



MarinaKarchkhadze

Assistant Professor

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Education

- University Diploma in Chemistry (Chemistry of High Molekular compounds), Ivane Javakhishvili Tbilisi State University (TSU, 1974-1979)
- Ph.D, Chemistry of High Molekular compounds, Ivane Javakhishvili Tbilisi State University (1990)

Work Experience:

- 1980-1988–Researcher at the Chair of Chemistry of High Molekular compounds (TSU).
1988-1991 - Laboratory Assistant at the Chair of Chemistry of High Molekular Compounds (TSU).
- 1991-1993- Teacher at the Chair of Chemistry of High Molekular Compounds on the Basis of Competition(TSU).
- 1993-1996- Senior Teacher at the Chair of Chemistry of High Molekular Compounds on the Basis of Competition(TSU).
- 1996-2006- Associate Professor at the Chair of Chemistry of High Molekular Compounds on the Basis of Competition(TSU).
- 2006 Current, Assistant Professor at the Department of Macromolecular Chemistry on the Basis of Competition(TSU)

Teaching Courses:

- Macromolecular Chemistry (seminar, laboratory)

- Practicum in Macromolecular Chemistry (laboratory)
- Medicinal Chemistry (practicum)
- Pharmaceutical Chemistry 1 (practicum)
- Macromolecular synthesis (lecture, seminar, laboratory)
- Polymer solutions (lecture, seminar)
- Natural and Medicinal polymers (lecture, seminar)
- Macromolecular reactions (lecture, seminar, laboratory)

Research Interests

- Separation of enantiomers of chiral compounds with polysaccharide -based chiral stationary phases prepared based on natural polymers, cellulose and amylose
- Mathematical Chemistry.

Running projects

- Separation of antimicrobial 's and herbicide 's on the chiral stationary phase in HPLC

Selected Publications

1. O.V. Mukbaniani, U. Scherf, M.G. Karchkhadze, Kh.E. Koberidze, M.O. Labartkava. „Hydride addition of methylhydridesiloxanes to dicyclopentadiene“. //International Journal of Polymeric Materials. 2000, v.48, №2, pp. 177-191;
2. O.V. Mukbaniani, U. Scherf, A.Sh. Samsonia, M.G. Karchkhadze, L.M. Khananashvili. „Card-type organosiloxane copolymers with siloxaphenanthrene fragments in dimethylsiloxane chain“. //International Journal of Polymeric Materials. 2001, v.48, №4, p. 381-393;
3. O.V. Mukbaniani, N.A. Koiava, M.G. Karchkhadze, R.Sh. Tkeshelashvili, M. Shengelia, L.M. Khananashvili. „Arylenecyclosiloxane-dimethylsiloxane copolymers“. //International Journal of Applied Polymeric Materials. 2001, v.82, p. 3142-3151;

4. O.V. Mukbaniani, U. Scherf, M.G. Karchkhadze, T.N. Tatrishvili. „Block-copolymers with polyphenyl- α -naphthylsilane oligomers in dimethylsiloxane chain“. //International Journal of Polymeric Materials. 2001, v.48, №3, p. 311-330;
5. O.V. Mukbaniani, M.G. Matsaberidze, M.G. Karchkhadze, V.A. Achelashvili, L.M. Khananashvili. „Poly-1,3-disila-1,3-diphenyl-2-oxaindane-polymethylsiloxane block-copolymers“. //Journal of Applied Polymer Sciences. 2001, v.84, issue 7, pp. 1409-1417;
6. O.V. Mukbaniani, U. Scherf, G.N. Gurgenidze, M.G. Karchkhadze, S.M. Meladze, L.M. Khananashvili. „Comb-type organosilicon compounds with epoxy-groups in the side chain“. // International Journal of Polymeric Materials. 2001, v.48, №3, pp. 267-293;
7. J.N. Aneli, Kh.E. Koberidze, O.V. Mukbaniani, M.G. Karchkhadze and L.M. Khananashvili. „Influence of the method of vulcanization on electroconductivity of filled siliconorganic rubbers“. //Polymer Year book, 2000, vol. 17, pp. 89-92;
8. O.V. Mukbaniani, T.N. Tatrishvili, M.G. Karchkhadze. „Synthesis and investigation of the properties of poly(phenyl- α -naphthylsilylene) dimethylsilylene copolymers“. //Journal of Applied Polymer Sciences, 2002, v. 85, issue 5, pp. 1047-1056;
9. O.V. Mukbaniani, A.Sh. Samsonia, M.G. Karchkhadze, L. M. Khananashvili. „Synthesis and investigation of the properties of silaoxidihydrophenanthrene-diphenylsiloxane fragments containing bloc-copolymers“. //Journal of Applied Polymer Sciences, 2002, v. 84, pp. 9-16;
10. O. Mukbaniani, M. Karchkhadze, L. Khananashvili, N. Koiava. „Arylenecyclosiloxane-dimethylsiloxane copolymers“. //International Journal of Polymeric Materials. 2003, v.52, №10, pp. 877-889;
11. O. Mukbaniani, M. Matsaberidze, M. Karchkhadze, V. Achelashvili, A. Chelidze. „Poly-1,3-disila-2-oxadienedimethylsiloxane block-copolymers“. //In the book: „Focus on Polymer Research“. Nova Science Publishers, Inc. New York. 2005, chap. 5, p. 123-134;
12. L. Chankvetadze, N. Ghibradze, M. Karchkhadze, L. Peng, T. Farkas, B. Chankvetadze. Elanitiomer elution order reversal of fluorenylmethoxycarbonyl-isoleucine in high performance liquid chromatography by changing the mobile phase temperature and composition. Journal of Chromatography A, 1218 (2011), 6554-6560.

13. G. Jibuti, A. Mskhiladze, N. Takaishvili, M. Karchkhadze, L. Chankvetadze, T. Farkas, B. Chankvetadze. HPLC separation of dihydropyridine derivatives enantiomers with emphasis on elution order using polysaccharide-based chiral columns. *J. Sep. Sci.* 2012, 35, 2529-2537;
14. A.Mskhiladze, **M.Karchkhadze**,A.Dadianidze, S. Fanali, T. Farkas, B.Chankvetadze. Enantioseparation of Chiral Antimycotic Drugs by High-Performance LiquidChromatography with Polysaccharide-Based Chiral Columns and Polar Organic MobilePhases with Emphasis on Enantiomer Elution Order. *Chromatographia.* 2013, Vol. 76, N21-22, p.1449-1458.
15. M.Karchkhadze, L.Chankvetadze, A. Mskhiladze, B. Chankvetadze.Study of enantio separation of some chiral antimicotic drudsusing polysaccharide-based stationary phases in High-Perfomance Liquid Chromatography.International scientific-practical conference „Modern engineering technologies and environmental protection”, Pablications, Part I. Kutaisi, Georgia, 19-20.05, 2016, p. 120-122.