

Prof. BARIŞ AKAOĞLU

Personal Information

Office Phone: [+90 312 203 3464](tel:+903122033464)

Email: akaoglu@eng.ankara.edu.tr

Other Email: akaoglu@gmail.com

Web: <http://nanofotonik.ankara.edu.tr/>

International Researcher IDs

ScholarID: xotgXv0AAAAJ

ORCID: 0000-0002-5573-3901

Publons / Web Of Science ResearcherID: A-4169-2008

ScopusID: 21740919600

Yoksis Researcher ID: 23869

Education Information

Doctorate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Fizik Anabilim Dalı, Turkey 1998 - 2004

Doctorate, University of North Carolina at Chapel Hill, Kimya, United States Of America 2002 - 2002

Postgraduate, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Physics, Turkey 1996 - 1998

Undergraduate, Middle East Technical University, Faculty Of Arts And Sciences, Department Of Physics, Turkey 1992 - 1996

Dissertations

Doctorate, Optical properties of silicon based amorphous thin films, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Fizik (Dr), 2004

Postgraduate, Determination of optical constants of silicon based amorphous films by UV- visible transmittance and reflectance measurement, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Fizik (YI) (Tezli), 1998

Research Areas

Electromagnetic, Electromagnetic Band Spacing Structures, Electromagnetic Waves, Antennas and Propagation, Photonic Band Spacing Structures, Physics, Optics, Optical Properties, Spectroscopy of Matter

Academic Titles / Tasks

Professor, Ankara University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 2015 - Continues

Associate Professor, Ankara University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 2011 - 2015

Assistant Professor, Ankara University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 2010 - 2011

Assistant Professor, Gazi University, Fen Bilimleri Enstitüsü, İleri Teknolojiler (YI) (Tezli), 2007 - 2010

Lecturer, Gazi University, Fen Fakültesi, Fizik Bölümü, 2005 - 2007

Research Assistant, Middle East Technical University, Fen-Edebiyat Fakültesi, Fizik Bölümü, 1996 - 2004

Academic and Administrative Experience

Faculty Board Member, Ankara University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 2023 - Continues
Head of Department, Ankara University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 2023 - Continues
Institute Board Member, Ankara University, Hızlandırıcı Teknolojileri Enstitüsü, Hızlandırıcı Teknolojileri Anabilim Dalı, 2021 - Continues
Fakülte Yönetim Kurulu Üyesi, Ankara University, Mühendislik Fakültesi, Fizik Mühendisliği Bölümü, 2019 - 2022
Assistant Director of the Institute, Ankara University, Fen Bilimleri Enstitüsü, 2019 - 2020

Courses

Postgraduate

Mühendislik Elektrodinamiğine Giriş, Postgraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022
Nanofotonik, Postgraduate, 2023 - 2024, 2021 - 2022
NANOFOTONİK 1, Postgraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013
OPTİK FİBER KOMÜNİKASYONU, Postgraduate, 2010 - 2011

Undergraduate

Electromagnetic Theory I, Undergraduate, 2022 - 2023, 2021 - 2022
Eletromagnetic Theory II, Undergraduate, 2023 - 2024, 2022 - 2023
Research Project, Undergraduate, 2022 - 2023, 2021 - 2022
Fizik Mühendisliğinde Araştırma Teknikleri I, Undergraduate, 2022 - 2023, 2021 - 2022
Engineering Electrodynamics, Undergraduate, 2022 - 2023, 2021 - 2022
Fizikte Güncel Konular, Undergraduate, 2022 - 2023
Fizik Mühendisliği Araştırma Teknikleri II, Undergraduate, 2021 - 2022
Fizik Laboratuvarı, Undergraduate, 2021 - 2022
Fizik Mühendisliğinde Araştırma Teknikleri, Undergraduate, 2021 - 2022
Optics Laboratory, Undergraduate, 2022 - 2023
ELEKTROMAGNETİZMA, Undergraduate, 2014 - 2015, 2013 - 2014
PHYSICS 2, Undergraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012
ELEKTROMAGNETİK DALGALAR VE UYGULAMALARI II, Undergraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013
PHYSICS 1, Undergraduate, 2014 - 2015, 2013 - 2014, 2012 - 2013, 2011 - 2012
Fizik Laboratuvarı II, Undergraduate, 2013 - 2014
FİZİK MÜHENDİSLİĞİNDE ARAŞTIRMA TEKNİKLERİ I, Undergraduate, 2013 - 2014
FİZİK MÜHENDİSLİĞİNDE ARAŞTIRMA TEKNİKLERİ II, Undergraduate, 2013 - 2014, 2012 - 2013
FİZİK MÜHENDİSLİĞİNDE ARAŞTIRMA TEKNİKLERİ 1, Undergraduate, 2012 - 2013
Kuantum Fiziği Laboratuvarı, Undergraduate, 2011 - 2012

Supervised Theses

Akaoğlu B., Sıfırıncı dereceden rezonanslı anten tabanlı elektron paketçik uzunluk monitörü, Postgraduate, C.DOKUYUCU(Student), 2024
Akaoğlu B., Optik saydam antenler, Doctorate, Ç.KAYA(Student), 2024
Akaoğlu B., Mikrodalga frekanslarda metamalzeme tabanlı sensör uygulamaları, Postgraduate, G.UZUN(Student), 2022
AKAOĞLU B., Elektromanyetik metamalzeme tabanlı yapıların mikrodalga frekanslarda sensör uygulamaları, Doctorate, M.SUPHI(Student), 2021
AKAOĞLU B., Metamalzeme temelli mikroşerit sistemlerde elektromanyetik indüklenmiş saydamlık, Postgraduate, Y.GÜNEŞ(Student), 2021
AKAOĞLU B., Mikroşerit alçak geçiren filtre tasarımı ve analizi / Microstrip filter design, Postgraduate, E.Arslan(Student), 2020

AKAOĞLU B., Mikroşerit Filtre Tasarımı ve Analizi, Postgraduate, E.ARSLAN(Student), 2020

AKAOĞLU B., Design and numerical computing analysis of multilayer thin film coatings with high transparent in visible spectrum and RF shielding ability, Postgraduate, O.ALPAY(Student), 2019

AKAOĞLU B., Optiksel saydam antenlerin tasarımı ve karakterizasyonu, Postgraduate, Y.DEMİRHAN(Student), 2019

AKAOĞLU B., Energy harvesting with metamaterial, Postgraduate, E.UZAY(Student), 2019

AKAOĞLU B., Omnidirectional metamaterial absorber, Postgraduate, K.GÖKHAN(Student), 2019

AKAOĞLU B., Miniaturization and enhancement of the bandwidth of micro-strip patch antennas, Postgraduate, B.Onaylı(Student), 2018

AKAOĞLU B., Mikro-şerit yama antenlerin minyatürleştirilmesi ve bant genişliğinin artırılması, Postgraduate, B.ONAYLI(Student), 2018

AKAOĞLU B., Elektromanyetik dalgaların yüzey düzeni değiştirilmiş fotonik kristallerdeki davranışı, Postgraduate, Ö.ÇAPRAZ(Student), 2017

AKAOĞLU B., Yapay periyodik yapılarda ışığın davranışının sayısal ve deneysel çözümlenmesi, Postgraduate, T.DEMİRİSOY(Student), 2016

AKAOĞLU B., Hiperbolik metamalzemeler, Postgraduate, B.ÇETİN(Student), 2016

AKAOĞLU B., Fotonik kristal algılayıcıların tasarlanması ve sayısal çözümlenmesi, Postgraduate, S.TEZCAN(Student), 2014

AKAOĞLU B., LiNbO₃ tabanlı şiddet kipleycisi tasarımı, üretimi ve karakterizasyonu, Postgraduate, S.DÖNERTAŞ(Student), 2014

AKAOĞLU B., Çizgi kusurlu fotonik kristal dalga kılavuzlarına ışığın bağdaştırılması, Postgraduate, O.ÖZDEMİR(Student), 2014

AKAOĞLU B., Lityum niyobat tabanlı periyodik dielektrik yapıların üretimi ve optik çözümlenmesi, Postgraduate, G.KURT(Student), 2013

AKAOĞLU B., Fotonik kristal dalga kılavuzu temelli küçük optik filtrelerin tasarlanması ve sayısal çözümlenmesi, Postgraduate, Y.DİLDAR(Student), 2013

AKAOĞLU B., Fotonik kristal dalga kılavuzları ve yavaş ışık elde edilmesi, Doctorate, F.BAĞCI(Student), 2013

AKAOĞLU B., Aydınlatma amaçlı LED matrisi üretimi ve ısı özelliklerinin çözümlenmesi, Postgraduate, S.KALE(Student), 2010

Jury Memberships

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Ankara Üniversitesi, October, 2022

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Ankara Üniversitesi, March, 2022

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi, February, 2022

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Orta Doğu Teknik Üniversitesi, February, 2022

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Transparent dielectric/metal/dielectric multilayer microstrip patch antennas for X and Ku-band**
KAYA Ç., AKAOĞLU B., Er U., Bayram Y.
Optics Communications, vol.564, 2024 (SCI-Expanded)
- II. **A microstrip-based dielectric sensor with four fluidic channels for complex dielectric constant detection of aqueous alcohols**
Bağcı F., Can S., Gulsu M. S., Yılmaz A. E., Akaoğlu B.
Journal of Electromagnetic Waves and Applications, vol.38, no.15, pp.1635-1648, 2024 (SCI-Expanded)

- III. **A metamaterial-based dielectric sensor for characterization of ethanol/1-pentanol binary liquid mixtures at dual bands**
Alp K, Bağcı F., Akaoğlu B.
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.129, no.8, 2023 (SCI-Expanded)
- IV. **Dual-band measurement of complex permittivity in a microwave waveguide with a flexible, thin and sensitive metamaterial-based sensor**
Bağcı F., Gulsu M. S., Akaoğlu B.
Sensors and Actuators A: Physical, vol.338, 2022 (SCI-Expanded)
- V. **Minkowski-like fractal resonator-based dielectric sensor for estimating the complex permittivity of binary mixtures of ethanol, methanol and water**
Gulsu M. S., BAĞCI F., CAN S., YILMAZ A. E., AKAOĞLU B.
SENSORS AND ACTUATORS A-PHYSICAL, vol.330, 2021 (SCI-Expanded)
- VI. **Metamaterial-based sensor with a polycarbonate substrate for sensing the permittivity of alcoholic liquids in a WR-229 waveguide**
Gulsu M. S., BAĞCI F., CAN S., YILMAZ A. E., AKAOĞLU B.
SENSORS AND ACTUATORS A-PHYSICAL, vol.312, 2020 (SCI-Expanded)
- VII. **Single and multi-band electromagnetically induced transparency-like effects with a four-fold symmetric metamaterial design**
BAĞCI F., AKAOĞLU B.
MATERIALS RESEARCH EXPRESS, vol.6, no.5, 2019 (SCI-Expanded)
- VIII. **Metamaterial-Based Four-Band Electromagnetic Energy Harvesting at Commonly Used GSM and Wi-Fi Frequencies**
Karakaya E., BAĞCI F., Yilmaz A. E., AKAOĞLU B.
JOURNAL OF ELECTRONIC MATERIALS, vol.48, no.4, pp.2307-2316, 2019 (SCI-Expanded)
- IX. **Four-band electromagnetic energy harvesting with a dual-layer metamaterial structure**
Karakaya E., BAĞCI F., CAN S., YILMAZ A. E., AKAOĞLU B.
INTERNATIONAL JOURNAL OF RF AND MICROWAVE COMPUTER-AIDED ENGINEERING, vol.29, no.1, 2019 (SCI-Expanded)
- X. **A polarization independent electromagnetically induced transparency-like metamaterial with large group delay and delay-bandwidth product**
BAĞCI F., AKAOĞLU B.
JOURNAL OF APPLIED PHYSICS, vol.123, no.17, 2018 (SCI-Expanded)
- XI. **Single and multi-band electromagnetic induced transparency-like metamaterials with coupled split ring resonators**
BAĞCI F., AKAOĞLU B.
JOURNAL OF APPLIED PHYSICS, vol.122, no.7, 2017 (SCI-Expanded)
- XII. **Dual-Band Double-Cylindrical-Ring 3D Frequency Selective Surface**
CAN S., Karakaya E., BAĞCI F., YILMAZ A. E., AKAOĞLU B.
ETRI JOURNAL, vol.39, no.1, pp.69-75, 2017 (SCI-Expanded)
- XIII. **A glass based dual band frequency selective surface for protecting systems against WLAN signals**
BAĞCI F., Mulazimoglu C., CAN S., Karakaya E., YILMAZ A. E., AKAOĞLU B.
AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, vol.82, pp.426-434, 2017 (SCI-Expanded)
- XIV. **Tunable Metasurfaces for Filtering the Electromagnetic Waves Under Different Excitations**
CAN S., Karakaya E., BAĞCI F., Yilmaz A. E., AKAOĞLU B.
APPLIED COMPUTATIONAL ELECTROMAGNETICS SOCIETY JOURNAL, vol.31, no.9, pp.1056-1064, 2016 (SCI-Expanded)
- XV. **Consequences of Unit Cell Design in Metamaterial Perfect Absorbers**
BAĞCI F., AKAOĞLU B.
ACTA PHYSICA POLONICA A, vol.129, no.4, pp.792-796, 2016 (SCI-Expanded)
- XVI. **Enhancement of buffer capability in slow light photonic crystal waveguides with extended lattice**

constants

BAĞCI F., AKAOĞLU B.

OPTICAL AND QUANTUM ELECTRONICS, vol.47, no.3, pp.791-806, 2015 (SCI-Expanded)

- XVII. **Polarization Beam Splitter Based on Self-Collimation of a Hybrid Photonic Crystal**
BAĞCI F., CAN S., AKAOĞLU B., Yilmaz A. E.
RADIOENGINEERING, vol.23, no.4, pp.1033-1037, 2014 (SCI-Expanded)
- XVIII. **Tailoring slow light properties by shifting the innermost rows of holes in photonic crystal waveguides with ring-shaped holes**
BAĞCI F., AKAOĞLU B.
OPTOELECTRONICS AND ADVANCED MATERIALS-RAPID COMMUNICATIONS, vol.8, no.5-6, pp.353-358, 2014 (SCI-Expanded)
- XIX. **Enhanced Electro-Optic Modulation Performance in Optical Buffers by Slowing Light in Optimized Photonic Crystal Slab Structures**
BAĞCI F., AKAOĞLU B.
ACTA PHYSICA POLONICA A, vol.125, no.2, pp.611-614, 2014 (SCI-Expanded)
- XX. **A systematic analysis of hole size, hole-type and rows shifting on slow light characteristics of photonic crystal waveguides with ring-shaped holes**
BAĞCI F., AKAOĞLU B.
OPTIK, vol.125, no.11, pp.2702-2707, 2014 (SCI-Expanded)
- XXI. **Enhancement of Refractive Index Sensitivity in Photonic Crystal Waveguide-Based Sensors by Selective Infiltration**
BAĞCI F., AKAOĞLU B.
ACTA PHYSICA POLONICA A, vol.124, no.1, pp.50-55, 2013 (SCI-Expanded)
- XXII. **Influences of supercell termination and lateral row number on the determination of slow light properties of photonic crystal waveguides**
BAĞCI F., AKAOĞLU B.
OPTIK, vol.124, no.21, pp.4739-4743, 2013 (SCI-Expanded)
- XXIII. **Effects of structurally deformed sub-lattice points on the dispersion properties of 2D hybrid triangular-graphite photonic crystal**
BAĞCI F., AKAOĞLU B.
OPTICS COMMUNICATIONS, vol.285, no.6, pp.1486-1493, 2012 (SCI-Expanded)
- XXIV. **Effects of tail states on the conduction mechanisms in silicon carbide thin films with high carbon content**
SEL K., AKAOĞLU B., Atilgan I., Katircioglu B.
SOLID-STATE ELECTRONICS, vol.57, no.1, pp.1-8, 2011 (SCI-Expanded)
- XXV. **Electroluminescence properties of a PIN structure made by nearly stoichiometric a-SiCx:H active layer**
SEL K., AKAOĞLU B., ÖZDEMİR O., Atilgan I.
VACUUM, vol.83, no.5, pp.813-818, 2009 (SCI-Expanded)
- XXVI. **Carbon content influence on the optical constants of hydrogenated amorphous silicon carbon alloys**
AKAOĞLU B., SEL K., Atilgan I., Katircioglu B.
OPTICAL MATERIALS, vol.30, no.8, pp.1257-1267, 2008 (SCI-Expanded)
- XXVII. **Effect of bleaching on color change and refractive index of dental composite resins**
HUBBEZOĞLU İ., AKAOĞLU B., DOĞAN A., Keskin S., BOLAYIR G., ÖZÇELİK S., DOĞAN M.
DENTAL MATERIALS JOURNAL, vol.27, no.1, pp.105-116, 2008 (SCI-Expanded)
- XXVIII. **Construction of a novel multilayer system and its use for oriented immobilization of immunoglobulin G**
Demirel G., Caykara T., AKAOĞLU B., ÇAKMAK M.
SURFACE SCIENCE, vol.601, no.19, pp.4563-4570, 2007 (SCI-Expanded)
- XXIX. **Structural and optical properties of an In_xGa_{1-x}N/GaN nanostructure**
Korcak S., Oeztuerk M. K., Coerekci S., AKAOĞLU B., Yu H., Cakmak M., Saglam S., Oezcelik S., Oezbay E.

- SURFACE SCIENCE, vol.601, no.18, pp.3892-3897, 2007 (SCI-Expanded)
- XXX. **Structural, morphological, and optical properties of AlGa_N/Ga_N heterostructures with AlN buffer and interlayer**
Corekci S., Ozturk M. K., AKAOĞLU B., ÇAKMAK M., ÖZÇELİK S., Ozbay E.
JOURNAL OF APPLIED PHYSICS, vol.101, no.12, 2007 (SCI-Expanded)
- XXXI. **Adsorption of surfactant by hydrophobically modified poly[2-(diethylamino)ethylmethacrylate-co-N-vinyl-2-pyrrolidone/octadecyl acrylate)] hydrogels and effect of surfactant adsorption on the volume phase transition**
Caykara T., Izol D., Birlik G., AKAOĞLU B.
JOURNAL OF APPLIED POLYMER SCIENCE, vol.103, no.6, pp.3771-3775, 2007 (SCI-Expanded)
- XXXII. **Influences of carbon content and power density on the PECVD grown a-Si_{1-x}:C-x:H thin films**
AKAOĞLU B., Gulses A., Atilgan I., Katircioglu B.
VACUUM, vol.81, no.1, pp.120-125, 2006 (SCI-Expanded)
- XXXIII. **Transport studies of carbon-rich a-Si_{Cx}:H film through admittance and deep-level transient spectroscopy measurements**
Atilgan I., Ozdemir O., AKAOĞLU B., SEL K., Katircioglu B.
PHILOSOPHICAL MAGAZINE, vol.86, no.19, pp.2771-2796, 2006 (SCI-Expanded)
- XXXIV. **Frequency dependence of conductivity in intrinsic amorphous silicon carbide film, assessed through admittance measurement of metal insulator semiconductor structure**
Ozdemir O., Atilgan I., AKAOĞLU B., SEL K., Katircioglu B.
THIN SOLID FILMS, vol.497, no.1-2, pp.149-156, 2006 (SCI-Expanded)
- XXXV. **Thickness and optical constant distributions of PECVD a-Si_{Cx}:H thin films along electrode radial direction**
AKAOĞLU B., Atilgan I., Katircioglu B.
THIN SOLID FILMS, vol.437, no.1-2, pp.257-265, 2003 (SCI-Expanded)
- XXXVI. **Correlation between optical path modulations and transmittance spectra of a-Si:H thin films**
AKAOĞLU B., Atilgan I., Katircioglu B.
APPLIED OPTICS, vol.39, no.10, pp.1611-1616, 2000 (SCI-Expanded)

Articles Published in Other Journals

- I. **Bağıl Nem Oranını Algılamaya Yönelik Soğurucu Tabanlı Metamalzeme Sensör**
Gülsu M. S., BAĞCI F., AKAOĞLU B.
Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, vol.8, no.3, pp.561-571, 2020 (Peer-Reviewed Journal)
- II. **Design of a Polarization-Independent Dual-Band Electromagnetically Induced Transparency-Like Metamaterial**
Demirkep O., BAĞCI F., Yilmaz A. E., AKAOĞLU B.
ADVANCED ELECTROMAGNETICS, vol.8, no.2, pp.63-70, 2019 (ESCI)
- III. **Fotonik Kristallerde Yüzey Kipleri Özelliklerini Kullanarak Bağlaştırıcı, Demet Bölücü Ve Algılayıcı Tasarımları**
BAĞCI F., Çapraz Ö., AKAOĞLU B.
Sakarya Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.21, no.6, pp.1245-1253, 2017 (Peer-Reviewed Journal)
- IV. **Enhanced electro-optic modulation of LiNbO₃-based photonic crystal cavities with dual mode and polarization operation**
BAĞCI F., Kurt G., AKAOĞLU B., ÖZBAY E.
TURKISH JOURNAL OF PHYSICS, vol.41, no.4, pp.303-313, 2017 (ESCI)
- V. **ENHANCEMENT OF SENSITIVITY OF PHOTONIC CRYSTAL BASED TEMPERATURE SENSOR**
BAĞCI F., Tezcan S., AKAOĞLU B.
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK

BILIMLERİ DERGİSİ, vol.21, no.2, pp.66-71, 2015 (ESCI)

- VI. **A1×4 power-splitter based on photonic crystal Y-splitter and directional couplers**
BAĞCI F., AKAOĞLU B.
Optica Pura y Aplicada, vol.46, no.3, pp.265-273, 2013 (ESCI)

Papers Published in Refereed Scientific Meetings

- I. **Kablosuz Uygulamalara Yönelik Dört Bantlı Slotlu Mikroşerit Yama Anten**
Eser M., Bağcı F., Akaoğlu B.
29. YOĞUN MADDE FİZİĞİ ANKARA TOPLANTISI, Ankara, Turkey, 20 December 2024, pp.28
- II. **Experimental Demonstration of a Compact Microwave Sensor for Liquid Dielectric Analysis Sıvı Dielektrik Analizi için Kompakt bir Mikrodalga Sensörün Deneysel Gösterimi**
BAĞCI F., AKAOĞLU B.
32nd IEEE Conference on Signal Processing and Communications Applications, SIU 2024, Mersin, Turkey, 15 - 18 May 2024
- III. **Improvements of Slotted Waveguide Antennas with Wing Structures for S-Band Applications Yarıklı Dalga Kılavuzu Antenlerin S-Bant Uygulamaları için Kanatlı Yapılar ile İyileştirilmeleri**
Tanbkji M., BAĞCI F., AKAOĞLU B.
32nd IEEE Conference on Signal Processing and Communications Applications, SIU 2024, Mersin, Turkey, 15 - 18 May 2024
- IV. **Mikroşerit Dizi Antenlerde Demet Yöneliminin Kontrolü**
Yılmaz S., Bağcı F., Akaoğlu B.
Yoğun Madde Fiziği – Ankara Toplantısı, Ankara, Turkey, 22 December 2023, pp.26
- V. **Design of a Microstrip Dielectric Sensor That Can Detect Ethanol-Water and Ethanol-Methanol Mixtures**
Bağcı F., Gülsu M. S., Can S., Yılmaz A. E., Akaoğlu B.
26. Yoğun Madde Fiziği – Ankara Toplantısı, Ankara, Turkey, 24 December 2021, pp.40
- VI. **Metamalzeme soğurucu ile kimyasal sıvı algılama**
Gülsu M. S., BAĞCI F., AKAOĞLU B.
25. Yoğun Madde Fiziği Toplantısı, Ankara, Turkey, 20 December 2019, pp.29
- VII. **Controlling transmission and delay of electromagnetic waves by metamaterials in TEM waveguide**
BAĞCI F., YILMAZ A. E., AKAOĞLU B.
The International Conference on Materials Science, Mechanical and Automotive Engineerings and Technology (IMSMATEC-2019), Nevşehir, Turkey, 21 - 23 June 2019, pp.197-201
- VIII. **Mikroşerit Yama Antenlerin Metalik Izgaralar ile Saydamlaştırılması**
Demirhan Y., BAĞCI F., AKAOĞLU B.
Yoğun Madde Fiziği – Ankara Toplantısı, Ankara, Turkey, 21 December 2018, pp.49
- IX. **Metamalzeme ile 1,8 GHz ve 2,6 GHz Frekanslarında Elektromanyetik Hasatlama**
Karakaya E., BAĞCI F., YILMAZ A. E., AKAOĞLU B.
IX.URSI-TÜRKİYE 2018 BİLİMSEL KONGRESİ ULUSAL GENEL KURUL TOPLANTISI, Konya, Turkey, 6 - 08 September 2018, pp.163-165
- X. **GSM ve Wi-Fi Bandlarına Yönelik Metamalzeme Tabanlı Enerji Hasatlayıcı**
Karakaya E., BAĞCI F., YILMAZ A. E., AKAOĞLU B.
IX.URSI-TÜRKİYE 2018 BİLİMSEL KONGRESİ ULUSAL GENEL KURUL TOPLANTISI, Ankara, Turkey, 6 - 08 September 2018, pp.288-290
- XI. **WR-187 Dalga Kılavuzunda Ayırık Halka Rezonatör ve Kesik Tel Rezonatörler ile Elektromanyetik İndüklenmiş Saydamlık**
BAĞCI F., YILMAZ A. E., AKAOĞLU B.
IX.URSI-TÜRKİYE 2018 BİLİMSEL KONGRESİ ULUSAL GENEL KURUL TOPLANTISI, Konya, Turkey, 6 - 08 September 2018, pp.266-268

- XII. **Kutupluluktan Bağımsız Çift Bantlı Elektromanyetik İndüklenmiş Saydamlık-Benzeri Metamalzeme Tasarımı**
Demirkap Ö., BAĞCI F., YILMAZ A. E., AKAOĞLU B.
IX.URSI-TÜRKİYE 2018 BİLİMSEL KONGRESİ ULUSAL GENEL KURUL TOPLANTISI, Konya, Turkey, 6 - 08 September 2018, pp.54-57
- XIII. **Tunable electromagnetic induced transparency with microstrip coupled split-ring resonator**
BAĞCI F., AKAOĞLU B.
International Congress on The World of Technology and Advanced Materials (Witam-2018), Kırşehir, Turkey, 21 - 23 September 2018, pp.194-198
- XIV. **Bandwidth-enhanced polarization independent metamaterial absorber with Zgap resonators**
BAĞCI F., AKAOĞLU B.
International Congress on The World of Technology and Advanced Materials (Witam-2018), Kırşehir, Turkey, 21 - 23 September 2018, pp.190-194
- XV. **GSM ve Wi-Fi Bantlarına Yönelik İki Katmanlı Metamalzeme Hasatlayıcı**
Karakaya E., BAĞCI F., YILMAZ A. E., AKAOĞLU B.
Yoğun Madde Fiziği – İzmir Toplantısı, Turkey, 13 April 2018, pp.41
- XVI. **FR-4 Alttaş ile 5,8 GHz Frekans Bandına Yönelik Metamalzeme Hasatlayıcı**
BAĞCI F., Karakaya E., AKAOĞLU B.
Yoğun Madde Fiziği – İzmir Toplantısı, İzmir, Turkey, 13 April 2018, pp.28
- XVII. **Ayrık Halka Rezonatörler ile 1.8 GHz ve 2.6 GHz Frekanslarda Elektromagnetik Enerji Hasatlama**
Karakaya E., BAĞCI F., Mülazımoğlu C., YILMAZ A. E., AKAOĞLU B.
23. Yoğun Madde Fiziği Ankara Toplantısı, Turkey, 22 December 2017
- XVIII. **Bant Genişliği ve İletim Oranı Artırılmış Elektromanyetik İndüklenmiş Saydamlık-Benzeri Metamalzeme**
Demirkap Ö., BAĞCI F., Karakaya E., AKAOĞLU B.
23. Yoğun Madde Fiziği – Ankara Toplantısı, Turkey, 22 December 2017
- XIX. **Ayrık ve Kapalı Halka Rezonatörlü Metamalzemeler ile Geliş Açısı ve Kutupluluktan Bağımsız Elektromanyetik İndüklenmiş Saydamlık**
BAĞCI F., AKAOĞLU B.
23. Yoğun Madde Fiziği Ankara Toplantısı, Ankara, Turkey, 22 December 2017
- XX. **Metamalzeme Yapılar Kullanılarak Çift-Bantlı Kutupluluktan Bağımsız Enerji Hasatlama**
Mülazımoğlu C., Karakaya E., BAĞCI F., YILMAZ A. E., AKAOĞLU B.
23. Yoğun Madde Fiziği – Ankara Toplantısı, Turkey, 22 December 2017
- XXI. **Polarization Dependent Power Harvesting at 3.6 GHz and 5.8 GHz WiFi Bands**
BAĞCI F., AKAOĞLU B.
Fotonik 2017 19. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı, İstanbul, Turkey, 29 September 2017, pp.42
- XXII. **A near-infrared biosensor in a complementary metamaterial with split-ring resonators**
BAĞCI F., AKAOĞLU B.
Türk Fizik Derneği 33. Uluslararası Fizik Kongresi, Muğla, Turkey, 6 - 10 September 2017
- XXIII. **A broad band metamaterial absorber with electric field driven LC resonators for solar cell applications**
BAĞCI F., AKAOĞLU B.
Türk Fizik Derneği 33. Uluslararası Fizik Kongresi, Muğla, Turkey, 6 - 10 September 2017
- XXIV. **Miniaturized Wide-Band Supercell Frequency Selective Surface for LTE Band Applications**
CAN S., YILMAZ A. E., Mülazımoğlu C., Karakaya E., AKAOĞLU B.
4th International Electromagnetic Compatibility Conference (EMC Türkiye), Ankara, Turkey, 24 - 27 September 2017
- XXV. **Optically Transparent Frequency Selective Surface for Filtering 2.6 GHz LTE Band**
BAĞCI F., CAN S., Karakaya E., Mülazımoğlu C., YILMAZ A. E., AKAOĞLU B.
4th International Electromagnetic Compatibility Conference (EMC Türkiye), Ankara, Turkey, 24 - 27 September 2017

- XXVI. **Periyodik iki boyutlu halka veya üç boyutlu iç içe geçmiş halka silindirlerin frekans seçici özelliklerinin karşılaştırılması**
BAĞCI F., Karakaya E., CAN S., YILMAZ A. E., AKAOĞLU B.
22. Yoğun Madde Fiziği Ankara Toplantısı, Ankara, Turkey, 16 December 2016
- XXVII. **Fotonik kristal yüzey kipleri kullanılarak bağlaştırıcı ve demet bölücü tasarımları**
BAĞCI F., Çapraz Ö., AKAOĞLU B.
22. Yoğun Madde Fiziği Ankara Toplantısı, Ankara, Turkey, 16 December 2016, pp.12
- XXVIII. **Elektromanyetik bant aralıklı yapılar içeren durdurucu ve 1×2 güç bölücü filtre tasarımları**
Mülazımoğlu C., BAĞCI F., AKAOĞLU B.
22. Yoğun Madde Fiziği Ankara Toplantısı, Ankara, Turkey, 16 December 2016
- XXIX. **Multi-band electromagnetic induced transparency-like metamaterial**
BAĞCI F., AKAOĞLU B.
WITAM-2016 (2nd International Congress on the World of Technology and Advanced Materials), Kırşehir, Turkey, 28 - 02 October 2016, pp.71
- XXX. **Design of a Dual Band Compact Metamaterial Absorber for Microwave Shielding Applications**
BAĞCI F., AKAOĞLU B.
WITAM-2016 (2nd International Congress on the World of Technology and Advanced Materials), Kırşehir, Turkey, 28 - 30 September 2016, pp.140
- XXXI. **Electromagnetic Induced Transparency with THz Waves for a Split Ring Resonator Cut Wire Metamaterial**
BAĞCI F., AKAOĞLU B.
WITAM-2016 (2nd International Congress on the World of Technology and Advanced Materials), Kırşehir, Turkey, 28 September - 02 October 2016
- XXXII. **Elektrik-LC Rezonatörlü Metamalzeme ile Enerji Hasatlama**
Mülazımoğlu C., BAĞCI F., AKAOĞLU B.
Fotonik 2016 18. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı, Ankara, Turkey, 23 September 2016
- XXXIII. **Wi Fi Frekansında Çalışan Metamalzeme Dikdörtgen Mikro Şerit Yama Anten Tasarımı**
BAĞCI F., CAN S., Mülazımoğlu C., Karakaya E., YILMAZ A. E., AKAOĞLU B.
Ursi-Türkiye 2016 8. Bilimsel Kongresi, Ankara, Turkey, 1 - 03 September 2016
- XXXIV. **Elektronik Bant Aralıklı Yapılar Kullanılarak Alçak Geçiren Mikroşerit Filtre Tasarımı**
Mülazımoğlu C., BAĞCI F., Karakaya E., CAN S., YILMAZ A. E., AKAOĞLU B.
Ursi Türkiye 2016 8. Bilimsel Kongresi, Ankara, Turkey, 1 - 03 September 2016
- XXXV. **Enerji Hasatı Uygulamalarında Metamalzeme**
Karakaya E., CAN S., Mülazımoğlu C., BAĞCI F., YILMAZ A. E., AKAOĞLU B.
Ursi-Türkiye 2016 8. Bilimsel Kongresi, Ankara, Turkey, 1 - 03 September 2016
- XXXVI. **Wi-Fi Frekansına Yönelik Pyrex Cam tabanlı Metayüzey Tasarımı**
CAN S., Karakaya E., Mülazımoğlu C., BAĞCI F., YILMAZ A. E., AKAOĞLU B.
Ursi-Türkiye 2016 8. Bilimsel Kongresi, Ankara, Turkey, 1 - 03 September 2016
- XXXVII. **Hexagonal-Shaped Metamaterial Energy Harvester Design**
Mülazımoğlu C., Karakaya E., CAN S., Yılmaz A. E., AKAOĞLU B.
10th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics (METAMATERIALS), Chania, Greece, 19 - 22 September 2016, pp.82-84
- XXXVIII. **Metamaterial Design for Energy Harvesting Applications**
Karakaya E., Mülazımoğlu C., CAN S., Yılmaz A. E., AKAOĞLU B.
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.509-512
- XXXIX. **Three dimensional frequency selective surfaces consisting of double circular ring elements**
AKAOĞLU B., BAĞCI F., CAN S., YILMAZ A. E.
SPIE Optics + Optoelectronics, 14 - 16 April 2015
- XL. **Consequences of Unit Cell Design in Metamaterial Perfect Absorbers**
BAĞCI F., AKAOĞLU B.

5th International Advances in Applied Physics and Materials Science Congress & Exhibition, Muğla, Turkey, 16 - 19 April 2015, vol.1

- XLII. **Filtering the Electromagnetic Waves by a Split Ring Resonator Inspired Surface**
CAN S., BAĞCI F., YILMAZ A. E., AKAOĞLU B.
Humboldt Kolleg 2014, Ankara, Ankara, Turkey, 11 - 13 June 2014
- XLIII. **Tunable Photonic Crystal Polarization Beam Splitter Based on Self-Collimation and Photonic Band Gap Effects**
BAĞCI F., CAN S., YILMAZ A. E., AKAOĞLU B.
Humboldt Kolleg 2014, Turkey, 11 - 13 June 2014
- XLIV. **Investigation of Collimation and Negative Refraction Phenomena in Annular Photonic Crystals**
Demirsoy T., BAĞCI F., AKAOĞLU B.
Humboldt Kolleg 2014, Ankara, Ankara, Turkey, 11 - 13 June 2014
- XLV. **Enhancement of sensitivity of photonic crystal based temperature sensor**
Tezcan S., BAĞCI F., AKAOĞLU B.
4th International Advances in Applied Physics and Materials Science Congress & Exhibition, Muğla, Turkey, 24 - 27 April 2014
- XLVI. **A Novel Tunable Metasurface for Filtering the Electromagnetic Waves**
CAN S., BAĞCI F., YILMAZ A. E., AKAOĞLU B.
2014 International Symposium on Fundamentals of Electrical Engineering (ISFEE), Bucharest, Romania, 28 - 29 November 2014
- XLVII. **Parametric Analysis of Different Radii of Concentric Rings and Substrates in Frequency Selective Surfaces**
BAĞCI F., CAN S., AKAOĞLU B., YILMAZ A. E.
2014 International Symposium on Fundamentals of Electrical Engineering (ISFEE), Bucharest, Romania, 28 - 29 November 2014
- XLVIII. **Electro-Optic Modulation Of Slow Light in Photonic Crystal Coupled-Cavity Resonator Arrays**
Demirsoy T., BAĞCI F., AKAOĞLU B.
Fotonik 2013 (15. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı), Turkey, 04 September 2013
- XLIX. **Dependence of slow light characteristics of photonic crystal waveguides on the properties of holes surrounding the line defect**
BAĞCI F., AKAOĞLU B.
Progress in Electromagnetics Research Symposium (PIERS 2013), Stockholm, Sweden, 12 - 15 August 2013, pp.1465
- L. **Design, Analysis and Optimization of Photonic Crystal Demultiplexer with Ring Resonators**
Güven E., BAĞCI F., AKAOĞLU B.
Fotonik 2012 (14. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı), İstanbul, Turkey, 14 September 2012, pp.38
- L. **Improved Transmission Characteristics in a Photonic Crystal Waveguide Geometry with Two 60° Waveguide Bends**
Özdemir O., BAĞCI F., AKAOĞLU B.
Fotonik 2012 (14. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı), İstanbul, Turkey, 14 September 2012, pp.65
- LI. **Characterization of the Photonic Crystal Ring Resonator Structure for Optical Sensing**
Hepgüner G. R., BAĞCI F., AKAOĞLU B.
Fotonik 2012 (14. Ulusal Optik, Elektro-Optik ve Fotonik Çalıştayı), İstanbul, Turkey, 14 September 2012, pp.73
- LII. **Effects of shifting innermost rows on slow light properties of photonic crystal waveguides with one row of ring shaped holes**
BAĞCI F., AKAOĞLU B.
XI International Conference on Nanostructured Materials (Nano2012), Rodos, Greece, 26 - 31 August 2012, pp.34
- LIII. **Remarks on the Supercell Design for Accurate Determination of Dispersion and Slow-Light Properties of Photonic Crystal Waveguides**
BAĞCI F., AKAOĞLU B.
8. Ulusal Nanoteknoloji ve Nanobilim Konferansı, Ankara, Turkey, 25 - 29 June 2012, pp.178

- LIV. **A Systematic Analysis of the Effects of the Rows Adjacent to the Line-Defect on Slow Light Properties of Ring-Shaped Photonic Crystal Waveguides**
BAĞCI F., AKAOĞLU B.
8. Ulusal Nanoteknoloji ve Nanobilim Konferansı, Ankara, Turkey, 25 - 29 June 2012, pp.208
- LV. **Implementation of Ring Resonators in L-Shaped Photonic Crystal Waveguide Bends**
Hepgüler G. R., Güven E., BAĞCI F., AKAOĞLU B.
8. Ulusal Nanoteknoloji ve Nanobilim Konferansı, Ankara, Ankara, Turkey, 25 - 29 June 2012, pp.823
- LVI. **Enhancement of slow light properties in photonic crystal waveguides with ring-shaped scatterers**
BAĞCI F., AKAOĞLU B.
Türk Fizik Derneği 28. Uluslararası Fizik Kongresi, Muğla, Turkey, 6 - 09 September 2011, vol.20, pp.1-10
- LVII. **Effects of Innermost Rows on Slow Light Properties of Photonic Crystal Waveguides**
BAĞCI F., AKAOĞLU B.
International Conference on Photonics in Switching (PS), France, 11 - 14 September 2012
- LVIII. **Çizgi kusurlu fotonik kristal dalga kılavuzlarında saçıcıların konumlarının değiştirilmesi ile yavaş ışık özelliklerinin iyileştirilmesi**
BAĞCI F., AKAOĞLU B.
18. Yoğun Madde Fiziği Ankara Toplantısı, Ankara, Turkey, 25 November 2011, pp.26
- LIX. **İki boyutlu kare örgülü fotonik kristallerde simetrinin azaltılmasının bant yapısına etkisi**
BAĞCI F., AKAOĞLU B.
17. Yoğun Madde Fiziği Ankara Toplantısı 2010, Ankara, Turkey, 05 November 2010, pp.21

Supported Projects

Bağcı F., Yılmaz A. E., Akaoğlu B., TUBITAK Project, Metamalzeme yapıların enerji hasadı uygulamaları, 2017 - 2018

Scientific Research / Working Group Memberships

Photonics&Electromagnetics Research Group, Ankara University, Turkey, <http://nanofotonik.ankara.edu.tr/>, 2014 - Continues

Metrics

Publication: 101

Citation (WoS): 468

Citation (Scopus): 452

H-Index (WoS): 13

H-Index (Scopus): 14