

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–present)

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–present 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 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 Advisory Committee
to the Feza Gürsey Science Center, Ankara (1993–1994)
- Member of the Publication Evaluation Commission
for the Inter-Universities Council (1993–2009)
- Member of the University Academic Publishing Committee (1993–1994)
Middle East Technical University, Ankara

- Physicist Member of the Science Advisory Group
for the Renovation of Science Lycées in Turkey
Turkish Ministry of Education – Middle East Technical University (1993–2009)
- Director of Basic Sciences Unit (2012–present)
TED University, Ankara
- Member of the University Administration Board (2012–present)
TED University, Ankara
- Member of the University Senate (2012–present)
TED University, Ankara
- Member of the Faculty Administration Board (2018–present)
Faculty of Arts and Sciences, TED University, Ankara
- Member of the Faculty Administration Board (2012–present)
Faculty of Engineering, TED University, Ankara

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 International Spring School on “Surface Science and Technology”
1988, Bilkent University, Ankara, Turkey
- 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
- Organizer of the Turkish Physical Society, 34th International Physics Congress
(TPS34), President of the Scientific Committee
September 5–9, 2018, Bodrum, Turkey

PROFESSIONAL AFFILIATIONS :

- Member of the Turkish Physical Society
- Member of Administration Board of the Humboldt Fellows Association of Turkey
- Vice Chair of Administration Board of the Fulbright Association of Turkey
- Member of the METU Alumni Association
- Member of the Ankara Science Lycée Alumni Association
- Trustee of the Ankara Science Lycée Foundation

LIST OF PUBLICATIONS

BOOKS :

- “Electronic and Optical Properties of d-Band Perovskites”
T. Wolfram and Ş. Ellialtıoğlu
(Cambridge University Press, Cambridge, 2006), 315 pages. [WoS=78][GS=173]
- “Applications of Group Theory to Atoms, Molecules, and Solids”
T. Wolfram and Ş. Ellialtıoğlu
(Cambridge University Press, Cambridge, 2014), 471 pages. [WoS=4][GS=9]

EDITED VOLUME :

- “Proceedings of the International Conference on Beam–Solid Interactions”
R. Ellialtıoğlu and Ş. Ellialtıoğlu (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. Ellialtıoğlu
Chapter 6 in “Theory of Chemisorption”, ed. J. R. Smith
Volume **19** of Topics in Current Physics, (Springer–Verlag, Heidelberg, 1980)
pp. 149–181. [WoS=24][GS=23]

ARTICLES in SCI :

1. “Surface Enhanced Covalency and its Effects on the Surface States of d-Band Metal Oxides”
T. Wolfram and Ş. Ellialtıoğlu
Appl. Phys. **13**, 21 (1977). [**Number of citations in** WoS=31][GS=36]
2. “Electronic Density of States for the Perovskites”
Ş. Ellialtıoğlu and T. Wolfram
Phys. Rev. B **15**, 5909 (1977). [WoS=26][GS=31]
3. “Surface Electronic Properties of d–Band Perovskites: Study of π -Bands”
Ş. Ellialtıoğlu and T. Wolfram
Phys. Rev. B **18**, 4509 (1978). [WoS=36][GS=42]
4. “Surface States on n-type SrTiO₃”
Ş. Ellialtıoğlu, T. Wolfram, and Victor E. Henrich
Solid State Commun. **27**, 321 (1978). [WoS=22]
5. “Model for the x-ray Photoelectron Distributions of d-Band Perovskites”
T. Wolfram and Ş. Ellialtıoğlu
Phys. Rev. B **19**, 43 (1979). [WoS=19]
6. “Matrix Element Effects in $\epsilon_2(\omega)$ of the Insulating Perovskites”
T. Wolfram and Ş. Ellialtıoğlu
Appl. Phys. **22**, 11 (1980). [WoS=1][GS=1]

7. “Neutron Scattering by Magnons of an Antiferromagnet with Modulated Spin Amplitudes”
T. Wolfram and Ş. Ellialtıoğlu
Phys. Rev. Lett. **44**, 1295 (1980). [WoS=14][GS=19]
8. “Electronic Structure of SiO₂(111) Thin Film”
S. Çıracı and Ş. Ellialtıoğlu
Solid State Commun. **40**, 587 (1981). [WoS=12]
9. “An Investigation of the Interface Electronic Structure of Si–SiO₂ Junctions”
S. Çıracı, Ş. Ellialtıoğlu, and Ş. Erkoç
J. Vac. Sci. Technol. **21**, 402 (1982). [WoS=4][GS=2]
10. “Density-of-States and Partial-Density-of-States Functions for the Cubic d-Band Perovskites”
T. Wolfram and Ş. Ellialtıoğlu
Phys. Rev. B **25**, 2697 (1982). [WoS=35][GS=37]
11. “Surface Electronic Structure of Silicon Dioxide”
S. Çıracı and Ş. Ellialtıoğlu
Phys. Rev. B **25**, 4019 (1982). [WoS=22]
12. “Interpretation of the Spectra Obtained from Oxygen Adsorbed and Oxidized Silicon Surfaces”
S. Çıracı, Ş. Ellialtıoğlu, and Ş. Erkoç
Phys. Rev. B **26**, 5716 (1982). [WoS=74]
13. “Chemisorption of Atomic Oxygen on Silicon Surface”
Ş. Ellialtıoğlu and S. Çıracı
Solid State Commun. **42**, 879 (1982). [WoS=7]
14. “States of Water Molecule Adsorbed on Si(111) Surface”
S. Çıracı, Ş. Erkoç, and Ş. Ellialtıoğlu
Solid State Commun. **45**, 35 (1983).
15. “Binding Energy of Donor–Phonon System in Quantum Well Wires”
A. Erçelebi, U. Özdiğer, and Ş. Ellialtıoğlu
J. Phys. C **19**, L67 (1986). [WoS=5]
16. “Magnetic 3d-impurities in Nb and Mo”
Ş. Ellialtıoğlu, R. Zeller, and P. H. Dederichs
J. Phys. F **17**, 409 (1987). [WoS=13]
17. “Electronic Structure of Strained Si_n/Ge_n(001) Superlattices”
S. Çıracı, O. Gülseren, and Ş. Ellialtıoğlu
Solid State Commun. **65**, 1285 (1988). [WoS=3][GS=9]
18. “Calculations of STM Linescans – General Formalism”
Ş. Ellialtıoğlu, S. Çıracı, and Inder P. Batra
Solid State Commun. **66**, 1135 (1988). [WoS=4][GS=3]
19. “A Computer Simulation of Amorphous Silicon”
G. Dereli, M. C. Yalabık, and Ş. Ellialtıoğlu
Physica Scripta **40**, 117 (1989). [WoS=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. Ellialtıoglu
Phys. Stat. Sol. (b) **177**, K59 (1993). [WoS=1]
21. "Raman Scattering in Layer Indium Selenide under Pressure"
K. Allahverdi, S. Babaev, Ş. Ellialtıoglu, and A. Ismailov
Solid State Commun. **87**, 675 (1993). [WoS=10][GS=10]
22. "Low-Temperature Phase Transitions in TlGaS_2 Layer Crystals"
A. Aydinli, R. Ellialtıoglu, K. R. Allakhverdiev, Ş. Ellialtıoglu, and N. M. Gasanly
Solid State Commun. **88**, 387 (1993). [WoS=19][GS=24]
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. Ellialtıoglu, R. Laiho, and A. E. Bakhyshev
Physica B **192**, 371 (1993). [WoS=12][GS=15]
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. Culfaz, H. Özkan, and Ş. Ellialtıoglu
Cryst. Res. Technol. **29**, K51 (1994). [WoS=7]
25. "Chemisorption of a p-adsorbate on perovskites"
H. Kökten and Ş. Ellialtıoglu
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. Ellialtıoglu, K. Allakhverdiev, and N. N. Lebedeva
J. Photogr. Sci. **42**, 106 (1994). [WoS=21]
27. "Raman Scattering and Hall Effect in Layer InSe Under Pressure"
K. Allakhverdiev, Ş. Ellialtıoglu, A. Ismailov, and Z. Ibragimov
Int. J. High Pressure Res. **13**, 121 (1994). [WoS=2][GS=3]
28. "Low-Temperature Second Harmonic Generation in Gallium Selenide under Resonant Excitation of the Direct Free Excitons"
K. Allakhverdiev, N. Akhmedov, Z. Ibragimov, Ş. Ellialtıoglu, K. Lothar, and D. Haarer
Solid State Commun. **93**, 147 (1995). [WoS=9][GS=11]
29. "Layered Semiconductor GeS as Birefringent Stratified Medium"
R. A. Süleymanov, Ş. Ellialtıoglu, and B. G. Akinoglu
Phys. Rev. B **52**, 7806 (1995). [WoS=4]
30. "Spatial Stabilization of Townsend and Glow Discharges with a Semiconducting Cathode"
B. G. Salamov, Ş. Ellialtıoglu, B. G. Akinoglu, N. N. Lebedeva, and L. G. Patriskii
J. Phys. D: Appl. Phys. **29**, 628 (1996). [WoS=36][GS=41]
31. "Influence of Pressure on the Physical Properties of Chain TlSe-type Crystals"
K. R. Allakhverdiev and Ş. Ellialtıoglu
NATO-ARW II-Math, Phys, and Chem. **48**, 119 (2001).
Eds. H. D. Hochheimer, B. Kuchta, P. K. Dorhout, J. L. Yarger. [WoS=5]

32. “Ab initio Study of Adsorption and Desorption of Se on the Si(001) Surface”
M. Çakmak, G. P. Srivastava, Ş. Ellialtıoğlu, and K. Çolakoğlu
Surf. Sci. **507–510**, 29 (2002). [WoS=5][GS=7]
33. “Adsorption of Te on Ge(001) : Density-functional calculations”
M. Çakmak, G. P. Srivastava, and Ş. Ellialtıoğlu
Phys. Rev. B **67**, 205314 (2003). [WoS=5][GS=7]
34. “Ab initio study of the one-monolayer Sb/Si(001) interface”
M. Çakmak, R. Shaltaf, G. P. Srivastava, and Ş. Ellialtıoğlu
Surf. Sci. **532–535**, 661 (2003). [WoS=6][GS=4]
35. “Electronic and structural properties of a 4d perovskite: Cubic phase of SrZrO₃”
E. Mete, R. Shaltaf, and Ş. Ellialtıoğlu
Phys. Rev. B **68**, 035119 (2003). [WoS=81][GS=116]
36. “Mg adsorption on Si(001) surface from first principles”
R. Shaltaf, E. Mete, and Ş. Ellialtıoğlu
Phys. Rev. B **69**, 125417 (2004). [WoS=11][GS=14]
37. “An ab initio study of the Te surfactant on Ge/Si(001)”
M. Çakmak, G. P. Srivastava, and Ş. Ellialtıoğlu
Surf. Sci. **566–568**, 719 (2004).
38. “Ab initio study of the one-monolayer Sb/Ge(001) interface”
R. Shaltaf, M. Çakmak, E. Mete, G. P. Srivastava, and Ş. Ellialtıoğlu
Surf. Sci. **566–568**, 956 (2004). [WoS=3][GS=2]
39. “Electronic structure of the chainlike compound TlSe”
Ş. Ellialtıoğlu, E. Mete, R. Shaltaf, K. Allakhverdiev, F. Gashimzade,
M. Nizamettinova, and G. Orudzhev
Phys. Rev. B **70**, 195118 (2004). [WoS=29][GS=35]
40. “DFT study of Rb/Si(100)-2×1 System”
E. Mete, R. Shaltaf, and Ş. Ellialtıoğlu
Surf. Sci. **583**, 119 (2005). [WoS=4][GS=5]
41. “Cs adsorption on Si(001) surface : ab initio study”
R. Shaltaf, E. Mete, and Ş. Ellialtıoğlu
Phys. Rev. B **72**, 205415 (2005). [WoS=10][GS=11]
42. “Lattice vibrations of pure and doped GaSe”
K. Allakhverdiev, T. Baykara, Ş. Ellialtıoğlu, F. Hashimzade,
D. Huseinova, K. Kawamura, A. A. Kaya, A. M. Kulibekov, and S. Onari
Mater. Res. Bull. **41**, 751 (2006). [WoS=44][GS=59]
43. “Atomic and electronic structures of Sr/Si(001)-2×2”
M. Çakmak, E. Mete, and Ş. Ellialtıoğlu
Surf. Sci. **600**, 3614 (2006). [WoS=7][GS=6]
44. “Effect of hydrogenation on B/Si(001)-1×2”
M. Cakmak, E. Mete, and Ş. Ellialtıoğlu
Surf. Sci. **601**, 3711 (2007). [WoS=1][GS=1]

45. “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. Ellialtıoğlu
Surf. Sci. **601**, 3740 (2007). [WoS=10][GS=14]
46. “Effect of molecular and electronic structure on the light-harvesting properties of dye sensitizers”
E. Mete, D. Uner, M. Cakmak, O. Gulseren, and Ş. Ellialtıoğlu
J. Phys. Chem. C **111**, 7539 (2007). [WoS=21][GS=31]
47. “Chemisorption of 3-aminopropyltrimetoxysilane on Si(001)-(2×2)”
G. Demirel, M. Çakmak, T. Çaykara, and Ş. Ellialtıoğlu
J. Phys. Chem. C **111**, 15020 (2007). [WoS=10][GS=12]
48. “Atomic and electronic structure of Bi/GaAs(001)- $\alpha 2(2 \times 4)$ ”
D. Usanmaz, M. Cakmak, and Ş. Ellialtıoğlu
J. Phys.: Condens. Matter **20**, 265003 (2008). [WoS=6][GS=6]
49. “Pt-incorpoated anatase TiO₂(001) surface for solar cell applications”
E. Mete, D. Uner, O. Gulseren, and Ş. Ellialtıoğlu
Phys. Rev. B **79**, 125418 (2009). [WoS=25][GS=32]
50. “On the structure sensitivity of CO oxidation on alumina supported Pd–Pt bi-metallic catalysts”
S. Kaya, E. Erunal, R. Shaltaf, Ş. Ellialtıoğlu, D. Uner
Turk. J. Chem. **33**, 11 (2009). [WoS=8][GS=14]
51. “Modification of TiO₂(001) surface electronic structure by Au impurity investigated with density functional theory”
E. Mete, O. Gulseren, and Ş. Ellialtıoğlu
Phys. Rev. B **80**, 035422 (2009). [WoS=13][GS=14]
52. “Dye adsorbates BrPDI, BrGly, and BrAsp on anatase TiO₂(001) for dye-sensitized solar cell applications”
D. Çakir, O. Gulseren, E. Mete, and Ş. Ellialtıoğlu
Phys. Rev. B **80**, 035431 (2009). [WoS=25][GS=28]
53. “Atomic and electronic structure of group-IV adsorbates on the GaAs(001)-(1×2) surface”
D. Usanmaz, M. Cakmak, and Ş. Ellialtıoğlu
Surf. Sci. **603**, 2683 (2009). [WoS=2][GS=4]
54. “Pentacene multilayers on Ag(111) surface”
E. Mete, I. Demiroglu, M. F. Danisman, and Ş. Ellialtıoğlu
J. Phys. Chem. C **114**, 2724 (2010). [WoS=23][GS=31]
55. “Theoretical analysis of small Pt particles on rutile TiO₂(110) surfaces”
V. Celik, H. Unal, E. Mete, and Ş. Ellialtıoğlu
Phys. Rev. B **82**, 205113 (2010). [WoS=36][GS=38]
56. “Electronic and structural properties of armchair SWCNT/TiO₂(110)-(1×2) system”
C. Tayran, M. Çakmak, and Ş. Ellialtıoğlu
Surf. Sci. **605**, 593 (2011). [GS=3]

57. “Interaction of BrPDI, BrGly, and BrAsp with the Rutile $\text{TiO}_2(110)$ Surface for Photovoltaic and Photocatalytic Applications: A First-Principles Study”
D. Çakır, O. Gülseren, E. Mete, and Ş. Ellialtıoğlu
J. Phys. Chem. C **115**, 9220 (2011). [WoS=8][GS=6]
58. “Surface energy and excess charge in (1×2) -reconstructed rutile $\text{TiO}_2(110)$ from DFT+U calculations”
Hatice Ünal, Ersen Mete, and Ş. Ellialtıoğlu
Phys. Rev. B **84**, 115407 (2011). [WoS=8][GS=8]
59. “DFT study of noble metal impurities on $\text{TiO}_2(110)$ ”
E. Mete, O. Gülseren, and Ş. Ellialtıoğlu
Euro. Phys. J. B **85**, 204 (2012). [WoS=10][GS=12]
60. “Influence of steps on the tilting and adsorption dynamics of ordered pentacene films on vicinal $\text{Ag}(111)$ surfaces”
E. Mete, İ. Demiroğlu, E. Albayrak, G. Bracco, Ş. Ellialtıoğlu and M. F. Danişman
J. Phys. Chem. C **116**, 19429 (2012). [GS=11]
61. “Theoretical investigation of charge accumulation layer on the Bi-induced $\text{InAs}(111)-(2\times 2)$ surface”
S. Özkaya, D. Usanmaz, M. Çakmak, B. Alkan, and Ş. Ellialtıoğlu
J. Appl. Phys. **115**, 163702 (2014). [GS=1]
62. “Electronic structures and optical spectra of thin anatase TiO_2 nanowires through hybrid density functional and quasiparticle calculations”
Hatice Ünal, Oğuz Gülseren, Şinasi Ellialtıoğlu, and Ersen Mete
Phys. Rev. B **89**, 205127 (2014). [WoS=12][GS=13]
63. “Range-Separated Hybrid Density Functional Study of Organic Dye Sensitizers on Anatase TiO_2 Nanowires”
Hatice Ünal, Deniz Gunceler, Oğuz Gülseren, Şinasi Ellialtıoğlu, and Ersen Mete
J. Phys. Chem. C **118**, 24776 (2014). [WoS=2][GS=3]
64. “Hybrid Functional Calculated Optical and Electronic Structures of Thin Anatase TiO_2 Nanowires with Organic Dye Adsorbates”
Hatice Ünal, Deniz Gunceler, Oğuz Gülseren, Şinasi Ellialtıoğlu, and Ersen Mete
Appl. Surf. Sci. **354**, 437-442 (2015). [WoS=2][GS=4]
65. “Anatase TiO_2 nanowires functionalized by organic sensitizers for solar cells: A screened Coulomb hybrid density functional study”
Hatice Ünal, Deniz Gunceler, Oğuz Gülseren, Şinasi Ellialtıoğlu, and Ersen Mete
J. Appl. Phys. **118**, 194301 (2015). [WoS=2][GS=4]
66. “Structural and Electronic properties of AB- and AA-stacking bilayer-graphene intercalated by Li, Na, Ca, B, Al, Si, Ge, Ag, and Au atoms”
C. Tayran, S. Aydın, M. Çakmak, and Ş. Ellialtıoğlu
Solid State Commun. **231**, 57 (2016). [WoS=8][GS=10]
67. “Alkali and Alkaline earth metal doped aluminum tetraborides including intrinsic planar boron sheet: $X\text{AlB}_4$ ($X = \text{Li, Na, Mg, and Ca}$)”
C. Tayran, S. Aydın, M. Çakmak, and Ş. Ellialtıoğlu
Comp. Mater. Sci. **124**, 130 (2016). [WoS=5][GS=5]

68. “DFT characterization of metallole-decorated silicon(001) surface”
Çağıl Kaderoğlu and Şinasi Ellialtıoğlu
J. Phys. Chem. C **123**, 11639 (2019).
69. “Double perovskite structure induced by Co addition to PbTiO₃: Insights from DFT and experimental Solid State NMR spectroscopy”
Ersen Mete, Selda Odabaşı, Haiyan Mao, Tiffany Chung, Şinasi Ellialtıoğlu, Jeffrey A. Reimer, Oğuz Gülseren, and Deniz Üner,
J. Phys. Chem. C **123**, 27132 (2019). [GS=2]
70. “Elucidating the Barriers on Direct Water Splitting: Key Role of Oxygen Vacancy Density and Coordination over PbTiO₃ and TiO₂”
Ersen Mete, Şinasi Ellialtıoğlu, Oğuz Gülseren, and Deniz Üner,
Nature Catalysis
J. Phys. Chem. C **125**, 1874 (2021).
71. “Mechanism of Transition Metal Interaction with Graphene Sheet Reflected in its Plasmonic Excitations: Effect of Gas Adsorption Phenomena Studied by a Combination of Solid State and Molecular Orbital Approaches”
Çağıl Kaderoğlu, Amir Nasser Shamkhali, Fatemeh Safdari, Marjan Abedi, and Şinasi Ellialtıoğlu
(accepted to Applied Surface Science 2020, under revision).

ARTICLES not in WoS :

1. “Studies on the Structure of Amorphous Silicon”
Amorf Silisyum Yapısı Üzerine Çalışmalar
M. Cemal Yalabık and Şinasi Ellialtıoğlu
Turk. J. Phys. **8**, 213 (1984).
2. “Phase Transitions in Ternary Layered A³B³C₂⁶ Group Ferroelectric Semiconductors – A Review”
K. R. Allakhverdiev, T. G. Mamedov, B. G. Akınoğlu and Ş. S. Ellialtıoğlu
Turk. J. Phys. **18**, 1–66 (1994). [GS=45]
3. “Armchair double-walled carbon nanotube on rutile TiO₂(110)-(1×2)”
C. Tayran, M. Cakmak, and Ş. Ellialtıoğlu
Fizika **2**, 126 (2010).

Index	Publications	WoS	GS
SCI	71	900	867
Others	3		45
Books	3	106	205
Total	77	1006	1117
h-index		17	16

NATIONAL RESEARCH PROJECTS :

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. “Electronic and Optical Properties of Transition Metals”
ODTÜ BAP Projesi [2001 – 2002] Yürütücü.
5. “Electronic and Structural Properties of InTe”
ODTÜ BAP Projesi [2004 – 2004] Yürütücü.
6. “TlSe ve InTe Malzemelerinin Elektronik ve Fononik Özellikleri”
TÜBİTAK [01.06.2004 – 01.06.2005] Yürütücü.
7. “Titanya Destekli Nanoyapıların ve Yüzeylerin Yapısal ve Elektronik Özellikleri”
TÜBİTAK [01.10.2007 – 01.10.2010] Yürütücü.
8. “Uluslararası Katılımcılı Bilimsel Toplantı Desteği”
TÜBİTAK [2006 – 2006] Yürütücü.
9. “Nano Ölçekli GeSbTe Malzemelerinin Faz-Değişim Mekanizması”
TÜBİTAK [01.01.2011 – 01.01.2013] Araştırmacı.
10. “Titanya yüzeylerinde molekül tutunmasının elektronik yapısı”
ODTÜ BAP Projesi [2008 – 2008] Yürütücü.
11. “Titanya yüzeylerinde değerli metal topakları: DFT hesaplaması”
ODTÜ BAP Projesi [2010 – 2010] Yürütücü.
12. “Işık Hasatlayan Nano-Yapıların Elektronik Özellikleri”
ODTÜ BAP Projesi [2010 – 2010] Yürütücü.
13. “Güneş Pili Uygulamaları için İlk-Prensiplerden Dizayn Edilmiş Yüzey Safsızlıklarının Uyarılmış Durum Özellikleri”
TÜBİTAK [01.10.2010 – 01.10.2013] Araştırmacı.
14. “Faz-geçişli üçlü-bileşikler ve metal-metaloksit arayüzeyleri elektronığı: İlk-ilke hesapları”
ODTÜ BAP Projesi [2012 – 2012] Yürütücü.
15. “Yakıt gözesi uygulamaları için H₂ üretiminde kullanılan yüksek aktiviteli katalizörlerin yük yoğunluğu fonksiyoneli teorisi kullanılarak tasarlanması”
TÜBİTAK [01.11.2012 – 01.11.2014] Araştırmacı.
16. “Altın katalizörler üzerinde alkollerin seçici oksitlenmesi reaksiyon mekanizmalarının yük yoğunluğu fonksiyoneli teorisi ile incelenmesi”
TÜBİTAK [01.09.2013 – 01.09.2016] Danışman.
17. “Yeni Nesil Grafen Tabanlı Gaz Sensörü Tasarımı”
TÜBİTAK [15.12.2019 – 15.08.2020 – 15.02.2021] Araştırmacı.

INVITED TALKS :

1. “ab-initio Calculations of Interstitial Impurities in Metals”
Ş. Ellialtıoğlu
Dresdener Seminar für Theoretische Physik
Dresden, DDR, April 15–19, 1985.
2. “Computer Simulation of Growth and Etching”
Ş. Ellialtıoğlu
2nd General Conference of the Balkan Physical Union
İzmir, Turkey, September 12–14, 1994.
3. “Computer Simulation of Si and Ge Growth”
Ş. Ellialtıoğlu
TFD18 (Turkish Physical Society – 18th International Physics Congress)
Adana, Turkey, September 12–14, 1998.
4. “Electronic Properties of TlSe-type Chain Crystals”
Ş. Ellialtıoğlu
TFD22 (Turkish Physical Society – 22nd International Physics Congress)
Bodrum, Turkey, September 14–17, 2004.
5. “Towards theory assisted design of biologically inspired catalysts”
Ş. Ellialtıoğlu
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. Ellialtıoğlu
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. Ellialtıoğlu
TFD29 (Turkish Physical Society – 29th International Physics Congress)
Bodrum, Turkey, September 5–8, 2012.
8. “Titanya üzerinde boya-temelli güneş pilleri: Temel fizik’ten uygulamaya, ilk-prensip hesaplardan öğrendiklerimiz”
Ş. Ellialtıoğlu
4.ncü Yoğun Madde Fiziği – İzmir Toplantısı,
İzmir Yüksek Teknoloji Enstitüsü, İzmir, 17 Nisan 2015.
9. “Teoriden Tasarıma Organik Boya Duyarlı Güneş Pilleri”
Ş. Ellialtıoğlu
ADİMFİZİK-6, Burhaniye, Balıkesir, 20 July 2017.
10. “DFT investigation of NMR chemical shift values of nuclei and oxygen bondings in Co doped PbTiO₃ structure”
Ş. Ellialtıoğlu
TFD33 (Turkish Physical Society – 33rd International Physics Congress)
Bodrum, Turkey, September 5–9, 2016.

INTERNATIONAL CONFERENCES:

Oral Presentations: (27)

1. “Surface Electronic Properties of d -Band Perovskites”
Ş. Ellialtıoğlu* 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. Ellialtıoğlu
Bull. Am. Phys. Soc. **22**, 410 (1977).
APS–March 1977 Meeting, San Diego, California, USA.)
3. “Surface Electronic States of d -Band Perovskites”
Ş. Ellialtıoğlu* 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. Ellialtıoğlu
Midwest Solid State Theory Symposium
Argonne National Lab., Chicago, Illinois, USA, 1977.
5. “Surface Electronic Properties of d -Band Perovskites”
Ş. Ellialtıoğlu and T. Wolfram*
MASUA Theoretical Physics Conference
University of Nebraska, Lincoln, Nebraska, USA, May 13, 1978.
6. “Electronic Structure of Interstitial Impurities in fcc Metals”
Ş. Ellialtıoğlu, H. Akai, R. Zeller, and P. H. Dederichs
5th General Conference, Condensed Matter Division of EPS
Berlin, FRG, March 18–22, 1985.
7. “Ab-initio Calculations of Interstitial Impurities in Cu”
Ş. Ellialtıoğlu*, H. Akai, R. Zeller, and P. H. Dederichs
Proc. 15th Int. Symp. Electronic Structure of Metals and Alloys
ed. P. Ziesche, (Gaussig, DDR, 1985), pp. 99–102. [7]
8. “Surface States and Chemisorption”
Ş. Ellialtıoğlu
Spring School on Surface Science and Technology
Bilkent University, Ankara, May 9–13, 1988.
9. “Raman Scattering and Hall Effect Measurements in Layer InSe under Pressure”
K. R. Allakhverdiev, Ş. Ellialtıoğlu*, A. Ismailov, and I. Ibragimov
Proc. XXXIst Ann. Meet. EHPRG, Belfast, N.I., Aug. 30 – Sept. 4, 1993.
10. “Phase Transitions in Ternary Mixed System $\text{Tl}(\text{GaSe}_2)_x(\text{InS}_2)_{1-x}$ Under Pressure”
K. Allakhverdiev, Ş. Ellialtıoğlu*, T. Fırat, T. Mamedov, and Z. Salaeva
Proc. XXXIIInd Ann. Meet. EHPRG, Brno, Czech Rep., Aug. 29–Sept. 1, 1994,
pp.145–149.
11. “Monte Carlo Simulations of Pd–Pt Catalysts”
E. Erunal, Ş. Ellialtıoğlu, R. Shaltaf, and D. Uner
NANO–TR (ODTU, Ankara 2006).

12. "Effect of molecular structure on the visible light activity of dye sensitizers"
E. Mete, D. Uner, M. Çakmak, O. Gulseren*, and Ş. Ellialtıoğlu
NANO-TR III, Bilkent University, Ankara, 11-14 June 2007.
13. "Adsorption of BrPDI, BrGly, and BrAsp on Anatase TiO₂(001) Surface for Dye-sensitized Solar Cell Application"
D. Çakır, O. Gulseren*, E. Mete, and Ş. Ellialtıoğlu
NANOMAT2008, Int. Workshop on Adv. Mater. Dev. for Photocatal. Applications, METU, Ankara, Turkey, April 24-25 2008, p.20.
14. "Adsorption of BrPDI, BrGly, and BrAsp dye molecules on rutile TiO₂(001) surface for Dye-sensitized Solar Cell Application"
D. Çakır, O. Gulseren*, E. Mete, and Ş. Ellialtıoğlu
NANO-TR IV, Istanbul Technical University, Istanbul, 9-13 June 2008, p.172.
15. "Activation of rutile TiO₂(110) by precious metal implantation for solar cell application"
E. Mete*, O. Gulseren, M. Çakmak, and Ş. Ellialtıoğlu
NANO-TR IV, Istanbul Technical University, Istanbul, 9-13 June 2008, p.106.
16. "Structural investigation of pentacene on Ag(111) by density functional theory"
M. F. Danisman*, E. Mete, and Ş. Ellialtıoğlu
APS-March 2009 Meeting, Pittsburgh, Pennsylvania, March 16-20, 2009.
17. "Pentacene multilayers on Ag(111) surface"
E. Mete*, I. Demiroglu, M. F. Danisman, and Ş. Ellialtıoğlu
TFD26, Bodrum, Muğla, 24-27 Eylül 2009.
18. "Perylene based dyes on TiO₂ for solar cell applications"
E. Mete*, D. Cakir, O. Gulseren, and Ş. Ellialtıoğlu
ECOSS-26, Parma, Italy, August 30-Sept 4, 2009.
19. "DFT calculations towards improved DSSCs"
Ş. Ellialtıoğlu
International Workshop on Nanomaterials and Nanotechnology for Renewables
METU, Ankara, November 16-18, 2009.
20. "Electronic and Optical Excitations in Perylene Diimide Derived Dye Molecules from First Principles"
Kopinjol Baishya*, Serdar Ögüt, Ersen Mete, Oguz Gülseren, and Şinasi Ellialtıoğlu
APS March Meeting 2011, American Physical Society
Dallas, TX, March 21-25, 2011. Session Q32, Talk 7.
21. "Pentacene thin films on vicinal Ag(111) surfaces"
M. Fatih Danisman*, Ersen Mete, Ilker Demiroglu, and Şinasi Ellialtıoğlu
APS March Meeting 2011, American Physical Society
Dallas, TX, March 21-25, 2011. Session J10, Talk 9.
22. "Atomic and electronic structure of stable GeSb₂Te₄ compound"
S. Kurt*, S. Bayram, Ç. Kaderoglu, S. Özkaya, M. Çakmak, B. Alkan, and Ş. Ellialtıoğlu
TFD28, Turkish Physical Society 28th International Physics Congress
Bodrum, September 6-9, 2011.

23. “Interaction of BrPDI, BrGly, and BrAsp with the anatase and rutile TiO_2 surfaces”
D. Çakir, O. Gülseren*, E. Mete, and Ş. Ellialtıoğlu
ECOSS–28, 28th European Conference on Surface Science
Wroclaw, Poland, 28 August – 2 September 2011.
24. “Electronic structure calculation and analysis of nanosized GeSb_2Te_4 material”
S. Kurt*, S. Bayram, Ç. Kaderoglu, M. Çakmak, B. Alkan, and Ş. Ellialtıoğlu
TFD29, Turkish Physical Society 29th International Physics Congress
Bodrum, September 5–8, 2012.
25. “Ab initio molecular dynamics study on phase-change materials:
 $\text{Ge}_2\text{Sb}_2\text{Te}_5$ compound”
S. Bayram*, S. Kurt, Ç. Kaderoglu, M. Çakmak, B. Alkan, and Ş. Ellialtıoğlu
TFD29, Turkish Physical Society 29th International Physics Congress
Bodrum, September 5–8, 2012.
26. “Quantum confinement in thin anatase TiO_2 nanowires predicted by hybrid density
functional and quasiparticle calculations”
Hatice Ünal, Oğuz Gülseren, Şinasi Ellialtıoğlu, and Ersen Mete”
ECOSS–30, 30ieth European Conference on Surface Science
Antalya, Turkey, 31 August – 5 September 2014.
27. “Structural and electronic properties of Li-intercalated AA-stacking bilayer-graphene:
A first-principles study”
Ceren Tayran, Sezgin Aydın, Mehmet Çakmak, and Ş. Ellialtıoğlu
TFD31, Turkish Physical Society 31st International Physics Congress
Bodrum, July 21–24, 2014.

INTERNATIONAL CONFERENCES:

Poster Presentations: (48)

1. “An Investigation of the Interface Electronic Structure of Si–SiO₂ Junctions”
S. Çıracı, Ş. Ellialtıoğlu, and Ş. Erkoç
PCSI 9 Proc. MS# 901–24 Asilomar, California, USA, Feb. 1982.
2. “STM Line Scans”
Ş. Ellialtıoğlu and S. Çıracı
7th General Conference, Condensed Matter Division of EPS
Pisa, Italy, April 7–10, 1987.
3. “Electronic Structure of Strained Si_n/Ge_n(001) Superlattices”
Ş. Ellialtıoğlu, O. Gülseren, and S. Çıracı
NATO-ASI Proceedings, Series B: Physics, **182**, 374 (1987). [1]
Physics, Fabrication and Characterization of Superlattices
Eds. P. Dhez and C. Weisbuch; Ile de Bendor, France, July 4–19, 1987.
4. “Electronic Structure of CuO-Layers and Ribbons in High-T_c Materials”
Ş. Ellialtıoğlu and M. Durgut
NATO-ASI Proceedings, Series B: Physics, **182**, 376 (1987). [1]
Physics, Fabrication and Characterization of Superlattices
eds. P. Dhez and C. Weisbuch; Ile de Bendor, France, July 4–19, 1987.
5. “Electronic Structure of CuO-Layers and Ribbons in High-T_c Materials”
Ş. Ellialtıoğlu and M. Durgut
Adriatico Conference on High-T_c Superconductors
ICTP–Trieste, Miramare, Italy, July 23–27, 1987.
6. “Bandgap Modulation of GaSe Type Semiconductors by
Coherently Excited Raman Active Optical Phonons”
K. Allakhverdiev and Ş. Ellialtıoğlu
Proc. XIVth Int. Conf. Raman Spectr., Aug 22–26, 1994,
Hong-Kong, pp.312–313.
7. “Electronic Properties of Ge and Si Quantum Wires”
Şinasi Ellialtıoğlu, James Smith Jr., Andrew Zangwill, and Mei-Yin Chou
Bull. Am. Phys. Soc. **41**, 386 (1996).
APS–March 1996 Meeting, St. Louis, Missouri, USA.
8. “Electronic Properties of High Indexed Germanium Surfaces”
Şinasi Ellialtıoğlu
CENT99, Session WC44
APS–March 1999 Meeting, Atlanta, Georgia, USA.
9. “Ab initio study of the adsorption and desorption of Se on the Si(001) surface”
M. Çakmak, G. P. Srivastava, Ş. Ellialtıoğlu, and K. Çolakoğlu
ECOSS–20 (20th European Conference on Surface Science)
Krakow, Poland, Sept. 4–7, 2001.
10. “Simulation of amorphous and crystalline growth of tetrahedral semiconductors”
R. Shaltaf and Ş. Ellialtıoğlu
ECOSS–20 (20th European Conference on Surface Science)
Krakow, Poland, Sept. 4–7, 2001.

11. "Ab initio study of the one-monolayer Sb/Si(001) interface"
M. Çakmak, R. Shaltaf, G. P. Srivastava, and Ş. Ellialtıoğlu
ECOSS-21 (21st European Conference on Surface Science)
NANO-7 (7th Int. Conf. on Nanometer-Scale Science and Technology)
Malmö, Sweden, June 24-28 2002.
12. "Ab initio study of the one-monolayer Sb/Ge(001) interface"
R. Shaltaf, M. Çakmak, E. Mete, G. P. Srivastava, and Ş. Ellialtıoğlu
ECOSS-22 (22nd European Conference on Surface Science)
Praha, Czech Republic, Sept. 7-12, 2003.
13. "An ab initio study of the Te surfactant on Ge/Si(001)"
M. Çakmak, G. P. Srivastava, and Ş. Ellialtıoğlu
ECOSS-22 (22nd European Conference on Surface Science)
Praha, Czech Republic, Sept. 7-12, 2003.
14. "Ab initio study of Bi surfactant on Ge/Si(001) surface"
M. Çakmak, G. P. Srivastava, and Ş. Ellialtıoğlu
IVC-16 (16th International Vacuum Congress)
ICSS-12 (12th Int. Conf. on Solid Surfaces)
NANO-8 (8th Int. Conf. on Nanometer-Scale Science and Technology)
Venice, Italy, June 28-July 2, 2004.
15. "Activity and structure predictions on mono and bimetallic
precious metal catalysts"
E. Erunal, Ş. Ellialtıoğlu, R. Shaltaf, and D. Uner,
EUROPACAT-VII, August 28-September 1, 2005 Sofia, Bulgaria.
16. "Tailoring the Structures of the Organic Dyes for Enhanced Electron Transfer
Processes during the Photoreduction of CO₂ on a TiO₂ Surface"
F. Yukruk, O. Ozcan, E. Mete, E. U. Akkaya, D. Uner, M. Cakmak, O. Gulseren,
and Ş. Ellialtıoğlu
ECOSS-23, Berlin, Germany, 4-9 September 2005.
(23rd European Conference On Surface Science).
17. "Estimating the electron transfer efficiencies from organic dyes to
Pt-promoted TiO₂ structures during the gas phase photoreduction of CO₂"
O. Ozcan, F. Yukruk, E. Mete, E. U. Akkaya, D. Uner, M. Cakmak, O. Gulseren,
and Ş. Ellialtıoğlu
ECOSS-23, Berlin, Germany, 4-9 September 2005.
(23rd European Conference On Surface Science).
18. "Atomic and electronic structures of Sr/Si(001)-2×2"
M. Cakmak, E. Mete, and Ş. Ellialtıoğlu
ECOSS-23, Berlin, Germany, 4-9 September 2005.
(23rd European Conference On Surface Science).
19. "Interaction of Pt in TiO₂ surfaces"
E. Mete, D. Uner, O. Gulseren, and Ş. Ellialtıoğlu
ECOSS-24, Paris, France, 4-8 September 2006.
(24th European Conference On Surface Science).
20. "Adsorption and photocatalytic activity of perylene-diimide based
light harvesting molecules over Pt surfaces"

- O. Gulseren, E. Mete, D. Uner, and Ş. Ellialtıoğlu
ECOSS–24, Paris, France, 4–8 September 2006.
(24th European Conference On Surface Science).
21. “Experimental and theoretical studies on CO oxidation over Pt–Pd bimetallic catalysts”
E. Erunal, S. Kaya, R. Shaltaf, Ş. Ellialtıoğlu, and D. Uner
ECOSS–24, Paris, France, 4–8 September 2006.
(24th European Conference On Surface Science).
 22. “Effect of hydrogenation on B/Si(001)-(1×2)”
M. Cakmak, E. Mete, and Ş. Ellialtıoğlu
ECOSS–24, Paris, France, 4–8 September 2006.
(24th European Conference On Surface Science).
 23. “An ab initio study of 3-aminopropyltrimetoxysilane molecule on Si(111)-($\sqrt{3} \times \sqrt{3}$)R30°”
G. Demirel, M. Cakmak, T. Caykara, and Ş. Ellialtıoğlu
ECOSS–24, Paris, France, 4–8 September 2006.
(24th European Conference On Surface Science).
 24. “Atomic and electronic structures of Bi/InP(001)- $\alpha 2(2 \times 4)$ ”
D. Usanmaz, M. Çakmak*, and Ş. Ellialtıoğlu
IVC-17/ICSS-13 ve ICN+T2007 (ve NCSS-6/NSM-22/SVM-4),
Stockholm, Sweden, 2–6 July 2007.
 25. “Electronic structure of Au-implanted TiO₂ surfaces”
E. Mete, M. Çakmak, O. Gulseren*, and Ş. Ellialtıoğlu
NANO–TR IV, Istanbul Technical University, Istanbul, 9–13 June 2008.
 26. “Adsorption of BrPDI, BrGly, and BrAsp on Anatase TiO₂(001) Surface for Dye-sensitized Solar Cell Application”
D. Çakır, O. Gulseren*, E. Mete, and Ş. Ellialtıoğlu
NANO–TR IV, Istanbul Technical University, Istanbul, 9–13 June 2008.
 27. “Electronic structure of Au-implanted TiO₂ surfaces”
E. Mete, M. Çakmak, O. Gulseren*, and Ş. Ellialtıoğlu
ECOSS25, Liverpool, UK, 28 July–1 August 2008.
 28. “Adsorption of BrPDI, BrGly, and BrAsp on Anatase TiO₂(001) Surface for Dye-sensitized Solar Cell Application”
D. Çakır, O. Gulseren*, E. Mete, and Ş. Ellialtıoğlu
ECOSS–25, Liverpool, UK, 28 July–1 August 2008.
 29. “Structural and electronic properties of carbon nanotubes on the rutile TiO₂(110)-(1×2) surface”
C. Tayran, M. Çakmak, E. Mete, and Ş. Ellialtıoğlu
TFD25, Bodrum, 25–29 August 2008.
 30. “Atomic structures of group-IV on GaAs(001)-(1×2) surfaces”
D. Usanmaz, M. Çakmak, and Ş. Ellialtıoğlu
TFD25, Bodrum, 25–29 August 2008.

31. “A Computational Study of Pentacene Thin Films on Ag(111) Surface”
E. Mete, I. Demiroglu, M. F. Danisman*, and Ş. Ellialtıoğlu
ECASIA’09, Antalya, Turkey, October 18–23, 2009.
32. “Electronic properties of carbon nanotubes adsorbed on reconstructed rutile $\text{TiO}_2(110)\text{-}1\times 2$ surface”
C. Tayran*, M. Çakmak, and Ş. Ellialtıoğlu
NANO–TR V, Osman Gazi Üniversitesi, Eskişehir, 2009.
33. “Electronic properties of carbon nanotubes adsorbed on reconstructed rutile $\text{TiO}_2(110)$ surface: A DFT study”
Ceren Tayran*, Mehmet Cakmak, and Şinasi Ellialtıoğlu
ECOSS–26, Parma, Italy, August 30–Sept 4, 2009.
34. “Structural and Electronic Investigation of Pentacene Thin Films on Flat and Stepped Ag(111) Surfaces”
M. F. Danisman, E. Mete, B. Özkan, I. Demiroglu, and Ş. Ellialtıoğlu
NANO–TR VI, İzmir Yüksek Teknoloji Enstitüsü, İzmir, 2010.
35. “Small Pt particles on rutile $\text{TiO}_2(110)$ ”
E. Mete, V. Celik, and Ş. Ellialtıoğlu
ECOSS27 Groningen, Holland, August 29–Sept. 3, 2010.
36. “Armchair double-walled carbon nanotube on rutile $\text{TiO}_2(110)\text{-(}1\times 2\text{)}$ ”
C. Tayran, M. Cakmak, and Ş. Ellialtıoğlu
17th International Conference on Ternary and Multinary Compounds
ICTMC–17 Sept. 28–30, Baku, 2010.
37. “Pentacene thin films on vicinal Ag(111) surfaces”
M. Fatih Danisman, Ersen Mete, Ilker Demiroglu, and Şinasi Ellialtıoğlu
241st ACS National Meeting, 27–31 March, 2011 Anaheim, CA.
38. “Adsorption of Gold–Copper Metal Alloys on Anatase $\text{TiO}_2(100)$ Surface”
K. B. Vural, E. Mete, and Ş. Ellialtıoğlu
TFD28, Turkish Physical Society, 28th International Physics Congress
Bodrum, September 6–9, 2011.
39. “Electronic structure of phase-change materials GeSb_2Te_4 and $\text{Ge}_2\text{Sb}_2\text{Te}_5$: An ab-initio calculation”
S. Kurt, S. Bayram, Ç. Kaderoğlu, S. Özkaya, M. Çakmak, B. Alkan, and Ş. Ellialtıoğlu
MRS 2012 Materials Science Society Spring Meeting,
San Francisco, CA, April 9–13, 2012.
40. “Crystalline, amorphous, and liquid structures of phase change memory materials”
S. Bayram, S. Homurlu, Ç. Kaderoğlu, M. Çakmak, B. Alkan, and Ş. Ellialtıoğlu
TFD30, Turkish Physical Society, 30ieth International Physics Congress
İstanbul, September 2–5, 2013, p.480.
41. “DFT and molecular dynamics study on phase-change materials”
S. Homurlu, S. Bayram, Ç. Kaderoğlu, M. Çakmak, B. Alkan, and Ş. Ellialtıoğlu
TFD30, Turkish Physical Society, 30ieth International Physics Congress
İstanbul, September 2–5, 2013, p.517.

42. “Electronic properties of anatase altered by praseodymium impurity”
K. B. Vural, E. Mete, and Ş. Ellialtıoğlu
TFD30, Turkish Physical Society, 30ieth International Physics Congress
İstanbul, September 2–5, 2013, p.573.
43. “X(=Li, Na, Ca, B, Al, Si, Ge, Ag, Au)-intercalated AA-stacking bilayer-graphene”
Ceren Tayran, Sezgin Aydın, Mehmet Çakmak, and Ş. Ellialtıoğlu
TFD31, Turkish Physical Society, 31st International Physics Congress
Bodrum, July 21–24, 2014.
44. “The structural and electronic properties of X (Li, Ag, Au)-intercalated
AB-stacking bilayer-graphene”
Ceren Tayran, Sezgin Aydın, Mehmet Çakmak, and Şinasi Ellialtıoğlu
ECOSS–30, 30ieth European Conference on Surface Science
Antalya, Turkey, 31 August – 5 September 2014, p.112.
45. “Atomic and electronic structures of BaO/Si(001)”
S. Özkaya, D. Usanmaz, M. Çakmak, B. Alkan, and Ş. Ellialtıoğlu
ECOSS–30, 30ieth European Conference on Surface Science
Antalya, Turkey, 31 August – 5 September 2014, p.139.
46. “Atomic and electronic structures of As-covered GaAs(111)A surface”
S. Özkaya, D. Usanmaz, M. Çakmak, B. Alkan, and Ş. Ellialtıoğlu
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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”
G lay Dereli, METU, June 1987.
2. “Two-Dimensional Systems in Solid State Physics”
 enay Katircio lu, METU, December 1987.
(principal advisor: Prof. Dr. Salim  ıracı, Bilkent U.).
3. “A Tight-Binding Model of Chemisorption on Perovskite Surfaces”
Hatice K kten, METU, January 1993.
4. “Electronic Properties of Transition Metal Oxides”
Ersen Mete, METU, December 2003.
5. “Adsorption and Growth on Si(001) Surface”
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6. “Steady State and Transient Simulations in 2D and 3D for Crystal Growth by Vertical Bridgman Systems”
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1. “Jellium Calculations for Metallic Slabs”
Bassam Daghlis, METU, September 1987.
2. “Construction of a Scanning Tunneling Microscope and its Application to Graphite Surface in Air”
İsmet İnönü Kaya, METU, February 1990.
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3. “On the Theory of Conventional and High T_c Superconductivity”
Ali Serdar Öğüt, METU, June 1990.
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7. “Structure and activity predictions on supported mono- and bi-metallic catalysts”
Ebru Erüinal, METU, April 2006.
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(principal advisor: Doç. Dr. Hande Toffoli).
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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”
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(principal advisor: Doç. Dr. Hande Toffoli).
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İlker Demiroğlu, METU, January 2010.
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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 Courses Given at TED University (2012–) :

- Phys 101–102 General Physics I–II
- Phys 105–106 Physics I–II