

Research Institute of Physics  
Submillimeter-Wave Laboratory  
Chief Researcher

Language skills

Հայերեն Русский English

Publications

Article  
**Исследование параметров нейронной системы спинного мозга в терагерцовой области частот**  
Т. Н. Оганесян, А. О. Макарян, академик Р. М. Мартиросян  
Доклады НАН РА 2024 16-23

Article  
**Violation of molecular structure of intracellular water as a possible cause of carcinogenesis and its suppression by microwave radiation(hypothesis)**  
Vitali Kalantaryan, Radik Martirosyan, Yuri Babayan, Voldemar Petrosyan  
Computational and Structural Biotechnology Journal 2023 3437-3442

Article  
**On the Possibility of Using Non-Ionizing Electromagnetic Radiation (Millimeter Waves) in Oncology**  
Ruzanna Khazaryan, Vitali P. Kalantaryan, Radik Martirosyan, Yura Babayan  
Progress in Electrmagnetics Research Letters 2020 49-57

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  
Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2019 128-137

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. Goltzman, S.V. Antipov  
Armenian Journal of Physics 2018 257-262

Article

## **Efficient Ultrashort THz Pulse Generation in LiNbO<sub>3</sub>, ZnTe, GaSe and DAST Crystals**

A. S. Nikoghosyan, R. M. Martirosyan, A. A. Hakhoumian

Armenian Journal of Physics 2018 263-268

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### *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>

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### *Article*

#### **Магнитно-нелинейные материалы для детектирования электромагнитного излучения**

Джулфаян А., Мартиросян Р. М., Макарян А. О., Мыхитарян В. М., Назари Ф., Татевосян В. Р.

Физические Основы приборостроения 2016 88-97

[http://elibrary.ru/title\\_about.asp?id=37911](http://elibrary.ru/title_about.asp?id=37911)

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### *Article*

#### **Action of Non-Ionizing Radiation on Tumor and Healthy DNA**

V. Kalantaryan, R. Martirosyan, Y. Babayan, L. Nersesyan, H. Stepanyan, R. Vardapetyan

Armenian Journal of Physics 2016 100-105

<http://ajp.asj-oa.am/>

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### *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>

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### *Article*

#### **Interaction of Anticancer drug Doxorubicin with Tumor DNA Irradiated by Nonionizing Millimeter Electromagnetic Waves**

V. Kalamtaryan, S. Hakobyan, R. Ghazaryan, R. Martirosyan

American Journal of Medical and Biological Research 2016 5

<http://www.sciepub.com/journal/ajmbr>

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### *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>

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### *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

*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>

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*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>

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*Conference*

**The low power electromagnetic millimeter waves influence on the cellular indicators of leucopoiesis**

Vitali Kalantaryan, Radik Martirosyan, Tsovinar Adamyan, Emma Gevorkyan

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*Conference*

**Thermostability of the Mitoxantrone-tumor DNA complexes irradiated by low power electromagnetic waves**

Vitali Kalantaryan, Radik Martirosyan, Sergey Hakobyan, Ruzanna Khazaryan

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*Conference*

**Interaction of netropsin with double-stranded nucleic acids irradiated with non ionizing athermal millimeter electromagnetic waves**

Kalantaryan V., Martirosyan R., Babayan Y., Hakobyan S.

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*Conference*

**What is the primary target of the action millimeter waves on biological objects?**

Vitali Kalantaryan, Radik Martirosyan, Yura Babayan, Hamlet Badalyan

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*Conference*

**Thermostability of the Mitoxantrone-tumor DNA complexes irradiated by low power electromagnetic waves**

V.P. Kalantaryan, R.M. Martirosyan, S.N. Hakobyan, R.S. Khazaryan

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*Conference*

**Ferromagnetic detector of infrared radiation**

D. Bagdasaryan, A. Hakhoumian, R. Martirosian, A. Julfayan, A. Makaryan, F. Nazari, V. Tadevosyan

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*Conference*

**Influence of nonionizing millimeter electromagnetic radiation on tumor and healthy DNA**

*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

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