

**Сведения о научном руководителе**  
**диссертации Пиковского Ильи Ивановича**

*«Анализ молекулярного состава природного лигнина методом масс-спектрометрии на основе орбитальной ионной ловушки с фотоионизацией при атмосферном давлении»*

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Список основных научных публикаций по специальности 1.4.2 – «Аналитическая химия» за последние 5 лет:

1. Lakhmanov D. E., Kozhevnikov A. Y., Pokryshkin S. A., Semiletov I. P., Kosyakov D. S. Polycyclic aromatic hydrocarbons in the Siberian Arctic seas sediments // Marine Pollution Bulletin, 2022. – V.180. – 113741.
2. Faleva A.V., Pikovskoi I.I., Pokryshkin S.A., Chukhchin D.G., Kosyakov D.S. Features of the Chemical Composition and Structure of Birch Phloem Dioxane Lignin: A Comprehensive Study // Polymers, 2022. – V. 14, № 5. – P. 964 – 979.
3. Ovchinnikov D.V., Ul'yanovskii N.V., Kosyakov D.S., Pokrovskiy O.I. Some aspects of additives effects on retention in supercritical fluid chromatography studied by linear free energy relationships method // Journal of Chromatography A, 2022. – V. 1665. – 462820.
4. Ul'yanovskii N.V., Kosyakov D. S., Sypalov S. A., Varsegov I. S., Shavrina I. S., Lebedev A.T. Antiviral drug Umifenovir (Arbidol) in municipal wastewater during the COVID-19 pandemic: Estimated levels and transformation // Science of the Total Environment, 2022. – V.805. – 150380.
5. Ovchinnikov D.V., Ul'yanovskii N.V., Falev D.I., Kosyakov D.S. Supercritical Fluid Chromatography–Mass-Spectrometry of Nitrogen-Containing Compounds: Atmospheric Pressure Ionization // Journal of Analytical Chemistry, 2021. – 76, № 14. – P. 1624–1634.
6. Kozhevnikov A.Y., Falev D.I., Sypalov S.A., Kozhevnikova I.S., Kosyakov D.S. Polycyclic aromatic hydrocarbons in the snow cover of the northern city agglomeration // Scientific Reports, 2021. – V.11, № 1. – 19074.
7. Ul'yanovskii N. V., Kosyakov D. S., Popov M.S., Shavrina I. S., Ivakhnov A.D., Kenessov B., Lebedev A. T. Rapid quantification and screening of nitrogen-containing rocket fuel transformation products by vortex assisted liquid-liquid microextraction and gas chromatography – high-resolution Orbitrap mass spectrometry // Microchemical Journal, 2021. – V. 171. – 106821.
8. Popov M.S., Ul'yanovskii N.V., Kosyakov D.S. Gas chromatography–mass spectrometry quantification of 1,1-dimethylhydrazine transformation products in

- aqueous solutions: Accelerated water sample preparation // Molecules, 2021. – V. 26, № 19. – 5743.
- 9. Kosyakov D.S., Pikovskoi I.I., Ul'yanovskii N.V. Dopant-assisted atmospheric pressure photoionization Orbitrap mass spectrometry – an approach to molecular characterization of lignin oligomers // Analytica Chimica Acta, 2021. – V. 1179. – 338836.
  - 10. Kosyakov D.S., Lebedev A.T., Shavrina I.S., Ul'yanovskii N.V., Lakhmanov D.E. Occurrence of volatile and semi-volatile organic pollutants in the russian arctic atmosphere: The international siberian shelf study expedition // Atmosphere, 2021. – V. 12, № 6. – 767.
  - 11. Falev D.I., Ul'yanovskii N.V., Ovchinnikov D.V., Faleva A.V., Kosyakov D.S. Screening and semi-quantitative determination of pentacyclic triterpenoids in plants by liquid chromatography–tandem mass spectrometry in precursor ion scan mode // Phytochemical Analysis, 2021. – V. 32, № 3. – P. 252–261.
  - 12. Ul'yanovskii N. V., Kosyakov D.S., Varsegov I.S., Popov M.S., Lebedev A. T. Identification of novel disinfection byproducts in pool water: Chlorination of the algaecide benzalkonium chloride // Chemosphere, 2020. – V. 239. – 124801.
  - 13. Kosyakov D.S., Ul'yanovskii N.V., Latkin T.B., Pokryshkin S.A., Berzhonskis V.R., Polyakova O.V., Lebedev A.T. Peat burning – An important source of pyridines in the earth atmosphere // Environmental Pollution, 2020. – V. 266. – 115109.
  - 14. Falev D.I., Kosyakov D.S., Ul'yanovskii N.V., Ovchinnikov D.V. Rapid simultaneous determination of pentacyclic triterpenoids by mixed-mode liquid chromatography– tandem mass spectrometry // Journal of Chromatography A, 2020. – V. 1609. – 460458.
  - 15. Kosyakov D. S., Ul'yanovskii N. V., Pikovskoi I. I., Kenessov B. Bakaikina N. V., Zhubatov Z., Lebedev A. T. Effects of oxidant and catalyst on the transformation products of rocket fuel 1,1-dimethylhydrazine in water and soil // Chemosphere, 2019. – V. 228. – P. 335 – 344.
  - 16. Kosyakov D. S., Anikeenko E. A., Ul'yanovskii N. V., Khoroshev O. Y., Shavrina I. S., Gorbova N. S. Ionic liquid matrices for MALDI mass spectrometry of lignin // Analytical and Bioanalytical Chemistry, 2018. – V. 410. – P. 7429 – 7439.
  - 17. Bakaikina, N. V., Kenessov B. Ul'yanovskii N.V., Kosyakov D.S. Quantification of transformation products of rocket fuel unsymmetrical dimethylhydrazine in soils using SPME and GC-MS // Talanta, 2018. – V. 184. – P. 332–337.
  - 18. Ul'yanovskii N. V., Kosyakov D.S., Pikovskoi I.I., Shavrina I.S., Shpigun O.A. Determination of 1,1-Dimethylhydrazine and its Transformation Products in Soil by Zwitterionic Hydrophilic Interaction Liquid Chromatography/Tandem Mass Spectrometry // Chromatographia, 2018. – V. 81, № 6. – P. 891–900.

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