Curriculum Vitae

PERSONAL:

Cheipesh Surname: Name: Tetiana Sex: female **Date of birth:** 14.05.1988 Place of birth: Kirovsk, Luganskaya region, Ukraine **Citizenship:** Ukraine Marital status: married, 1 child Home address: 14 Vorobova str. 61057 Kharkiv, Ukraine Work address: Department of Physical Chemistry, Chemical Faculty, V.N. Karazin Kharkiv National University, 4 Svobody Sq., 61022, Kharkiv, Ukraine **Phone:** +380966478306 email: tcheipesh@karazin.ua **ORCID ID:** 0000-0002-9709-5602 **Scopus ID:** 55217731100



EDUCATION:

- 1) Ph.D. in Physical Chemistry, 2015, V.N. Karazin National University, Kharkiv, Ukraine. Thesis Title: Fluoresceins in solutions: protolytic equilibria, optical properties and application for calixarenes investigation
- 2) M. Sc., 2010, chemist, Chemical Faculty, V.N. Karazin National University, Kharkiv, Ukraine.
- 3) B. Sc., 2009, chemist, Chemical Faculty, V.N. Karazin National University, Kharkiv, Ukraine.

PRESENT EMPLOYMENT:

1) September 2021 – present. Associate professor, Department of Physical Chemistry, Chemical Faculty, V.N. Karazin National University.

PREVIOUS POSITIONS:

- 1) 2018 2021. Career break for maternity leave
- 2016 2018. Senior Researcher, Department of Physical Chemistry, Chemical Faculty, V.N. Karazin National University.
- 2014 2016. Senior Lecturer, Department of Physical Chemistry, Chemical Faculty, V.N. Karazin National University.
- 2013 2014. Teaching Assistant, Department of Physical Chemistry, Chemical Faculty, V.N. Karazin National University.

PUBLICATION HISTORY

h-index= 9, 22 research papers in journals indexing in Scopus.

SCIENTIFIC PAPERS FOR THE LAST 5 YEARS:

- T.A. Cheipesh, S.V. Shekhovtsov, A.O. Doroshenko, K.O. Zaitseva, N.O. Mchedlov-Petrossyan. Protolytic equilibrium, light absorption and emission of 2,7-dinitro-4,5-dibromofluorescein and related dyes: Fluorescent indicators sensitive to hydrogen bonds of the solvent. Journal of Molecular Liquids. 2024. Vol. 408, P 125386. https://doi.org/10.1016/j.molliq.2024.125386.
- 2. O. A. Gorobchenko, D. M. Glibitskiy, O. T. Nikolov, T. A. Cheipesh, T. N. Dzhimieva, I. S. Zaitseva, A. D. Roshal, M. A. Semenov, G. M. Glibitskiy. The effect of biologically active substances on BSA and on the textures of films obtained by drying water-salt solutions of Physics. BSA. Low Temperature 2024. Vol. 50. No. 1. P. 51-58. https://doi.org/10.1063/10.0023892.
- N.O. Mchedlov-Petrossyan, T.A. Cheipesh, E.G. Moskaeva, S.V. Shekhovtsov, K.I. Ostrovskyi. Towards understanding of stepwise acid-base dissociation in systems inclined to tautomerism: Nitro derivatives of fluorescein in dimethyl sulfoxide. Journal of Molecular Liquids. 2023. V.386. P. 122540. https://doi.org/10.1016/j.molliq.2023.122540.
- 4. D. Glibitskiy, O. Gorobchenko, O. Nikolov, T. Cheipesh, T. Dzhimieva, I. Zaitseva, A. Roshal, M. Semenov, G. Glibitskiy. Influence of aluminum and iron chlorides on the parameters of zigzag patterns on films dried from BSA solutions. Scientific reports. 2023. Vol. 13. 9426. https://doi.org/10.1038/s41598-023-36515-4.
- D. V. Kharchenko, V. S. Farafonov, T. A. Cheipesh, N. O. Mchedlov-Petrossyan, R. V. Rodik, V. I. Kalchenko. Catalytic properties of calixarene bearing choline groups in the processes of ester hydrolysis. Theoretical and Experimental Chemistry. 2022. Vol. 58, No. 5. P. 363 – 371. https://doi.org/10.1007/s11237-023-09752-x.
- T.A.Cheipesh, N.O.Mchedlov–Petrossyan, L.N.Bogdanova, D.V.Kharchenko, A.D.Roshal, N.A.Vodolazkaya, Yu.V.Taranets, S.V.Shekhovtsov, R.V.Rodik, V.I.Kalchenko. Aggregates of cationic calix[4]arenes in aqueous solution as media for governing protolytic equilibrium, fluorescence, and kinetics. Journal of Molecular Liquids. 2022. V.366. P.119940. https://doi.org/10.1016/j.molliq.2022.119940
- T.A. Cheipesh, D.V. Kharchenko, Yu.V. Taranets, R.V. Rodik, N.O. Mchedlov-Petrossyan, M.M. Poberezhnyk, V.I. Kalchenko. Reaction rates in aqueous solutions of cationic colloidal surfactants and calixarenes: Acceleration and resolution of two steps of fluorescein diesters hydrolysis. Colloids and Surfaces A: Physicochemical and Engineering Aspects. 2020. V. 606. P. 125479. https://doi.org/10.1016/j.colsurfa.2020.125479

RESEARCH STATEMENT:

Optical and protolytic properties of fluorescein derivatives in aqueous and non-aqueous media. The goal is to determine the influence of the substitutes (particularly -NO₂ and -NH₂ groups) in xanthene and benzoic fragments on the fluorescence and tautomerism of the fluorescein dyes. It seems to be perspective molecular probes for further biological and medical research.

Calixarene aggregates in aqueous media. The aggregates of cationic calixarenes were revealed to be an effective reaction media for fluorescein esters hydrolysis. The dramatic increase in hydrolysis reaction rate, caused by the aggregates, as well as the shift of the tautomeric equilibria and optical properties of molecular probes are perspectives for further investigation.

CERTIFICATION TRAINING FOR THE LAST 5 YEARS

2021. Certificates of webinars "New data, metrics and interface in Journal Citation Reports," "New and old features of the Web of Science Core Collection," Clarivate company.

2022. Certificate of the online course "Scientific communication in the digital age" National University of "Kyiv-Mohyla Academy," Ukraine.

2023. Certificate of the online course "Academic integrity: an online course for teachers," Ukrainian Center for Ensuring the Quality of Education, Ukraine.

2023. Participation in the full program of the European Chemistry School for Ukrainians as an International Researcher, Adam Mickiewicz University, Poznań, Poland.

2024. Certificate of Chinese language course (HSK2), Confucius Institute, Kharkiv, Ukraine.

2024. Advanced Academic Research and Teaching Exchanges "Physical Research Methods", Hangzhou Normal University, PRC.

2025. Certificate of the online course "Academic English B2", Mariupol University, Ukraine.

TEACHING EXPERIENCE

Lectures: physical and colloid chemistry (general course, Physics and Technology Faculty).

Seminars: physical chemistry, medical chemistry (general courses, Chemical Faculty, Medical Faculty, English-speaking students).

Laboratory: physical chemistry, colloid chemistry, physical chemistry of non-aqueous solutions (general courses, Chemical Faculty).

Design the special course "Dynamic light scattering".

Instructor: Chemistry Olympiad training.

Supervision of the diploma works (B. Sc., M. Sc.).