

Ֆիզիկայի ինստիտուտ

Կիրառական էլեկտրադիսամիկայի և մոդելավորման ամբիոն
Ամբիոնի վարիչ, պրոֆեսոր

Հրապարակումներ

Հոդված

Dielectric coated conductive rod resonantly coupled with a cut transmission line as a tunable microwave bandstop filter and sensor

David Hambaryan, Tigran Abrahamyan, Henrik Parsamyan, Artyom Movsisyan, Bill Minasyan,
Hovhannes Haroyan, Arsen Babajanyan, Kiejin Lee, Barry Friedman, Khachatur Nerkararyan
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Reflective multi-layer metasurface based on half-wave plate structure for polarization control in the visible-near-infrared region

Artyom Movsisyan, Hasmik Manukyan, Billi Minasyan, Arsen Babajanyan
Physica Scripta 2024 095545

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Highly dispersive transmission conditions for a conductive rods-based ultrathin bilayer metastructure

Tigran Abrahamyan, Gor Ohanyan, David Hambaryan, David Kalantar, Henrik Parsamyan,
Hovhannes Haroyan, Arsen Babajanyan, Kiejin Lee, Khachatur Nerkararyan
Journal of Physics D: Applied Physics 2024 355108

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Characterization of interaction phenomena of electromagnetic waves with metamaterials via microwave near-field visualization technique

Zhirayr Baghdasaryan, Arsen Babajanyan, Barry Friedman, Kiejin Lee
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3D visualization of microwave electric and magnetic fields by using a metasurface-based indicator

Zhirayr Baghdasaryan, Arsen Babajanyan, Henrik Parsamyan, Barry Friedman, Seungwan Kim,
Jung-Ha Lee, Kiejin Lee
Scientific Reports 2022 6150

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Characterization of Metal Nanoparticles Aqueous Solution by a Thermoelastic Optical Indicator Microscope

G. Ohanyan, N. Margaryan, M. Manvelyan, L. Odabashyan, B. Minasyan, A. Movsisyan, R. Khachatrian,
A. Babajanyan
Journal of Contemporary Physics (Armenian Academy of Sciences) 2022 187-191

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3D Visualization Method Based on Metastructure Optical Indicator of Thermoelastic

Polarization Microscope for Electromagnetic Fields in Microwave and THz Ranges

A. Babajanyan, Zh. Baghdasaryan, H. Parsamyan, B. Friedman, K. Lee

NanoWorld Journal 2022 S4

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Resonant Interaction Between Microwaves and Thin Conducting Microstructure with Finite Length

T. Abrahamyan, H. Haroyan, D. Hambaryan, H. Parsamyan, K. Lee, A. Babajanyan, Kh. Nerkararyan

NanoWorld Journal 2022 S5

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Microwave and Joule Heating Visualization by a Thermo-Elastic Microscope for Carbon Composite Materials

Sh. Arakelyan, A. Babajanyan, G. Berthiau, B. Friedman, K. Lee

Springer Proceedings in Physics (Optics and Its Applications) 2022 69-77

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Surface-standing-wave formation via resonance interaction of a finite-length conductive rod with microwaves

Tigran Abrahamyan, Hovhannes Haroyan, David Hambaryan, Henrik Parsamyan, Arsen Babajanyan,

Kiejin Lee, Barry Friedman, Khachatur Nerkararyan

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Microwave response phase control of a graphite microstrip

Arsen Babajanyan, Tigran Abrahamyan, Hovhannes Haroyan, Billi Minasyan, Torgom Yezekyan,

Kiejin Lee, Barry Friedman, Khachatur Nerkararyan

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Noninvasive in Vivo Evaluation of Mouse-Blood Glycemia with a Microwave Spiral Sensor

A. Babajanyan, B. Minasyan, L. Odabashyan, S. Kim, J. Kim, J.-H. Lee, B. Friedman, K. Lee

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Visualization of microwave near-field distribution in sodium chloride and glucose aqueous solutions by a thermo-elastic optical indicator microscope

Arsen Babajanyan, Zhirayr Baghdasaryan, Levon Odabashyan, Jung-Ha Lee, Barry Friedman, Kiejin Lee

Scientific Reports 2021 2589

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Performance of Pentacene Based Organic Thin Film Transistor with an Octadecyltrichlorosilane Self-Assembled Monolayer Interface

A. Babajanyan, B. Minasyan, A. Movsisyan, B. Friedman, K. Lee

Journal of Contemporary Physics (Armenian Academy of Sciences) 2021 208-213

Ուսումնական ծերնարկ

Ասոմային և միջուկային ֆիզիկայի ընդհանուր դասընթացի լաբորատոր աշխատանքների

ՈԼԵՑՄԱԳ

Հասմիկ Շահինյան, Լուսինե Ղազարյան, Արտեն Բաբաջանյան

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Detection of Iron Nanoparticles in Aqueous Solutions by Microwave Sensor

L. Odabashyan, N. Margaryan, G. Ohanyan, M. Manvelyan, D. Hambaryan, T. Abrahamyan,

R. Khachatryan, A. Babajanyan

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Thermal distribution in unidirectional carbon composite material due to the direct heating and microwave influence visualized by a thermo-elastic optical indicator microscope

Zhirayr Baghdasaryan, Arsen Babajanyan, Levon Odabashyan, Shant Arakelyan, Hanju Lee,

Gerard Berthiau, Barry Friedman, Kiejin Lee

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ОБНАРУЖЕНИЕ НАНОЧАСТИЦ ЖЕЛЕЗА В ВОДНЫХ РАСТВОРАХ С ПОМОЩЬЮ

МИКРОВОЛНОВОГО СЕНСОРА

Լ. ՕԴԱԲԱՇՅԱՆ, Հ. ՄԱՐԳԱՐՅԱՆ, Գ. ՕՂԱՆՅԱՆ, Մ. ՄԱՆՎԵԼՅԱՆ, Դ. ԱՄԲԱՐՅԱՆ, Տ. ԱԲՐԱԱՄՅԱՆ, Բ. ԽԱՉԱՏՐՅԱՆ,

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Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2020

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COMPUTER MODELING OF MICROWAVE STRIPLINE RESONATORS FOR NON-INVASIVE SENSING

A. Zh. BABAJANYAN, B. J. MINASYAN, L. A. ODABASHYAN, Zh. A. BAGHDASARYAN, K. LEE

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Antenna Investigation by a Thermoelastic Optical Indicator Microscope: Defects Measurement and 3D Visualization of Electromagnetic Fields

Arsen Babajanyan, Shant Arakelyan, Hanju Lee, Seungwan Kim, Gerard Berthiau, Barry Friedman,

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Investigation of Ag Nanoparticles/Water Solutions by Microwave Stripline Sensor

A. Babajanyan, T. Abrahamyan, R. Khachatryan, D. Hambaryan, B. Hovhannisyan, B. Minasyan,

L. Odabashyan

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ИССЛЕДОВАНИЕ РАСТВОРОВ НАНОЧАСТИЦ Ag В ВОДЕ С ПОМОЩЬЮ МИКРОВОЛНОВОГО ПОЛОСКОВОГО СЕНСОРА

Ա. ԲԱԲԱՋԱՆՅԱՆ, Տ. ԱԲՐԱԱՄՅԱՆ, Բ. ԽԱՉԱՏՐՅԱՆ, Դ. ԱՄԲԱՐՅԱՆ, Բ. ՕՂԱՆԵՍՅԱՆ, Բ. ՄԻՆԱԾՅԱՆ,

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Real-time sensing the glucose concentration by quadratic-shaped microwave sensor
A. Zh. BABAJANYAN, B. A. HOVHANNISYAN, D. S. HAMBARYAN, L. A. ODABASHYAN

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Real-Time Noninvasive Measurement of Glucose Concentration Using a Modified Hilbert Shaped Microwave Sensor

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Microwave Heating Visualization for Carbon Fibers Composite Material: Development of Tunable Microstrip Structures

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МИКРОВОЛНОВЫЕ ФРАКТАЛЬНЫЕ ПОЛОСОВЫЕ ФИЛЬТРЫ, ОСНОВАННЫЕ НА МОДИФИЦИРОВАННЫХ КРИВЫХ ГИЛЬБЕРТА ПЕРВОГО И ВТОРОГО ПОРЯДКОВ

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DETERMINATION OF GLUCOSE CONCENTRATION IN AQUEOUS SOLUTION BY USING MODIFIED HILBERT SHAPED MICROWAVE METAMATERIAL SENSOR

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Glucose Aqueous Solution Sensing by Modified Hilbert Shaped Microwave Sensor

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Specifications of Rabi oscillations in the quantum emitters systems coupled to the localized plasmon polaritons

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Sensitive Detection of Nano-Scale Vibrations by the Metal-Coated Fiber Tip at the Liquid-Air Interface

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«Վիճակագրական ռադիոֆիզիկա» լաբորատոր աշխատանքների ճեռնարկ

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Գիտաժողովի նյութ

In Vitro Monitoring of HbA1C by a Microwave Biosensor

Seungwan Kim, Jongchel Kim, Armen Abrahamyan, Arsen Babajanyan, Jung-Ha Lee, Barry Friedman,
Kiejin Lee

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Nondestructive label-free mapping of DNA bioassay using a near-field scanning microwave microscope

Arsen Babajanyan, Barry Friedman, Kiejin Lee

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Microwave and Joule Heating Visualization by Thermo-Elastic Sensor for Carbon Fibers Composite Material

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Detection of Resonant Oscillations of the Liquid Surface by using a Tapered Fiber Opto-Mechanical Sensor

Tigran Abrahamyan, Stella Sargsyan, Arsen Babajanyan, Khachatur Nerkararyan

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Pre-Annealing Effects on a Pentacene Organic Thin Film Transistor with a Polymer Dielectric Interface

Arsen Babajanyan, Sul A Choi, Kyungchul Kim, Hanju Lee, Barry Friedman, Kiejin Lee

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The Resonant Coupling of the Quantum Dots in the Environment of Metal Nanoparticle at Optical Frequencies

Sona Nerkararyan, Arsen Babajanyan, Khachatur Nerkararyan

Գիտաժողովի նյութ

Microwave Characterization of Complex Dielectric Permittivity Dependence on Glucose Concentration in Blood Serum and Aqueous Solution

Babajanyan A., Lee K., Kim S., Kim J., Friedman B., Arakelyan Sh., Parsamyan H.

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Label-Free Monitoring of HbA1C by Microwaves

Babajanyan A., Kim S., Kim J., Abrahamyan A., Friedman B., Lee K.

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Detection of Nanometric Vibrations by Using Opto-Mechanical Sensor

Arsen Babajanyan, Tigran Abrahamyan, Shant Arakelyan, Khachatur Nerkararyan

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Noninvasive In Vitro Monitoring of HbA1c with a Microwave Biosensor

Arsen Babajanyan, S. Kim, J. Kim, Shant Arakelyan, K. Lee, J.-H. Lee, B Friedman

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Detecting Defects in Sub-Skin-Depth Metallic Layers by a Thermo-Elastic Sensor

Arsen Babajanyan, Shant Arakelyan, Hanju Lee, Kiejin Lee, Barry Friedman

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Effect of Pentacene Deposition Rate on OTFT

Arsen Babajanyan, Jinho Hwang, Duri Kim, Meenwoo Kim, Levon Odabashyan, Zhirayr Baghdasaryan, Seungwan Kim, Jongchel Kim, Hanju Lee, Kiejin Lee, Deokjoon Cha

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Characterization of Heat Distribution and Microwave Absorption in a Carbon Composite

Material by a Thermo-Elastic Optical Indicator Microscope

Aarsen Babajanyan, Zhirayr Baghdasaryan, Levon Odabashyan, Hanju Lee, Seungwan Kim, Jongchel Kim, Jinho Hwang, Duri Kim, Meenwoo Kim, Deokjoon Cha, Kiejin Lee

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Real-Time Noninvasive Measurement of Glucose Concentration Using a Modified Hilbert

Shaped Microwave Fractal Sensor

Arsen Babajanyan, Levon Odabashyan, Zhirayr Baghdasaryan, Seungwan Kim, Jongchel Kim, Jinho Hwang, Meenwoo Kim, Hanju Lee, Deokjoon Cha, Kiejin Lee, Duri Kim

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3D visualization of electromagnetic fields and thermal distribution by the thermo-elastic optical indicator microscope

A. Babajanyan, K. Lee, Zh. Baghdasaryan, L. Odabashyan, S. Kim, J. Kim, Gerard Berthiau, B. Friedman

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Noninvasive in-vitro monitoring of D-glucose concentration by using a microwave fractal sensor

A. Babajanyan, L. Odabashyan, Zh. Baghdasaryan, T. Abrahamyan, N. Harutyunyan, S. Kim, J. Kim, B. Friedman, K. Lee

Գիտաժողովի նյութ

Sensing of silver nanoparticles in aqueous solutions by using an optical fiber probe-tip

A. Babajanyan, T. Abrahamyan, R. Khachatryan, Kh. Nerkararyan

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Characterization of Ag nanoparticles concentration in aqueous solution by microwave biosensor

Arsen Babajanyan, Zh. Baghdasaryan, T. Abrahamyan, L. Odabashyan, H. Lee, D. Kim, M. Kim, S. Kim, K. Lee

Գիտաժողովի նյութ

Microwave and Joule heating visualization by a thermo-elastic sensor for carbon composite materials

Shant Arakelyan, Arsen Babajanyan, Gerard Berthiau, Barry Friedman, Kiejin Lee

Գիտաժողովի նյութ

Detecting Low Dose of Glucose in the Microwave Range By Using Thermoelastic Optical Indicator Microscope

Tigran Abrahamyan, Nelli Babajanyan, David Hambaryan, Hasmik Manukyan, Arsen Babajanyan,

Kiejin Lee

Գիտաժողովի նյութ

**Dielectric-Coated Conductive Rod Resonantly Coupled with a Cut Goubau Line as a Sensitive
Microwave Sensor**

Tigran Abrahamyan, Hovhannes Haroyan, David Hambaryan, Artyom Movsisy, Henrik Parsamyan,
Arsen Babajanyan, Khachatur Nerkararyan, Kiejin Lee
