

# Hovhannes Samvel Haroyan

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## Institute of Physics

Chair of Physical Process Modeling and Signal Processing

Ամբիոնի վարիչ (դոցենտ)

## Language skills

Simple English Русский

## Publications

*Article*

### **Resonant enhancement and confinement of microwave field in coupled conductive rod systems**

Tigran Abrahamyan, Gor Ohanyan, David Hambaryan, Artyom Movsisyan, Henrik Parsamyan,

Hovhannes Haroyan, Arsen Babajanyan, Khachatur Nerkararyan

Physica Scripta 2025 025515

*Article*

### **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

Heliyon 2024 e24477

*Article*

### **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

*Article*

### **Resonant detection of surface microwaves using dielectric-coated conductive rods coupled with a cut Goubau line**

Tigran Abrahamyan, Gor Ohanyan, Hovhannes Haroyan, Arsen Babajanyan, Khachatur Nerkararyan

IET Conference Proceedings 2024 11-14

*Article*

### **Tunable ultra-broadband terahertz metamaterial absorber based on vanadium dioxide strips**

Lilit Gevorgyan, Hovhannes Haroyan, Henrik Parsamyan, Khachatur Nerkararyan

RSC Advances 2023 11948-11958

*Article*

### **Broadband tunable mid-infrared absorber based on conductive strip-like meta-atom elements**

Henrik Parsamyan, Hovhannes Haroyan, Khachatur Nerkararyan

Article

**Electrically Small Microstrip Antenna Based on Magnetodielectric Materials**

Hovhannes Haroyan, Arsen Hakhoumian, Ararat Stepanyan

Journal of Telecommunications and Information Technology 2022 98-102

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Article

**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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Article

**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

Journal of Physics D: Applied Physics 2022 445001

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Article

**Microwave response phase control of a graphite microstrip**

Arsen Babajanyan, Tigran Abrahamyan, Hovhannes Haroyan, Billi Minasyan, Torgom Yezekyan, Kiejin Lee, Barry Friedman, Khachatur Nerkararyan

Carbon 2022 151-156

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Article

**Broadband Absorption of Microwaves in Periodic Cylindrical Structures**

Lilit Gevorgyan, Henrik A. Parsamyan, Hovhannes Haroyan

Springer Proceedings in Physics (Optics and Its Applications) 2022 39-46

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Article

**Broadband Infrared Absorption Due to Low Q-factor Dipole Modes of Cr Strips**

H. A. Parsamyan, D. S. Hambaryan, H. S. Haroyan

Springer Proceedings in Physics (Optics and Its Applications) 2022 59-68

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Article

**GRAPHITE-INSULATOR-METAL BASED METAMATERIAL ABSORBER AT X-BAND**

D. Hambaryan, L. Gevorgyan, H. Parsamyan, A. Yesayan, H. Haroyan, Kh. Nerkararyan

IEEE Xplore 2022 15-17

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Article

**Միկրոալիքային խոցող զենք. տեսության և կառուցվածքի որոշ հարցեր**

Հ. Ս. Հարոյան, Խ. Վ. Ներկարարյան, Ա. Ա. Հախումյան, Ա. Հ. Մակարյան, Կ. Ռ. Միրզոյան

Հայկական Բանալ 2021 67-82

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Article

**Light control in a hemicylindrical whispering gallery microcavity-parallel plate waveguide system**

Hovhannes Haroyan, Henrik Parsamayn, Khachatur Nerkararyan  
Optics Communications 2020 126122(1-5)

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*Article*

**Broadband microwave absorption based on the configuration resonance of wires**

Henrik Parsamyan, Hovhannes Haroyan, Khachatur Nerkararyan

Applied Physics A: Materials Science and Processing 2020 773

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*Article*

**Semicylindrical microresonator: excitation, modal structure, and Q-factor**

H. HAROYAN, H. PARSAMYAN, KH. NERKARARYAN, T. YEZEKYAN

Applied Optics 2018 6309-6313

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*Article*

**Power Domain Non-orthogonal Multiple Access (PD-NOMA) Technique For 5G Networks**

H. Haroyan, G. Hovsepyan, S. Sargsyan

Armenian Journal of Physics 2018 284-287

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*Article*

**Plasmonic Nanoparticles Arrangements for Biosensing**

H. Haroyan, T. Yezekyan, H. Parsamyan

Armenian Journal of Physics 2018 241-245

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*Article*

**Fano Resonance in Coupled Semicylindrical Microresonators**

H. Haroyan, T. Yezekyan, H. Parsamyan, A. Ninoyan

Armenian Journal of Physics 2018 252-256

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*Article*

**Waveguide resonator with high quality factor excited through the subwavelength slit**

Khachik Sahakyan, Hovhannes Haroyan, Kh. Nerkararyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2017 45-52

<http://www.springer.com/physics/particle+and+nuclear+physics/journal/11958>

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*Article*

**Stopping power and the straggling parameter of a heavy charged particle moving through a homogeneous free-electron gas**

H. Matevosyan, K. Sargsyan, H. Haroyan

Armenian Journal of Physics 2017 128-143

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*Article*

**Построение гибридных программных систем PIC-моделирования**

Д. А. Осипян, Г. Г. Матевосян, О. С. Ароян

Reports of NAS RA 2017 154-161

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*Article*

**Широкодиапазонная диэлектрическая проницаемость столкновительной плазмы с произвольным зарядом ионов**

М. Е. Вайсман, Н. Е. Андреев, Г. Г. Матевосян, О. С. Ароян

Reports of NAS RA 2017 222-233

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Article

**Detection of CO2 laser radiation in a ferrite**

H. Haroyan, A. Makaryan, K. Movsisyan, Farokh Nazari, V. Tadevosyan, H Julfayan

Journal of Physics: Conference Series 2016 012007

<http://iopscience.iop.org/journal/1742-6596>

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Article

**Analytic Description of Various Ring Type Surface Plasmon Microresonators**

H. Haroyan

Physical Bases of Instrumentation 2016 50-63

[http://jfop.ru/archive\\_issues\\_en/](http://jfop.ru/archive_issues_en/)

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Article

**High Gain Broadband Plasmonic Slot Nano-Antenna**

H. S. Haroyan, V. R. Tadevosyan

International Journal of Computer, Electrical, Automation, Control and Information Engineering 2015  
1070-1073

<https://www.waset.org/journal/Electrical>

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Article

**Cylindrical plasmonic microcavity and its excitation**

Hovhannes Haroyan

Proceedings of SPIE - The International Society for Optical Engineering 2015 963015-(1-7)

<http://spie.org/publications/conference-proceedings>

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Manual

**«Վիճակագրական ռադիոֆիզիկա» լաբորատոր աշխատանքների ձեռնարկ**

Ա. Ժ. Բաբաջանյան, Վ. Ռ. Թադևոսյան, Հ. Ս. Հարոյան, Ա. Հ. Մակարյան

2012 86

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Conference

**Whispering-Gallery Microresonator with a New Easy and Controllable Excitation Method**

H. Parsamyan, H. Haroyan, Kh. Nerkararyan

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Conference

**Slot Nano-Antenna Integrated with Plasmonic Waveguide**

H. Haroyan

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Conference

**Spectral Efficiency Improvement in Nonlinear Wireless Systems**

H. Haroyan, T. Harytyunyan, S. Sargsyan, G. Harutyunyan

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Conference

**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

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Conference

**Resonant interaction between microwaves and thin conducting microstructure with finite**

**length**

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

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