

Сведения об официальном оппоненте

Ломзов Александр Анатольевич, кандидат физико-математических наук (01.04.17 – химическая физика, горение и взрыв, физика экстремальных состояний вещества), заведующий лабораторией структурной биологии, Федеральное государственное бюджетное учреждение науки Институт химической биологии и фундаментальной медицины Сибирского отделения Российской академии наук, г. Новосибирск.

Список основных публикаций по теме диссертации в рецензируемых научных журналах за последние 5 лет:

1. Yushin I. I. et al. Properties of phosphoramidate benzoazole oligonucleotides (PABAOs). III. Structure and hybridization efficiency of N-benzothiazole derivatives //Biochemical and Biophysical Research Communications. – 2025. – С. 153170.
2. Berdugin A. A., Golyshev V. M., Lomzov A. A. Structural basis of the phosphoramidate N-benzimidazole group's influence on modified primer extension efficiency by Taq DNA polymerase //Vavilov Journal of Genetics and Breeding. – 2025. – Т. 29. – №. 7. – С. 1073.
3. Golyshev V. M. et al. Structural and thermodynamic insights for enhanced SNP detection using N-benzimidazole oligonucleotides //The Journal of Physical Chemistry B. – 2025. – Т. 129. – №. 44. – С. 11409-11420.
4. Morozova F. V. et al. Physicochemical properties of phosphoramidate N-Benzimidazole oligonucleotides in the presence of cosolvents //ACS omega. – 2025. – Т. 10. – №. 36. – С. 41283-41290.
5. Yushin I. I. et al. Properties of phosphoramidate benzoazole oligonucleotides (PABAOs). II. Structure and hybridization efficiency of N-benzoxazole derivatives //Biochemical and Biophysical Research Communications. – 2024. – Т. 740. – С. 150997.
6. Chubarov A. S. et al. Phosphoramidateazole oligonucleotides for single nucleotide polymorphism detection by PCR //International Journal of Molecular Sciences. – 2024. – Т. 25. – №. 1. – С. 617.
7. Golyshev V. M. et al. Properties of phosphoramidate benzoazole oligonucleotides (PABAOs). I. Structure and hybridization efficiency of N-benzimidazole derivatives //Biochemical and Biophysical Research Communications. – 2024. – Т. 693. – С. 149390.
8. Kanarskaya M. A., Novikova S. V., Lomzov A. A. Hybrid RNA/DNA Concatemers and Self-Limited Complexes: Structure and Prospects for Therapeutic Applications //Molecules. – 2024. – Т. 29. – №. 24. – С. 5896.
9. Kanazhevskaya L. Y. et al. The Role of Key Amino Acids of the Human Fe (II)/2OG-Dependent Dioxygenase ALKBH3 in Structural Dynamics and Repair Activity toward Methylated DNA //International Journal of Molecular Sciences. – 2024. – Т. 25. – №. 2. – С. 1145.

10. Novgorodtseva A. I., Lomzov A. A., Vasilyeva S. V. Synthesis and Properties of α -Phosphate-Modified Nucleoside Triphosphates //Molecules. – 2024. – T. 29. – №. 17. – C. 4121.
11. Agback T. et al. Combined NMR and molecular dynamics conformational filter identifies unambiguously dynamic ensembles of Dengue protease NS2B/NS3pro //Communications biology. – 2023. – T. 6. – №. 1. – C. 1193.
12. Kanarskaya M. A., Pyshnyi D. V., Lomzov A. A. Diversity of Self-Assembled RNA Complexes: From Nanoarchitecture to Nanomachines //Molecules. – 2023. – T. 29. – №. 1. – C. 10.
13. Vasilyeva S. V. et al. Synthesis of oligonucleotides carrying inter-nucleotide N-(benzoazole)-phosphoramidate moieties //ACS omega. – 2022. – T. 8. – №. 1. – C. 1556-1566.
14. Zhdanova P. V. et al. Thermodynamic Swings: How Ideal Complex of Cas9–RNA/DNA Forms //International Journal of Molecular Sciences. – 2022. – T. 23. – №. 16. – C. 8891.
15. Naumenko N. V. et al. Recognition and removal of clustered DNA lesions via nucleotide excision repair //DNA repair. – 2021. – T. 108. – C. 103225.