

Вестник Московского университета

НАУЧНЫЙ ЖУРНАЛ

Основан в ноябре 1946 г.

Серия 2

ХИМИЯ

Том 41

№ 6 • 2000 • Ноябрь — Декабрь
ПРИЛОЖЕНИЕ

Издательство Московского университета

Выходит один раз в два месяца

VESTNIK MOSKOVSKOGO UNIVERSITETA. KHIMIYA 2000. Vol. 41, No. 6. Supplement

Proceedings of the International Conference

BIOCATALYSIS-2000: FUNDAMENTALS & APPLICATIONS

Moscow, Russia, June, 10–15, 2000

<i>Varfolomeev S.D., Ugarova N.N.</i> Preface	3
<i>Jalkanen K. and Bohr J.</i> Simulation and Analysis of the Raman Optical Activity Spectra of Amino Acids, Peptides and Proteins in Aqueous Solution	4
<i>Sukovataya I.E. and Tyulkova N.A.</i> Effect of Dielectric Properties of Media on Kinetic Parameters of Bioluminescent Reaction	8
<i>Topunov A.F., Shleev S.V., Petrova N.E., Rozov F.N., and Zhabaeva M.U.</i> Reductases Reducing Plant Hemoglobins and Possible Mechanism of Their Action	12
<i>Kalyuzhnyi S.V.</i> Environmental Biotechnology: The Tandem of Biocatalytical and Engineering Developments	15
<i>Vavilin V.A., Rytov S.V., and Lokshina L.Ya.</i> The <METHANE> Simulation Model As The First Generic User-Friend Model of Anaerobic Digestion	22
<i>Trudil D., Loomis L., Pabon R., Hasan J.A.K., and Trudil C.L.</i> Rapid ATP Method for the Screening and Identification of Bacteria in Food and Water Samples	27
<i>Anisimkin I.V., Anisimkin V.I., Gulyaev Yu.V., Kryshchal R.G., Medved A.V., Hoang van Fong, Verona E., and Zemlyakov V.E.</i> Surface Acoustic Wave Sensors: New Analytical Capabilities	30
<i>Rubtsova M.Yu., Samsonova J.V., Ezhov A.A., and Egorov A.M.</i> Application of A Neural Network for The Simultaneous Identification of Several Analytes	33
<i>Sirotkin V.A., Zinatullin A.N., Solomonov B.N., Faizullin D.A., and Fedotov V.D.</i> Calorimetric and FTIR-Spectroscopic Study of Solvent Effect on The State of dry solid bovine pancreatic α -Chymotrypsin Immersed in Anhydrous Organic Solvents	37
<i>Egorov A.M., Kurochkina V.B., Sklyarenko A.V., and Nys P.S.</i> Enzymatic transformation of betalactam antibiotics. Trends of development and approaches to practical implementation	43
<i>Ivanova I., Kabadjova P., Pantev A., Danova S., Dousset X.</i> Detection, Purification and Partial Characterization of a Novel Bacteriocin Substance Produced by <i>Lactococcus Lactis</i> Subsp. <i>Lactis</i> B14 Isolated from <i>Boza</i> —Bulgarian Traditional Cereal Beverage	47
<i>Markvicheva E.A., Kuptsova S.V., Buryakov A.N., Babak V.G., Varlamova E.A., Dugina T.N., Strukova S.M., Lange M.A., Vasilieva T.V., and Rumsh L.D.</i> Proteases Entrapped in Polymer Composite Hydrogels: Preparation Methods and Applications	54
<i>Alovskaya A.A., Rabaya O.V., Prusakova V.V., Kornilov V.V., Kornev A.M., and Mikhailov A.M.</i> The Enzymatic Activity of Ribosome Inactivating Proteins II type and Modulation of Neutrophil Cytotoxicity	58

<i>Jordan F., Sergienko E, Nemeria N., Liu Min, Wang Jue, Guo Fusheng, and Furey W.</i> Structure-Function Studies in Thiamin Diphosphate Dependent 2-Oxo Acid Decarboxylating enzymes	62
<i>Volkova D.A., Lopatin S.A., and Varlamov V.P.</i> One-Step Affinity Purification of Cyclodextrin Glucanotransferase from <i>Bacillus</i> sp. 1070	67
<i>Besedin D.V., Shmoilov A.M., and Rudenskaya G.N.</i> Aminopeptidase PC from Kamchatka Crab <i>Paralithodes Camtschatica</i> Hepatopancreas: Substrate Specificity and Inhibitor Studies	70
<i>Chebotareva N.A., Andreeva I.E., Makeeva V.F., Kurganov B.I., and Livanova N.B.</i> Ordered Mechanism of Binding of Phosphorylase Kinase and Glycogen Phosphorylase <i>b</i> to Glycogen	73
<i>Gusakov A.V., Sinitsyn A.P., Markov A.V., Skomarovsky A.A., Sinitsyna O.A., Berlin A.G., and Ankudimova N.V.</i> Indigo-Binding Domains in Cellulase Molecules	77
<i>Ilyina A. Alvarado G.D., Trimmer R.E., Garcia L.M.G., Villarreal S.J.A., Martinez H.J.L., Villaviscencio J.A., and Rodrigues M.J.</i> Comparative Study of The Effects of Administration of PGE ₁ , PGE ₂ and Enzymatic Preparation with Prostaglandin H-Synthase Activity on Orthodontic Tooth Movement	81
<i>Klinov S.V. and Kurganov B.I.</i> Kinetic Mechanism of Allosteric Regulation of Muscle Glycogen Phosphorylase <i>b</i> by Adenosine 5'-Monophosphate	85
<i>Kozlov L.V., Lakhtin V.M., Batalova T.N., Gouzova V.A., D'yakov V.L., and Romanov S.V.</i> Inhibition by an Egg Lysozyme of Three Stages of an Enzymatic Cascade of Activation of a Classic Path of a Human Complement	88
<i>Strokin M.L., Sergeeva M.G., and Mevkh A.T.</i> Difference in the Uptake of Low and High Concentrations of Arachidonic Acid into Murine Peritoneal Macrophages	91
<i>Atyaksheva L.F., Pilipenko O.S., and Poltorak O.M.</i> Mechanism of the Thermoinactivation of the β -Galactosidase from <i>Escherichia coli</i>	95
<i>Bochkareva A.E., Eremin S.A., and Egorov A.M.</i> Development of Chemiluminescent Flow Injection Immunoassay (FIIA) for DDT Organochlorine Pesticides	98
<i>Ignatenko O.V., Rubtsova M.Yu., Ivanova N.L., Ouporov I.V., and Egorov A.M.</i> Analysis of Antigenic Structure of Holo- and Apo-forms of Horseradish Peroxidase	102
<i>Nemova N.N., Käiväräinen E.I., and Bondareva L.A.</i> Ca ⁺² -Activated Neutral Proteinase in Some Fish Erythrocytes	106
<i>Ilyina A.D., Mauricio B.J.E., Sifuentes S.I.P., Martinez H.J., Bogatcheva E.S., Romero G.J., and Rodrigues M.J.</i> Behavior of Enhanced Chemiluminescence Peroxidase-Catalyzed Peroxidation of Luminol in The System of Surfactant–Water–Organic Solvent	109
<i>Sirotkin V.A., Zazybin A.G., Osipova O.L., Solomonov B.N., Faizullin D.A., and Fedotov V.D.</i> Solubility and Secondary Structure of Bovine Pancreatic $\alpha\alpha$ Chymotrypsin in Water–Acetonitrile Mixtures	114
<i>Sokolova I.V., Kalacheva G.S., and Tyulkova N.A.</i> Analysis of The Ratio of Quantum Yield and Fatty Acid Formation of <i>Photobacterium Leiognathi</i> Bioluminescence	118
<i>Sudina A.E., Volkov E.M., and Kubareva E.A.</i> The Repair Enzyme Uracil–DNA–Glycosylase: Study of The Mechanism of Functioning Using Modified Analogues of DNA	121
<i>Vasilyeva O.V., Potapenko N.A., and Ovchinnikova T.V.</i> Limited Proteolysis of <i>Escherichia Coli</i> ATP-Dependent Protease Lon	124
<i>Zaitseva E.A., Chukrai E.S., and Poltorak O.M.</i> Stabilization mechanism of glucose-6-phosphate dehydrogenase	127
<i>Zaitseva E.A. and Osipova T.A.</i> Major Progress in Development of Biocatalytic Technologies in Russia in the Advance of the XXIst Century	130
<i>Ilyina A.D., Villarreal S.J.A., Rivera R.E., Garza G.Y., and Rodrigues M.J.</i> Using of Biodac (absorbent granules produced from paper industry residues) As Carrier to Microorganisms for Soil Inoculation	135
<i>Kurochkina V.B., Satarova D.E., and Nys P.S.</i> Combinatorial Enzymology. Synthesis of Novel Betalactam Libraries	139
<i>Gylmiarova F.N., Radomskaya V.M., Baisheva G.M., and Kleiman M.S.</i> Capabilities of Application of Oxidoreductases in Enzyme Therapy	144
<i>Galebskaya L.V., Ryumina E.V., Niemerovsky V.S., and Matyukov A.A.</i> Human Complement System State After Wobenzyme Intake	148
<i>Krasnova A.I., Krikunova V.S., and Eremin S.A.</i> Development of Solid-Phase Enzyme-Linked Immunoassay to Propanil in Rice	150