

Biological Sciences

S.S. Sivtseva

Research into Protective Properties of Biological Cryoprotectants

Key words and phrases: adaptation to low temperatures; biological cryoprotectants; carotenoids; glycerol; hibernating insects; lymphocytes.

Abstract: Multicomponent fraction with cryoprotective properties was separated from hibernating insects of Yakutia. The fraction contains glycerol and carotenoids. To investigate the protective properties of the selected material the experiments on freezing human blood lymphocytes were conducted. Glycerol was used as control.

page 7-9

Biotechnology and Medicine

G.R. Askerkhanov, F.M.-P. Aytekova

The Influence of Different Types of Hernioplasty on Testosterone Level in Male Patients with Inguinal Hernia

Key words and phrases: fertility; hernioplasty; testosterone.

Abstract: The aim of this research was a comparative analysis of spermatogenesis (reproductive function) after different methods of hernioplasty in patients with inguinal hernia, specifically on testosterone level. In order to evaluate the effect of surgical intervention on patient's fertility 135 males aged 18–40 were selected randomly from the main group. The study showed the decrease of testosterone production in patients who underwent a surgery using traditional methods of inguinal hernia repair. Hernioplasty by Lichtenstein had the least complication on hormone level that would affect male patients. There was an increase in testosterone level in case of laparoscopic hernioplasty.

page 10-14

Pedagogy and Psychology

N.I. Balchyunene

The Russian Language as Mother Tongue for Immigrants and a Foreign Language for Studying Abroad and in Russia: Problems and Solutions

Key words and phrases: English as a foreign language; Finnish experience; learning.

Abstract: It is shown that the Finnish experience can be used for teaching Russian as mother tongue to immigrants and as a foreign language to study abroad and in Russia.

page 15-17

M.N. Vishnevskaya

The Essence and Contents of Pedagogical Communication Competence of Future Bachelors in Pedagogical Education

Key words and phrases: communication; competence; competence in pedagogical communication; future bachelors of pedagogical education; institution of higher professional education; pedagogical communication.

Abstract: The article reveals the essence of the notion of competence in pedagogic communication. It discusses the main components of the competence of future bachelors in pedagogical education: motivational component, cognitive component, activity component and personal component. The criteria and indicators of competence in pedagogical communication are defined; the levels of future bachelors are characterized.

page 18-21

P.K. Vlasov

The Place of Initiator in Creation of Organization. Empirical Research into the Image of “Entrepreneurs”

Key words and phrases: entrepreneur; image; initiator; organization; stereotype.

Abstract: The article represents the results of empirical research into the image of entrepreneur as a social group. The analysis of interview data of 5 000 respondents discovered the absence of correspondence between the image of entrepreneur existing in the society and the real organization's behavior in the market. Most judgments contain negative evaluation based on the stereotyped opinions and determined by social orientation rather than actual success in activity. The meaning of the category “entrepreneur” is in the process of developing a stable meaning.

page 22-24

O.V. Dyomina

Pedagogical Conditions for Developing Disciplined Approach in Cadets of Military Institutions as Value Attitude to a Human Being

Key words and phrases: disciplined approach; humanization of educational process; pedagogic conditions; upbringing; value relationships; vitagenic experience.

Abstract: Core characteristics of the notion “disciplined approach” are described; the necessity of providing pedagogical conditions to implement the model of this integrative feature development in the cadets studying at a higher institution is justified in the paper. Inner human potential is underlined to be actively revealed in the humanism environment and creative freedom.

page 25-27

Yu.V. Melnik

Development of Subject-To-Subject Interactions in Inclusive Educational Process in Western Countries (Canada, USA, Great Britain) and Russia

Key words and phrases: inclusion; inclusive education; non-typical child; social subjectness; special educational needs.

Abstract: Comparative analysis concerning Western and Russian reflections of subject-to-subject interactions in the conditions of the inclusive education and upbringing of non-typical children is carried out. The basic conceptual understanding of the distant-centred, formal-philanthropical, teleoaxiological and culture-institutional interpretations of construction of each child’s subjective position in inclusive class is showed in the article. The author describes concrete socio-pedagogical tactics and stages of development of children’s social subjectness in inclusive educational process. Also, the author develops teleological characteristics in the axiological direction, which show effective development of subjectness of the child’s personality in inclusive group.

page 28-36

History, Philosophy and Sociology

V.A. Deryabina, Yu.I. Deryabin

Value-Semantic Space as a Symbol of Individuality

Key words and phrases: individuality as symbol of culture; symbol of individuality as culture code; symbolic nature of values; value-semantic space; individuality as the value of culture.

Abstract: The article shows that the nature of the symbol of individuality may be revealed only with the identification of multidimensional existence of valuable connections and relationships, their socio-cultural ontology. The authors conclude that a symbol of individuality as value-semantic space contains specific probabilistic models of meanings and values of ultimate bases of human life.

page 37-39

A.S. Kadira

Participation in Shooting Troops in the Accession of the Astrakhan Khanate to Moscow State

Key words and phrases: Astrakhan; Astrakhan capture; Astrakhan Khanate; Ivan IV the Terrible; Moscow; Moscow State army; shooters; shooters’ heads; shooting troops.

Abstract: The article considers the participation of Moscow shooters in this outstanding event of the reign of Ivan IV the Terrible, such as joining of the Astrakhan Khanate to the Moscow state. The author focuses on the participation of shooters in this operation.

page 40-43

E.A. Naryshkina

Practical Approach to Solving the Problem of the Museofication of Objects of Historical and Cultural Heritage: Experience, Realities, Perspectives (Case Study of the Leningrad Region).

Key words and phrases: competence of municipal authorities in the regions of Russia; Memorial Museum of composer Isaak Shvarts; museofication as a form of conservation of monuments; Museum «Dachnaya stolitsa»; objects of cultural heritage.

Abstract: Many of the cultural heritage objects in the Leningrad region, as well as throughout Russia, are on the verge of extinction. Monuments are in need of operational activities for their preservation and further use by the authorities. However, in the course of the study based on the experience of foreign countries, the author points to the necessity of partnership between the authorities and investors. This article highlights the possible forms of participation of the municipal authorities in the conservation of monuments and museums. The proposals are supported by concrete examples.

page 44-49

O.A. Sushkova

Current State of National Historiography on the Activities of KGB Border Troops in the Soviet- Afghan War

Key words and phrases: domestic historiography; KGB Border Troops; memoirs; monograph; period; post-Soviet problems; Soviet-Afghan War.

Abstract: Domestic historiography on the study of the Soviet-Afghan war received a major boost after the disappearance of the USSR. The issues, that were not previously considered, became the object of study of historians. A “new stage” in a detailed study of the activities of the Border Troops of the war began

page 50-51

N.Ye. Shilkina

The Specific Perception of Foreign Migrants by Russian Regional College Students (Results of Sociological Research in the Altai Krai)

Key words and phrases: college students; foreign migrants; social adaptation; social perception.

Abstract: In this article the results of sociological research into Russian regional college students’ perception of foreign migrants are presented. The empirical research took place in June of 2013 in Barnaul and involved full-time college students. Three main contexts of perception of foreign migrants were outlined: “international friendliness”, “migrantophobia” and “negligence”.

page 52-54

Philology

V.A. Goletz

Pragmatics of Proper Neologisms’ Actualization in Modern English Language Youth Press

Key words and phrases: communicative tactics; modern English language youth press; proper neologisms.

Abstract: The article touches upon the issue of proper neologisms’ actualization in the modern English language youth press for the purpose of revealing the pragmatic specifics of their usage. The topicality of the research of new lexicon functioning is evident because of the press considerable influence on young people’s language and other preferences. The article revealed the desire of authors of English youth press to minimize the language, which manifests in the wide use of neologisms and abbreviated words.

page 55-57

V.V. Gurin

Egocentric Category “Desire” and its Place in the Processes of Conceptualization and Categorization of the World (on the Material of the English Language)

Key words and phrases: categorization; conceptualization; desire; egocentric category; the English language.

Abstract: The paper is devoted to the study of the egocentric category “Desire” in the English language. The phenomenon of desire is considered. The definitional and contextual analysis of the lexical means, which verbalize the given category, is made.

page 58-61

Engineering

N.M. Lukov, M. Babel

Combined System for Automatic Control of Fuel Temperature for a Locomotive Diesel Engine

Key words and phrases: automatic system; characteristics; diagrams; diesel load; fuel temperature.

Abstract: Technical and economic indicators of diesel fuel are temperature dependent. To increase the efficiency of diesel it is necessary to maintain fuel temperature before the high pressure pump at certain dependence on its power and regardless of the outdoor temperature. It is necessary to change the temperature of the fuel depending on the power linearly from 70 to 200 °C in accordance with the growth of load from idling up to the rated speed of the diesel engine using the heat of its liquid cooling system. Such dependence on the temperature of the fuel diesel power is supported by the developed system. A description scheme and characteristics of such a system are given.

page 62-65

Mathematical Methods and Models

A.V. Lavrentiev, M.Kh. Urtenov, T.L. Shaposhnikova

Full Decomposition of the System of Electrodiffusion Equations for Binary and Definite Ternary Electrolytes under the Condition of Electroneutrality

Key words and phrases: electromembrane processes; equation for current density; transfer processes.

Abstract: This work studies the full decomposition system describing transfer processes in the electromembrane processes, consisting of the electrodiffusive equations, together with the equation for current density. The full decomposition of the system of Nernst-Planck equations offered in this work under condition of electroneutrality allows building various substantial model tasks, effective numerical algorithms of the corresponding regional tasks.

page 66-70

O.A. Sushchenko

Robust Structural Optimization of the System for Stabilization of Information-Measuring Devices on Moving Base

Key words and phrases: method of mixed sensitivity; robust optimization; structural synthesis.

Abstract: Basic approaches to the robust structural synthesis of systems for stabilization of the information-measuring devices exploited at vehicles are considered in this paper. The statements of problems for optimization of the one-degree- and two-degree-of-freedom systems are considered. The optimization problem taking into consideration the direct introduction of the sensitivity function by the disturbance is formulated. The results of the synthesized system simulation are presented.

page 71-76

Information Science

I.V. Naykhanova

Hierarchical Structure of Indicators of Personal Data Security Audit

Key words and phrases: hierarchical structure of indicators; organizational and technical measures of ensuring personal data security; personal data security audit.

Abstract: The article is devoted to the construction of a hierarchical structure of indicators. The set of indicators is based on the legal requirements for personal data protection. The found solution makes it easy to adapt to changes in the external environment.

page 77-79

A.M. Romanov

The Procedure of Cell Architecture Parameters Optimization to Provide Dummy Messages Defence of Special Wireless Network Service Signals by Using Original Cryptographic Transformation Algorithm

Key words and phrases: authentication; cell-architecture; cellular automaton.

Abstract: The article presents the cell architecture parameters optimization procedure to provide dummy messages defence of the special wireless network service signals by using cyclic cellular automaton cryptographic transformation algorithm.

page 80-83

Ecology and Nature Management

I.A. Voronin

Some Direction of Developing Models, Methods and Algorithms of Traffic Management in Timber Industry Complex

Key words and phrases: algorithms; methods; models; timber complex; traffic management.

Abstract: The paper discusses the specificity of developing models, methods and algorithms for traffic management in the forestry sector. Some results of researches at Petrozavodsk State University in this area are described. Some directions of research in this area are shown.

page 84-87

V.N. Gornostaev

The Development of Research into Transformations in the Forest Sector of Russia

Key words and phrases: North-West; research; timber industry; timber industry region;

page 88-91

transformation.

Abstract: The paper provides an overview of the works conducted by the scientists of Petrozavodsk State University aimed at the study of transformations in the Russian forest sector. The author discusses some results of these researches in forestry complex of North-Western Federal district of Russia.

E.U. Lewis, V.M. Kamenek

Current Ecological State of the River Sengileyka Macrozoobenthos Community

Key words and phrases: anthropogenic impacts; biological index; biodiversity; macrozoobenthos; rivers; saprobity status.

Abstract: This article focuses on the problems of small rivers in the State natural reserve «Sengiley Mountains» (the Ulyanovsk region) in terms of growing human impact. Hydrobiological methods with the use of macrozoobenthos were used to analyze the ecological condition of the River Sengiley. The research recorded low biodiversity, Biotic index and saprobity.

page 92-94

Economic Sciences

A.A. Baboshkina

Trends in the Activity of International Export Credit Agencies

Key words and phrases: Berne Union; credit; Coface; EDC; Euler Hermes; export credit agency; guarantees; insurance; investments; SACE; UK Export Support; US Eximbank.

Abstract: Export credit agencies play the key role in export support and offer insurance, credits, guarantees and consulting services to their clients.

page 95-96

Z.A. Voitleva

Possible Sources of Investment Funds in the Agricultural Sector of the Regional Economy

Key words and phrases: agricultural sphere; investment funds; regional economy.

Abstract: The author examined the sources of investment funds in the agricultural sector of the economy of the region, analyzed the possibility of greater and more effective investment in agriculture of the Republic of Adygea.

page 97-99

L.A. Isaeva

Cost Consumption: Essence and Types

Key words and phrases: actual costs of consumption; consumption costs; efficiency of personal consumption; hidden costs of consumption; private consumption.

Abstract: The article considers the essence of the category “cost of consumption”; the author proposed the division of consumption costs into actual (explicit) and hidden (implicit). The author emphasizes that the reduction of consumption costs (rationalization of personal consumption) contributes to the effectiveness of personal consumption.

page 100-103

E.A. Kutsyna

System Approach to the Investigation of Innovation Component of Military Economy of Advanced Countries under Conditions of Globalization

Key words and phrases: globalization; global innovation system; innovations; military-industrial complex.

Abstract: The author describes the classification of globalization types on the basis of the system approach to the study of the innovation component of military economy with reference to the military-industrial complex of advanced countries; the interconnection of global innovations and globalization processes was disclosed, hierarchical models of the global innovation system and the conceptual model of R&D system in the military-industrial complex were formed and adapted to the conditions of globalization. The main changes in the military innovation environment of one of the advanced countries such as the UK under conditions of globalization were described.

page 104-115

O.I. Nazarova

Maternity (Family) Capital as a Measure of Socio- Economic Protection of Children

Key words and phrases: certificate realization; maternity (family) capital; socio-economic support.

Abstract: One of the main issues of socio-economic support and protection of children is maternity capital program implementation. The mechanism of implementation of this forms of

page 116-119

state support does not fully correspond to the goals of its creation, therefore, it requires further study and improvement.

Political Science

M.V. Danilina

Interaction of the European Union, Council of Europe and Russia

Key words and phrases: EU; Council of Europe; interaction; multiple partnership; Russia.

Abstract: This article analyzes the bilateral and multilateral cooperation of EU, Council of Europe and Russia, the role of each participant. Despite the long history of interaction between Russia and these bodies, it played a predominantly passive role, although the nature of Russia's interaction with the CoE and the EU is varied.

page 120-122

E.N. Pets

The Idea of Using Group Factor Based on Cultural Identity in Political Practice as a Cause of Failure of British Multiculturalism

Key words and phrases: culture; group identity; multiculturalism; multiple identity; tolerance.

Abstract: Abstract: In this article we consider the British "hard" model of multiculturalism as an example, where the maintenance of group identity has led to confrontation in society. The following conclusions have been made: support for group identity is directly proportional to the process of creating a consolidated society, cultural identity can't be a factor of solving the political problems, culture should not become a political argument, otherwise, it becomes a method of manipulation and leads to the fragmentation of society.

page 123-126

Scientific Reviews

I.R. Shegelman

Review of the Monograph of Professor A.P. Tsarev "Forest Selection Programs in Russia and Abroad"

Key words and phrases: forest selection; monograph; review.

Abstract: The review of the monograph by Professor A. Tsarev «Forest selection programs in Russia and abroad», is the original summary of programmatic approaches to selection of forest woody plants, which are of interest for researchers and specialists of forest industry.

page 127-129