

List of publications since the Laboratory formation (1994):

Reviews, Books, Popular Scientific Papers

- 1.** A.P.Sinitsyn, E.I.Rainina, V.I.Lozinsky, S.D.Spasov. Immobilized Microbial Cells. Sofia. St.Okhridsky University. 1991. 288 p.; 2-nd Edition - Moscow, M.V.Lomonosov Moscow State University. 1994 /in Russian/.
- 2.** V.I.Lozinsky. Does your cat revel in "Wiskas"? Knimiya i Zhizn' (Chemistry and Life) (10) 52-56 (1995) /in Russian/.
- 3.** V.I.Lozinsky, F.M.Plieva. Cell entrapment within PVA-cryogel carriers: state of the art and potentials. Proc. Internat. Workshop "Bioencapsulation V", H.Dautzenberg and D.Poncelet eds., Potsdam, 1996, T3/1-10.
- 4.** V.I.Lozinsky, A.L.Zubov. Basic physicochemical properties of poly(vinyl alcohol) cryogels determining their feasibility as carriers for cell immobilization. Proc. Internat. Workshop "Bioencapsulation VI", F.Godia and D.Poncelet eds., Barcelona, 1997, T1.7/1-4.
- 5.** V.I.Lozinsky. Cryotropic gelation of poly(vinyl alcohol). Uspekhi khimii **67** (7) 641-655 (1998) /in Russian/ [Russian Chemical Reviews **67** (7) 573-586 (1998) /in English/].
- 6.** V.I.Lozinsky, F.M.Plieva. Poly(vinyl alcohol) cryogels employed as matrices for cell immobilization. 3. Overview of recent research and developments. Enzyme Microb. Technol. **23** (3/4) 227-242 (1998).
- 7.** V.I.Lozinsky. Laboratory for Cryochemistry of Biopolymers. In: A.N.Nesmeyanov Institute of Organoelement Compounds. History and Contemporaneity. Moscow, Nauka, 1999, pp.361-367 /in Russian/.
- 8.** V.I.Lozinsky, F.M.Plieva, I.Yu.Galaev, B.Mattiasson. The potential of polymeric cryogels in bioseparation. Bioseparation **10** (4-5) 163-188 (2001).
- 9.** V.I.Lozinsky. Cryogels on the basis of natural and synthetic polymers: Preparation, properties and areas of implementation. Uspekhi khimii **71** (6) 559-585 (2002) /in Russian/ [Russian Chemical Reviews **71** (6) 489-511 (2002) /in English/].
- 10.** V.I.Lozinsky. Preparation and application of PVA cryogels. Proc. 1st Internat. Seminar "Preparation and Application of Advanced Poly(vinyl alcohol)", Kyongsan (S.Korea), 2003, pp.38-51.
- 11.** V.I.Lozinsky, R.V.Ivanov. Polymer synthesis in moderately frozen solutions of monomers. In: Synthesis and modification of polymers, Yu.B.Monakov ed., Moscow, Khimiya, 2003, pp.68-86 /in Russian/.
- 12.** V.I.Lozinsky, I.Yu.Galaev, F.M.Plieva, I.N.Savina, H.Jungvid, B.Mattiasson. Polymeric cryogels as promising materials of biotechnological interest. Trends in Biotechnol. **21** (10) 445-451 (2003).
- 13.** V.I.Lozinsky. What new opportunities the use of diverse polymeric cryogels opens for the immobilization of molecules and cells. Hemisika Industrija (Chemical Industry, Belgrade) **58** (6a) 111-115 (2004).
- 14.** D.Thomas, J.-M.Laval, V.I.Lozinsky, J.C.Philp. Enzyme technology. // Chapter 7 in: Concepts in Biotechnology, 2nd edition, Eds. D.Balasubramanian, C.F.A.Bryce, K.Dharmalingam, J.A.Green, K.Jayaraman, pub. Sangam Books Ltd, London, 2004, pp.114-134.
- 15.** V.I.Lozinsky. The approaches to chemical synthesis of protein-like copolymers. // Adv. Polym. Sci. **196** 87-127 (2006).
- 16.** V.I.Lozinsky. New generation of macroporous and supermacroporous materials of biotechnological interest – polymeric cryogels. // Izvest. RAN, Ser. Khim. (5) 996-1013 (2008) /in Russian/ [Russ. Chem. Bull. **57** (5) 1015-1032 (2008) /in English/].
- 17.** E.N.Efremenko, O.V.Senko, D.H.Zubaerova, E.A.Podorozhko, V.I.Lozinsky. Effective immobilized biocatalyst for the treatment of various foodwasters. // In: "Biotechnology: State of the Art and Prospects for Development." Ed. By G.E.Zaikov. Nova Science Publishers Inc., N.Y., 2008, Ch.11, pp.103-110.

- 18.** I.M.Okapkin, V.I.Lozinsky, V.V.Vasilevskaya, A.R.Khokhlov. Surface nanoreactors for efficient catalysis of hydrolytic reactions. // Chapter 6 in: “Bionanoreactor Engineering for Life Sciences and Medicine”, Eds. A.Ostafin, K.Landfester, Artech House, Boston-London, 2009, pp. 187-208.
- 19.** V.I.Lozinsky. A brief history of polymeric cryogels. // Adv.Polym.Sci. **263** 1-48 (2014).
- 20.** V.I.Lozinsky, O.Okay. Basic principles of cryotropic gelation. // Adv.Polym.Sci. **263** 49-101 (2014).
- 21.** O.Okay, V.I.Lozinsky. Synthesis, structure-property relationships of cryogels. // Adv.Polym.Sci. **263** 103-157 (2014).
- 22.** E.N.Efremenko, I.V.Lyagin, V.I.Lozinsky. Enzymatic biocatalysts immobilized on/in the cryogel-type carriers // In book: “Supermacroporous Cryogels: Biomedical and Biotechnological Applications” (Ed. Ashok Kumar). Boca Raton, USA: CRC Press, Taylor & Francis Group, LLC. Chapter 11, pp.301-324 (2016).
- 23.** V.I.Lozinsky. Cryostructuring of polymer systems. 50. Cryogels and cryotropic gel-formation: terms and definitions. // Gels **4** (3) # 77 (2018).
- 24.** V.I.Lozinsky. Remarkable man and scientist. // In: “Esen Bekturov” (Ed. G.M.Mutanov) Al-Farabi Publ., Almaty, Kazakhstan, pp.233-234 (2018) /in Russian/.
- 25.** E.N.Efremenko, V.A.Andryushina, T.V.Balabanova, A.B.Beklemishev, S.D.Varfolomeev, M.A.Vodyakova, V.A.Demakov, T.I.Ditchenko, V.V.Dzhavakhiya, M.G.Drozdova, N.V.Zav'ya-lova, I.B.Ivshina, A.D.Ismailov, N.V.Karpova, A.V.Krivoruchko, M.S.Kuyukina, V.I.Lozinsky, I.V.Lyagin, Yu.G.Maksimova, F.T.Mamedova, E.A.Markicheva, O.V.Maslova, T.A.Makhlis, O.V.Molchan, L.V.Perminova, Yu.V.Plekhanova, A.N.Reshetilov, O.V.Sen'ko, N.A.Stepanov, T.S.Stytsenko, S.N.Filippova, A.V.Kholstov, V.M.Yurin, V.V.Yaderets. Immobilized Cells: Biocatalysts and Processes // RIOR Publ.; Moscow, RF. 2018. 500 p. /in Russian/.
- 26.** E.N.Efremenko, O.V.Sen'ko, O.V.Maslova, N.A.Stepanov, V.I.Lozinsky, S.D.Varfolomeev. Immobilized fungal cells: general trends in the studies development and regulation methods of functional activity in the precesses of the biologically-active compounds production. // In book: “Immobilized Cells: Biocatalysts and Processes”. Ed. by E.N.Efremenko. RIOR Publ.; Moscow, RF. pp.123-160 (2018) /in Russian/.
- 27.** M.Ya.Melnikov, L.I.Traktenberg, V.P.Shabatin, Yu.Y.Morozov, O.I.Vernaya, T.I.Shabatina, A.M.Semenov, V.I.Lozinsky, I.A.Rodionov, E.S.Sinitskaya, R.I.Ivanov, A.V.Tsiskarashvili, E.N.Efremenko, I.V.Lyagin, O.A.Shlyaktin, A.A.Kudrinskii, S.E.Kondakov, Yu.A.Krutyakov, A.V.Bychkova, S.G.Karpova, A.A.Ol'khov, A.L.Iordansky, G.N.Gerasimov, V.F.Gromov, M.I.Ikim “Synthesis and Functional Properties of Hydrid Nanoforms of Bioactive and Drug Substances” (collective monograph). (Eds. M.Yu.Melnikov, L.I.Trakhtenberg). // “Tekhnosfera” publishing house. Moscow, Russian Federation. 2019. 384 p.
- 28.** V.I.Lozinsky. Cryostructuring of polymeric systems as a tool for the creation of innovative materials of biomedical purposes. // In: “Synthesis and Functional Properties of Hydrid Nanoforms of Bioactive and Drug Substances”. (Eds. M.Yu.Melnikov, L.I.Trakhtenberg). “Tekhnosfera” publishing house. Moscow, Russian Federation. 2019. Chapter 3, pp.68-100 /in Russian/.
- 29.** I.A.Rodionov, E.S.Sinitskaya, R.V.Ivanov, A.V.Tsiskarashvili, V.I.Lozinsky. Proteinaceous cryogels and cryostructurates. // In: “Synthesis and Functional Properties of Hydrid Nanoforms of Bioactive and Drug Substances”. (Eds. M.Yu.Melnikov, L.I.Trakhtenberg). “Tekhnosfera” publishing house. Moscow, Russian Federation. 2019. Chapter 4, pp.101-135 /in Russian/.
- 30.** Ti.Shabatina, O.I.Vernaya, A.V.Nuzhdina, V.P.Shabatin, A.M.Semenov, V.I.Lozinsky, M.Ya.Melnikov. Hybrid nanoforms of antibacterial substances with metallic nanoparticles entrapped in the cryostuctured biopolymeric matices for target delivery. // In: “Synthesis and Functional Properties of Hydrid Nanoforms of Bioactive and Drug Substances”. (Eds. M.Yu.Melnikov, L.I.Trakhtenberg). “Tekhnosfera” publishing house. Moscow, Russian Federation. 2019. Chapter 5, pp.136-159 /in Russian/.
- 31.** E.N.Efremenko, I.V.Lyagin, V.I.Lozinsky. Biocatalysts immobilized on/in the cryogenically-

structured polymeric matrices. // In: “Synthesis and Functional Properties of Hydrid Nanoforms of Bioactive and Drug Substances”. (Eds. M.Yu.Melnikov, L.I.Trakhtenberg). “Tekhnosfera” publishing house. Moscow, Russian Federation. 2019. Chapter 6, pp.160-210 /in Russian/.

32. O.A.Shlyakhtin, V.I.Lozinsky. Low-temperature methods in the synthesis of inorganic nanomaterials and biomaterials originating from the aqueous solutions and suspensions. // In: “Synthesis and Functional Properties of Hydrid Nanoforms of Bioactive and Drug Substances”. (Eds. M.Yu.Melnikov, L.I.Trakhtenberg). “Tekhnosfera” publishing house. Moscow, Russian Federation. 2019. Chapter 7, pp.211-244 /in Russian/.

33. M.Ya.Melnikov, L.I.Traktenberg, V.P.Shabatin, Yu.Y.Morozov, O.I.Vernaya, T.I. Shabatina, A.M.Semenov, V.I.Lozinsky, I.A.Rodionov, E.S.Sinitskaya, R.I.Ivanov, A.V.Tsiskarashvili, E.N.Efremenko, I.V.Lyagin, O.A.Shlyaktin, A.A.Kudrinskii, S.E.Kondakov, Yu.A.Krutyakov, A.V. Bychkova, S.G.Karpova, A.A.Ol'khov, A.L.Iordansky, G.N.Gerasimov, V.F.Gromov, M.I.Ikim // “Hydrid Nanoforms of Bioactive and Drug Substances” (textbook). (Eds. M.Yu.Melnikov, L.I.Trakhtenberg). “Tekhnosfera” publishing house. Moscow, Russian Federation. 2020. 384 p. /in Russian/.

34. V.I.Lozinsky. Principles and methods of cryostructuring of polymeric systems for the creation of innovative materials of biomedical purposes. // In: “Hydrid Nanoforms of Bioactive and Drug Substances”. (Eds. M.Yu.Melnikov, L.I.Trakhtenberg). “Tekhnosfera” publishing house. Moscow, Russian Federation. 2020. Chapter 3, pp.69-101 /in Russian/.

35. I.A.Rodionov, E.S.Sinitskaya, R.V.Ivanov, A.V.Tsiskarashvili, V.I.Lozinsky. Experimental approaches to the preparation of proteinaceous cryogels and cryostructurates. // In: “Hydrid Nanoforms of Bioactive and Drug Substances”. (Eds. M.Yu.Melnikov, L.I.Trakhtenberg). “Tekhnosfera” publishing house. Moscow, Russian Federation. 2020. Chapter 4, pp.102-136 /in Russian/.

36. M.Ya.Melnikov, T.I.Shabatina, O.I.Vernaya, A.V.Nuzhdina, V.P.Shabatin, A.M.Semenov, V.I.Lozinsky. Hybrid nanoforms of antibacterial substances in biopolymeric matices. “Hydrid Nanoforms of Bioactive and Drug Substances” (textbook). (Eds. M.Yu.Melnikov, L.I.Trakhtenberg). “Tekhnosfera” publishing house. Moscow, Russian Federation. 2020. Chapter 5, pp. 139-162 /in Russian/.

37. E.N.Efremenko, I.V.Lyagin, V.I.Lozinsky. Biocatalysts in the cryostructured polymeric matrices. // In: “Hydrid Nanoforms of Bioactive and Drug Substances”. (Eds. M.Yu.Melnikov, L.I.Trakhtenberg). “Tekhnosfera” publishing house. Moscow, Russian Federation. 2020. Chapter 6, pp.161-211 /in Russian/.

38. O.A.Shlyakhtin, V.I.Lozinsky. Low-temperature methods of the preparation of nano- and biomaterials. // In: “Hydrid Nanoforms of Bioactive and Drug Substances”. (Eds. M.Yu.Melnikov, L.I.Trakhtenberg). “Tekhnosfera” publishing house. Moscow, Russian Federation. 2020. Chapter 7, pp.212-245 /in Russian/.

39. V.I.Lozinsky. Cryostructuring of polymeric systems. 55. Retrospective view on the more than 40-years studies performed in the A.N.Nesmeyanov Institute of Organoelement Compounds with respect of the cryostructuring processes in polymeric systems. // Gels 6 (3) #29 (2020). (doi: [10.3390/gels6030029](https://doi.org/10.3390/gels6030029))

Research papers

1. E.I.Rainina, M.A.Pusheva, A.M.Ryabokon', N.P.Bolotina, V.I.Lozinsky, S.D.Varfolomeev. Microbial cells immobilized in poly(vinyl alcohol) cryogels: biocatalytic reduction of CO₂ by the thermophilic homoacetogenic bacterium *Acetogenium kivuui*. Biotechnol. Appl. Biochem. **14** (2) 321-329 (1994).

2. V.V.Fokina, A.Yu.Arınbasarova, A.L.Zubov, V.I.Lozinsky, K.A.Koshcheenko.

Dehydrogenation of sterol substrates by bacterial cells *Arthrobacter globiformis* 193 entrapped into poly(vinyl alcohol) cryogels. *Prikladnaya Biokhimiya i Microbiologiya* **31** (2) 212-217 (1995) /in Russian/ [*Appl. Biochem. Microbiol.* **31** (2) 184-189 (1995) /in English/].

3. V.I.Lozinsky, F.M.Plieva, A.L.Zubov. Application of poly(vinyl alcohol) in biotechnology. V. Supermacroporous carriers for the immobilization of molecules. *Biotehnologiya* (1-2) 32-37 (1995) /in Russian/ [*Russian Biotechnology* (2) 1-9 (1995) /in English/].

4. V.I.Lozinsky, E.V.Solodova, A.L.Zubov, I.A.Simenel. Study of cryostructuration of polymer systems. XI. The formation of PVA cryogels by freezing-thawing the polymer aqueous solutions containing additives of some polyols. *J. Appl. Polym. Sci.* **58** (2) 171-178 (1995).

5. V.I.Lozinsky, L.V.Domotenko, A.L.Zubov, I.A.Simenel. Study of cryostructuration of polymer systems. XII. Poly(vinyl alcohol) cryogels: influence of low-molecular electrolytes. *J. Appl. Polym. Sci.* **61** (11) 1991-1998 (1996).

6. V.I.Lozinsky, A.L.Zubov, E.F.Titova. Swelling behaviour of poly(vinyl alcohol) cryogels employed as matrices for cell immobilization. *Enzyme Microb. Technol.* **18** (8) 561-569 (1996).

7. V.Fokina, N.Susina, A.Arınbasarova, A.Zubov, V.Lozinsky, K.Koshcheenko. Immobilization of *Arthrobacter globiformis* 193 cells into PVA cryogel. Dehydrogenation of steroid substrates. In: *Immobilized Cells: Basics and Applications*. R.H.Wijffels, R.M.Buitelaar, C. Bucke, J.Tramper, eds., Elsevier Sci. B.V., Amsterdam e.a., 1996, pp.90-97.

8. A.M.Ryabokon', M.V.Kevbrina, M.A.Pusheva, A.L.Zubov, V.I.Lozinsky, E.A.Rainina. Ecologically pure process of acetate synthesis on diverse gaseous substrates by homoacetogenic bacteria entrapped in poly(vinyl alcohol) cryogel. In: *Immobilized Cells: Basics and Applications*, R.H. Wijffels, R.M.Buitelaar, C.Bucke, J.Tramper, eds., Elsevier Sci. B.V., Amsterdam e.a., 1996, pp.106-111.

9. V.I.Lozinsky, A.L.Zubov, T.A.Makhlis. Entrapment of *Zymomonas mobilis* cells into PVA-cryogel carrier in the presence of polyol cryoprotectants. In: *Immobilized Cells: Basics and Applications*, R.H.Wijffels, R.M.Buitelaar, C.Bucke, J.Tramper, eds., Elsevier Sci. B.V., Amsterdam e.a., 1996, pp.112-117.

10. V.I.Lozinsky, A.S.Savvichev, B.L.Tumansky, D.I.Nikitin. Some microorganisms during their entrapment in PAAG act as "Biological accelerators" in how they affect the gel-formation rate. In: *Immobilized Cells: Basics and Applications*, R.H.Wijffels, R.M.Buitelaar, C.Bucke, J.Tramper, eds., Elsevier Sci. B.V., Amsterdam e.a., 1996, pp.118-125.

11. V.I.Lozinsky, A.L.Zubov, E.I.Titova. Poly(vinyl alcohol) cryogels which are used as matrices for cell immobilization. 2. Entrapped cells resemble porous fillers in their effects on the properties of PVA-cryogel carrier. *Enzyme Microb. Technol.* **20** (3) 182-190 (1997).

12. N.R.Konstantinova, V.I.Lozinsky. Cryotropic gelation of ovalbumin solutions. *Food Hydrocolloids* **11** (2) 113-123 (1997).

13. L.Brovko, N.Romanova, T.Makhlis, A.Zubov, V.Lozinsky, N.Ugarova. Bioluminescence as indicator of cells' viability of immobilized *E.coli* cells carrying firefly luciferase gene. *Proc. Internat. Workshop "Bioencapsulation VI"*, F.Godia and D.Poncelet eds., Barcelona, 1997, T3.4/1-4.

14. N.Barron, S.Gough, A.L.Zubov, V.I.Lozinsky, A.P.McHale. Ethanol production at 45°C by *Klyuveromyces marxianus* IMB3 immobilized in calcium alginate and polyvinyl alcohol (PVA) cryogel. *Proc. Internat. Workshop "Bioencapsulation VI"*, F.Godia and D.Poncelet eds., Barcelona, 1997, T6.5/1-4.

15. E.Rainina, T.Makhlis, G.Bachurina, E.Efremenko, V.Lozinsky. *Zymomonas mobilis* cells entrapped into poly(vinyl alcohol) cryogel as the biocatalyst for ethanol production from carbohydrate-containing wastes. *Proc. Internat. Workshop "Bioencapsulation VI"*, F.Godia and D.Poncelet eds., Barcelona, 1997, P30/1-4.

16. V.I.Lozinsky, E.V.Kalinina, V.Ya.Grinberg, N.V.Grinberg, V.A.Chupov, N.A.Plate. Thermoresponsive cryogels based on cross-linked poly(N,N-diethylacrylamide). *Vysokomolekul. soed.* **39A** (12) 1972-1978 (1997) /in Russian/ [*Polym. Sci. 39A* (12) 1300-1305 (1997) /in English/].

17. V.I.Lozinsky. Cryotropic gelation as an approach to the preparation of supermacroporous

hydrogels. Proc. 216-th Ann. ACS Meeting, Div. of Polymeric Materials: Science and Engineering, ACS, Boston, **79**, p.238 (1998).

18. *F.M.Plieva, E.I.Isaeva, V.I.Lozinsky*. Application of poly(vinyl alcohol) cryogels in biotechnology. V. Bioaffinity sorbents on the basis of supermacroporous carrier for the manipulation with virus particles. Biotekhnologiya (5) 32-37 (1998) /in Russian/ [Russian Biotechnology (10) 12-17 (1998) /in Russian/].

19. *S.Gough, N.Barron, A.L.Zubov, V.I.Lozinsky, A.P.McHale*. Production of ethanol from molasses at 45°C using *Kluyveromyces marxianus* IMB3 immobilized in calcium alginate gels and poly(vinyl alcohol) cryogel. Bioprocess Eng. **19** (2) 87-90 (1998).

20. *V.I.Lozinsky, F.M.Plieva, A.L.Zubov*. New possibilities for the implementation of PVA-cryogel carriers: Supermacroporous supports of immobilized macromolecules. Proc. Internat. Workshop "Bioencapsulation VIII", Trondheim, 1999, O5/1-5.

21. *L.G.Damshkalin, I.A.Simenel, V.I.Lozinsky*. Study of cryostructuration of polymer systems. XV. Freeze-thaw-induced formation of cryoprecipitate matter from the low-concentrated aqueous solutions of poly(vinyl alcohol). J. Appl. Polym. Sci. **74** (8) 1978-1986 (1999).

22. *V.I.Lozinsky, T.O.Golovina, D.G.Gusev*. Study of cryostructuration of polymer systems. XIII. Some characteristic features of the behaviour of macromolecular thiols in frozen aqueous solutions. Polymer **41** (1) 35-47 (2000).

23. *E.A.Podorozhko, E.A.Kurskaya, V.K.Kulakova, V.I.Lozinsky*. Cryotropic structuring of aqueous dispersions of fibrous collagen: The influence of the initial pH values. Food Hydrocolloids **14** (2) 111-120 (2000).

24. *Yu.N.Belokon', K.A.Kochetkov, F.M.Plieva, N.S.Ikonnikov, V.I.Maleev, V.S.Parmar, R.Kumar, V.I.Lozinsky*. Enantioselective hydrolysis of a Schiff's base of D,L-phenylalanine ethyl ester in water-poor media through the reaction catalyzed with α-chymotrypsin immobilized in hydrophilic macroporous gel support. Appl. Biochem. Biotechnol. **88** (1-3) 97-106 (2000).

25. *V.I.Lozinsky, A.L.Zubov, I.N.Savina, F.M.Plieva*. Study of cryostructuration of polymer systems. XIV. Poly(vinyl alcohol) cryogels: Apparent yield of the freeze-thaw-induced gelation of concentrated aqueous solutions of the polymer. J. Appl. Polym. Sci. **77** (8) 1822-1831 (2000).

26. *V.I.Lozinsky, L.G.Damshkalin, C.R.T.Brown, I.T.Norton*. Study of cryostructuration of polymer systems. XVI. Freeze-thaw-induced effects in the low-concentration systems amylopectin - water. J. Appl. Polym. Sci. **75** (14) 1740-1748 (2000).

27. *V.I.Lozinsky, L.G.Damshkalin*. Study of cryostructuration of polymer systems. XVII. Poly(vinyl alcohol) cryogels: dynamics of the cryotropic gel-formation. J. Appl. Polym. Sci. **77** (9) 2017-2023 (2000).

28. *V.I.Lozinsky, I.A.Simenel, E.A.Kurskaya, V.K.Kulakova, I.Yu.Galaev, B.Mattiasson, V.Ya.Grinberg, N.V.Grinberg, A.R.Khokhlov*. Synthesis of N-vinylcaprolactam polymers in water-containing media. Polymer **41** (17) 6507-6518 (2000).

29. *V.I.Lozinsky, L.G.Damshkalin, C.R.T.Brown, I.T.Norton*. Study of cryostructuration of polymer systems. XVIII. Freeze-thaw-influence on water-solubilized artificial mixtures of amylopectin and amylose. J. Appl. Polym. Sci. **78** (2) 371-381 (2000).

30. *V.I.Lozinsky, L.G.Damshkalin, C.R.T.Brown, I.T.Norton*. Study of cryostructuring of polymer systems. XIX. On the nature of intermolecular links in the cryogels of locust bean gum. Polymer International **49** (11) 1434-1443 (2000).

31. *F.M.Plieva, K.A.Kochetkov, I.Singh, V.S.Parmar, Yu.N.Belokon', V.I.Lozinsky*. Immobilization of hog pancreas lipase in macroporous PVA-cryogel carrier for the biocatalysis in water-poor media. Biotechnol. Lett. **22** (7) 551-554 (2000).

32. *V.I.Lozinsky, I.A.Simenel, E.A.Kurskaya, V.K.Kulakova, V.Ya.Grinberg, A.S.Dubovik, I.Yu.Galaev, B.Mattiasson, A.R.Khokhlov*. Synthesis and properties of the “protein-like” copolymer. Doklady Akademii Nauk **375** (5) 637-640 (2000) /in Russian/ [Doklady Chemistry **375** (4-6) 273-276 (2000) /in English/].

33. *A.V.Bacheva, F.M.Plieva, E.N.Lysogorskaya, I.Yu.Filippova, V.I.Lozinsky*. Peptide

synthesis in organic media with subtilisin 72 immobilized on poly(vinyl alcohol)-cryogel carrier. *Bioorg. Med. Chem. Lett.* **11** (8) 1005-1008 (2001).

34. N.N.Martinenko, A.L.Zubov, I.M.Gacheva, N.G.Sarishwili, G.I.El-Registan, V.I.Lozinsky. The production of sparkling wines by "Champenoise" method with using PVA-cryogel entrapped yeast cells and the new approach to the problem of cell leakage from the carrier. *Proc. Internat. Workshop "Bioencapsulation XI"*, Warshaw, 2001, P-XIII (1-4).

35. E.Efremenko, E.Rainina, V.Lozinsky, T.Makhlis, S.Varfolomeyev. "Immobilized combined microbial preparation for organophosphates degradation" *Proc. Internat. Workshop "Bioencapsulation XI"*, Warshaw, 2001, S.III-3 (1-5).

36. V.I.Lozinsky, L.G.Damshkalin. Study of cryostructuration of polymer systems. XX. Foamed poly(vinyl alcohol) cryogels. *J. Appl. Polym. Sci.* **82** (7) 1609-1619 (2001).

37. V.I.Lozinsky, R.V.Ivanov, E.V.Kalinina, G.I.Timofeeva, A.R.Khokhlov. Redox-initiated radical polymerization of acrylamide in moderately frozen water solutions. *Macromol. Rapid Commun.* **22** (18) 1441-1446 (2001).

38. I.Yu.Filippova, A.V.Bacheva, O.V.Baibak, F.M.Plieva, E.N.Lysogorskaya, E.S.Oksenoit, V.I.Lozinsky. Biocatalysts for peptide synthesis in organic media – proteinases immobilized on poly(vinyl alcohol)-cryogel. *Izvest. RAN, Ser. Khim.* (10) 1811-1816 (2001) /in Russian/ [*Russian Chemical Bulletin* **50** (10) 1896-1901 (2001) /in English/].

39. V.I.Lozinsky, I.N.Savina. Study of cryostructuration of polymer systems. XXII. Poly (vinyl alcohol) composite cryogels filled with dispersed particles of various hydrophilicity / hydrophobicity. *Kolloidn. Zhurn.* **64** (3) 372-380 (2002) /in Russian/; [*Colloid Journal* **64** (3) 336-343 (2002) /in English/].

40. P.-O.Wahlund, I.Yu.Galaev, S.A.Kazakov, V.I.Lozinsky, B.Mattiasson. "Protein-like" copolymers. Effect of polymer architecture on the performance in bioseparation process. *Macromol. Biosci.* **2** (1) 33-42 (2002).

41. V.I.Lozinsky, L.G.Damshkalin, C.R.T.Brown, I.T.Norton. Study of cryostructuration of polymer systems. XXI. Cryotropic gel-formation of the water-maltodextrin systems. *J. Appl. Polym. Sci.* **83** (8) 1658-1667 (2002).

42. E.Efremenko, V.Lozinsky, V.Sergeeva, F.Plieva, T.Makhlis, G.Kazankov, A.Gladilin, S.Varfolomeyev. Additives of polybrene improve the stability of organophosphate hydrolase immobilized in poly(vinyl) alcohol cryogel carrier. *J. Biochem. Biophys. Meth.* **51** (2) 195-201 (2002).

43. V.I.Lozinsky, E.V.Kalinina, O.I.Putilina, V.K.Kulakova, E.A.Kurskaya, A.S.Dubovik, V.Ya.Grinberg. The influence of phase state of the reacting system on the properties of poly(N-iso-propylacrylamide) at polymer synthesis in aqueous medium. *Vysokomolekul. soed.* **44A** (11) 1906-1914 (2002) [*Polymer Sci. Ser.A* **44** (11) 1122-1128 (2002) /in English/].

44. P.Arvidsson, F.M.Plieva, I.N.Savina, V.I.Lozinsky, S.Fexby, L.Bulow, I.Yu.Galaev, B.Mattiasson. Chromatography of microbial cells using continuous supermacroporous affinity and ion exchange columns. *J. Chromatogr. A* **977** (1) 27-38 (2002).

45. A.V.Bacheva, O.V.Baibak, A.V.Belyaeva, E.N.Lysogorskaya, E.S.Oksenoit V.I.Lozinsky, I.Yu.Filippova. Native and modified subtilisin 72 as a catalyst for peptide synthesis in media with a low water content. *Bioorgan. Khim.* **29** (5) 551-558 (2003) /in Russian/ [*Russian J. Bioorgan. Chem.* **29** (5) 502-508 (2003) /in English/].

46. A.V.Bacheva, O.V.Baibak, A.V.Belyaeva, E.S.Oksenoit, T.I.Velichko, E.N.Lysogorskaya, A.K.Gladilin, V.I.Lozinsky, I.Yu.Filippova. Activity and stability of native and modified subtilisin in different media. *Biokhimiya* **68** (11) 1567-1574 (2003) /in Russian/ [*Biochemistry (Moscow)* **68** (11) 1261-1266 (2003) /in English/].

47. P.Arvidsson, F.M.Plieva, V.I.Lozinsky, I.Yu.Galaev, B.Mattiasson. Direct chromatographic capture of enzyme from crude homogenate using immobilized metal affinity chromatography on a continuous supermacroporous adsorbent. *J. Chromatogr. A* **986** (2) 275-290 (2003).

48. V.I.Lozinsky, I.A.Simenel, V.K.Kulakova, E.A.Kurskaya, T.A.Babushkina, T.P.Klimova, T.V.Burova, A.S.Dubovik, V.Ya.Grinberg, I.Yu.Galaev, B.Mattiasson, A.R.Khokhlov. Synthesis and

studies of N-vinylcaprolactam/N-vinylimidazole copolymers that exhibit the “proteinlike” behaviour in aqueous media. *Macromolecules* **36** (19) 7308-7323 (2003).

49. I.Kh.Nagaev, E.V.Kalinina, V.I.Lozinsky, M.I.Shtil'man. Polymerization of N-isopropylacrylamide in aqueous medium. *Adv. Chem. & Chem. Technol.* **17** (6) 51-55 (2003) /in Russian/.

50. N.N.Martynenko, I.M.Gracheva, N.G.Sarishvili, A.L.Zubov, G.I.El-Registan, V.I.Lozinsky. Immobilization of Champagne yeasts by the entrapment in cryogel of polyvinyl alcohol: means of prevention of cell release from the carrier matrix. *Prikladnaya Biokhimia i Mikrobiologiya* **40** (2) 186-193 (2004) /in Russian/ [Applied Biochemistry and Microbiology **40** (2) 158-164 (2004) /in English/].

51. I.N.Savina, V.I.Lozinsky. Study of cryostructuration of polymer systems. XXIII. Poly(vinyl alcohol) composite cryogels filled with dispersed particles that contain ionogenic groups. *Kolloidn. Zhurn.* **66** (3) 388-395 (2004) /in Russian/ [*Colloid J.* **66** (3) 343-349 (2004) /in English/].

52. E.N.Efremenko, O.V.Spiricheva, D.V.Veremeenko, V.I.Lozinsky. New approaches to the production of lactic acid: Immobilized biocatalyst based ob fungus cells *Rhizopus oryzae* entrapped in PVA cryogel. *Hemija Industrija (Chemical Industry, Belgrade)* **58** (6a) 116-117 (2004).

53. C.J.Cunningham, I.B.Ivshina, V.I.Lozinsky, M.S.Kuyukina, J.C.Philp. Bioremediation of diesel-contaminated soil by microorganisms immobilised in polyvinyl alcohol. *International Bio-deterioration and Biodegradation* **54** (2-3) 167-174 (2004).

54. E.Efremenko, O.Spiricheva, D.Veremeenko, V.Lozinsky. Immobilized fungi in the simultaneous processes of production and isolation of lactic acid. *Proc. Internat. Workshop "Bioencapsulation XII"*, J.L.Pedraz, G.Olive and D.Poncelet eds., Vitoria, Spain, 2004, p.117-120.

55. I.Kh.Nagaev, E.V.Kalinina, V.I.Lozinsky, M.I.Shtil'man. Polymerization of N-isopropylacrylamide in aqueous medium at temperatures above and below LCST. *Adv. Chem. & Chem. Technol.* **18** (3) 69-71 (2004) /in Russian/.

96. E.A.Markvicheva, V.I.Lozinsky, F.M.Plieva, K.A.Kochetkov, L.D.Rumsh, V.P.Zubov, J. Maity, R.Kumar, V.Parmar, Yu.N.Belocon. Gel-immobilized enzymes as promising biocatalysts: results from Indo-Russian collaborative studies. *Pure and Appl. Chem.* **77** (1) 227-236 (2005).

97. K.Bloch, V.I.Lozinsky, I.Yu.Galaev, K.Yavriyanz, M.Vorobeychik, D.Azarov, L.G.Damshkalin, B.Mattiasson, P.Vardi. Functional activity of insulinoma cells (INS-1E) and pancreatic islets cultured in agarose cryogel sponges. *J. Biomed. Mater. Res.* **75A** (4) 802-809 (2005).

98. T.V.Burova, N.V.Grinberg, V.Ya.Grinberg, E.V.Kalinina, V.I.Lozinsky, V.O.Aseyev, S. Hollappa, H.Tenhu, A.R.Khokhlov. Unusual conformational behavior of complexes of poly(N-isopropylacrylamide) with poly(methacrylic acid). *Macromolecules* **38** (4) 1292-1299 (2005).

99. A.V.Bacheva, A.V.Belyaeva, E.N.Lysogorskaya, E.S.Oksenoit, V.I.Lozinsky, I.Yu.Filippova. Biocatalytic properties of native and immobilized subtilisin 72 in aqueous-organic and low water media. *J. Mol. Catal., B. Enzymatic.* **32** (5-6) 253-260 (2005).

100. R.V.Ivanov, T.A.Babushkina, V.I.Lozinsky. Specifics of acrylamide cryopolymerisation at temperatures above and below the eutectic point of the frozen reaction system. *Vysokomolekul. soed.* **47A** (8) 1418-1428 (2005) /in Russian/ [*Polymer Science* **47A** (8) 791-799 (2005) /in English/].

101. E.N.Savina, A.Hanora, F.M.Plieva, I.Yu.Galaev, B.Mattiasson, V.I.Lozinsky. Study of cryostructuration of polymer systems. XXIV. Poly(vinyl alcohol) cryogels filled with particles of strong anion-exchanger: properties of the composite materials and potential application. *J. Appl. Polym. Sci.* **95** (3) 529-538 (2005).

102. V.I.Lozinsky, L.G.Damshkalin, I.N.Kurochkin, I.I.Kurochkin. Study of cryostructuration of polymer systems. XXV. Influence of surfactants on the properties and structure of gas-filled (foamed) poly(vinyl alcohol) cryogels. *Kolloidn. Zhurn.* **67** (5) 649-662 (2005) /in Russian/ [*Colloid Journal* **67** (5) 589-601 (2005) /in English/].

103. A.V.Belyaeva, A.V.Bacheva, E.S.Oksenoit, E.N.Lysogorskaya, V.I.Lozinsky, I.Yu. Filippova. Peptide synthesis in organic media with the use of subtilisin 72 immobilised on a poly(vinyl alcohol) cryogel. *Bioorgan. Khim.* **31** (6) 586-592 (2005) /in Russian/ [*Russian J. Bioorgan. Chem.*

31 (6) 529-534 (2005) /in English/.

104. V.I.Lozinsky, I.A.Simenel, V.G.Semenova, L.E.Belyakova, V.V.Il'in, V.Ya.Grinberg, A.S.Dubovik, A.R.Khokhlov. Properties of the protein-like copolymers of N-vinylcaprolactam and N-vinylimidazole in aqueous solutions. *Vysokomolekul. soed.* **48A** (4) 673-683 (2006) /in Russian/ [*Polymer Science Ser.A*, **48** (4) 435-443 (2006) /in English/].

105. E.N.Efremenko, O.V.Spiricheva, D.V.Veremeenko, A.V.Baibak, V.I.Lozinsky. L(+)-Lactic acid production using PVA-cryogel-entrapped *Rhizopus oryzae* fungal cells. *J. Chem. Technol. Biotechnol.* **81** (4) 519-522 (2006).

106. E.Efremenko, O.Spiricheva, S.Varfolomeyev, V.Lozinsky. *Rhizopus oryzae* fungus cells producing L(+)-lactic acid: kinetic and metabolic parameters of free and PVA-cryogel-entrapped mycelium. *Appl. Microbiol. Biotechnol.* **72** (3) 480-485 (2006).

107. M.S.Kuyukina, I.B.Ivshina, A.Yu.Gavrin, E.A.Podorozhko, V.I.Lozinsky, C.E.Jeffree, J.C.Philp. Immobilization of hydrocarbon-oxidizing bacteria in poly(vinyl alcohol) cryogels hydrophobized using a biosurfactant. *J. Microbiol. Meth.* **65** (3) 596-603 (2006).

108. V.I.Lozinsky, I.A.Simenel, A.R.Khokhlov. Catalytic properties of N-vinylcaprolactam/N-vinylimidazole “protein-like” copolymer in the reaction of ester substrate hydrolysis. *Doklady Akademii Nauk* **410** (4) 487-490 (2006) /in Russian/ [*Doklady Chemistry* **410**, Part 2, 170-173 (2006) /in English/].

109. R.V.Ivanov, V.I.Lozinsky. Influence of thermal pre-history of moderately frozen reaction system on the results of acrylamide cryopolymerisation. *Vysokomolekul. soed.* **48A** (12) 2092-2101 (2006) /in Russian/ [*Polymer Science Ser.A*, **48** (12) 1232-1239 (2006) /in English/].

110. I.V.Bakeeva, E.P.Presnyak, M.B.Kuzimenkova, I.V.Morozova, V.I.Lozinsky, V.P.Zubov. Macroporous hybrid cryogels. *Proc. Internat. Conf. “Science and Education – 2006”, Murmansk, Russian Federation*, pp.377-380 (2006) /in Russian/.

111. A.F.Vanin, N.A.Sanina, V.A.Serezhenkov, D.Sh.Burbaev, V.I.Lozinsky, S.M.Aldoshin. Di-nitrosyl-iron complexes with thiol-containing ligands: Spatial and electronic structures. *Nitric Oxide: Biol. & Chem.* **16** (1) 82-93 (2007).

112. O.V.Sen'ko, O.V.Spiricheva, V.I.Lozinsky, E.Efremenko. Immobilized biocatalyst for the remediation of fat-containing waste waters of food industry plants. *Kataliz v promyshlennosti (Catalysis in Industry)* (1) 55-61 (2007) /in Russian/.

113. V.I.Lozinsky, I.V.Bakeeva, E.P.Presnyak, L.G.Damshkalin, V.P.Zubov. Study of cryostructuring of polymer systems. XXVI. Heterophase organic-inorganic cryogels prepared via freezing-thawing of aqueous solutions of poly(vinyl alcohol) with added tetramethoxysilane. *J. Appl. Polym. Sci.* **105** (5) 2689-2702 (2007).

114. I.Lyagin, R.Ivanov, V.Lozinsky, E.Efremenko. Design of immobilized biocatalysts for degradation of neurotoxic organophosphorous compounds. *Proc. Internat. Workshop “Bioencapsulation XV”, Vienna (Austria)*, 2007, P2-13(1-4).

115. O.Spiricheva, O.Senko, I.Lyagin, V.Lozinsky, S.Varfolomeev, E.Efremenko. Lactic acid production by immobilized fungus cells *Rhizopus oryzae* scaled up to the complex experimental system. // *Proc. Internat. Workshop “Bioencapsulation XV”, Vienna (Austria)*, 2007, P3-04(1-4).

116. R.V.Ivanov, V.I.Lozinsky, S.K.Noh, S.S.Han, W.S.Lyoo. Preparation and characterization of polyacrylamide cryogels produced from a high-molecular weight precursor. I. Influence of the reaction temperature and concentration of the cross-linking agent. // *J. Appl. Polym. Sci.* **106** (3) 1470-1475 (2007).

117. V.I.Lozinsky, L.G.Damshkalin, B.L.Shaskol'skii, T.A.Babushkina, I.N.Kurochkin, I.I.Kurochkin. Study of cryostructuring of polymer systems. XXVII. Physicochemical properties of poly(vinyl alcohol) cryogels and features of their macroporous morphology. *Kolloind. Zhurn.* **69** (6) 798-816 (2007) /in Russian/ [*Colloid Journal* **69** (6) 747-764 (2007) /in English/].

118. Yu.A.Petrenko, A.Yu.Petrenko, V.I.Lozinsky, I.V.Gurin, N.A.Gorokhova, N.A.Volkova, B.P.Sandomirskii. Culturing of stromal cells-precursors in the 3D carriers. *Transplantologiya (Kyiv)* **9** (1) 221-223 (2007) /in Russian/.

- 119.** R.V.Ivanov, V.I.Lozinsky, S.K.Noh, Y.R.Lee,, S.S.Han, W.S.Lyoo. Preparation and characterization of polyacrylamide cryogels produced from a high-molecular-weight precursor. II. The influence of the molecular weight of the polymeric precursor. *J. Appl. Polym. Sci.* **107** (1) 382-390 (2008).
- 120.** E.A.Podorozhko, V.I.Lozinsky, I.B.Ivshina, M.S.Kuyukina, A.B.Krivorutchko, J.C.Philp, C.J.Cunningham. Hydrophobised sawdust as a carrier for immobilisation of the hydrocarbon-oxidising bacterium *Rhodococcus rubber*. *Bioresource Technology* **99** (6) 2001-2008 (2008).
- 121.** V.I.Lozinsky, L.G.Damshkalin, I.N.Kurochkin, I.I.Kurochkin. Study of cryostructuring of polymer systems. XXVIII. Physicochemical and morphological properties of poly(vinyl alcohol) cryogels formed via multiple freezing-thawing technique. *Kolloind. Zhurn.* **70** (2) 212-222 (2008) /in Russian/ [*Colloid Journal* **70** (2) 189-198 (2008) /in English/].
- 122.** G.A.Komarova, S.G.Starodubtsev, V.I.Lozinsky, E.V.Kalinina, K.Landfester, A.R.Khokhlov. Intelligent gels and cryogels with entrapped emulsions. *Langmuir* **24** (9) 4467-4469 (2008).
- 123.** E.N.Lysogorskaya, T.V.Roslyakova, A.V.Belyaeva, A.V.Bacheva, V.I.Lozinsky, I.Yu.Filippova. Preparation and catalytic properties of trypsin immobilized on cryogels of poly(vinyl alcohol). *Prikladnaya Biokhimiya i Mikrobiologiya* **44** (3) 270-275 (2008) /in Russian/ [*Appl. Biochem. Microbiol.* **44** (3) 241-246 (2008) /in English/].
- 124.** V.I.Lozinsky, L.G.Damshkalin, K.O.Bloch, P.Vardi, N.V.Grinberg, T.V.Burova, V.Ya.Grinberg. Cryostructuring of polymer systems. XXIX. Preparation and characterization of supermacroporous (spongy) agarose-based cryogels used as three-dimentional scaffolds for culturing insulin-producing cell aggregates. *J. Appl. Polym. Sci.* **108** (5) 3046-3062 (2008).
- 125.** E.I.Veliev, S.V.Kotov, V.K.Shishlo, V.A.Serezhenkov, V.I.Lozinsky, A.F.Vanin. Beneficial effect of dinitrosyl iron complexes with thiol-containing ligands on the rat penile cavernous bodies. *Biofizika* **53** (2) 326-335 (2008) /in Russian/; *Biophysics* **53** (2) 153-157 (2008) /in English/.
- 126.** O.M.Anikina, E.N.Lysogorskaya, E.S.Oksenoit, V.I.Lozinsky, I.Yu.Filippova. Subtilisin Carlsberg in complex with sodium dodecyl sulfate is an effective catalysts for the solid phase segment coupling of peptides on poly(vinyl alcohol) cryogel. *Bioorganicheskaya khimiya* **34** (3) 365-370 (2008) /in Russian/; *Russ. J. Bioorgan. Chem. Russ.* **34** (3) 329-333 (2008) /in English/.
- 127.** E.Efremenko, O.Sen'ko, D.Zubaerova, E.Podorozhko, V.Lozinsky. New biocatalyst with multiple enzymatic activities for treatment of complex food wastewaters. *Food Technol. Biotechnol.* **46** (2) 208-212 (2008).
- 128.** A.V.Belyaeva, Yu.A.Smirnova, E.N.Lysogorskaya, E.S.Oksenoit, A.V.Timofeeva, V.I.Lozinsky, I.Yu.Filippova. Biocatalytic properties of thermolysin immobilized on poly(vinyl alcohol) cryogel. *Bioorganicheskaya khimiya* **34** (4) 487-494 (2008) /in Russian/; *Russ. J. Bioorgan. Chem.* **34** (4) 435-441 (2008) /in English/.
- 129.** Yu.A.Petrenko, A.Yu.Petrenko, L.G.Damshkalin, N.A.Volkova, V.I.Lozinsky. Growth and adipogenic differentiation of mesenchimal stromal bone marrow cells during culturing in 3D macroporous agarose cryogel sponges. *Kletochnye Tekhnologii v Biologii I Meditsine* (3) 141-144 (2008) /in Russian/; *Bulletin of Experimental Biology and Medicine* **146** (1) 129-132 (2008) /in English/.
- 130.** A.Y.Petrenko, Y.A.Petrenko, A.I.Pravduk, L.G.Damshkalin, V.I.Lozinsky. Growth and adipogenic differentiation of human mesenchymal stem cells in alginate microbeads and macroporous agarose sponges. // *Int. J. Artif. Organs* **31** (7) 640 (2008).
- 131.** Yu.A.Petrenko, N.A.Volkova, E.P.Zhulikova, L.G.Damshkalin, V.I.Lozinsky, A.Yu.Petrenko. Choice of conditions for human bone marrow stromal cells seeding into polymer macroporous sponges. *Biopolymery i Kletka (Kiev)* **24** (5) 399-406 (2008) /in Russian/; *Biopolymers and Cell* **24** (5) 399-405 (2008) /in English/.
- 132.** B.L.Shaskol'skiy, M.S.Fogorasi, M.D.Stanescu, V.I.Lozinsky. Implementation of poly(vinyl alcohol) cryogels in biotechnology. VII. Composite immobilized biocatalysts containing particles of enzyme preparation entrapped in the matrix of poly(vinyl alcohol) cryogel. *Biotehnologiya* (1) 71-82 (2009) /in Russian/; *Biotechnology in Russia* (1) 100-115 (2009). ISSN: 2500-2341

- 133.** *M.D.Stanescu, M.Fogorasi, M.Dochia, S.Mihuta, V.I.Lozinsky.* Biotechnology for textile waste valorization. // *Revista de Chimie* **60** (1) 59-62 (2009).
- 134.** *M.S.Kuyukina, I.B.Ivshina, M.K.Serebrennikova, A.V.Krivorutchko, E.A.Podorozhko, R.V. Ivanov, V.I.Lozinsky.* Petroleum-contaminated water treatment in a fluidized-bed bioreactor with immobilized *Rhodococcus* cells. // *International Biodeterioration & Biodegradation* **63** (4) 427-432 (2009).
- 135.** *L.A.Wasserman, V.G.Vasil'ev, M.V.Motyakin, W.Blaszchak, J.Fornal, L.G.Damshkalin, V.I. Lozinsky, V.P.Yuryev.* Influence of gluten and gums additives, as well as of the cryogenic treatment, on physicomechanical properties, morphology and local mobility of water in complex gels of wheat starch. // *Starch/Stärke* **61** (7) 377-388 (2009).
- 136.** *A.Y.Petrenko, Y.A.Petrenko, A.I.Pravduk, R.V.Ivanov, V.I.Lozinsky.* Proliferation and differentiation of marrow derived mesenchymal stromal cells within alginate microbeads and cryogel sponges. *Int. J. Artif. Organs* **32** (7) 418 (2009).
- 137.** *E.V.Rubtsova, M.S.Kuyukina, I.B.Ivshina, R.V.Ivanov, V.I.Lozinsky.* Adsorption of hydrocarbon-oxidizing *Rhodococcus* cells in the poly(acrylamide) cryogel with increased hydrophobicity. // *New Biotechnology* **25** (Suppl) 114 (2009).
- 138.** *V.G.Evtyugin, A.B.Margulis, L.G.Damshkalin, V.I.Lozinsky, A.I.Kolpakov, O.N.Il'inskaya.* Sorption of microorganisms by wide-porous agarose cryogels containing grafted aliphatic chains of different lengths. *Mikrobiologiya* **78** (5) 667-673 (2009) /in Russian/; *Microbiology* **78** (5) 603-608 (2009) /in English/.
- 139.** *M.S.Kuyukina, E.V.Rubtsova, I.B.Ivshina, R.V.Ivanov, V.I.Lozinsky.* Selective adsorption of hydrocarbon-oxidizing *Rhodococcus* cells in a column with hydrophobized poly(acrylamide) cryogel. // *J. Microbiol. Meth.* **79** (1) 76-81 (2009).
- 140.** *I.Lyagin, R.Ivanov, V.Lozinsky, E.Efremenko, S.Varfolomeev.* Increase in stability of organophosphorous hydrolase by immobilization technique. // *Proc. Internat. Workshop “Bioencapsulation XVII”*, Groningen (Netherlands), 2009, P26, pp.146-147.
- 141.** *K.Bloch, A.Vanichkin, L.G.Damshkalin, V.I.Lozinsky, P.Vardi.* Vascularization of wide pore agarose-gelatin cryogel scaffolds implanted subcutaneously in diabetic and non diabetic mice. // *Acta Biomaterialia* **6** (3) 1200-1205 (2010).
- 142.** *M.D.Stanescu, M.Fogorasi, S.Gavrilas, B.L.Shaskolskiy, V.I.Lozinsky.* New potential biocatalysts by laccase immobilization in PVA cryogel type carrier. // *Appl. Biochem. Biotechnol.* **160** (4) 1947-1954 (2010).
- 143.** *T.V.Burova, N.V.Grinberg, V.I.Lozinsky, S.P.Moiseeva, G.P.Kotel'nikov, V.Ya.Grinberg, A.R.Khokhlov.* Energetics of the binding of Cu(II) ions by thermosensitive copolymers of N-vinylcaprolactam and N-vinylimidazole in different conformational states of the macromolecules. // *Vysokomolekul. soed.* **52** (4) 554-560 (2010) /in Russian/ [*Polymer Sci.* **52A** (4) 356-361 (2010) /in English/].
- 144.** *E.A.Podorozhko, A.A.Korlyukov, V.I.Lozinsky.* Cryostructuring of Polymer Systems. XXX. Poly(vinyl alcohol)-based composite cryogels filled with small disperse oil droplets: A gel system capable of mechanically-induced releasing of the lipophilic constituents. // *J. Appl. Polym. Sci.* **117** (3) 1332-1349 (2010).
- 145.** *V.V.Nikonorov, R.V.Ivanov, N.R.Kil'deева, L.N.Bulatnikova, V.I.Lozinsky.* Synthesis and characteristics of chitosan cryogels crosslinked by glutaric aldehyde. // *Vysokomolekul. soed.* **52** (8) 1436-1443 (2010) /in Russian/ [*Polymer Sci.* **52A** (8) 828-834 (2010) /in English/].
- 146.** *V.V.Nikonorov, I.E.Veleshko, A.N.Veleshko, E.V.Rumyantseva, V.I.Lozinsky, R.V.Ivanov, S.N.Mikhailov, N.R.Kil'deeva.* Preparation of chitosan-based chemical hydrogels and their application for uranium sorption. Proc. Xth International Conference “Modern Perspectives in Chitin and Chitosan Studies”, NNSU Publ., Nizhny Novgorod, Russian Federation, 2010, pp.45-49 /in Russian/.
- 147.** *M.M.Vorob'ev, T.V.Burova, N.V.Grinberg, A.S.Dubovik, N.G.Faleev, V.I.Lozinsky.* Hydration characterization of N-vinylcaprolactam polymers by absorption millimeter-wave

measurements. // *Colloid & Polymer Sci.* **288** (14-15) 1457-1463 (2010).

148. Yu.A.Petrenko, R.V.Ivanov, V.I.Lozinsky, A.Yu.Petrenko. Comparison of the methods for seeding human mesenchimal stem cells to macroporous alginate cryogel carriers. *Kletochnye Tekhnologii v Biologii i Meditsine* (2) 225-228 (2010) /in Russian/ [*Bulletin of Experimental Biology and Medicine* **150** (4) 543-546 (2011) /in English/].

149. V.G.Evtugyn, A.B.Margulis, O.V.Bushmanova, E.V.Nikitina, A.I.Kolpakov, L.G.Damshkaln, V.I.Lozinsky, O.N.Ilinskaya. Hydrophobized derivatives of wide-porous poly(vinyl alcohol) cryogel: New possibilities of biotechnological implementation. *Herald of the Kazan Technological University* (9) 89-96 (2010) /in Russian/.

150. I.E.Veleshko, V.V.Nikonorov, A.N.Veleshko, E.V.Rumyantseva, S.N.Mikhailov, V.I.Lozinsky, R.V.Ivanov, L.S.Gal'braikh, N.R.Kil'deева. Sorption of Eu(III) ions from their solutions using covalently-linked chitosan cryogels. // *Khimicheskie volokna* (6) 22-26 (2010) /in Russian/ [*Fibre Chemistry* **42** (6) 364-369 (2011) /in English/].

151. T.V.Burova, N.V.Grinberg, E.V.Kalinina, R.V.Ivanov, V.I.Lozinsky, C.Alvarez-Lorenzo, V.Ya.Grinberg. Thermoresponsive copolymer cryogel possessing molecular memory: synthesis, energetics of collapse and interaction with ligands // *Macromol. Chem. Phys.* **212** (1) 72-80 (2011).

152. M.S.Kuyukina, E.V.Rubtsova, I.B.Ivshina, R.V.Ivanov, V.I.Lozinsky. Adsorption immobilization of rhodococci cells in hydrophobized derivatives of wide-porous poly(acrylamide) cryogel. // *Prikl. biokhim. mikrobiol.* **47** (2) 176-182 (2011) /in Russian/ [*Appl. Biochem. Microbiol.* **47** (2) 158-164 (2011) /in English/].

153. V.I.Lozinsky, N.G.Sakhno, L.G.Damshkaln, I.V.Bakeeva, V.P.Zubov, I.N.Kurochkin, I.I.Kurochkin. Study of cryostructuring of polymer systems. XXXI. Influence of the additives of alkaline metals chlorides on physicochemical properties and morphology of poly(vinyl alcohol) cryogels. // *Kolloind. zhurn.* **73** (2) 225-234 (2011) /in Russian/ [*Colloid J.* **73** (2) 234-243 (2011) /in English/].

154. N.V.Carpova-Rodina, V.A.Andryushina, V.V.Yaderetz, A.V.Druzhinina, T.S.Stytsenko, B.L.Shaskol'skiy, V.I.Lozinsky, Luu Duc Huy, N.E.Voishvillo. Transformation of Δ^4 -3-ketosteroids by free and immobilized cells of *Rhodococcus erythropolis* actinobacterium. // *Prikl. biokhim. mikrobiol.* **47** (4) 429-435 (2011) /in Russian/ [*Appl. Biochem. Microbiol.* **47** (4) 386-392 (2011) /in English/].

155. Yu.A.Petrenko, R.V.Ivanov, A.Yu.Petrenko, V.I.Lozinsky. Coupling of gelatin to inner surfaces of pore walls in spongy alginate-based scaffolds facilitates the adhesion, growth and differentiation of human bone marrow mesenchymal stromal cells. // *J. Mater. Sci., Mater. in Med.* **22** (6) 1529-1540 (2011).

156. N.R.Kildeeva, I.E.Veleshko, L.V.Vladimirov, P.A.Perminov, L.M.Simanenkova, V.I.Lozinsky, S.N.Mikhailov. New materials on the basis of the chitosan modified with aldehydes. // In: *Adv. Chitin Sci.*, Eds. V.Varlamov, S.Bratskaya, I.Yakovleva, S.Senel. St.-Petersburg, European Chitin Society, vol. **XIII**, 138-143 (2011).

157. V.V.Nikonorov, R.V.Ivanov, N.R.Kil'deева, V.I.Lozinsky. Effect of polymer precursor molecular mass on the formation and properties of covalently crosslinked chitosan cryogels. // *Vysokomolekul. soed.* **53A** (12) 2067-2076 (2011) /in Russian/; [*Polymer Sci.* **53A** (12) 1150-1158 (2011) /in English/].

158. M.D.Stanescu, A.Stanislav, R.V.Ivanov, A.Hirtopeanu, V.I.Lozinsky. Immobilized laccase on a new cryogel carrier and kinetics of two anthraquinone derivatives oxidation. // *Appl. Biochem. Biotechnol.* **165** (7-8) 1789-1798 (2011).

159. N.R.Kil'deeva, I.E.Veleshko, L.V.Vladimirov, V.V.Nikonorov, V.I.Lozinsky, R.V.Ivanov, P.A.Perminov, S.N.Mikhailov. Modification of chitosan cryogels by pyridoxal phosphate to improve sorption capability. // *Khimicheskie volokna* (6) 29-34 (2011) /in Russian/ [*Fibre Chemistry* **43** (6) 426-432 (2012) /in English/].

160. E.A.Podorozhko, T.V.Vorontsova, V.I.Lozinsky. Study of cryostructuring of polymer systems. XXXII. Morphology and physico-chemical properties of composite poly(vinyl alcohol)

cryogels filled with microdroplets of hydrophobic liquid. // Kolloind. zhurn. **74** (1) 115-126 (2012) /in Russian/ [Colloid J. **74** (1) 110-120 (2012) /in English/].

161. *M.D.Stanescu, S.Gavrila, R.Ludwig, D.Haltrich, V.I.Lozinsky.* Preparation of immobilized *Trametes pubensces* laccase on a cryogel-type polymeric carrier and application of the biocatalyst to apple juice phenolic compounds oxidation // Eur. Food Res. Technol. **234** (4) 655-662 (2012).

162. *V.I.Lozinsky, L.G.Damshkalin, I.N.Kurochkin, I.I.Kurochkin.* Study of cryostructuring of polymer systems. XXXIII. Effect of rate of chilling aqueous poly(vinyl alcohol) solutions during their freezing on physicochemical properties and porous structure of resulting cryogels. // Kolloind. zhurn. **74** (3) 343-352 (2012) /in Russian/ [Colloid J. **74** (3) 319-327(2012) /in English/].

163. *O.E.Zaborina, M.I.Buzin, V.I.Lozinsky.* // Cryopolymerization of N,N-dimethylacrylamide in moderately frozen formamide. // Vysokomolekul. soed. **54B** (6) 915-923 (2012) /in Russian/; [Polym. Sci. **54B** (5-6) 354-361(2012) /in English/].

164. *V.I.Lozinsky, L.G.Damshkalin, M.G.Ezernitskaya, Y.K.Glotova, Y.A.Antonov.* Cryostructuring of polymer systems. 35. Wide pore poly(vinyl alcohol) cryogels prepared using a combination of liquid-liquid phase separation and cryotropic gel-formation processes. // Soft Matter **8** (32) 8493-8504 (2012).

165. *E.A.Podorozhko, E.A.D'yakonova, O.Yu.Kolosova, L.F.Klabukova, V.I.Lozinsky.* Study of cryostructuring of polymer systems. XXXIV. Composite poly(vinyl alcohol) cryogels filled with microparticles of polymeric dispersion // Kolloidn. zhurn. **74** (6) 744-753 (2012) /in Russian/ [Colloid J. **74** (6) 711-719 (2012) /in English/].

166. *G.A.Komarova, S.G.Starodubtsev, V.I.Lozinsky, I.R.Nasimova, A.R.Khokhlov.* Intelligent gels and cryogels with embedded emulsions of various oils // J. Appl. Polym. Sci. **127** (4) 2703-2709 (2013).

167. *D.R.Yarullina, V.I.Lozinsky, N.L.Bruslik, O.N.Il'inskaya.* Novel probiotic preparation. // In: “Human Health in XXI Century”, “Otechestvo” Publ., Kazan’, 2013, pp.382-385.

168. *I.B.Ivshina, M.S.Kuyukina, A.V.Krivoruchko, O.B.Naimark, O.A.Plekhov, E.A.Podorozhko, V.I.Lozinsky.* Biosurfactant-enhanced immobilization of hydrocarbon-oxidizing *Rhodococcus ruber* on sawdust. // Appl. Microbiol. Biotechnol. **97** (12) 5315-5327 (2013).

169. *E.N.Efremenko, N.A.Stepanov, D.A.Gudkov, O.V.Senko, V.I.Lozinsky, S.D.Varfolomeev.* Immobilized fungal biocatalysts for the production of cellulase complex hydrolyzing renewable plant feedstock. // Catalysis in Industry **5** (2) 190-198 (2013).

170. *O.Yu.Kolosova, E.A.Kondrat'eva, V.I.Lozinsky.* Study on the influence of some chaotropic and kosmotropic substances on physicochemical properties of poly(vinyl alcohol) cryogels. // Uspekhi in khimii i khimicheskoi tekhnologii **XXVII** (3) 73-77 (2013) /in Russian/.

171. *M.V.Oschepkova, E.M.Sukhanova, A.I.Oschepkov, O.Yu.Kolosova, O.E.Zaborina, O.A.Fedorova, V.I.Lozinsky, Yu.V.Fedorov.* Elaboration of the method for inserting of 1,8-naphthylimide-based fluorophores into the composition of polymeric cryogels. // Uspekhi in khimii i khimicheskoi tekhnologii **XXVII** (3) 127-131 (2013) /in Russian/.

172. *Yu.A.Petrenko, A.Katsen-Globa, I.Meiser, R.V.Ivanov, V.I.Lozinsky, H.Zimmermann, A.Yu.Petrenko.* Cryopreservation of mesenchymal stromal cells within wide-porous three-dimensional alginate-gelatin scaffolds. // Problems of Cryobiology and Cryomedicine **23** (4) 351-354 (2013).

173. *A.Katsen-Globa, I.Meiser, Yu.A.Petrenko, R.V.Ivanov, V.I.Lozinsky, H.Zimmermann, A.Yu.Petrenko.* Towards a ready-to-use 3-D scaffolds for regenerative medicine: adhesion-based cryopreservation of human mesenchymal stem cells attached and spread within alginate-gelatin cryogel scaffolds. // J.Mater.Sci., Mater. in Med. **25** (3) 857-871 (2014).

174. *V.I.Lozinsky, L.G.Damshkalin, I.N.Kurochkin, I.I.Kurochkin.* Cryostructuring of polymeric systems. 36. Poly(vinyl alcohol) cryogels prepared from solutions of the polymer in water/low-molecular alcohol mixtures. // Eur.Polym.J. **53** (1) 189-205 (2014).

175. *I.A.Luney, E.A.Podorozhko, V.I.Lozinsky, N.R.Kil'deева.* Properties of chitosan

dispersions in PVA solutions used for the preparation of cryogel sorbent. // In: “Modern Perspectives in Chitin and Chitosan Studies”, Centre “Bioengineering” RAS Publ., Moscow, Russian Federation, 2014, pp.434-438 /in Russian/.

176. O.E.Zaborina, R.G.Gasanov, A.S.Peregudov, V.I.Lozinsky. Cryostructuring of polymeric systems. 38. The causes of the covalently-crosslinked cryogels formation upon the homopolymerization of N,N-dimethylacrylamide in moderately-frozen aqueous media. // Eur. Polym. J. **61** (1) 226-239 (2014).

177. E.A.Podorozhko, E.A.D'yakonova, V.I.Lozinsky. Cryostructuring of polymeric systems. 37. Composite cryogels from dispersions of poly(butadiene-*co*-styrene) latex in aqueous poly-(vinyl alcohol) solution. // Kolloidn. zhurn. **77** (1) 52-64 (2015) /in Russian/; [Colloid J. **77** (1) 46-57 (2015) /in English/].

178. E.A.Podorozhko, I.A.Luney, A.N.Ryabev, N.R.Kil'deева, V.I.Lozinsky. Cryostructuring of polymeric systems. 39. Composite poly(vinyl alcohol) cryogels filled with chitosan microparticles. // Kolloidn. zhurn. **77** (2) 197-206 (2015) /in Russian/; [Colloid J. **77** (2) 186-195 (2015) /in English/].

179. I.A.Rodionov, N.V.Grinberg, T.V.Burova, V.Ya.Grinberg, V.I.Lozinsky. Cryostructuring of polymeric systems. 40. Proteinaceous wide-pore cryogels generated by the action of denaturant/reductant mixtures on bovine serum albumin in moderately-frozen aqueous media. // Soft Matter **11** (24) 4921-4931 (2015).

180. V.A.Andryushina, N.V.Karpova, A.V.Druzhinina, T.S.Stytsenko, E.A.Podorozhko, A.N.Ryabev, V.I.Lozinsky. Novel immobilized biocatalyst for microbiological synthesis of pharmaceutical steroids. // Prikl. Biokhim. Mikrobiol. **51** (5) 472-481 (2015) /in Russian/; Appl. Biochem. Microbiol. **51** (5) 530-538 (2015) /in English/.

181. D.V.Gritsay, A.S.Lebedinsky, O.V.Ochenashko, E.Yu.Rogul'skaya, Yu.A.Petrenko, V.I.Lozinsky, R.V.Ivanov, A.Yu.Petrenko. Transplantation of cryopreserved fetal liver cells seeded into macroporous alginate-gelatin matrices in rats with liver failure. // Herald of Transplantology and Artificial Organs **XVII** (3) 50-57 (2015) /in Russian/.

182. M.V.Oschepkova, A.S.Oschepkov, O.E.Zaborina, O.A.Fedorova, Yu.V.Fedorov, V.I.Lozinsky. Fluorescent cryogels based on copolymers of N,N-dimethylacrylamide and allyl derivatives of 1,8-napthalimide. // Vysokomolekul. soed. Ser.B, **57** (6) 437-443 (2015) /in Russian/; [Polym. Sci., Ser B. **57** (6) 631-637 (2015) /in English/].

183. A.I.Barabanova, I.V.Blagodatskikh, O.V.Vyshivannaya, T.P.Klimova, N.V.Grinberg, T.V.Burova, A.V.Muranov, V.I.Lozinsky, V.Ya.Grinberg, A.S.Peregudov, A.P.Khokhlov. Catalytic properties of diblock-copolymers of N-vinylcaprolactam and N-vinylimidazole. // Doklady RAN **465** (2) 178-181 (2015) /in Russian/ [Doklady Chemistry, Part 1, **465**, 253-256 (2015)].

184. D.R.Yarullina, L.G.Damshkaln, N.L.Bruslik, O.A.Konovalova, O.N.Ilinskaya, V.I.Lozinsky. Towards effective and stable probiotics // Int. J. Risk & Safety in Med. **27** (s1) S65-S66 (2015).

185. E.A.Podorozhko, G.R.Ulyabaeva, N.R.Kil'deева, V.E.Tikhonov, Yu.A.Antonov, I.L.Zhuravleva, V.I.Lozinsky. Cryostructuring of polymeric systems. 41. Complex and composite poly(vinyl alcohol) cryogels that contain soluble and insoluble forms of chitosan. // Kolloidn. zhurn. **78** (1) 75-87 (2016) /in Russian/ [Colloid J. **78** (1) 90-101 (2016) /in English/].

186. V.I.Lozinsky, O.E.Zaborina, T.P.Klimova, T.A.Babushkina, A.S.Kovaleva, E.V.Boltukhina, V.P.Chernyshev, T.V.Burova, N.V.Grinberg, V.Ya.Grinberg, A.R.Khokhlov. Synthesis of protein-like copolymers that contain functional groups inherent in the active centre of serine hydrolases, and the evaluation of catalytic ability of the prepared copolymers. // Vysokomolekul. soed. Ser. B. **58** (1) (2016) /in Russian/ [Polymer Sci., Ser. B. **58** (2) 27-37 (2016) /in English/].

187. I.A.Rodionov, N.V.Grinberg, T.V.Burova, V.Ya.Grinberg, V.I.Lozinsky. Study of cryostructuring of polymeric systems. 42. Physical-chemical properties and microstructure of wide-porous covalently cross-linked albumin cryogels. // Kolloidn. zhurn. **78** (4) 465-478 (2016) /in Russian/[Colloid J. **78** (4) 492-504 (2016) /in English/].

188. L.M.Mezhevikina, G.P.Malenko, E.V.Kornienko, V.I.Lozinsky, G.Yu.Kosovsky. Liposomal

EGFP-transfection of cattle mesenchymal cells. // Biopharm. zhurn. **8** (3) 3-10 (2016) /in Russian/ [Russ. J. Biopharm. **8** (3) 13-20 (2016) /in English/].

189. P.V.Komarov, O.E.Zaborina, T.P.Klimova, V.I.Lozinsky, P.G.Khalatur, A.R.Khokhlov. Desining artificial enzymes from scratch: Experimental study and mesoscale simulation. // Chem. Phys. Lett. **6** (1) 219-223 (2016).

190. E.A.Podorozhko, G.R.Ul'yabaeva V.E.Tikhonov, A.V.Grachev, L.V.Vladimirov, Yu.A.An- tonov, N.R.Kil'deева, V.I.Lozinsky. Cryostructuring of polymeric systems. 43. Microstructural fea- tures of chitosan-containing complex and composite poly(vinyl alcohol) cryogels. // Kolloidn. zhurn. **78** (6) 760-771 (2016) /in Russian/ [Colloid J. **79** (1) 94-105 (2017) /in English/].

191. I.A.Rodionov, N.V.Grinberg, T.V.Burova, V.Ya.Grinberg, T.I.Shabatina, V.I.Lozinsky. Cryostructuring of polymer systems. 44. Freeze-dried and then chemically cross-linked wide porous cryostructurates based on serum albumin. // e-Polymers **17** (4) 263-274 (2017).

192. V.I.Lozinsky, E.A.Podorozhko, Ya.B.Nikitina, L.F.Klabukova, V.G.Vasiliev, A.A.Burmis- trov, Yu.G.Kondrashov, N.K.Vasiliev. A study of cryostructuring of polymeric systems. 45. Effect of porosity of dispersed filler on physicochemical characteristics of composite poly(vinyl alcohol) cryogels. // Kolloidn. zhurn. **79** (4) 449-460 (2017) /in Russian/ [Colloid J. **79** (4) 497-507 (2017) /in English/].

193. M.V.Oshchepkova, M.S.Oshchepkov, O.A.Fedorova, Yu.V.Fedorov, V.I.Lozinsky. New polymeric gels based on N,N-dimethylacrylamide and allyl derivative of azacrown-1,8-naphthalimide as optical sensors for metal cations in organic medium. // Doklady RAN **476** (3) 530-534 (2017) /in Russian/; [Doklady Physical Chemistry **476**, Part 2, 181-185 (2017) /in English/].

194. E.S.Kolesnikova, O.Yu.Kolosova, V.I.Lozinsky. Poly(vinyl alcohol) cryogels that contain the additives of biologically active substances. // Uspekhi v khimii i khimicheskoi tekhnologii **XXXI** (12) 21-23 (2017) /in Russian/.

195. V.I.Lozinsky, I.M.Leonova, R.V.Ivanov, I.V.Bakeeva. A study of cryostructuring of poly- mer systems. 46. Physicochemical properties and microstructure of poly(vinyl alcohol) cryogels formed from polymer solutions in mixtures of dimethyl sulfoxide with low-molecular-mass alco- hols. // Kolloidn. zhurn. **79** (6) 765-756 (2017) /in Russian/ [Colloid J. **79** (6) 788-796 (2017) /in English/].

196. O.V.Vernaya, V.P.Shabatin, A.V.Nuzhdina, N.D.Zvukova, D.I.Khvavov, A.M.Semenov, V.I. Lozinsky, T.I.Shabatina, M.Ya.Mel'nikov. Cryochemical synthesis and antibacterial activity of hy- brid nanocomposites of dioxydine with Ag and Cu nanoparticles entrapped in biopolymeric cryo- structurates. // Izvestiya Akademii nauk, Ser. Khim. (11) 2152-2156 (2017) /in Russian/ [Russ. Chem. Bull. **66** (11) 2152-2156 (2017) /in English/]

197. V.I.Lozinsky, V.K.Kulakova, R.V.Ivanov, A.Yu.Petrenko, O.Yu.Rogulska, Yu.A.Petrenko. Cryostructuring of polymer systems. 47. Preparation of wide porous gelatin-based cryostructurates in sterilizing organic media and assessment of the suitability of thus formed matrices as spongy scaffolds for 3D cell culturing. // e-Polymers **18** (2) 175-186 (2018).

198. R.G.Gasanov, M.V.Tsikalova, O.E.Zaborina, V.I.Lozinsky. EPR spectroscopy determina- tion of the rate constants for addition of $[O_4S]^{*-}$ radical anion to double bonds. // Mendeleev Com- munications **28** (2) 190-191 (2018).

199. O.Yu.Kolosova, I.N.Kurochkin, I.I.Kurochkin, V.I.Lozinsky. Cryostructuring of polymeric systems. 48. Influence of organic chaotropes and kosmotropes on the cryotropic gel-formation of aqueous poly(vinyl alcohol) solutions. // Eur. Polym. J. **102** (1) 169-177 (2018).

200. N.A.Sazhnev, M.G.Drozdova, I.A.Rodionov, N.R.Kil'deева, T.V.Balabanova, E.A. Markvicheva, V.I.Lozinsky. Preparation of chitosan cryostructurates with controlled porous mor- phology and their use as 3D-scaffolds for culturing of animal cells. // Prikl. Biokhim Mikrobiol. **54** (5) 455-464 (2018) /in Russian/ [Appl. Biochem. Microbiol. **54** (5) 459-467 (2018) /in English/].

201. T.I.Shabatina, O.I.Vernaya, A.V.Nuzhdina, N.D.Zvukova, V.P.Shabatin, A.M.Semenov, V.I.Lozinsky, M.Ya.Mel'nikov. Hybrid nanosystems on the basis of antibacterial medicine dioxydine and metallic nanoparticles (Ag, Cu) entrapped to the biopolymeric cryostructures. // Rossiiskie

nanotechnologii **13** (3-4) 76-81 (2018) /in Russian/ [*Nanotechnologies in Russia* **13** (3-4) 182-188 (2018) /in English/].

202. V.I.Lozinsky, O.Yu.Kolosova, D.A.Michurov, A.S.Dubovik, V.G.Vasil'ev, V.Ya. Grinberg. Cryostructuring of polymeric systems. 49. Unexpected “kosmotropic-like” impact of organic chaotropes on the PVA freeze-thaw-induced gelation in DMSO. // *Gels* **4** (4) # 81 (2018).

203. P.A.Karelina, O.Yu.Kolosova, V.I.Lozinsky. Influence of glycine additives on the physicochemical properties of poly(vinyl alcohol) cryogels. // Uspekhi v khimii i khimicheskoi tekhnologii **32** (5) 38-40 (2018) /in Russian/.

204. D.A.Michurov, O.Yu.Kolosova, V.I.Lozinsky. Properties of poly(vinyl alcohol) cryogels formed in dimethylsulfoxide medium with added urea. // Uspekhi v khimii i khimicheskoi tekhnologii **32** (6) 92-93 (2018) /in Russian/.

205. T.V.Razheva, N.A.Stepanov, E.A.Podorozhko, E.N.Efremenko, V.I.Lozinsky. Properties of composite poly(vinyl alcohol) cryogels filled with nanofibers of bacterial cellulose. // Uspekhi v khimii i khimicheskoi tekhnologii **32** (6) 147-149 (2018) /in Russian/.

206. T.I.Shabatina, O.I.Vernaya, D.L.Karlova, A.V.Nuzhdina, V.P.Shabatin, A.M.Semenov, V.I.Lozinsky, M.Ya.Mel'nikov. Hybrid drug delivery systems of long-acting drugs based on gentamicine sulfate, silver and copper nanoparicles, and gelatin biopolymer matrices. // Rossiiskie nanotechnologii **13** (9-10) 92-97 (2018) /in Russian/. [*Nanotechnologies in Russia* **13** (9-10) 546-550 (2018) /in English/].

207. O.A.Tykhvynska, O.Yu.Rogulska, N.O.Volkova, V.P.Grischuk, O.B.Revenko, S.P.Mazur, V.I.Lozinsky, Yu.O.Petrenko, O.Yu.Petrenko. Blood plasma-based macroporous scaffolds as biocompatible coatings to restore full-thickness excision wounds. // Problemy kriobiologii i kriomeditsyny **28** (1) 44-48 (2018) /in Russian/. [*Problems of Cryobiology and Cryomedicine* **28** (1) 44-48 (2018) /in English/].

208. E.A.Podorozhko, V.G.Vasil'ev, N.K.Vasiliev, V.I.Lozinsky. Study of cryostructuring of polymer Systems. 51. Combined influence of porous cellulose-containing dispersed fillers and salting-out electrolytes on physicochemical properties of composite poly(vinyl alcohol) cryogels. // Kolloidnyi zhurnal **81** (3) 326-337 (2019) /in Russian/. [*Colloid J.* **81** (3) 261-271 (2019) /in English/].

209. N.D.Zvukova, T.P.Klimova, R.V.Ivanov, A.N.Ryabev, A.V.Tsiskarashvili, V.I.Lozinsky. Cryostructuring of polymeric systems. 52. Properties, microstructure and an example of a potential biomedical use of the wide-pore alginate cryostructurastes. // *Gels* **5** (2) # 25 (2019).

210. I.V.Bakeeva, M.A.Orlova, V.I.Lozinsky. Poly(vinyl alcohol) cryogels formed from the polymer solutions in dimethyl sulfoxide with tetramethoxysilane additives. // Tonkie Khimicheskie Tekhnologii [Fine Chemical Technologies] **14** (2) 41-50 (2019) /in Russian/.

211. O.Yu.Kolosova, V.I.Lozinsky. Influence of trehalose additives on the properties of poly(vinyl alcohol) cryogels formed in aqueous, as well as in organic media. // IOP Conference Series: Materials Science and Engineering **525** # 012024 (2019).

212. M.S.Krasnov, A.I.Shaikhaliев, E.V.Korshakov, M.V.Efimenko, P.P.Soloshenkov, T.R. Davydova, N.D.Zvukova, E.S.Sinitskaya, V.P.Yamskova, I.A.Yamskov, V.I.Lozinsky. Induction of the rat bone tissue osteogenesis using cryogenically-structured porous 3D-materials containing a bio-regulator. // Bull. Exp. Biol. Med. **168** (7) 113-117 (2019) /in Russian/ [*Bulletin of Experimental Biology and Medicine* **168** (1) 99-103 (2019) /in English/].

213. A.Aslanli, N.Stepanov, T.Razheva, E.Podorozhko, V.I.Lozinsky, E.Efremenko. Enzymatically functionalized composite materials based on nanocellulose PVA cryogel and possessing anti-microbial activity. // Materials **12** (21) #3619 (2019).

214. G.R.Ulyabaeva, E.A.Podorozhko, N.R.Kil'deева. V.I.Lozinsky. Study of the acidic textile dye sorption from aqueous solutions by the chitosan-containing composite cryogel of poly(vinyl alcohol). // Khimicheskie volokna (3) 47-50 (2019) /in Russian/ [*Fibre Chemistry* **51** (3) 199-203 (2019) /in English/].

215. D.G.Korovina, V.V.Stafford, A.M.Gulyukin, I.A.Rodionov, V.K.Kulakova, V.I.Lozinsky, A.M.Gulyukin, I.P.Savchenkova. Maintenance of multipotent mesenchymal stem cells of farm

animals in cryogels based on naturally-derived polymers. // *Agricultural Biology* **54** (6) 1214-1224 (2019) /in Russian/.

216. *T.I.Shabatina, O.I.Vernaya, V.P.Shabatin, A.M.Semenov, M.Ya.Melnikov, V.I.Lozinsky.* Metal nanoparticle containing nanocomposites of drug substances and their potential biomedical applications // *Applied Sciences* **10** (1) #170 /pp.1-11/ (2020).

217. *E.A.Podorozhko, G.R.Ul'yabaeva, N.R.Kil'deева, V.I.Lozinsky.* A Study of cryostructuring of polymer systems. 53. “Anomalous” character of the properties variation for the chitosan-containing composite poly(vinyl alcohol) cryogels as a result of multiple freezing-thawing. // *Kolloidnyi zhurnal* **82** (1) 47-60 (2020) /in Russian/ [*Colloid J.* **82** (1) 36-48 (2020) /in English/].

218. *I.V.Bakeeva, A.V.Doktorova, L.G.Damshkalin, V.I.Lozinsky.* A study of cryostructuring of polymer systems. 54. Hybrid organo-inorganic poly(vinyl alcohol) cryogels filled with *in situ* formed silica. // *Kolloidnyi zhurnal* **83** (1) 35-50 (2021) /in Russian/
doi:[10.31857/S002329122101002X](https://doi.org/10.31857/S002329122101002X). [*Colloid J.* **83** (1) 49-63 (2021) /in English/].
doi:[10.1134/S1061933X21010026](https://doi.org/10.1134/S1061933X21010026)

219. *Y.Tazhbaev, O.Mukashev, M.Burkeyev, V.I.Lozinsky.* Synthesis and comparative study of nanoparticles derived from bovine and human albumins // *Polymers* **12** (5) #1301 /pp.1-13/ (2020). doi: [10.3390/polym12061301](https://doi.org/10.3390/polym12061301)

220. *V.I.Lozinsky, A.O.Shchekoltsova, E.S.Sinitskaya, O.I.Vernaya, A.V.Nuzhdina, I.V.Bakeeva, M.G.Ezernitskaya, A.M.Semenov, T.I.Shabatina, M.Ya.Melnikov.* Influence of succinylation of a wide-pore albumin cryogels on their properties, structure, biodegradability, and release dynamics of dioxidine loaded in such spongy carriers // *Int. J. Biol. Macromol.* **160** (1) 583-592 (2020). doi: [10.1016/j.ijbiomac.2020.05.251](https://doi.org/10.1016/j.ijbiomac.2020.05.251)

221. *I.I.Kurochkin, I.N.Kurochkin, O.Yu.Kolosova, V.I.Lozinsky.* Cryostructuring of polymeric systems. 56. Application of deep neural networks for the classification of structural features peculiar to macroporous poly(vinyl alcohol) cryogels prepared without and with the additives of chaotropes or kosmotropes. // *Molecules* **25** (19) # 4480 (2020). doi: [10.3390/molecules25194480](https://doi.org/10.3390/molecules25194480)

222. *D.A.Michurov, O.Yu.Kolosova, V.I.Lozinsky.* Influence of the cryotropic gel-formation temperature on the properties of poly(vinyl alcohol) cryogels formed in dimethylsulfoxide medium in the presence of chaotropic agents. // *Uspekhi v khimii i khimicheskoi tekhnologii* **34** (7) 102-104 (2020) /in Russian/.

223. *A.Frtús, B.Smolková, M.Uzhytchak, M.Lunova, M.Jirsa, M.Hof, P.Jurkiewicz, V.I.Lozinsky, L.Wolfová, Y.Petrenko, Š.Kubinová, A.Dejneka, O.Lunov.* Hepatic tumor cell morphology plasticity under physical constraints in 3D cultures driven by YAP-mTOR axis. // *Pharmaceuticals* **13** (12) #430 (2020). doi:[10.3390/ph13120430](https://doi.org/10.3390/ph13120430)

224. *M.S.Krasnov, A.I.Shayhaliev, E.V.Korshakov, G.A.Gasbanov, G.A.Gasbanov, R.S.Kargoев, E.S.Sinitskaya, E.V.Sidorskii, V.P.Yamskova, V.I.Lozinsky.* Changes in rat bone tissue at the site of the defect *in vivo* under the effect of a cryogenically structured albumin sponge containing a bioregulator. // *Bull. Exp. Biol. Med.* **170** (12) 800-804 (2020) /in Russian/. doi:[10.47056/0365-9615-2020-170-12-800-804](https://doi.org/10.47056/0365-9615-2020-170-12-800-804) [*Bulletin of Experimental Biology and Medicine* **170** (6) 805-808 (2021) /in English/ doi:[10.1007/s10517-021-05160-0](https://doi.org/10.1007/s10517-021-05160-0)]

225. *E.V.Sidorskii, M.S.Krasnov, V.P.Yamskova, V.I.Lozinsky.* Cryostructuring of polymeric systems. 57. Spongy wide-porous cryogels based on the proteins of blood serum: preparation, properties and application as the carriers of peptide bioregulators. // *Gels* **6** (4) #50 (2020). doi:[10.3390/gels6040050](https://doi.org/10.3390/gels6040050)

226. *O.Yu.Kolosova, P.A.Karelina, V.G.Vasil'ev, V.Ya.Grinberg, I.I.Kurochkin, I.N.Kurochkin, V.I.Lozinsky.* Cryostructuring of polymeric systems. 58. Influence of the H₂N-(CH₂)_n-COOH-type amino acid additives on formation, properties, microstructure and drug release behaviour of poly(vinyl alcohol) cryogels. // *React. Funct. Polym.* **167** (1) #105010. doi:[10.1016/j.reactfunct-polym.2021.105010](https://doi.org/10.1016/j.reactfunct-polym.2021.105010)

227. *E.A.Podorozhko, M.I.Buzin, E.K.Golubev, M.A.Shcherbina, V.I.Lozinsky.* A study of cryostructuring of polymer systems. 59. Effect of cryogenic treatment of preliminary deformed

poly(vinyl alcohol) cryogels on their physicochemical properties. // *Kolloidnyi zhurnal* **83** (5) 602-610 (2021) /in Russian/. doi:10.31857/S0023291221050116 [Colloid J. **83** (5) 634-641 (2021) /in English/]. doi:10.1134/S1061933X21050112

228. O.Y.Rogulska, N.A.Trufanova, Yu.A.Petrenko, N.V.Repin, V.P.Grischuk, N.Ashukina, S.Bondarenko, G.Ivanov, E.A.Podorozhko, V.I.Lozinsky, A.Yu.Petrenko. Generation of bone grafts using cryopreserved mesenchymal stromal cells and macroporous collagen-nanohydroxyapatite cryogels. // *Journal of Biomedical Materials Research Part B: Applied Biomaterials*, **110** (2) 489-499 (2022). doi:10.1002/jbm.b.34927

229. A.I.Shayhaliev, M.S.Krasnov, E.V.Sidorsky, V.P.Yamskova, V.I.Lozinsky. Induction of osteogenesis of the bone tissue of the rabbit mandible using a cryogenically structured porous 3D-carrier loaded with a bioregulator. // *Vestnik Transplatalogii i Iskusstvennykh Organov*, **24** (1) 56-63 (2022) /in Russian/. [Russian Journal of Transplantology and Artificial Organs **24** (1) 48-53 (2022)]. doi:10.15825/1995-1191-2022-1-56-63

230. D.A.Michurov, T.K.Makhina, V.Siracusa, A.P.Bonartsev, V.I.Lozinsky, A.L.Iordanskii. Cryo-structuring of polymeric systems. 60. Poly(vinyl alcohol)-based cryogels loaded with the poly(3-hydroxybutyrate) microbeads and the evaluation of such composites as the delivery vehicles for simvastatin. // *Polymers* **14** (11) #2196 (2022). doi:10.3390/polym14112196

231. A.M.Groriev, Yu.B.Basok, A.D.Kirillova, V.A.Surguchenko, N.P.Shmerko, V.K.Kulakova, R.V.Ivanov, V.I.Lozinsky, V.I.Sevastiyanov. Cryogenically-structured hydrogel based on gelatin as a resorbable macroporous matrix for biomedical technologies. // *Vestnik Transplatalogii i Iskusstvennykh Organov*, **24** (2) 83-93 (2022) /in Russian/. [Russian Journal of Transplantology and Artificial Organs **24** (2) 83-93 (2022)]. doi:10.15825/1995-1191-2022-2-83-93

232. D.A.Michurov, O.Yu.Kolosova, V.I.Lozinsky. Cryostructuring of polymeric systems. 61. Physicochemical properties of poly(vinyl alcohol) cryogels prepared on the basis of urea-containing DMSO-solutions of the polymer and evaluation of the resultant gel materials as potential drug carriers. // *Bulletin of Karaganda University – Chemistry* **107** (3) 75-86 (2022). doi:10.31489/2022Ch3/3-22-7

233. O.I.Vernaya, A.N.Ryabev, T.I.Shabatina, D.L.Karlova, A.V.Shabatin, L.N.Bulatnikova, A.M.Semenov, M.Ya.Melnikov, V.I.Lozinsky. Cryostructuring of polymeric systems. 62. Preparation and characterization of alginate/chondroitin sulfate cryostructurates loaded with antimicrobial substances. // *Polymers* **14** (16) # 3271 (2022). doi:10.3390/polym14163271

234. V.I.Lozinsky, V.K.Kulakova, A.M.Groriev, E.A.Podorozhko, L.A.Kirsanova, A.D.Kirillova, I.A.Novikov, Y.B.Basok, V.I.Sevastianov. Cryostructuring of polymeric systems: 63. Synthesis of two chemically tanned gelatin-based cryostructurates and evaluation of their potential as scaffolds for culturing of mammalian cells. // *Gels* **8** (11) # 695 (2022). doi:10.3390/gels8110695

235. A.S.Ryzhova, O.Yu.Kolosova, V.I.Lozinsky. Study of the kinetics of glycine release from the poly(vinyl alcohol) cryogel matrix depending on the method for glycine introducing into the gel carrier. // *Advances in Chemistry and Chemical Technology* (2022) **36** (8) 148-151 (2022) /in Russian/.

236. O.Yu.Kolosova, A.I.Shaikhaliyev, M.S.Krasnov, I.M.Bondar, E.V.Sidorskii, E.V.Sorokina, V.I.Lozinsky. Cryostructuring of polymeric systems. 64. Preparation and properties of poly(vinyl alcohol)-based cryogels loaded with antimicrobial drugs and assessment of the potential of such gel materials to perform as the gel implants for treatment of infected wounds. // *Gels* **9** (2) # 113 (2023). doi:10.3390/gels9020113

237. O.V.Yamskova, M.S.Krasnov, E.V.Sidorsky, V.I.Lozinsky. Influence of a protein-peptide bioregulator, which was isolated from the sclera and in different doses incorporated into an albumin cryogel, on the state of the scleral membrane during model cultivation of the eye posterior segment. // *Vestnik Transplatalogii i Iskusstvennykh Organov* **25** (2) 118-128 (2023) /in Russian/. [Russian Journal of Transplantology and Artificial Organs **25** (2) 118-128 (2023)]. doi:10.15825/1995-1191-2023-2-118-128

238. E.O.Abramova, O.Yu.Kolosova, V.I.Lozinsky. Feature of the influence of arginine and

arginine hydrochloride additives on the properties of the resultant poly(vinyl alcohol) cryogels. // Advances in Chemistry and Chemical Technology **37** (3) 20-22 (2023) /in Russian/.

239. Yu.V.Savina, A.S.Ryzhova, O.Yu.Kolosova, V.I.Lozinsky. Physico-chemical properties of poly(vinyl alcohol) cryogels formed with additives of hydroxyproline. // Advances in Chemistry and Chemical Technology **37** (3) 36-38 (2023) /in Russian/.

240. A.S.Sokolov, V.A.Korabelnikova, V.P.Ananikov, D.A.Michurov, V.I.Lozinsky, D.S.Perekalin. Photochemically induced formation of adhesive hydrogels from sodium alginate, acrylamide, and iron sandwich complexes. // Chem. Commun., **59** (70) 10532–10535 (2023).
doi:10.1039/d3cc03129b

241. G.A.Andreasyan, D.A.Michurov, V.I.Lozinsky. Composite poly(vinyl alcohol) cryogels filled with biodegradable polyester-based microspheres as drug carriers. // Advances in Chemistry and Chemical Technology **37** (6) 10-12 (2023) /in Russian/.

242. Yu.B.Basok, A.M.Groriev, V.I.Lozinsky, L.A.Kirsanova, V.K.Kulakova, E.A.Podorozhko, I.A.Novikov, V.I.Sebastianov. Cryogenically structured mimetic of extracellular matrix based on a concentrated collagen-containing solution. // Pespektivnye materialy (11) 16-27 (2023) /in Russian/. doi:10.30791/1028-978X-2023-11-16-27 [Inorganic Materials: Applied Research. **15** (2) 358–366 (2024) /in English/] doi: 10.1134/S2075113324020096.

243. O.Yu.Kolosova, A.S.Ryzhova, V.P.Chernyshev, V.I.Lozinsky. Study of cryostructuring of polymer systems. 65. Features of changes in physicochemical properties of poly(vinyl alcohol) cryogels caused by the action of aqueous solutions of amino acids of general formula $H_2N-(CH_2)_n-COOH$. // Kolloidnyi zhurnal **85** (6) 748-761 (2023) /in Russian/. doi:

10.31857/S0023291223600578 [Colloid Journal **85** (6) 930-942 (2023)]

doi:10.1134/S1061933X23600781

244. D.A.Michurov, O.Yu.Kolosova, V.I.Lozinsky. Study of cryostructuring of polymer systems. 66. Properties and microstructure of poly(vinyl alcohol) cryogels formed in frozen dimethyl sulfoxide with addtivies of urea and then hydrated by replaysing organic medium with water. // Kolloidnyi zhurnal **85** (6) 768-780 (2023) /in Russian/. doi: 10.31857/S0023291223600669 [Colloid Journal **85** (6) 949-960 (2023)]. doi:10.1134/S1061933X23600665

245. O.V.Yamskova, O.A.Schuklina, V.S.Romanovaa, D.V.Kurilov, V.I.Lozinsky. Evaluation of the functionality of cryogenically-structured starch matrices upon their use as gel supports for seed germination and determination of the activity of plant growth stimulants. // Biotehnologija **39** (6) 119-126 (2023) /in Russian/. doi:10.56304/S0234275823060145

246. A.M.Groriev, Yu.B.Basok, A.D.Belova, N.P.Shmerko, A.M.Subbot, V.K.Kulakova, V.I.Lozinsky, V.I.Sebastianov. Biological properties of macroporous cryostructurate on the basis of intra-cellular matrix components. // Vestnik Transplatalogii i Iskusstvennykh Organov **25** (4) 109-120 (2023) /in Russian/. doi:10.15825/1995-1191-2023-4-109-120

247. O.Yu.Kolosova, V.G.Vasil'ev, I.A.Novikov, E.V.Sorokina, V.P.Chernyshev, V.I.Lozinsky. Cryostructuring of polymeric systems: 67. Properties and microstructure of poly(vinyl alcohol) cryogels formed in the presence of phenol or bis-phenols introduced in the aqueous polymeric solutions prior to their freeze-thaw processing. // Polymers **16** (5) # 675 (2024).
doi:10.3390/polym16050675

248. K.O.Fedorova, A.I.Shaikhaliiev, M.S.Krasnov, V.I.Lozinsky, A.M.Isagadzhiev. Antibacterial cryogel materials for wounds. Part 1. // Stomatology for All / Int. Dental Review. no.1 (106) 37-43 (2024) /in Russian/. doi:10.35556/idr-2024-1(106)37-43

249. M.Drozdova, A.Makhonina, D.Gladkikh, A.Artyukhov, L.Bryukhanov, Y.Mezhuev, V.Lozinsky, E.Markvicheva. Hydroxyapatite-loaded macroporous calcium alginate hydrogels: Preparation, characterization, and in vitro evaluation. // Biopolymers (2024) – published on line 25.04.24. doi: 10.1002/bip.23583

250. E.V.Sidorskii, M.S.Krasnov, V.I.Lozinsky. Cryogenically-structured wide-pore gelatin-hyaluronate carrier of peptide bioregulator. // Biotehnologija /in Russian/ - accepted 22.04.2024.

Patents

1. *V.I.Lozinsky, I.A.Simenel, A.V.Chebyshev.* Method for the production of porous polymeric materials. Russ. Pat. No. 2,035,476 (1994).
2. *V.I.Lozinsky, N.R.Konstantinova, N.I.Solov'eva.* Method for the preparation of porous protein gel. Russ. Pat. No. 2,058,083 (1994).
3. *I.I.Korolenko, V.I.Lozinsky, A.V.Sobolev, A.V.Fesenko, A.V.Chebyshev, K.K.Chuiko, A.V.Shumilkin.* Method for the determination of toxic substances in gaseous mixtures. Russ. Pat. No. 2,066,449 (1994).
4. *V.I.Lozinsky, A.L.Zubov.* Method for the preparation of macroporous polymeric material. Russ. Pat. No. 2,078,099 (1994).
5. *M.A.Pusheva, A.N.Ryabokon', E.I.Rainina, E.I.Detkova, A.L.Zubov, V.I.Lozinsky, S.D.Varfolomeev, G.A.Zavarzin.* Microbial method for the preparation of acetate. Russ. Pat. No. 2,080,388 (1994).
6. *V.I.Lozinsky, A.L.Zubov.* Set-up for the formation of granules. Russ. Pat. No. 2,104,866 (1996).
7. *E.V.Kalinina, N.N.Semenova, S.V.Rogozhin, V.I.Lozinsky.* Method for the preparation of porous-fibrous material. Russ. Pat. No. 2,116,350 (1995).
8. *E.A.Podorozhko, V.K.Kulakova, E.I.Kurskaya, V.I.Lozinsky.* Method for the obtaining of porous collagen-containing material. Russ. Pat. No. 2,116,801 (1995).
9. *E.A.Podorozhko, L.M.Andreeva, E.A.Kurskaya, V.I.Lozinsky.* Method for the preparation of porous protein texturate. Russ. Pat. No. 2,118,495 (1997).
10. *V.I.Lozinsky, F.M.Plieva, E.I.Isaeva, A.L.Zubov.* Method for the concentrating of viruses. Russ. Pat. No. 2,130,069 (1997).
11. *V.I.Lozinsky, R.V.Ivanov, E.V.Kalinina.* Method for the preparation of polyacrylamide. Russ. Pat. No. 2,196,780 (2001).
12. *V.I.Lozinsky, I.N.Savina, V.A.Davankov.* The composition for the preparation of poly(vinyl alcohol) cryogel and the method for the cryogel producing. Russ. Pat. No. 2,190,644 (2001).
13. *B.Mattiasson, I.Galaev, V.Lozinsky, F.Plieva.* Macroporous gel, its preparation and use. Swedish Pat. No. 165854 (2001); PCT Int. Appl. (2003) WO 2003041830.
14. *B.Mattiasson, I.Galaev, V.Lozinsky, F.Plieva.* Separation medium, its preparation and its use. Swedish Pat. No. 165872 (2001); PCT Int. Appl. (2003) WO 2003031014.
15. *V.I.Lozinsky, L.G.Damshkalin, F.M.Plieva, I.Yu.Galaev, B.Mattiasson.* The polymeric composition for the preparation of macroporous agarose gel and the method for the gel producing. Russ. Pat. No. 2,220,987 (2001).
16. *V.I.Lozinsky, L.G.Damshkalin, N.V.Reznikova.* Biocatalyst and its preparation method. Russ. Pat. No. 2,233,327 (2002).
17. *E.N.Efremenko, O.V.Spiricheva, S.D.Varfolomeev, S.P.Sineoky, A.V.Baibak, V.I.Lozinsky.* Immobilized biocatalyst, its preparation method and method for production of lactic acid with the use of this biocatalyst. Russ. Pat. No. 2,253,677 (2002).
18. *N.N.Martynenko, I.M.Gracheva, G.I.El-Registan, A.L.Zubov, V.I.Lozinsky.* Method of the preparation of biocatalyst for production of alcohol-containing sparkling drinks. Russ. Pat. No. 2,239,658 (2003).
19. *V.I.Lozinsky, L.G.Damshkalin.* Polymeric composition for the preparation of poly(vinyl alcohol) cryogel. Russ. Pat. No. 2,252,945 (2003).
20. *A.F.Vanin, V.I.Lozinsky, V.I.Kapel'ko.* Polymeric composition for the preparation of stabilized form of dinitrozyl iron complex and method for the preparation of aforementioned form of the complex. Russ. Pat. No. 2,291,880 (2005).
21. *E.A.Podorozhko, M.S.Kuyukina, I.B.Ivshina, J.C.Philp, V.I.Lozinsky.* Composition for the preparation of carrier of immobilized microorganisms capable of destructing of hydrocarbons and the method for the carrier preparation. Russ. Pat. No. 2,298,033 (2005).
22. *E.N.Efremenko, O.V.Sen'ko, O.V.Spiricheva, S.D.Varfolomeev, V.I.Lozinsky.* Immobilized

biocatalyst for the bioremediation of fat-containing waste waters and its preparation method. Russ. Pat. No. 2,315,102 (2006).

23. *V.I.Lozinsky, E.A.Podorozhko.* Composition for the preparation of oil-filled cryogel of poly(vinyl alcohol), the method for the preparation of this cryogel and the oil-filled cryogel itself. Russ. Pat. No. 2,326,908 (2006).

24. *G.V.Kotel'nikov, S.P.Moiseeva, V.Ya.Grinberg, T.V.Burova, V.I.Lozinsky, A.R.Khokhlov.* Capillary differential titration calorimeter. Russ. Pat. No. 2,335,743 (2007).

25. *G.V.Kotel'nikov, S.P.Moiseeva, V.Ya.Grinberg, T.V.Burova, V.I.Lozinsky, A.R.Khokhlov.* Capillary compensated differential titration calorimeter. Russ. Pat. No. 2,335,744 (2007).

26. *V.I.Lozinsky, R.V.Ivanov, D.V.Kravchenko, A.A.Ivaschenko.* Composition for making dosage form with prolonged effect and method of making said form. Russ. Pat. No. 2,363,451 (2007).

27. *V.I.Lozinsky, R.V.Ivanov, Ya.V.Lavrovsky, A.A.Ivaschenko.* Parenteral preparation and method for making thereof. Russ. Pat. No. 2,367,472 (2008).

28. *M.M.Shmarov, I.L.Tutykhina, D.Yu.Logunov, E.A.Tokarskaya, B.S.Naroditsky, L.G.Damshkalin, R.V.Ivanov, V.I.Lozinsky.* Method of virus replication. Russ. Pat. No. 2,381,272 (2008).

29. *E.N.Efremenko, O.V.Sen'ko, O.V.Spiricheva, S.D.Varfolomeev, B.L.Shaskol'skiy, V.I.Lozinsky.* Immobilized biocatalyst for microbiological production of pectinases. Russ. Pat. No. 2,383,618 (2008).

30. *E.N.Efremenko, N.V.Zav'yalova, I.V.Lyagin, O.V.Sen'ko, D.A.Gudkov, A.V.Aksenov, N.A.Steranov, M.S.Sirotkina, O.V.Spiricheva, R.V.Ivanov, V.I.Lozinsky, S.D.Varfolomeev, V.B.Kondrat'ev, V.I.Kholstov.* Method for the destruction of organophosphate compounds in the composition of reaction masses formed as a result of chemical extermination of the Vx-type substances. Russ. Pat. No. 2,408,724 (2009).

31. *R.V.Ivanov, V.I.Lozinsky, K.V.Balakin, S.O.Bachurin.* Pharmaceutical composition based on hydrogenated pyrido(4,3-b)indole for treatment of neurodegenerative diseases, method for preparation of the composition and pharmacological dosage form on the basis of this composition. Russ. Pat. No. 2,428,185 (2009).

32. *V.I.Lozinsky, O.E.Zaborina.* Process for the preparation of cross-linked hydrophilic polymer exhibiting superabsorbent properties. Russ. Pat. No. 2,467,017 (2011).

33. *D.R.Yarullina, L.G.Damshkalin, R.O.Mikheeva, O.N.Il'inskaya, V.I.Lozinsky.* Complex probiotic formulation and the process of its preparation. Russ. Pat. No. 2,491,079 (2012).

34. *V.A.Andryushina, A.N.Ryabev, A.V.Druzhinina, E.A.Podorozhko, N.V.Karpova, T.S.Stytsenko, V.V.Yaderets, V.I.Lozinsky.* Immobilized biocatalyst for microbial biotransforming of steroid compounds. Russ. Pat. No. 2,524,434 (2013).

35. *V.I.Lozinsky, E.A.Podorozhko.* Method for shaping of poly(vinyl alcohol) cryogels. Russ. Pat. No. 2,561,120 (2014).

36. *V.I.Lozinsky, V.K.Kulakova, A.Yu.Petrenko, Yu.A.Petrenko, A.G.Ershov, Yu.V.Sukhanov.* Composition for the preparation of macroporous carrier which is used upon 3D culturing of animal or human cells, and method for the fabrication of such carrier. // Russ. Pat. No. 2,594,427 (2015).

37. *V.I.Lozinsky, A.N.Ryabev, L.A.Pavlova, M.P.Tsyurupa, Z.K.Blinnikova, V.A.Davankov.* Macroporous polymeric material filled with sorbent particles, composition for its preparation and method for the material preparation. // Russ. Pat. No. 2,601,605 (2015).

38. *V.I.Lozinsky, I.A.Rodionov, A.V.Tsiskarashvili, N.A.Es'kin.* Antibacterial protein sponge for chemotherapy of infected wounds and method of its preparation. // Russ. Pat. No. 2,637,634 (2016).

39. *O.A.Fedorova, V.I.Lozinsky, Yu.V.Fedorov, P.A.Panchenko, A.N.Arkhipova, M.S.Oschepkov, A.S.Oschepkov, M.S.Oschepkova.* Aza-krown-containing N-Aryl-1,8-naphthylimides and method for their preparation. // Russ. Pat. No. 2,656,106 (2017).

40. *V.I.Lozinsky, D.A.Michurov, O.Yu.Kolosova.* Polymeric composition for the preparation of poly(vinyl alcohol) cryogels and method for increasing their strength and heat endurance. // Russ. Pat. No. 2,678,281 (2018).

41. *A.I.Shaikhaliev, E.V.Korshakov, O.Yu.Kolosova, M.S.Krasnov, V.I.Lozinsky.* Temporary

implant for the patients with infected defects in the maxillofacial region and a method for treating them using such implant. // Russ. Pat. No. 2.729.929 (2020).

42. *V.I.Lozinsky, T.M.Razheva, N.D.Zvukova, V.V.Kurakov.* Porous polymer material based on ion polysaccharide and its production method. // Russ. Pat. No. 2.762.729 (2021).

43. *V.I.Lozinsky, V.K.Kulakova, O.Yu.Kolosova, Yu.B.Basok, A.M.Grigor'ev, N.V.Perova, V.I.Sevast'yanov.* Biopolymeric material for cell-engineering and/or tissue-engineering constructs and the method for thereof preparation. // Russ. Pat. No. 2774947 (2022).

44. *V.I.Lozinsky, R.V.Ivanov, A.V.Zinchenko, D.L.Shobolov, A.C.Strygin.* Agent for the intravaginal delivery of active component, the method of thereof preparation and application. // Russ. Pat. No. 2806114 (2023).

45. *V.I.Lozinsky, A.N.Ryabev, R.V.Ivanov, K.S.Khitrin.* Chemoembolizing particles, method for their preparation and application. // WO Application #PCT/RU2016/000694 from 12.10.2016 – filed.

46. *O.Yu.Kolosova, A.I.Shaykhaliev, V.S.Krasnov, K.O.Fedorova, A.I.Isagadzhiev, V.I.Lozinsky.* Medical device for the evacuation of exudate from the inner infected wounds and defects of an organism with simultaneous infection suppression, method of the preparation of this device and the method of patients treatment with aid of its application. // Application for Puss. Pat. No. 2024102587(005421) (01.02. 2024) – filed.

47. *O.V.Yamskova, D.V.Kurilov, O.A.Schuklina, V.I.Lozinsky.* Cryogenically-structured material used as the gel support upon culturing of plants and plant tissues, composition for the preparation of such material and the method for its preparation. // Application for Russ. Pat. No. 202411.2824 (028895) (13.05. 2024) – filed.

Participation in Conferences

1. "Food Macromolecules and Colloids" (Dijon, France, 1994).
2. "35-th IUPAC Symposium on Macromolecules - MACRO'94" (Akron, USA, 1994).
3. "Low Temperature Chemistry" (Moscow, Russian Federation, 1994).
4. "Food Hydrocolloids" (Columbus, USA, 1994).
5. "7-th European Congress on Biotechnology" (Nice, France, 1995).
6. "Nano-Structures and Self-Assembles in Polymer Systems" (St.Petersburg-Moscow, Russian Federation, 1995).
7. "Food Freezing" (York, Great Britain, 1995).
8. "High-Swelling Gels" (Prague, The Czech Republic, 1995).
9. "Biocatalysis'95" (Suzdal, Russian Federation, 1995).
10. "Europhysical Conference on Gels" (Balatonszeplak, Hungary, 1995).
11. "Immobilized Cells" (Noordwijkerhout, The Netherlands, 1995).
12. "Low Temperature Chemistry" (Kansas City, USA, 1996).
13. "Polymer Networks'96" (Doorn, The Netherlands, 1996).
14. "Bioencapsulation V" (Potsdam, Germany, 1996).
15. "Bioencapsulation VI" (Barcelona, Spain, 1997).
16. "Perspectives in Interfacial Areas of Chemistry and Biology" (Dehli, India, 1998).
17. "Biocatalysis'98" (Puschino, Russian Federation, 1998).
18. "Polymer Networks 98" (Trondheim, Norway, 1998).
19. "Biomedical Application of Water-Soluble Polymers and Hydrogels" (Boston, USA, 1998).
20. "Colloid Chemistry and Physical-Chemical Mechanics" (Moscow, Russian Federation, 1998).
21. "Bioencapsulation VIII" (Trondheim, Norway, 1999).
22. "Enzymes in Heteroatom Chemistry. Green Solutions for Chemical Problems" (Berg en Dal near Nijmegen, The Netherlands, 1999).
23. "Chemistry and Biotechnology of Food Substances" (Moscow, Russian Federation, 1999).
24. "Trends in Chemical Sciences" (Delhi, India, 2000).

- 25.** "Trends in Medical Chemistry and Biocatalysis" (Delhi, India, 2000).
- 26.** "Biocatalysis-2000" (Moscow, Russian Federation, 2000).
- 27.** "26-th European Peptide Symposium" (Montpellier, France, 2000).
- 28.** "Enzymology, Molecular Biology and Biogeochemistry of Thermophiles" (Petropavlovsk-Kamchatsky, Russian Federation, 2000).
- 29.** "Bioencapsulation XI" (Warshaw, Poland, 2001).
- 30.** "BioTrans 2001" (Darmstadt, Germany, 2001).
- 31.** "Peptido- and proteino-mimetics" (Spa, Belgium, 2001).
- 32.** "Starch and Starch Containing Origins – Structure, Properties and New Technologies" (Moscow, Russian Federation, 2001).
- 33.** "Catalysis and Fine Chemicals" (Tokyo, Japan, 2001).
- 34.** "Biocatalysis 2002" (Moscow, Russian Federation, 2002).
- 35.** "Current Problems of the Chemistry of High-Molecular-Weight Compounds: High Efficient and Ecologically Safety Processes for the Synthesis of Natural and Synthetic Polymers, As Well As of Materials on Their Basis" (Ulan-Ude, Russian Federation, 2002).
- 36.** "Biocat 2002" (Hamburg, Germany, 2002).
- 37.** "From Basic Science to New Technologies. Chemistry and Biotechnology of Biologically Active Substances, Foodstuffs and Additives. Ecologically-Friendly Technologies" (Tver, Russian Federation, 2002).
- 38.** 12th International Biodeterioration and Biodegradation Symposium "Biosorption and Bioremediation III" (Prague, Czech Republic, 2002).
- 39.** 1st International Biotechnological Congress "Biotechnology – State of the Art and Trends of Development" (Moscow, Russian Federation, 2002).
- 40.** 10th All-Russian Conference "Structure and Dynamics of Molecular Systems" (Yalchik, 2003).
- 41.** 3rd International Symposium on Separations in BioSciences "SBS 2003 – 100 Years of Chromatography" (Moscow, Russian Federation, 2003).
- 42.** 1st International Seminar "Preparation and Application of Advanced Poly(vinyl alcohol)" (Kyongsan, S.Korea, 2003).
- 55.** 12th International Conference on Biopartitioning and Purification (Vancouver, Canada, 2003).
- 56.** 2nd European Bioremediation Conference (Chania, Crete, Greece, 2003).
- 57.** 2nd International Congress "Biotechnology: State of the Art and Prospects of Development" (Moscow, Russian Federation, 2003).
- 58.** Russian Symposium on Chemistry and Biology of Peptides (Moscow, 2003).
- 59.** 3rd Russian Kargin Conference "Polymers-2004" (Moscow, Russian Federation, 2004).
- 60.** "Modern Trends in Organoelement and Polymer Chemistry" (Moscow, Russian Federation, 2004).
- 61.** "Application of Immobilisation/Bioencapsulation in Medicine, Pharmacy, Food Technology and Biotechnology" (Belgrade, Serbia & Montenegro, 2004).
- 62.** World Polymer Congress "MACRO 2004" (Paris, France, 2004).
- 63.** 10th International Symposium on Microbial Ecology (ISME-10) Microbial Planet: Sub-Surface to Space. (Cancun, Mexico, 2004).
- 64.** International Workshop "Bioencapsulation XII" (Vitoria, Spain, 2004).
- 65.** All-Russian Conference "Biotechnology of Microbes" (Moscow, 2004).
- 66.** 3rd Internatinal and 28th European Peptide Symposium (Prague, Czech Republic, 2004).
- 67.** 3rd International Congress "Biotechnology: State of the Art and Prospects of Development" (Moscow, Russian Federation, 2005).
- 68.** 1st International Symposium "Preparation of Functional Polymer Gels" (Kyongsan, S.Korea, 2005).
- 69.** "European Polymer Congress – 2005" (Moscow, Russian Federation, 2005).

- 70.** VIth International Conference “Environmental Pollution” (Perm-Kazan, Russian Federation, 2005).
- 71.** 28th European Peptide Symposium (Tel-Aviv, Israel, 2005).
- 72.** IInd International Conference “Microbial Diversity: Current Situation, Conservation Strategy and Biotechnological Potentialities” (Perm-Kazan-Perm, Russian Federation, 2005).
- 73.** Small Polymer Congress (Moscow, Russian Federation, 2005).
- 74.** 2nd Russian Symposium on Chemistry and Biology of Peptides (St.Petersburg, 2005).
- 75.** 2nd FEMS Congress of European Microbiologists (Madrid, Spain, 2006).
- 76.** 2nd International Congress on Bioprocesses in Food Industries (Patras, Greece, 2006).
- 77.** International Conference “Science & Education – 2006” (Murmansk, Russian Federation, 2006).
- 78.** 6th International Conference on Low Temperature Chemistry (Chernogolovka, Russian Federation, 2006).
- 79.** International Conference “29th European Peptide Symposium” (Gdansk, Poland, 2006).
- 80.** International Symposium “Polyelectrolytes 2006” (Dresden, Germany, 2006).
- 81.** International Conference “Fundamental and Applied Problems of Modern Chemistry in Investigations of Young Scientists” (Astrakhan’, Russian Federation, 2006).
- 82.** International Conference “Microbial Biotechnologies” (Odessa, Ukraine, 2006).
- 83.** International Conference “Genetics of Microorganisms and Biotechnology” (Moscow-Puschnino, Russian Federation, 2006).
- 84.** 4th International Congress “Biotechnology: State of the Art and Prospects of Development” (Moscow, Russian Federation, 2007).
- 85.** International Scientific-Practical Interdisciplinary Workshop “New Technology in Medicine and Experimental Biology” (Pattaya-Bangkok, Thailand, 2007).
- 86.** XV International Conference on Starch (Moscow, Russia, 2007).
- 87.** “European Polymer Congress – 2007” (Portoroz, Slovenia, 2007).
- 88.** International Workshop “Bioencapsulation XV” (Vienna, Austria, 2007).
- 89.** International Conference “New Technologies in Biology and Medicine” (Rostov-on-Don, Russian Federation, 2007).
- 90.** International Conference “New Information Technology in Medicine, Pharmacology, Biology and Ecology (Gurzuf, Ukraine, 2007).
- 91.** 4th All-Russian Kargin’s Conference “Polymer Science for the 21st Century” (Moscow, Russian Federation, 2007).
- 92.** XVIII Mendeleev’s Congress on General and Applied Chemistry (Moscow, Russian Federation, 2007).
- 93.** 13th European Congress on Biotechnology (Barcelona, Spain, 2007).
- 94.** 2nd Ukrainian Congress for Cell Biology (Kyiv, Ukraine, 2007).
- 95.** All-Russian Conference “Fundamental Sciences for Novel Drugs” (Moscow, Russian Federation, 2008).
- 96.** XVI International Starch Convention Cracow-Moscow (Cracow, Poland, 2008).
- 97.** III International Conference on Colloid Chemistry and Physicochemical Mechanics (Moscow, Russian Federation, 2008).
- 98.** International Conference “Innovative Technologies in Transplantation of Organs, Tissues and Cells” (Samara, Russian Federation, 2008).
- 99.** XXXV Annual ESAO Congress (Geneva, Switzerland, 2008).
- 100.** VI International Conference “Current State and Prospects of Microbiology and Biotechnology Development (Minsk, Republic Belorus’, 2008).
- 101.** All-Russian Conference “Food and Marine Biotechnology” (Svetlogorsk, Russian Federation, 2008).
- 102.** III International Conference “Microbial Diversity: Current Situation, Conservation Strategy and Biotechnological Potential” (Perm’ – N.Novgorod, 2008).

- 103.** IX International Conference "Modern Perspectives in Chitin and Chitosan Studies" (Stavropol, Russian Federation, 2008).
- 104.** 2nd EuCheMS Chemistry Congress (Torino, Italy, 2008).
- 105.** 14th International Symposium on Biodeterioration and Biodegradation (Messina, Italy, 2008).
- 106.** "Novel Cryobiotechnologies for Solving the Fundamental and Applied Tasks of Medicine" (Kharkov, Ukraine, 2008).
- 107.** VIII Annual International Youth Conference "Biochemical Physics" (Moscow, Russian Federation, 2008).
- 108.** 2nd International Conference "Biocatalysis in Non-Conventional Media" (Moscow, Russian Federation, 2008).
- 109.** IV Congress of the Russian Society of Biochemists and Molecular Biologists (Novosibirsk, Russian Federation, 2008).
- 110.** 12th International Puschino School "Biology – Science of the XXI Century" (Puschino, Russian Federation, 2008).
- 111.** XIV International Conference "Microbial Enzymes in Biotechnology and Medicine" (Kazan, Russian Federation, 2009).
- 112.** XVII International Starch Convention (Moscow, Russian Federation, 2009).
- 113.** 9th International Adenovirus Meeting (Dobogókő, Hungary, 2009).
- 114.** 4th World Congress on Regenerative Medicine "Current Regenerative Medicine 2009" (Bangkok, Thailand, 2009).
- 115.** XVI All-Russian Conference "Structure and Dynamics of Molecular Systems" (Yoshkar-Ola, Russian Federation, 2009).
- 116.** 16th Romanian International Conference on Chemistry and Chemical Engineering (Sinaia, Romania, 2009).
- 117.** International Workshop "Bioencapsulation XVII" (Groningen, Netherlands, 2009).
- 118.** "COST 928" 3rd Annual Meeting (Krakow, Poland, 2009).
- 119.** International Conference "Biocatalysis-2009: Fundamentals & Applications" (Arkhangelsk, Russian Federation, 2009).
- 120.** IV All-Russian Conference "Physical Chemistry of Polymer Processing" (Ivanovo, Russian Federation, 2009).
- 121.** All-Russian Symposium "Culturing Cells as the Basis of Cell Technologies" (St.-Petersburg, Russian Federation, 2009).
- 122.** 14th European Congress on Biotechnology (Barcelona, Spain, 2009).
- 123.** 9th International Conference of the European Chitin Society (Venice, Italy, 2009).
- 124.** The Moscow International Scientific and Practical Conference "Biotechnology: Ecology of Big Cities" (Moscow, Russian Federation, 2010).
- 125.** IV All-Russian Symposium "Actual Problems of Tissue and Cell Transplantology" (St.-Petersburg, Russian Federation, 2010).
- 126.** IV All-Russian Kargin's Conference "Polymers–2010" (Moscow, Russian Federation, 2010).
- 127.** X International Conference "Modern Perspectives in Chitin and Chitosan Studies" (Nizhny Novgorod, Russian Federation, 2010).
- 128.** 8th International Conference on Low Temperature Chemistry (Yerevan, Armenia, 2010).
- 129.** 7th International Conference of the Chemical Societies of the South-Eastern European Countries "Chemistry – Beauty and Application" (Bucharest, Romania, 2010).
- 130.** 5th All-Russian Congress of Transplantologists (Moscow, Russian Federation, 2010).
- 131.** International Conference "Genetic and Regenerative Medicine: Problems and Prospects" (Kiev, Ukraine, 2010).
- 132.** "Lomonosov – 2011" (Moscow, Russian Federation, 2011).
- 133.** 10th International Conference of the European Chitin Society (St.-Petersburg, Russian

Federation, 2011).

134. IV Youth Theoretical and Practical Conference “Science-Intensive Chemical Technologies” (Moscow, Russian Federation, 2011).

135. International Conference on Chemical Technology “ChT’12” (Moscow, Russian Federation, 2012).

136. 14th Young Scientists Conference on Chemistry (Rostock, Germany, 2012).

137. VIth International Conference of Young Scietists “Mendeleev 2012” (St.-Petersburg, Russian Federation).

138. International Young Scietists Forum “Lomonosov – 2012” (Moscow, Russian Federation).

139. All-Russian Conference “Actual Problems of Polymer and Biopolymer Physics” (Moscow, Russian Federation, 2012).

140. Xth International Congress of Young Chemists ‘YoungChem 2012’ (Gdansk, Poland, 2012).

141. International Conference “Actual Problems of Cryobiology and Cryomedicine” (Kharkov, Ukraine, 2012).

142. IVth International Conference of the D.I.Mendeleev Russian Chemical Society “Chemical Technology and Biotechnology of New Materials and Products” (Moscow, Russian Federation, 2012).

143. VIIth International Congress “Biotechnology: State of the Art and Prospects of Development” (Moscow, Russian Federation, 2013).

144. “Stem Cells Day” (Kiev, Ukraine, 2013).

145. IVth International Conference on Colloid Chemistry and Physicochemical Mechanics (Moscow, Russian Federation, 2013).

146. Vth All-Russian Conference “Physical Chemistry of Polymer Processing” (Ivanovo, Russian Federation, 2013).

147. Vth International Conference “Actual Problems of Biology, Nanotechnologies and Medicine” (Rostov-on-Don, Russian Federation, 2013).

148. XIIIth Ukrainian Conference on Macromolecules (Kiev, Ukraine, 2013).

149. Ith National Congress on Regenerative Medicine (Moscow, Russian Federation, 2013).

150. 6th All-Russian Kargin’s Conference “Polymers – 2014” (Moscow, Russian Federation, 2014).

151. International Conference “Biotechnology and Quality of Life” (Moscow, Russian Federation, 2014).

152. XII International Conference “Modern Perspectives in Chitin and Chitosan Studies” (Perm, Russian Federation, 2014).

153. International Conference “Chemistry and Physics at Low Temperatures” (Suzdal, Russian Federation, 2014).

154. International Conference “Chemistry of Organoelement Compounds and Polymers – 2014” (Moscow, Russian Federation, 2014).

155. International Symposium on Cell Biology jointly with the 4th Ukrainian Congress for Cell Biology (Uzhhorod, Ukraine, 2014).

156. VIII Moscow International Congress “Biotechnology: State of the Art and Prospects of Development” (Moscow, Russian Federation, 2015).

157. VI International Workshop “Special Polymers for Environment Protection, Oil Industry, Bio-, Nanotechnology and Medicine” (Semey, Kazakhstan, 2015).

158. 4th EPNOE International Polysaccharide Conference “Polysaccharides and Polysaccharide-Based Advanced Materials: From Science to Industry” (Warsaw, Poland, 2015).

159. XXXIII All-Russian Symposium of Young Scientists on Chemical Kinetics (Moscow, Russian Federation, 2015).

160. IV All-Russian Conference on Organic Chemistry (Moscow, Russian Federation, 2015).

161. International Conference “Biotechnology in the Complex Development of Regions”

(Moscow, Russian Federation, 2016).

- 162.** EMN Meeting on Hydrogel Materials (Singapore, 2016).
- 163.** International Conference “Polycondensation 2016” (Moscow – St.Petersburg, Russian Federation, 2016).
- 164.** XXXIV All-Russian Symposium of Young Scientists on Chemical Kinetics (Moscow, Russian Federation, 2016).
- 165.** VII All-Russian Kargin’s Conference “Polymers – 2017” (Moscow, Russian Federation, 2017).
- 166.** International Summer School on Polyelectrolyte Systems (Moscow, Russian Federation, 2017).
- 167.** VII International Workshop “Specialty Polymers for Environment Protection, Oil Industry, Bio-, Nanotechnology and Medicine” (Almaty, Kazakhstan, 2017).
- 168.** IV All-Russian Conference “Polar Mechanics – 2017” (St. Petersburg, Russian Federation, 2017).
- 169.** International Scientific and Technical Forum “Modern Engineering Problems of the Consumer Goods Industry” (Moscow, Russian Federation, 2017).
- 170.** 3rd International Symposium “Nanoparticles-Nanomaterials and Applications (ISN²A)” (Lisbon, Portugal, 2018).
- 171.** International Conference “Nanomaterials and Life Systems (NLS-2018)” (Kazan, Russian Federation, 2018).
- 172.** CTERP International Conference “Translational Research in Cell Therapy” (Moscow, Russian Federation, 2018).
- 173.** 9th International Conference “Biomaterials and Nanobiomaterials: Recent Advances Safety-Toxicology and Ecology Issues”, “BIONANOTOX 2018” (Agapi Beach, Heraklion, Crete, Greece, 2018).
- 174.** International Forum “Biotechnology: State of the Art and Perspectives” (Moscow, Russian Federation, 2018).
- 175.** 82nd Prague Meeting on Macromolecules – 24th Polymer Networks Group Meeting (Prague, Czech Republic, 2018).
- 176.** Vth International Conference on Colloid Chemistry and Physicochemical Mechanics (St.Petersburg, Russian Federation, 2018).
- 177.** 12th International Conference and Workshop on Biological Barriers (Saarbrücken, Germany, 2018).
- 178.** 14th International Saint Peterburg Conference of Young Scientists “Modern Problems of Polymer Science” (St.Petersburg, Russian Federation, 2018).
- 179.** XXXVI All-Russian Symposium of Young Scientists on Chemical Kinetics (Moscow, Russian Federation, 2019).
- 180.** Vth All-Russian Student Conference “Chemistry and Chemical Education of the XXI Century” (St.-Petersburg, Russian Federation, 2019).
- 181.** 10th International Conference “Biomaterials and Nanobiomaterials: Recent Advances Safety-Toxicology and Ecology Issues” (Heraklion, Crete, Greece. 2019).
- 182.** VIIIth Internat. Symposium on Speciality Polymers (Karaganda – Tasbulak, Kazakhstan, 2019).
- 183.** International Scientific-Technological Symposium “Energy- and Resources-Saving, Ecologically Non-Dangerous Technologies and Equipment” (Moscow, Russian Federation, 2019).
- 184.** 5th All-Russian Interdisciplinary Scientific Forum ”New Materials and Prospective Technologies” (Moscow, Russian Federation, 2019).
- 185.** International Conference “Chemistry of Organoelement Compounds and Polymers – 2019” (Moscow, Russian Federation, 2019).
- 186.** IVth National Congress of Regenerative Medicine (Moscow, Russian Federation, 2019).
- 187.** XXXIVth International Conference of Young Scientists on Chemistry and Chemical

Technology (Moscow, Russian Federation, 2020).

188. VIIIth All-Russian Kargin's Conference "Polymers – 2020" (Tver/Moscow, Russian Federation, 2020).

189. All-Russian Scientific Conference "60 years Anniversary of A.V.Avtsin Institute of Human Morphology" (Moscow, Russian Federation, 2021).

190. 1st International Conference "Nanochemistry and Modern Nanotechnologies" (Moscow, Russian Federation, 2021).

191. XIth All-Russian Congress of Transplantologists (Moscow, Russian Federation, 2022).

192. 16th Saint-Petersburg Youth Conference "Current Problems of Polymer Science" (Saint-Petersburg, Russian Federation, 2022).

193. Youth Conference "Self-Organization in "Soft" Media: Achievements and Current Status" (Moscow, Russian Federation, 2022).

194. National Congress on Regenerative Medicine (Moscow, Russian Federation, 2022).

195. XXXth International Scientific Conference of students, PhD students and young scientists "Lomonosov 2023" (Moscow, Russian Federation, 2023).

196. VIth All-Russian Congress "Transplantation and Organs Donation" (Moscow, Russian Federation, 2023).

197. All-Russian Conference "Surface Phenomena in Disperse Systems" (Moscow, Russian Federation, 2023).

198. Kazakh-Uzbek Symposium "Modern Problems of Polymer Science" (Almaty, Kazakhstan, 2023).

199. All-Russian Conference "Contemporary Problems of Polymer Science" (Saint-Petersburg, Russian Federation, 2023).

200. 1st International Forum "Motherhood and childhood" (Moscow, Russian Federation, 2024).

201. 21st Shorygin's Workshop of the Russian Chitin Society (Moscow, Russian Federation, 2024).

202. IV School of Young Scientists "Chemistry and Technology of Biologically Actives Substances for Medicine and Pharmacy" (Moscow, Russian Federation, 2024).

203. XIII International Scientific Conference "Chemistry and Technology of Plant Substances" (Syvtykkar, Russian Federation, 2024).