

## **ФИО** Габриелян Лиана Сергеевна



**Ученая степень** Кандидат химических наук (2004 г., ВАК)

**Ученое звание** Доцент (2009 г., ВАК)

**Образование** Высшее, Ереванский государственный университет (ЕГУ), химический факультет,

Очная аспирантура химического факультета ЕГУ.

### **Опыт работы**

**РАУ:** доцент кафедры общей и фармацевтической химии (с 2016 г.)

**ЕГУ:** доцент кафедры физической и коллоидной химии химического факультета ЕГУ (с 2009 г.), ранее ассистент кафедры физической и коллоидной химии (2005–2009 гг.)

**Специализация** Физическая химия, спектроскопия

**Читаемые дисциплины** Физическая химия

**Круг научных интересов** Физическая химия, ИК спектроскопия, кванто-химические расчеты

**Повышение квалификации** – Программа повышения квалификации ЕГУ (2011–2016 гг.), Физический факультет Байройтского университета (экспериментальная физика II), Германия (2017 г.), Физический факультет Аугсбургского университета (экспериментальная физика V), Германия (2013 г.), факультет Физической химии Рурского университета Бохума, Германия (2009 и 2013 гг.), факультет Физической химии Технического университета Карлсруэ, Германия (2004–2005 гг.).

### **Награды**

Премия организации «Мы требуем увеличения финансирования науки» и благотворительной организации «Ташир» (2012 г.),

### **Гранты**

Грант Научного комитета Министерства образования и науки Республики Армения (2018 г.), грант Армянского фонда образования и науки США (ANSEF 2013 г.), гранты Немецкой службы академических обменов (DAAD) (2004–2005 гг., 2009, 2013, 2017 гг.), грант для

участия в «40-м Международном семинаре для исследований и преподавания в области химической инженерии и физической химии» в Университете Карлсруэ, Германия(2004-2005 гг.).

#### **Контакты/ адрес эл.почты**

**Служебный адрес:** 0051, Ереван, Российско-Армянский университет, ул. Овсепя Эмина 123

**Эл. почта:** [lianasgabrielyan@gmail.com](mailto:lianasgabrielyan@gmail.com)

#### **ПУБЛИКАЦИИ**

Более 30 научных статей и 3 учебных пособия:

1. **Gabrielyan L.**, Markarian S. (2018) Dielectric Relaxation Spectroscopy Study of the Structure and Dynamics of Dialkylsulfoxide Solutions, Russian Journal of Physical Chemistry A, 2018, Vol. 92, No. 2, pp. 205–213.
2. Mkhitarian A., Papanyan Z., **Gabrielyan L.**, Markarian S. (2018) Theoretical ab initio calculation of entropy and heat capacity of dialkylsulfones in the gas phase, Chemical Journal of Armenia, 2018, v.71, N 1-2, p. 13-22.
3. **Gabrielyan L.S.**(2017)Dielectric relaxation study of sulfolane-water mixtures, *J. Mol. Liq.*, V. 229, p. 217-220.
4. **Gabrielyan L.S.**(2017) FTIR and *ab initio* studies of diisopropylsulfoxide and its solutions, *J. Sol. Chemistry*, V.46, p.759-776
5. **Gabrielyan L.**, Markarian S. (2015)Dielectric relaxation spectroscopy study of ascorbic acid solutions in dialkylsulfoxides. *Eur. Biophys. J.*, V. 44, suppl. 1, p. S154
6. **Gabrielyan L.S.**, Markarian S.A., Lunkenheimer P., Loidl A. (2014) Low temperature dielectric relaxation study of aqueous solutions of diethylsulfoxide. *Eur. Phys. J. Plus*, 129, 245-251
7. **Gabrielyan L.S.**, Markarian S.A., Weingärtner H. (2014)Dielectric spectroscopy of dimethylsulfone solutions in water and dimethylsulfoxide, *Journal of Molecular Liquids*, V. 194, p. 37-40.
8. **Gabrielyan L.S.**, Melik-Ohanjanyan L.G., Markarian S.A. (2013) Determination of complexation constant for cholesterol-diisopropylsulfoxide complex by IR spectroscopy method. *Journal of Applied Spectroscopy*, V. 80 (1), p. 135-137

9. Markarian S.A., **Gabrielyan L.S.(2011)** Dielectric relaxation study of ascorbic acid solutions in pure dimethylsulfoxide (or diethylsulfoxide) and in dimethylsulfoxide (or diethylsulfoxide)/water mixtures, *Journal of Molecular Liquids*, V. 164 (3), p. 207-211
10. **Gabrielyan L.S.**, Markarian S.A. (2011) Dielectric relaxation study of dipropylsulfoxide/water mixtures, *J. Mol. Liq.*, V. 162 (3), p. 135-140
11. Markarian S.A., **Gabrielyan L.S.**, Bonora S. (2010)The volumetric and thermochemical properties of dipropylsulfoxide in water. *Journal of Solution Chemistry*, V. 39 (5), p. 591–602
12. Markarian S.A.,**Gabrielyan L.S.(2009)** Dielectric relaxation study of diethylsulfoxide/water mixtures. *Physics and Chemistry of Liquids*, V. 47 (3), p. 311–321
13. Markarian S.A., **Gabrielyan L.S.**, Bonora S. (2007) Vibrational spectra of dipropylsulfoxide. *SpectrochimicaActa Part A: Molecular and Biomolecular Spectroscopy*, V. 68 (5), p. 1296 – 1304
14. Markarian S.A., **Gabrielyan L.S.**, Asatryan A.M. (2007)A dielectric relaxation study of diethylsulfoxide containing solutions. *Journal of Molecular Liquids*, Volumes 131–132, p. 190 – 195
15. Markarian S.A., **Gabrielyan L.S.**, Zatikyan A.L., Bonora S., Trincherro A. (2005)FT-IR and Raman study of lithium salts solutions in diethylsulfoxide. *Vibrational Spectroscopy*, V. 39 (2), p. 220-228
16. **Gabrielian L.S.**, Brands H., Hippler H., Unterreiner A.-N. (2005) Spektroskopische Untersuchungen einwandiger Kohlenstoffnanoröhren auf ultrakurzer Zeitskala, Wissenschaftliche Abschlussberichte 40. Internationales Seminar, Juli 2005, Intern.Sem. für Forschung und Lehre in Chemieingenieurwesen, Technischer Chemie und Physikalischer Chemie an der Universität Karlsruhe, Karlsruhe, 2005, S. 89-98.
17. Markarian S.A., **Gabrielyan L.S. (2004)** Temperature Dependence of the Dielectric Relaxation of Liquid Dimethyl- and Diethylsulfoxides. *Journal of Molecular Liquids*, V. 112 (3), N 3, p. 137-140
18. **Gabrielian L.S. (2004)***Ab initio* study of vibrational spectra of lithium perchlorate and nitrate. *Uch. Zap. EGU* (Commun. YSU, in Russian), V. 203, p.51-58.
19. Markarian S.A., **Gabrielyan L.S.**, Grigoryan K.R. (2004) FT IR ATR study of molecular interactions in the urea/dimethyl sulfoxide and urea/diethyl sulfoxide binary systems. *Journal of Solution Chemistry*, V. 33(8), p. 1005-1015

20. Markarian S.A., **Gabrielyan L.S.**, Bonora S., Fagnano C. (2003) Vibrational spectra of Diethylsulfoxide. *SpectrochimicaActa Part A: Molecular and Biomolecular Spectroscopy*, V. 59 (3), p.575-588
21. **Gabrielyan L.S.**(2013) Statistical calculation of thermodynamical parameters using GAUSSIAN 03 quantum chemical program, Manual, (in Armenian), YSU, Yerevan, 32 p.
22. **Gabrielyan L.S.**, Markarian S.A. (2009) Dielectric relaxation spectroscopy. Bases and application, Manual, (in Armenian), YSU, Yerevan, 36p.
23. **Gabrielyan L.S.**(2006) Analysis of the rotational-vibrational spectrum of HCl by FTIR spectroscopy and quantum chemical methods, Manual, (in Armenian) YSU, Yerevan, 18 p.

Более 20 тезисов и материалов конференций:

1. **Gabrielyan L.S.**, Mkhitarian A.S. (2017) *Ab initio* study of ethylmethanesulfone. XI Conference of young scientists on the “Theoretical and experimental chemistry of liquid-phase systems”, October 30- November 4, Ivanovo, Russia, p. 51
2. **Gabrielyan L.S.**, Markarian S.A. (2015) Dielectric and relaxation characteristics of aqueous solutions of diethylsulfoxide, VII International Congress “Low and superlow fields and radiations in biology and medicine”, September 7-11, 2015, St.-Petersburg, Russia, p. 27.
3. **Gabrielyan L.S.**, Dielectric relaxation on dialkylsulfoxides solutions, IV International Conference “Current problems of chemical physics”, 5-9 October 2015, Yerevan, p.203
4. **Gabrielyan L.S.**, Mkhitarian A.S., Markarian S.A. (2015) *Ab initio* study of dimethylsulfoxide/water complexes, XII Russian conference with international participation “Problems of solvation and complex formation in solutions. From effects in solutions to new materials”, 29 June -03 July, 2015, Ivanovo, Russia, p. 67.
5. Papanyan Z.K., **Gabrielyan L.S.**, Markarian S.A., (2015) A theoretical study on intermolecular interactions between l-cysteine and dialkylsulfoxides, XII Russian conference with international participation “Problems of solvation and complex formation in solutions. From effects in solutions to new materials”, 29 June -03 July, 2015, Ivanovo, Russia, p. 75.
6. Markarian S.A., **Gabrielyan L.S.**, Ghazoyan H. (2014) Dielectric relaxation and volumetric properties of dimethylsulfoxide solutions, 9<sup>th</sup> Liquid Matter Conference, Lisbon, Portugal, July 21-25, p. 130
7. **Gabrielyan L.S.**, Markarian S.A., Weingärtner H. Dielectric relaxation of dimethylsulfoxide in

- water-dimethylsulfoxide solutions, *Frontiers in Chemistry*, 25-29 August **2013**, Yerevan, Armenia.
8. **Gabrielyan L.S.**, Markarian S.A. Dielectric relaxation of aqueous and non-aqueous solutions of dipropylsulfoxide, VI Conference of young scientists on the “Theoretical and experimental chemistry of liquid-phase systems”, **2011** November 8-12, p. 27-28, Ivanovo, Russia.
  9. **Gabrielyan L.S.**, Qotanjyan A.H., Markarian S.A. FT IR study of molecular interactions in pure dibutylsulfoxide and its solutions, XI International Conference on The Problems of Solvation and Complex Formation in Solutions, **2011** October 10-14, p. 117, Ivanovo, Russia.
  10. **Gabrielian L.S.**, The study of the structure and dynamics of solutions by dielectric relaxation spectroscopy, Conference dedicated to the 90<sup>th</sup> anniversary of the Yerevan State University, **2009** April 14-17, Yerevan, Armenia, p. 41.
  11. **Gabrielyan L.S.**, Markarian S.A. Volumetric properties of aqueous solutions of dipropylsulfoxide, 10<sup>th</sup> International Conference, The Problems of solvation and complex formation in solutions, 2007 July 1-6, p.635, Suzdal, Russia.
  12. Potoyan D.A., **Gabrielyan L.S.**, Markarian S.A. Ab initio and DFT calculations of aci-forms of dimethyl- and diethylsulfoxides, XII<sup>th</sup> International Congress of Quantum Chemistry, **2006** May 21-26, Kyoto, Japan.
  13. Markarian S.A., Gabrielian L.S., Bonora S., Trincherro A. FT IR and Raman Study of Lithium Salts Solutions in Diethylsulfoxide, XXVII European Congress on Molecular Spectroscopy (EUCMOS), **2004** September 5-10, p. 25, Krakow, Poland.
  14. Markarian S.A., **Gabrielian L.S.** Molecular interactions in diethylsulfoxide/CCL<sub>4</sub> mixture, 6<sup>th</sup> World Congress of Theoretically Oriented Chemists WATOC'02, **2002** August 4-9, p.243, Lugano, Switzerland.