

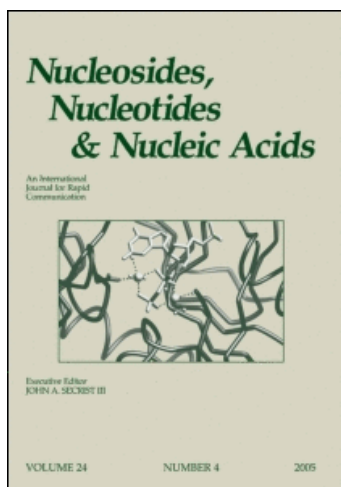
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SELECTED PUBLICATIONS (1961-2000)
ALEXANDER KRAYEVSKY

Serebrennikova G., Mitrofanova T., Krayevsky A., Sarycheva I., Preobrazhensky N. Total synthesis of triglycerides of soybean oil. *Dokladii Acad. Nauk* 1961, **140**, 1083-1089.

Pyatnova Yu.B. Kovtun I.A., Pleshakov M.G., Krayevsky A.A., Sarycheva I.K., Preobrazhensky N.A. Synthetic studies among polyene compounds. *Zh. Obshch Khimii (Russian)* 1962, **32**, 138-144.

Krayevsky A., Pyatnova Yu., Myagkova G., Sarycheva I., Preobrazhensky N.A. Total synthesis of linoleic, linolenic, arachidonic acids and 7,10,13,16-docosatetraenoic acids. *Dokladii Acad. Nauk* 1962, **146**, 1349-1353.

Krayevsky A.A., Sarycheva I.K., Preobrazhensky N.A. Synthesis of cis-cis-9'12-octadecadienoic (linoleic) acid. *Zh. Obshch Khimii (Russian)*, 1962, **32**, 3541-3548.

Krayevsky A., Volkova V., Pleshakov M., Sarycheva I., Preobrazhensky N. Total synthesis of 9-12-octadecadienoic acid. *Zh. Obshch Khimii (Russian)* 1962, **32**, 742-746.

Preobrazhensky N.A., Krayevsky A.A., Sarycheva I.K. Synthesis of linoleic acid. *Zh. Obshch Khimii (Russian)* 1963, **33**, 1831-1837.

Krayevsky A.A., Pleshakov M.G., Sarycheva I.K., Preobrazhensky N.A. Higher aliphatic acids (XV). Synthesis of cis, cis, cis-9,12,15-octadecatrienoic (linolic) acid. *Zh. Obshch Khimii (Russian)* 1963, **33**, 1865.

Krayevsky A., Fedorova N., Zotova S., Sarycheva I., Preobrazhensky N. Methylene-sepd polyene compounds: synthesis of 1,4-heptadiene and 2,5,8-undecatrien-1-ol. *Zh. Obshch Khim. (USSR)* 1964, **34**, 552-556.

Myagkova G., Krayevsky A., Pyatnova Yu., Sarycheva I., Preobrazhensky N. Higher aliphatic acids (XVI). Synthesis of 9-cis, 12-cis, 15-cis, 18 cis-tetracosatetraenoic acid. *Zh. Organ. Khimii.* 1965, **1**, 981-984.

Treboganov A.D., Mitsner B.I., Zinkevich E.P., Krayevsky A.A., Preobrazhensky N.A. Macrocyclic compounds. Synthesis of cyclooctane and cyclododecane. *Zh. Organ. Khimii.* 1965, **1**, 653-659.

Krayevsky A.A., Dorogov V.V., Preobrazhensky N.A. High acids of aliphatic series (XIV) synthesis of cis, cis-9,12-octadecadienoic (linoleic) acid. *Zh. Organ. Khimii.* 1965, **1**, 44-50.

Mitrofanova T., Krayevsky A., Serebrennikova G., Sarycheva I., Preobrazhensky N. Synthesis of triglycerides of vegetable oil and animal fats. *Dokladii Russian Acad. Nauk* 1965, **160**, 133-136.

Treboganov A.D., Astakhova R.S., Krayevsky A.A. Preobrazhensky N.A. *Zh. Organ. Khimii.* 1966, **2**, 2178.
Gottikh B.P., Krayevsky A.A., Kisselev L.L., Frolova L.Yu. Interaction of imidazolides of N-protected amino acids with tRNA. *Mol. Biol. (Russian)* 1967, **1**, 767-770.

Krayevsky A., Treboganov A., Marieva T., Varnikova G., Preobrazhensky N.A. (VIII) Synthesis of octadecanoic and hexadecanoic acids. *J. Org. Chem. (Russian)* 1967, **3**, 440-445.

Gottikh B.P., Krayevsky A.A., Purigin P.P., Tsilevich T.L., Belova Z.C., Rudzite L.H. New method of synthesis of 3'(2')-O-aminoacylnucleosides and nucleotides. *Izvestii Russian Akademii Nauk (series Chemistry)* 1967, 2571-2574.

Gottikh B.P., Krayevsky A.A., Kisselev L.L., Frolova L.Yu. Interaction of imidasolids of N-protected aminoacids with transfer ribonucleic acids. *Mol. Biol. (Russian)* 1967, 1, 767-771.

Krayevsky A., Purigin P., Rudzite L., Belova Z., Gottikh B. Synthesis of 3'(2')-O-aminoacylnucleotides. *Izvestii Russian Akademii Nauk (series Chemistry)* 1968, 378-381.

Purigin P.P., Krayevsky A.A., Gottikh B.P. Aminoacyl derivatives of nucleotides and polynucleotides. 2. Synthesis of 3'(2')-O-aminoacylnucleotide 5'-di- and triphosphates. *Izvestii Russian Akademii Nauk (series Chemistry)* 1968, 1084-1093.

Gottikh B., Krayevsky A., Tsilevich T., Rudzite L.H. Aminoacyl derivatives of nucleotides and polynucleotides. 3. Interaction of imidazolide of N-tret.-butyloxycarbonyl-glycine with tRNA. *Izvestii Russian Akademii Nauk (series Chemistry)* 1970, 113-120.

Gottikh B., Krayevsky A., Purigin P. Aminoacyl derivatives of nucleotides and polynucleotides. 4. Synthesis of 3'(2')-O-peptidyl nucleosides. *Izvestii Russian Akademii Nauk (series Chemistry)* 1970, 1104-1109.

Tarussova N.B., Krayevsky A.A., Purigin P.P., Tsilevich T.L., Gottikh B.P. Aminoacyl derivatives of nucleotides and polynucleotides. 5. Selection of general system of solvents for aminoacylation. *Izvestii Russian Akademii Nauk* 1970, 1363-1370.

Purigin P.P., Krayevsky A.A., Gottikh B.P. Aminoacyl derivatives of nucleotides and polynucleotides. Synthesis of 3'(2')-O-peptidyl nucleoside 5'-triphosphates. *Izvestii Russian Akademii Nauk (series Chemistry)* 1970, 1369-1372.

Krayevsky A.A., Purigin P.P., Tarussova N.B., Gottikh B.B. Aminoacyl derivatives of nucleotides and polynucleotides. 7. Some legitimals of interaction of activated aminoacids and nucleotides. *Izvestii Russian Akademii Nauk (series Chemistry)* 1970, 2769.

Gottikh B., Krayevsky A., Tarussova N., Purigin P., Tsilevich T. The general synthetic route of nucleotides and nucleoside 5'-triphosphates and some properties of these compounds. *Tetrahedron* 1970, 26, 4419-4424.

Gottikh B.P., Nikolayeva L.V., Krayevsky A.A., Kisselev L.L. 3'(2')-O-aminoacyl-nucleotides as polypeptide acceptors at the ribosomal peptidyl-transferase center. *FEBS Lett.* 1970, 7, 112-113.

Tsilevich T., Krayevsky A., Gottikh B. Aminoacyl derivatives of nucleotides and polynucleotides. Interaction of imidazolide of N-tret.butyloxycarbonylphenylalanine with tRNA. *Izvestii Russian Akademii Nauk (series Chemistry)*, 1971, 811-816.

Tarussova N.B., Kuznetsova L.I., Krayevsky A.A., Gottikh B.P. Aminoacyl derivatives of nucleotides and polynucleotides. 9. Synthesis and properties of 3'(2')-O-L-lysyl-adenosine 5'-phosphate and 3'(2')-O-ε-aminocaproyl-adenosine 5'-phosphate. *Izvestii Russian Akademii Nauk (series Chemistry)*, 1971, 1511-1516.

Krayevsky A.A., Degtiarev E.V., Gottikh B.P., Nicolenko L.N. Aminoacyl derivatives of nucleosides, nucleotides, and polynucleotides. X. Possible use of diethyl phosphate imidazolides for the synthesis of 3'(2')-O-aminoacyl nucleotides. *Izvestii Russian Akademii Nauk (series Chemistry)* 1971, 1730-1737.

Tarussova N.B., Mazurova V.V., Krayevsky A.A., Gottikh B.P. Aminoacyl derivatives of nucleotides and polynucleotides. Synthesis of 3'(2')-O-L-α-aspartyl-adenosine 5'-phosphate. *Izvestii Russian Akademii Nauk (series Chemistry)* 1971, 1376-1381.

Krayevsky A.A., Purigin P.P., Gottikh B.P. New method of 3'(2')-O-aminoacyl adenosine synthesis. *Izvestii Russian Akademii Nauk (series Chemistry)* 1971, 2028-2033.

Tsilevich T., Krayevsky A., Gottikh B. Methods of chemical synthesis of amino acid and peptide esters of nucleosides, nucleotides, and oligonucleotides. *Uspekhi khimii (Russian)* 1972, **XLI**, 1766-1787.

Pozdnyakov V.A., Mitin Yu.V., Kukhanova M.K., Nikoklaeva L.V., Krayevsky A.A., Gottikh B.P. On the mechanism of peptide bond synthesis in the ribosome. 3'-O-Phenyl-2'-O-methyladenosine as a peptide acceptor. *FEBS Lett.*, 1972, **24**, 177-180.

Savelyev V.P., Nikolaeva L.V., Treboganov A.D., Krayevsky A.A., Gottikh B.P. Synthesis of tRNA ureido derivatives as substrates for the investigation of the ribosomal peptidyl transferase center. *FEBS Lett.* 1972, **24**, 201-204.

Alexandrova L.A., Kukhanova M.K., Krayevsky A.A., Treboganov A.D., Gottikh B.P. Dansylpeptidyl-tRNA – as substrates of ribosomes in the reaction of peptide bond formation. *Izvestii Russian Akademii Nauk (series Biology)* 1973, 426-428.

Alexandrova L., Krayevsky A., Arutunian A., Spivac V., Gottikh B. Synthesis and properties of N-dansylimidazole and N-dansyltriazole. *Izvestii Russian Akademii Nauk (series Chemistry)*, 1973, 1321-1327.

Gottikh B.P., Krayevsky A.A., Kukhanova M.K., Jatsyna A.A., Kritzyn A.M., Florentiev V.L. Amino acid esters of 9-(2',3'-dihydroxypropyl-1')-adenine are the specific inhibitors of protein synthesis on ribosomes. *Mol. Biol. Rep.* 1973, **1**, 173-177.

Krayevsky A.A., Kisselev L.L., Gottikh B.P. Aminoacyl-tRNA synthetases: a chemical model of catalytic mechanism with the participation of imidazole. *Mol. Biol. (Russian)* 1973, **7**, 769-774.

Cherna J., Rychlik I., Krayevsky A.A., Gottikh B.P. 2'(3')-O-N-formylmethionyl-adenosine 5'-phosphate, a new donor substrate in peptidyl transferase catalyzed reactions. *FEBS Lett.* 1973, **37**, 188-191

Kukhanova M.K., Pozdnyakov V.A., Nikolaeva L.B., Krayevsky A.A., Mitin Yu.V., Gottikh. Amino acid esters of 2'-O-methyladenosine - peptide acceptors in the ribosome: the role of 2'-hydroxy. *Mol. Biol. (Russian)*, 1974, **8**, 389-394.

Gottikh B., Krayevsky A., Tsilevich T., Kukhanova M., Treboganov A. Principal opportunity of non-enzymatic acylation of tRNA. *Dokladi Russian Akademii Nauk* 1974, **219**, 235-238.

Kukhanova M., Krayevsky A., Alexandrova L., Streltsov S., Gottikh B. Peptidyl-tRNA with a fluorescent label: ribosome substrates in peptide bond formation. *Mol. Biol. Rep.* 1974, **1**, 397-400.

Streltsov S.A., Kukhanova M.K., Krayevsky A.A., Beliakova I.V., Victorova L.S., Gursky G.V., Treboganov A.D., Gottikh B.P. Binding of oxytetracycline to *E.coli* ribosomes. *Mol. Biol. Rep.* 1974, **1**, 391-396.

Gottikh B.P., Krayevsky A.A., Kukhanova M.K. Biosynthesis of peptide bond (Review). *Uspekhi of Biol. Khimii (Russian)*, 1974, 24-64.

Krayevsky A.A., Tarussova N.B., Tsilevich T.L., Gottikh B.P. Aminoacyl derivatives of nucleotides and polynucleotides. 13. About peculiarities of reaction abilities of imidazoles and 1,2,4-triazoles of N-protected and N-non-protected amino acids. *Izvestii Russian Akademii Nauk (series Chemistry)* 1974, 1856-1859.

Cerna J., Rychlik I., Krayevsky A.A., Gottikh B.P. A contribution to the studies on donor site of peptidyl transferase with acylaminoacyl-nucleoside 5'-monophosphates. *Acta Biol. Med. Ger.*, 1974, **33**, 877-191.

Tarussova N., Azhayev A., Alexandrova L., Krayevsky A., Gottikh B. The application of the imidazole method for the synthesis of nucleotide esters. *Nucl. Acids Res.*, 1975, **1**, 141-143.

Popovkina S.V., Turchin K.F., Zavgorodniy C.G., Krayevsky A.A., Kukhanova M.K., Orlov V.M., Gnuchev N.V., Gottikh B.P. Synthesis of N-(aminoacyl)treo-1-(p-nitrophenyl)-2-aminopropanediols-1,3, amino acid analogs of chloramphenicol. *Bioorg. Chem. (Russian)* 1975, **1**, 359-367.

Krayevsky A.A., Nikolaeva L.V., Kukhanova M.K., Gnuchev N.V., Gottikh B.P. Amino acid analogs of chloramphenicol as inhibitors of peptidyl transfer reaction in *E.coli* ribosomes. *Bioogr. Chem. (Russian)* 1975, **1**, 368-374.

Krayevsky A.A., Kukhanova M.K., Gottikh B.P. Peptidyltransferase center of ribosomes: substrate specificity. *Nucl. Acids Res.* 1975, **2**, 2223-2236.

Azhayev A.V., Krayevsky A.A., Florentiev V.L., Kukhanova M.K., Gottikh B.P. Thioacyl esters of nucleotides: synthesis of 3'(2')-O-thiobenzoyl nucleosides 5'-triphosphates. *Nucl. Acids Res.* 1975, **2**, 1433-1439.

Streltsov C., Kukhanova M., Gursky G., Krayevsky A.A., Belyavskaya I., Victorova L., Treboganov A., Gottikh B., Binding of oxytetracycline to *E.coli* ribosomes. *Mol. Biol. (Russian)* 1975, **9**, 910-921.

Cerna J., Rychlik I., Krayevsky A., Gottikh B. Effect of CMP and its analogs on peptidyl transferase activity. *Ribosomes and tRNA metabolism*, Publishing House of the Slovak Acad. Sci. 1976, **2**, 227-236.

Krayevsky A.A., Victorova L.S., Kotusov V.V., Kukhanova M.K., Treboganov A.D., Tarusova N.B., Gottikh B.P. The study of the stimulating mechanism of the peptidyl donor activity of the 2'(3')-formylmethionyl)-adenosine-5'-phosphate in peptidyl transferase of *E. coli* ribosome. *FEBS Lett.* 1976, **62**, 101-104.

Kotusov V.V., Kukhanova M.K., Victorova L.S., Krayevsky A.A., Treboganov A.D., Gnuchev N.V., Florentiev V.L., Gottikh B.P. Peptidyl transferase centre of *E.coli* ribosome. *Mol. Biol. (Russian)* 1976, **10**, 1394-1401.

Tarusova N.B., Victorova L.S., Tsilevich T.L., Vigestane R.Y., Kukhanova M.K., Krayevsky B.P., Gottikh B.P. The synthesis and peptide acceptor properties of aminoacid esters of dinucleoside phosphate analogs. *Bioorg. Chem. (Russian)*, 1976, **2**, 69-73.

Victorova L., Kotusov V., Azhayev A., Krayevsky A., Kukhanova M., Gottikh B. Synthesis of thioamide bond catalyzed by *E.coli* ribosomes. *FEBS Lett.* 1976, **68**, 215-218.

Kotusov V.V., Kukhanova M.K., Krayevsky A.A., Gottikh B.P. Catalysis of the peptide bond formation by 50S subunits of *E.coli* ribosome with N-(formyl)methionine ester of adenylic acid as peptide donor. *Mol. Biol. Rep.* 1976, **3**, 151-156.

Kharshan M., Vigestane R., Popovkina S., Kukhanova M., Krayevsky A., Gottikh B. Effects of the structure and configuration of the amino acid residues on the activity of model peptide donors in ribosomes. *Bioorg. Chemistry (Russian)*, 1977, **3**, 494-500.

Azhayev A., Kotusov V., Ozols A., Victorova L., Kukhanova M.K., Krayevsky A.A., Gottikh. Nucleotide thioacyl esters of 3'(2')-O-(N-acetylthioleucyl)adenosine 5'-phosphate and its peptidyl donor activity in the cell-free system with ribosomes. *Bioorg. Chem. (Russian)* 1977, **3**, 739-745.

Azhayev A., Popovkina S., Tarusova N., Kirpichnikov M., Florentiev L.V., Krayevsky A., Kukhanova M., Gottikh B. Synthesis of acylaminoacid ester of nucleoside 5'-triphosphates and their investigation with PMR and CD spectra. *Nucl. Acids Res.* 1977, **4**, 2223-2234.

Kotusov V.V., Kukhanova M.K., Salnikova N.E., Nikolaeva L.V., Krayevsky A.A., Gottikh B.P. Study of fragment reaction catalyzed by *E.coli* ribosomes. *Mol. Biol. (Russian)* 1977, **11**, 671-676.

Krayevsky A.A., Kukhanova M.K., Gottikh B.P. Peptidyltransferase center of ribosomes (Review) *VINITI (Russian), Mol. Biol. Series* 1977, **9**, 1-143.

Alexandrova L.A., Kutuzova T.M., Krayevsky A.A., Kukhanova M.K., Gottikh B.P. Aminoacyl derivatives of nucleosides, nucleotides and polynucleotides. *Izvestii Acad. Nauk (Chemical Series)* 1977, **3**, 647-653.

Kukhanova M.K., Krayevsky A.A., Gottikh B.P. Peptidyl transferase center: structure and interaction with other functional ribosomal centers. *Mol. Biol. (Russian)*, 1977, **11**, 1357-1376

Krayevsky A.A. Molecular mechanisms of action of some alkaloids. Review. *Bioorg. Chem. (Russian)*, 1978, **11**, 853-878.

Azhayev A., Krayevsky A., Smrt J. Synthesis of CA and CCA derivatives containing 3'-amino-3'-deoxyadenosine. *Collection Czech. Chem. Commun.*, 1978, **43**, 1647-1654

Popovkina S.V., Zavgorodny S.G., Azhaev A.V., Kotosov V.V., Vigestane R.Ya., Victorova L.S., Kukhanova M.K., Gnuchev N.V., Krayevsky A.A., Gottikh B.P. Peptidyl transferase center of ribosomes. 1. The differences in substrate specificity of the acceptor and the donor sites. *Mol. Biol. (Russian)* 1978, **12**, 397-403.

Kotosov V.V., Nikolaeva L.V., Kukhanova M.K., Krayevsky A.A., Gottikh B.P. Peptidyl transferase centre of ribosomes. II. Influence of temperature on the activity of the model peptide donors and the synthesis of oligopeptides in the cell-free system with ribosomes. *Mol. Biol. (Russian)* 1978, **12**, 628-636.

Kukhanova M.K., Krayevsky A.A., Azhayev A.V., Gottikh B.P. Thioamide bond synthesis catalyzed by *E.coli* ribosomes; an approach to the study of the mechanism of catalysis. *Ribosomes and tRNA metabolism. Publishing House of the Slovak Acad. Sci.* 1978, **3**, 345-349.

Krayevsky A.A., Kukhanova M.K. Peptidyltransferase center of ribosomes. Review. *Progress of Nucleic Acids Res. Mol. Biol.* 1979, **23**, 1-51.

Kukhanova M., Krayevsky A., Vigestane R., Gottikh B.P. Peptide donor activity of esters of N-acylaminic acids of adenosine 5'-triphosphates. *Biophysics (Russian)* 1977, **22**, 719-721.

Azhayev A., Ozols A., Bushnev A., Dyatkina N., Kochetkova S., Victorova L., Kukhanova M., Krayevsky A., Gottikh B. Aminonucleosides and their derivatives. IV. Synthesis of 3'-amino-3'-deoxynucleosides 5'-triphosphates. *Nucl. Acids Res.* 1979, **6**, 625-643.

Kukhanova M.K., Streltsov S., Victorova L., Azhayev., Gottikh B., Krayevsky A. The donor site of the peptidyltransferase center of ribosomes. *FEBS Lett.* 1979, **102**, 198-203.

Streltsov S., Kosenyuk A., Kukhanova M., Krayevsky A., Gottikh B. Kinetic constants for model substrates of peptidyltransferase donor site of *E.coli* ribosomes. *FEBS Lett.* 1979, **104**, 279-283.

Kukhanova M.K., Krayevsky A.A., Gottikh B.P., Stahl J. Ribosomes of rat liver catalyze "minimal" donor reaction. *FEBS Lett.* 1979, **101**, 225-228.

Azhayev A.V., Krayevsky A.A., Smrt J. Synthesis of phosphoramidate analogs of ribonucleoside phosphates. *Collection Czech. Chem. Commun.* 1979, **44**, 792-798.

Ozols A.M., Azhayev A.V., Dyatkina N.B., Krayevsky A.A., Aminonucleosides and their derivatives; VI. A new synthesis of 1,2,5-tri-*O*-acyl-3-azido-3-deoxy- β -D-ribofuranose. *Synthesis* 1980, **7**, 557-559.

Ozols A.M., Azhayev A.V., Krayevsky A.A., Ushakov A.S., Gnuchev N.V., Gottikh B.P., Aminonucleosides and their derivatives; VII. Synthesis of 3',5'-dideoxy-3',5'-diaminonucleosides. *Synthesis* 1980, **7**, 559-562.

Kukhanova M.K., Victorova L.S., Bourd S.B., Gottikh B.P., Krayevsky A.A., Sprinzl M., Peptidyl transferase center of *Escherichia coli* ribosomes: interalations between the substrates. *FEBS Lett.* 1980, **118**, 176-179.

Ozols A.M., Kosenyuk A.V., Dyatkina N.B., Atrazhev A.M., Azhayev A.V., Kukhanova M.K., Krayevsky A.A., Gottikh B.P., Smrt J. Aminonucleosides and their derivatives. VIII. Inhibitors of the donor site of the

ribosomal peptidyltransferase center: synthesis and *in vitro* studies. *Bioorg. Chem. (Russian)* 1980, **9**, 1307-1315.

Krayevsky A., Azhayev A., Kukhanova M., Saptsova N., Zayceva V. Synthesis of oligonucleotides with 5'->3' phosphoamidoester bond. *Nucl. Acids Res.* 1981, 203-205.

Azhayev A.V., Ozols A.M., Gnuchev N.V., Krayevsky A.A., Gottikh B.P. Synthesis of phosphoramidate analogues of short oligonucleotides. *Nucl. Acids Res.* 1981, **9**, 251-254.

Azhayev A.V., Ozols A.M., Krayevsky A.A., Gnuchev N.V., Gottikh B.P. Aminonucleosides and their derivatives. IX. Synthesis of short oligonucleotides with phosphoamide internucleotide bonds. *Bioorg. Chem. (Russian)* 1982, **8**, 1218-1223.

Krayevsky A.A., Kukhanova M.K. On translocation of DNA polymerases along the template. *Studia Biophysica* 1982, **87**, 179-180.

Kukhanova M.K., Krayevsky A.A., Victorova L.S., Burd S.B., Gottikh B.P. On translocation: interaction of substrates and products with the peptidyltransferase center of ribosome. *Studia Biophysica* 1982, **87**, 107-108.

Sicorsky M., Kukhanova M., Krayevsky A., Legotsky A.. Peptidyltransferase activity of 60S ribosomal subunits from wheat germ. *Acta Biochem. Polonica*, 1982, **29**, 57-63.

Il'icheva I.A., Tumanyan V.G., Krayevsky A.A., Kukhanova M.K., Gottikh B.P. Comparative conformational analysis of dinucleoside phosphate CpA and its analog C(NH)pA. *Mol. Biol. (Russian)* 1982, **16**, 1300-1313.

Kutateladze T., Beablashvili R., Azhayev A., Krayevsky A. 3'-Deoxy-3'-aminonucleoside 5'-triphosphates - terminators of RNA synthesis, catalyzed by DNA-dependent RNA polymerase from *E. coli*. *FEBS Lett.* 1983, **153**, 420-426.

Bourd S., Kukhanova M., Gottikh B., Krayevsky A.. Cooperative effects in the peptidyltransferase center of *E. coli* ribosomes. *Eur. J. Biochem.* 1983, **135**, 465-470.

Kukhanova M., Victorova L., Krayevsky A. Peptidyltransferase center of ribosomes. On the mechanism of action of alkaloid lycorine. *FEBS Lett.* 1983, **160**, 129-133.

Kukhanova M.K., Kochetkova S.V., Krayevsky A.A., Terentiev L.L., Rasskazov V.A. Inhibition of DNA biosynthesis in sea urchin embryos using 2',3'-dideoxy-3'-aminonucleosides. *Biochemistry (Russian)* 1983, **48**, 1747-1751.

Kukhanova M.K., Burd S.B., Victorova, Nechipurenko Yu.D., Gottikh B.P., Krayevsky A.A. Interaction of substrates and substrate like inhibitors with peptidyltransferase center of *E. coli* ribosomes. *Mol. Biol. (Russian)* 1984, **18**, 691-702.

Kukhanova M., Krayevsky A., Terentyeva N., Rasskazov V. Inhibition of replicative DNA synthesis in nuclei of *Strongylocentrotus intermedius* urchin embryo by 2',3'-dideoxy-3'-aminonucleoside 5'-triphosphates. *Biochem. Biophys. Acta* 1984, **783**, 221-226.

Krayevsky A., Kukhanova M., Alexandrova L., Belyakova N., Krutyakov V., 2',3'-Dideoxy-3'-aminonucleoside 5'-triphosphates inhibit the repair of DNA in rat liver chromatin. *Biochim. Biophys. Acta* 1984, **783**, 216-220.

Chidgeavadze Z.G., Beablashvili R.Sh., Atrazhev A.M., Kukhanova M.K., Azhayev A.V., Krayevsky A.A. 2',3'-Dideoxy-3'-aminonucleoside 5'-triphosphates are the terminators of DNA synthesis catalyzed by DNA polymerases. *Nucl. Acids Res.* 1984, **12**, 1671-1686.

Krayevsky A., Kukhanova M., Atrazhev A., Azhayev A., Chidgeavadze Z., Beabealashvili R., 2',3'-Dideoxy-3'-aminonucleoside 5'-triphosphates are the terminators of DNA synthesis catalyzed by DNA polymerases, *Nucl. Acids Res.* 1984, **14**, 283-284.

Dyatkina N.B., Azhayev A.V., Krayevsky A.A. The general method of the synthesis of 2',3'-Dideoxy-3'-azidonucleoside 5'-triphosphates and 2',3'-dideoxy-3'-aminonucleoside 5'-triphosphates with natural and modified bases. *Nucl. Acids Res.* 1984, **14**, 247-248.

Zaytseva V., Dyatkina N., Krayevsky A., Saptsova N., Turina O., Gnutchnev N., Gottikh B.P., Azhayev A.V. Aminonucleosides and their derivatives. XI. Synthesis of 3'-amino-2',3'-dideoxynucleoside 5'-triphosphates. *Bioorg. Chem. (Russian)* 1984, **10**, 670-680.

Zaytseva V., Skaptsova N., Azhayev A., Krayevsky A. Aminonucleosides and their derivatives. X. 2'-deoxydinucleoside phosphates and 2'-deoxydinucleotides with phosphoamide bonds. *Bioorg. Chem. (Russian)*, 1984, **10**, 401-407.

Kukhanova M., Krayevsky A., Terentyeva N., Rasskazov V. Inhibition of replicative DNA synthesis in nuclei of *Strongylocentrotus intermedius* urchin embryo by 2',3'-dideoxy-3'-aminonucleoside 5'-triphosphates. *Biopolymers and cell.* 1985, **1**, 79-86.

Dyatkina N.B., Krayevsky A.A., Azhayev A.V., Jartseva I.V. Aminonucleotides and their derivatives; XIII. Synthesis of benzimidazole azidonucleosides. *Synthesis* 1985, **4**, 410-411.

Papchikhin A.V., Purygin P.P., Azhayev A.V., Krayevsky A.A., Kutateladze T.V., Chidgeavadze Z.G., Beabealashvili R.Sh. Synthesis of 3'-azido- and 3'-aminoarabinonucleoside 5'-triphosphates and study of their substrate properties in systems with polynucleotide synthesising enzymes. *Bioorg. Chem. (Russian)* 1985, **11**, 1367-1379.

Krayevsky A., Kochetkova S., Azhayev A. Analogs of natural nucleosides and their 5'-triphosphates, containing aminogroup in 3'-position – highly specific inhibitors of replication, repairing and transcription. *Mol. Biol. (Russian)* 1985, **19**, 173-176.

Terentyev L., Terentieva N., Rasskazov V., Alexandrova L., Victorova L., Krayevsky A.A. Inhibition of separated reactions of DNA replication process in sea urchin embryos *Biochemistry (Russian)* 1985, **50**, 1024-1029.

Beabealashvili R., Chidgeavadze Z., Krayevsky A., Kukhanova M.K., Atrazhev A., Kutateladze T.V. New inhibitors of biosynthesis of DNA and RNA *in vivo and in vitro*. *Biopolymers and Cell* 1985, **1**, 298-306.

Beabealashvili R., Scamrov A., Kutateladze T., Mazo A.M., Krayevsky A., Kukhanova M. Nucleoside 5'-triphosphates modified at sugar residues as substrates for calf thymus terminal deoxynucleotidyl transferase and for AMV reverse transcriptase. *Biochim. Biophys. Acta* 1986, **868**, 136-144.

Chidgeavadze Z.G., Beabealashvili R.Sh., Krayevsky A.A., Kukhanova M.K. Nucleoside 5'-triphosphates with modified sugars as substrates for DNA polymerases. *Biochim. Biophys. Acta* 1996, **868**, 145-152.

Chidgeavadze Z.G., Beabealashvili R.Sh., Krayevsky A.A. Noncanonical nucleotide exchange catalyzed by *E. coli*, DNA polymerase I and bicenter model of action mechanism for this enzyme. *Mol. Biol. (Russian)* 1986, **20**, 1399-1408.

Gurskaya G., Tsapkina E., Saptsova N., Krayevsky A., Lindeman S., Struchkov Ju. X-Ray study of 3'-azido-2',3'-dideoxythymidine - specific inhibitor of retroviral reverse transcriptases. *Dokladii Russian Acad. Nauk* 1986, **291**, 854-859.

Mikhailov V.S., Marlyev K.A., Atayeva D.O., Kullyev P.K., Atrazhev A.M., Krayevsky A.A. Inhibitory analysis of DNA replicase (DNA polymerases alpha - DNA primase complex and DNA polymerase of nucleus polyhedroses virus from *Bombix mori*. *Bioorg. Chem. (Russian)*, 1986, **12**, 626-632.

Kutateladze T.V., Beabealashvili R.Sh., Alexandrova L.A., Obukhov A.G., Krayevsky A.A. Analogs of nucleoside triphosphates with modified sugar residues as substrates for RNA polymerases. *Mol. Biol. (Russian)*, 1986, **20**, 267-277.

Dyatkina N.B., Krayevsky A.A., German G., Janta-Lipinski M., Langen P., Yartseva I.V. Synthesis of 3'-modified analogues of (E)-5-(2-bromovinyl)-2'-deoxyuridine. *Bioorg. Chem. (Russian)* 1986, **12**, 408-415.

Dyatkina N.B., Krayevsky A.A., Azhayev A.V. Aminonucleosides and their derivatives, XIV. A general method for synthesis of azido-2',3'-dideoxynucleosides. *Bioorg. Chem. (Russian)*, 1986, **12**, 626-632.

Krayevsky A.A., Kukhanova M.K., Beabealashvili R.Sh., Chidgeavadze R.Sh. Some aspects of DNA polymerases action. in "Biophosphates and Their Analogues - Synthesis, Structure and Activity" K.S.Brusik and W.J.Stac, Eds., Elsevier Science Publishers B.V. Amsterdam, 1987, pp. 379-391.

Dyatkina N., Minassyan Sh., Kukhanova M., Krayevsky A., von Janta-Lipinski M., Chidgeavadze Z., Beabealashvili R. Properties of 2',3'-dideoxy-2',3'-didehydrothymidine 5'-triphosphate in terminating DNA synthesis catalyzed by several different DNA polymerases. *FEBS Lett.* 1987, **219**, 151-155.

Krayevsky A.A., Kukhanova M.K., Beabealashvili R.Sh., Chidgeavadze R.Sh. Some aspects of DNA polymerases functioning. *Nucl.Acids Res.* 1987, **18**, 121-124.

Krayevsky A.A., Kukhanova M.K., Atrazhev A.M., Chidgeavadze Z.G., Beabealashvili R.Sh. Substrate inhibitors of DNA biosynthesis (Review). *Mol. Biol. (Russian)*, 1987, **21**, 33-38.

Kavsan V., Rudenko N., Shnaider I., Krayevsky A., Beabealashvili R. Inhibition of progress of sarcome-leucoses complex in birds by 3'-azido-2',3'-dideoxythymidine; model for scanning and investigation of chemiotherapeutic agents for retroviral infections. *Dokladii Acad Nauk, USSR*, 1987, **269**, 1492-1496.

Alexandrova L.A., Atrazhev A.M., Kukhanova M.K., Krayevsky A.A. Incorporation into DNA chain of fluorescent derivative 2'-deoxyuridilic acid at the catalysis by *E.coli* DNA polymerase. *Bioorg. Chem. (Russian)* 1987, **13**, 643-647.

Mikhailov V.S., Marlyev K., Kullyev P., Krayevsky A. DNA synthesis in *Bombix mori* isolated nuclei infected by nucleic polyhedroses virus. *Biochemistry (Russian)* 1987, **52**, 24-29.

Marchenko S., Obukhov A., Krayevsky A., Volkova T., Kryshtal O. Pharmacology of the receptors for ATP in rat sensory ganglia. 1. Influence of modification of carbohydrate residue on pharmacological properties of adenosine nucleotides. *Biol. Chem (Russian)* 1987, **4**, 11-17.

Krayevsky A.A., Kukhanova M.K., Atrazhev A.M., Dyatkina N.B., Papchikhin A.V., Chidgeavadze Z.G., Beabealashvili R.Sh. Selective inhibition of DNA chain elongation catalyzed by DNA polymerases. *Nucleosides & Nucleotides* 1988, **7**, 613-617.

Krayevsky A., Kukhanova M., Zhdanov V. Action of 3'-azido-3'-deoxynucleosides on HIV reproduction in cell culture. *Mol. Biol. (Russian)* 1988, **22**, 802-806.

Gurskaya G., Tsapkina E., Lindeman S., Struchkov Ju., Krayevsky A. X-Ray study of 3'-amino-2',3'-dideoxythymidine hydrogencchloride - terminating substrate of DNA polymerases. *Dokladii Russian Academii Nauk*, 1988, **303**, 1378-1382.

Anokhin K.V., Belocerkovskaya N.A., Krayevsky A.A. Azidothymidine induced inhibition of term memory in mice. *Bull.Exper.Biol.fad. Russian*, 1988, **106**, 144-145.

Rosovskaya T., Tarussova N., Minassyan Sh., Atrazhev A., Kukhanova M., Krayevsky A., Chidgeavadze Z., Beabealashvili R. Pyrophosphate analogues in pyrophosphorolysis reaction catalyzed by DNA polymerases. *FEBS Lett.* 1989, **247**, 289-292.

Pyrinova G.B., Kuzminova E.A., Salganik R.I., Krayevsky A.A., Kukhanova M.K. Inhibition of reverse transcription in rat liver intracisternal A-particles by thymidine derivatives. *FEBS Lett.* 1989, **247**, 57-60.

Chinchaladze D., Prangishvili D., Scamrov A., Beabealashvili R., Dyatkina N., Krayevsky A. Nucleoside 5'-triphosphates modified at sugar residues as substrates for DNA polymerase from the thermoacidophilic archaeobacterium *Sulfolobus acidocaldarius*. *Biochim. Biophys. Acta* 1989, **1008**, 113-115.

Chidgeavadze Z.G., Beabealashvili R.Sh., Rosovskaya T.A., Atrazhev A.M., Tarussova N.B., Dyatkina N.B., Kukhanova M.K. Papchikhin A.A., Krayevsky A.A. Conformationally limited nucleoside 5'-triphosphates as terminating substrates of DNA polymerases. *Mol. Biol. (Russian)* 1989, **23**, 1732-1742.

Krayevsky A.A., Kukhanova M.K. Physicochemical aspects of functioning of DNA polymerases. *Sov. Sci. Rev. D. Physicochem. Biol.*, 1990, **9**, 179-242.

Gurskaya G.V., Bochkarev A.V., Zdanov A.S., Papchikhin A.V., Purygin P.P., Krayevsky A.A., X-Ray analysis of 2',3'-lyxoanhydrothymidine, conformationally restricted inhibitor of retroviral reverse transcriptases. *FEBS Lett.* 1990, **265**, 63-66

Tarussova N., Krayevsky A., Korneyeva M., Galegov G. New phosphonate derivatives of nucleoside analogues as anti-HIV agents. *Coll. Czech. Chem. Commun.* 1990, **55**, 133-136.

Alexandrova L.A., Lukin M.A., Rosovskaya T.A., Atrazhev A.M., Kukhanova M.K., Krayevsky A.A. Fluorescent analogs of nucleoside 5'-triphosphates for study of nucleic acids by nonradioactive methods. *Mol. Biol. (Russian)* 1990, **24**, 1100-1108.

Karamov E., Lukasov V., Tarussova N., Kornilayeva G., Rodova M., Kukhanova M., Krayevsky A. Inhibition of HIV reproduction in cell cultures by 5'-phosphites of 3'-azido-2',3'-dideoxynucleosides. *Mol. Biol. (Russian)* 1990, **24**, 1695-1701.

Kileso T., Tarussova N., Atrazheva E., Kukhanova M.K., Shulenin S., Bobkov A., Garayev I., Galegov G., Krayevsky A. Comparative inhibition analysis of DNA biosynthesis catalyzed by retroviral reverse transcriptases. *Bioorg. Chem. (Russian)* 1990, **16**, 530-536.

Tarussova N.B., Kukhanova M.K., Krayevsky A.A., Karamov E.V., Lukashov V.V., Kornilayeva G.V., Rodina M.A., Galegov G.A. Inhibition of human immunodeficiency virus (HIV) production by 5'-hydrogenphosphonates of 3'-azido-2',3'-deoxynucleosides. *Nucleosides & Nucleotides*, 1991, **10**, 351-354.

Koole L., Neidle S, Crawford M., Krayevsky A., Gurskaya G., Sandstrom A., Wu J., Tong W., Chattopadhyaya J. Comparative structures of [3.1.0]-fused 2',3'-modified β -D-nucleosides by X-ray analysis, NMR spectroscopy, and molecular mechanisms calculations. *J. Org. Chem.*, 1991, **56**, 6884-6892.

Atrazheva E.D., Lukin M.A., Jasko M.V., Shushkova T.V., Tarussova N.B., Krayevsky A.A., Balzarini J., De Clercq E., 2',3'-O-Cyclic derivatives of ribonucleosides and their 5'-phosphonates: synthesis and anti-HIV activity. *Med. Chem. Res.* 1991, **1**, 155-165.

Krayevsky A., Tarussova N., Kukhanova M., Balzarini J., De Clercq E., Karamov E., Lukashov V. Investigation of DNA biosynthesis catalyzed by DNA polymerases: approach of synthesis of compounds with anti-HIV activity. *Nucl. Acids Res.* 1991, **19**, 13-16.

Victorova L.S., Dyatkina N.B., Mozzherin D.Ju., Atrazhev A.M., Krayevsky A.A., Kukhanova M.K. Formation of phosphonoester bonds catalyzed by DNA polymerases. *Nucl. Acids Res.* 1992, **20**, 783-789.

Krayevsky A., Tarussova N., Zhu Q., Vidal P., Chou T., Baron P., Polsky B., Jiang X., Matulic-Adamic J., Rosenberg I., Watanabe K.A. 5'-Hydrogen-phosphonates and 5'-methylphosphonates of sugar modified pyrimidine nucleosides as potential anti-HIV agents. *Nucleosides & Nucleotides* 1992, **11**, 177-196.

Gurskaya G.V., Bochkarev A.V., Zdanov A.S., Papchikhin A.V., Krayevsky A.A. Structural studies of 2',3'-riboanhydroadenosine, a conformationally restricted terminators of DNA polymerases. *Nucleosides & Nucleotides* 1992, **11**, 1-9.

Fedorov I.I., Kazmina E.M., Novicov N.A., Gurskaya G.V., Bochkarev A.V., Jasko M.V., Victorova L.S., Kukhanova M.K., Balzarini J., De Clercq E., Krayevsky A.A. 3'-C-Branched 2'-deoxy-5-methyluridine: synthesis, enzyme inhibition, and antiviral properties. *J. Med. Chem.* 1992, **35**, 4567-4575.

Krayevsky A.A. Modified nucleosides and nucleotides as inhibitors of HIV reproduction: analysis of situation and probable perspectives (review). *Mol. Biol. (Russian)* 1992, **26**, 725-744.

Fedorov I.I., Krayevsky A.A., Balzarini J., De Clercq E. Adducts of 3'-azido-2',3'-dideoxythymidine 5'-phosphate or 5'-hydrogenphosphates as inhibitors of cytopathic effect and cell transformation induced by retroviruses in cell cultures *Mol. Biol. (Russian)* 1992, **26**, 1122-1127.

Kukhanova M.K., Tarusova N.B., Jasko M.V., Arzumanov A.A., Gudima S.M., Krayevsky A.A., Chidgeavdze Z.G., Beabealashvili R.Sh. Hydrolysis of nucleoside 5'-phosphonates and phosphates by phosphatases of different origin and human and calf blood sera. *Mol. Biol. (Russian)* 1992, **26**, 1148-1159.

Semizarov D., Victorova L., Krayevsky A., Kukhanova M. Modified nucleoside 5'-triphosphates containing 2',3'-fused threemembered rings as substrates of DNA polymerases. *FEBS Lett.* 1993, **327**, 45-48.

Krayevsky A.A., Victorova L.S., Mozzherin D.Ju., Kukhanova M.K. Acyclic 2',3'-dideoxy-2',3'-didehydronucleoside 5'-triphosphates as termination substrates of broad set of DNA polymerases. *Nucleosides & Nucleotides* 1993, **12**, 83-93.

Krayevsky A.A., Watanabe K.A. Possibility for existence of a general conformational motif in active centers of wide group of enzymes which are involved in nucleic acids metabolism. *Nucleosides & Nucleotides* 1993, **12**, 649-670.

Jasko M., Shipitsin A., Shirokova E., Krayevsky A., Polsky B., Baron P., MacLow C., Ostrander M., O'Hara B. 5'-Phosphonates of ribonucleosides and 2'-deoxyribonucleosides: synthesis and antiviral activity. *Nucleosides & Nucleotides*, 1993 **12**, 879-892.

Matulic-Adamic J., Rosenberg I., Arzumanov A.A., Dyatkina N.B., Shirokova E.A., Krayevsky A.A., Watanabe K.A. A simple multigram synthesis of 5'-hydrogenphosphonates and 5'-phosphorofluoridates of sugar modified nucleosides. *Nucleosides & Nucleotides* 1993, **12**, 1085-1092.

Rosovskaya T.A., Mischenko A.V., Tarusova N.B., Kukhanova M.K., Krayevsky A.A., Beabealashvili R.Sh. 2'-Deoxynucleoside 5'-triphosphates modified at carbohydrate and triphosphate residues in reaction of DNA synthesis. *Mol. Biol. (Russian)* 1993, **27**, 1051-1060.

Krayevsky A.A., Watanabe K.A. (English) Modified nucleosides as anti-AIDS drugs: current status and perspectives. *Bioinform, Moscow*, 1993, pp.1-208.

Semizarov D.G., Victorova L.S., Dyatkina N.B., von Janta Lipinski M., Krayevsky A.A. Selectivity of DNA polymerases toward α and β nucleotide substrates of D and L series. *FEBS Lett.* 1994, **354**, 187-190.

Shirokova E.A., Tarusova N.B., Shipitsin A.V., Semizarov D.G., Krayevsky A.A. Novel acyclic nucleoside 5'-triphosphate analogs imitating 2',3'-dideoxy-2',3'-didehydronucleotides: synthesis and biological properties. *J. Med. Chem.* 1994, **37**, 3139-3148.

Dyatkina N., Arzumanov A., Krayevsky A., O'Hara B., Gluzman Ja., Baron P., MacLow C., Polsky B. Synthesis and antiviral activity of some fluorinated nucleotide derivatives. *Nucleosides & Nucleotides* 1994, **13**, 325-337.

Surzhykov S.A., Krayevsky A.A. Novel 4'-branched nucleosides. *Nucleosides & Nucleotides* 1994, **13**, 2283-2306.

Djachenko L., Chenchik A., Lukin M., Alexandrova L., Krayevsky A., Beabealashvili R. ddUTP derivatives modified at uracyl 5-position as substrates of reverse transcriptases: hydrolysis of oligonucleotides terminated by these analogs with phosphodiesterase I. *Mol. Biol. (Russian)*, 1994, **28**, 102-112.

Kukhanova M., Kuznetsova E., Krayevsky A., O'Hara B., Backer J., Morin J., Gluzman J. Inhibitory analysis of DNA polymerases of human viruses using modified substrates. *Mol. Biol. (Russian)* 1994, **28**, 530-541.

Krayevsky A.A. Nucleotides inhibitors of HIV reproduction (Review). *Mol. Biol. (Russian)* 1994, **28**, 1245-1257.

Jasko M., Semizarov D., Victorova L., Mozzherin D., Krayevsky A., Kukhanova M. New modified substrates for discrimination between human DNA polymerases α , β , and ϵ . *FEBS Lett.* 1995, **357**, 187-190.

Sharkin J.A., Alexandrova L.A., Victorova L.S., Kuznetsova E.V., Krayevsky A.A. Purine arabinonucleoside 5'-triphosphates with substituents at 2'-position as substrates for DNA polymerases. *Biochem. Mol. Biol. Intern.* 1995, **35**, 1041-1045.

Jasko M.V., Fedorov I.I., Atrazhev A.M., Mozzherin D.Ju., Victorova L.S., Bochkarev A.V., Plavec J., Gurskaya G.V., Krayevsky A.A. Synthesis, molecular and crystal structure of 3'-N-alkylamino-3'-deoxythymidines and some biochemical properties of their phosphorus esters. *Nucleosides & Nucleotides* 1995, **14**, 23-38.

Dyatkina N.B., Arzumanov A.A., Victorova L.S., Kukhanova M.K., Krayevsky A.A. Synthesis and substrate properties of TTP analogs with large hydrophobic substituent groups at atoms. *Nucleosides & Nucleotides* 1995, **14**, 91-103.

Dyatkina N., Semizarov D., Victorova L., Krayevsky A., Theil F., von Janta-Lipinski M. Synthesis of four stereoisomers of carbocyclic 5'-nor D4A and evaluation of their triphosphates as substrates for DNA polymerases. *Nucleosides & Nucleotides* 1995, **14**, 723-726.

Kukhanova M., Kuznetsova E., Arzumanov A., Krayevsky A. Phosphate modified nucleotides: conversion in human serum. *Nucleosides & Nucleotides* 1995, **14**, 997-1000.

Krayevsky A.A., Dyatkina N.B., Kukhanova M.K. Does interaction of dNTP glycone with an active center of reverse transcriptases takes place? A model for a binding site. *Nucleosides & Nucleotides* 1995, **14**, 735-738.

Shirokova E.A., Tarusova N.B., Shipitsin A.V., Semizarov D.G., Hieber M., Krayevsky A.A. Novel open-chain nucleotides imitating 2',3'-dideoxy-2',3'-didehydronucleotides: synthesis and substrate properties toward DNA polymerases. *Nucleosides & Nucleotides* 1995, **14**, 749-752.

Krayevsky A.A., Galegov G.A. Nucleotide-type inhibitors of reverse transcriptase and chemotherapy of HIV infections, *Sov. Med. Rev. Section E, Virology Reviews* 1995, **5**, 55-81.

Victorova L.S., Krayevsky A.A. Mode of 3'-amino-2',3'-dideoxythymidine 5'-triphosphate inhibition of DNA synthesis catalyzed by HIV reverse transcriptase. *Nucleosides & Nucleotides* 1996, **15**, 655-668.

Yegorov Y.Y., Chernov D.N., Akimov S.S., Krayevsky A.A., Zelenin A.V., Reverse transcriptase inhibitors suppress telomerase activity and senescence-like processes in the cultivated mouse fibroblasts. *FEBS Lett.* 1996, **389**, 115-118.

Krayevsky A.A., Alexandrova L.A., Dyatkina N.B., Kukhanova M.K., Shirokova E.A., DNA polymerases and design of antivirals. *Acta Biochim. Polon.* 1996, **43**, 125-132.

Krayevsky A.A., Chernov D.N., Should the asymmetry of enzymatic active centers allways correlate with the asymmetry of their substrates? *J. Biomol. Structure, Dynamics* 1996, **14**, 225-230.

Arzumanov A.A., Semizarov D.G., Victorova L.S., Dyatkina N.B., Krayevsky A.A. γ -Phosphate-substituted 2'-deoxynucleoside 5'-triphosphates as substrates for DNA polymerases. *J. Biol. Chem.* 1996, **271**, 24389-24394.

Mozzherin D.Ju., Mc Connell M., Jasko M.V., Krayevsky A.A., Tan C.-K., Downey K.M., Fisher P.A. Proliferating cell misincorporation catalyzed by calf thymus DNA polymerase δ . *J. Biol. Chem.* 1996, **271**, 31711-31717.

Spahn C.M.T., Schafer M.A., Krayevsky A.A., Nierhaus K.H. Conserved nucleotides of 23S rRNA located at the ribosomal peptidyltransferase center. *J. Biol. Chem.* 1996, **271**, 32857-32862.

Alexandrova L.A., Semizarov D.G., Krayevsky A.A., Walker R.T. 4'-Thio-5-ethyl-2'-deoxyuridine 5'-triphosphate (TEDUTP): synthesis and substrate properties in DNA-synthesizing systems. *Antiviral Chem. Chemother.* 1996, **7**, 237-242.

Skoblov Ju.S., Frank-Kamenetskaya M.D., Chernov D.N., Krayevsky A.A. Substrate and inhibitory properties of modified nucleotides towards adenylate kinase from different sources. *FEBS Lett.* 1996, **395**, 283-285.

Dyatkina N., Shirokova E., Theil F., Roberts S.M., Krayevsky A., Modified triphosphates of carbocyclic analogues: synthesis, stability towards alkaline phosphatase and substrate properties for some DNA polymerases. *Bioorg. Med. Chem. Lett.*, 1996, **6**, 2639-2642.

Semizarov D.G., Arzumanov A.A., Dyatkina N.B., Meyer A., Vichier-Guerre S., Gosselin G., Rayner B., Imbach J.-L., Krayevsky A.A. Stereoisomers of deoxynucleoside 5'-triphosphates as substrates for template-dependent and -independent DNA polymerases. *J. Biol. Chem.* 1997, **272**, 9556-9560.

Martynov B.I., Shirokova E.A., Jasko M.V., Victorova L.S., Krayevsky A.A. Triphosphate modification in 2'-deoxynucleoside 5'-triphosphates on their specificity towards various DNA polymerases. *FEBS Lett.* 1997, **410**, 423-427.

Krayevsky A., Arzumanov A., Shirokova E., Dyatkina N., Victorova L., Jasko M., Alexandrova L. dNTP modified at triphosphate residues: substrate properties and stability to dephosphorylating enzymes. *Nucleosides & Nucleotides* 1997, **16**, 1221-1225.

Krayevsky A.A. A hope for the rescue from AIDS? *Bioorg. Chem. (Russian)* 1997, **23**, 621-622.

Alexandrova L.A., Skoblov A.Ju., Jasko M.V., Victorova L.S., Krayevsky A.A., 2'-Deoxynucleoside 5'-triphosphates modified at α -, β - and γ -phosphates as substrates for DNA polymerases. *Nucl. Acids Res.* 1998, **26**, 778-786.

Koziolekewich M., Masiaszek A., Stec W., Semizarov D., Victorova L., Krayevsky A. Effect of P-chirality of oligo(deoxynucleoside phosphorothioate)s on the activity of terminal deoxynucleotidyl transferase. *FEBS Lett.* 1998, **434**, 77-82.

Yas'ko M., Sidorov G.V., Kondratov R.V., Prasolov V.S., Myasoedov N.F., Krayevsky A.A. Phosphorylation of 5'-O-phosphonylmethylthymidine and its incorporation into DNA of *Hela* cells. *Bioorg. Chem. (Russian)* 1998, **24**, 21-24.

Victorova L., Arzumanov A.A., Shirokova E.A., Yas'ko M.V., Alexandrova L.A., Shipitsin A.V., Skoblov A., Krayevsky A.A. Modified nucleoside 5'-triphosphates with increased stability towards dephosphorylated enzymes. *Mol. Biol. (Russian)* 1998, **32**, 166-175.

Krayevsky A.A., Watanabe K.A. Substrates of DNA polymerases with planar conformation of sugar: model of substrate transition state? *Nucleosides & Nucleotides* 1998, **17**, 1153-1162.

Krayevsky A.A., Arzumanov A.A., Shirokova E.A., Dyatkina N.B., Victorova L.S., Jasko M.V., Alexandrova L.A. dNTP modified at triphosphate residues: substrate properties towards DNA polymerases and stability in human serum. *Nucleosides & Nucleotides*, 1998, **17**, 681-693.

Victorova L., Sosunov V., Skoblov A., Shipitsin A., Krayevsky A. New substrates of DNA polymerases. *FEBS Lett.* 1999, **453**, 6-10.

Shipitsin A., Victorova L., Shirokova E., Dyatkina N., Gorunova L., Beabealashvili R., Hamilton C., Roberts S., Krayevsky A. New modified nucleoside 5'-triphosphates: synthesis, properties towards DNA polymerases, stability serum and antiviral activity, *J. Chem. Soc., Perkin Trans.* 1999, **1**, 1039-1050.

Krayevsky A.A., Dyatkina N.B., Semizarov D.G., Victorova L.S., Shirokova E.A., Theil F., Von Janta-Lipinski M., Gosselin G., Imbach J.-L. Reasons and limits of substrate activity of modified L-dNTP in DNA biosynthesis. *Nucleosides & Nucleotides* 1999, **18**, 863-864.

Machado J., Salomon H., Oliveira M., Tsoukas C., Krayevsky A.A., Wainberg M.A. Antiviral activity and resistance profile of phosphazid - a novel prodrug of AZT *Nucleosides & Nucleotides*, 1999, **18**, 901-906.

Alexandrova L.A., Skoblov A.Ju., Jasko M.V., Murabuldayev A.A., Victorova L.S., Krayevsky A.A. 2'-Deoxynucleoside 5'-triphosphates with reported groups modified at α -, β -, γ - or γ - phosphates as substrates for DNA polymerases. *Nucleosides & Nucleotides*, 1999, **18**, 963-964.

Egrou D., Arzumanov A.A., Dyatkina N.B., Krayevsky A., Imbach J.-L., Aubertin A.-M., Gosselin G., Perigaud C., Synthesis, anti-HIV activity and stability studies of 3'-azido-2',3'-dideoxythymidine 5'-fluorophosphate. *Nucleosides & Nucleotides* 1999, **18**, 983-984.

Shirokova E.A., Shipitsin A.V., Victorova L.S., Dyatkina N.B., Goryunova L.E., Beabealashvili R.Sh., Hamilton Ch.J., Roberts S.M., Krayevsky A.A., Modified nucleoside 5'-triphosphates as a new type of antiviral agents. *Nucleosides & Nucleotides* 1999, **18**, 1027-1028.

Victorova L.S., Semizarov D.G., Shirokova E.A., Alexandrova L.A., Arzumanov A.A., Jasko M.V., Krayevsky A.A. Human DNA polymerases and retroviral reverse transcriptases: selectivity in respect to dNTPs modified at triphosphate residues. *Nucleosides & Nucleotides* 1999, **18**, 1031-1032.

Krayevsky A.A. Molecular base of drug design for AIDS treatment: achievements and prospects. *Mol. Biol (Russian)*, 1999, **33**, 343-352.

Selimova L.M., Krayevsky A.A., Galegov G.A. Combination of phosphazid and krixivan inhibits HIV-1 strain replication resistant to azidothymidine. *Dokladi of Russian Academy of Sciences*, 1999, **369**, 847-849.

Sosunov V.V., Santamaria F., Victorova L.S., Gosselin G., Rayner B., Krayevsky A.A. Stereochemical control of DNA biosynthesis. *Nucleic Acids Res.* 2000, **28**, 1170-1175.

Arzumanov A.A., Victorova L.S., Jasko M.V., Yesipov D.S., Krayevsky A.A. Terminal deoxynucleotidyl transferase catalyzes the reaction of DNA phosphorylation. *Nucl. Acids Res.* 2000, **28**, 1276-1281.

Krayevsky A.A., Victorova L.S., Arzumanov A.A., Jasko M.V. Terminal deoxynucleotidyl transferase catalyzes the reaction of DNA phosphorylation. *Pharmacology and Therapeutics*, 2000, **85**, 165-173.

Krayevsky A.A. Chemical reaction catalyzed by DNA polymerases. *Bioorg. Chem. (Russian)* 2000, **26**, 2-8.

Shipitsyn A.V., Tarussova N.B., Shirokova E.A., Krayevsky A.A. Synthesis of [bis(inosine-5')]-

tetraphosphate and [bis(inosine-5')]-pentaphosphate analogues bearing the residues of methylenediphosphonic acid. *Nucleosides & Nucleotides*, 2000, **19**, 881-889.

Kukhanova M.K., Krayevsky A.A., Prusoff W., Cheng Y.C. Design of anti-HIV compounds: from nucleoside to nucleoside 5'-triphosphate analogs. *Problems and perspectives. Curr. Pharm.Design.* 2000, **6**, 585-598.