

CURRICULUM VITAE

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PERSONAL DATA :

Date of Birth : November 4, 1950
Place of Birth : Ankara, Turkey

EDUCATION :

- B.S. 1971 Middle East Technical University, Ankara
- M.S. 1973 Middle East Technical University, Ankara
- Ph.D. 1977 University of Missouri, Columbia, MO
- Dozentship 1982 Middle East Technical University, Ankara

HONORS :

- Fellowship of Turkish Ministry of Education
Haydarpaşa Lisesi, İstanbul (1961–1964)
Science Lycée, Ankara (1964–1967)
- J. F. Kennedy Fellowship for Basic Sciences (1967–1971)
Middle East Technical University, Ankara
- O. M. Stewart Fellowship (1975, 1976, 1977)
University of Missouri–Columbia, MO
- Research Fellowship of Rockwell Int. Corp. (1976)
University of Missouri–Columbia, MO
- Scholarship – Graduate School Dean (1977)
University of Missouri–Columbia, MO
- Postdoctoral Fellow of National Science Foundation (1978–1979, 1980)
University of Missouri–Columbia, MO
- Research Fellow of Alexander von Humboldt Stiftung (1984–1985, 1986)
Institut für Festkörperforschung der Kernforschungsanlage (IFF–KFA), Jülich
- TÜBİTAK – Incentive Award in Science (1987)
Scientific and Technical Research Council of Turkey

- NATO–B Scientific Research Fellow (1995)
Georgia Institute of Technology, Atlanta, GA
- Fulbright Research Fellow (1995–1996)
Georgia Institute of Technology, Atlanta, GA
- Member of The Science Academy, Turkey (2013–)

WORK EXPERIENCE :

- Assistant : 1971–1973 METU–Physics Department, Ankara
1973–1974 Southern Illinois University–Carbondale, IL
1974–1977 University of Missouri–Columbia, MO
- Instructor, Dr. : 1978–1980 METU–Physics Department, Ankara
- Assist. Prof. Dr. : 1980–1982 METU–Physics Department, Ankara
- Assoc. Prof. Dr. : 1982–1988 METU–Physics Department, Ankara
- Professor Dr. : 1988–2012 METU–Physics Department, Ankara
- Professor Dr. : 2012– TEDU–Basic Sciences Unit, Ankara

ADMINISTRATIVE EXPERIENCE :

- National Administrator of Turkey (1988–1989)
NATO Science Fellowship Programme
- Member and the Chairman (1988–1989)
Executive Committee of the Group for Fostering Young Scientists
Scientific and Technical Research Council of Turkey (TÜBİTAK)
- Chairman of the Physics Department (1988–1994)
Middle East Technical University, Ankara
- Member of the University Administration Board (1992–1994)
Middle East Technical University, Ankara
- Member of the University Academic Publishing Committee (1993–1994)
Middle East Technical University, Ankara
- Member of the Advisory Board
to the Turkish Atomic Energy Authority (1993–1996)
- Member of the Advisory Board
to the European High Pressure Research Group (1993–1996)
- Member of the Publication Evaluation Commission
of the Turkish Universities (1993–2009)
- Member of the Advisory Committee
to the Feza Gürsey Science Center, Ankara (1993–1994)
- Director of Basic Sciences Unit
TED University, Ankara (2012–)

OTHER ACTIVITIES :

- Consultant to Amoco Research Center, Naperville, IL (1985)
- International Physics Olympiads (1986, 1987)
Selection and Training of the Turkish National Team
- Organizer of the Spring School on “Surface Science and Technology”
1988, Bilkent University, Ankara
- Organizer of the International Conference on “Beam–Solid Interactions”
1989, METU, Ankara, Turkey
- Organizer of the 2nd National Symposium on “Computer Simulations”
1990, METU, Ankara
- Organizer of the Ankara Conferences on “Condensed Matter Physics” (YMF)
YMF02 1992, Bilkent University, Ankara
YMF03 1993, Ankara University, Ankara
YMF05 1997, METU, Ankara (Principal Organizer)
YMF06 1997, Gazi University, Ankara
YMF07 1998, Bilkent University, Ankara
YMF08 2001, Bilkent University, Ankara
YMF09 2002, Bilkent University, Ankara
YMF10 2003, Hacettepe University, Ankara
YMF11 2004, Gazi University, Ankara
YMF12 2005, Ankara University, Ankara
YMF13 2006, METU, Ankara (Principal Organizer)
YMF14 2007, Hacettepe University, Ankara
YMF15 2008, Bilkent University, Ankara
YMF16 2009, Gazi University, Ankara
YMF17 2010, Ankara University, Ankara
YMF18 2011, METU, Ankara (Principal Organizer)
YMF19 2013, Bilkent University, Ankara
- Organizer of the 1st Anatolian School on “Catalysis”
2006, METU, Ankara
- Local Organizer of the 30th European Conference on Surface Science
ECOSS-30, 2014, Antalya, Turkey

PROFESSIONAL AFFILIATIONS :

- Member of the Turkish Physical Society
- Member of the Materials Research Society
- Member of the Humboldtians’ Association of Turkey
- Member of the Fulbright Fellows Association of Turkey
- Member of the METU Alumni Association
- Member of the Ankara Science Lycée Alumni Association
- Founder Member of the Ankara Science Lycée Foundation

LIST OF PUBLICATIONS

BOOK :

- “Electronic and Optical Properties of d-Band Perovskites”
T. Wolfram and Ş. Ellialtıođlu
(Cambridge University Press, Cambridge, 2006), 315 pages. [35]
- “Applications of Group Theory to Atoms, Molecules, and Solids”
T. Wolfram and Ş. Ellialtıođlu
(Cambridge University Press, Cambridge, 2014), 471 pages.

EDITED VOLUME :

- “Proceedings of the International Conference on Beam–Solid Interactions”
R. Ellialtıođlu and Ş. Ellialtıođlu (Guest Editors)
Turkish J. of Phys., Supplement No.1, pp. 1–246, February 1990, Ankara

EDITED CHAPTER :

- “Concepts of Surface States and Chemisorption on d-Band Perovskites”
T. Wolfram and Ş. Ellialtıođlu
Chapter 6 in “Theory of Chemisorption”, ed. J. R. Smith
Volume **19** of Topics in Current Physics, (Springer–Verlag, Heidelberg, 1980)
pp. 149–181. [24]

ARTICLES in SCI :

1. “Surface Enhanced Covalency and its Effects on the Surface States of d-Band Metal Oxides”
T. Wolfram and Ş. Ellialtıođlu
Appl. Phys. **13**, 21 (1977). [Number of citations = 31]
2. “Electronic Density of States for the Perovskites”
Ş. Ellialtıođlu and T. Wolfram
Phys. Rev. B **15**, 5909 (1977). [26]
3. “Surface Electronic Properties of d–Band Perovskites: Study of π -Bands”
Ş. Ellialtıođlu and T. Wolfram
Phys. Rev. B **18**, 4509 (1978). [34]
4. “Surface States on n-type SrTiO₃”
Ş. Ellialtıođlu, T. Wolfram, and Victor E. Henrich
Solid State Commun. **27**, 321 (1978). [22]
5. “Model for the x-ray Photoelectron Distributions of d-Band Perovskites”
T. Wolfram and Ş. Ellialtıođlu
Phys. Rev. B **19**, 43 (1979). [18]
6. “Matrix Element Effects in $\epsilon_2(\omega)$ of the Insulating Perovskites”
T. Wolfram and Ş. Ellialtıođlu
Appl. Phys. **22**, 11 (1980). [1]

7. “Neutron Scattering by Magnons of an Antiferromagnet with Modulated Spin Amplitudes”
T. Wolfram and Ş. Ellialtıođlu
Phys. Rev. Lett. **44**, 1295 (1980). [13]
8. “Electronic Structure of SiO₂(111) Thin Film”
S. Çıracı and Ş. Ellialtıođlu
Solid State Commun. **40**, 587 (1981). [12]
9. “An Investigation of the Interface Electronic Structure of Si–SiO₂ Junctions”
S. Çıracı, Ş. Ellialtıođlu, and Ş. Erkoç
J. Vac. Sci. Technol. **21**, 402 (1982). [4]
10. “Density-of-States and Partial-Density-of-States Functions for the Cubic d-Band Perovskites”
T. Wolfram and Ş. Ellialtıođlu
Phys. Rev. B **25**, 2697 (1982). [33]
11. “Surface Electronic Structure of Silicon Dioxide”
S. Çıracı and Ş. Ellialtıođlu
Phys. Rev. B **25**, 4019 (1982). [21]
12. “Interpretation of the Spectra Obtained from Oxygen Adsorbed and Oxidized Silicon Surfaces”
S. Çıracı, Ş. Ellialtıođlu, and Ş. Erkoç
Phys. Rev. B **26**, 5716 (1982). [73]
13. “Chemisorption of Atomic Oxygen on Silicon Surfaces”
Ş. Ellialtıođlu and S. Çıracı
Solid State Commun. **42**, 879 (1982). [7]
14. “States of Water Molecule Adsorbed on Si(111) Surface”
S. Çıracı, Ş. Erkoç, and Ş. Ellialtıođlu
Solid State Commun. **45**, 35 (1983).
15. “Binding Energy of Donor–Phonon System in Quantum Well Wires”
A. Erçelesi, U. Özdiñer, and Ş. Ellialtıođlu
J. Phys. C **19**, L67 (1986). [5]
16. “Magnetic 3d-impurities in Nb and Mo”
Ş. Ellialtıođlu, R. Zeller, and P. H. Dederichs
J. Phys. F **17**, 409 (1987). [13]
17. “Electronic Structure of Strained Si_n/Ge_n(001) Superlattices”
S. Çıracı, O. Gülseren, and Ş. Ellialtıođlu
Solid State Commun. **65**, 1285 (1988). [3]
18. “Calculations of STM Linescans – General Formalism”
Ş. Ellialtıođlu, S. Çıracı, and Inder P. Batra
Solid State Commun. **66**, 1135 (1988). [4]
19. “A Computer Simulation of Amorphous Silicon”
G. Dereli, M. C. Yalabık, and Ş. Ellialtıođlu
Physica Scripta **40**, 117 (1989). [2]

20. “Elastic Properties of $\text{GaS}_{1-x}\text{Se}_x$ Layer Mixed Crystals by Brillouin Scattering”
N. M. Gasanly, B. G. Akinoglu, and Ş. Ellialtıođlu
Phys. Stat. Sol. (b) **177**, K59 (1993). [1]
21. “Raman Scattering in Layer Indium Selenide under Pressure”
K. Allahverdi, S. Babaev, Ş. Ellialtıođlu, and A. Ismailov
Solid State Commun. **87**, 675 (1993). [6]
22. “Low-Temperature Phase Transitions in TlGaS_2 Layer Crystals”
A. Aydınlı, R. Ellialtıođlu, K. R. Allakhverdiev, Ş. Ellialtıođlu, and N. M. Gasanly
Solid State Commun. **88**, 387 (1993). [14]
23. “Elastic Coefficients in $\text{TlGa}(\text{S}_{1-x}\text{Se}_x)_2$ and $\text{TlIn}_x\text{Ga}_{1-x}\text{S}_2$ Layer Mixed Crystals
by Brillouin Scattering”
N. M. Gasanly, B. G. Akinoglu, Ş. Ellialtıođlu, R. Laiho, and A. E. Bakhyshev
Physica B **192**, 371 (1993). [9]
24. “Lattice Parameters of $\text{TlGa}_{1-x}\text{In}_x\text{S}_2$ and $\text{TlGa}(\text{S}_{1-x}\text{Se}_x)_2$ Layer Mixed Crystals”
N. M. Gasanly, A. Çulfaz, H. Özkan, and Ş. Ellialtıođlu
Cryst. Res. Technol. **29**, K51 (1994). [5]
25. “Chemisorption of a p-adsorbate on perovskites”
H. Kökten and Ş. Ellialtıođlu
Physica B **193**, 39 (1994).
26. “Enhancement of the Resolution of a Semiconductor Photographic System
in a Magnetic Field”
B. G. Salamov, B. G. Akinoglu, Ş. Ellialtıođlu, K. Allakhverdiev,
and N. N. Lebedeva
J. Photogr. Sci. **42**, 106 (1994). [21]
27. “Low-Temperature Second Harmonic Generation in Gallium Selenide
under Resonant Excitation of the Direct Free Excitons”
K. Allakhverdiev, N. Akhmedov, Z. Ibragimov, Ş. Ellialtıođlu,
K. Lothar, and D. Haarer
Solid State Commun. **93**, 147 (1995). [5]
28. “Layered Semiconductor GeS as Birefringent Stratified Medium”
R. A. Süleymanov, Ş. Ellialtıođlu, and B. G. Akinoglu
Phys. Rev. B **52**, 7806 (1995). [3]
29. “Spatial Stabilization of Townsend and Glow Discharges with a Semiconducting
Cathode”
B. G. Salamov, Ş. Ellialtıođlu, B. G. Akinoglu, N. N. Lebedeva, and L. G. Patriskii
J. Phys. D: Appl. Phys. **29**, 628 (1996). [34]
30. “Ab initio Study of Adsorption and Desorption of Se on the Si(001) Surface”
M. Çakmak, G. P. Srivastava, Ş. Ellialtıođlu, and K. Çolakođlu
Surf. Sci. **507–510**, 29 (2002). [4]
31. “Adsorption of Te on Ge(001) : Density-functional calculations”
M. Çakmak, G. P. Srivastava, and Ş. Ellialtıođlu
Phys. Rev. B **67**, 205314 (2003). [5]

32. “Ab initio study of the one-monolayer Sb/Si(001) interface”
M. Çakmak, R. Shaltaf, G. P. Srivastava, and Ş. Ellialtıođlu
Surf. Sci. **532–535**, 661 (2003). [4]
33. “Electronic and structural properties of a 4d perovskite: Cubic phase of SrZrO₃”
E. Mete, R. Shaltaf, and Ş. Ellialtıođlu
Phys. Rev. B **68**, 035119 (2003). [59]
34. “Mg adsorption on Si(001) surface from first principles”
R. Shaltaf, E. Mete, and Ş. Ellialtıođlu
Phys. Rev. B **69**, 125417 (2004). [9]
35. “An ab initio study of the Te surfactant on Ge/Si(001)”
M. Çakmak, G. P. Srivastava, and Ş. Ellialtıođlu
Surf. Sci. **566–568**, 719 (2004). [1]
36. “Ab initio study of the one-monolayer Sb/Ge(001) interface”
R. Shaltaf, M. Çakmak, E. Mete, G. P. Srivastava, and Ş. Ellialtıođlu
Surf. Sci. **566–568**, 956 (2004). [1]
37. “Electronic structure of the chainlike compound TlSe”
Ş. Ellialtıođlu, E. Mete, R. Shaltaf, K. Allakhverdiev, F. Gashimzade,
M. Nizamettinova, and G. Orudzhev
Phys. Rev. B **70**, 195118 (2004). [18]
38. “DFT study of Rb/Si(100)-2×1 System”
E. Mete, R. Shaltaf, and Ş. Ellialtıođlu
Surf. Sci. **583**, 119 (2005). [3]
39. “Cs adsorption on Si(001) surface : ab initio study”
R. Shaltaf, E. Mete, and Ş. Ellialtıođlu
Phys. Rev. B **72**, 205415 (2005). [9]
40. “Lattice vibrations of pure and doped GaSe”
K. Allakhverdiev, T. Baykara, Ş. Ellialtıođlu, F. Hashimzade,
D. Huseinova, K. Kawamura, A. A. Kaya, A. M. Kulibekov, and S. Onari
Mater. Res. Bull. **41**, 751 (2006). [22]
41. “Atomic and electronic structures of Sr/Si(001)-2×2”
M. Çakmak, E. Mete, and Ş. Ellialtıođlu
Surf. Sci. **600**, 3614 (2006). [3]
42. “Effect of hydrogenation on B/Si(001)-1×2”
M. Cakmak, E. Mete, and Ş. Ellialtıođlu
Surf. Sci. **601**, 3711 (2007).
43. “An ab initio study of 3-aminopropyltrimethoxysilane molecule
on Si(111)-($\sqrt{3} \times \sqrt{3}$) surface”
G. Demirel, G. Birlik, M. Cakmak, T. Caykara, and Ş. Ellialtıođlu
Surf. Sci. **601**, 3740 (2007). [5]
44. “Effect of molecular and electronic structure on the light-harvesting properties
of dye sensitizers”
E. Mete, D. Uner, M. Cakmak, O. Gulseren, and Ş. Ellialtıođlu
J. Phys. Chem. C **111**, 7539 (2007). [18]

45. “Chemisorption of 3-aminopropyltrimetoxysilane on Si(001)-(2×2)”
G. Demirel, M. Çakmak, T. Çaykara, and Ş. Ellialtıođlu
J. Phys. Chem. C **111**, 15020 (2007). [8]
46. “Atomic and electronic structure of Bi/GaAs(001)-α2(2×4)”
D. Usanmaz, M. Cakmak, and Ş. Ellialtıođlu
J. Phys.: Condens. Matter **20**, 265003 (2008). [4]
47. “Pt-incorpoated anatase TiO₂(001) surface for solar cell applications”
E. Mete, D. Uner, O. Gulseren, and Ş. Ellialtıođlu
Phys. Rev. B **79**, 125418 (2009). [16]
48. “Modification of TiO₂(001) surface electronic structure by Au impurity investigated with density functional theory”
E. Mete, O. Gulseren, and Ş. Ellialtıođlu
Phys. Rev. B **80**, 035422 (2009). [10]
49. “Dye adsorbates BrPDI, BrGly, and BrAsp on anatase TiO₂(001) for dye-sensitized solar cell applications”
D. Çakır, O. Gulseren, E. Mete, and Ş. Ellialtıođlu
Phys. Rev. B **80**, 035431 (2009). [18]
50. “Atomic and electronic structure of group-IV adsorbates on the GaAs(001)-(1×2) surface”
D. Usanmaz, M. Cakmak, and Ş. Ellialtıođlu
Surf. Sci. **603**, 2683 (2009). [2]
51. “Pentacene multilayers on Ag(111) surface”
E. Mete, I. Demiroglu, M. F. Danisman, and Ş. Ellialtıođlu
J. Phys. Chem. C **114**, 2724 (2010). [15]
52. “Theoretical analysis of small Pt particles on rutile TiO₂(110) surfaces”
V. Celik, H. Unal, E. Mete, and Ş. Ellialtıođlu
Phys. Rev. B **82**, 205113 (2010). [18]
53. “Electronic and structural properties of armchair SWCNT/TiO₂(110)-(1×2) system”
C. Tayran, M. Çakmak, and Ş. Ellialtıođlu
Surf. Sci. **605**, 593 (2011). [1]
54. “Interaction of BrPDI, BrGly, and BrAsp with the Rutile TiO₂(110) Surface for Photovoltaic and Photocatalytic Applications: A First-Principles Study”
D. Çakır, O. Gülseren, E. Mete, and Ş. Ellialtıođlu
J. Phys. Chem. C **115**, 9220 (2011). [3]
55. “Surface energy and excess charge in (1×2)-reconstructed rutile TiO₂(110) from DFT+U calculations”
Hatice Ünal, Ersen Mete, and Ş. Ellialtıođlu
Phys. Rev. B **84**, 115407 (2011). [2]
56. “DFT study of noble metal impurities on TiO₂(110)”
E. Mete, O. Gülseren, and Ş. Ellialtıođlu
Euro. Phys. J. B **85**, 204 (2012). [3]

57. “Influence of steps on the tilting and adsorption dynamics of ordered pentacene films on vicinal Ag(111) surfaces”
E. Mete, İ. Demiroğlu, E. Albayrak, G. Bracco, Ş. Ellialtıođlu and M. F. Daniřman
J. Phys. Chem. C **116**, 19429 (2012). [6]
58. “Theoretical investigation of charge accumulation layer on the Bi-induced InAs(111)-(2×2) surface”
S. Özkaya, D. Usanmaz, M. Çakmak, B. Alkan, and Ş. Ellialtıođlu
J. Appl. Phys. **115**, 163702 (2014).
59. “Electronic structures and optical spectra of thin anatase TiO₂ nanowires through hybrid density functional and quasiparticle calculations”
Hatice Ünal, Ođuz Gülseren, řinasi Ellialtıođlu, and Ersen Mete
Phys. Rev. B **89**, 205127 (2014). [2]
60. “Range-Separated Hybrid Density Functional Study of Organic Dye Sensitizers on Anatase TiO₂ Nanowires”
Hatice Ünal, Deniz Gunceler, Ođuz Gülseren, řinasi Ellialtıođlu, and Ersen Mete
J. Phys. Chem. C **118**, 24776 (2014).

ARTICLES in SCIE :

61. “Raman Scattering and Hall Effect in Layer InSe Under Pressure”
K. Allakhverdiev, ř. Ellialtıođlu, A. Ismailov, and Z. Ibragimov
High Pres. Res. **13**, 121 (1994). [1]
62. “On the structure sensitivity of CO oxidation on alumina supported Pd–Pt bi-metallic catalysts”
S. Kaya, E. Erunal, R. Shaltaf, ř. Ellialtıođlu, D. Uner
Turk. J. Chem. **33**, 11 (2009). [4]

ARTICLES in WoS :

63. “Phase Transitions in Ternary Layered A³B³C₂⁶ Group Ferroelectric Semiconductors – A Review”
K. R. Allakhverdiev, T. G. Mamedov, B. G. Aknođlu and ř. S. Ellialtıođlu
Turk. J. Phys. **18**, 1–66 (1994). [27]
64. “Influence of Pressure on the Physical Properties of Chain TlSe-type Crystals”
K. R. Allakhverdiev and ř. Ellialtıođlu
NATO-ARW II-Math, Phys. and Chem. **48**, 119 (2001).
Eds. H. D. Hochheimer, B. Kuchta, P. K. Dorhout, J. L. Yarger. [5]

Index	Articles	Citations
SCI	60	689
SCIE/WoS	4	37
Total	64	726
Self		41
Others		685

h-index = 13 (WoS), 16 (G-sch)

NATIONAL RESEARCH PROJECTS : (+5 BAPs)

1. “PtSi–Si/CCD Kızılötesi Gözenek Geliştirilmesi”
DPT/ TÜBİTAK [01.07.1992 – 01.10.1994] Yürütücü.
2. “Yüksek Anizotropiye Sahip İkili ve Üçlü Yarıiletkenlerin Fiziksel Özellikleri”
DPT/ TÜBİTAK [01.10.1993 – 01.04.1995] Araştırmacı.
3. “Düşük-Boyutlu Sistemlerin Benzetişimleri, Yapısal ve Elektronik Özellikleri”
TÜBİTAK [01.01.2002 – 01.01.2004] Yürütücü.
4. “TlSe ve InTe Malzemelerinin Elektronik ve Fononik Özellikleri”
TÜBİTAK [01.06.2004 – 01.06.2005] Yürütücü.
5. “Titanya Destekli Nanoyapıların ve Yüzeylerin Yapısal ve Elektronik Özellikleri”
TÜBİTAK [01.10.2007 – 01.10.2010] Yürütücü.
6. “Nano Ölçekli GeSbTe Malzemelerinin Faz-Değişim Mekanizması”
TÜBİTAK [01.01.2011 – 01.01.2013] Araştırmacı.
7. “Güneş Pili Uygulamaları İçin İlk Prensiplerden Dizayn Edilmiş Yüzey Safsızlıklarının Uyarılmış Durum Özellikleri”
TÜBİTAK [01.10.2010 – 01.10.2013] Araştırmacı.
8. “Yakıt gözesi uygulamaları için H₂ üretiminde kullanılan yüksek aktiviteli katalizörlerin yük yoğunluğu fonksiyoneli teorisi kullanılarak tasarlanması”
TÜBİTAK [01.11.2012 – 01.11.2014] Araştırmacı.
9. “Altın katalizörler üzerinde alkollerin seçici oksitlenmesi reaksiyon mekanizmalarının yük yoğunluğu fonksiyoneli teorisi ile incelenmesi”
TÜBİTAK [01.09.2013 – 01.09.2016] Danışman.

INVITED TALKS :

1. “ab-initio Calculations of Interstitial Impurities in Metals”
Ş. Ellialtıođlu
Dresdener Seminar für Theoretische Physik
Dresden, DDR, April 15–19, 1985.
2. “Computer Simulation of Growth and Etching”
Ş. Ellialtıođlu
2nd General Conference of the Balkan Physical Union
İzmir, Turkey, September 12–14, 1994.
3. “Computer Simulation of Si and Ge Growth”
Ş. Ellialtıođlu
TFD18 (Turkish Physical Society – 18th International Physics Congress)
Adana, Turkey, September 12–14, 1998.
4. “Electronic Properties of TlSe-type Chain Crystals”
Ş. Ellialtıođlu
TFD22 (Turkish Physical Society – 22nd International Physics Congress)
Bodrum, Turkey, September 14–17, 2004.
5. “Towards theory assisted design of biologically inspired catalysts”
Ş. Ellialtıođlu
NANO-TR I NanoScience and NanoTechnology 2005
Bilkent University, Ankara, Turkey, 25–27 May 2005.
6. “Activation of titania by precious metal incorporation for solar cell applications”
Ş. Ellialtıođlu
VI. Renewable Energies Symposium,
Aegean University, İzmir, Turkey, October 9–11, 2008, pp.36–38.
7. “Understanding and designing highly active titania for photovoltaics
and photocatalysis by number crunching”
Ş. Ellialtıođlu
TFD29 (Turkish Physical Society – 29th International Physics Congress)
Bodrum, Turkey, September 5–8, 2012.

INTERNATIONAL CONFERENCES:

Oral Presentations: (27)

1. “Surface Electronic Properties of d-Band Perovskites”
Ş. Ellialtıođlu* and T. Wolfram
Bull. Am. Phys. Soc. **22**, 315 (1977).
APS–March 1977 Meeting, San Diego, California, USA.
2. “Electronic Density of States for the Perovskites”
T. Wolfram* and Ş. Ellialtıođlu
Bull. Am. Phys. Soc. **22**, 410 (1977).
APS–March 1977 Meeting, San Diego, California, USA.)
3. “Surface Electronic States of d-Band Perovskites”
Ş. Ellialtıođlu* and T. Wolfram
Proc. IV. Rolla Conf. Surface Properties of Materials
Rolla, Missouri, USA, Aug.1–4, 1977.
4. “Electronic Properties of d-Band Metal Oxides”
T. Wolfram* and Ş. Ellialtıođlu
Midwest Solid State Theory Symposium
Argonne National Lab., Chicago, Illinois, USA, 1977.
5. “Surface Electronic Properties of d-Band Perovskites”
Ş. Ellialtıođlu and T. Wolfram*
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43. “X(=Li, Na, Ca, B, Al, Si, Ge, Ag, Au)-intercalated AA-stacking bilayer-graphene”
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45. “Atomic and electronic structures of BaO/Si(001)”
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Bilkent Üniversitesi, Ankara, 20 Aralık 2013, p.59.
13. “Li-Katkılı Üç-Tabakalı Grafen Sistemlerinin Yapısal ve Elektronik Özellikleri”
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Hacettepe Üniversitesi, Ankara, 26 Aralık 2014, p.76.

THESES GIVEN

1. “Charge Asymmetry and a Theoretical Prediction of n–n Scattering Length”
M.S. Degree, 1973, Middle East Technical University, Ankara, Turkey.
(Prof. Dr. C. Yalçın).
2. “Electronic Properties of d-Band Perovskites”
Ph.D. Degree, 1977, University of Missouri–Columbia, Columbia, MO, USA.
(Prof. Tom Wolfram).
3. “Electronic Properties of Defect States on d-Band Metal-Oxides
and Chemisorption”
Habilitation Thesis (Dozentship), 1982.

Ph.D. THESES SUPERVISED

1. “Computer Simulation of the Structure of Amorphous Silicon
using Monte–Carlo Technique”
Gülay Dereli, METU, June 1987.
2. “Two-Dimensional Systems in Solid State Physics”
Şenay Katırcıoğlu, METU, December 1987.
(principal advisor: Prof. Dr. Salim Çıracı).
3. “A Tight-Binding Model of Chemisorption on Perovskite Surfaces”
Hatice Kökten, METU, January 1993.
4. “Electronic Properties of Transition Metal Oxides”
Ersen Mete, METU, December 2003.
5. “Adsorption and Growth on Si(001) Surface”
Riad Shaltaf, METU, April 2004.
6. “Steady State and Transient Simulations in 2D and 3D for Crystal Growth
by Vertical Bridgman Systems”
Ergun Taşarkuyu, METU, January 2003.
(principal advisor: Doç. Dr. Bülent Akınoğlu).
7. “The Structure, Energetics and Melting Behavior of Free Platinum Clusters”
Ali Sebetci, Çankaya Üniversitesi, January 2004 (co-advisor).
8. “Silisyum ve Galyum Arsenit Yüzeylerine tutunmuş Grafitik Nanoyapıların Elek-
tronik Özellikleri”
Ceren Tayran, Gazi Üniversitesi, November 2014.
(principal advisor: Doç. Dr. Mehmet Çakmak).

Thesis in progress:

9. “Adsorption of metal atoms on anatase TiO₂ surfaces”
Kıvılcım Başak Vural, expected graduation date: June 2015.

M.S. THESES SUPERVISED

1. “Jellium Calculations for Metallic Slabs”
Bassam Daghlas, METU, September 1987.
2. “Construction of a Scanning Tunneling Microscope and its Application to Graphite Surface in Air”
İsmet İnönü Kaya, METU, February 1990.
(principal-advisor: Prof. Dr. Recai Ellialtıođlu).
3. “On the Theory of Conventional and High T_c Superconductivity”
Ali Serdar Öđüt, METU, June 1990.
4. “Amorf Germanyumun Büyütülmesinin Monte Carlo Simülasyonu”
Görkem Oylumluođlu, Muđla Üniversitesi, September 1999.
(co-advisor: Prof. Dr. Şener Oktik).
5. “Energy Bands of TlSe and TlInSe₂ in Tight Binding Model”
Özlem Yıldırım, METU, September 2005.
6. “Structure Sensitivity of Selective CO Oxidation over Precious Metal Catalysts”
Bora Atalık, METU, February 2005.
(principal advisor: Prof. Dr. Deniz Üner).
7. “Structure and activity predictions on supported mono- and bi-metallic catalysts”
Ebru Erüinal, METU, April 2006.
(principal advisor: Prof. Dr. Deniz Üner).
8. “Electronic Properties of Dye Molecules Adsorbed on Anatase-Titania Surface for Solar Cell Applications”
Engin Torun, METU, August 2009.
(principal advisor: Doç. Dr. Hande Toffoli).
9. “Adsorption of Aromatic Molecules on Rutile TiO₂(110) Surfaces”
Murat Mesta, METU, September 2009.
10. “Adsorption of Gold Atoms on Anatase TiO₂(100)-1×1 Surface”
Kıvılcım Başak Vural, METU, September 2009.
11. “Density Functional Theory Investigation of TiO₂ Anatase Nanosheets”
Sibel Ceren Sayın, METU, September 2009.
(principal advisor: Doç. Dr. Hande Toffoli).
12. “Ab-initio studies of pentacene on Ag(111) surfaces”
İlker Demirođlu, METU, January 2010.
(principal advisor: Doç. Dr. Mehmet Fatih Danışman).
13. “Atomic structure of ternary (GeTe)_m(SbTe)_n phase-change materials”
Sibel Homurlu, METU, August 2014.

The Courses Given at Middle East Technical University (1978–2012) :

- Phys 105–106 General Physics I–II
- Phys 202 Modern Physics
- Phys 215 Advanced Modern Physics
- Phys 291 Properties of Materials for EE
- Phys 309–310 Introduction to Solid State Physics I–II
- Phys 312 Solid State Physics
- Phys 303–304 Quantum Theory and its Applications I–II
- Phys 321–322 Quantum Physics I–II
- Phys 331–332 Electromagnetic Theory I–II
- Phys 431 Quantum Mechanics I
- Phys 400 Graduation Project
- Phys 415–416 Projects in Physics I–II
- Phys 409–410 Condensed Matter Physics I–II
- Phys 515–516 Special Topics in Solid State Physics I–II
- Phys 531–532 Solid State Theory I–II
- Phys 558–559 Topics in Theoretical Physics I–II
- Phys 565 Topics in Mathematical Physics I

The Courses Given at Konya Selçuk Üniversitesi (1978–1981) :

- Fiz 101–102 Genel Fizik I–II
- Fiz 612 Yarı İletkenler Fiziği

The Courses Given at Bilkent University (1987–1988) :

- Phys 301–302 Introduction to Condensed Matter Physics I–II

The Course Given at Georgia Institute of Technology (1996) :

- Phys 102 General Physics II

The Course Given at TED University (2012–) :

- Phys 101–102 General Physics I–II
- Phys 105 Physics I