

CURRICULUM VITAE



FULL NAME: Ravan Rahimov
DATE OF BIRTH: June 28, 1980
PLACE OF BIRTH: Baku, Azerbaijan
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NATIONAL IDENTITY CARD: CARD No: AA 4305913, date of issue 21.09.2022, date of expiry 21.09.2032, Ministry of Internal Affairs of Azerbaijan
PLACE OF WORK AND ADDRESS: 1. Department of Chemical Engineering, Baku Engineering University, Baku, Azerbaijan 2. Institute of Petrochemical Processes of the Ministry of Science and Education of the Republic of Azerbaijan. 3. Department of Chemistry and Chemical Engineering, Khazar University, Baku, Azerbaijan
POSITION: Associate professor, Chief Scientific officer

ACADEMIC DEGREES:

YEAR	ACADEMIC DEGREE	INSTITUTION	CLASSIFICATION
2017	Habilitation	Institute of Petrochemical Processes of Azerbaijan National Academy of Sciences	Doctor of Chemical Sciences Diploma, Issued 11.05.2017
2009	Ph.D.	Institute of Petrochemical Processes of Azerbaijan National Academy of Sciences	PhD Diploma, issued 12.05.2009
2003	Master's degree (chemistry)	Department of Chemistry, Baku State University	Excellent (Red Diploma) (18-20 in a scale of 20)
2001	Bachelor's degree (chemistry)	Department of Chemistry, Baku State University	Good (16-18 in a scale of 20)

PROFESSIONAL ACTIVITIES:

PERIOD	POSITION OR CATEGORY	INSTITUTION
2021-2022	Project manager Grant No 15 LR-AMEA "Obtaining and research of new surfactant-polyelectrolyte complexes to increase oil production from wells"	SOCAR Science Foundation
2014 (1 month)	Project manager EİF-Mob-4-2014-1(16)-11/05/4 "Spectroscopic investigation of the ecological-harmless surfactants"	Science Development Foundation under the President of the Republic of Azerbaijan
2012-2013	Project manager EİF/GAM-1-2011-2(4)-26/18/4-M-12 "Synthesis and investigation of environmentally harmless surface-active	Science Development Foundation under the

	reagents for removing oil thin slicks from the water surface”	President of the Republic of Azerbaijan
2008-2016	Scientific collaborator within the project “Synthesis and study of novel surfactants based on natural triglycerides, (alkanol)amines and C ₃ -epoxides”	Institute of Petrochemical Processes of Azerbaijan National Academy of Sciences, Baku, Azerbaijan
2003-2008	Scientific collaborator within the project “Reagents based on polyatomic alcohols and propylene oxide for the retardation of gasoline vaporization”	Institute of Petrochemical Processes of Azerbaijan National Academy of Sciences, Baku, Azerbaijan
2001-2003	Young researcher within the project “Phosphochlorination of polyolefins”	Department of Chemistry, Baku State University, Baku, Azerbaijan

TEACHING ACTIVITIES

PERIOD	DEPARTMENT OR DIVISION	ORGANIZATION
2012-present	Department of Chemistry and Chemical Engineering, lecturer	Khazar University, Baku, Azerbaijan
2011-2013	Department of Macromolecular Compounds, lecturer	Chemical faculty, Baku State University, Baku, Azerbaijan
2018-present	Department of Chemical Engineering, lecturer	Engineering faculty, Baku Engineering University, Baku, Azerbaijan

AREA OF SCIENTIFIC ACTIVITY

Petroleum Chemistry,
Organic Chemistry,
Colloidal Chemistry,
Macromolecular Chemistry.

COLLABORATION

Prof. Armando J.L. Pombeiro (Centro de Química Estrutural, Instituto Superior Técnico, Universidade de Lisboa, Portugal),
Prof. Fedor I. Zubkov (Organic Chemistry Department, RUDN University, Russian Federation), Prof. Eldar K. Gasimov (Department of Histology, Embryology and Cytology, Azerbaijan Medical University, str. S. Vurgun 163, AZ 1078, Baku, Azerbaijan),
Prof. Musa R. Bayramov, (Petroleum Chemistry and Technology Department, Baku State University, Baku, Azerbaijan),
Dr. Atash V. Gurbanov, (Centro de Química Estrutural, Instituto Superior Técnico, Universidade de Lisboa, Portugal).

RESEARCH INTERESTS:

- Petroleum chemistry
- Organic synthesis
- Colloidal chemistry
- Ecological chemistry (synthesis of novel surfactants and their application for removal of the petroleum films)

LANGUAGES:

LANGUAGE	READING	WRITING	CONVERSATION
English		good	
Russian		good	
Turkish		good	
Azerbaijani		native language	

CITATION REPORT IN TOMSON REUTERS ISI WEB OF KNOWLEDGE

Publications 50 Total From 1975 to 2023	Citing Articles 246 Analyze Total 208 Analyze Without self-citations	Times Cited 391 Total 287 Without self-citations 7.82 Average per item	12 H-Index
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* In ISI Knowledge the last name appears as **Rahimov RA**.

LIST OF PUBLICATIONS

Articles in SCI journals with international circulation

1. U.J. Yolchuyeva, V.M. Abbasov, O.R. Abbasov, Y. Abdullayev, R.A. Jafarova, A.M. Mammadov, R.A. Rahimov, G.A. Hajiyeva, Jochen Autschbach, N-Octylaminopropan-2-ol surfactant for crude-oil asphaltene dispersion: Integrated experimental and modeling insights, *Fuel*, Volume 404, Part B, **2026**, 136286, <https://doi.org/10.1016/j.fuel.2025.136286>.
2. R.A. Rahimov, I.V. Amirova, Basim Abu-Jdayil, M. Ayrarov, T. Mammadov, F.Y. Alsenani, M.M. Hussain, G.A. Ahmadova, Sh.M. Nasibova, A.Z. Abilova, S.A. Muradova, The influence of counter-ions (acetate and benzoate) on the properties of alkyl triethanolammonium cationic surfactants, *Journal of Molecular Liquids*, Volume 440, **2025**, 128931, <https://doi.org/10.1016/j.molliq.2025.128931>.
3. U.J.Yolchuyeva, O.R.Abbasov, R.A.Jafarova, G.A.Hajiyeva, R.A. Rahimov et al. A study of asphaltene solubility and aggregation due to sulfur heteroatoms: molecular dynamics simulation. *J Mol Model*. 31, 133, **2025**. <https://doi.org/10.1007/s00894-025-06358-z>
4. R.A.Rahimov, G.A.Ahmadova, Kh.A.Mammadova et al. Synthesis and surface activity properties of new gemini surfactants with hydroxyl group and piperazine rings. *Egyptian Journal of Petroleum*, Vol. 34 (**2025**), Iss. 3, p. 237-248, <https://doi.org/10.62593/2090-2468.1081>
5. Rahimov, R. A. S. M. Nasibova , I. V. Amirova , G. A. Ahmadova , S. Z. Hamidov , and S. A. Muradova . **2025**. “ Ionic Liquid Cationic Surfactants With a Decyl Hydrophobic Chain: Effects of Head Group and Counterion.” *Journal of Surfactants and Detergents*, 28, no. 6: 1259–1269. <https://doi.org/10.1002/jsde.12879>.
6. Rahimov, Ravan A., Konul Sh. Tagiyeva, Gulnara A. Ahmadova, Saida F. Ahmadbayova, Turgut V. Afandi, Tarana Kh. Guliyeva, Nushaba M. Aliyeva, and Sevda A. Muradova. “Antimicrobial and Aggregation Properties of Asymmetric Gemini Surfactants Based on 1-(2-Hydroxypropyl)-4-Ethyl Piperazine and Alkyl Bromides.” *Journal of Dispersion Science and Technology*, September, **2024**. 1–7. <https://10.1080/01932691.2024.2402377>.
7. E.E. Hasanov, R.A. Rahimov, G.A. Ahmadova, S.A. Muradova, A.V. Gurbanov, Dissipative particle dynamics simulation and experimental studies of pseudo-gemini surfactants with different hydrophobic chain lengths, *Journal of Molecular Liquids*, Volume 411, **2024**, 125766, <https://doi.org/10.1016/j.molliq.2024.125766>.
8. Yolchuyeva U.J. Abbasov V.M., Jafarova R. Mammadov A. Ahmadbayova S. R.A. Rahimov, A. Huseynzada, F. Alizadeh, Chemical composition and molecular structure of asphaltene in Azerbaijani crude oil: A case study of the Zagli field, *Fuel*, Volume 373, **2024**, 132084, <https://doi.org/10.1016/j.fuel.2024.132084>.

9. Mammadova, K.A., Mursalov, N.I., Rahimov, R.A. Ahmadova G.A., Inhibitor Efficiency of Cocogem Surfactants Based on C₁₈ Carboxylic Acids on Corrosion of Carbon Mild Steel in CO₂ Medium. *Arab J Sci Eng* 49, 8383–8397 (2024). <https://doi.org/10.1007/s13369-024-08868-z>
10. Abbasov, V.M., Mammadova, K.A., Rahimov, R.A., Ahmadova, G.A., Mursalov, N.I. (2024). The Role of Unsaturated Bonds in C₁₈ Fatty Acid on the Corrosion Inhibitory Effect of Mild Steel in CO₂ Medium. In: Mammadov, F.S., Aliev, R.A., Kacprzyk, J., Pedrycz, W. (eds) *International Conference on Smart Environment and Green Technologies – ICSEGT2024*. ICSEGT 2024. Lecture Notes in Networks and Systems, vol 1252. Springer, Cham. https://doi.org/10.1007/978-3-031-81564-5_59
11. E. E. Hasanov, R. A. Rahimov, Y. Abdullayev, G. A. Ahmadova, Symmetric and Dissymmetric Pseudo-gemini Amphiphiles Based on Propoxylated Ethyl Piperazine and Fatty Acids, *ChemistrySelect* **2023**, 8, e202303942. <https://doi.org/10.1002/slct.202303942>
12. S.M. Nasibova, R.A.Rahimov, G.A.Ahmadova, A.Z. Abilova, Dependence of the Oil-Collecting and Oil-Dispersing Ability of Surfactants on the Kind of Alkyl Radicals in Their Head Group. *Russ J Appl Chem* 96, 968–976 (2023). <https://doi.org/10.1134/S1070427223110061>
13. R.A. Rahimov, G.A. Ahmadova, A.M. Isayeva, I.V. Rustamova, D.B. Agamaliyeva, F.I. Zubkov, Anionic cocogem surfactants containing propyl-2-ol groups: Synthesis, surface properties and antibacterial activity against SRB bacteria, *Egyptian Journal of Petroleum*, **2023**, Vol. 32, p. 15-21, <https://doi.org/10.1016/j.ejpe.2022.12.001>.
14. Sh.M. Nasibova, R.A. Rahimov, S.A. Muradova, Y. Abdullayev, 2-Hydroxyethyl substituted cationic surfactants with dodecyl hydrophobic chain: Properties and application, *Materials Chemistry and Physics*, Volume 296, **2023**, 127268 <https://doi.org/10.1016/j.matchemphys.2022.127268>.
15. Rahimov R.A., Ahmadova G.A., Huseynova Kh.A, Mammadov R.X., Asadova N.Z., Abdullayev Yu., Ibrahimova M.J., Gurbanov A., Zubkov F. Synthesis, aggregation, and biocidal properties of N-2-hydroxypropyl piperidine based cationic surfactants. *Journal of Molecular Liquids* 344 . **2021** 117783 <https://doi.org/10.1016/j.molliq.2021.117783>
16. Rahimov R.A., Ahmadova G.A., Huseynova Kh.A, Muradova S., Mammadov R.X., Amirova I.V., Qasimova F.I., Zubkov F.I. Micellization and Antimicrobial Properties of N-alkyl-(2-hydroxypropyl)morpholinium Bromides. *Journal of Molecular Liquids* **2021**, v.335, 116538 <https://doi.org/10.1016/j.molliq.2021.116538>
17. Rahimov R.A., Ahmadova G.A., Hashimzade S.Z.F., Imanov E., Khasiyev H.G., Karimova N.K., Zubkov F.I. Surface and Biocidal Properties of Gemini Cationic Surfactants Based on Propoxylated 1,6-Diaminohexane and Alkyl Bromides. *J Surfact Deterg.* **2021**, 24, p.433-444 <https://doi.org/10.1002/jsde.12506>
18. G.A.Ahmadova, R.A.Rahimov, A.Z.Abilova, Kh.A.Huseynova, E.İmanov, F.İ.Zubkov Effect of head-group of cationic surfactants and structure of ionic groups of anionic polyelectrolyte in oppositely charged polymer-surfactant complexes. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2021**, vol. 613, 126075 <https://doi.org/10.1016/j.colsurfa.2020.126075>
19. Elgun E. Hasanov, Ravan A. Rahimov, Yusif Abdullayev, Ziyafaddin H. Asadov, Gulnara A. Ahmadova, Aygun M. Isayeva, Ulviyya Yolcuycyeva, Fedor I. Zubkov, Jochen Autschbach, Counterion-coupled gemini surfactants based on propoxylated hexamethylenediamine and fatty acids: Theory and application, *Journal of Molecular Liquids*, Volume 318, **2020**, 114050. <https://doi.org/10.1016/j.molliq.2020.114050>.
20. E.E.Hasanov, Rahimov R.A., Y.Abdullayev, Asadov Z.H., Ahmadova G.A., A.M.İsayeva, Ahmadbayova S.F., Zubkov F.I., Jochen Autschbach. New class of cocogem surfactants based on hexamethylenediamine, propylene oxide, and long chain carboxylic acids: Theory and application. *Journal of Industrial and Engineering Chemistry*. Volume 86, 25 June **2020**, Pages 123-135. <https://doi.org/10.1016/j.jiec.2020.02.019>
21. Ziyafaddin H. Asadov, Gulnara A. Ahmadova, Ravan A. Rahimov, Seyid-Zeynab F.

Hashimzade, Yusif Abdullayev, Etibar H. Ismailov, Samira A. Suleymanova, Nahida Z. Asadova, Fedor I. Zubkov, Jochen Autschbach, Aggregation and antimicrobial properties of gemini surfactants with mono- and di-(2-hydroxypropyl)ammonium head-groups: Effect of the spacer length and computational studies, *Journal of Molecular Liquids*, Volume **302**, 2020, 112579.

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22. Asadov Z.H., Huseynova S.M., Ahmadova G.A., Rahimov R.A., S.U. Sharbatov, Zubkov F.I., Rana A. Jafarova. Synthesis, colloidal-chemical and petroleum collecting properties of new counterion coupled gemini surfactants based on hexadecylbis(2-hydroxypropyl) amine and dicarboxylic acids, *Journal of Dispersion Science and Technology*, **2020**, Volume 41, N 13, 2063-2071.

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23. Asadov Z.H., Ahmadova G.A., Rahimov R.A., Hashimzade S-Z.F., Sh.M.Nasibova, Ismailov E.H., Suleymanova S.A., Muradova S.A., Asadova N.Z., Zubkov F.I. Surface Properties and Premicellar Aggregation Behavior of Cationic Gemini Surfactants with Mono- and Di-(2-hydroxypropyl)ammonium Head Groups, *Journal of Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2019**, 575, p. 212–221

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24. Asadov Z.H., Ahmadova G.A., Rahimov R.A., Huseynova S.M., Guliyev A.D., Aliyev B.M., Mamedbeyli E.H., Zubkov F.I., Ahmadbayova S.F. Counterion-coupled gemini (Cocogem) surfactants based on dodecylisopropylol amine and dicarboxylic acids: synthesis, characterization and evaluation as biocide against SRB, *Chemical Engineering Communications*, 2019, 206, 7, p.861-870

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25. Asadov Z.H., Ahmadova G.A., Rahimov R.A., Hashimzade S-Z.F., Ismailov E.H., Asadova N.Z., Suleymanova S.A., Zubkov F.I., Mammadov A.M., Agamaliyeva D.B. Micellization and Adsorption Properties of New Cationic Gemini Surfactants Having Hydroxyisopropyl Group, *J. Chem. Eng. Data*, **2019**, 64 (3), pp 952–962

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26. Z.H.Asadov, Sh.M.Nasibova, R.A.Rahimov, E.K.Gasimov, S.A.Muradova, F.H.Rzayev, N.Z.Asadova, F.I.Zubkov. Effects of head group on the properties of cationic surfactants containing hydroxyethyl- and hydroxyisopropyl fragments. *Journal of Molecular Liquids*, **2019**, v. 274, p.125-132.

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27. G.A.Ahmadova, A.Z.Abilova, R.A.Rahimov, Z.H.Asadov, S.F.Ahmadbayova. Influence of head-group composition and (chloro)propoxy units disposition consequence on properties of surfactants based on lauric acid, propylene oxide, epichlorohydrin and ethanolamines. *Materials Chemistry and Physics*, **2018**, v. 205, p. 416-422

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28. Asadov Z.H., Ahmadova G.A., Rahimov R.A., Huseynova S.M., Suleymanova S.A., Ismailov E.H., Zubkov F.I., Mammadov A.M., Agamaliyeva D.B. Effect of Spacer Nature on Surface Properties of New Counterion Coupled Gemini (Cocogem) Surfactants Based on Dodecyl-diisopropylol Amine and Dicarboxylic Acids. *Journal of Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2018**, v.550, p.115-122

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29. Asadov Z.H., Ahmadova G.A., Rahimov R.A., Abilova A.Z., Zargarova S.H., Zubkov F.I. Synthesis and properties of quaternary ammonium surfactants based on alkylamine, propylene oxide and 2-chloroethanol, *J. Surfact. Deterg.* **2018** 21: 247–254

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30. Asadov Z.H., Ahmadova G.A., Rahimov R.A., Zubkov I.F. Properties of propoxy-derivatives based on the acidic fraction of coconut oil, *Journal of Dispersion Science and Technology*, **2018**, Vol. 39, No. 2, 214–219

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31. Asadov Z.H., Ahmadova G.A., Rahimov R.A., Abilova A.Z., Nazarov I.G., Zubkov F.I. Surface activity, adsorption, and micellization parameters of ammonium surfactants containing a hydroxyethyl and hydroxypropyl head group, *Journal of Chemical and Engineering Data* **2017**, v. 62(10), p.3297-3305
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32. Asadov Z.H., Huseynova Kh.A., Rahimov R.A., Ahmadova G.A., Zubkov F.I. Alkyl chain and head-group effect of mono- and diisopropylolalkylamine-polymethacrylic acid complexes in aqueous solution, *Journal of Molecular Liquids* **2017**, v. 244, p.533-539
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33. Asadov Z.H., Nasibova Sh.M., Ahmadova G.A., Zubkov F.I., Rahimov R.A. Head-Group Effect of Surfactants of Cationic Type in Interaction with Propoxylated Sodium Salt of Polyacrylic Acid in Aqueous Solution, *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 527, **2017**, 95-100
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34. Asadov Z.H., Rahimov R.A., Ahmadova G.A., Huseynova S.M., Ahmadbayova S.F. Synthesis and surface-active properties of the fatty acid N-methylethylolamides and their phosphate derivatives // *Journal of Dispersion Science and Technology*, **2017**, v. 38, No2, pp.229-235.
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35. Asadov Z.H., Nasibova Sh.M., Rahimov R.A., Ahmadova G.A., Huseynova S.M. Surface activity and micellization parameters of cationic surfactants containing hydroxyethyl group and C₉-chain. *Journal of Molecular Liquids* **2017** 225: 451–455
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36. Asadov Z.H., Rahimov R.A., Ahmadova G.A., Mammadova Kh.A., Gurbanov A.V. Synthesis and Characteristics of Dodecyl Isopropylolamine and Derived Surfactants. *J. Surfact. Deterg.* **2016**, Vol. 19, pp. 145-153
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37. Asadov Z.H., Ahmadova G.A., Rahimov R.A., Asadova A.Z., Nazarov I.G. Synthesis and study of nonionic surfactants based on propylene oxide and lauric acid. *Russian Journal of Applied Chemistry*. **2016**. Vol. 89. No.4, pp.559-565
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38. Asadov Z.H., Asadova A.Z., Ragimov R.A., Poladova T.A., Akhmedbeyova S.F. Synthesis and properties of new oil-collecting and dispersing polymeric reagents based on acrylic acid, α -olefins, and amines. *Russian Journal of Applied Chemistry*, **2015**, v. 88, No. 1, pp.153-159
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39. R.A. Rahimov. Ammonium salts of rapeseed oil fatty acid. *Chemistry of plant raw material*, **2015**, № 2, c.97-105.
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40. Z.H. Asadov, V.M. Abbasov, S.S. Suleymanova, R.A. Rahimov, E.Sh. Abdullayev. Synthesis of ethylolammonium salts of diethylolamido phosphate surfactant based on the flaxseed oil and their corrosion inhibitor properties. *Journal of Advances in Chemistry*, **2015**, Vol 12, No 1, p.3902-390
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41. Asadov Z.H., Rahimov R.A., Mammadova Kh.A., Ahmadova G.A., Ahmadbayova S.F. Synthesis and colloidal-chemical properties of surfactants based on alkyl amines and propylene oxide. *Tenside Surfactants Detergents*, **2015**, v. 52, No 4, pp. 287-293.
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43. Tantawy A.H., Asadov Z.H., Azizov A.H., Rahimov R.A., Zarbaliyeva I.A. Synthesis of New, Ecologically Safe and Efficient Oil Slick-Collecting and Dispersing Agents Based on Oleic Acid and Its Propoxylation Products. *Arabian Journal for Science and Engineering*, **2014**, v.39, pp.5437–

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49. Rahimov R.A., Asadov Z.H. Coconut oil fatty acid ammonium-type salts. *Journal of Molecular Liquids*, **2013**, v. 182, p. 70–75

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