

Contents

Vol. 64, No. 3, 1999

Simultaneous English language translation of the journal is available from МАИК "Hayka/Interperiodica" (Russia).
Distributed worldwide by Kluwer Academic/Plenum Publishers. *Biochemistry* (Moscow) ISSN 0006-2979.

Engl./Russ.

Reviews

Possibilities of the Method of Step-by-Step Complication of Ligand Structure
in Studies of Protein–Nucleic Acid Interactions: Mechanisms of Functioning
of Some Replication, Repair, Topoisomerization, and Restriction Enzymes

D. V. Bugreev and G. A. Nevinsky 237 291

A Multiparametric Approach to Studies of Self-organization of Globular Proteins

V. N. Uversky 250 306

Fluorescence Study of Conformational Transitions in the Structure of Myoglobin

G. B. Postnikova 267 326

Plant Subtilisins

A. M. Bogacheva 287 347

Accelerated Publication

Determination of Disulfide Bonds in γ -46 Gliadin

T. A. Egorov, T. I. Odintsova, and A. K. Musolyamov 294 354

Mini-reviews

Dimer Formation by tRNAs

N. S. Kholod 298 358

Unusual Fast Sedimenting Mitochondria Producing Heavy DNA
in the Cells of Aging Coleoptiles of Wheat Seedlings

*M. D. Kirnos, N. I. Alexandrushkina, L. E. Bakeeva, S. B. Kazimirschuk,
B. Yu. Shorning, V. A. Alekseeva, L. S. Yaguzhinsky, and B. F. Vanyushin* 307 368

Regulation of Pyruvate Dehydrogenase Complex Activity
in Ehrlich Ascites Carcinoma Cells by Ca^{2+} and Pyruvate

*G. L. Ermakov, L. P. Dolgacheva, B. N. Goldstein,
I. I. Goryanin, and V. P. Zinchenko* 318 381

A Model for the Spatial Location of Pyruvate Dehydrogenase Phosphatase
in Mammalian Pyruvate Dehydrogenase Complex

G. L. Ermakov and B. N. Goldstein

326 390

Calcium Ions Modulate Regulation of Smooth Muscle Contraction Mediated
by Phosphorylation of Myosin Regulatory Light Chains

*S. V. Avrova, Yu. S. Borovikov, N. N. Efimova,
K. Y. Horiuchi, and S. Chacko*

335 400

Effects of Growth Temperature and pVM82 Plasmid on Fatty Acids
of Lipid A from *Yersinia pseudotuberculosis*

I. N. Krasikova, S. I. Bakhholdina, S. V. Khotimchenko, and T. F. Solov'eva

338 404

Apoptosis of Unstimulated Human Lymphocytes and DNA Strand Breaks Induced
by the Topoisomerase II Inhibitor Etoposide (VP-16)

V. A. Tronov, M. A. Konoplyannikov, T. A. Nikolskaya, and E. M. Konstantinov

345 412

Hypothesis

Bacterial Luminescence: Luminescence Mechanism
and Dependence on Reactive Oxygen Species

L. F. Dmitriev

353 421

Discussion

Negative Air Ions and Reactive Oxygen Species (on A. V. Peskin's comment
"Concerning the Role of Active Oxygen Species as Regulators")

M. N. Kondrashova

361 430