

## Сведения об официальном оппоненте

**Анненков Вадим Владимирович** – доктор химических наук, профессор, заместитель директора по науке ФГБУН «Лимнологический Институт Сибирского отделения Российской академии наук».

### Основные публикации по теме диссертации за последние 5 лет:

1. *Danilovtseva E. N., Palshin V. A., Strelova M. S., Lopatina I. N., Kaneva E. V., Zakharova N. V., Annenkov V. V.* Functional polymers for modeling the formation of biogenic calcium carbonate and the design of new materials // *Polymers for Advanced Technologies*. — 2022. — Vol. 33. — P. 2984—3001.
2. *Annenkov V. V., Danilovtseva E. N., Zelinskiy S. N., Pal'shin V. A.* Sub-micro-and nanoplastics: How much can be expected in water bodies? // *Environmental Pollution*. — 2021. — Vol. 278. — P. 116910.
3. *Annenkov V. V., Aseyev V., Zelinskiy S. N., Danilovtseva E. N.* Imidazole-phosphate polymers: Acid-base properties, association with oligonucleotides and oligosilicates // *Journal of Molecular Liquids*. — 2021. — Vol. 329. — P. 115598.
4. *Стрелова М., Даниловцева Е., Анненков В.* Сополимеры метилакрилата с винилазолами: синтез, термолабильные свойства, прививка полиаминных цепей // *Высокомолекулярные соединения. Серия Б*. — 2021. — Т. 63. — С. 44—54.
5. *Kandasamy G., Danilovtseva E. N., Annenkov V. V., Krishnan U. M.* Poly (1-vinylimidazole) polyplexes as novel therapeutic gene carriers for lung cancer therapy // *Beilstein Journal of Nanotechnology*. — 2020. — Vol. 11. — P. 354—369.
6. *Zakharova N. V., Simonova M. A., Zelinskii S. N., Annenkov V. V., Filippov A. P.* Synthesis, molecular characteristics, and stimulus-sensitivity of graft copolymer of chitosan and poly (N, N-diethylacrylamide) // *Journal of Molecular Liquids*. — 2019. — Vol. 292. — P. 111355.

7. *Annenkov V. V., Gordon R., Zelinskiy S. N., Danilovtseva E. N.* The probable mechanism for silicon capture by diatom algae: assimilation of polycarbonic acids with diatoms—is endocytosis a key stage in building of siliceous frustules? // *Journal of Phycology*. — 2020. — Vol. 56. — P. 1729—1737.
8. *Danilovtseva E. N., Zelinskiy S. N., Pal'shin V. A., Kandasamy G., Krishnan U. M., Annenkov V. V.* Poly (1-vinylimidazole) prospects in gene delivery // *Chinese Journal of Polymer Science*. — 2019. — Vol. 37. — P. 637—645.
9. *Annenkov V. V., Zelinskiy S. N., Pal'shin V. A., Larina L. I., Danilovtseva E. N.* Coumarin based fluorescent dye for monitoring of siliceous structures in living organisms // *Dyes and Pigments*. — 2019. — Vol. 160. — P. 336—343.
10. *Danilovtseva E. N., Pal'shin V. A., Krishnan U. M., Annenkov V. V., Zelinskiy S. N.* Tagging synthetic polymers with coumarin group for study nucleic acid interaction with gene delivery agents // *MethodsX*. — 2019. — Vol. 6. — P. 212—218.
11. *Annenkov V. V., Krishnan U. M., Pal'shin V. A., Zelinskiy S. N., Kandasamy G., Danilovtseva E. N.* Design of Oligonucleotide Carriers: Importance of Polyamine Chain Length // *Polymers*. — 2018. — Vol. 10. — P. 1297.
12. *Annenkov V. V., Krishnan U. M., Pal'shin V. A., Zelinskiy S. N., Kandasamy G., Danilovtseva E. N.* Bioinspired water-soluble polymers with grafted polyamine chains: synthesis and complexation with oligonucleotides // *Chinese Journal of Polymer Science*. — 2018. — Vol. 36. — P. 1114—1122.
13. *Kandasamy G., Annenkov V., Krishnan U. M.* Nanoimmunotherapy-cloaked defenders to breach the cancer fortress // *Nanotechnology Reviews*. — 2018. — Vol. 7. — P. 317—340.
14. *Zelinskiy S. N., Danilovtseva E. N., Pal'shin V. A., Krishnan U. M., Annenkov V. V.* Reagents for labeling with pH-independent fluorescein-based tags // *Organic Chemistry*. — 2018. — P. 357—372.
15. *Annenkov V. V., Verkhozina O. N., Zelinskiy S. N., Shishlyannikova T. A., Bridoux M. C., Danilovtseva E. N.* Unusual polyamines from Baikalian diatoms // *ChemistrySelect*. — 2018. — Vol. 3. — P. 9708—9713.