatomic NiAl: ground state, structure, and spectroscopic constants,
Int. J. Quantum Chem. 111, 4303 (2011).
- C32. P. Matczak,
Computational study of the adsorption of molecular hydrogen on PdAg, PdAu, PtAg, and PtAu dimers,
Reac. Kinet. Mech. Cat. 102, 1 (2011).

- C33. C.R. Weinberger,
The structure and energetics of, and the plasticity caused by, Eshelby dislocations,
Int. J. Plasticity 27, 1391 (2011).
- C34. C. Tatar and Sefa Kazanc,
Investigation of the effect of pressure on thermodynamic properties and thermoelastic phase transformation of CuAlNi alloys: a molecular dynamics study,
Curr. Appl. Phys. 12, 98 (2012).
- C35. P.K. Tamukong, D. Theis, Y.G. Khait, and M.R. Hoffmann,
GVPPT2 multireference perturbation theory description of diatomic scandium, chromium, and manganese,
J. Phys. Chem. A 116, 4590 (2012).
- C36. X. Wu, Y. Sun, C. Li, and W. Yang,
Parametric effects of the potential energy function on the geometrical features of ternary Lennard-Jones clusters,
J. Phys. Chem. A 116, 8218 (2012).
- C37. A.A. Ensafi, A.R. Allafchian, B. Rezaei, and R. Mohammadzadeh,
Characterization of carbon nanotubes decorated with NiFe₂O₄ magnetic nanoparticles as a novel electrochemical sensor: Application for highly selective determination of sotalol using voltammetry,
Materials Science and Engineering C 33, 202 (2013).
- C38. A.A. Ensafi and A.R. Allafchian,
Multiwall carbon nanotubes decorated with NiFe₂O₄ magnetic nanoparticles, a new catalyst for voltammetric determination of cefixime,
Colloid Surface B 102, 687 (2013).
- C39. S. Orel and R. Fournier,
Density functional theory and global optimization study of SnPb clusters,
J. Chem. Phys. 138, 064306 (2013).
- C40. M.G. Reuter, N.M. Boffi, M.A. Ratner, and T. Seideman,
The role of dimensionality in the decay of surface effects,
J. Chem. Phys. 138, 084707 (2013).
- C41. F.-B. Yang, Y. Cheng, F.-T. Liu, and X.-R. Chen,
Spin-dependent transport through a quantum wire on a graphene surface,
Appl. Phys. Lett. 102, 011911 (2013).