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Publications

Conference

Modal Composition of a Terahertz Pulse in a Parallel-plate Waveguide Partially Filled with a Nonlinear GaSe or DAST Crystal
A. A. Pogosyan, A. S. Nikoghosyan, V.R. Tadevosyan

Journal of Physical Mathematics & its Applications 2026 1 - 1

https://srcpublishers.com/physical-mathematics-its-applica/issue/view/2111

Article

Terahertz Radiation in a Parallel Metal Plate Waveguide Partially Filled with a Nonlinear Optical Crystal [Терагерцовое излучение в волноводе с параллельными металлическими пластинами, частично заполненном нелинейно-оптическим кристаллом]
A. S. Nikoghosyan, V. R. Tadevosyan

Radiophysics and Quantum Electronics 2025 823-832

Article

Investigation of the Mode Composition of a Terahertz Pulse in a Nonlinear Crystal Partially Filling a Waveguide with Parallel Plates [Исследование модового состава терагерцового импульса в нелинейном кристалле, частично заполняющем волновод с параллель...
A. S. Nikoghosyan, G. A. Parsamyan, A. A. Poghosyan, V. R. Tadevosyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2025 354-360

https://link.springer.com/article/10.1134/S1068337225700690

Article

Features of a THz pulse generated in the metallic waveguides partially filled with nonlinear crystals
A.S. Nikoghosyan, V.R. Tadevosyan, G.N. Goltsman, S.V. Antipov

Journal of Physics Conference Series 2023 012013

Article

Broadband TeraHertz waveguide partially filled with a nonlinear crystal
A. S. Nikoghosyan, V. R. Tadevosyan

International Conference on Microwave & THz Technologies, Wireless Communications and OptoElectronics (IRPhE 2022)
2023 Pages 56 - 59

Article

Critical Wavelength in the Metal Waveguide Partially Filled with Nonlinear Crystal
A. S. Nikoghosyan, V. R. Tadevosyana, G. N. Goltsman, S. V. Antipov

Journal of Contemporary Physics (Armenian Academy of Sciences) 2021 366–370

Article

КРИТИЧЕСКАЯ ДЛИНА ВОЛНЫ В ВОЛНОВОДЕ, ЧАСТИЧНО ЗАПОЛНЕННОМ НЕЛИНЕЙНЫМ КРИСТАЛЛОМ
А.С. НИКОГОСЯН, В.Р. ТАТЕВОСЯН, Г.Н. ГОЛЬЦМАН, С.В. АНТИПОВ

Proceedings of NAS RA Physics 2021 с.543–549

Article

ВЛИЯНИЕ ПОГЛОЩЕНИЯ НА ЭФФЕКТИВНОСТЬ ГЕНЕРАЦИИ ТЕРАГЕРЦОВОГО ИЗЛУЧЕНИЯ В МЕТАЛЛИЧЕСКОМ ВОЛНОВОДЕ, ЧАСТИЧНО ЗАПОЛНЕННОМ НЕЛИНЕЙНЫМ КРИСТАЛЛОМ LiNbO3, DAST ИЛИ ZnTe
А.С. НИКОГОСЯН, Р.М. МАРТИРОСЯН, А.А. АХУМЯН, А.О. МАКАРЯН, В.Р. ТАТЕВОСЯН, Г.Н. ГОЛЬЦМАН,

С.В. АНТИПОВ

Proceedings of NAS RA Physics 2019 128–137

Article

Optical Properties of Human Jawbone, Spongy Bone, and Human Bone Substitute Cerabone® in the Spectral Range 0.2 to 2.5 THz
A.S. Nikoghosyan, J. Shen

AIP Conference Proceedings 2019 080001(1-3)

Article

Optical detection of femtosecond laser pulses in a ferromagnet as a result of its magnetization by the magnetic field of the laser pulse
A. H. Makaryan, V. R. Tadevosyan, A. S. Nikoghosyan, T. S. Yezekyan, M. A. Kazaryan

Proceedings of SPIE - The International Society for Optical Engineering 2019 113222E(1-4)

Article

Terahertz nonlinear waveguide-antenna driven by a femtosecond laser
A.S. Nikoghosyan, M.A. Kazaryan

Proceedings of SPIE - The International Society for Optical Engineering 2019 113222F(1-4)

Conference

High Conversion Efficiency in a System “Nonlinear-Optical Crystal Partially Filling the Cross Section of a Rectangular Waveguide
A.S. Nikoghosyan

2019 1-2

https://ieeexplore.ieee.org/document/8873761/metrics

Conference

Physical Properties of Human Jawbone, Spongy Bone, Collagen and Cerabone® Bone Transplantation Material in Range of 0.2 to 2.5 THz
A.S. Nikoghosyan, J. Shen, H. Ting

2019 1-2

https://ieeexplore.ieee.org/xpl/conhome/8864492/proceeding?isnumber=8873688&sor…

Article

Simulation of the THz radiation in the tapered waveguide
A.S. Nikoghosyan, Sh. Kh. Arakelyan, M. A. Kazaryan

Proceedings of SPIE - The International Society for Optical Engineering 2018 1061418(1-5)

Article

Effect of Absorption on The Efficiency of THz Radiation Generation in a Nonlinear Crystal Placed Into a Waveguide
A.S. Nikoghosyan, R.M. Martirosyan, A.A. Hakhoumian, A.H. Makaryan, V.R.Tadevosyan, G.N. Goltsman,

S.V. Antipov

Armenian Journal of Physics 2018 257-262

Article

Efficient Ultrashort THz Pulse Generation in LiNbO3, ZnTe, GaSe and DAST Crystals
A. S. Nikoghosyan, R. M. Martirosyan, A. A. Hakhoumian

Armenian Journal of Physics 2018 263-268

Conference

Effect of attenuation on the efficiency of THz radiation generation in a nonlinear crystal integrated into a waveguide
A.S. Nikoghosyan, R.M. Martirosyan, A.A. Hakhoumian, A.O. Makaryan, V.R. Tadevosyan, G.N. Goltsman,

S.V. Antipov

2018 TH-P-7

http://www.irphe.am/?q=irphe_2018

Article

Dielectric Anisotropy of Human Bone and CERABONE® in the Terahertz Spectral Range 0.2 to 2.5 THz
A.S. Nikoghosyan, H. Ting, J. Shen, R.M.Martirosyan, M.A. Kazaryan, M.Yu.Tunyan, A.V. Papikyan,

A.A. Papikyan

Journal of Physics Conference Series 2017 012005 pp.1 - 8

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

Article

THz Spectroscopic Properties of Human Spongy Bone and Collagen in the Terahertz Spectral Range 0.2 to 2.5 THz
A.S. Nikoghosyan, H. Ting, J. Shen

SEMICONDUCTOR MICRO- AND NANOELECTRONICS. PROCEEDINGS OF THE ELEVENTH INTERNATIONAL CONFERENCE
2017 173-175

http://icsmn.ysu.am/11th%20ICSMN-Proceedings.pdf

Conference

Optical properties of human jawbone, spongy bone and human bone substitute CERABONE in spectral range from 0.2 to 2.5 THz
A.S. Nikoghosyan, J. Shen

2017 57

Article

Optical Properties of Human Jawbone and Human Bone Substitute Cerabone® in the

Terahertz Range
A.S. Nikoghosyan, R.M.Martirosyan, H. Ting, J. Shen, M. Yu. Tunyan, A. V. Papikyan, A. A. Papikyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2016 pp. 256–264

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

Article

Dielectric anizotropy of human bone in spectral range 0.2 to 2.5 THz
A.S. Nikoghosyan, T. He, J.Shen, R.M. Martirosyan

PROCEEDINGS of the International Conference on “Microwave and THz Technologies, Photonics and Wireless Communications”
2016 pp. 41 - 44

http://irphe.asj-oa.am/93/1/Proceedings-IRPhE-2016.pdf

Article

Terahertz Waves Propagation in a LiNbO3 Wedge Antenna
A.S. Nikoghosyan, Sh. Kh. Arakelyan

PROCEEDINGS of the International Conference on “Microwave and THz Technologies, Photonics and Wireless Communications”
2016 53 - 56

http://irphe.asj-oa.am/93/1/Proceedings-IRPhE-2016.pdf

Article

ОПТИЧЕСКИЕ СВОЙСТВА КОСТНОЙ ТКАНИ ЧЕЛЮСТИ ЧЕЛОВЕКА И ЗАМЕНИТЕЛЯ КОСТНОЙ ТКАНИ СЕРАБОН (CERABONE®) В ТЕРАГЕРЦОВОМ ДИАПАЗОНЕ
А.С. НИКОГОСЯН, Р.М. МАРТИРОСЯН, J.SHEN, H. TING, М.Ю. ТУНЯН, А.В. ПАПИКЯН, А.А. ПАПИКЯН

Proceedings of NAS RA Physics 2016 с.346-356

http://www.flib.sci.am/eng/Fizika/Frame.html

Article

Dielectric Anizotropy of Human Bone in THz Range
A.S. Nikoghosyan, T. He, J. Shen, R.M. Martirosyan, M.A. Kazaryan, I.N. Feofanov, V.I. Sachkov

ЛАЗЕРНО-ИНФОРМАЦИОННЫЕ ТЕХНОЛОГИИ В МЕДИЦИНЕ,БИОЛОГИИ, ГЕОЭКОЛОГИИ И ТРАНСПОРТЕ
2016 10

https://elibrary.ru/item.asp?id=25871913

Article

Optical Properties of Human Jawbone and CERABONE® in the Terahertz Range
A.S. Nikoghosyan, T. He, J. Shen, R.M. Martirosyan, M.Yu.Tunyan, A.V. Papikyan, A.A. Papikyan

PROCEEDINGS of the International Conference on “Microwave and THz Technologies, Photonics and Wireless Communications”
2016 49-52

http://irphe.asj-oa.am/93/1/Proceedings-IRPhE-2016.pdf

Article

LiNbO3 КЛИНООБРАЗНАЯ ТГц АНТЕННА, ЧАСТИЧНО ЗАПОЛНЯЮЩАЯ МЕТАЛЛИЧЕСКИЙ ВОЛНОВОД

А.С. НИКОГОСЯН

International Scientific Journal for Alternative Energy and Ecology 2015 87-91

http://www.isjaee.com/jour/article/view/31

Article

Conversion of short optical pulses to terahertz radiation in a nonlinear medium: Experiment and theory

A.S. Nikoghosyan, R.A. Dudley, N. N. Zinov'ev, J. M. Chamberlain

Physical review. B./Physical review. B 2007 235114-16

http://journals.aps.org/prb/