

# Hasmik Avetik Shilajyan

✉ hshilajyan@ysu.am



## Research Center for Chemistry

Ֆիզիկական քիմիայի լաբորատորիա

Researcher

## Education

---

|                    |                          |
|--------------------|--------------------------|
| <b>Institution</b> | Yerevan State University |
| <b>Faculty</b>     | Chemistry                |
| <b>Date</b>        | 2010 - 2015              |
| <b>Degree name</b> | Applicant                |

---

|                    |                          |
|--------------------|--------------------------|
| <b>Institution</b> | Yerevan State University |
| <b>Faculty</b>     | Chemistry                |
| <b>Date</b>        | 2007 - 2009              |
| <b>Degree name</b> | Masters                  |

---

|                    |                          |
|--------------------|--------------------------|
| <b>Institution</b> | Yerevan State University |
| <b>Faculty</b>     | Chemistry                |
| <b>Date</b>        | 2003 - 2007              |
| <b>Degree name</b> | Bachelor                 |

---

## Scientific Rank/degree

---

|                              |   |
|------------------------------|---|
| <b>Institution</b>           | Yerevan State University  |
| <b>Date</b>                  | 2015  |
| <b>Degree name</b>           | Postgraduate  |
| <b>Scientific Supervisor</b> | Grigoryan Karine  |
| <b>Research Topic</b>        | The Effect of Electrolytes on Physicolchemical Properties of Serum Albumin-Water-Dialkylsulfoxide Systems |

---

## Language skills

---

Հայերեն Русский English

---

## Work experience

---

|                       |                                |
|-----------------------|--------------------------------|
| <b>Institution</b>    | Yerevan State University       |
| <b>Period of time</b> | 2008 till now                  |
| <b>Rank/degree</b>    | head of educational laboratory |

---

*Article*

**Effect of bovine serum albumin on gallic acid and tannic acid radical scavenging properties and binding kinetics with 2,2-diphenyl-1-picrylhydrazyl**

Ashkhen Zatikyan, Karine Grigoryan, Hasmik Shilajyan, Ioannis Savvaidis, Liana Mkhitarian

Process Biochemistry 2024 30-38

---

*Article*

**MOLECULAR INTERACTIONS OF L-TYROSINE IN DIMETHYL SULFOXIDE AQUEOUS SOLUTIONS. PART 1: ELECTRONIC ABSORPTION AND FLUORESCENCE SPECTROSCOPY STUDIES**

K.R. Grigoryan, H.A. Shilajyan, R.G. Harutyunyan

Proceedings of the YSU B: Chemical and Biological Sciences 2023 1-7

---

*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

---

*Article*

**Citrullination of adenosine deaminase impairs its binding to dipeptidyl peptidase IV**

Luiza Karapetyan, Svetlana Sharoyan, Sona Mardanyan, Giulio Lupidi, Massimiliano Cuccioloni,

Mauro Angeletti, Shiraz Markarian, Hasmik Shilajyan, Alvard Antonyan

Biophysical Chemistry 2022 106820

---

*Article*

**Spectroscopic analysis of 2-(5-mercapto-1,3,4-oxadiazol-2-yl)-6-methylquinolin-4-ol binding to blood plasma albumin**

Karine R. Grigoryan, Hasmik A. Shilajyan, Ashkhen Zatikyan, Iskuhi Aleksanyan, Lilit Hambardzumyan

MONATSCHEFTE FUR CHEMIE 2022 507-515

---

*Article*

**FLUORESCENCE STUDIES ON THE BLOOD PLASMA ALBUMIN INTERACTION WITH 4-HYDROXY-2-METHYLQUINOLINE**

K. R. GRIGORYAN, H. A. SHILAJYAN, I. L. ALEKSANYAN, L. P. HAMBARDZUMYAN, H. H. HOVHANNISYAN

Proceedings of the YSU B: Chemical and Biological Sciences 2022 100-107

---

*Article*

**THE EFFECT OF DIMETHYLSULFOXIDE ON THE FLUORESCENCE PROPERTIES OF SOME 4-HYDROXYQUINOLINES**

Karine R. Grigoryan, Hasmik A. Shilajyan, Iskuhi L. Aleksanyan, Zara L. Grigoryan,

Lilit P. Hambardzumyan

Proceedings of the YSU B: Chemical and Biological Sciences 2021 112-117

---

*Article*

**UV/Vis and fluorescence study on the interaction of Ni(II) complex of Schiff base of glycine and chiral auxiliary (S)-2-[N-(N'-benzylpropyl)- amino]benzophenone with bovine serum albumin**

*Article*

**Effect of monovalent ions on the thermal stability of bovine serum albumin in dimethylsulfoxide aqueous solutions. Spectroscopic approach**

Karine Grigoryan, Ashkhen Zatikyan, Hasmik Shilajyan

Journal of Biomolecular Structure and Dynamics 2020 1-15

---

*Article*

**BOVINE SERUM ALBUMIN FLUORESCENCE QUENCHING BY TANNIC ACID IN DIMETHYLSULFOXIDE CONTAINING SOLUTIONS**

K. R. GRIGORYAN, H. A. SHILAJYAN, V. A. HOVHANNISYAN

Proceedings of the YSU B: Chemical and Biological Sciences 2020 99-104

---

*Article*

**FLUORESCENCE STUDY ON TRYPTOPHAN-POTASSIUM IODIDE INTERACTION**

H. A. Shilajyan, K.R. Grigoryan

Proceedings of the YSU B: Chemical and Biological Sciences 2018 75-79

---

*Article*

**FLUORESCENCE 2D AND 3D SPECTRA ANALYSIS OF TRYPTOPHAN, TYROSINE AND PHENYLALANINE**

K.R.GRIGOTRAN, H. A. SHILAJYAN

Proceedings of the YSU B: Chemical and Biological Sciences 2017 3-7

<http://www.ysu.am/science/hy/journals>

---

*Article*

**Analysis of the Interaction of Gallic Acid and Myoglobin by UV-vis Absorption Spectroscopy**

Grigoryan K. R., Shilajyan H. A.

Russian Journal of Bioorganic Chemistry 2017 257-260

<https://link.springer.com/journal/11171>

---

*Article*

**Իոնների սուլվատացիայի ուսումնասիրությունը դիմերթիլսուլֆօքսիդի ջրային լուծույթներում  
Էլեկտրահաղորդականության մեթոդով**

Հասմիկ Շիլաջյան, Մերրի Մկրտչյան

ԵՊՀ ՌԲԸ գիտական հոդվածների ժողովածու 2015 131-134

<http://www.ysu.am/sss/hy>

---

*Article*

**Heat Induced Denaturation Of Bovine Serum Albumin In Dimethylsulfoxide Containing Solutions In The Presence Of Potassium Iodide**

K. R. Grigoryan, H.A.Shilajyan

Proceedings of the YSU B: Chemical and Biological Sciences 2015 3-5

<http://www.ysu.am/science/hy/journals>

---

*Article*

**EXPERIMENTAL AND THEORETICAL STUDIES ON THE SOLVATION OF POTASSIUM AND CHLORINE IONS IN AQUEOUS DIMETHYLSULFOXIDE SOLUTIONS**

K. R. Grigoryan, A. A. Shilajyan, A. L. Zatikyan  
Journal of Structural Chemistry 2015 662-666  
<http://www.springer.com/chemistry/inorganic+chemistry/journal/10947>

---

*Article*

**STUDY OF THERMAL DENATURING OF HUMAN SERUM ALBUMIN IN THE PRESENCE OF POTASSIUM CHLORIDE BY THE EXCITATION/EMISSION MATRIX METHOD**

K. R. Grigoryan, H. A. Shilajyan

Journal of Applied Spectroscopy 2013 786-789

---

*Article*

**Intermolecular Interactions in Albumin-Sulfoxide-Water Systems at Low Temperatures, Investigated by Means of Fluorescence Quenching**

Grigoryan K. R., Shilajyan H. A.

Журнал физической химии (Russian Journal of Physical Chemistry A) 2013 780-782

---

*Article*

**INFLUENCE OF DIMETHYLSULFOXIDE ON THE FLUORESCENCE BEHAVIOR OF HUMAN SERUM ALBUMIN STUDIED BY EXCITATION/EMISSION MATRIX FLUORESCENCE SPECTROSCOPY METHOD**

Grigoryan K. R., Shilajyan H.A.

Proceedings of the YSU B: Chemical and Biological Sciences 2013 50-53

---

*Article*

**Physicochemical Peculiarities of Iodine-Dimethylsulfoxide-H<sub>2</sub>O Solutions and Effect on Ion Binding to Bovine Serum Albumin**

Grigoryan K. R., Shilajyan H.A.

Datasets International Dataset Papers in Chemistry 2013 1-5

---

*Article*

**The effect of solvated ions on the thermal denaturation of human serum albumin in water-dimethylsulfoxide solutions**

Grigoryan K. R., Shiladzhyan A.A.

Биоорганическая Химия (Russian Journal of Bioorganic Chemistry) 2009 581-584

---

*Conference*

**СПЕКТРАЛЬНЫЕ ИССЛЕДОВАНИЯ ВЗАИМОДЕЙСТВИЯ ГАЛЛОВОЙ И ДУБИЛЬНОЙ КИСЛОТ С МИОГЛОБИНОМ**

Григорян К.Р., Шиладжян А.А.

---

*Conference*

**ТЕРМИЧЕСКАЯ ДЕНАТУРАЦИЯ БЫЧЬЕГО СЫВОРОТОЧНОГО АЛЬБУМИНА В РАСТВОРАХ ВОДА - ДИМЕТИЛСУЛЬФОКСИД В ПРИСУТСТВИИ LiCl И LiClO<sub>4</sub>**

Григорян К.Р., Шиладжян А.А., Затикян А.Л.

---

*Conference*

**Флуоресценция комплексов альбумин-танин в смешанных растворителях вода-диметилсульфоксид.**

К.Р. Григорян, А.А. Шиладжян, В. А. Оганисян

---

*Conference*

**Fluorescence Study of 2-(5-Mercapto-1,3,4-oxadiazol-2-yl)-6-methylquinoline-4-ol binding to Bovine Serum Albumin**

Grigoryan K.R., Shilajyan H.A., Aleqsanyan I.L., Hambardzumyan L.P., Hovhannisyan H.H.

---

*Conference*

**Structural Peculiarities of L-Tyrosine Associates in Dimethylsulfoxide Aqueous Solutions**

Zatikyan A.L., Shilajyan H.A., Grigoryan K.R.

---

*Conference*

**FLUORESCENCE PROPERTIES OF 2-METHYLQUINOLIN-4-OL AND ITS MERCAPTO-OXADIAZOLYL DERIVATIVE IN DIMETHYLSULFOXIDE AQUEOUS SOLUTIONS**

Hasmik Shilajyan, Karine Grigoryan, Iskuhy Aleksanyan, Zara Grigoryan, Lilit Hambardzumyan

---

*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

---

*Conference*

**STUDY ON SOLVENT- MEDIATED RADICAL SCAVENGING ACTIVITY OF MORIN TOWARDS 2, 2-DIPHENYL-1- PICRYLHYDRAZYL**

Grigoryan K. R., Shilajyan H., Mkhitaryan L., Harutyunyan R., Khachatryan Zh.

---