

# Henrik Ashot Parsamyan

## Institute of Physics

Chair of Applied Electrodynamics and Modeling

Assistant

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## Education

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<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Radiophysics
<b>Date</b>	2018 - 2021
<b>Degree name</b>	PhD student

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<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Radiophysics
<b>Date</b>	2016 - 2018
<b>Degree name</b>	Masters

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<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Radiophysics
<b>Date</b>	2012 - 2016
<b>Degree name</b>	Bachelor

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## Scientific Rank/degree

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<b>Institution</b>	Yerevan State University
<b>Faculty</b>	Ռադիոֆիզիկա
<b>Date</b>	2021
<b>Degree name</b>	Candidate
<b>Specialty</b>	Physico-mathematical sciences
<b>Scientific Supervisor</b>	Khachatur Nerkararyan
<b>Research Topic</b>	Modulation and absorption of the infrared radiation in micro and nanostructures with cylindrical symmetry

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## Language skills

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Հայերեն English Русский

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## Work experience

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<b>Institution</b>	Yerevan State University
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Period of time	2021 till now
Rank/degree	Professor Assistant

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## Membership

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Institution	Optica (formerly Optical Society of America)
Period of time	2018 till now

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## Publications

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*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

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*Article*

**Gap-enhanced optical bistability in plasmonic core-nonlinear shell dimers**

Artyom Movsisyan, Henrik Parsamyan  
Nanoscale 2024 2030-2038

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*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

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*Article*

**Laser polarization as a critical factor in the SERS-based molecular sensing performance of nano-gapped Au nanowires**

Simón Roa, Terunori Kaihara, María Laura Pedano, Henrik Parsamyan, Paolo Vavassori  
Nanoscale 2024 15280 - 15297

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*Article*

**High dispersion and bistability of the light transmission through a bilayer metasurface with resonant plasmonic elements**

Davit Manukyan, Henrik A. Parsamyan, Khachatur Nerkararyan  
Applied Surface Science 2024 161105

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*Article*

**Broadband THz metasurface bandpass filter/antireflection coating based on metalized Si cylindrical rings**

Karen Simonyan, Hermine Gharagulyan, Henrik Parsamyan, Ashot Khachatryan, Mkrtich Yeranossyan  
Semiconductor Science and Technology 2024 095012

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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

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Article

**Dark-probe scanning near-field microscopy**

Henrik Parsamyan, Torgom Yezekyan, Khachatur Nerkararyan, Sergey I Bozhevolnyi

New Journal of Physics 2023 103015

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Manual

**Պիտափորձի ավտոմատացում LabVIEW միջավայրում**

Տիգրան Աբրահամյան, Հենրիկ Պարսամյան

2023 93

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Article

**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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Article

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

Henrik Parsamyan, Hovhannes Haroyan, Khachatur Nerkararyan

Materials Today Communications 2022 103692

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Article

**Analysis of bistability at the coupling between waveguide and whispering gallery modes of a nonlinear hemicylinder**

Henrik Parsamyan, Khachik Sahakyan, Khachatur Nerkararyan

Journal of Physics D: Applied Physics 2022 165102

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Article

**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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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

*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*

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

Hovhannes Haroyan, Henrik Parsamayan, Khachatur Nerkararyan

Optics Communications 2020 126122(1-5)

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*Article*

**Near-perfect broadband infrared metamaterial absorber utilizing nickel**

Henrik Parsamyan

Applied Optics 2020 7504-7509

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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*

**Efficient broadband infrared absorbers based on core-shell nanostructures**

Khachatur V. Nerkararyan, Sergey I. Bozhevolnyi, Henrik A. Parsamyan

Journal of the Optical Society of America B: Optical Physics 2019 2643-2649

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*Conference*

**Filtering of terahertz radiation by a metasurface structure**

Simonyan Karen, Parsamyan Henrik, Gharagalyan Hermine, Khachatryan Ashot, Yerosyan Mkrtych

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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, Kiejn 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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