

## List of Publications of Prof.V.I.Loizinsky

### A). BOOKS, REVIEWS, THESES, POPULAR SCIENTIFIC PAPERS

1. **V.I.Loizinsky, S.V.Rogozhin.** Chemospecific (covalent) chromatography of biopolymers. Uspekhi khimii **49** (5) 879-902 (1980) /in Russian/; [[Russian Chemical Reviews 49 \(6\) 460-472 \(1980\) /in English/](#)].
2. **V.I.Loizinsky.** Chemosorbents with activated disulphide groups for separation, purification and investigation of proteins. PhD thesis, INEOS AN USSR, 1982, 233p /in Russian/.
3. **S.D.Varfolomeev, E.I.Rainina, V.I.Loizinsky, S.B.Kalyuzhnyi, A.P.Sinitsyn, T.A.Makhlis, G.P.Bachurina, I.G.Bokova, O.A.Sklyankina, E.V.Agafonov.** Application of poly(vinyl alcohol) cryogel for immobilization of mesophilic and thermophilic microorganisms. In: Physiology of Immobilized Cells, Ed. by J.A.M.de Bont, J.Visser, B.Mattiasson, J.Tramper, Wageningen, 1989, p.325-330.
4. **A.P.Sinitsyn, E.I.Rainina, V.I.Loizinsky, 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/.
5. **V.I.Loizinkii.** Polymer Networks: Synthesis, Structure, and Properties (Networks-91) (a brief review on the Conference "Networks'91", Moscow) // Mendeleev Commun. (1) R3-R4 (1992).
6. **S.D.Varfolomeev, E.I.Rainina, V.I.Loizinsky.** Cryoimmobilized enzymes and cells in organic synthesis. Pure & Appl. Chem. **64** (8) 1193-1196 (1992).
7. **V.I.Loizinsky, A.V.Vakula, A.L.Zubov.** Application of poly(vinyl alcohol) cryogels in biotechnology. IV. Literature data overview. Biotekhnologiya (4) 5-14 (1992) /in Russian/ [[Soviet Biotechnology \(4\) 1-11 \(1992\) /in English/](#)].
8. **V.I.Loizinsky.** Cryogels on the basis of natural and synthetic polymers: preparation, properties and application. D.Sc. (Full Professor) thesis, INEOS RAS, 1994, 682p.
9. **V.I.Loizinsky.** Does your cat revel in "Wiskas"? Chemistry and Life (10) 52-56 (1995) /in Russian/.
10. **V.I.Loizinsky, 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.
11. **V.I.Loizinsky, 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.
12. **V.I.Loizinsky.** 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/](#)].
13. **V.I.Loizinsky, 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).

**14. V.I.Loizinsky.** Laboratory for Cryochemistry of Biopolymers. In: A.N.Nesmeyanov Institute of Organoelement Compounds. History and Contemporaneity. Moscow, Nauka, 1999, pp.361-367 /in Russian/.

**15. V.I.Loizinsky, F.M.Plieva, I.Yu.Galaev, B.Mattiasson.** The potential of polymeric cryogels in bioseparation. Bioseparation **10** (4-5) 163-188 (2001).

**16. V.I.Loizinsky.** 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/].

**17. V.I.Loizinsky.** Preparation and application of PVA cryogels. Proc. 1<sup>st</sup> Internat. Seminar "Preparation and Application of Advanced Poly(vinyl alcohol)", Kyongsan (S.Korea), 2003, pp.38-51.

**18. V.I.Loizinsky, 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/.

**19. V.I.Loizinsky, 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).

**20. V.I.Loizinsky.** What new opportunities the use of diverse polymeric cryogels opens for the immobilization of molecules and cells. Hemijska Industrija (Chemical Industry, Belgrade) **58** (6a) 111-115 (2004).

**21. D.Thomas, J.-M.Laval, V.I.Loizinsky, 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.

**22. V.I.Loizinsky.** The approaches to chemical synthesis of protein-like copolymers. // Adv. Polym. Sci. **196** 87-127 (2006).

**23. V.I.Loizinsky.** 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/].

**24. I.M.Okapkin, V.I.Loizinsky, 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.

## B). RESEARCH PAPERS

**1. Ts.A.Egorov, M.I.Shakhparonov, Yu.A.Davidovich, V.I.Loizinsky, B.Yu.Zaslavsky, S.V.Rogozhin.** Preparation of insoluble carrier with activated SH-group and its application in the

protein chemistry. Bioorgan. Khim. **3** (8) 1111-1116 (1977) /in Russian/.

**2.** *V.I.Loizinsky, Yu.A.Davidovich, B.Yu.Zaslavsky, Ts.A.Egorov, S.V.Rogozhin.* Removal of surface-active agents from proteins by their reversible immobilization on an insoluble carrier. Biokhimiya **43** (2) 257-259 (1978) /in Russian/.

**3.** *V.I.Loizinsky, I.G.Tsoy, Yu.A.Davidovich, S.V.Rogozhin.* Synthesis and study of properties of macroporous silicas with activated thiol-group for covalent chromatography of proteins and peptides. Izvest. AN SSSR, Ser. Khim. (6) 1358-1364 (1979) /in Russian/ [Bull. Acad. Sci. USSR, Div. Chem. Sci. **28** (6) 1271-1277 (1979) /in English/].

**4.** *V.I.Loizinsky, S.V.Rogozhin.* Thiol-containing derivatives of macroporous silica. 2. Using of compounds with protected thiol-group in synthesis of the chemisorbents. Izvest. AN SSSR, Ser. Khim. (2) 417-421 (1981) /in Russian/ [Bull. Acad. Sci. USSR, Div. Chem. Sci. **30** (2) 332-337 (1981) /in English/].

**5.** *V.I.Loizinsky, S.V.Rogozhin.* Thiol-containing derivatives of macroporous silica. 3. Synthesis of chemisorbents on the basis of macroporous silica with grafted polymer layer. Izvest. AN SSSR, Ser. Khim. (8) 1879-1884 (1981) /in Russian/ [Bull. Acad. Sci. USSR, Div. Chem. Sci. **30** (8) 1547-1551 (1981) /in English/].

**6.** *E.S.Vainerman, V.I.Loizinsky, S.V.Rogozhin.* Study of cryostructurization of polymer systems. I. Structure formation in solutions of thiol-containing polymers under freezing-thawing. Colloid & Polymer Sci. **259** (12) 1198-1201 (1981).

**7.** *V.I.Loizinsky, E.S.Vainerman, S.V.Rogozhin.* Study of cryostructurization of polymer systems. II. The influence of freezing of reacting mass on the properties of products in the preparation of covalently cross-linked gels. Colloid & Polymer Sci. **260** (8) 776-780 (1982).

**8.** *S.V.Rogozhin, E.S.Vainerman, V.I.Loizinsky.* The formation of spatial cross-linked polymeric structures under freezing of a reacting system. Doklady Akademii nauk SSSR **263** (1) 115-118 (1982) /in Russian/.

**9.** *V.I.Loizinsky, M.N.Korneeva, E.S.Vainerman, S.V.Rogozhin.* Structure formation during the freezing of the polymerizing system consisting of vinyl and divinyl monomers. Doklady Akademii nauk SSSR **270** (1) 101-104 (1983) /in Russian/.

**10.** *S.V.Rogozhin, V.I.Loizinsky, E.S.Vainerman, V.V.Korshak.* The influence of the freezing of polymerising monomer solutions on the molecular weights of the polymers obtained. Doklady Akademii nauk SSSR **273** (5) 1140-1143 (1983) /in Russian/.

**11.** *V.I.Loizinsky, E.S.Vainerman, G.F.Korotaeva, S.V.Rogozhin.* Study of cryostructurization of polymer systems. III. Cryostructurization in organic media. Colloid & Polymer Sci. **262** (8) 617-622 (1984).

**12.** *V.I.Loizinsky, E.S.Vainerman, E.F.Titova, E.M.Belavtseva, S.V.Rogozhin.* Study of cryostructurization of polymer systems. IV. Cryostructurization of the system: solvent - vinyl monomer - divinyl monomer - initiator of polymerization. Colloid & Polymer Sci. **262** (10) 769-774 (1984).

13. E.M.Belavtseva, E.F.Titova, **V.I.Loizinsky**, E.S.Vainerman, S.V.Rogozhin. Study of cryostructurization of polymer systems. V. Electron microscopic studies of cross-linked polyacrylamide cryogels. Colloid & Polymer Sci. **262** (10) 775-779 (1984).
14. S.V.Rogozhin, **V.I.Loizinsky**, E.S.Vainerman, L.V.Domotenko, A.M.Mamtsis, S.A.Ivanova, M.I.Shtil'man, V.V.Korshak. Non-covalent cryostructurization in polymer systems. Doklady Akademii nauk SSSR **278** (1) 129-133 (1984) /in Russian/.
15. **V.I.Loizinsky**, E.S.Vainerman, S.A.Ivanova, E.F.Titova, M.I.Shtil'man, E.M.Belavtseva, S.V.Rogozhin. Study of cryostructurization of polymer systems. VI. The influence of the process temperature on the dynamics of formation and structure of cross-linked polyacrylamide cryogels. Acta Polymerica **37** (3) 142-146 (1986).
16. **V.I.Loizinsky**, E.S.Vainerman, L.V.Domotenko, A.M.Mamtsis, E.F.Titova, E.M. Belavtseva, S.V.Rogozhin. Study of cryostructurization of polymer systems. VII. Structure formation under freezing of poly(vinyl alcohol) aqueous solutions. Colloid & Polymer Sci. **264** (1) 19-24 (1986).
17. **V.I.Loizinsky**, L.V.Domotenko, E.S.Vainerman, A.M.Mamtsis, S.V.Rogozhin. On the possibility of mechanodestruction of poly(vinyl alcohol) molecules under moderate freezing of its concentrated water solutions. Polymer Bulletin **15** (4) 333-340 (1986).
18. R.Zh.Manolov, **V.I.Loizinsky**, I.M.Tavobilov, E.S.Vainerman, S.I.Bezborodova, S.V.Rogozhin, A.M.Bezborodov. Ribonuclease biosynthesis by *Aspergillus clavatus* fungus cells immobilized into poly(vinyl alcohol) cryogel. Biotechnology & Bioindustry (Bulgaria) **2** (2) 3-5 (1987) /in Russian/.
19. L.V.Domotenko, **V.I.Loizinsky**, E.S.Vainerman, S.V.Rogozhin. The influence of freezing and thawing conditions of poly(vinyl alcohol) aqueous solutions on the properties of cryogels which are formed as a result. Vysokomolekul. soed. **30A** (8) 1661-1666 (1988) /in Russian/ [[Polymer Sci. USSR 30A \(8\) 1758-1764 \(1988\) /in English/](#)].
20. K.A.Lusta, N.G.Starostina, N.B.Gorkina, B.A.Fikhte, **V.I.Loizinsky**, E.S.Vainerman, S.V.Rogozhin. Immobilization of *E.coli* cells into macroporous cryogels on the poly(acrylamide) basis. Prikladnaya biokhimiya i mikrobiologiya **24** (4) 504-513 (1988) /in Russian/ [[Appl. Biochem. Microbiol. 24 \(4\) 498-504 \(1988\) /in English/](#)].
21. R.Zh.Manolov, I.M.Tavobilov, **V.I.Loizinsky**, E.S.Vainerman, E.F.Titova, E.M. Belavtseva, S.I.Bezborodova, S.V.Rogozhin, A.M.Bezborodov. A study of *Aspergillus clavatus* immobilized cells producing ribonuclease. Prikladnaya biokhimiya i mikrobiologiya **24** (4) 514-519 (1988) /in Russian/ [[Appl. Biochem. Microbiol. 24 \(4\) 427-431 \(1988\) /in English/](#)].
22. O.I.Slabova, D.I.Nikitin, **V.I.Loizinsky**, V.K.Kulakova, E.S.Vainerman, S.V.Rogozhin. Hydrogen oxidation by oligotrophic bacterial cells immobilized into silica gel and cryo-silica gel. Mikrobiologiya **57** (6) 940-944 (1988) /in Russian/ [[Microbiology 57 \(6\) 749-753 \(1988\) /in English/](#)].
23. **V.I.Loizinsky**, N.G.Faleev, A.L.Zubov, S.B.Ruvinov, T.A.Antonova, E.S.Vainerman, V.M. Belikov, S.V.Rogozhin. Use of PVA-cryogel entrapped *Citrobacter intermedium* cells for continuous production of 3-fluoro-L-tyrosine. Biotechnol. Lett. **11** (1) 43-48 (1989).

- 24.** *V.I.Loizinsky, S.A.Morozova, E.S.Vainerman, E.F.Titova, M.I.Shtil'man, E.M.Belavtseva, S.V.Rogozhin.* Study of cryostructurization of polymer systems. VIII. Characteristics features of the formation of cross-linked poly(acrylamide) cryogels under different thermal conditions. *Acta Polymerica* **40** (1) 8-15 (1989).
- 25.** *V.I.Loizinsky, T.O.Golovina, E.S.Vainerman, S.V.Rogozhin.* Variation of the amount of the titrated SH-groups in thiol-derivative of poly(acrylamide) in the course of freezing of its aqueous solutions. *Vysokomolekul. soed.* **31A** (2) 334-338 (1989) /in Russian/ [[Polymer Sci. USSR 31A \(2\) 367-372 \(1989\) /in English/](#)].
- 26.** *S.V.Rogozhin, V.I.Loizinsky, E.S.Vainerman, A.M.Mamtsis, D.I.Nikitin, A.S.Savvichev.* Acceleration of a reaction of radical polymerization in the presence of microorganisms. *Izv. AN SSSR, Ser. Biol.* (4) 502-506 (1989) /in Russian/.
- 27.** *V.I.Loizinsky, E.S.Vainerman, L.V.Domotenko, A.L.Blumenfel'd, V.V.Rogov, E.N. Barkovskaya, E.I.Fedin, S.V.Rogozhin.* Characteristic features of the freezing of concentrated aqueous poly(vinyl alcohol) solutions: their relation to the properties of hydrogels obtained after thawing. *Kolloidnyi zhurnal.* **51** (4) 685-690 (1989) /in Russian/ [[Colloid J. USSR 51 \(4\) 592-596 \(1989\) /in English/](#)].
- 28.** *V.I.Loizinsky, L.V.Domotenko, E.S.Vainerman, S.V.Rogozhin.* Some thermomechanical properties of poly(vinyl alcohol) cryogels. *Vysokomolekul. soed.* **31A** (9) 1805-1809 (1989) /in Russian/ [[Polymer Sci. USSR 31A \(9\) 1983-1988 \(1989\) /in English/](#)].
- 29.** *L.V.Belousova, V.I.Loizinsky, E.S.Vainerman, S.V.Rogozhin, S.N.Egorov, M.S.Egorov.* Acid phosphatase secretion by *Saccharomyces cerevisiae* cells entrapped into poly(vinyl alcohol) cryogels. In: *Enzymes of Microorganisms* Ed. by V.G.Debabov et al., Moscow, 1989, Part II, p.224-232 /in Russian/.
- 30.** *D.G.Gusev, V.I.Loizinsky, E.S.Vainerman, V.I.Bakmutov.* Study of the frozen water-poly(vinyl alcohol) system by  $^2\text{H}$  and  $^{13}\text{C}$  NMR spectroscopy. *Magn. Res. in Chem.* **28** (7) 651-655 (1990).
- 31.** *V.I.Loizinsky, E.S.Vainerman, A.L.Zubov, V.K.Kulakova, S.V.Rogozhin.* Application of poly(vinyl alcohol) cryogels in biotechnology. II. Variation of rheological properties of the gel matrix as a result of yeast cells entrapment. *Biotekhnologiya* (5) 32-35 (1990) /in Russian/ [[Soviet Biotechnology \(5\) 43-46 \(1990\) /in English/](#)].
- 32.** *G.P.Alebian, E.N.Arzumanov, M.V.Mkrtchian, P.V.Tozalakian, V.I.Loizinsky, E.S. Vainerman, S.V.Rogozhin.* Kinetic aspects of L-aspartate- $\beta$ -decarboxylase functioning in free and immobilized *Alcaligenes faecalis* cells in the course of L-aspartic acid transformation to L-alanine. *Biotekhnologiya* (6) 29-32 (1990) /in Russian/ [[Soviet Biotechnology \(6\) 36-40 \(1990\) /in English/](#)].
- 33.** *A.L.Zubov, V.I.Loizinsky, E.S.Vainerman, S.V.Rogozhin.* Application of poly(vinyl alcohol) cryogels in biotechnology. III. Osmotic properties of the cryogels in media of various composition. In: *Enzymes of Microorganisms and Degradation of Biopolymers* Ed. by V.G.Debabov, Moscow, 1990, p.111-121 /in Russian/.

- 34.** O.I.Slabova, D.I.Nikitin, V.I.Loizinsky, E.S.Vainerman, S.V.Rogozhin. Some features of gas exchange in hydrogen bacteria immobilized into usual and cryogels of cross-linked poly(acrylamide). *Mikrobiologiya* **60** (1) 23-27 (1991) /in Russian/ [[Microbiology 60 \(1\) 14-18 \(1991\) /in English/](#)].
- 35.** O.I.Mikhalev, M.Serpinski, V.I.Loizinsky, P.V.Kapanin, I.I.Chkeidze, M.V.Alfimov. Method for determination of liquid microphase volume: application to the investigation of frozen H<sub>2</sub>O-poly(vinyl alcohol) system. *Cryo-Letters* **12** (4) 197-206 (1991).
- 36.** S.Velizarov, E.I.Rainina, V.I.Loizinsky, A.L.Zubov, A.P.Sinitsyn, S.D.Varfolomeev. L-Lysine production by *Corynebacterium glutamicum* cells entrapped in PVA-cryogel. *Biotechnol. Lett.* **14** (4) 291-296 (1992).
- 37.** V.I.Loizinsky, A.I.Zubov, V.K.Kulakova, E.F.Titova, S.V.Rogozhin. Study of cryostructurization of polymer systems. IX. Poly(vinyl alcohol) cryogels filled with particles of cross-linked dextran gel. *J. Appl. Polym. Sci.* **44** (8) 1423-1435 (1992).
- 38.** A.L.Simonian, E.I.Rainina, V.I.Loizinsky, I.E.Badalian, G.A.Khachatrian, S.Sh.Tatikian, T.A.Makhlis, S.D.Varfolomeev. A biosensor for L-proline determination by use of immobilized microbial cells. *Appl. Biochem. Biotechnol.* **36** (3) 199-210 (1992).
- 39.** O.A.Nikitina, S.S.Zatsepin, S.V.Kalyuzhnyi, E.I.Rainina, S.D.Varfolomeev, A.L.Zubov, V.I.Loizinsky. Production of hydrogen by thermophilic anaerobic bacterium *Clostridium thermosaccharolyticum* immobilized into polyvinyl alcohol cryogel. *Mikrobiologiya* **62** (3) 477-488 (1993) /in Russian/ [[Microbiology 62 \(3\) 296-301 \(1993\) /in English/](#)].
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- 41.** S.D.Varfolomeev, E.I.Rainina, V.I.Loizinsky. Cryoimmobilized enzymes and cells in organic synthesis. *Indian J. Chem. Section B*, **32** (1) 202-204 (1993).
- 42.** E.I.Rainina, M.A.Pusheva, A.M.Ryabokon', N.P.Bolotina, V.I.Loizinsky, S.D. Varfolomeev. Microbial cells immobilized in poly(vinyl alcohol) cryogels: biocatalytic reduction of CO<sub>2</sub> by the thermophilic homoacetogenic bacterium *Acetogenium kivuii*. *Biotechnol. Appl. Biochem.* **14** (2) 321-329 (1994).
- 43.** V.V.Fokina, A.Yu.Arinbasarova, A.L.Zubov, V.I.Loizinsky, K.A.Koshcheenko. Dehydrogenation of sterol substrates by bacterial cells *Arthrobacter globiformis* 193 entrapped into poly(vinyl alcohol) cryogels. *Prikladnaya Biokhimiya i Mikrobiologiya* **31** (2) 212-217 (1995) /in Russian/ [[Appl. Biochem. Microbiol. 31 \(2\) 184-189 \(1995\) /in English/](#)].
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- 47.** *V.I.Loizinsky, 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).
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- 49.** *A.M.Ryabokon', M.V.Kevbrina, M.A.Pusheva, A.L.Zubov, V.I.Loizinsky, 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.
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- 51.** *V.I.Loizinsky, 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.
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- 53.** *N.R.Konstantinova, V.I.Loizinsky.* Cryotropic gelation of ovalbumin solutions. Food Hydrocolloids **11** (2) 113-123 (1997).
- 54.** *L.Brovko, N.Romanova, T.Makhlis, A.Zubov, V.Loizinsky, 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.
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#### D). REPORTS AT THE CONFERENCES

1. "Methods for Preparation and Analysis of Biochemical Substances" (Riga, USSR; 1977).
2. "Molecular Liquid Chromatography" (Dzerzhinsk, USSR; 1979).
3. "Methods for Preparation and Analysis of Biochemical Substances" (Riga, USSR; 1979).
4. "Polymers-80" (Varna, Bulgaria; 1980).
5. "Chemistry of Low Temperatures" (Moscow, USSR; 1982).
6. "Methods for Preparation and Analysis of Biochemical Substances" (Riga, USSR; 1982).
7. "Physical Chemistry of Structured Food Proteins" (Tallinn, USSR; 1983).
8. "Enzyme Engineering" (Kiev, USSR; 1983).
9. "Scanning Electron Microscopy" (Zvenigorod, USSR; 1984).
10. "Theory and Applied Problems of Cryobiology" (Kharkov, USSR; 1984).
11. "Processes of Gel-Formation in Polymer Systems" (Saratov, USSR; 1985).
12. "High Molecular Weight Compounds" (Alma-Ata, USSR; 1985).
13. "Chemistry of Low Temperatures" (Moscow, USSR; 1985).
14. "Enzyme Engineering" (Kobuleti, USSR; 1985).
15. "Biosynthesis of Enzymes by Microorganisms" (Kobuleti, USSR; 1986).
16. "Inter-Biotech" (Varna, Bulgaria; 1986).

17. "Biosynthesis of Secondary Metabolites" (Puschino, USSR; 1987).
18. "IUPAC Macromolecular Symposium MACRO'87" (Merseburg, GDR; 1987).
19. "Synthesis, Structure and Properties of Polymeric Networks" (Zvenigorod, USSR; 1988).
20. "Amino acids" (Yerevan, USSR; 1988).
21. "Actual Problems of Development the Medico-Biotechnological Preparations" (Makhachkala, USSR; 1988).
22. "Chemistry of Low Temperatures" (Moscow, USSR; 1988).
23. "Biosynthesis of Enzymes by Microorganisms" (Tashkent, USSR; 1988).
24. "Non-Traditional Methods of Polymer Synthesis" (Alma-Ata, USSR; 1990).
25. "Bioanalytical Methods" (Prague, ČSSR; 1990).
26. "Networks-91" (Moscow, USSR; 1991).
27. The 15<sup>th</sup> International Congress on Biochemistry (Jerusalem, Israel; 1991).
28. The 15<sup>th</sup> International Specialized Symposium on Yeasts (Riga, Lithuania; 1991).
29. "Chemistry of Low Temperatures" (Moscow, USSR; 1991).
30. "Enzyme Engineering" (Moscow, USSR; 1991).
31. "Enzyme Engineering" (Kaunas, USSR; 1988; Moscow, USSR; 1991).
32. "Advances of Modern Cryobiology" (Kharkov, Ukraine; 1992).
33. The 29<sup>th</sup> Annual Meeting Society of Cryobiology (Ithaha, USA; 1992).
34. "International Symposium on Biosensors" (Moscow, Russian Federation, 1992).
35. The 82<sup>rd</sup> Events of European Federation of Biotechnologists "BIOBALT'92" (Tallinn, Estonia, 1992).
36. The 8<sup>th</sup> International Symposium on Yeasts (Atlanta, USA, 1992).
37. The 6<sup>th</sup> European Congress on Biotechnology (Florence, Italy, 1993).
38. "Food Macromolecules and Colloids" (Dijon, France, 1994).
39. The 35<sup>th</sup> IUPAC Symposium on Macromolecules "MACRO'94" (Akron, USA, 1994).



40. "Low Temperature Chemistry" (Moscow, Russian Federation, 1994).
41. "Food Hydrocolloids" (Columbus, USA, 1994).
42. The 7<sup>th</sup> European Congress on Biotechnology (Nice, France, 1995).
43. "Nano-Structures and Self-Assembles in Polymer Systems" (St.Petersburg-Moscow, Russian Federation, 1995).
44. "Food Freezing" (York, Great Britain, 1995).
45. "High-Swelling Gels" (Prague, The Czech Republic, 1995).
46. "Biocatalysis'95" (Suzdal, Russian Federation, 1995).
47. "Europhysical Conference on Gels" (Balatonszeplak, Hungary, 1995).
48. "Immobilized Cells" (Noordwijkerhout, The Netherlands, 1995).
49. "Low Temperature Chemistry" (Kansas City, USA, 1996).
50. "Polymer Networks'96" (Doorn, The Netherlands, 1996).
51. "Bioencapsulation V" (Potsdam, Germany, 1996).
52. "Bioencapsulation VI" (Barcelona, Spain, 1997).
53. "Perspectives in Interfacial Areas of Chemistry and Biology" (Dehli, India, 1998).
54. "Biocatalysis'98" (Puschino, Russian Federation, 1998).
55. "Polymer Networks 98" (Trondheim, Norway, 1998).
56. "Biomedical Application of Water-Soluble Polymers and Hydrogels" (Boston, USA, 1998).
57. "Colloid Chemistry and Physical-Chemical Mechanics" (Moscow, Russian Federation, 1998).
58. "Bioencapsulation VIII" (Trondheim, Norway, 1999).
59. "Enzymes in Heteroatom Chemistry. Green Solutions for Chemical Problems" (Berg en Dal near Nijmegen, The Netherlands, 1999).
60. "Chemistry and Biotechnology of Food Substances" (Moscow, Russian Federation, 1999).
61. "Trends in Chemical Sciences" (Delhi, India, 2000).
62. "Trends in Medical Chemistry and Biocatalysis" (Delhi, India, 2000).

63. “Biocatalysis-2000” (Moscow, Russian Federation, 2000).
64. The 26<sup>th</sup> European Peptide Symposium (Montpellier, France, 2000).
65. “Enzymology, Molecular Biology and Biogeochemistry of Thermophiles” (Petropavlovsk-Kamchatsky, Russian Federation, 2000).
66. “Bioencapsulation XI” (Warsaw, Poland, 2001).
67. “BioTrans 2001” (Darmstadt, Germany, 2001).
68. “Peptido- and proteino-mimetics” (Spa, Belgium, 2001).
69. “Starch and Starch Containing Origins – Structure, Properties and New Technologies” (Moscow, Russian Federation, 2001).
70. “Catalysis and Fine Chemicals” (Tokyo, Japan, 2001).
71. “Biocatalysis 2002” (Moscow, Russian Federation, 2002).
72. “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).
73. “Biocat 2002” (Hamburg, Germany, 2002).
74. “From Basic Science to New Technologies. Chemistry and Biotechnology of Biologically Active Substances, Foodstuffs and Additives. Ecologically-Friendly Technologies” (Tver, Russian Federation, 2002).
75. The 12<sup>th</sup> International Biodeterioration and Biodegradation Symposium “Biosorption and Bioremediation III” (Prague, Czech Republic, 2002).
76. The 1<sup>st</sup> International Biotechnological Congress “Biotechnology – State of the Art and Trends of Development” (Moscow, Russian Federation, 2002).
77. The 10<sup>th</sup> All-Russian Conference “Structure and Dynamics of Molecular Systems” (Yalchik, Russian Federation; 2003).
78. Russian Symposium on Chemistry and Biology of Peptides (Moscow, Russian Federation; 2003).
79. The 3<sup>rd</sup> International Symposium on Separations in BioSciences “SBS 2003 – 100 Years of Chromatography” (Moscow, Russian Federation, 2003).
80. The 1<sup>st</sup> International Seminar “Preparation and Application of Advanced Poly(vinyl alcohol)” (Kyongsan, S.Korea, 2003).
81. The 12<sup>th</sup> International Conference on Biopartitioning and Purification (Vancouver, Can-

ada, 2003).

82. The 2<sup>nd</sup> European Bioremediation Conference (Chania, Crete, Greece, 2003).
83. The 2<sup>nd</sup> International Congress “Biotechnology: State of the Art and Prospects of Development” (Moscow, Russian Federation, 2003).
84. The 3<sup>rd</sup> Russian Kargin Conference “Polymers-2004” (Moscow, 2004).
85. All-Russian Conference “Biotechnology of Microbes” (Moscow, 2004).
86. The 3<sup>rd</sup> Russian Kargin Conference “Polymers-2004” (Moscow, Russian Federation, 2004).
87. “Modern Trends in Organoelement and Polymer Chemistry” (Moscow, Russian Federation, 2004).
88. “Application of Immobilisation/Bioencapsulation in Medicine, Pharmacy, Food Technology and Biotechnology” (Belgrade, Serbia & Montenegro, 2004).
89. World Polymer Congress “MACRO 2004” (Paris, France, 2004).
90. The 10<sup>th</sup> International Symposium on Microbial Ecology (ISME-10) Microbial Planet: Sub-Surface to Space. (Cancun, Mexico, 2004).
91. International Workshop "Bioencapsulation XII" (Vitoria, Spain, 2004).
92. The 3<sup>rd</sup> International and 28<sup>th</sup> European Peptide Symposium (Prague, Czech Republic, 2004).
93. The 2<sup>nd</sup> Russian Symposium on Chemistry and Biology of Peptides (St.Petersburg, 2005).
94. Small Polymer Congress (Moscow, Russian Federation, 2005).
95. The 3<sup>rd</sup> International Congress “Biotechnology: State of the Art and Prospects of Development” (Moscow, Russian Federation, 2005).
96. The 1<sup>st</sup> International Symposium “Preparation of Functional Polymer Gels” (Kyongsan, S.Korea, 2005).
97. “European Polymer Congress – 2005” (Moscow, Russian Federation, 2005).
98. The 6<sup>th</sup> International Conference “Environmental Pollution” (Perm-Kazan, Russian Federation, 2005).
99. The 28<sup>th</sup> European Peptide Symposium (Tel-Aviv, Israel, 2005).
100. The 2<sup>nd</sup> International Conference “Microbial Diversity: Current Situation, Conservation Strategy and Biotechnological Potentialities” (Perm-Kazan-Perm, Russian Federation,

2005).

- 101.** The 2<sup>nd</sup> FEMS Congress of European Microbiologists (Madrid, Spain, 2006).
- 102.** The 2<sup>nd</sup> International Congress on Bioprocesses in Food Industries (Patras, Greece, 2006).
- 103.** International Conference “Science & Education – 2006” (Murmansk, Russian Federation, 2006).
- 104.** The 6<sup>th</sup> International Conference on Low Temperature Chemistry (Chernogolovka, Russian Federation, 2006).
- 105.** International Conference “29<sup>th</sup> European Peptide Symposium” (Gdansk, Poland, 2006).
- 106.** International Symposium “Polyelectrolytes 2006” (Dresden, Germany, 2006).
- 107.** International Conference “Fundamental and Applied Problems of Modern Chemistry in Investigations of Young Scientists” (Astrakhan’, Russian Federation, 2006).
- 108.** International Conference “Microbial Biotechnologies” (Odessa, Ukraine, 2006).
- 109.** International Conference “Genetics of Microorganisms and Biotechnology” (Moscow-Puschino, Russian Federation, 2006).
- 110.** The 4<sup>th</sup> All-Russian Kargin’s Conference “Polymer Science for the 21<sup>st</sup> Century” (Moscow, Russian Federation, 2007).
- 111.** The 4<sup>th</sup> International Congress “Biotechnology: State of the Art and Prospects of Development” (Moscow, Russian Federation, 2007).
- 112.** International Scientific-Practical Interdisciplinary Workshop “New Technology in Medicine and Experimental Biology” (Pattaya-Bangkok, Thailand, 2007).
- 113.** The 15<sup>th</sup> International Conference on Starch (Moscow, Russia, 2007).
- 114.** “European Polymer Congress – 2007” (Portoroz, Slovenia, 2007).
- 115.** International Workshop “Bioencapsulation XV” (Vienna, Austria, 2007).
- 116.** International Conference “New Technologies in Biology and Medicine” (Rostov-on-Don, Russian Federation, 2007).
- 117.** International Conference “New Information Technology in Medicine, Pharmacology, Biology and Ecology (Gurzuf, Ukraine, 2007).
- 118.** The 18<sup>th</sup> Mendeleev’s Congress on General and Applied Chemistry (Moscow, Russian Federation, 2007).
- 119.** The 13<sup>th</sup> European Congress on Biotechnology (Barcelona, Spain, 2007).

120. The 2<sup>nd</sup> Ukrainian Congress for Cell Biology (Kyiv, Ukraine, 2007).
121. All-Russian Conference “Fundamental Sciences for Novel Drugs” (Moscow, Russian Federation, 2008).
122. All-Russian Conference “Food and Marine Biotechnology” (Svetlogorsk, Russian Federation, 2008).
123. The 14<sup>th</sup> International Starch Convention Cracow-Moscow (Cracow, Poland, 2008).
124. The 3<sup>rd</sup> International Conference on Colloid Chemistry and Physicochemical Mechanics (Moscow, Russian Federation, 2008).
125. International Conference “Innovative Technologies in Transplantation of Organs, Tissues and Cells” (Samara, Russian Federation, 2008).
126. The 35<sup>th</sup> Annual ESAO Congress (Geneva, Switzerland, 2008).
127. The 6<sup>th</sup> International Conference “Current State and Prospects of Microbiology and Biotechnology Development (Minsk, Republic Belarus’, 2008).
128. The 3<sup>rd</sup> International Conference “Microbial Diversity: Current Situation, Conservation Strategy and Biotechnological Potential” (Perm’ – N.Novgorod, Russian Federation, 2008).
129. The 9<sup>th</sup> International Conference “Modern Perspectives in Chitin and Chitosan Studies” (Stavropol, Russian Federation, 2008).
130. The 2<sup>nd</sup> EuCheMS Chemistry Congress (Torino, Italy, 2008).
131. The 14<sup>th</sup> International Symposium on Biodeterioration and Biodegradation (Messina, Italy, 2008).
132. “Novel Cryobiotechnologies for Solving the Fundamental and Applied Tasks of Medicine” (Kharkov, Ukraine, 2008).
133. The 8<sup>th</sup> Annual International Youth Conference “Biochemical Physics” (Moscow, Russian Federation, 2008).
134. The 2<sup>nd</sup> International Conference “Biocatalysis in Non-Conventional Media” (Moscow, Russian Federation, 2008).
135. The 4<sup>th</sup> Congress of the Russian Society of Biochemists and Molecular Biologists (Novosibirsk, Russian Federation, 2008).
136. The 12<sup>th</sup> International Puschino School “Biology – Science of the XXI Century” (Puschino, Russian Federation, 2008).
137. The 4<sup>th</sup> All-Russian Conference “Physical Chemistry of Polymer Processing” (Ivanovo,

Russian Federation, 2009).

138. All-Russian Symposium “Culturing Cells as the Basis of Cell Technologies” (St.-Petersburg, Russian Federation, 2009).
139. The 14<sup>th</sup> International Conference “Microbial Enzymes in Biotechnology and Medicine” (Kazan, Russian Federation, 2009).
140. The 17<sup>th</sup> International Starch Convention (Moscow, Russian Federation, 2009).
141. The 9<sup>th</sup> International Adenovirus Meeting (Dobogókő, Hungary, 2009).
142. The 4<sup>th</sup> World Congress on Regenerative Medicine “Current Regenerative Medicine 2009” (Bangkok, Thailand, 2009).
143. The 16<sup>th</sup> All-Russian Conference “Structure and Dynamics of Molecular Systems” (Yoshkar-Ola, Russian Federation, 2009).
144. The 16<sup>th</sup> Romanian International Conference on Chemistry and Chemical Engineering (Sinaia, Romania, 2009).
145. International Workshop “Bioencapsulation XVII” (Groningen, Netherlands, 2009).
146. “COST 928” 3<sup>rd</sup> Annual Meeting (Krakow, Poland, 2009).
147. International Conference “Biocatalysis-2009: Fundamentals & Applications” (Arkhangelsk, Russian Federation, 2009).
148. The 14<sup>th</sup> European Congress on Biotechnology (Barcelona, Spain, 2009).
149. The 9<sup>th</sup> International Conference of the European Chitin Society (Venice, Italy, 2009).
150. The 4<sup>th</sup> All-Russian Symposium “Actual Problems of Tissue and Cell Transplantology” (St.-Petersburg, Russian Federation, 2010).
151. The 4<sup>th</sup> All-Russian Kargin’s Conference “Polymers–2010” (Moscow, Russian Federation, 2010).
152. The 5<sup>th</sup> All-Russian Congress of Transplantologists (Moscow, Russian Federation, 2010).
153. The Moscow International Scientific and Practical Conference “Biotechnology: Ecology of Big Cities” (Moscow, Russian Federation, 2010).
154. The 10<sup>th</sup> International Conference “Modern Perspectives in Chitin and Chitosan Studies” (Nizhny Novgorod, Russian Federation, 2010).
155. The 8<sup>th</sup> International Conference on Low Temperature Chemistry (Yerevan, Armenia, 2010).

156. The 7<sup>th</sup> International Conference of the Chemical Societies of the South-Eastern European Countries “Chemistry – Beauty and Application” (Bucharest, Romania, 2010).
157. International Conference “Genetic and Regenerative Medicine: Problems and Prospects” (Kiev, Ukraine, 2010).
158. The 10<sup>th</sup> International Conference of the European Chitin Society (St.-Petersburg, Russian Federation, 2011).
159. International Conference on Chemical Technology “ChT’12” (Moscow, Russian Federation, 2012).
160. 14<sup>th</sup> Young Scientists Conference on Chemistry (Rostock, Germany, 2012).
161. All-Russian Conference “Actual Problems of Polymer and Biopolymer Physics” (Moscow, Russian Federation, 2012).
162. X<sup>th</sup> International Congress of Young Chemists ‘YoungChem 2012’ (Gdansk, Poland, 2012).
163. International Conference “Actual Problems of Cryobiology and Cryomedicine” (Khar'kov, Ukraine, 2012).
164. IV<sup>th</sup> International Conference of the D.I.Mendeleev Russian Chemical Society “Chemical Technology and Biotechnology of New Materials and Products” (Moscow, Russian Federation, 2012).
165. VII<sup>th</sup> International Congress “Biotechnology: State of the Art and prospects of development” (Moscow, Russian Federation, 2013).
166. IV<sup>th</sup> International Conference on Colloid Chemistry and Physicochemical Mechanics (Moscow, Russian Federation, 2013).