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Date of Birth : 20.07.1980

Title: Assoc. Prof.

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Kadir Has University Cibali Campus, 34083 Fatih/Istanbul-TURKEY
Faculty of Engineering and Natural Sciences

Education

Degree	Major	University	Year
B.Sc.	Physics Engineering	Istanbul Technical University	2000
M.Sc.	Physics	Marmara University	2004
Ph.D.	Physics Engineering	Istanbul Technical University	2012

Research Interests:

Thin Film Physics, Polymer Composites, 2D Materials, Nanostructured Materials

Associated Professor of Turkey Inter-University Council, November 20, 2017.

Teaching Experience

Asistant Professor Faculty of Engineering and Natural Sciences	Kadir Has University	2017-
Research Assistant and Instructor for the Physics Lab Faculty of Arts and Sciences	Kadir Has University	2004-2017
Research Assistant and Instructor for the Physics Lab Faculty of Engineering	Kadir Has University	2000-2004
Part Time Student Assistant Faculty of Science and Letters, Department of Physics	Istanbul Technical University	1998-2000.

Graduate Thesis Supervised

Mehmet Eymen Sümer, “Enhanced Antibacterial Properties of Ag doped TiO₂ Composites”
Division of Computational Biology and Genetics, 2019-

Elife Özdemir, “Swelling Characteristics of Kappa-Carrageenan Composites” Division of
Computational Biology and Genetics, 2018-

Shahad Tariq (co-advisor), “The Optical and Electrical Characteristics of ZnO-MoS₂
Transparent oxide Films”, Division of Electronics Engineering, 2017-

Publications

Journals

**Berke Düzkan, Bengü Özüğür Uysal, Önder Pekcan, Surfactant-free One-step
Fabrication of Gelatin/PAAM/MWCNT Composites for Biomedical Applications,
Polymer Bulletin, DOI: 10.1007/s00289-021-03574-4 (In press).**

**Gülşen Akın Evingür, Nafia Alara Sağlam, Bengü Özüğür Uysal, Büşra Çimen, Önder
Pekcan, The WS₂ dependence on the elasticity and optical band gap energies of swollen
PAAM composites, Journal of Composite Materials, (Jul 2020),
10.1177/0021998320944210.**

**Bengü Özüğür Uysal, Ümit Özlem Akkaya Arıer, Önder Pekcan, Tailoring the
Electrical and Optical Properties of Carbon Nanotube Reinforced Transparent TiO₂
Composites by Varying Nanotube Concentrations, Surface Review and Letters, 27, 2
(2020) 1950103.1-1950103.7**

**Bengü Özüğür Uysal, Fatma Zehra Tepehan, Determination of Growth Kinetics and
Size Dependent Structural, Morphological, Optical Characteristics of Sol-Gel Derived
Silica Nanoparticles in Silica Matrix, Materials Science Poland, 37, 1 (2019) 16-24.**

**Bengü Özüğür Uysal, Önder Pekcan, Fractal Features and Structural, Morphological,
Optical Characteristics of Sol-Gel Derived Silica Nanoparticled Thin Films, Acta
Physica Polonica A, 133, 5, (2018), 1160-1164.**

**Ümit Özlem Akkaya Arıer, Bengü Özüğür Uysal, Characterization of MWCNT-TiO₂
QDs and TiO₂ QDs in self-assembled films, Optik - International Journal for Light and
Electron Optics, 140 (2017) 1032–1037.**

**Ümit Özlem Akkaya Arıer, Bengü Özüğür Uysal, The electrochromic performances of
single phase VO₂ nanoparticled films, Surface and Coatings Technology, 302 (2016) 482–
486.**

**Ümit Özlem Akkaya Arıer, Bengü Özüğür Uysal, Effects of precursor parameters on the
optical and electrical properties of AZO nano-composite films, Optik - International
Journal for Light and Electron Optics, 127(12) (2016) 5065-5069.**

Bengü Özüğür Uysal, Ümit Özlem Akkaya Arıer, Structural and optical properties of SnO₂ nano films by spin-coating method, Applied Surface Science 350 (2015) 74-78.

Ümit Özlem Akkaya Arıer, Bengü Özüğür Uysal, The effects of Dea:water ratio on the properties of ZnO nano films obtained by spin coating method, Materials Science in Semiconductor Processing 24 (2014) 157–163.

Bengü Özüğür Uysal, Fatma Zehra Tepehan, Controlling the growth of particle size and size distribution of silica nanoparticles by the thin film structure, Journal of Sol-Gel Science and Technology, 63 (2012) 177–186.

G. Kandemir, M. Geçkinli, C. Fırat, M. Yılmaz, Bengü Özüğür, Cosmic Ray Intensity Variation during a CME, Planetary and Space Science, Vol. 50, Issue.5-6 (2002), 633-636.

Articles under review:

Bengü Özüğür Uysal, Nano-manufacturing and comparative study on particle size dependent conductivity of sol-gel derived undoped, Al, F, In- doped ZnO thin films, Journal of Colloid and Interface Science (under review)

Şeyma Nayır, Sena Kıvrak, İrem Kara, Bengü Özüğür Uysal, Önder Pekcan, Gelation of Tungsten Disulfide (WS₂) Doped Polyacrylamide (PAAm) Composites, Optik (under review)

Bengü Özüğür Uysal, Gülşen Akın Evingür, Önder Pekcan, Biocompatible PAAm mediated PVP composites incorporated with aligned 2D MoS₂ for flexible and sturdy wearable electronic skins and artificial tissues, Frontiers in Materials (under review)

Bengü Özüğür Uysal, Enhanced particle size dependent optical and electronic properties of sol-gel derived ZnO quantum dots in Al₂O₃ thin film matrix, Journal of Sol-Gel Science and Technology (under review)

Bengü Özüğür Uysal, Size dependent optical properties of Al₂O₃-VO_x-TiO₂ nanocomposite films synthesized by sol-gel method, Composites Science and Technology (under review)

Articles in prep.:

Sümeyye Durmaz, Ekrem Yıldız, Bengü Özüğür Uysal, Önder Pekcan, 3D Self-assemble Formation of Molybdenum Disulfide (MoS₂) Doped Polyacrylamide (PAAm) Composite Hydrogels, Composites Science and Technology

Bengü Özüğür Uysal, Fatma Tepehan, Size-controllable synthesis of silica nanoparticles in Al₂O₃ thin film matrix, Thin Solid Films.

Bengü Özüğür Uysal, Şeyma Nayır, Önder Pekcan, Nano-filler (WS_2 , MoS_2 , $MoSe_2$) Enhanced Polyacrylamide Gels for Multi-functional Applications, Journal of Materials Science.

International Conferences

B. Özüğür Uysal, Ş. Nayır, Ö. Pekcan, Nano-filler (WS_2 , MoS_2 , $MoSe_2$) Enhanced Polyacrylamide Gels for Multi-functional Applications, ANM 2019: Advanced Nano Materials, Aveiro, Portugal, July 17-19, 2019 (chairperson).

B. Özüğür Uysal, “Microstructural Characteristics of Metal Oxide Based Thin Films as Energetically Enhanced Nanomaterials”, EMN Meeting on Texture and Microstructure, Energy Materials Nanotechnology, Hong Kong, China, December 18-22, 2016.(invited speaker)

B. Özüğür Uysal, Ü.Ö.Akkaya Arıer, O. Pekcan, “Effect of Nanotube Concentration on the Structural, Electrical and Optical Properties of Carbon Nanotube Reinforced Transparent TiO_2 Composites”, ENEFM 2015, 3rd International Congress on Energy Efficiency and Energy Related Materials, Fethiye, October 19-23, 2015

B. Özüğür Uysal, Ü.Ö.Akkaya Arıer, “Structural, Electrical and Optical Properties of SnO_2 nano films by spin-coating method”, SATF2014, Thin Films, Science and Applications Conference, Çeşme, İzmir, September 15-19, 2014.

B. Özüğür Uysal, Ü.Ö.Akkaya Arıer, “Size Dependent Optical Properties of $Al_2O_3 - VO_x - TiO_2$ nanocomposite films synthesized by sol-gel method”, 11th International Conference on Nanosciences & Nanotechnologies (NN14), Aristotle University of Thessaloniki, Greece, July 08-11, 2014.

B. Özüğür Uysal, Ü.Ö.Akkaya Arıer, “Effects of precursor parameters on the properties of AZO nano films synthesized by sol-gel method”, 10th International Conference on Nanosciences & Nanotechnologies (NN13), Aristotle University of Thessaloniki, Greece, July 09-12, 2013.

IME-7 : 7th International Meeting on Electrochromism, Program Committee Member, Kadir Has University, September 3-7, 2006.

G. Kandemir, M. Yılmaz, B.Özüğür and Z. Kaymaz, "Small Scale Auroral Vortices", ICVM 2001: 2nd International Conference on Vortex Methods, ITU Macka Campus, Istanbul, Turkey, September 26-28, 2001, pp.259-262, ISBN 975-561-194-0, (2001).

Poster Sessions:

Bengü Özüğür Uysal, Şeyma Nayır, Şevval Koçoğlu, Önder Pekcan, “ $MoSe_2$ -reinforced polyacrylamide composites with tunable refractive index and band gap energy”, ANM 2019: Advanced Nano Materials, Aveiro, Portugal, July 17-19, 2019.

Bengü Özüğür Uysal, “Nano-manufacturing and comparative study on particle size dependent conductivity of sol-gel derived undoped, Al, F, In- doped ZnO thin films”, 9th International Colloid Conference, Sitges, Spain, June 16-19, 2019.

B. Özüğür Uysal, Ü.Ö.Akkaya Arıer, “Comparative Study on the Optical and Electronic Transport Characteristics of AZO and SnO₂ nanostructured films”, 11th International Conference on Nanosciences & Nanotechnologies (NN14), Aristotle University of Thessaloniki, Greece, July 08-11, 2014.

NN13: 10th International Conference on Nanosciences & Nanotechnologies, Thessaloniki, Greece, July 09-12, 2013

- 1) Which transparent conductive oxide is the best? Comparative study of particle size dependent resistivity difference of nanostructured thin films (B. Özüğür Uysal, Ü.Ö.Akkaya Arıer)
- 2) Properties of In₂O₃, SiO₂ and Al₂O₃ doped ZnO nano-composite films obtained by spin coating method (Ü.Ö.Akkaya Arıer, B. Özüğür Uysal)

APMAS 2013: 3rd International Advances in Applied Physics and Materials Science Congress, Antalya, Turkey, April 24-28, 2013.

- 1) Particle Confinement Effect on the Structural, Morphological and Optical Properties of SiO₂-Al₂O₃ Sol-Gel Nanocomposite Thin Film Coatings (B. Özüğür Uysal, F.Z. Tepehan),
- 2) Synthesis and characterization of VO_x- SiO₂ -TiO₂ nano-composite films produced by sol-gel method (Ü.Ö.Akkaya Arıer, B. Özüğür Uysal),
- 3) Synthesis and characterization of ZnO nanostructured films produced by sol-gel method (Ü.Ö.Akkaya Arıer, B. Özüğür Uysal)

ICSNN2012: International Conference on Superlattices, Nanostructures and Nanodevices, Dresden, Germany, July 22 – 27, 2012 (B. Özüğür Uysal, F. Z. Tepehan)

- 1) Particle Size Effects on the Structural, Morphological and Optical Properties of SiO₂-Al₂O₃ Sol-Gel Nanocomposite Thin Film Coatings
- 2) Synthesis and Characterization of MWCNT-SiO₂ Sol-Gel Hybrid Thin Films

B. Özüğür Uysal, F.Z. Tepehan, “Preparation and Characterization of Silica Based Sol-Gel Hybrid Thin Film Coatings”, 8th International Conference on Nanosciences&Nanotechnologies (NN11), Aristotle University of Thessaloniki, Greece, July 12 – 15, 2011.

B. Özüğür Uysal, F.Z. Tepehan, “Preparation and Characterization of Nanostructured SiO₂ thin films”, NanoMat 2009 : International Conference on Nanomaterials and Nanosystems, ITU Ayazağa Campus, İstanbul, Türkiye, August 10-13, 2009.

B. Özüğür Uysal, F.Z. Tepehan, “Sol - Jel Döndürme Yöntemi ile Hazırlanan SiO₂ Nanoparçacıkları İçeren İnce Filmlerin Yapısal ve Optik Özellikleri”, NanoTr4 : 4. Ulusal Nanobilim ve Nanoteknoloji Konferansı, İTÜ, Maslak, İstanbul, Turkey, June 9 – 13, 2008.

National Conferences

B. Özüğür Uysal, G. Akın Evingür, “Nanodan Makro Yapı Malzemesine: Sedefin Esneklik ve Dayanıklılık Özelliklerinin Nanomühendisliği”, 23. Ulusal Sıvı Hal Sempozyumu, Piri Reis Üniversitesi, Tuzla-İstanbul, Turkey, December 6, 2019.

B. Özüğür Uysal, “Enerji Depolama Amaçlı Kullanılan Metaloksit Esaslı Kompozit Filmlerin Mikroyapısal Karakteristikleri”, 21. Ulusal Sıvı Hal Sempozyumu, Piri Reis Üniversitesi, Tuzla-İstanbul, Turkey, December 21, 2017.

B. Özüğür Uysal, Ü.Ö.Akkaya Arıer, “Al₂O₃ - VO_x -TiO₂ Nanokompozit Filmlerin Optik Özelliklerinin Parçacık Boyutuna Bağlı Olarak Değişimi”, 18. Ulusal Sıvı Hal Sempozyumu, Piri Reis Üniversitesi, Tuzla-İstanbul, Turkey, December 5-6, 2014.

B. Özüğür, Z. Güven and Ü. Onbaşı, “The Relation Between The Highest Meissner Transition Temperature In Oxide Superconductors and Bose-Einstein Condensation”, 9th International Statistical Physics, ITU Macka Campus, Istanbul, Turkey, July 4-5, 2002.

Z. Güven, B. Özüğür and Ü. Onbaşı, “Vortex Matter in Superfluids, Superconductors and Neutron Stars”, 6. Ulusal Sıvıhal Fiziği Sempozyumu, İstanbul University, Baltalimanı, Istanbul, Turkey, June 14-16, 2002.

Research Projects

Project Name	Time Period (Year&Semester)	Supporting Institution	Amount of financial support.
Mathematical Modelling and Structural Investigations of Optical Properties of Nanostructured Group 5B and 6B Metaloxide Electrochromic Films	December 2015- June 2016	The Research Fund of Mimar Sinan University (BAP Project No: 201528)	20.000,00 TL
Preparation and Characterization of Transparent Oxide Based Nano Films	May 2012- November 2013	The Research Fund of Mimar Sinan University (BAP Project No: 201206)	14.827,88 TL
Preparation and Characterization of Silica Based Thin Films	October 2008- June 2012	The Research Fund of I.T.U (BAP Project Number: 34231)	15.000,00 TL

Refereed Journals

Journal of Nanoparticle Research

Journal of Composite Materials

Polymer Bulletin

Modern Physics Letters B

Polymer Testing

Sakarya University Journal of Science (SAUJS)

Membership in professional associations

Turkish Physical Society

American Chemical Society

American Physical Society

Special Activities

Member, ITU Badminton Club

Member, Beypazarı Association

Kadir Has University Choir

Kadir Has University Sirtaki Performer

Courses Taught

Year	Semester	Course	# of students
2020-2021	Fall	PH 121 Physics I (2 Grup)	118+49
2020-2021	Fall	PH 131 Physics Laboratory I (4 grup)	159
2020-2021	Fall	BIO 411 Graduation Project I	9
2020-2021	Fall	BIO 317 Molecular Biophysics	17
2019-2020	Summer	PH 121 Physics I	26

2019-2020	Spring	PH 122 Physics II	60
2019-2020	Spring	PH 132 Physics Laboratory II (12 grup)	220
2019-2020	Spring	BIO 412 Graduation Project	17
2019-2020	Fall	PH 132 Physics Laboratory II	14
2019-2020	Fall	PH 131 Physics Laboratory I (12 grup)	235
2019-2020	Fall	PH 121.4 Physics I	50
2019-2020	Fall	BIO 317 Molecular Biophysics	15
2019-2020	Fall	BIO 411 Graduation Project I	17
2018-2019	Summer	PH 121 Physics I	19
2018-2019	Summer	PH 122 Physics II	17
2018-2019	Spring	PH 121 Physics I	111
2018-2019	Spring	PH 132 Physics Laboratory II (12 grup)	199
2018-2019	Spring	PH 131 Physics Laboratory I (2 grup)	33
2018-2019	Spring	BIO 412 Graduation Project	10
2018-2019	Fall	PH 131 Physics Laboratory I (14 grup)	229
2018-2019	Fall	BIO 317 Molecular Biophysics	25
2018-2019	Fall	BIO 411 Graduation Project I	10
2017-2018	Spring	PH 132 Physics Laboratory II (11 grup)	199
2017-2018	Fall	PH 131 Physics Laboratory I (11 grup)	203

Academic Honors

From TUBITAK(The Scientific and Technological Research Council of Turkey)'s International Scientific Publication Support Program for the publications.