Shiraz Alexander Markarian

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Ֆիզիկական քիմիայի լաբորատորիա
Honored Leading Scientist

Faculty of Chemistry
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Education

Faculty	Chemistry
Date	1970 - 1974
Degree name	PhD student

Institution	Yerevan State University
Faculty	Department of Chemistry
Date	1965 - 1970
Degree name	Qualified specialist

Scientific Rank/degree

Date	1989
Degree name	Doctor
Research Topic	molecular interactions and reactions of sulfoxides, sulfides and amines

Institution	Yerevan State University
Date	1975
Degree name	Candidate
Scientific Supervisor	Բուչաչենկո
Research Topic	Quantitative study of nuclea polarization and magnetic effects in chemical reactions

Language skills

English Русский Deutsch

Work experience

Institution	Yerevan State University
Period of time	2000 till now

Rank/degree	Head of Chair of Physical Chemistry

Membership

Institution	Member of editorial board
Period of time	1992 - 2004

State awards and honorary titles

2010 Best Scientific Work of the Republic of Armenia in area of natural sciences

2002 Presidential award of the Republic of Armenia

Publications

Article

Density and Viscosity of Dimethylsulfone (or Diethylsulfone) Solutions in Acetonitrile: Comparison to Aqueous Solutions
Hasmik Sargsyan, Zara Grigoryan, Shiraz Markarian, Gevorg Grigoryan

Journal of Chemical & Engineering Data 2026 2098 - 2105

https://doi.org/10.1021/acs.jced.6c00013

Article

Study of p-Nitroaniline Binding to Diethyl Sulfoxide-Containing AOT Reverse Micelles: Comparison to Dimethyl Sulfoxide
Hasmik R. Sargsyan, Heghine H. Ghazoyan, Shiraz A. Markarian, Gevorg S. Grigoryan

Journal of Solution Chemistry 2025 1-13

Conference

Volumetric Properties of Solutions of Dimethylsulfone and Diethylsulfone
Grigoryan Z., Markarian Sh.

2025 178 - 178

https://newtrendschem.org/program/

Article

Diphenyl selenoxide: Unraveled peculiarities in methanol and acetonitrile solutions
Vitaly V. Chaban, Shiraz A. Markarian, Heghine H. Ghazoyan, Hasmik R. Sargsyan, Gevorg S. Grigoryan,

Adrine D. Sahakyan, Levon A. Tavadyan

Journal of Molecular Liquids 2024 125331

Conference

Dynamic Light Scattering and Volumetric Study of Vitamins (B1 and B6) in Aqueous Solutions of DMSO
Heghine H. Ghazoyan, Shiraz A. Markarian

2024 P108

http://lmc2024.com

Conference

The effect of dimethylsulfoxide (or diethylsulfoxide) on the properties of DNA solutions
Shiraz A. Markarian, Gohar A. Shahinyan, Heghine H. Ghazoyan

2024 P125

http://lmc2024.com

Article

СПЕКТРОСКОПИЧЕСКОЕ ИССЛЕДОВАНИЕ КОМПЛЕСООБРАЗОВАНИЯ МЕДИ(II) С (S)-β-[3-ИЗОБУТИЛ-4-(2-МЕТАЛЛИЛ)-5-ТИОКСО-1,2,4-ТРИАЗОЛ-1-ИЛ]-α-АЛАНИНОМ В ВОДНОМ РАСТВОРЕ
А.Р. Саркисян, Г.С. Григорян, Ш.А. Маркарян

IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY KHIMIYA KHIMICHESKAYA TEKHNOLOGIYA 2023 62-69

Article

Dimethyl sulfoxide fosters larger micelles of docusate sodium in the mixed solutions with water
S.A. Markarian, H.R. Sargsyan, G.S. Grigoryan, H.H. Ghazoyan, V.V. Chaban

Journal of Molecular Liquids 2023 120960

Article

Dimethyl sulfoxide heavily extends homogeneous regions of the Propionitrile/DMSO/Water mixtures
Heghine H. Ghazoyan, Zara L. Grigoryan, Shiraz A. Markarian, Vitaly V. Chaban

Journal of Molecular Liquids 2023 121734

Article

The Effect of Dimethylsulfoxide (or Diethylsulfoxide) on Methylene Blue-Calf Thymus DNA Binding in Aqueous Solutions by Fluorescence Polarization and Steady-State Fluorescence Quenching
Gohar A. Shahinyan, Heghine H. Ghazoyan, Shiraz A. Markarian

Journal of Solution Chemistry 2023 708–719

Article

Diphenylsulfoxide exhibits an outstanding solubility in Methanol: Physicochemical and quantum chemical evidences. Comparison to acetonitrile
Shiraz A. Markarian, Heghine H. Ghazoyan, Hasmik R. Sargsyan, Gevorg S. Grigoryan, Vitaly V. Chaban,

Adrine D. Sahakyan, Levon A. Tavadyan

Journal of Molecular Liquids 2023 122924

Article

The Study of the Effect of Dimethylsulfoxide (or Diethylsulfoxide) on Quinine Sulfate-DNA Binding by UV–Vis and Steady-State Fluorescence Spectroscopies
Gohar A. Shahinyan, Shiraz A. Markarian

Journal of Fluorescence 2023 1-12

Conference

Thermodynamic study of binary mixtures of aliphatic nitriles (acetonitrile, propionitrile, butyronitrile and acrylonitrile) with dimethylsulfoxide (or diethylsulfoxide)
Shiraz Markarian, Zara Grigoryan, Heghine Ghazoyan

2023 97 - 97

https://icsc2023.pmf.uns.ac.rs/

Conference

Size determination of nanoparticles of vitamins B1 and B6 in DMSO-water mixtures by dynamic light scattering
Heghine Ghazoyan, Shiraz Markarian

2023 124 - 124

https://icsc2023.pmf.uns.ac.rs/

Conference

Excess Molar Volumes in Homogeneous Region of Propionitrile+DMSO+Water Ternary Liquid Mixtures at Temperatures From (298.15 to 323.15)K
Ghazoyan H.H., Markarian Sh.A.

2023 156

https://newtrendschem.org/

Conference

COMPLEX FORMATION OF COPPER(II) WITH (S)-β-[3-ISOBUTYL-4-(2-METALLYL)-5-THIOXO-1,2,4- TRIAZOL-1-YL]-α-ALANINE IN AQUEOUS SOLUTION
Sargsyan H.R., Grigoryan G.S., Markarian S.A.

2023 288

https://newtrendschem.org/

Article

FTIR ATR SPECTRAL AND THEORETICAL VIBRATIONAL STUDIES OF URACIL IN DIMETHYLSULFOXIDE OR DIETHYLSULFOXIDE SOLUTIONS
A.L. Zatikyan, Sh.A. Markarian

Journal of Structural Chemistry 2022 388-406

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

Conference

THE DYNAMIC LIGHT SCATTERING OF B1 AND B6 VITAMINES IN DMSO-WATER MIXTURES
H.H. Ghazoyan, L. Baghdasaryan, S.A. Markarian

2022 84-85

https://polychar-28.ysu.am/

Conference

THE MICELIZATION OF AOT IN AQUEOUS SOLUTION OF DMSO
H. Sargsyan, G. Grigoryan, H. Ghazoyan, Sh. Markarian

2022 57-58

https://polychar-28.ysu.am/

Article

Volumetric Properties of Butyronitrile–Dimethyl Sulfoxide and Butyronitrile–Diethyl Sulfoxide Binary Mixtures

H.H. Ghazoyan, Sh.A. Markaryan

Журнал физической химии (Russian Journal of Physical Chemistry A) 2021 1811–1820

Conference

ИССЛЕДОВАНИЕ СМЕСЕЙ АЛИФАТИЧЕСКИХ НИТРИЛОВ С СУЛЬФОКСИДАМИ НА ОСНОВАНИИ ДАННЫХ ДЕНСИТОМЕТРИИ, ВИСКОЗИМЕТРИИ И ФАЗОВЫХ РАВНОВЕСИЙ
Казоян Е.А., Григорян З.Л., Маркарян Ш.А.

2021 98

http://cluster.isc-ras.ru

Conference

ИССЛЕДОВАНИЕ КОМПЛЕКСООБРАЗОВАНИЯ ВИТАМИНА B12 С ДНК МЕТОДОМ ЭЛЕКТРОННОЙ СПЕКТРОСКОПИИ ПОГЛОЩЕНИЯ
Саркисян А.Р., Маркарян Ш.А.

2021 108 - 108

http://cluster.isc-ras.ru/sites/default/files/collectionabstracts/59/sbornik-te...

Article

Study of the Interaction of Novel Nonprotein Amino Acids with Trypsin by Steady-State Fluorescence Spectroscopy
Gohar A. Shahinyan, Ani S. Dadayan, Nelli A. Hovhannisyan, Shiraz A. Markarian

Journal of Fluorescence 2020 229-233

Article

ИССЛЕДОВАНИЕ ВЗАИМОДЕЙСТВИЯ ПОЛИАКРИЛОНИТРИЛА С ДИМЕТИЛСУЛЬФОКСИДОМ МЕТОДАМИ ДТА/ТГ И ИК-СПЕКТРОСКОПИИ
З. Л. ГРИГОРЯН, Ш. А. МАРКАРЯН

Հայաստանի քիմիական հանդես 2020 8-14

Article

Dielectric relaxation and proton field-cycling NMR relaxometry study of dimethyl sulfoxide/glycerol mixtures down to glass-forming temperatures
Max Flämig, Liana Gabrielyan, Rafael Minikejew, Shiraz Markarian, Ernst A. Rössler

Physical Chemistry Chemical Physics 2020 9014-9028

Article

Fluorescence anisotropy studies on the Hoechst 33258-DNA interaction: the solvent effect
Karen Yu. Amirbekyan, Gohar A. Shahinyan, Heghine H. Ghazoyan, Hasmik R. Sargsyan,

Shiraz A. Markarian

Journal of Biomolecular Structure and Dynamics 2020 1-5

Article

Volumetric, UV–Vis and FT IR Studies of Isoniazid in Diethylsulfoxide Solutions
Shiraz A. Markarian, Zakar K. Papanyan, Gohar A. Shahinyan

Journal of Solution Chemistry 2020 1-13

Conference

УФ-ИССЛЕДОВАНИЕ КОМПЛЕКСООБРАЗОВАНИЯ п-НИТРОАНИЛИНА С МОЛЕКУЛАМИ АЭРОЗОЛЯ ОТ В МИЦЕЛЛЯРНЫХ СИСТЕМАХ
А.Р. Саркисян, Е.А. Казоян, Ш.А. Маркарян

2020 299-300

http://www.spec-complex.kubsu.ru/

Conference

UV-VIS AND FT IR STUDY OF COMPLEX FORMATION BETWEEN ISONIAZID AND DIMETHYLSULFOXIDE OR DIETHYLSULFOXIDE

G.A. Shahinyan, Z.K. Papanyan, S.A. Markarian

2020 362

http://www.spec-complex.kubsu.ru/

Study manual

Ֆիզիկական քիմիայի խնդիրների ժողովածու

Գաբրիելյան Լ. Ս., Խաչատրյան Ա. Գ., Մարգարյան Շ. Ա.

2020 222

Article

Photophysical properties of methylene blue in water and in aqueous solutions of dimethylsulfoxide

Gohar A. Shahinyan, Aren Yu. Amirbekyan, Shiraz A. Markarian

SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY 2019 170-175

Article

Study of thermodynamic properties of binary mixtures of propionitrile with dimethylsulfoxide (or diethylsulfoxide) at temperatures from (298.15 to 323.15)K

Heghine H. Ghazoyan, Zara L. Grigoryan, Liana S. Gabrielyan, Shiraz A. Markarian

Journal of Molecular Liquids 2019 147-156

Article

DENSITIES AND ELECTRICAL CONDUCTIVITIES OF COPPER(II) CHLORIDE SOLUTIONS IN DIMETHYL SULFOXIDE AND WATER–DIMETHYL SULFOXIDE EQUIMOLAR MIXTURE AT THE TEMPERATURES 298.15, 308.15 AND 318.15 K

H. H. GHAZOYAN, Sh. A. MARKARIAN

Proceedings of the YSU B Chemical and Biological Sciences 2019 3-9

Article

Synthesis, Structure, and Properties of Novel Enamine Containing Coumarin and Phosphonium Fragments

L. D. Popov, I. N. Scherbakov, S. A. Borodkin, Yu. V. Revinskii, E. A. Kazoyan, G. A. Shaginyan,

A. R. Sarkisyan, Sh. A. Markaryan

Russian Journal of General Chemistry 2019 906-912

Article

Synthesis of Phosphonium Enamines: Physicochemical Properties of Dimethyl Sulfoxide Solutions

S. A. Borodkin, E. A. Kazoyan, L. D. Popov, G. A. Shaginyan, A. R. Sarkisyan, I. N. Shcherbakov,

Sh. A. Markaryan

Russian Journal of Physical Chemistry A 2019 2187–2191

Article

Thermodynamic and Spectroscopic (UV–Vis, FT IR) Studies of Solutions of CoCl2 (or NiCl2) in

Diethylsulfoxide
Shiraz A. Markarian, Heghine H. Ghazoyan, Hasmik R. Sargsyan, Gohar A. Shahinyan

Journal of Solution Chemistry 2019 1378-1392

Article

Study of thermodynamic properties of binary mixtures of propionitrile with dimethylsulfoxide (or diethylsulfoxide) at temperatures from (298.15 to 323.15)K
H.H. Ghazoyan, Z.L. Grigoryan, L.S. Gabrielyan, S.A. Markarian

Journal of Molecular Liquids 2019 147-156

Conference

Effect of Dialkylsulfoxides on the Thermal Denaturation of DNA

Markarian S.A.

2019 28

http://rcct2019.spbu.ru

Conference

Thermodynamic Properties of Dimethylsulfone- Dimethylsulfoxide-Water Ternary System
Ghazoyan H.H., Markarian S.A.

2019 235

http://rcct2019.spbu.ru

Conference

FT IR study of cobalt chloride or nickel chloride solutions in diethylsulfoxide
Gohar A. Shahinyan, Shiraz Markarian

2019 44

http://chemistry-conference.com/index.php

Conference

Dielectric Relaxation and Field-Cycling 1H NMR Relaxometry Studies of Dimethylsulfoxide/ Glycerol Mixtures at Low Temperatures
Gabrielyan L.S., Markarian S.A, Flämig M., Rössler E.A.

2019 65-65

https://events.spbu.ru/events/rcct2019?lang=Eng

Conference

UV-VIS AND THERMODYNAMIC STUDIES OF COMPLEX FORMATION OF DIETHYLSULFOXIDE WITH CoCl2AND NiCl2
H.H. Ghazoyan, H.R. Sargsyan, Z.K. Papanyan, S.A. Markarian

2019 278-279

http://www.spec-complex.kubsu.ru

Conference

Thermogravimetric and FT IR study of interaction of polyacrylonitrile with dimethylsulfoxide
H.H. Ghazoyan, Z.L. Grigoryan, S.A. Markarian

2019 52

http://polymer.isc-ras.ru

Conference

THERMODYNAMICS OF LIQUID–GAS EQUILIBRIA IN THE DIISOPROPYLSULFOXIDE–WATER

SYSTEM
Grigroryan G.S., Markarian S.A.

2019 52

https://www.sci.am/conferences.php?langid=3

Article

Densities and volumetric properties of L-ascorbic acid solutions in water-ethanol mixtures at temperaturs from 298.15 to 318.15 K
H.H. Ghazoyan, Sh.A. Markarian

Proceedings of the YSU B Chemical and Biological Sciences 2018 3-9

http://www.ysu.am/science/hy/1520431333

Article

Dielectric Relaxation Spectroscopy Study of the Structure and Dynamics of Dialkyl Sulfoxide Solutions
L.S. Gabrielyan, Sh.A. Markaryan

Russian Journal of Physical Chemistry A 2018 205-213

Article

Theoretical ab initio calculation of entropy and heat capacity of dialkylsulfones in the gas phase
A.S. Mkhitaryan, Z.K. Papanyan, L.S. Gabrielyan, S.A. Markarian

Chemical Journal of Armenia 2018 13-22

Article

Template directed excimer formation via specific non-covalent interactions between pyrene guanidinium derivatives and nucleic acids
Karen Amirbekyan, Justine Mansot, Keiichiro Ohara, Shiraz A. Markarian, Jean-Jacques Vasseur,

Michael Smietana

Tetrahedron Letters 2018 295-298

Article

КВАНТОВО-ХИМИЧЕСКОЕ ОПРЕДЕЛЕНИЕ ТЕПЛОТЫ ГИДРАТАЦИИ ДИЭТИЛСУЛЬФОНА
Л.С. Габриелян, Ш.А. Маркарян, З.Х. Папанян, А.С. Мхитарян

IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY KHIMIYA KHIMICHESKAYA TEKHNOLOGIYA 2018 17-21

Article

DETERMINATION OF THE REACTION RATE CONSTANT FOR THE INTERACTION OF DIETHYL SULFOXIDE WITH THE HYDROXYL RADICAL ON THE BASIS OF COMPETITIVE KINETICS
A.I. MARTIRYAN, T.M. AYVAZYAN, Sh.A. MARKARIAN

Proceedings of the YSU B Chemical and Biological Sciences 2018 80-82

Article

ОБЪЕМНЫЕ СВОЙСТВА ОБРАЩЕННОЙ МИЦЕЛЛЯРНОЙ СИСТЕМЫ н-ГЕПТАН – БИС-(2-ЭТИЛГЕКСИЛ) СУЛЬФОСУКЦИНАТ НАТРИЯ – ПОЛЯРНАЯ ФАЗА (ВОДА+ДИМЕТИЛФОРМАМИД (ИЛИ АЦЕТОНИТРИЛ))
Г. А. ШАГИНЯН, Ш. А. МАРКАРЯН

Հայաստանի քիմիական հանդես 2018 280-291

Conference

The study of thermodynamic properties of binary mixtures diethylsulfoxide-acetonitrile (or propionitrile)
Ghazoyan H.H., Grigoryan Z.L., Sargsyan H.R., Markarian S.A.

2018 222-223

http://cluster.isc-ras.ru

Conference

THE STUDY OF MOLECULAR INTERACTIONS IN DIMETHYLSULFOXIDE AQUEOUS SOLUTIONS OF ACRIDINE ORANGE BASE BY UV-VIS AND FLUORESCENCE SPECTROSCOPY
Markarian S.A., Shahinyan G.A.

2018 83-84

http://cluster.isc-ras.ru/

Conference

FT-IR ATR STUDY OF URACIL IN DIMETHYLSULFOXIDE SOLUTIONS
Zatikyan A.L., Markarian S.A.

2018 224

http://cluster.isc-ras.ru./

Conference

AB INITIO STUDY OF LITHIUM CHLORIDE SOLVATION BY SULFONES
Gabrielyan L.S., Mkhitaryan A.S., Papanyan Z.K., Markarian S.A.

2018 228

http://cluster.isc-ras.ru./

Conference

ФАЗОВЫЕ РАВНОВЕСИЯ ЖИДКОСТЬ–ГАЗ В СИСТЕМЕ ДИИЗОПРОПИЛСУЛЬФОКСИД–ВОДА
Григорян Г.С., Маркарян Ш.А.

2018 187

http://cluster.isc-ras.ru./

Article

Изучение диэлектрической релаксации бинарной системы сульфолан/диметилсульфоксид.
Л.С. ГАБРИЕЛЯН, Ш.А. МАРКАРЯН

Հայաստանի քիմիական հանդես 2017 37-44

http://www.flib.sci.am/eng/Qimia/Frame.html

Article

ОБЪЕМНЫЕ СВОЙСТВА РАСТВОРОВ ДИМЕТИЛСУЛЬФОНА В СМЕШАННОМ РАСТВОРИТЕЛЕ (ЭТАНОЛ-ВОДА) В ИНТЕРВАЛЕ ТЕМПЕРАТУР 298,15-323,15 K
Е.А. Казоян, Ш.А. Маркарян

IZVESTIYA VYSSHIKH UCHEBNYKH ZAVEDENIY KHIMIYA KHIMICHESKAYA TEKHNOLOGIYA 2017 27-33

http://ctj.isuct.ru/

Article

Volumetric Properties and Viscosity of Diethylsulfoxide in Acetonitrile at Different Temperatures
Z.L. Grigoryan, H.H. Ghazoyan, Sh.A. Markarian

Proceedings of the YSU B Chemical and Biological Sciences 2017 147-155

http://www.ysu.am/science/hy/1511853083

Article

Volumetric properties of binary mixtures of acrylonitrile with dimethylsulfoxide (or diethylsulfoxide) at temperatures from 298.15 to 323.15 K

H.H. Ghazoyan, Z.L. Grigoryan, Sh.A. Markarian

Chemical Journal of Armenia 2017 462-476

http://chemjournal.sci.am

Article

VOLUMETRIC PROPERTIES AND VISCOSITY OF DIETHYL SULFOXIDE IN ACETONITRILE AT DIFFERENT TEMPERATURES

Z.L. Grigoryan, H.H. Ghazoyan, S.A. Markarian

ԵՊՀ Գիտական տեղեկագիր, Բնական գիտություններ 2017 147-155

Conference

Viscosity and volumetric properties of acrylonitrile+ dimethylsulfoxide binary mixtures at T= (298.15-318.15)K

Ghazoyan H.H., Grigoryan Z.L., Markarian S.A.

2017 270 - 270

http://www.rcct2017.ru

Conference

ИЗУЧЕНИЕ КОМПЛЕКСООБРАЗОВАНИЯ ХЛОРИДА И НИТРАТА МЕДИ (II) С ДИЭТИЛСУЛЬФОКСИДОМ МЕТОДОМ УФ СПЕКТРОСКОПИИ

А.Р. Саркисян, Г.А. Щагинян, Е.А. Казоян, И.Н. Щербаков, Ш.А. Маркарян

2017 263

http://spec-complex.kubsu.ru/

Study manual

Մոլեկուլային ֆլուորեսցենցիայի հիմունքները

Շ. Ա. Մարգարյան, Կ. Ռ. Գրիգորյան

2017 132

Article

The study of n-heptane/AOT/water+ dimethylsulfoxide reverse micelles using acridine orange base as molecular probe

G.A. SHAHINYAN, S.A. MARKARIAN

Հայաստանի քիմիական հանդես 2016 33-46

http://www.flib.sci.am/eng/Qimia/Frame.html

Article

Effect of diethylsulfoxide on volumetric properties of sodium bis (2-ethylhexyl) sulfosuccinate microemulsions

G.A. SHAHINYAN, H.R. SARGSYAN, A.M. KOLKER, S.A. MARKARIAN

Հայաստանի քիմիական հանդես 2016 407-415

http://chemistry.asj-oa.am/view/year/2016.html

Article

Excess Gibbs Energy and Local Compositions in the Mixtures C2, C3 Alkane Diols and Triols

with Water at Various Pressures
Dmitriy M. Makarov, Gennadiy I. Egorov, Shiraz A. Markarian, Arkadiy M. Kolker

Journal of Solution Chemistry 2016 1679-1688

http://link.springer.com/journal/10953

Article

Design, Synthesis, and Binding Affinity Evaluation of Hoechst 33258 Derivatives for the Development of Sequence-Specific DNA-Based Asymmetric Catalysts
Karen Amirbekyan, Nicolas Duchemin, Erica Benedetti, Rinah Joseph, Aude Colon, Shiraz A. Markarian,

Lucas Bethge, Stephan Vonhoff, Sven Klussmann, Janine Cossy, Jean-Jacques Vasseur,

Stellios Arseniyadis, Michael Smietana

ACS Catalysis 2016 3096−3105

http://pubs.acs.org/journal/accacs

Article

Влияние концентрации Na-сульфосукцината (НАС) на свойства мицеллярной системы НАС–н-гептан–ДМСО–вода
Ш.А. Маркарян, А.Р. Саркисян, Г.А. Шагинян

Журнал физической химии (Russian Journal of Physical Chemistry A) 2015 1606-1611

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

Article

The effect of dimethylsulfoxide on absorption and fluorescence spectra of aqueous solutions of acridine orange base
Shiraz A. Markarian, Gohar A. Shahinyan

SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY 2015 662-666

http://www.journals.elsevier.com/spectrochimica-acta-part-a-molecular-and-biomo...

Article

Thermodynamics of Liquid–Vapor Phase Equilibrium in Dimethyl Sulfoxide–Alkanol Systems in the Range of 293.15–323.15 K
Grigoryan Z.L., Ghazoyan H.H., Markarian S.A.

Russian Journal of Physical Chemistry A 2015 1790–1794

http://link.springer.com/journal/11504

Article

Effect of the Dioctyl Sodium Sulfosuccinate (AOT) Concentration on the Properties of the AOT–n-Heptane–DMSO–Water Micellar System
Sh. A. Markaryan, A. R. Sarkisyan, G. A. Shaginyan

Russian Journal of Physical Chemistry A 2015 1808-1813

http://link.springer.com/journal/11504

Article

Thermodynamics of Liquid–Vapor Phase Equilibrium in Dimethyl Sulfoxide–Alkanol Systems in the Range of 293.15–323.15 K
Z. L. Grigoryan, E. A. Kazoyan, Sh. A. Markaryan

Russian Journal of Physical Chemistry A 2015 1588-1592

http://link.springer.com/journal/11504

Conference

Диэлектрические и релаксационные характеристики водных растворов диэтилсульфоксида
Л.С. Габриелян, Ш.А. Маркарян

2015 27

http://www.biophys.ru/arxiv/congress/2015

Conference

Medium effect on hydrogen bonded complexes of L-ascorbic acid with diethylsulfoxide: quantum chemical calculations
A.L. Zatikyan, S.A.Markarian

2015 159-160

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