

# Marine Ashot Parsadanyan

## Research Institute of Biology

Laboratory of Biophysics of Subcellular Structures

Leading researcher

☎ 48-76  
(093) 59-29-85

✉ marine.parsadanyan@ysu.am



## Education

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|--------------------|--------------------------|
| <b>Institution</b> | Yerevan State University |
| <b>Faculty</b>     | Faculty of Biology       |
| <b>Date</b>        | 1989 - 1994              |
| <b>Degree name</b> | Qualified specialist     |

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## Scientific Rank/degree

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| <b>Institution</b>    | Yerevan State University   |
| <b>Date</b>           | 2022   |
| <b>Degree name</b>    | Doctor   |
| <b>Specialty</b>      | Biological sciences  |
| <b>Research Topic</b> | Interaction of different ligands with synthetic polynucleotide poly(rA)-poly(rU) |

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| <b>Institution</b> | Yerevan State University |
| <b>Date</b>        | 2012                     |
| <b>Degree name</b> | Associate professor      |
| <b>Specialty</b>   | Biological sciences      |

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| <b>Institution</b>           | Yerevan State University   |
| <b>Date</b>                  | 2002   |
| <b>Degree name</b>           | Candidate  |
| <b>Specialty</b>             | Biological sciences  |
| <b>Scientific Supervisor</b> | Poghos Vardevanyan   |
| <b>Research Topic</b>        | Structural changes in genome of some cereal germs at germination |

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## Language skills

Русский English

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## Publications

*Article*

**Affinity Assessment of DNA-Specific of Ethidium Bromide and Methylene Blue Intercalator Ligands with Poly(rA), Poly(rU), and Poly(rA)-Poly(rU) ( ОЦЕНКА СТЕПЕНИ СРОДСТВА ДНК-**

**СПЕЦИФИЧЕСКИХ ЛИГАНДОВ ИНТЕРКАЛЯТОРОВ БРОМИСТОГО ЭТИДИЯ И МЕТИЛЕНОВОГО СИНЕГО С РО**

Vardevanyan P.O., Antonyan A.P., Matevosyan A.G., Parsadanyan M.A., Movsisyan Z.O.

Журнал прикладной спектроскопии (Journal of Applied Spectroscopy) 2024 65-73

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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*

**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

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*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

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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*

**Study of complexation of single-stranded poly(rA) and poly(rU) with methylene blue**

Poghos O. Vardevanyan, Ara P. Antonyan, Zvart H. Movsisyan, Marine A. Parsadanyan,

Mariam A. Shahinyan, Karine R. Grigoryan, Hasmik A. Shilajyan

Journal of Biomolecular Structure and Dynamics 2023 15320-15327

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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

**Study of complexes of Hoechst 33258 with poly(rA)-poly(rU) depending on various ionic strengths in the water-saline solution**

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

Journal of Biomolecular Structure and Dynamics 2022 1182-1188

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Article

**Study of interaction of methylene blue with DNA and albumin**

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

Nara H. Petrosyan

Journal of Biomolecular Structure and Dynamics 2022 7779-7785

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Article

**Флуоресцентные характеристики комплексов Hoechst 33258 с сывороточным альбумином и ДНК**

Антонян А.П., Парсаданян М.А., Петросян Н.Г., Вардеванян П.О.

Журнал прикладной спектроскопии (Journal of Applied Spectroscopy) 2022 519-524

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Article

**Comparision 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

**Взаимодействие метиленового синего с одноцепочечными полинуклеотидами poly(rA) и poly(rU) и с двухцепочечным полинуклеотидом poly(rA)-poly(rU)**

Антонян А.П., Мовсесян З.О., Парсаданян М.А., Вардеванян П.О.,

Актуальные вопросы биологической физики и химии 2022 251-255

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Article

**WHEAT PROTEIN INCREASING THROUGH RADIATION TECHNOLOGIES**

L.A. MINASBEKYAN, M. A. PARSADANYAN

Proceedings of the Yerevan Sate University B: Chemical and Biological Science 2022 225-230

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Article

**Duplex-triplex transition in complexes of nucleic acids with Hoechst 33258**

M.A.Parsadanyan

ԵՊՀ գիտական տեղեկագիր, Բնական գիտություններ 2021 39-45

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*Article*

**BINDING PECULIARITIES OF POLY(rA)-POLY(rU) WITH MINOR GROOVE LIGAND HOECHST 33258**

M.A. Parsadanyan, M.A. Shahinyan, Z.H. Movsisyan, A.P. Antonyan

Proceedings of the YSU B: Chemical and Biological Sciences 2021 144-150

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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*

**ИЗМЕНЕНИЕ ВЫХОДНОГО СИГНАЛА ДНК-БИОСЕНСОРА, ИНДУЦИРОВАННОГО АДсорбцией ЛИГАНДОВ НА ДУПЛЕКСЫ ДНК В ФЛУКТУИРУЮЩЕЙ СРЕДЕ**

В.Б. Аракелян, А.П. Антонян, М.А. Парсаданян, М.А. Шагинян, П.О. Вардеванян

Биофизика (Biophysics) 2020 670-675

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*Article*

**Термодинамика взаимодействия синтетического полинуклеотида poly(rA)-poly(rU) с лигандами -интеркаляторами**

П.О.Вардеванян, А.П.Антонян, М.А.Парсаданян

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2020 126-135

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*Article*

**Thermodynamic analysis of Hoechst 33258 interaction with poly(rA)-poly(rU)**

P.O.Vardevanyan, M.A.Parsadanyan

Biological Journal of Armenia 2020 17-23

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*Article*

**Spectroscopic study of interaction of various GCcontent DNA with Hoechst 33258 depending on Na<sup>+</sup> concentration**

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

Armen T. Karapetyan

Journal of Biomolecular Structure and Dynamics 2020 1-6

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*Article*

**STUDY OF METHYLENE BLUE INTERACTION WITH SYNTHETIC POLYNUCLEOTIDE POLY(rA)-POLY(rU)**

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

Proceedings of the YSU B: Chemical and Biological Sciences 2020 112-117

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*Article*

**Hybridization kinetics of DNA fragments in the presence of ligands intercalating into DNA-duplexes**

Valeri B. Arakelyan, Aleksandr Y. Mamasakhlisov, Eduard M. Kazaryan, Marine A. Parsadanyan,

Poghos O. Vardevanyan

Journal of Biomolecular Structure and Dynamics 2020 1-6

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Article

**Study of binding peculiarities of ethidium bromide and methylene blue with double-stranded RNA**

M.A.Parsadanyan

Proceedings of the YSU B: Chemical and Biological Sciences 2020 38-45

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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 the ionic strength on complex-formation of ethidium bromide with poly(rA)-poly(rU)**

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

Journal of Biomolecular Structure and Dynamics 2019 1-7

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Article

**HOECHST 33258 COMPOUND INTERACTION WITH DIFFERENT GC-CONTENT DNA**

A.P. ANTONYAN, M.A. PARSADANYAN, M.A. TOROSYAN, A.T. KARAPETYAN

Proceedings of the YSU B: Chemical and Biological Sciences 2019 107-112

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Article

**COMPARATIVE STUDY OF ETHIDIUM BROMIDE INTERACTION WITH SYNTHETIC POLYNUCLEOTIDES ds-POLY(rA)-POLY(rU) AND ds-POLY(dA)-POLY(dT)**

Parsadanyan M.A.

ԵՊՀ Գիտական տեղեկագիր, Բնական գիտություններ 2019 175-179

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Article

**Спектроскопическое исследование связывания нетропсина и Hoechst 33258 с нуклеиновыми кислотами.**

Вардеванян П.О., Парсаданян М.А., Антонян А.П., Саакян В.Г.

Журнал прикладной спектроскопии (Journal of Applied Spectroscopy) 2018 321-326

<http://imaph.bas-net.by/JAS/rus/ruslib/8502/cont8502.html>

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Article

**Interaction of Methylene blue with synthetic polynucleotide poly(dA)-poly(dT).**

Parsadanyan Marine A., Antonyan Ara P., Vardevanyan Poghos O., Sngryan H.E.

Biophysical Reviews and Letters 2018 29-36

<https://www.worldscientific.com/doi/abs/10.1142/S1793048018500030>

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Article

**STUDY OF COMPARATIVE INTERACTION OF ETHIDIUM BROMIDE AND MITOXANTRONE WITH NUCLEIC ACIDS**

A. P. ANTONYAN, M. A. TOROSYAN, M. A. PARSADANYAN

Proceedings of the YSU B: Chemical and Biological Sciences 2018 52-57

<http://ysu.am/files/8.%20COMPETITIVE%20INTERACTION%20OF%20ETHIDIUM%20BROMIDE%20...>

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Article

**Исследование совместного связывания акридинового оранжевого и бромистого этидия с ДНК**

Ս.Օ.Վարդեւանյան, Ա.Ս.Անտոնյան, Մ.Ա.Սարսադանյան, Վ.Գ.Տահակյան

ՀՀ ԳԱԱ գեղարվեստ 2017 74-81

<http://www.flib.sci.am/eng/Reports/Frame.html>

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*Article*

**Melting parameters of DNA complexes with several intercalators**

A.P.Antonyan, M.A.Parsadanyan, V.G.Sahakyan, P.O.Vardevanyan

Proceedings of the YSU B: Chemical and Biological Sciences 2017 27-30

<http://www.y-su.am/science/hy/journals>

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*Article*

**Анализ термодинамических параметров связывания бромистого этидия и митоксантрона с ДНК по изотермам адсорбции**

Ս.Օ.Վարդեւանյան, Մ.Ա.Սարսադանյան, Ա.Ս.Անտոնյան, Շ.Ն.Ակոփյան

Журнал физической химии (Russian Journal of Physical Chemistry A) 2017 1071-1073

<http://www.maik.ru/ru/journal/fizkhim/>

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*Article*

**Exploring the interaction of ethidium bromide and Hoechst 33258 with DNA by means of electrochemical approach.**

Tavadyan Levon A., Minasyan Seyran H., Kocharyan Gaspar H., Antonyan Ara P., Sahakyan Viktoria G., Parsadanyan Marine A., Vardevanyan Poghos O.

Biophysical Reviews and Letters 2017 151-161

<https://www.worldscientific.com/toc/brl/12/03>

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*Article*

**Peculiarities of interaction of synthetic polyribonucleotide poly(rA)-poly(rU) with some intercalators**

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

Victoria G. Sahakyan

Journal of Biomolecular Structure and Dynamics 2017 1-7

<https://www.tandfonline.com/doi/abs/10.1080/07391102.2017.1402708>

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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*

**Joint interaction of ethidium bromide and methylene blue with DNA. The effect of ionic strength on binding thermodynamic parameters**

Poghos O. Vardevanyan, Ara P.Antonyan, Marine A. Parsadanyan, Margarita A.Torosyan,

Armen T.Karapetian

Journal of Biomolecular Structure and Dynamics 2016 1377-1382

<http://www.tandfonline.com/action/journalInformation?journalCode=tbsd20#.V25anP...>

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*Article*

**Behavior of ethidium bromide-Hoechst 33258-DNA and ethidium bromide-methylene blue-DNA triple systems by means of UV melting.**

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

Gayane A. Melkonyan

International Journal of Spectroscopy 2015 1-5

<http://www.hindawi.com/journals/ij/s/>

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*Article*

**Спектры поглощения и флуоресценции комплексов полинуклеотидов с бромистым этидием.**

П.О. Вардеванян, А.П. Антонян, М.А. Парсаданян, М.В. Минасянц

Известия НАН РА. Физика (Journal of Contemporary Physics (Armenian Academy of Sciences) 2015 511-519

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

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*Article*

**Determination of the isosbestic point in the absorption spectra of DNA-ethidium bromide complexes**

P.O. Vardevanyan, V.L. Elbakyan, M.A. Shahinyan, Minasyants M.V., Parsadanyan M.A., Sahahakyan N.S.

Journal of Applied Spectroscopy 2015 1060-1063

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

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*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](http://elibrary.ru/title_about.asp?id=7680)

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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*

**Effect of millimeter range electromagnetic waves on water-saline solutions of DNA and its complexes with different ligands**

Marine Parsadanyan, Ara Antonyan, Narek Shahnazaryan, Poghos Vardevanyan

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*Conference*

**Comparative study of binding of some intercalating compounds with DNA.**

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

Victoria G. Sahakyan

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*Conference*

**Effect of concentration of ligands on DNA-biosensor average output signal and dispersion.**

Valeri B. Arakelyan, Marine A. Parsadanyan, Poghos O. Vardevanyan

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*Conference*

**Study of three-component system, consisted of DNA complexes with ligands of different type.**

Ara P. Antonyan, Marine A. Parsadanyan, Narek H. Shahnazaryan, Poghos O. Vardevanyan

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*Conference*

**ВЛИЯНИЕ АДСОРБЦИИ ЛИГАНДОВ НА СТАТИСТИЧЕСКИЕ ХАРАКТЕРИСТИКИ ВЫХОДНОГО СИГНАЛА ДНК-БИОСЕНСОРА**

Аракелян В.Б., Антонян А.П., Парсаданян М.А., Шагинян М.А., Вардеванян П.О.

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*Conference*

**ИЗУЧЕНИЕ КОМПЛЕКСОВ ДНК С ЛИГАНДАМИ РАЗЛИЧНОЙ ПРИРОДЫ**

Вардеванян П.О., Парсаданян М.А., Антонян А.П., Шагинян М.А.

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*Conference*

**Peculiarities of the interaction of different ligands with nucleic acids**

Antonyan A.P., Parsadanyan M.A., Vardevanyan P.O.

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*Conference*

**Study of the influence of the ionic strength on complex-formation of ethidium bromide with DNA and RNA**

A.Antonyan, M.Parsadanyan, M.Shahinyan, P.Vardevanyan

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*Conference*

**Interaction of Double Stranded Nucleic Acids with Different Ligands**

Vardevanyan P., Parsadanyan M., Antonyan A., Shaninyan M.

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*Conference*

**Thermodynamic Analysis of Hoechst 33258 Interaction with Poly(rA)-Poly(rU)**

Parsadanyan M., Antonyan A., Shahinyan M., Vardevanyan P.

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*Conference*

**Binding of poly(rA)-poly(rU) with methylene blue**

Z.H.Movsisyan, P.O.Vardevanyan, A.P.Antonyan, M.A.Parsadanyan

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*Conference*

**ОСОБЕННОСТИ СВЯЗЫВАНИЯ МЕТИЛЕНОВОГО СИНЕГО С ОДНОЦЕПОЧЕЧНЫМИ СИНТЕТИЧЕСКИМИ ПОЛИНУКЛЕОТИДАМИ POLY(rA) И POLY(rU)**

Антонян А.П., Парсаданян М.А., Мовсесян З.О., Шиладжян А.А., Григорян К.Р., Вардеванян П.О

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*Conference*

**Влияние мультипликативного шума на выходной сигнал ДНК-биосенсора**



Алоян Л., Аракелян В.Б., Парсаданян М.А., Вардеванян П.О.

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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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