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Publications

Article

Comparative study of spectral properties of the bovine serum albumin complexes with acridine orange and methylene blue under the effect of millimeter range electromagnetic waves

A.P. Antonyan, M.A. Shahinyan, M.S. Mikaelyan, A.H. Karapetyan, V.P. Kalantaryan, P.O. Vardevanyan

Electromagnetic Biology and Medicine 2025 1-11

Article

Thermodynamic Parameters of Binding of Small Molecules to DNA Irradiated by Low-Intensity Millimeter Electromagnetic Waves [Термодинамические параметры связывания малых молекул с ДНК, облученной низкоинтенсивными миллиметровыми электромагнитными волнами]

V. P. Kalantaryan, R. S. Ghazaryan, Yu. S. Babayan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2024 228–232

Article

Binding Parameters of Mitoxantrone and Ethidium Bromide with A-Form Nucleic Acids Based on Adsorption Isotherms [Параметры связывания митоксантрона и бромистого этидия с А-формой нуклеиновых кислот по изотермам адсорбции]

V. P. Kalantaryan, R. S. Ghazaryan, Y. S. Babayan, M. A. Parsadanyan

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2024

404–407

Article

ВЗАИМОДЕЙСТВИЕ СЫВОРОТОЧНОГО АЛЬБУМИНА ЧЕЛОВЕКА С МЕТИЛОВЫМ ФИОЛЕТОВЫМ ПОД ВОЗДЕЙСТВИЕМ ЭЛЕКТРОМАГНИТНЫХ ВОЛН МИЛЛИМЕТРОВОГО ДИАПАЗОНА

П.О. ВАРДЕВАНЯН, М.А. ШАГИНЯН, М.А. ПАРСАДАНЯН, С.В. ГРИГОРЯН, В.П. КАЛАНТАРЯН

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2023

268-276

Article

Human Serum Albumin Interaction with Methyl Violet under the Influence of Millimeter-Range Electromagnetic Waves

P.O. Vardevanyan, M.A. Shahinyan, M.A. Parsadanyan, S.V. Grigoryan, V.P. Kalantaryan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2023 198-203

Article

The Effect of Modulated Millimeter Electromagnetic Waves of Non-Thermal Intensity on the Physical Properties of Aqueous Solutions

V.P. Kalantaryan, L.R. Sogomonyan, R.S. Ghazaryan, Yu.S. Babayan

Armenian Journal of Physics 2023 62-65

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

ВЗАИМОДЕЙСТВИЕ СЫВОРОТОЧНОГО АЛЬБУМИНА С ЭРИТРОЗИНОМ В ПОД ВОЗДЕЙСТВИЕМ ЭЛЕКТРОМАГНИТНЫХ ВОЛН МИЛЛИМЕТРОВОГО ДИАПАЗОНА
М.А. Парсаданян, М.А. Шагинян, С.В. Григорян, М.С. Микаелян, Г.А. Погосян, В.П. Калантарян,

П.О. Вардеванян

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2023

643-651

Article

Interaction of Serum Albumin with Erythrosine B under the Influence of Millimeter-Range Electromagnetic Waves
M.A. Parsadanyan, M.A. Shahinyan, S.V. Grigoryan, M.S. Mikaelyan, G.H. Poghosyan, V.P. Kalantaryan,

P.O. Vardevanyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2023 428-434

Article

Influence of Low-Intensity Millimeter Electromagnetic Waves on the Viscosity and Density of Water-Salt Solutions
R. S. Ghazaryan, V. P. Kalantaryan, Yu. S. Babayan, A. A. Tadevosyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2022 417-419

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

Growth properties and hydrogen yield in green microalga Parachlorella kessleri: Effects of low-intensity electromagnetic irradiation at the frequencies of 51.8 GHz and 53.0 GHz
Jemma Manoyan, Lilit Gabrielyan, Vitaly Kalantaryan, Armen Trchounian

JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY B-BIOLOGY 2020 112016(1-6)

Article

Study of the influence of millimeter range electromagnetic waves on methylene blue complexes with human serum albumin
Mariam A. Shahinyan, Ara P. Antonyan, Vitali P. Kalantaryan, Marieta S. Mikaelyan,

Poghos O. Vardevanyan

Journal of Electromagnetic Waves and Applications 2019 2317-2327

Article

ТЕРМОСТАБИЛЬНОСТЬ КОМПЛЕКСОВ ОБЛУЧЕННЫХ ДНК С МИТОКСАНТРОНОМ ПРИ МАЛЫХ ЗАПОЛНЕНИЯХ ЛИГАНДА
В.П. КАЛАНТАРЯН, Р.С.КАЗАРЯН, Г.Л. КАНАРЯН, Л.Р. СОГОМОНЯН

Հայաստանի կենսաբանական հանդես 2019 74-78

Article

ДЕЙСТВИЕ ЭЛЕКТРОМАГНИТНОГО ИЗЛУЧЕНИЯ С ЧАСТОТОЙ 51,8 И 53,0 ГГц НА РОСТ, СОДЕРЖАНИЕ ПИГМЕНТОВ, ФОТОВЫДЕЛЕНИЕ ВОДОРОДА И АКТИВНОСТЬ F0F1-АТФазы ПУРПУРНОЙ БАКТЕРИИ Rhodobacter sphaeroides

Л. Габриелян, В. Калантарян, А. Трчунян

Биофизика (Biophysics) 2018 468-474

http://www.maik.ru/ru/journal/biofiz/

Article

Effect of weak electromagnetic waves on thermal properties of biomacromolecule water solutions

V.P. Kalantaryan, S.N. Hakobyan, P.O. Vardevanyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2018 175-178

Article

Effect of Non-Thermal Millimeter Electromagnetic Radiation on Thermodynamic Parameters of the Binding of Ligands with Nucleic Acids

V.P.Kalantaryan, Y.S.Babayan, S.N.Hakobyan

Biological Journal of Armenia 2018 22-27

Article

Influence of Millimeter Wave Electromagnetic Radiation of Nonthermal Intensity on Density of Aqueous Solutions

V. P. Kalantaryan, S. N. Hakobyan, Yu. S. Babayan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2017 58–62

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

Article

The distinguishing effects of low-intensity electromagnetic radiation of different extremely high frequencies on Enterococcus hirae: growth rate inhibition and scanning electron microscopy analysis

K. Hovnanyan, V. Kalantaryan, A. Trchounian

Letters in Applied Microbiology 2017 220-225

http://onlinelibrary.wiley.com/journal/10.1111/(ISSN)1472-765X

Article

Interaction of netropsin with double-stranded nucleic acids irradiated with nonionizing athermal millimeter electromagnetic waves.

Yu,S. Babayan, V.P. Kalantaryan, S.H. Hakobyan, R.S. Ghazaryan

Armenian Journal of Physics 2016 167-172

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

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/

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

Article

The Changes of the Cellular Indicators of Leucopoiesis in Irradiated Animals under Hypomotile Conditions

Vitali Kalantaryan, Tsovinar Adamyan, Emma Gevorkyan, Nona Adamyan, Tigran Hayrapetyan

American Journal of Medical and Biological Research 2015 33-37

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

Article

CHANGES IN THE F0F1-ATPASE ACTIVITY OF IRRADIATED LACTOBACILLUS ACIDOPHILUS IN THE PRESENCE OF CEFTAZIDIME AT LOW pH

D.R.Soghomonyan, V.P. Kalantaryan, A.H. Trchounian

Հայաստանի կենսաբանական հանդես 2014 39-43

http://www.flib.sci.am/eng/Biology/

Article

Воздействие низкоэнергетического миллиметрового электромагнитного излучения на стабильность молекул ДНК в растворе

Ю.С. Бабаян, А.Ш. Маргарян, В.П. Калантарян, Р.С. Казарян, М.А. Парсаданян, П.О. Вардеванян

Биофизика (Biophysics) 2007 382-384

http://elibrary.ru/title_about.asp?id=7680

Article

Некоторые физико-химические свойства ДНК, облученной низкоэнергетическими миллиметровыми когерентными электромагнитными волнами

Казарян Р. С., Калантарян В. П., Симонян Г. С., Антонян А. П., Вардеванян П. О., Бабаян Ю. С., Акопян С. Н., Хачатрян А. Б.

Биомедицинская радиоэлектроника 2006 64-68

http://jre.cplire.ru/mac/biomed.html

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

The effect of electromagnetic waves with extremely high frequencies and low intensity on human albumin solution

Poghos Vardevanyan, Vitali Kalantaryan, Mariam Shahinyan, Marina Parsadanyan, Mareta Mikaelyan

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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

---

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.

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

Influence of nonionizing millimeter electromagnetic radiation on tumor and healthy DNA
Vitali Kalantaryan, Radik Martirosyan, Yura Babayan, Pogos Vardevanyan

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Conference

Non-ionizing millimeter electromagnetic waves increase thermodynamic parameters of the binding of anticancer drugs mitoxantrone and doxorubicin with DNA
Vitali Kalantaryan, Ruzanna Ghazaryan, Sergey Hakobyan, Yura Babayan

---

Conference

Changes in some metabolic processes of yeasts Candida guilliermondii NP-4 under influence of microwaves with a frequency of 51.8GHz
Marutyan S.V., Petrosyan G.A., Karapetyan H.M., Marutyan S.A., Khachatryan L.D., Kalantaryan V.P., Muradyan A.

Conference

Influence of X-irradiation on the activity of ATPase and enzymes of antioxidant system in yeasts Candida guilliermondii NP-4
S. Marutyan, A. Muradyan, H. Karapetyan, V. Khalantaryan, S. Marutyan, L. Khachatryan

---

Conference

ROYAL JELLY AS A MEANS OF REGULATING PROCESSES DISTURBED BY EXPOSED MILLIMETER WAVES
Marutyan S.A., Karapetyan H.M., Muradyan A.R., Khachatryan L.D, Kalantaryan V.P., Marutyan S.V.

Conference

Effect of Nanoparticles on Erythrocyte Membranes at Irradiation
N.H. Karapetyan, G.V. Ananyan, R.S. Ghazaryan, T.M. Jomardyan, V.G. Barkhudaryan, V. Kalantaryan

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Conference

Could oncogenesis be caused by disruption of the molecular structure of intracellular water and its restoration by irradiation?
V. Kalantaryan, R. Martirosyan, Y. Babayan, V. Petrosyan

Conference

Irradiation of tumor tissues with non-thermal and non-ionizing microwave radiation increases the degree of binding of antitumor drugs to them

V.Kalantatyan, R.Martirosyan, Y.Babayan