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Associate Professor of Biophysics**

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PERSONAL

Date of Birth	February 1979
Place of Birth	Amsterdam/Netherlands

EDUCATION

2005-2009	Goethe University, Biophysics, Ph.D.
2001-2003	Middle East Technical University, Physics, M.S.
1997-2001	Middle East Technical University, Physics Education, B.S.

ACADEMIC POSITIONS

September/2017	Associate Professor, Department of Electrics and Electronics Engineering, Atılım University, Turkey
January/2012-September/2017	Assistant Professor, Department of Electrics and Electronics Engineering, Atılım University, Turkey
May/2009-January/2012	Instructor, Department of Electrics and Electronics Engineering, Atılım University, Turkey
2005-2009	Research Assistant, Goethe University, Institut für Biophysik, Germany
2001-2005	Research Assistant, Department of Electrics and Electronics Engineering, Atılım University, Turkey

RESEARCH INTERESTS

1	Structure and function of proteins/enzymes
2	Protein-membrane interaction
3	Spectroscopic analysis of bodily fluids

PROFESSIONAL SERVICE

1	Regular Referee, Spectrochimica Acta Part A, Molecular and Biomolecular Spectroscopy (Elsevier)
2	Regular Referee, Journal of Biophotonics (Wiley)

PUBLICATIONS

1	Korkmaz, F., van Pee, K., Yildiz, O. IR spectroscopic characterization of an elongated OmpG mutant. <i>Archives of Biochemistry and Biophysics</i> , 576, 73-79, 2015.
2	Korkmaz, F., Erdogan, Deniz A., Ozalp-Yaman, Seniz. Interaction of a Novel Platinum Drug with Bovine Serum Albumin: FTIR and UV-Vis Spectroscopy Analysis. <i>New Journal of Chemistry</i> , 39, 5676-5685, 2015.
3	Korkmaz, F., Commentary on “spectral characterization of the binding and conformational changes of serum albumins upon interaction with an anticancer drug, anastrozole”. <i>Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy</i> , 138, 967-968, 2015.
4	Isik M, Gassanly NM, Korkmaz F. Compositional Dependence of Optical Modes Frequencies in $TlGa_xIn_{1-x}S_2$ Layered Mixed Crystals ($0 \leq x \leq 1$). <i>Acta Physica Polonica A</i> , 126, 747-751, 2014.
5	Korkmaz, F., Ressl, S., Ziegler C., Maentele, W. K^+ -induced conformational changes in the trimeric betaine transporter BetP monitored by ATR-FTIR spectroscopy. <i>Biochimica et Biophysica Acta – Biomembranes</i> , 1828, 1181-1191, 2013.
6	Isik, M. Gassanly, N.M., Korkmaz F. Infrared and Raman Scattering spectra of layered structured Ga_3InSe_4 crystals. <i>Physica B</i> 412, 61-63, 2013.
7	Isik, M. Gassanly, N.M., Korkmaz F. Multiphonon absorption processes in layered structured $TlGaS_2$, $TlInS_2$ and $TlGaSe_2$ single crystals. <i>Physica B</i> 421, 50-52, 2013.
8	Korkmaz, F., Koester, S., Yildiz, O., Maentele, W. In situ opening/closing of OmpG from <i>E. coli</i> and the splitting of beta-sheet signals in ATR-FTIR spectroscopy. <i>Spectrochimica Acta Part A-Molecular and Biomolecular Spectroscopy</i> , 91, 395-401, 2012.
9	Korkmaz-Özkan,F., Köster, S., Yıldız, Ö., Kühlbrandt, W., Maentele, W. Correlation between the OmpG secondary structure and its pH-dependent alterations monitored by FTIR. <i>Journal of Molecular Biology</i> , 401, 56-67, 2010.
10	Korkmaz, F., Sevencan, F., Aflori, M., Dorohoi, D.O. Temperature influence on the dipalmitoylphosphatidylcholine-model membranes studies by FTIR. <i>Digest J. of Nanomaterials and Biostructures</i> , 3, 55-61, 2008.
11	Korkmaz, F., Köster, S., Yıldız, Ö. and Mäntele, W. The role of lipids for the functional integrity of porin: an FTIR study using lipid and protein reporter groups. <i>Biochemistry</i> , 47, 12126-12134, 2008.
12	Erkoc, S., Korkmaz, F. Structural and electronic properties of the DPPC molecule. <i>Int. J. Mod. Phys. C</i> , 17, 967-974, 2006.
13	Korkmaz, F. and Sevencan, F. Effect of progesterone on DPPC membrane: Evidence for lateral phase separation and inverse action in lipid dynamics. <i>Archives of Biochemistry and Biophysics</i> , 440, 141-147, 2005.
14	Korkmaz, F., Kirbiyik H. and Sevencan, F. Concentration dependent different action of progesterone on the order, dynamics and hydration states of the headgroup of dipalmitoyl-phosphatidylcholine. <i>Spectroscopy-An International Journal</i> , 19, 213-219, 2005.

PROJECTS

1	Investigation of Structural and Functional Properties of OmpG-16S and OmpG-16SL by FTIR Spectroscopy. TUBITAK 3501 national funding program, code: 214Z085, May 2015-November 2017.
2	Comparison of Wild Type OmpG and Its Genetically Engineered Mutant Using FTIR Spectroscopy. TUBITAK 1002 national funding program, code: 211T179, 2012-2013.
3	Biophysics Laboratory. Atilim University Research Laboratory Project Fund (ALP), code: ATÜ-ALP-1011-01, 2011-2014.

CONFERENCE PRESENTATIONS

1	F. Korkmaz, K. van Pee and Ö. Yıldız. Structural and functional characterization of OmpG-16S, an elongated OmpG mutant, investigated by FTIR spectroscopy. The 7 th EMBO Meeting, Mannheim, Germany. Poster #374B, Book of abstracts pp.377. September 2016
2	İ. Yılmaz, K. van Pee, Ö. Yıldız and F. Korkmaz. Two engineered proteins; OmpG-16S and OmpG-16SL, investigated by FTIR spectroscopy. The 7 th EMBO Meeting, Mannheim, Germany. Poster #384C, Book of abstracts pp.387. September 2016
3	İ. Yılmaz, Ö. Yıldız and F. Korkmaz. pH-dependent conformational changes and thermal stability of outer membrane protein G mutants by Fourier Transform Infrared Spectroscopy. The 41 st FEBS Congress, İzmir, Turkey. The FEBS Journal 283 (Suppl.1) 2016, pp214. August 2016
4	F.Korkmaz, A.Doğan and Y.Adıgüzel. Web-server based structure predictions as supplementary tool for secondary structure analysis of proteins with FTIR. 4 th International BAU Drug Design Congress, İstanbul, Turkey, oral presentation. October 2016
5	İ.Yılmaz, A.Bek and F.Korkmaz. Kızılıötesi izgegözlemin sınırlarını zorlamak: sıvı örneklerle çalışma. 22. Yoğun Madde Fiziği Toplantısı, Ankara, Turkey. Poster presentation. December 2016
6	F. Korkmaz, K. van Pee and Ö. Yıldız. Outer Membrane protein OmpG from E.coli and its Engineered mutant OmpG-16S. 2 nd International BAU Drug Design, İstanbul, Turkey, oral presentation. April 2014.
7	F. Korkmaz. Physics Course Assessment in Engineering Education. 2 nd International Engineering Education Conference: New Trends and Expectations, Antalya, Turkey, oral presentation. November, 2012
8	B.S. İsgör, Y.G. İşgör, F. Korkmaz, Ö.Özgen, S.Ertan. Success trends of engineering students in scinece courses: a 3 year survey. 2 nd International Engineering Education Conference: New Trends and Expectations, Antalya, Turkey, oral presentation. November, 2012
9	Korkmaz, F. Ziegler, C, Mäntele, W. Secondary structure properties of activation of BetP from <i>Corynobacterium glutamicum</i> . The 3 rd EMBO Meeting, Vienna, Austria. Poster #294. September, 2011
10	Korkmaz, F. Köster, S., Yıldız, Ö. and Mäntele, W. The role of lipids for the functional integrity of OmpF and OmpG porins: An analysis by FTIR spectroscopy. The Joint Biophysical Society 52 nd Annual Meeting, Long Beach, California, USA. Poster # 2064. February, 2008
11	Köster, S., Yıldız, Ö., Hizlan, D., Korkmaz, F. and Kühlbrandt, W. Structure of the monomeric outer-membrane protein OmpG in the open and closed conformation. Gordon Conference: Ligand Recognition & Molecular Gating, Ventura, CA, USA. March, 2008
12	Korkmaz, F. and Mäntele, W. The role of lipids for the functional integrity of porin: An analysis by FTIR spectroscopy. 12 th European Conference on the Spectroscopy of Biological Molecules, Bobigny, France. Poster # 194. September, 2007
13	Korkmaz, F. and Mäntele, W. Detecting markers for functional integrity of a protein by FTIR. Deutsche Gesellschaft für Biophysik, Mainz, Germany. Poster # 56. September, 2006
14	Korkmaz, F and Severcan, F. Effect of progesterone of DPPC membrane. 11 th European Conference on the Spectroscopy of Biological Molecules, Aschaffenburg, Germany. Poster # 281FK. September, 2005
15	Korkmaz, F and Severcan, F. 13th Balkan Biochemical and Biophysical Days & Meeting on Metabolic Disorders. Kuşadası, Turkey. <i>Poster has been awarded a Mension Prize</i> . October, 2003

CITATIONS

Sum of times cited without self-citations (ISI Web of Science):	113
H-index (ISI Web of Science):	5

COURSES GIVEN

1	Physics I-Mechanics (PHYS101)
2	Physics II-Electricity and Magnetism (PHYS102)
3	Introduction to Electromagnetic Theory (PHYS702)
4	Electromagnetic Theory (PHYS502)
5	Biophysics (PHYS519)

THESES SUPERVISED/CO-SUPERVISED

1	MS Thesis, Investigation of structural and functional properties of OmpG mutants by FTIR spectroscopy, 2017.
2	MS Thesis, Spectroscopic investigation of the effect of novel platinum blue on BSA and HSA", 2017.
3	MS Thesis, Spectroscopic investigations on DNA and BSA binding ability of a new platinum (II) complex containing 5,6-di(pyridine-2-yl)-2,3-dihydropyrazine ligand, 2017.
4	MS Thesis, Structural and ellipsometric properties of GaS(x)Se(1-x) layered mixed crystals, 2017.

POPULAR SCIENCE JOURNAL ARTICLES

1	B. İşgör ve F. Korkmaz "İlaç araştırmalarında yeni nesil uygulamalar" Cumhuriyet Bilim ve Teknoloji Dergisi. Yayın Yeri: Ankara, Yayın Tarihi: 21.09.2012, Sayı: 1331.
2	F. Korkmaz ve E.Gökçay "Manyetik alan dersleri artık daha kolay öğreniliyor" İz Dergisi. Yayın Yeri: Ankara, Yayın Tarihi: Haziran 2011.
3	F. Korkmaz "Yaşamın anahtarı: Proteinler" Herkese Bilim Teknoloji. Yayın Yeri: İstanbul, Yayın Tarihi: 23 Aralık 2016, Sayı:39.
4	İ. Yılmaz ve F. Korkmaz "İnsanları etkileyen grip virüsleri" Herkese Bilim Teknoloji. Yayın Yeri: İstanbul, Yayın Tarihi: 9 Aralık 2016, Sayı:37.
5	İ. Yılmaz ve F. Korkmaz "Curie Ailesi: Bilim hayalinin peşinde" Herkese Bilim Teknoloji. Yayın Yeri: İstanbul, Yayın Tarihi: 6 Ocak 2017, Sayı:41.
6	Y. Pekön ve F. Korkmaz "Komşu gezegenleri yeterince tanıyor musunuz?" Herkese Bilim Teknoloji. Yayın Yeri: İstanbul, Yayın Tarihi: 13 Ocak 2017, Sayı:42.
7	F. Korkmaz ve R.Aydın "Fizik dünyasında son gelişme: Kütleçekim dalgalarının kaydedilmesi" Herkese Bilim Teknoloji. Yayın Yeri: İstanbul, Yayın Tarihi: 17 Kasım 2017, Sayı:86.