



Tatiana B. Tennikova

Prof. Dr. Chem. Sci.

Institute of Chemistry
Saint-Petersburg State University
Universitetskii pr. 26
198 504 Petrodvoretz - St. Petersburg, Russia
Tel: (+7 812) 363 6722 (Dean); (+7921) 969 1060 (mobile)

Fax: (+7812) 363 6722
Email: tennikova@mail.ru
Web: www.chem.spbu.ru

Date of Birth:

February 7, 1948

Place of Birth:

Leningrad/St. Petersburg (USSR/Russian Federation)

Nationality:

Russian

Education:

June 14, 1973 – Graduate Leningrad State University, Chemical Faculty, Department of Physical Organic Chemistry

November 17, 1978 - PhD in Polymer Chemistry

June 9, 1998 - Dr. Chem. Sci. in Physical Chemistry (Adsorption and Chromatography)

SUMMARY OF EXPERIENCE:

High skilled and expertized in Polymer Chemistry (free radical suspension, emulsion polymerization and bulk polymerization, polymer analogous reactions), Bioorganic Chemistry (protein chemical modifications, enzyme catalysis), Applied Enzymology (immobilized enzymes, enzyme reactors), Physical Chemistry (adsorption and chromatography, HPLC of polymers and biopolymers: theory and practice, modern stationary phases). One of the World inventors of the new monolithic polymeric media and new dynamic method (High Performance Liquid Chromatography on Short Monolithic Columns) widely used over the World for efficient and fast separations of biological substances. Advanced biomaterials for medicine and biotechnology. Administrative experience.

EXPERIENCE:

- 2012 – present -** Professor, Head of Interdisciplinary Laboratory of Biomedical Chemistry, Institute of Chemistry, Saint-Petersburg State University
Teaching courses: Medicinal chemistry, Functional Polymers, Fundamentals of Biotechnology, Chromatographic analysis of biological mixtures
Scientific Activities: advanced biomaterials, polymer nanoparticles, biodegradable polymers, scaffolds for tissue engineering, drug delivery systems, nanotraps, microarrays, enzyme reactors
- 2009 – 2015 -** Vice-Director
Institute of Macromolecular Compounds of Russian Academy of Sciences
- 2001 – 2015 -** Head of Laboratory of Polymer Sorbents and Carriers for Biotechnology, Institute of Macromolecular Compounds of Russian Academy of Sciences
Scientific Activities: chromatography on monoliths of proteins, peptides and polynucleotides, the processes of bioseparation and bioconversion: immunoaffinity isolation of monospecific antibodies, affinity separations for the biotechnology with preparation of special affinity sorbents, enzyme reactors, in vitro biological modeling, polymerization, polymers for tissue engineering, drug delivery systems
- 2005 -** Visiting Professor, Kumamoto University, Japan
Scientific Activities: teaching course on monolithic materials
- 2004 -** Visiting Professor (Mercator Visiting Professorship Program), Institute of Technical Chemistry, University of Hannover (Hannover, Germany)
Scientific Activities: Mineral-organic composite materials for bone tissue engineering, specially designed scaffolds based of a principle of biorecognition
- 1999 - 2003 –** Professor, Department of Polymer Chemistry, Faculty of Chemistry, Saint-Petersburg State University
Teaching courses: Functional properties of Polymers (Biomedical Polymers), New Approaches in Polymer Chemistry, Polymer Aspects in Biochemistry

- 1998 – 1999 -** Visiting Professor, Ecole Polytechnique Fédérale de Lausanne (Lausanne, Switzerland)
Scientific Activities: DNA plasmides and recombinant proteins research
- 1997 – 2002 -** Russian Head of joint international projects (Granted by DFG) with University of Hannover, Institute of Technical Chemistry (Germany), numerous short-time visits
Scientific Activities: Affinity isolation of recombinant biological products, on-line analysis for down-stream processes in biotechnology with use of monolithic media
- 1997 – 2001 -** Leading Research Scientist, Institute of Macromolecular Compounds of Russian Academy of Sciences
- 1993 – 1997 -** Senior Research Scientist, Institute of Macromolecular Compounds of Russian Academy of Sciences
- 1992 – 1993 -** Invited Scientist, Polymer Standard Service GmbH (Mainz, Germany)
Scientific Activities: Polymer sorbents for liquid chromatography
- 1988 – 1992 -** Senior Researcher Scientist, Institute of Macromolecular Chemistry, Academy of Sciences of Czech Republic (Prague)
Scientific Activities: Polymer sorbents for liquid chromatography, macroporous polymer monoliths
- 1981 – 1988 -** Senior Research Scientist, Institute of Macromolecular Compounds of Russian Academy of Sciences
Scientific Activities: Inorganic sorbents for liquid chromatography, HPLC of biomolecules
- 1973 – 1981 -** PhD student, Senior Research Scientist, Institute of Antibiotics and Medical Enzymes, Leader of Projects
Scientific Activities: Immobilized Proteases, Polymer Modification of biologically active substances, enzyme reactions, medicines.

Publications:

Over 250 publications (Russian, English, German), 4 monographs

Patents:

20 patents of USSR, Russian Federation, Czech Republic, USA, Canada, EU

Editing:

Journal of Chromatography A and B (JCA/JCB, Elsevier), Invited Editor
Journal of Separation Science (JSS, Willey), Editor

Teaching

Present lecture courses: Medicinal chemistry, Functional Polymers, Fundamentals of Biotechnology, Chromatographic analysis of biological mixtures
Supervisor of Scientific Seminar for Masters “Journal Club”
Supervisor of 25 PhD students (Russian Federation, Germany, Switzerland)

Personal grants:

- 1986 - 1987 - personal grants of Russian Academy of Sciences for scientific work at IMC ASCR
- 1990 - 1992 – personal grant of Academy of Sciences of Czech Republic for long-term stay at IMC ASCR
- 1994 - 1996 – long term personal grants from International Scientific Foundation (Soros Foundation)
- 1997 - 2000 – personal grants from DAAD and DFG (German Grant Agencies)
- 2001 - 2005 - personal grants from Regional North-West Department of RAS
- 2004 - Mercator Visiting Professorship (DFG)
- 2005 - personal grant for Visiting Professor position, Kumamoto University, Japan

Supervisor of numerous Russia and International research grants (RFBR, DFG, DFG RAS, RAS, Russian Scientific Foundation (RSCF)). **Current projects:** “Translation biomedicine in SPbU” (RSCF), “Biohybrid technologies for modern biomedicine” (Ministry of Science and Education of Russian Federation)

Awards:

- 1978 - USSR Ministry of Medical Industry Award
- 2006 - BIA Separations honor Award for Research and Promotion of CIM Suppo
- 2009 - Distinguished Scientist of Russian Federation, State Award
- 2010 - Gold Medal for the Best Innovative Project, RF (Universal polymer material for microarrays construction)
- 2011 - Special Elsevier Award for one of Top Cited Review 2008-2009
- 2014 - Special Springer Award for the Top Cited Review in 2013

Memberships:

St. Petersburg Union of Scientists, Member of Coordinating Council, Mendeleev’s Russian Chemical Society, American Nano Society
International Scientific Advisory Board, BIA Separations, d. o. o., Slovenia

Research&Commercial Relationships:

Principle inventor of polymer macroporous monolithic materials commercially developed and distributed over the World under Trade name Convection Interaction Media[®] by BIA Separations, d. o. o., Slovenia

Leader of numerous specially supported by BIA Separations join research projects
Promoter and key executive of short research projects carried out in Slovenia (several re-search visits to BIA Separations)

List of common publications:

1. Podgornik A., Barut M., Jancar J., Strancar A., Tennikova T., *Anal. Chem.*, 71 (1999) 2986.
2. Podgornik A., Tennikova T. B., In: Scheper T., Freitag R. (Eds), *Modern Advances in Chromatography*, Springer-Verlag, 2002, p. 49.
3. Podgornik A., Barut M., Jancar J., Štrancar A., Tennikova T., 23th International Symposium on High Performance Liquid Phase Separations and Related Techniques, HPLC’99, Granada, 1999. Book of Abstracts. Vol. 2. P. PAS/1.

4. Podgornik A., Barut M., Jancar J., Štrancar A., Tennikova T., IX International Symposium on Recovery of biological products, Whistler, 1999. Book of Abstracts. P-21.

Languages:

Russian (native), English (fluent), German (fair), French (good), Czech (good)

Selected publications

1. Tennikova T.B., Horak D., Svec F., Kolar J., Coupek J., Trushin S.A., Maltzev V.G., Belenkii B.G., Macroporous glycidyl methacrylate-co-ethylene dimethacrylate sorbents as a modern sorbent for high performance liquid chromatography, *J. Chromatogr.* 435 (1988) 357-362.
2. Tennikova T.B., Horak D., Svec F., Tennikov M.B., Kever E. E., Belenkii B. G., Hydrolyzed macroporous glycidyl methacrylate - ethylene dimethacrylate co-polymer with narrow pore size distribution: a novel packing for size exclusion high-performance liquid chromatography, *J. Chromatogr.* 475 (1989) 187-194.
3. Maltzev V.G., Nasledov D.G., Trushin S.A., Tennikova T.B., Vinogradova L.V., Volokitina I.N., Zgonnik V.N., Belenkii B.G., High-performance liquid chromatography of proteins on short capillary columns, *J. High Resolut. Chromatogr.* 13 (1990) 185-189.
4. Tennikova T.B., Blagodatskikh I.V., Svec F., Tennikov M.B., Phase transition chromatography of polyesters on macroporous glycidyl methacrylate - ethylene dimethacrylate copolymers, *J. Chromatogr.* 509 (1990) 233-238.
5. Tennikova T.B., Belenkii B.G., Svec F., High-performance membrane chromatography. A novel method of protein separation, *J. Liquid Chromatogr.* 13 (1990) 63-70.
6. Tennikova T.B., Bleha M., Svec F., Almazova T.V., Belenkii B.G., High-performance membrane chromatography of proteins, *J. Chromatogr.* 555 (1991) 97-107.
7. Tennikova T.B., Nahunek M., Svec F., Modified macroporous copolymers of glycidyl methacrylate with ethylene dimethacrylate as sorbents for ion-exchange and hydrophobic interaction chromatography, *J. Liquid Chromatogr.* 14 (1991) 2621-2632.
8. Svec F., Tennikova T.B., Polymeric separation media for chromatography of biopolymers in a novel shape: macroporous membranes, *J. Bioact. Compat. Polym.* 6 (1991) 393-405.
9. Horak D., Straka J., Schneider B., Tennikova T.B., Svec F., Reactive polymers: 61. Reaction of macroporous poly(glycidyl methacrylate-co-ethylene di-methacrylate) with phenol, *Polymer*, 32 (1991) 1135-1139.
10. Horak D., Svec F., Tennikova T.B., Nahunek M., Chromatographic properties of macroporous beads from poly(GMA-co-EDMA), *Angew. Makromol. Chem.*, 195 (1992) 139-150.
11. Tennikova T.B., Svec F., High-performance membrane chromatography: highly efficient separation method for proteins in ion-exchange, hydrophobic interaction and reversed-phase modes, *J. Chromatogr.* 646 (1993) 279-288.
12. Dubinina N.I., Kurenbin O.I., Tennikova T.B., Peculiarities of gradient ion-exchange high-performance liquid chromatography of proteins, *J. Chromatogr. A* 753 (1996) 217-225.
13. Tennikov M.B., Gazdina N.D., Tennikova T.B., Svec F., Effect of porous structure of macroporous polymer supports on resolution in high-performance membrane chromatography of proteins, *J. Chromatogr. A* 798 (1998) 55-64.
14. Kasper C., Meringova L., Freitag R., Tennikova T., Fast isolation of protein receptors from Streptococci G by means of macroporous affinity discs, *J. Chromatogr.* 65 (1998) 65-72.
15. Giovannini R., Freitag R., Tennikova T., High performance membrane chromatography of plasmid DNA, *Anal. Chem.* 70 (1998) 3348.
16. Tennikova T., Freitag R., High-performance membrane chromatography (HPMC) of proteins (Review), In: Aboul-Enein H. Y. (Ed), *Analytical and Preparative Separation Methods of Macromolecules*, 1999, Marcel Dekker, Inc, New York Basel, p. 255-300.
17. Hagedorn J., Kasper C., Freitag R., Tennikova T., High performance flow injection analysis of recombinant Protein G, *J. Biotechnol.* 69 (1999) 1-6.
18. Platonova G.A., Pankova G.A., Il'ina I.Ye., Vlasov G.P., Tennikova T.B., Quantitative fast fractionation of a pool of polyclonal antibodies by immunoaffinity membrane chromatography, *J. Chromatogr.* 852 (1999) 129-138.
19. Podgornik A., Barut M., Jancar J., Strancar A., Tennikova T., High-performance membrane chromatography of small molecules, *Anal. Chem.*, 71 (1999) 2986-2294.

20. Berruex L., Freitag R., Tennikova T.B., Comparison of antibody binding to immobilized group specific affinity ligands in high performance monolith affinity chromatography, *J. Pharm. Biomed. Anal.* 24 (2000) 95-102.
21. Tennikova T.B., Freitag R., An introduction to monolithic disks as stationary phases for high performance biochromatography (Review), *J. High Resol. Chromatogr.* 23 (2000) 27-41.
22. Korol'kov V.I., Platonova G.A., Azanova V.V., Tennikova T.B., Vlasov G.P., In situ preparation of peptidylated polymers as ready-to-use adsorbents for rapid immunoaffinity chromatography, *Lett. Pept. Sci. (LIPS)*, 7 (2000) 53-59.
23. Ostryanina N.D., Vlasov G.P., Tennikova T.B., New approach to immunoaffinity high performance monolithic disk chromatography: multifunctional fractionation of polyclonal antibodies, *J. Chromatogr. A* 949 (2002) 163-172.
24. Gupalova T.V., Lojkina O.V., Palagnuk V.G., Totolian A.A., Tennikova T.B., Quantitative investigation of affinity properties of different recombinant forms of Protein G by means of high performance monolith chromatography (HPMC), *J. Chromatogr. A* 949 (2002) 185-194.
25. Ostryanina N.D., Il'ina O.V., Tennikova T.B., Effect of experimental conditions on strong biocomplementary pairing in high performance monolithic disk affinity chromatography (HPMDAC), *J. Chromatogr. B* 770 (2002) 35-43.
26. Podgornik A., Tennikova T.B., Chromatographic reactors based on biomolecular activity, In: Scheper T., Freitag R. (Eds), *Modern Advances in Chromatography*, Springer-Verlag, 2002, p. 49-63.
27. Svec F., Tennikova T.B., Deyl Z., *Monolithic Materials: Preparation, Properties and Application*, Elsevier, 2003, 778 pp.
28. Vlakh E.G., Platonova G.A., Vlasov G.P., Kasper C., Tappe A., Kretzmer G., Tennikova T.B., In vitro comparison of complementary interactions between synthetic linear/branched oligo/poly-L-lysines and tissue plasminogen activator by means of high performance monolithic disk affinity chromatography, *J. Chromatogr. A* 992 (2003) 109-119.
29. Vlakh E., Ostryanina N., Jungbauer A., Tennikova T., Use of peptidyl ligands directly synthesized on methacrylate monolithic sorbents for affinity isolation of recombinant tissue plasminogen activator (t-PA), *J. Biotechnol.* 107 (2004) 275-284.
30. Vlakh E.G., Tappe A., Kasper C., Kretzmer G., Tennikova T.B., Monolithic peptidyl sorbents for comparison of affinity properties of plasminogen activators, *J. Chromatogr. B* 810 (2004) 15-23.
31. Vlakh E., Novikov A., Vlasov G., Tennikova T., Solid phase peptide synthesis on epoxy-bearing methacrylate monoliths, *J. Pept. Sci.* 10 (2004) 719-730.
32. Tennikova T.B., Reusch J., Short monolithic beds: history and introduction to the field (Review), *J. Chromatogr. A* 1065 (2005) 13-17.
33. Platonova G.A., Tennikova T.B., Affinity processes realized on high-flow-through methacrylate-based macroporous monoliths (Review), *J. Chromatogr. A* 1065 (2005) 19-28.
34. Platonova G.A., Tennikova T.B., Chromatographic investigation of macromolecular affinity interactions, *J. Chromatogr. A* 1065 (2005) 75-81.
35. Menshikova A.Yu., Evseeva T.G., Skurkis Yu.O., Tennikova T.B., Ivanchev S.S., Monodisperse carboxylated polystyrene particles: synthesis, electrokinetic and adsorptive properties, *Polymer* 46 (2005) 1417-1425.
36. Vlakh E.G., Panarin E.F., Tennikova T.B., Suck K., Kasper C., Development of multifunctional polymer-mineral composite materials for bone tissue engineering, *J. Biomed. Mater. Res.* 75 (2) (2005) 333-341.
37. Kalashnikova I., Ivanova N., Evseeva T., Menshikova A., Vlakh E., Tennikova T., Study of dynamic adsorption behavior of large-sized protein-bearing particles, *J. Chromatogr. A* 1144 (2007) 40-47.
38. Kalashnikova I., Ivanova N., Tennikova T., Macroporous monolithic layers as efficient 3-D microarrays for quantitative detection of virus-like particles, *Anal. Chem.* 79 (14) (2007) 5173-5180.
39. Vlakh E.G., Tennikova T.B., Preparation of methacrylate monoliths (Review), *J. Sep. Sci.* 30 (2007) 2801-2813.
40. Kalashnikova I., Ivanova N., Tennikova T., Development of a strategy of influenza virus separation based on pseudoaffinity chromatography on short monolithic columns, *Anal. Chem.* 80 (2008) 2188-2198.
41. Korzhikov V.A., Diederichs S., Nazarova O. V., Vlakh E.G., Kasper C., Panarin E.F., Tennikova T.B., Water-soluble aldehyde-bearing polymers of 2-deoxy-methacrylamido-D-glucose for bone tissue engineering, *J. Appl. Polym. Sci.* 108 (2008) 2386-2397.
42. Korzhikov V., Roeker S., Vlakh E., Kasper C., Tennikova T., Synthesis of multifunctional polysaccharide containing controllable amount of biospecific ligands, *Bioconj. Chem.* 19 (2008) 617-625.

43. Slabospitskaya M.Yu., Vlakh E.G., Saprykina N.N., Tennikova T.B., Synthesis and investigation of a new macroporous monolithic material based on an N-hydroxyphthalimide ester of acrylic acid-co-glycidyl methacrylate-co-ethylene dimethacrylate terpolymer, *J. Appl. Polym. Sci.* 111 (2009) 692-700.
44. Vlakh E., Tennikova T., Applications of polymethacrylate-based monoliths in high-performance liquid chromatography (Review), *J. Chromatogr. A* 1216 (2009) 2637-2650.
45. Vlakh E., Maksimova E., Krasikov V., Tennikova T., Macroporous polymer materials: synthesis of a new functional copolymer and its use for biological microanalysis, *Polym. Sci. Ser. B (Rus)* 9-10 (2009) 327-334.
46. Sinitsyna E., Sergeeva Yu., Vlakh E., Saprikin N., Tennikova T., New platforms for 3-D microarrays: Synthesis of hydrophilic polymethacrylate monoliths using macromolecular porogens, *React. Funct. Polym.* 69 (2009) 385-392.
47. Rober M., Walter J., Vlakh E., Stahl F., Kasper C., Tennikova T., New 3-D microarray platform based on macroporous polymer monoliths, *Anal. Chim. Acta* 644 (2009) 95-103.
48. Platonova G.A., Nazarova O.V., Tennikova T.B., Synthetic polycation: Polynucleotide interactions determined using liquid chromatography with short monolithic columns *J. Sep. Sci.* 32 (2009) 2674-2681.
49. Roeker S., Bohm S., Diederichs S., Bode F., Quade A., Korzhikov V., van Griensven M., Tennikova T.B., Kasper C., A study on the influence of biocompatible composites with bioactive ligands toward their effect on cell adhesion and growth for the application in bone tissue engineering, *J. Biomed. Mater. Res. Part B: Appl. Biomaterials* 79 (3) (2009) 153-162.
50. Ponomareva E.A., Kartuzova V.E., Vlakh E.G., Tennikova T.B., Monolithic bioreactors: effect of chymotrypsin immobilization on its biocatalytic properties, *J. Chromatogr. B.* 878 (2010) 567-574.
51. Roeker S., Diederichs S., Korzhikov V., Scheper T., Tennikova T., Kasper C., Biofunctional polymer-mineral composites as scaffolds for bone tissue engineering, In: Noll T. (Ed.), *Cells and Culture, ESACT Proceedings, V. 4, Part 6* (2010) 591-597.
52. Korzhikov V.A., Vlakh E.G., Diederichs S., Roeker S., Tennikova T., Kasper C., New water-soluble polymers for construction of biofunctionalized scaffolds for bone tissue engineering: synthesis and adsorption study, In: Noll T. (Ed.), *Cells and Culture, ESACT Proceedings, V. 4, Part 6* (2010) 599-605.
53. Sinitsyna E.S., Vlakh E.G., Tennikova T.B., Hydrophilic methacrylate monoliths as platforms for protein microarray, *Polymer* 52 (2011) 2132-2140.
54. Maximova E.F., Vlakh E.G., Tennikova T.B., Methacrylate-based monolithic layers for planar chromatography of polymers, *J. Chromatogr. A* 1218 (2011) 2425-2431.
55. Korzhikov V.A., Vlakh E.G., Kasper C., Tennikova T.B., In vitro modeling of cell-scaffold interaction, *Rus. J. Bioorg. Chem.* 37 270-276.
56. Sinitsyna E.S., Walter J.-G., Vlakh E.G., Stahl F., Kasper C., Tennikova T.B., Macroporous methacrylate-based monoliths as platforms for DNA microarrays. *TALANTA*. 93 (2012) 139-146.
57. Vlakh E.G., Tennikova T.B., Flow-through immobilized enzyme reactors based on monoliths: I. Preparation of heterogeneous biocatalysts (Review), *J. Sep. Sci.* 36 (2013) 110-127.
58. Ponomareva E.A., Volokitina M.V., Vinokhodov D.O., Vlakh E.G., Tennikova T.B., Biocatalytic reactors based on ribonuclease A immobilized on macroporous monolithic supports, *Anal. Bioanal. Chem.* 405 (2013) 2195-2206.
59. Vlakh E.G., Tennikova T.B., Flow-through immobilized enzyme reactors based on monoliths: II. Kinetics study and application (Review), *J. Sep. Sci.* 2013. V. 36 P. 1149-1167.
60. Volokitina M.V., Vlakh E.G., Platonova G.A., Vinokhodov D.O., Tennikova T.B., Polymer monoliths as efficient solid phases for enzymatic polynucleotide degradation followed by fast HPLC analysis, *J. Sep. Sci.* 36 (2013) 2793-2805.
61. V.A. Korzhikov, K.V. Gusevskaya, E.N. Litvinchuk, E.G. Vlakh, T.B. Tennikova, Enzyme-mediated ring-opening polymerization of pentadecalactone to obtain biodegradable polymer for fabrication of scaffolds for bone tissue engineering. *Internat. J. Polym. Sci.* 2013 (2013) ID 476748. pp. 10.
62. Krupenya D.V., Snegurov P.A., Grachova E.V., Gurchiy V.V., Tunik S.P., Melnikov A.S., Serdobintsev P.Yu., Vlakh E.G., Sinitsyna E.S., Tennikova T.B., New Supramolecular Au^I-Cu^I complex as potential luminescent label for proteins, *Inorg. Chem.* 21 (2013) 12521-12528.
63. Maksimova E., Vlakh E., Sinitsyna E., Tennikova T., High-performance liquid chromatography of synthetic polymers on short monolithic columns, *J. Sep. Sci.* 36 (2013) 3741-3749.
64. Vlakh E.G., Platonova G.A., Tennikova T.B., Affinity Chromatography of Proteins on Monolithic Columns, in book: *Protein downstream processing: design, development and application of high and low-resolution*

- methods, N. Labrou (Ed.), *Methods in Molecular Biology*, Humana Press, New York. 2014. V. 1129. Part III, Chapter 23, P. 303-324.
65. Volokitina M.V., Bobrov K.S., Piens K., Eneyskaya E.V., Tennikova T.B., Vlach E.G., Kulminskaya A.A., Xylan degradation improved by a combination of monolithic columns bearing immobilized recombinant β -xylosidase from *Aspergillus awamori* X-100 and Grindamyl H121 β -xylanase, *Biotechnol. J.* 10(1) (2015) 210-221.
 66. Vlach E.G., Korzhikov V.A., Tennikova T.B., Molecular imprinting: A tool of modern chemistry for the preparation of highly selective monolithic sorbents (Review), *Russ. Chem. Rev.* 84(9) (2015) 952-980.
 67. Vlach E.G., Stepanova M.A., Pisarev O.A., Tennikova T.B., Preparation and characterization of macroporous monoliths imprinted with erythromycin, *J. Sep. Sci.* 38 (2015) 46-54.
 68. Averyanov I.V., Korzhikov V.A., Tennikova T.B., Synthesis of poly(lactic acid) and the formation of poly(lactic acid)-based supraporous biofunctional materials for tissue engineering, *Polymer Science Series B* 57(4) (2015) 336-348.
 69. Belyaev A.A., Krupenya D.V., Grachova E.V., Gurzhiy V.V., Melnikov A.S., Serdobintsev, P.Yu., Sinitsyna E.S., Vlach E.G., Tennikova T.B., Tunik S.P. Supramolecular Au-I-Cu-I complexes as new luminescent labels for covalent bioconjugation, *Bioconj. Chem.* 27(1) (2016) 143-150.
 70. Glotov A.S., Sinitsyna, E.S., Danilova M.M., Vashukova E.S., Walter J.G., Stahl F., Baranov V.S., Vlach E.G., Tennikova T.B. Detection of human genome mutations associated with pregnancy complications using 3-D microarray based on macroporous polymer monoliths, *Talanta* 147 (2016) 537-546.
 71. Hubina A.V., Pogodaev A.A., Sharoyko V.V., Vlach E.G., Tennikova T.B. Self-assembled spin-labeled nanoparticles based on poly(amino acids), *React. Funct. Polym.* 100 (2016) 173-180.
 72. Korzhikov V., Averianov I., Litvinchuk E., Tennikova T. Polyester-based microparticles of different hydrophobicity: the patterns of lipophilic drug entrapment and release, *J. Microencapsul.* 33 (3) (2016) 199-208.
 73. Vlach E., Ananyan A., Zashikhina N., Hubina A., Pogodaev A., Volokitina M., Sharoyko V., Tennikova T. Preparation, characterization, and biological evaluation of poly(glutamic acid)-b-polyphenylalanine polymersomes, *Polymers* 8(6) (2016).
 74. Vlach E.G., Stepanova M.A., Korneeva Yu.M., Tennikova T.B. Molecularly imprinted macroporous monoliths for solid-phase extraction: Effect of pore size and column length on recognition properties. *J. Chromatogr. B*, 1029 (2016) 198-204.
 75. Guryanov I., Fiorucci S., Tennikova T. Receptor-ligand interactions: Advanced biomedical applications (Review), *Mater. Sci. Eng. C* 68 (2016) 890-903.
 76. Korzhikov-Vlach V., Krylova M., Sinitsyna E., Ivankova E., Averianov I., Tennikova T. Hydrogel layers on the surface of polyester-based materials for improvement of their biointeractions and controlled release of proteins, *Polymers* 8(12) (2016) 418.
 77. Vlach, E.G., Grachova E.V., Zhukovsky D.D., Hubina A.V., Mikhailova A.S., Shakirova J.R., Sharoyko V.V., Tunik S.P., Tennikova T.B. Self-assemble nanoparticles based on polypeptides containing C-terminal luminescent Pt-cysteine complex, *Sci. Rep.* 7 (2017) 41991.
 78. Vdovchenko A.A., Hubina A.V., Vlach E.G., Tennikova T.B. Self-assembled polymer particles based on thermoresponsive biodegradable copolymers of amino acids, *Mendeleev Comm.* 27(2) (2017) 153-154.
 79. Guryanov I., Polo F., Ubyvovk E., Korzhikova-Vlach E., Tennikova T., Rad A.T., Nieh M-P., Maran F. Polylysine-grafted Au-144 nanoclusters: birth and growth of a healthy surface-plasmon-resonance-like band, *Chem. Sci.* 8(4) (2017) 3228-3238.
 80. Pavlov G.M., Averianov I.V., Kolomiets I.P., Kolbina G.F., Dommès O.A., Okatova O.V., Korzhikov V.A., Dobrodumov A.V., Tennikova T.B. Conformational features of poly-L- and poly-D,L-lactides through molecular optics and hydrodynamics, *Eur. Polym. J.* 89 (2017) 324-338.
 81. Volokitina M.V., Korzhikov-Vlach, V. A., Tennikova T.B., Korzhikova-Vlach E. G. Macroporous monoliths for biodegradation study of polymer particles considered as drug delivery systems, *J. Pharm. Biomed. Anal.* 145 (2017) 169-177.
 82. Guryanov I., Cipriani S., Fiorucci S., Zashikhina N., Marchiano S., Scarpelli P., Korzhikov-Vlach V., Popova E., Korzhikova-Vlach E., Biondi B., Formaggio F., Tennikova T. Nanotraps with biomimetic surface as decoys for chemokines, *Nanomedicine: NBM* 13 (8) (2017) 2575-2585.
 83. Averianov I.V., Korzhikov-Vlach V.A., Moskalenko Y.E., Smirnova V.E., Tennikova T.B. One-pot synthesis of poly(lactic acid) with terminal methacrylate groups for the adjustment of mechanical properties of biomaterials, *Mendeleev Comm.* 27 (6) (2017) 574-576.

84. Stepanova M.A., Kinziabulatova L.R., Nikitina A.A., Korzhikova-Vlakh E.G., Tennikova T.B. Cholesterol-imprinted macroporous monoliths: Preparation and characterization. *Electrophoresis* 38 (22-23) (2017) 2965-2974.
85. Volokitina M.V., Nikitina A.V., Tennikova T.B., Korzhikova-Vlakh E.G. Immobilized enzyme reactors based on monoliths: Effect of pore size and enzyme loading on biocatalytic process, *Electrophoresis* 38 (22-23) 2931-2939.
86. Zashikina N.N., Volokitina M.V., Korzhikov-Vlakh V.A., Tarasenko I.I., Lavrentieva A., Scheper T., Ruel E., Orlova R.V., Tennikova T.B., Korzhikova-Vlakh E.G. Self-assembled polypeptide nanoparticles for intracellular irinotecan delivery, *Eur. J. Pharm. Sci.* 109 (15) 1-12.
87. Levit M., Zashikhina N., Dobrodumov A., Kashina A., Tarasenko I., Panarin E., Fiorucci S., Korzhikova-Vlakh E., Tennikova T. Synthesis and characterization of well-defined poly(2-deoxy-2- methacrylamido-D-glucose) and its biopotential block copolymers via RAFT and ROP polymerization, *Eur. Polym. J.* 105 (2018) 26-37.

Total Citations (WoS) -	2497
Maximum citation of one paper -	298
Citation within last 5 years -	876
H -Index (Scopus/WoS)	27/26