

Land Sciences

E.A. Kolokolova, E.V. Burdygina, O.V. Kulagina, I.R. Baykov

The Choice of Method and Frequency of Cleaning of Air- Cooling Units

Key words and phrases: air-cooling units; compressor station; gas cooling; gas transportation; purification of heat transfer surfaces.

Abstract: The paper examines the impact of pollution on the thermal efficiency of air-cooling units. The units are installed at the output of compressor station next to the gas-pumping units to reduce temperature of transported gas. The paper presents the research into the effectiveness of various methods of purification of finned heat transfer surfaces and the effect of treatment on improving the efficiency of units. A mathematical model for determining the optimal frequency of steaming of heat exchange surfaces has been developed.

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Biological Sciences

Z.V. Nikolaeva, L.Yu. Ignatyeva, A.V. Kryukova

Optimization of Phytosanitary Condition of Fruit and Berry Agrobiocenosis in Northwest Russia

Key words and phrases: black currant; plant pests; plant protection.

Abstract: The paper presents biological rationale for the protection scheme of currant plantations from insects-plant pests under conditions of Northwest Russia. The authors propose to take into account the presence of environmental groups of plant pests in black currant plantations, their economic value, harmfulness thresholds, and protective measures.

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Pedagogy and Psychology

O.V. Bobyleva

The Implementation of Competence-Based Approach in Teaching “Matrix Calculus” to Sociologists

Key words and phrases: competence; matrix calculus; project method; sociology.

Abstract: The author analyzes the Federal National Standards to substantiate the possibility of using the method of project work in teaching “Matrix calculus” to students majoring in sociology.

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I.S. Ganishina

Problems of Psychological Diagnosis, Prevention and Correction of Convicts’ Drug Addiction

Key words and phrases: convicted; correction; correction system; drug addiction; penitentiary psychology; prevention; addiction; psychological diagnosis.

Abstract: The paper deals with the problem of psychological diagnosis, prevention, and correction of convicted drug addicts.

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Ya.A. Ilyinskaya

Distance Learning Technologies in Additional Continuing Education

Key words and phrases: additional continuous education; continuing education; distance learning technologies; distance learning; regional aspect.

Abstract: The author analyzes the problem of incorporating distance learning technologies in modern education system. The introduction of these technologies in the educational process is still expensive and sometimes the outcome is not predictable, because the population of our country, especially in some regions is not ready for such radical changes. In the Kamchatka region, the modernization of the education system and integration of distance learning technologies have a regional specificity.

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V.A. Markovich

Socio-Psychological Performance Criteria for Basic Training of Negotiators and Profilers

Key words and phrases: consolidated integral indicator; criterion; negotiators; effectiveness of training; emotional satisfaction; method of analytic hierarchy process; Harrington desirability scale; profilers; signs of false information; successfully conducted negotiations.

Abstract: The process of shaping the negotiation culture should be holistic, systemic, variable in nature, and based on cultural, personal activity and systemic approaches. It requires the developed socio-psychological criteria for evaluating the effectiveness of the basic training program in order to improve the negotiation competence and development of professionally important qualities of negotiators and profilers. The most informative socio-psychological criteria of the training effectiveness include: dynamics of the number of successful negotiations, dynamics of the number of detected indications of inaccurate information, the positive dynamics of changes in the overall composite integral indicator, which reflects the ratio (hierarchy depending on the specialization of negotiations) determined by the method of analytic hierarchy process of professionally important qualities of a potential negotiator.

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V.V. Moroz

Teaching Critical and Creative Thinking Skills to University Students

Key words and phrases: creative thinking; critical thinking; teaching thinking skills; university students.

Abstract: The relevant problem of teaching creative and critical thinking skills to students is considered in this article. The necessity of studying critical and creative thinking as interrelated not separate concepts is substantiated. Three approaches of teaching students creative and critical thinking skills are pointed out. The structure of critical and creative thinking skills teaching is determined. Barriers hindering effective development of above-mentioned skills are identified.

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I.A. Simonenko

Features of Family Relationships and Identity of Adolescents with Psychosomatic Disorders

Key words and phrases: functional system; identity; psychosomatic disorder.

Abstract: The paper discusses the features of identity formation teenager suffering from psychosomatic disorders of gastrointestinal tract. On the basis of the developed model the author describes the functionality of the system of relations of a child in the family. The concepts of the communication partner and teenager's identification partner in the family have been disclosed. The author analyzes the specifics of psychosomatic diseases of a teenager. The features of interrelation of the system of meaningful relationships and identity of adolescents suffering from psychosomatic disorders have been examined.

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History, Philosophy and Sociology

P.M. Volkov, M.I. Mikheev

Expert Evaluation of Authority in the Works of Michel Foucault

Key words and phrases: authority; poststructuralism; discourse.

Abstract: The purpose of this research is to study the question about the source and nature of authority in society in the works of Michel Foucault.

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I.Yu. Erokhin

Conceptual Positions of Cossack Emigration during the Second World War on Statehood

Key words and phrases: class; Cossacks; culture; ethnicity; history; Russia; society; state; tradition; war

Abstract: The article discusses the philosophical doctrines and approaches of Cossack emigration in relation to the issue of state during the Second World War. The author believes that many groups of Cossacks abroad were forced to ally with Hitler. However, this alliance was local, limited and tactical. The Cossacks had independent ideas of reviving the Cossack state autonomy or creating a unified Common Cossacks State.

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N.P. Lapitskaya

State Policy in Higher Linguistic Education in 2000s

Key words and phrases: Bologna agreement; culture; foreign language education; two-level education system; system.

Abstract: The paper discusses integration of Russian linguistic education with world educational spaces considering the Bologna agreement. The conducted analysis has revealed the main principles of institutionalization of the foreign language education system, different directions of specialists' training and changes in the content of foreign language education.

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S.G. Reshetova

The Specificity of Socialization of Preschool Children in the Context of Historical Cognition

Key words and phrases: development; early childhood care and education; model of educational environment; socialization.

Abstract: The paper explores the nature of socialization of children of preschool age in conditions of transformation of Russian society: the relevance of the research problems of socialization of preschool children has been grounded; on the basis of the theoretical analysis, the author offers her own view on understanding of preschoolers' socialization, its essence and structure.

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Philology

E.N. Gorbacheva

Discourse Registers vs. Psychological Theory of Action

Key words and phrases: communicative intention; discourse register; performative discourse.

Abstract: The paper deals with discourse registers – performative, narrative, descriptive, mimetic – in their correlation with the psychological theory of action, which differentiates between actions, operations and deeds. The structure of each discourse register includes actions/operations, while the performative discourse can comprise deeds.

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N.I. Tatishcheva

Profiles of Stress and Rhythmic Variation of Vladimir Sokolov's Poetry

Key words and phrases: poetry of the 20th century; stress profiles; rhythm; variation.

Abstract: The work is devoted to the application of one of the methods of rhythmic variation in the creative heritage of the poet Vladimir Sokolov. The author demonstrated the analysis and graphing of the common types of stress profiles of on the material 4-iambic pentameter. The conclusion about a significant rhythmic variation, diversity of rhythmic forms used by Vladimir Sokolov has been made.

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V.V. Shitova

Doctor Faustus in the Novel "Petrushka's Syndrome" by Dina Rubina

Key words and phrases: Doctor Faustus; doll; marginal; puppet; Petrushka; postmodernism.

Abstract: The purpose of this article is to analyze the image of Doctor Faustus in the novel «Petrushka's Syndrome» by Dina Rubina and to demonstrate the features of the image of Faust in the Russian literature of postmodernism. The differences in the perception of the image of Faust in the Renaissance, Romanticism and postmodernism have been identified.

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Engineering

V.G. Babashov

Some Applications of Thermal Insulating Materials in Mechanical Engineering

Key words and phrases: aeronautics; material science; thermal insulation; thermal protection.

Abstract: The paper gives a brief overview of the main trends in the development of heat-insulating and shielding materials used mainly in the aircraft industry. The historical development of application of these materials has been shown. The main areas of research in Russia and abroad have been outlined.

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S.V. Makarov, A.R. Ulyanov, A.V. Makarov

Methods of Producing Nanopowders (Review)

Key words and phrases: chemical vapor deposition; metallic oxides; nanocrystals; nanopowder; sol method.

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Abstract: The paper reviews the main methods of producing nanopowders, classification methods for their production, particularly, the properties of nanoparticles of powders and future prospects of their development.

A.S. Tarasov

Pyrolysis of Fine Wood Waste with High Moisture Content

Key words and phrases: carbon; engine; gas generation; pyrolysis.

Abstract: The paper deals with the technology of wood pyrolysis to obtain high-quality generator gas for an internal combustion engine of a mobile power station. The design of the pyrolysis plant with the active area of the revolving type, providing uniform pyrolysis of wood and its technical characteristics, has been offered.

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Mathematical Methods and Models

I.I. Bosikov, G.Z. Kharebov, F.V. Chikhtisova

Assessment of Ecosystem Management Using Mathematical Models

Key words and phrases: ecosystem; efficiency; forecasting; mathematical modeling; models of the water system disturbances; optimal solutions.

Abstract: The paper focuses on the use of mathematical models that describe dangerous processes in ecosystems. The recommendations are developed to improve the effectiveness of existing or projected ecosystem according to the results of experiments.

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O.N. Glushchenko, A.M. Struev

Mathematical Modeling of Plasma-Chemical Processes of Solid Fuels of Fuel-Energy Complex Enterprises

Key words and phrases: chaotic evolution of process; OGY algorithm; plasma-chemical processes; solid fuel; turbulent mode.

Abstract: The paper describes the process of plasma chemical decomposition of solid fuels of fuel-energy complex enterprises as the operation of a nonlinear dynamical system. The rationale for the control of plasma decomposition process of solid fuels by modified OGY algorithm has been given. The main purpose of this algorithm is to identify the modes providing optimum conditions for solid fuels.

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Electronics, Measuring Equipment, Radiotechnics and Communication

K.K. Dzhamanbalin, A.S. Bizhanova

New Smart Materials – Fullerenes and Carbon Nanotubes

Key words and phrases: base; carbon; fullerenes; graphite; nanostructure; nanotube.

Abstract: The authors considered the properties of carbon nanostructures such as fullerenes, carbon nanotubes, graphenes. We investigated the possibility of using natural material – asbestos – chrysotile fibers in the form of nanotubes, which is determined by the initial structure of the fiber itself.

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Ecology and Nature Management

B.A. Ershov, L.N. Zvyagina

Tendencies and Scales of Environmental Pollution by Oil in Modern Russia

Key words and phrases: climate; earth; ecology; oil; water.

Abstract: The paper studies the extent and ways to combat oil pollution in modern Russia. It is shown that the problem of environmental pollution by oil products is the most urgent of all the environmental problems in society.

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V.Yu. Polyakov, I.L. Revutskaya

Heavy Metals in River Fish of Some Superficial Water Currents of Priamurye

Key words and phrases: heavy metals; heavy metals in river fish; rivers of Priamurye.

Abstract: The research established the content of heavy metals in samples of fish caught in the

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rivers of the Amur region – the Urmi and the Ing. The maximum concentration of mercury (Hg), lead (Pb), cadmium (CD), arsenic (As) in samples of fish was as follows: lead of 0,036 mg/kg; cadmium of 0,018 mg/kg; mercury of 0,2369 mg/kg; arsenic of 0,0226 mg/kg that didn't exceed the admissible residual concentration for these elements.

Economic Sciences

R.I. Buneeva, V.A. Grechushkin

Problems of Investment in the Russian Economy

Key words and phrases: development; improving investment climate; investment; revitalization of economy; Russian economy.

Abstract: Russia's integration with the international economic community requires the development of an effective investment strategy to reduce the differentiation of economy and enhance its development as a whole with regard to opinions and suggestions of potential investors.

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M.A. Gurieva, M.V. Zaripova

Green Economy: Trends in Foreign Countries

Key words and phrases: concept of green economy; features; global trends and manifestations; green economy.

Abstract: The paper deals with the concept of green economy, reflects on its main features and vision; the author identified the global trends in the development of green economy.

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M.V. Danilina, A.G. Podlinnova, A.S. Silaev

«E-Gold»: Advantages and Disadvantages

Key words and phrases: Bitcoin payment system; Cryptocurrency; e-gold; mining.

Abstract: The paper describes the system of electronic cash «Bitcoin», which has eponymous digital currency (Cryptocurrency). The authors' aim was to analyze the demand for this currency in modern society and see if it could replace Fiat money. The history of creation of the currency and the dynamics of its development were considered; a comparison with alternative electronic systems was made. During the analysis of the actual data, the authors concluded that at this time, electronic money cannot replace money; however, the system of electronic money is constantly being improved and will be able in the future to compete with material currency.

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D.G. Rodionov, V.A. Degtereva

Problems of Economic Security of Northwestern Federal District Caused by Migration

Key words and phrases: labor migration; social tensions; shadow economy.

Abstract: This paper examines trends in labor migration in St. Petersburg. Particular attention is paid to the problems of regulation of migration processes. The authors come to the conclusion that the need to improve the regulatory framework of the mechanism migration management in Russia in order to ensure economic security.

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A.M. Chernysheva, T.N. Yakubova

Problems of Development of Socially Oriented Branding in Russia

Key words and phrases: brand; socially oriented branding; loyalty; global brands.

Abstract: The paper deals with the issues of developing socially oriented branding policies in Russia. High level of social responsibility increases the company attractiveness for potential buyers and provides commercial brands with a significant competitive advantage over competitors.

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Legal Science

O.V. Kuptsova

Moral Principles of Clinical Practices in Law

Key words and phrases: code of ethics; legal clinic; legal ethics; morality; principles of legal clinics.

Abstract: The author analyzed the legislation and local acts of legal clinics to describe the principles of clinical legal activity. Moral value requirements of law, social orientation, competence and other principles of clinical legal practices have been discussed in the paper. The value of the moral component of clinical lawyers' competence has been characterized.

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E.M. Khokhlova

The Role of Practical Training of Law Students

Key words and phrases: clinical legal education; legal clinic; legal education.

Abstract: The paper discusses the features of clinical legal education. We study the learning process of law students in legal clinics implementing practical training of future lawyers.

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N.T. Chakhalyan

Correction Convicted in Accordance with the Modern Penal Policy Russia

Key words and phrases: correctional facilities for convicts; functions of penal enforcement policy; international standards of convicted treatment; penal enforcement policy; recurrent criminality; treatment and correctional programs.

Abstract: The paper deals with the problem of treatment and correction of convicts, serving criminal sentences, in conditions of Penal Enforcement System reforming in Russia. This problem is considered in compliance with modern penal policy of Russia, which is reflected in the Russian penal enforcement legislation.

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Political Science

L.A. Vasilyeva

Media: Extreme situations, Creating and Broadcasting Myth Images of Foe

Key words and phrases: media; myth image of foe; symbolism.

Abstract: Modern political myths broadcast by the media do not authorize or prohibit certain actions. They change people's minds, regulate and control their actions. Conventional methods of political violence do not give a similar effect; rather, they can produce only a short-term effect.

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