

## CURRICULUM VITAE

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**Date and place of birth:** 17 December 1958, Saratov, Russian Federation **Nationality:** Russian

### **Education (*degrees, dates, universities*)**

MS (chemistry), 1980, Saratov State University, Russian Federation;  
PhD (physical chemistry), 1992;  
DSc (physical chemistry), 2002, Saratov State University

### **Career/Employment (*employers, positions and dates*)**

IBPPM RAS, Saratov: Leading Scientist (2003 – present); Senior Scientist (1996 – 2003);  
Scientist (1992–1996);  
Scientific Research Institute of Chemistry at Saratov State University, Research Associate;  
Scientist (1980–1992).

### **Specialization**

(i) **Main field:** Molecular mechanisms of plant-bacterial interactions and signalling; plant-growth-promoting rhizobacteria; Azospirilla.  
(ii) **Other fields:** Physicochemical aspects of rhizosphere processes involving metal ions.  
(iii) **Current research interests:** Development and applications of novel spectroscopic and nuclear chemistry approaches in biochemical and microbiological research.

### **Honours, Awards, Fellowships, Membership of Professional Societies**

Personal grant from Int. Sci. Foundation (New York, USA), 1993; Grant (team leader) from the Russ. Foundation for Basic Research (Moscow), 1995–1996; Grant (team leader) from the Russ. Acad. of Sciences' Commission (2000–2003); Grant (team leader) from INTAS (EC, Brussels, Belgium), 1997–2000; UNESCO Short-term Fellowships in biotechnology (1998, 2000, 2002); EMBO Short-term Fellowship in molecular biology (2001); NATO Expert Visit Grants (visiting expert, 1999; 2003, 2005); NATO Collaborative Linkage Grants (Partner-Country Coordinator, 2001–2003; 2004–2006).

**Member** of the Russian Microbiological Society (FEMS Constituent Society); Russian Society of Biochemists and Molecular Biologists (FEBS Constituent Society).

**Personal participation** in FEMS Council Meetings (as Deputy Delegate from the Russian Microbiological Society): Jerusalem, Israel, 1996; Budapest, Hungary, 1999.

**Personal participation** (with presentations) in 46 international conferences (1989–2007), including 31 oral presentations and 6 invited lectures.

**Knowledge of foreign languages:** Fluent English (colloquial and written).

### **Publications (*list of selected publications given on separate pages*):**

- **Number of papers in refereed journals:** 75.
- **Number of communications to scientific meetings:** 132 (full papers and abstracts).
- **Books:** 6 (invited chapters).

## List of Representative Publications by Dr. A.A. Kamnev for the last 10 years

- A.A.Kamnev**, Perfiliev, Y.D., Kulikov, L.A., Tugarova, A.V., Kovacs, K., Homonnay, Z., and Kuzmann, E. 2017. Cobalt(II) complexation with small biomolecules as studied by  $^{57}\text{Co}$  emission Mossbauer spectroscopy. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*. 172: 77–82.
- Tugarova, A.V., Scheludko, A.V., Dyatlova, Y.A., Filip'echeva Y.A., and **A.A.Kamnev** 2016. FTIR spectroscopic study of biofilms formed by the rhizobacterium *Azospirillum brasilense* Sp245 and its mutant *Azospirillum brasilense* Sp245.1610. *Journal of Molecular Structure*. DOI: 10.1016/j.molstruc.2016.12.063.
- A.A.Kamnev**, Mamchenkova P.V., Dyatlova Y.A., and Tugarova A.V. 2016. FTIR spectroscopic studies of selenite reduction by cells of the rhizobacterium *Azospirillum brasilense* Sp7 and the formation of selenium nanoparticles *Journal of Molecular Structure*. DOI: 10.1016/j.molstruc.2016.12.003.
- Kovacs, K., **A.A.Kamnev**, Pechousek, J., Tugarova, A.V., Kuzmann, E., Machala, L., Zboril, R., Homonnay, Z. and Lazar, K. 2016 Evidence for ferritin as dominant iron-bearing species in the rhizobacterium *Azospirillum brasilense* Sp7 provided by low-temperature/in-field Mossbauer spectroscopy. *Analytical and Bioanalytical Chemistry*. 408: 1565-1571.
- A.A.Kamnev**, Tugarova, A.V., Kovacs, K., Kuzmann, E., Homonnay, Z., Kulikov, L.A. and Perfiliev, Y.D. 2015 Mossbauer spectroscopic study of iron and cobalt metabolic transformations in cells of the bacterium *Azospirillum brasilense* Sp7. *Bulletin of the Russian Academy of Sciences. Physics* 79: 1036-1040
- A.A.Kamnev**, Calce, E., Tarantilis, P.A., Tugarova, A.V., De Luca, S. 2015 Pectin functionalised by fatty acids: Diffuse reflectance infrared Fourier transform (DRIFT) spectroscopic characterisation. *Journal of Molecular Structure* 1079: 74-77.
- Tugarova, A.V., Kazakova, A.N., **A.A.Kamnev** and Zlotskii, S.S. 2014. Synthesis and bactericidal activity of substituted cyclic acetals. *Russian Journal of General Chemistry* 84: 1930-1933.
- Alenkina, I.V., Oshtrakh, M.I., Tugarova, A.V., Biro, B., Semionkin, V.A. and **A.A.Kamnev** 2014. Study of the rhizobacterium *Azospirillum brasilense* Sp245 using Mossbauer spectroscopy with a high velocity resolution: implication for the analysis of ferritin-like iron cores. *Journal of Molecular Structure* 1073: 181-186.
- Tugarova, A.V., Vetchinkina, E.P., Loshchinina, E.A., Burov, A.M., Nikitina, V.E., **A.A.Kamnev** 2014 Reduction of selenite by *Azospirillum brasilense* with the formation of selenium nanoparticles. *Microbial Ecology* 68: 495-503.
- A.A.Kamnev**, Dykman, R.L., Kovacs, K., Pankratov, A.N., Tugarova, A.V., Homonnay, Z., Kuzmann, E. 2014 Redox interactions between structurally different alkylresorcinols and iron(III) in aqueous media: frozen-solution  $^{57}\text{Fe}$  Mossbauer spectroscopic studies, redox kinetics and quantum chemical evaluation of the alkylresorcinol reactivities. *Structural Chemistry* 25: 649-657.
- Tugarova, A.V., Burov, A.M., Burashnikova, M.M., **A.A.Kamnev** 2014 Gold(III) reduction by the rhizobacterium *Azospirillum brasilense* with the formation of gold nanoparticles. *Microbial Ecology* 67: 155-160.
- A.A.Kamnev**, Tugarova, A.V., Kovacs, K., Biro, B., Homonnay, Z., Kuzmann, E. 2014. Mössbauer spectroscopic study of  $^{57}\text{Fe}$  metabolic transformations in the rhizobacterium *Azospirillum brasilense* Sp245. *Hyperfine Interactions* 26: 415-419.
- Tychinin, D.N., **A.A.Kamnev** 2013. Scientific Globish versus scientific English. *Trends in Microbiology* 21: 504-505.
- A.A.Kamnev**, Dykman, R.L., Kovacs, K., Kuzmann, E. 2013 Mossbauer study of the effect of pH on the rate of redox interactions between iron(III) and 4-n-hexylresorcinol in aqueous media. *Bulletin of the Russian Academy of Sciences. Physics* 77: 722-725.
- Bashan, Y., **A.A.Kamnev**, de-Bashan, L.E. 2013. Tricalcium phosphate is inappropriate as a universal selection factor for isolating and testing phosphate-solubilizing bacteria that enhance plant growth: a proposal for an alternative procedure. *Biology and Fertility of Soils* 49: 465-479.

- A.A.Kamnev** 2013. Analytical molecular and biomolecular spectroscopy: Basics and applications. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*. 100: 1-2.
- A.A.Kamnev**, Tugarova, A.V., Selivanova, M.A., Tarantilis, P.A., Polissiou, M.G. and Kudryasheva, N.S. 2013. Effects of americium-241 and humic substances on *Photobacterium phosphoreum*: bioluminescence and diffuse reflectance FTIR spectroscopic studies. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*. 100: 171-175.
- A.A.Kamnev**, Tugarova, A.V., Kovacs, K., Kuzmann, E., Biro, B., Tarantilis, P.A., Homonnay, Z. 2013. Emission ( $^{57}\text{Co}$ ) Mossbauer spectroscopy as a tool for probing speciation and metabolic transformations of cobalt(II) in bacterial cells. *Analytical and Bioanalytical Chemistry*. 405: 1921-1927.
- Bashan, Y., **A.A.Kamnev**, and de-Bashan, L.E. 2013. A proposal for isolating and testing phosphate-solubilizing bacteria that enhance plant growth. *Biology and Fertility of Soils*. 49: 1-2.
- A.A.Kamnev**, Grigoryeva, O.P., Fainleib, A.M., Kuzmann, E., 2013 Mossbauer spectroscopic study of FeII-doped sulphonated poly(ether-urethane)–styrene-acrylate copolymer. *Hyperfine Interactions*. 218: 67-70.
- A.A.Kamnev**, Tugarova, A.V., Tarantilis, P.A., Gardiner, P.H.E., Polissiou, M.G. 2012. Comparing poly-3-hydroxybutyrate accumulation in *Azospirillum brasilense* strains Sp7 and Sp245: The effects of copper(II). *Applied Soil Ecology*. 61: 213-216.
- A.A.Kamnev**, Tugarova, A.V., Biro, B., Kovacs, K., Homonnay, Z., Kuzmann, E., Vertes, A. 2012,  $\text{Co}^{2+}$  interaction with *Azospirillum brasilense* Sp7 cells: a  $^{57}\text{Co}$  emission Mossbauer spectroscopic study. *Hyperfine Interactions*. 206: 91-94.
- A.A.Kamnev**, Tugarova, A.V., Kovacs K., Homonnay, Z., Kuzmann, E. and Vertes, A. 2012. Aspartic acid interaction with cobalt(II) in dilute aqueous solution: A  $^{57}\text{Co}$  emission Mossbauer spectroscopic study. *Hyperfine Interactions*. 206: 101-104.
- A.A.Kamnev** .2010. Nanobiophysics: fundamental and applied aspects. (Minireview & Conference report, in Russian.) *Rossiiskie Nanotekhnologii (Nanotechnologies in Russia)*. 5: 109-110.
- A.A.Kamnev**, Kovacs K., Dykman R.L., Kuzmann E., Vertes A. 2010. Investigation of iron(III) interaction with alkylresorcinols in aqueous solutions: Oxidative degradation of microbial autoregulators. *Bulletin of the Russian Academy of Sciences Physics*. 74: 394-398.
- A.A.Kamnev**, Grigoryeva, O.P., Kuzmann, E. and Vertes, A. 2009. Mossbauer spectroscopic study of sulphonated poly(ether-urethane) linear ionomer doped with iron species. *Hyperfine Interactions*. 190: 95-100.
- A.A.Kamnev**, Kovacs, K., Kuzmann, E. and Vertes, A. 2009. Application of Mossbauer spectroscopy for studying chemical effects of environmental factors on microbial signalling: Redox processes involving iron(III) and some microbial autoinducer molecules. *Journal of Molecular Structure*. 924-926: 131-137
- A.A.Kamnev**, Sadovnikova, J.N., Tarantilis, P.A., Polissiou, M.G. and Antonyuk, L.P. 2008. Responses of *Azospirillum brasilense* to nitrogen deficiency and to wheat lectin: A Diffuse Reflectance Infrared Fourier Transform (DRIFT) spectroscopic study. *Microbial Ecology*. 56: 615-624.
- Kovacs, K., Sharma, V.K., **A.A.Kamnev**, Kuzmann, E., Homonnay, Z. and Vertes, A. 2008. Water and time dependent interaction of iron(III) with indole-3-acetic acid. *Structural Chemistry*. 19: 109-114.
- A.A.Kamnev** 2008. FTIR spectroscopic studies of bacterial cellular responses to environmental factors, plant-bacterial interactions and signalling. *Spectroscopy*. 22: 83-95.
- A.A. Kamnev**. Physicochemical approaches to studying plant-growth-promoting rhizobacteria. In: Ahmad I. et al. (Eds.). *Plant-Bacteria Interactions. Strategies and Techniques to Promote Plant Growth*. Wiley-VCH, Weinheim, FRG, 2007 (*Invited Chapter, in press*).
- A.A. Kamnev**. Metals in soil *versus* plant-microbe interactios: biotic and chemical interferences. In: Barka E.A., Clément Ch. (Eds.). *Plant–Microbe Interaction*. Blackwell Publ., Oxford, U.K., 2007 (*Invited Chapter, in press*).
- A.A.Kamnev**, A.V.Tugarova, L.P.Antonyuk, P.A.Tarantilis, L.A.Kulikov, Yu.D.Perfiliev, M.G.Polissiou, P.H.E.Gardiner. Instrumental analysis of bacterial cells using vibrational and emission

- Mössbauer spectroscopic techniques. – *Anal. Chim. Acta*, 2006, vol. 573-574, p. 445-452..
- K.Kovács, **A.A.Kamnev**, J.Mink, Cs.Németh, E.Kuzmann, T.Megyes, T.Grósz, H.Medzihradzky-Schweiger, A.Vértes. Mössbauer, vibrational spectroscopic and solution X-ray diffraction studies of the structure of iron(III) complexes formed with indole-3-alkanoic acids in acidic aqueous solutions. – *Struct. Chem.*, 2006, vol. 17, No.1, p.105-120.
- A.V.Tugarova, **A.A.Kamnev**, L.P.Antonyuk, P.H.E.Gardiner. *Azospirillum brasilense* resistance to some heavy metals. – In: M.C. Alpoim, P.V. Morais, M.A. Santos, A.J. Cristóvão, J.A. Centeno, Ph. Collery (Eds.). *Metal Ions in Biology and Medicine*, Vol. 9. John Libbey Eurotext, Paris, 2006. P. 242-245.
- A.A.Kamnev**, K.Kovács, A.G.Shchelochkov, L.A.Kulikov, Yu.D.Perfiliev, E.Kuzmann, A.Vértes. Bioleaching and chemical transformations of heavy metals and radionuclides mediated by soil microorganisms. – In: M.C. Alpoim, P.V. Morais, M.A. Santos, A.J. Cristóvão, J.A. Centeno, Ph. Collery (Eds.). *Metal Ions in Biology and Medicine*, Vol. 9. John Libbey Eurotext, Paris, 2006. P. 220-225.
- Yu.D. Perfiliev, V.S. Rusakov, L.A. Kulikov, **A.A. Kamnev**, K. Alkhatib. Effects of trapped electrons on the line shape in emission Mössbauer spectra. – *Hyperfine Interactions*, 2006, vol. 167, No. 1-3, p. 881-885.
- A.A. Kamnev**, L.A. Kulikov, Yu.D. Perfiliev, L.P. Antonyuk, E. Kuzmann, A. Vértes. Application of  $^{57}\text{Co}$  emission Mössbauer spectroscopy to studying biocomplexes in frozen solutions. – *Hyperfine Interactions*, 2005, V. 165, No. 1-4, p. 303-308.
- K. Kovács, E. Kuzmann, F. Fodor, A. Vértes, **A.A. Kamnev**. Mössbauer study of iron uptake in cucumber root. – *Hyperfine Interactions*, 2005, V. 165, No. 1-4, p. 289-294.
- Yu.D.Perfiliev, V.S.Rusakov, L.A.Kulikov, **A.A.Kamnev**, K.Alkhatib. Reason for line broadening in emission Mössbauer spectra. – *J. Radioanal. Nucl. Chem.*, 2005, vol. 266, No. 3, p. 557-560.
- K.Kovács, **A.A.Kamnev**, E.Kuzmann, Z.Homonnay, P.Á.Szilágyi, V.K.Sharma, A.Vértes. Mössbauer studies of iron(III)–(indole-3-alkanoic acids) systems in frozen aqueous solutions. – *J. Radioanal. Nucl. Chem.*, 2005, vol. 266, No. 3, p. 513-517.
- A.A.Kamnev**, L.P.Antonyuk, L.A.Kulikov, Yu.D.Perfiliev, E.Kuzmann, A.Vértes. Probing the enzyme active centers doped with  $^{57}\text{Co}^{2+}$  ions using emission Mössbauer spectroscopy. – *Bull. Russ. Acad. Sci. Ser. Phys.*, 2005, vol. 69, No. 9, p. 1389-1392.
- A.A.Kamnev**, A.V.Tugarova, L.P.Antonyuk, P.A.Tarantilis, M.G.Polissiou, P.H.E.Gardiner. Effects of heavy metals on plant-associated rhizobacteria: comparison of endophytic and non-endophytic strains of *Azospirillum brasilense*. – *J. Trace Elem. Med. Biol.*, 2005, v. 19, No. 1, p. 91-95.
- A.A.Kamnev**. Application of emission ( $^{57}\text{Co}$ ) Mössbauer spectroscopy in bioscience. – *J. Mol. Struct.*, 2005, v. 744-747, p. 161-167.
- A.A.Kamnev**. Use of spectroscopic methods to study the molecular mechanisms of plant-microbial interactions. – In: V.V. Ignatov (Ed.), *Molecular Bases of Interrelationships between Associative Microorganisms and Plants* (in Russ.), Nauka Publ., Moscow, 2005, p. 238-260.
- K.Kovács, **A.A.Kamnev**, A.G.Shchelochkov, E.Kuzmann, H.Medzihradzky-Schweiger, J.Mink, A.Vértes. Mössbauer spectroscopic evidence for iron(III) complexation and reduction in acidic aqueous solutions of indole-3-butyric acid. – *J. Radioanal. Nucl. Chem.*, 2004, v. 262, No. 1, p. 151-156.

- A.A.Kamnev**, L.P.Antonyuk, L.A.Kulikov, Yu.D.Perfiliev. Monitoring of cobalt(II) uptake and transformation in cells of the plant-associated soil bacterium *Azospirillum brasilense* using emission Mössbauer spectroscopy. – *BioMetals*, 2004, v. 17, No. 4, p. 457-466.
- A.A.Kamnev**, L.P.Antonyuk, V.E.Smirnova, L.A.Kulikov, Yu.D.Perfiliev, I.A.Kudelina, E.Kuzmann, A.Vértes. Structural characterization of glutamine synthetase from *Azospirillum brasilense*. – *Biopolymers*, 2004, v. 74, No. 1-2, p. 64-68.
- A.A.Kamnev**, L.P.Antonyuk, V.E.Smirnova, L.A.Kulikov, Yu.D.Perfiliev, E.Kuzmann, A.Vértes. Application of emission Mössbauer spectroscopy to the study of cobalt coordination in the active centers of bacterial glutamine synthetase. – *Dokl. Biochem. Biophys.* (Moscow), 2003, v. 393, No. 1–6, p. 321-325.
- A.A.Kamnev**. Phytoremediation of heavy metals: an overview. – In: M.Fingerman, R.Nagabhushanam (Eds.), *Recent Advances in Marine Biotechnology*. Vol. 8: *Bioremediation*. Science Publishers, Inc., Enfield (NH), USA, 2003, p. 269-317.
- A.A.Kamnev**, L.A.Dykman, P.A.Tarantilis, M.G.Polissiou. Spectroimmunochemistry using colloidal gold bioconjugates. – *Biosci. Rep.*, 2002, v. 22, No. 5-6, p. 541-547.
- A.A.Kamnev**, L.P.Antonyuk, A.V.Tugarova, P.A.Tarantilis, M.G.Polissiou, P.H.E.Gardiner. Fourier transform infrared spectroscopic characterisation of heavy metal-induced metabolic changes in the plant-associated soil bacterium *Azospirillum brasilense* Sp7. – *J. Mol. Struct.*, 2002, v. 610, No. 1-3, p. 127-131.
- A.A.Kamnev**, L.P.Antonyuk, V.E.Smirnova, O.B.Serebrennikova, L.A.Kulikov, Yu.D.Perfiliev. Trace cobalt speciation in bacteria and at enzymic active sites using emission Mössbauer spectroscopy. – *Anal. Bioanal. Chem.*, 2002, v. 372, No. 3, p. 431-435.
- A.A.Kamnev**, A.G.Shchelochkov, Yu.D.Perfiliev, P.A.Tarantilis, M.G.Polissiou. Spectroscopic investigation of indole-3-acetic acid interaction with iron(III). – *J. Mol. Struct.*, 2001, v. 563-564, p. 565-572.
- A.A.Kamnev**, P.A.Tarantilis, L.P.Antonyuk, L.A.Bespalova, M.G.Polissiou, M.Colina, P.H.E.Gardiner, V.V.Ignatov. Fourier transform Raman spectroscopic characterisation of cells of the plant-associated soil bacterium *Azospirillum brasilense* Sp7. – *J. Mol. Struct.*, 2001, v. 563-564, p. 199-207.
- A.A.Kamnev**, A.G.Shchelochkov, P.A.Tarantilis, M.G.Polissiou, Yu.D.Perfiliev. Complexation of indole-3-acetic acid with iron(III): influence of coordination on the  $\pi$ -electronic system of the ligand. – *Monatsh. Chem.*, 2001, v. 132, No. 6, p. 675-681.
- L.P.Antonyuk, V.E.Smirnova, **A.A.Kamnev**, O.B.Serebrennikova, M.A.Vanoni, G.Zanetti, I.A.Kudelina, O.I.Sokolov, V.V.Ignatov. Influence of divalent cations on the catalytic properties and secondary structure of unadenylylated glutamine synthetase from *Azospirillum brasilense*. – *BioMetals*, 2001, v. 14, No. 1, p. 13-22.
- O.V.Ignatov, **A.A.Kamnev**, L.N.Markina, L.P.Antonyuk, M.Colina, V.V.Ignatov. Electro-optical properties of cells of the soil nitrogen-fixing bacterium *Azospirillum brasilense*: effects of copper ions. – *Appl. Biochem. Microbiol.* (Moscow), 2001, v. 37, No. 2, p. 219-223.
- A.A.Kamnev**, D. van der Lelie. Chemical and biological parameters as tools to evaluate and improve heavy metal phytoremediation. – *Biosci. Rep.*, 2000, v. 20, No. 4, p. 239-258.
- A.A.Kamnev**, E.Kuzmann, Yu.D.Perfiliev, A.Vértes, M.Ristić, S.Popović, S.Musić. Composite ferric oxyhydroxide-containing phases formed in neutral aqueous solutions of tryptophan and indole-3-acetic acid. – *J. Radioanal. Nucl. Chem.*, 2000, v. 246, No. 1, p. 123-129.
- Yu.Yu.Berestovskaya, V.V.Ignatov, L.N.Markina, **A.A.Kamnev**, O.E.Makarov. Degradation of *ortho*-chlorophenol, *para*-chlorophenol, and 2,4-dichlorophenoxyacetic acid by the bacterial community of anaerobic sludge. – *Microbiology* (Moscow), 2000, v. 69, No. 4, p. 397-400.
- A.A.Kamnev**, Yu.D. Perfiliev. Physicochemical and ecological aspects of interaction of indole-3-acetic acid with iron(III). – *Vestn. Mosk. Univ. Ser. 2: Khim.*, 2000, v. 41, No. 3, p. 205-210.
- A.A.Kamnev**, L.P.Antonyuk, M.Colina, A.V.Chernyshev, V.V.Ignatov. Investigation of a microbially produced structural modification of magnesium-ammonium orthophosphate. – *Monatsh. Chem.*, 1999, v. 130, No. 12, p. 1431-1442.

- A.A.Kamnev**, E.Kuzmann, Yu.D.Perfiliev, Gy.Vankó, A.Vértes. Mössbauer and FTIR spectroscopic studies of iron anthranilates: coordination, structure and some ecological aspects of iron complexation. – *J. Mol. Struct.*, 1999, v. 482-483, p. 703-711.
- A.A.Kamnev**, L.P.Antonyuk, L.Yu.Matora, O.B.Serebrennikova, M.V.Sumaroka, M.Colina, M.-F.Renou-Gonnord, V.V.Ignatov. Spectroscopic characterization of cell membranes and their constituents of the plant-associated soil bacterium *Azospirillum brasilense*. – *J. Mol. Struct.*, 1999, v. 480-481, p. 387-393.
- A.A.Kamnev**, L.P.Antonyuk, V.V.Ignatov. Biodegradation of organic pollution involving soil iron(III) solubilized by bacterial siderophores as an electron acceptor: possibilities and perspectives. – In: R.Fass, Y.Flashner and S.Reuveny (Eds.), *Novel Approaches for Bioremediation of Organic Pollution*, Chapter 21, Kluwer Academic / Plenum Publishers, New York, N.Y., 1999, p. 205-217.
- A.A.Kamnev**, N.S.Kopelev, Yu.D.Perfiliev. Mössbauer Investigations of Iron-containing Aqueous Alkaline Solutions. – In: "*Mössbauer Spectroscopy of Frozen Solutions*" (Ed. by A.Vértes and D.L.Nagy), Russ. Edn., Chapter 8, Mir Publishers, Moscow, 1998, p. 331-343.
- A.A.Kamnev**, M.Colina, J.Rodriguez, N.M.Ptitchkina, V.V.Ignatov. Comparative spectroscopic characterization of different pectins and their sources. – *Food Hydrocoll.*, 1998, v. 12, No. 3, p. 263-271.
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- A.A.Kamnev**, M.Colina, M.-F.Renou-Gonnord, I.Frolov, N.M.Ptitchkina, V.V.Ignatov. Atomic Absorption Spectroscopic Investigation of the Mineral Fraction of Pectins Obtained from Pumpkin and Sugar Beet. – *Monatsh. Chem.*, 1997, v. 128, No. 3, p. 211-216.
- A.A.Kamnev**, M.-F.Renou-Gonnord, L.P.Antonyuk, M.Colina, A.V.Chernyshev, I.Frolov, V.V.Ignatov. Spectroscopic characterization of the uptake of essential and xenobiotic metal cations in cells of the soil bacterium *Azospirillum brasilense*. – *Biochem. Mol. Biol. Int.*, 1997, v. 41, No. 1, p. 123-130.
- L.P.Antonyuk, **A.A.Kamnev**, A.V.Chernyshev, V.V.Ignatov. Struvite Crystals Production During Cultivation of the Soil Bacterium *Azospirillum brasilense*. – *Doklady Biol. Sciences (Moscow)*, 1996, v. 350, p. 547-549.
- A.A.Kamnev**, L.P.Antonyuk, A.V.Chernyshev, V.V.Ignatov, M.Colina de Vargas. Spectroscopic Characterization of Mineral Crystals Produced by the Bacterium *Azospirillum brasilense*. – *Fresenius' J. Anal. Chem.*, 1996, v. 355, No. 5-6, p. 739-741.