### **Biological Science**

S.S. Sivtseva

Yakutsk State Agricultural Academy, Yakutsk

The Study of Cryoprotective Efficacy of Biological Antifreeze in Freezing Blood Lymphocytes of Healthy People and Patients with Neuromuscular Apparatus Problems

Keywords: overwintering insects; biological cryoprotectant; glycerol; carotenoids; lymphocytes; cryoprotective efficiency.

Abstract: Accumulation of biological cryoprotectant in the tissues of wintering caterpillars Aporia crataegi L. was observed. The analysis of the isolated compound allowed establishing its multicomponent structure. It was found that the main component of the substance is glycerol. Furthermore, it was proved that its composition contained carotenoids. The study of the protective effect of natural antifreeze on the example of freezing human blood lymphocytes showed its high efficacy.

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## **Biotechnology and Medicine**

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

Dagestan State Medical Academy, Makhachkala;

OAO Medical Center named after R.P. Askerhanov, Makhachkala;

GBU RD Republican Clinical Hospital, Makhachkala

The Influence of Different Types of Herniorrhapy on Male Fertility with Inguinal Hernia

Keywords: fertility; hernioplastics; spermogramma; testosterone.

Abstract: The aim of this research was a comparative analysis of spermatogenesis (reproductive function) after different methods of herniorrhaphy in patients with inguinal hernia. 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 results of the study were assessed before surgery, after a median follow-up of 4 months and in a one year postoperatively. The study showed the decrease in sperm count in patients' semen volume after a surgery using traditional methods of inguinal hernia repair (Bassini, Lichtenstein). "Tension-free" hernioplasty caused the least complications that would affect male patients. In the case of laparoscopichernioplasty there was no significant decrease in spermatogenesis.

page 9-15

## **Pedagogy and Psychology**

M.N. Vishnevskaya

Chuvash State Pedagogical University named after I.Y. Yakovlev, Cheboksary

The Use of Interactive Methods of Teaching to Develop the Pedagogical Communication Competence in Bachelor Students of Pedagogical Education

Keywords: pedagogical communication competence; interactive methods of teaching; pedagogical education of future bachelors.

Abstract: This article discusses the use of interactive methods of teaching to develop the pedagogical communication competence in future bachelors of pedagogical education; the features of this group of methods have been described.

page 16-18

#### P.K. Vlasov

Institute of Applied Psychology "Humanitarian Center", Kharkov (Ukraine)

Organizational Psychological Typology of Resource Transformation Models in Company

Keywords: organization; product; resource; resource model.

Abstract: The article represents the typology or organizations based on the resource model. The resource model determines specific differences in the interaction between organization and its environment and represents an inherent to organization system of exchange relations with external environment. The proposed typology of organizations on the basis of correspondence between resource model and the product complexity allows generalizing a variety of organizations without loosing specific differences.

page 19-21

#### P.K. Vlasov

*Institute of Applied Psychology "Humanitarian Center"*, Kharkov (Ukraine)

## The Comparative Analysis of the Morphology of the Concept of Organization between Founder and Managers

Keywords: morphology; initiator; owner; organization; manager; values.

Abstract: The aim of the study is to test the hypothesis about the differences in the morphology of the concept of organization between the owners and managers. A comparative analysis of the image of organization was conducted. The author analyses the structure of image on the basis of two samples. For the analysis, a modified questionnaire developed by V.V Znakov was applied. The participants' answers were processed with the help of the method of actual sentence segmentation. As a result, differences in the cognitive complexity, completeness and in hierarchy of the concept of organization were identified.

page 22-24

#### D.O. Gasparyan

Armavir State Pedagogical Academy, Armavir

#### Application of Cultural Approach to Students' Professional Training

Keywords: cultural studie; student-centered, dialogic (multi-subject), anthropocentric, genetic, competence approaches; immanence; conditions of implementation.

Abstract: In this paper the immanence of the cultural approach to training with relevance to the current situation of education development pedagogical approach has been verified. The internal consistency of the given approach with student-centered, dialogic (multi-subject), anthropocentric, genetic, and competence approaches has been substantiated. The conditions to be observed in the implementation of cultural approach in students 'training have been formulated.

page 25-27

#### E.A. Degtvareva, Yu.P. Vetrov

Moscow State Open University named after V.S. Chernomyrdin (Affiliate), Kropotkin; Nevinnomyssk State Humanitarian and Technical Institute, Nevinnomyssk

The Model of University Lecturers' Training to Work in Innovative Educational Space Keywords: university lecturer; innovation; training model; components; purpose; content; research and teaching activities; forms of knowledge; reflection.

page 28-31

Abstract: The article raises the problem of the need to train teachers to professional work using innovative practices of university, the importance of ensuring personal development teachers has been stressed, the model of training has been described.

#### Yu.S. Dimitryuk, Yu.P. Vetrov

Nevinnomyssk State Humanitarian and Technical Institute, Nevinnomyssk

## Design and Implementation of Educational Process in Accordance with the Requirements of Federal Standard of Higher Education to Engineers' Training

Keywords: engineering training; maintenance training; competence paradigm; education technology; innovation engineering training.

page 32-34

Abstract: The article explains the importance of teaching to ensure the implementation of competencebased approach in engineers' training at the university, details the process of selecting appropriate learning technologies, and describes the most effective technological innovations in engineering education.

#### E.N. Romanova

Vladimir Law Institute of Federal Penitentiary Service, Vladimir

#### The Influence of Socio-Economic Factors on Juvenile Delinquency

Keywords: maladjustment; delinquency; youth culture; migration; social and cultural values; socioeconomic status; urbanization.

delinquency is more typical for the representatives of the poorest segments of society, the causes and characteristics of juvenile delinquent behavior of the middle class youths are

Abstract: The article discusses the impact of socio-economic processes on the development of juvenile delinquency. Particular attention is paid to foreign scientists' estimation of the nature of delinquent behavior of juveniles from different social strata. Recognizing that

identified.

page 35-38

### History, Philosophy and Sociology

Yu.I. Deryabin, V.A. Deryabina

Tyumen State University of Architecture and Construction, Tyumen

Self-Cognition of Individuality as a Phenomenon of Culture

Keywords: spiritual being; time self-determination as self-cognition; holistic knowledge of individuality; symbol as a form of self-cognition.

page 39-41

Abstract: The article raises the problem of self-cognition of individuality as a form of multidimensional existence of valuable connections and relationships in the culture of a particular society. The symbol of individuality as a result of self-cognition codes ideals and values, which are fundamental for a specific individual, thereby preserving the integrity of his/her image in highly dynamic development of social processes.

# **Electronics, Measuring Equipment, Radioengineering and Communication**

A.M. Romanov

Military Academy RVSN named after Peter the Great (Affiliate), Serpukhov

The Measurement Procedure of Prevention of False Data Entry in a Radio Network of Special Purpose

page 42-45

Keywords: prevention of false data entry assessment; data exchange.

Abstract: The article presents the measurement procedure to ensure the prevention of false data entry in service signals using cryptographic transformation algorithm.

### **Computer Science**

Zh.V. Dorokhova

Kostroma State Technological University, Kostroma

Automation of Business Process of selecting a Construction Company Contractor in COBRA++ System

page 46-51

Keywords: business process; organizational structure; information system.

Abstract: Automation of the process of tenders improves the quality of selecting a contractor. Particular attention is given to technology COBRA++ as a way to solve the problem.

D.V. Pavlyuchenko, V.A. Koloskov

MATI – Russian State Technological University named after K.E. Tsiolkovsky, Moscow

Cellular Approach to Fault-Tolerance Routing in Multiprocessor Structures

Keywords: fault tolerance; cellular algorithms; cellular automatic models; multiprocessor systems; routing.

page 52-56

Abstract: The article presents the cellular operations of routing algorithm in toroid structure of multiprocessor providing search message routes based on local data of failures. Local data processing rules of determining the characteristics of availability of message receiver and search route in conditions of arbitrary failures are considered.

#### **Economic Sciences**

V.V. Kalygina

Russian Peoples Friendship University, Moscow

International Product Adaptation Strategy in Consumer Goods Market in Global Economy

Keywords: adaptation of product strategies to local markets; consumer goods market; factors applying to adaption of product strategies; globalization; international product strategy, partial adaptation strategy.

page 57-59

Abstract: The present article analyzes the international products adaptation strategies in the consumer goods market in the global economy. The main types of product adaptation strategy and the factors applying these kinds of strategies are given. The article gives examples of using these strategies in the practice of international companies.

O.I. Nazarova page 60-63

St. Petersburg Institute of Humanitarian Education, St. Petersburg

#### Tax Deductions as a Tool of Social Policy Implementation in the Russian Federation

Keywords: tax policy; tax deduction; social support of the state.

Abstract: The tax policy of the Russian Federation in relation to families with children provides for different mechanisms aimed at economic support to motherhood, childhood and family, therefore, the provision of tax incentives is a way to improve the level of welfare of the society.

#### V.A. Tetushkin

Tambov State Technical University, Tambov

#### Problems of Economy, Policy and Quality of Real Estate

Keywords: real estate; economy; problem; quality; government; politics; state; mortgage. Annotation: In the article special attention is paid to the problem of accessibility of the real estate to different population groups, as well as the analysis of new threats to the consumer in the modern realities of economic policy in the housing market of the country.

## page 64-68

#### A.M. Chernysheva

Russian Peoples' Friendship University, Moscow

## The Analysis of Trends in the Development of Retailers' Brands in the System of Interaction in the Distribution Channel

Keywords: brand; loyalty; retailer; retail chain.

Abstract: The role of retailers' brands is changing in the market. This leads, on the one hand, to strengthening their influence, on the other hand, it enhances competition between retailers forcing down margins on manufacturers' brands. Thus, retailers' brands are considered as an instrument of struggle between a retailer and a manufacturer for the consumer.

#### page 69-71

#### O.V. Chupeeva

Far Eastern State Transport University, Khabarovsk

#### Improving Management Accounting System of OAO «Russian Railways»

Keywords: direct costing; railway transport; management accounting. Abstract: In dealing with issues of management accounting, the author of this article puts emphasizes the need to study its development in modern socio-economic conditions of Russia and also offers novelty items in terms of improving management accounting system in railway industry.

#### page 72-76

## **Legal Regulation**

#### E.M. Shutova

Petrozavodsk State University, Petrozavodsk

## Cooperation between Universities, Large Enterprises and Engineering Companies as a Factor of Formation and Improved Protection of Intellectual Property

Keywords: engineering companies; intellectual property; businesses; universities.

Annotation: The case of Petrozavodsk State University showed that the cooperation of universities, large companies and engineering companies is an important factor intensifying the formation and protection of intellectual property. The new objects of intellectual property created as a result of such cooperation have been described.

### page 77-79

## **Political Sciences**

#### B.V. Verbenko

Siberian State Aerospace University named after M.F. Reshetnev, Krasnoyarsk

#### The Development of Information Society in Russia: Political Aspects

Keywords: information society; information security; information society in Russia; political management information space.

Abstract: A new stage of development of civilization is linked to the computerization of all spheres of social life. The term "information society" has taken its roots and is widely used to refer to steps alienating society from the industrial era. The existence of a global network for data communication means that the information society has already penetrated into our life. The entry of humanity in the information stage of development requires constant attention to the security of information. In the context of the information society the information security has become a global problem of modernity.

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