

# Marieta Samvel Mikaelyan

## Research Institute of Biology

Group for the Study of the Interaction of Active Compounds with Biomacromolecules

Researcher

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## Education

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|-------------|--------------------------|
| Institution | Yerevan State University |
| Faculty     | Biology                  |
| Date        | 2005 - 2007              |
| Degree name | Masters                  |

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|-------------|--------------------------|
| Institution | Yerevan State University |
| Faculty     | Biology                  |
| Date        | 2001 - 2005              |
| Degree name | Bachelor                 |

## Scientific Rank/degree

|                       |  |
|-----------------------|--|
| Institution           | Yerevan State University   |
| Date                  | 2017   |
| Degree name           | Candidate  |
| Specialty             | Biological sciences  |
| Scientific Supervisor | Prof. Vardevanyan P.O.   |
| Research Topic        | Effect of millimeter range electromagnetic waves on some constituents of blood |

## Language skills

English Русский Հայերեն Français

## Scientific interests

- Effect of millimeter range electromagnetic waves on blood constituents

## Publications

Article

**Fluorescence Characteristics of Hoechst 33258 Complexes with Single-Stranded and Double-Stranded Polyribonucleotides in Solution at Various Solution Ionic Strengths**

A.P. Antonyan, P.O.Vardevanyan, M.S.Mikaelyan, G.H.Poghosyan, G.H. Kocharyan, M.A.Parsadanyan

Журнал прикладной спектроскопии (Journal of Applied Spectroscopy) 2025 1280-1285

Article

**INTERACTION OF DOPAMINE WITH DNA, DEPENDING ON THE IONIC STRENGTH OF THE SOLUTION: POTENTIAL APPLICATION IN SENSOR TECHNOLOGY**

Marine A. Parsadanyan, Hrant M. Avanesyan, Arsen B. Lokyan, Sahak V. Hovhannisyan,

Mariam A. Shahinyan, Marieta S. Mikaelyan, Gaspar H. Kocharyan, Ara P. Antonyan,

Poghos O. Vardevanyan

Медицинские новости Грузии (Georgian medical news) 2025 69-75

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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

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Article

**Absorption and Fluorescence Characteristics of the Binding of Ethidium Bromide with Synthetic Single- and Double-Stranded Polyribonucleotides**

A.P. Antonyan, P.O. Vardevanyan, M.S. Mikaelyan, G.H. Kocharyan, G.H. Poghosyan, M.A. Parsadanyan

Journal of Contemporary Physics (Armenian Academy of Sciences) 2024 103-110

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Article

**Influence of millimeter range electromagnetic waves on bovine serum albumin interaction with acridine orange**

M.A. Parsadanyan, M.A. Shahinyan, M.S. Mikaelyan, S.V. Grigoryan, G.H. Poghosyan, P.O. Vardevanyan

Electromagnetic Biology and Medicine 2024 1-11

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Article

**ERYTHROCYTES AS A MODEL FOR STUDYING THE EFFECT OF TEMPERATURE ON THE RESISTENCE OF CELLULAR MEMBRANES**

M.S.Mikaelyan, M.A. Shahinyan, M.A. Parsadanyan

Proceedings of the YSU B: Chemical and Biological Sciences 2023 118-125

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Article

**EFFECT OF EXTREMELY HIGH FREQUENCY ELECTROMAGNETIC IRRADIATION TREATMENT ON GERMINATION, GROWTH AND AMYLASE ACTIVITY OF WHEAT SEEDS**

G.H.POGHOSYAN, M.S. MIKAELIAN, P.H.VARDEVANYAN

Proceedings of the YSU B: Chemical and Biological Sciences 2023 19-31

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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

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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

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*Article*

**Comparison of methyl violet interaction with bovine serum albumin and human serum albumin by UV-denaturation method**

Shahinyan M.A., Mikaelyan M.S., Parsadanyan M.A., Antonyan A.P.

Proceedings of the YSU B: Chemical and Biological Sciences 2022 136-140

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*Article*

**Effect of resonant electromagnetic irradiation and aspirin on surface tension of human blood plasma in vitro**

M.S. Mikaelyan, M.A. Shahinyan, S.V. Grigoryan, M.A. Parsadanyan

Proceedings of the YSU B: Chemical and Biological Sciences 2022 218-224

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*Article*

**STUDY OF ASPIRIN EFFECT ON STABILITY OF MEMBRANES OF RAT BLOOD ERYTHROCYTES BY ACIDIC HEMOLYSIS METHOD**

Gayane H. Poghosyan, Marieta S. Mikaelyan, Mariam A. Shahinyan, Evelina G. Sargsyan,

Anahit V. Nerkararyan

Proceedings of the YSU B: Chemical and Biological Sciences 2022 56-62

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*Article*

**ИССЛЕДОВАНИЕ ВЛИЯНИЯ ММ ЭМВ НА КОМПЛЕКСООБРАЗОВАНИЕ НОЕЧСТ 33258 С БИОМАКРОМОЛЕКУЛАМИ**

Вардеванян П.О., Шагинян М.А., Микаелян М.С., Григорян С.В.

Актуальные вопросы биологической физики и химии 2022 40-44

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*Article*

**STUDY OF PERMEABILITY OF FISH SKIN**

Marine A. Parsadanyan, Marieta S. Mikaelyan

Proceedings of the YSU B: Chemical and Biological Sciences 2021 212-216

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*Article*

**EFFECT OF ELECTROMAGNETIC IRRADIATION AND ASPIRIN ON SURFACE TENSION OF HUMAN BLOOD PLASMA IN VITRO**

A.V. Nerkararyan, M.S. Mikaelyan, S.V. Grigoryan

Proceedings of the YSU B: Chemical and Biological Sciences 2021 217-223

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*Manual*

**Լաբորատոր աշխատանքներ կենսաֆիզիկայից: ՄԱՍ 1 (ոլսոլմնամերոդական ձեռնարկ)**

Գ.Հ. Փանոսյան, Ս.Ա. Դոնյան, Ա.Վ. Ներկարարյան, Մ.Ս. Միքաելյան

2021 194

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*Article*

**EFFECT OF MILLIMETER RANGE ELECTROMAGNETIC WAVES ON COMPLEX-FORMATION OF ETHIDIUM BROMIDE AND HOECHST 33258 WITH DNA**

M. A. Shahinyan, M. S. Mikaelyan, M. A. Torosyan, A. T. Karapetyan

Proceedings of the YSU B: Chemical and Biological Sciences 2020 125-131

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Article

**INFLUENCE OF LOW DOSE GAMMA-IRRADIATION ON THE ELECTROKINETIC POTENTIAL OF WHEAT SEEDLINGS CELLULAR NUCLEI**

L.A. Minasbekyan, A.V. Nerkararyan, M.S. Mikaelyan, R.R. Sadoyan

Proceedings of the YSU B: Chemical and Biological Sciences 2020 118-124

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Article

**INFLUENCE OF MILLIMETER RANGE ELECTROMAGNETIC WAVES ON HEMOLYSIS KINETICS OF RAT BLOOD ERYTHROCYTES**

Shahinyan M.A., Mikaelyan M.S., Nerkararyan A.V.

Proceedings of the YSU B: Chemical and Biological Sciences 2020 209-215

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Article

**BOVINE SERUM ALBUMIN DENATURATION IN THE PRESENCE OF HOECHST 33258 AND METHYLENE BLUE**

P.O. Vardevanyan, M.S. Mikaelyan, N.H. Petrosyan

Proceedings of the YSU B: Chemical and Biological Sciences 2020 204-208

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Article

**Study of Methylene Blue Interaction with Human Serum Albumin**

Poghos O. Vardevanyan, Ara P. Antonyan, Marine A. Parsadanyan, Mariam A. Shahinyan,

Marieta S. Mikaelyan

Biophysical Reviews and Letters 2019 17-25

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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

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Manual

**Կենսաֆիզիկայի լաբորատոր աշխատանքների ձեռնարկ: Մաս 2 (Ուսումնամեթոդական ձեռնարկ)**  
Պ.Հ. Վարդևանյան, Ա.Վ. Ներկարարյան, Մ.Ա. Շահինյան, Մ.Ս. Միքաելյան

2019 146

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Article

**EFFECT OF MILLIMETER ELECTROMAGNETIC WAVES ON BUFFER CAPACITY OF ALBUMIN**

M.A. SHAHINYAN, M.S. MIKAELIAN, M.R. DARBINYAN, A.V. NERKARARYAN

Proceedings of the YSU B: Chemical and Biological Sciences 2018 105-109

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Article

**AGGREGATIVE PROPERTIES OF ERYTHROCYTE UNDER THE INFLUENCE OF MILLIMETER RANGE ELECTROMAGNETIC WAVES**

M.A. Shahinyan, M.S. Mikaelyan, M.R. Darbinyan, P.O. Vardevanyan

Proceedings of the YSU B: Chemical and Biological Sciences 2018 187-192

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Article

**Time-Dependent Changes of Albumin Water Solutions After Irradiation by Electromagnetic Waves with Extremely High Radio Frequencies**

Mariam A. Shahinyan, Marieta S. Mikaelyan, Meri R. Darbinyan, Poghos O. Vardevanyan

Biophysical Reviews and Letters 2017 11-17

<http://www.worldscientific.com/worldscinet/brl>

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*Article*

**Effect of whole body extremely high frequency electromagnetic irradiation exposure on lipid peroxidation in rats**

Gayane Poghosyan, Marieta Mikaelyan, Anahit Nerkararyan, Poghos Vardevanyan

Biologija 2017 238-245

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*Article*

**ВЛИЯНИЕ ЭЛЕКТРОМАГНИТНЫХ ВОЛН МИЛЛИМЕТРОВОГО ДИАПАЗОНА НА ФЛУОРЕСЦЕНЦИЮ ВОДНО-СОЛЕВЫХ РАСТВОРОВ СЫВОРОТОЧНОГО АЛЬБУМИНА ЧЕЛОВЕКА**

П.О. Вардеванян, А.П. Антонян, М.А. Шагинян, М.С. Микаелян

Журнал прикладной спектроскопии (Journal of Applied Spectroscopy) 2016 496-499

[http://elibrary.ru/title\\_about.asp?id=7318](http://elibrary.ru/title_about.asp?id=7318)

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*Article*

**Influence of Electromagnetic Waves with Extremely High Frequencies on Some Criteria of Blood Plasma**

P.O. Vardevanyan, A.P. Antonyan, A.V. Nerkararyan, M.A. Parsadanyan, M.A. Shahinyan, M.R. Darbinyan,

M.S. Mikaelyan

Armenian Journal of Physics 2016 106-109

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

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*Article*

**INFLUENCE OF MILLIMETER ELECTROMAGNETIC WAVES ON FLUORESCENCE OF WATER-SALINE SOLUTIONS OF HUMAN SERUM ALBUMIN**

Vardevanyan P.O., Antonyan A.P., Shahinyan M.A., Mikaelyan M.S.

Journal of Applied Spectroscopy 2016 486-489

<http://www.springer.com/physics/atomic,+molecular,+optical+%26+plasma+physics/j...>

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*Article*

**Effect of low intensity EMW EHF on suspension density of rat blood erythrocytes.**

Poghos O. Vardevanyan, Mariam A. Shahinyan, Anahit V. Nerkararyan, Marieta S. Mikaelyan,

Meri R. Darbinyan

Brazilian journal of biological sciences 2015 193-197

<http://revista.rebibio.net/>

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*Article*

**Study of influence of millimeter range electromagnetic waves on water-saline solutions of albumin**

Mariam A. Shahinyan, Ara P. Antonyan, Marieta S. Mikaelyan, Poghos O. Vardevanyan

Biophysical Reviews and Letters 2015 201-207

<http://www.worldscientific.com/worldscinet/brl>

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*Article*

**Surface charge density of rat blood erythrocytes under the influence of millimeter diapason electromagnetic radiation.**

A.V. Nerkararyan, M.S. Mikaelyan, M.A. Shahinyan, P.O. Vardevanyan

Biological Journal of Armenia 2015 16-20

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

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*Conference*

**Influence of electromagnetic waves with extremely high frequencies on rat blood plasma surface tension**

A.V. Nerkararyan, M.A. Shahinyan, M.S. Mikaelyan, P.O. Vardevanyan

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*Conference*

**Effect of millimeter diapason electromagnetic irradiation on albumin denaturation**

P.O. Vardevanyan, A.P. Antonyan, M.A. Shahinyan, M.A. Parsadanyan, M.S. Mikaelyan

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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*

**Влияние электромагнитного излучения миллиметрового диапазона на конформационные свойства сывороточного альбумина человека**

Вардеванян П.О., Парсаданян М.А., Шагинян М.А., Микаелян М.С.

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*Conference*

**Density of erythrocytes in suspension under the effect of millimeter electromagnetic waves**

Marieta S. Mikaelyan, Mariam A. Shahinyan, Poghos O. Vardevanyan

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*Conference*

**Effect of millimeter range electromagnetic waves on erythrocyte suspension**

Mariam A. Shahinyan, Marieta S. Mikaelyan, Anahit V. Nerkararyan

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*Conference*

**Whole body extremely high frequency electromagnetic irradiation exposure effect on lipid peroxidation in rats**

Poghosyan G.H., Mikaelyan M.S, Nerkararyan A.V., Vardevanyan P.H.

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*Conference*

**Effect of whole body extremely high frequency electromagnetic irradiation exposure on antioxidant enzymes activity in rats**

Gayane H. Poghosyan, Poghos H. Vardevanyan, Marieta S. Mikaelyan, Anahit V. Nerkararyan

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*Conference*

**Влияние ЭМИ КВЧ на активность процессов перекисного окисления и антиоксидантной активности крови крыс in vivo**

Погосян Г.А., Неркарарян А.В., Микаелян М.С., Вардеванян П.О.

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*Conference*

**Влияние миллиметровых электромагнитных волн на буферную емкость плазмы крови крыс**

Вардеванян П.О., Неркарарян А.В., Шагинян М.А., Микаелян М.С.

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*Conference*

**Изучение перекисного окисления липидов в эритроцитах крови крыс облученной ЭМИ КВЧ in vitro**

Погосян Г.А., Вардеванян П.О., Неркарарян А.В., Микаелян М.С., Шагинян М.А.

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*Conference*

**Effect of millimeter range electromagnetic waves on some biophysical characteristics of human serum albumin**

Mariam Shahinyan, Ara Antonyan, Marieta Mikaelyan, Poghos Vardevanyan

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*Conference*

**Effect of millimeter range electromagnetic waves on some properties of erythrocytes**

Marieta Mikaelyan, Mariam Shahinyan, Anahit Nerkararyan, Poghos Vardevanyan

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*Conference*

**Influence of low-intensity millimeter waves on lipid peroxidation and antioxidant enzymes activity in male Wistar rats**

Gayane H. Poghosyan, Marieta S. Mikaelyan, Anahit V. Nerkararyan

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*Conference*

**ВЛИЯНИЕ ЭЛЕКТРОМАГНИТНЫХ ВОЛН МИЛЛИМЕТРОВОГО ДИАПАЗОНА НА ДНК И ДНКЛИГАНД КОМПЛЕКСЫ В ВОДНО-СОЛЕВОМ РАСТВОРЕ**

Антонян А.П., Шагинян М.А., Микаелян М.С., Вардеванян П.О.

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*Conference*

**Comparison of methylene blue interaction with human serum albumin and DNA**

Shahinyan M.A., Mikaelyan M.S., Vardevanyan P.O.

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*Conference*

**Study of human serum albumin interaction with some ligands**

P. Vardevanyan, Y. Mamasakhlov, M. Shahinyan, M. Mikaelyan, N. Petrosyan

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*Conference*

**Исследование связывания метиленового фиолетового с сывороточным альбумином человека**

Погосян Г.А., Шагинян М.А., Микаелян М.С., Антонян А.П.

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*Conference*

**Влияние миллиметровых электромагнитных волн на перекисное окисление липидов и хемилюминесценцию мембран эритроцитов крови человека in vitro**

Вардеванян П.О., Погосян Г.А., Микаелян М.С.

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*Conference*

**EPIGENETIC EVENTS IN WHEAT SEEDLINGS NUCLEI ABIOTIC STRESS RESPONSES**

Minasbekyan L.A., Mikaelyan M.S., Avagyan I.A.

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*Conference*

**ИССЛЕДОВАНИЕ СПЕКТРАЛЬНЫХ ХАРАКТЕРИСТИК БЫЧЬЕГО СЫВОРОТОЧНОГО  
АЛЬБУМИНА ПОД ВЛИЯНИЕМ ЭЛЕКТРОМАГНИТНЫХ ВОЛН МИЛЛИМЕТРОВОГО ДИАПАЗОНА**

Григорян С.В., Шагинян М.А., Микаелян М.С., Парсаданян М.А., Вардеванян П.О.

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