

Summaries

UDC 553.411.071:550.42(546.1+546.8)

Kucherenko I.V.
**PHEMOPHIC CHEMICAL ELEMENTS IN NEAR-ORE
METASOMATIC AUREOLES OF THE KEDROVSKOYOE
GOLD-ORE DEPOSIT (THE NORTH TRANSBAIKALIA)**

The results of studying geochemistry of phemophilous group in near-ore apogneiss and aposhale metasomatites of the Kedrovskoye mesothermal deposit in the North Transbaikalia are presented. According to mineralogy-petrochemical data it was defined that metasomatic aureoles belong to beresite metasomatic formation with propylite-like profile of transformations at the area periphery. Silica loss to the half of its mass from the back zones was stated in the initial ores and conditions of this loss were determined. Silica removed from the ores served as a basis for formation of gold-bearing quartz veins. In the back zones of near-ore metasomatic areas contrast anomalies of phosphorous, titanium, magnesium, manganese, iron, potassium and calcium were found. Fermic orientation of gold-bearing metasomatites demonstrates the generation of metal-bearing fluids in mantle magmatic chamber.

UDC 552.321.6+552.164

Chernyshov A.I.
**PETROGRAPHY AND MINERALOGY
OF ULTRAMAFIC OPHIOLITE, SHEETED
AND ALKALI-ULTRABASIC COMPLEXES**

Ultramafites of three formation types: of ophiolite complexes, stratified mafite-ultramafite and alkali-ultrabasic intrusions have been studied. Petrographic and mineralogical features of ultramafites demonstrating their evolution in the process of formation and subsequent superimposed plastic deformation are shown. Geodynamic conditions of their formation were defined by the mineral composition of ultramafites.

UDC 551.31

Koshovkin I.N., Belozerov V.B.
**COLLECTOR PROPERTIES - TECHNOLOGICAL
AND ECONOMICAL ASPECTS
OF INTRODUCTION OF NEW TECHNOLOGIES**

Practical aspects of applying modern technologies of oil mining are considered taking into consideration collector properties. Methods of designing radically new facies-sedimentation models in effective reservoirs from the viewpoint of collector facies heterogeneity and use of individual development systems within the isolated heterogeneity zones were laid as a basis of increasing efficiency of carbohydrates pool development.

UDC 622.323

**Peshkov V.E., Solyanik A.S., Krylov O.V.,
Zakharova A.A., Tikhomirova N.O.**
**BASIS FOR THE MODEL OF PARAMETER PERMEABILITY
PREDICTION OF PRODUCTIVE STRATA IN OIL
AND GAS DEPOSITS DEVELOPMENT**

Basis for prediction of strata hydropermeability of oil and gas deposits is presented. The prediction model of from the viewpoint of continuum mechanics (the theory of visco-elastic body creeping) is justified in terms of estimating deformation gradient, water permeability, piezoconductivity and permeability of hydrocarbon productive strata. To construct the pattern of these parameters the programming complex «Balance-Hydrodynamics» was used. One of the units of this complex allows the construction of predictive permeability patterns using only the results of well prospecting seismology and hydrodynamic tests. The method was successfully applied at a number of hydrocarbon deposits development in Tomsk region.

UDC 550.42:57.4(571.1)

Savichev O.G.
**DRIFT FLOWING OF THE RIVER TOM
(THE WESTERN SIBERIA)**

The results of studying the flow of tractional and suspended sediments of the river Tom near the city Tomsk are presented. It is shown that it is preferable to apply G.I. Shamov's method to determine the losses of tractional particles. It is stated that average total solid drift near Tomsk (undercurrent of the Tom) amounted 47,89 kg/day or 1510179 t/year within 1986–2005. Its bulk includes suspended particles (65,4 %). Average flow of tractional drifts amounted 16,57 kg/day or 522519 t/year. The recommendations on bed-correcting are given.

UDC 502.7:551.215(282.251.1)

Bolotov V.P.
**APPLICATION OF FLOOD INDEX
IN MONITORING OF FLOOD-PLAIN
ECOSYSTEMS (BY THE EXAMPLE
OF THE MIDDLE OB FLOOD-PLAIN)**

The concept of regional hydroecological monitoring has been developed for the flood-plain of the Middle Ob. Its object is to control the state of flood-plain ecosystem productivity for organization of scientific, regional-adopted and ecologically regulated nature management. For this purpose hydroecological zoning of flood-plain territory has been performed, the most representative stations of water-gauge observations for each flood-plain zone have been organized, the scheme of flood-plain flooding has been prepared. On the basis of observations within more than 50-years flood hydrographs was composed, the part which forms the flood influence was calculated. It was presented through the complex factor-index of flood influence. The graphs of the flood influence index changes at reference water stations from 1935 to 2000 are presented.

UDC 514.76

Ivlev E.T., Pshenichnikova A.S., Barysheva V.K.
**ON DISTRIBUTION OF MULTI-DIMENSIONAL
PLANES IN THE EUCLIDIAN SPACE**

Reflections of two-dimensional squares of m -planes and normal $(n-m)$ -planes of $\Delta_{n,m}^1$ distribution in E_n , defined by two corresponding functions of two arguments meeting the Cauchy-Riemann conditions have been studied.

UDC 621.757 (031)

Zhuravlev A.N.
**INFLUENCE OF JOINT GEOMETRIC PARAMETERS
ON OPERATION OF CAGELESS ROLLER BEARINGS**

Predominant influence of roller chamfer angle on operation of cageless roller bearings has been considered. Structural assembly of support elements of such types is proposed.

UDC 621.879.322.017.3:004.942

Zavyalov V.M., Semykina I.Yu.
**MATHEMATICAL MODEL OF MECHANICAL PARTS
INTERCONNECTED ELECTRIC DRIVES
OF HEAD AND LIFT IN ROCK DIGGER**

The need for development of new approach to modelling lift and head electric drives of rock digger in the process of digging has been justified. The differences of the mathematical model suggested from the traditional approach are shown. The disadvantages of existing control systems in digger electric drives are revealed the method of their removing is proposed.

UDC 622.831.3:622.33

Proshunin Yu.E.
ON IMPROVEMENT OF MATHEMATICAL MODEL
OF LOOSE MATERIAL PRODUCTION

On the bases of studying the history of formation of stress fields and densities in fixed layer of cohesive compressed loose material, formation of secondary stress field, appearing in the substance layer under the external action, and determining the conditions of massive destruction the mathematical description of loose material production has been proposed.

UDC 621.039.51

Izmestiev K.M., Komarov E.A., Seleev I.N.,
Gavrilov P.M., Silaev M.E.
SEMI-EMPIRICAL CONTROL METHOD OF SOLID WASTES OF
MEDIUM AND HIGH ACTIVITY

Semi-empirical method was developed to monitor medium and high level solid radioactive wastes based on direct measurement of wastes radioactivity and nuclide composition in lorry body. The energy range of measurements was from 80 до 3000 KeV. The radioactive waste activity was from 106 to 1012 Bq. The proposed method was certified and measurement basic errors were determined that not exceeding 60 %.

UDC 537.521.7:621.315.6

Gefle O.S., Lebedev S.M., Tkachenko S.N.
INFLUENCE OF THE MODIFYING AGENT NANO-POWDER
OF NICKEL ON BASIC ELECTROPHYSICAL CHARACTERISTICS
OF POLYVINYLIDENE FLUORIDE

Results of the study of temperature-frequency relationships of dielectric permittivity and dielectric loss tangent, electric strength and permolecular structure of polyvinylidene fluoride, modified nanopowder of nickel are presented in this paper. It was shown that load nano-particles of nickel in polyvinylidene fluoride lead to change structure and electrophysical characteristics one.

UDC 621.793.71

Klimenov V.A., Kovalevskaya Zh.G.,
Zaytsev K.V., Tolmachev A.I.
INVESTIGATION OF SURFACE ADHESION PRODUCED
BY HIGH-SPEED FLAME SPRAYING

Peculiarities of surface adhesion based on nickel, produced by high-speed spraying on steel base with different surface morphology have been analysed. It is shown that ultrasound final polishing builds up wavy submicrorelief providing the reliable adhesive connection between covering and base. Ultrasound finite polishing is suggested as a method of preparing surface for high-speed flame surface spraying.

UDC 544.52

Surovoy E.P., Bugerko L.N., Rasmatova S.V.
INFLUENCE OF THE METHOD OF SYNTHESIS
ON LEAD AZIDE PHOTOLYSIS

Lead azide irrespective of method of synthesis shows the general kinetic regularities. On kinetic curves of photolysis speed $PbN_6(A6)$ characteristic sites have been defined: initial, stationary, increased and saturation. Time of the sites realization as well as the photolysis speed depends on the way of $PbN_6(A6)$ synthesis. Preliminary light processing of $PbN_6(A6)$ at $\lambda=380$ nm and $I=2 \cdot 10^{15}$ quantum \cdot sm $^{-2}$ \cdot s $^{-1}$ in vacuum ($P=1 \cdot 10^{-5}$ Pa) along with increase in photolysis speed and photocurrent in own area of absorption results in appearance of new long-wave area of spectral sensitivity. Quantum outputs and constants of photolysis speed of $PbN_6(A6)$ are determined. It is experimentally stated that the values of photocurrent observed in the field of long-wave threshold of photosensitivity coincide with the designed values of photoemission current on the border of $PbN_6(A6)$ -Pb. This fact as well as the measurements results of volt-ampere characteristics, contact photoelectrical moving force, contact potential difference reveals the formation of microheterogeneous $PbN_6(A6)$ -Pb systems (a photolysis product) at photolysis of lead. A limiting stage of $PbN_6(A6)$ photolysis is anion vacancies diffusion to neutral center of Pbn^0 .

UDC 544.032

Borisova N.V., Surovoy E.P.
LAWS OF NANOSIZE MOLYBDENUM (VI) OXIDE LAYERS
OPTICAL PROPERTIES CHANGE AS A RESULT
OF HEAT TREATMENT

The spectrophotometric method determines two absorption and reflection spectral areas of nanosize MoO_3 layers – short-wave $\lambda < 330$ nanometers and long-wave $\lambda > 330$ nanometers. By spectrophotometric, gravimetric and microscopic methods it is established that in atmospheric conditions MoO_3 layers transformation degree ($d=10 \dots 130$ nm) grows at increase in time (1..140 minutes) and heat treatment temperatures ($T=373 \dots 600$ K) (at constant layer thickness), as well as at reduction of layers thickness. The reduction is revealed at $\lambda=350$ nm and increase at $\lambda=870$ nanometers of absorption maxima at heat treatment of MoO_3 layers. The colour centers formation model is offered. It includes the center formation – anionic vacancy with one seized electron ($[(Va)^{++}e]$) during preparation of MoO_3 layer, thermal electron transition from a valent zone on a level of the center, capture by the center of the second electron ($[(e Va)^{++}e]$).

UDC 541.16:182

Astankova A.P., Ilyin A.P., Godymchuk A.Yu.
INFLUENCE OF HOT HYDROGEN ON WATER BOILING

The influence of dispersion and aluminium powder content in aqueous suspension on aluminium oxidation with liquid water has been investigated. It is stated that after heating aqueous suspension of electroblasting aluminium nanopowder to 64..66 °C aluminium oxidation process is characterised by the subsequent induction period and possible suspension self-heating with heat and hydrogen evolution. It is shown that at aqueous suspension self-heating the boiling temperature does not exceed 94 °C. The mechanism of water boiling is described.

UDC 546.791.6*161

Smolkin P.A., Buynovskiy A.S., Lazarchuk V.V.,
Matveev A.A., Sofronov V.L.
MATHEMATICAL MODEL OF DESUBLIMATION PROCESS OF
VOLATILE METAL FLUORIDES

Mathematical model for calculation of optimal temperature desublimation in metal fluorides and the number of desublimation stages has been developed; it permits of achieving the degree of base product recovery from gas-vapour mixture nearly to 100 %. Experimental checking of modeling results at uranium hexafluoride desublimation shows a good correlation with the theoretical data.

UDC 546.791.6*161

Smolkin P.A., Buynovskiy A.S., Lazarchuk V.V.,
Matveev A.A., Sofronov V.L., Brendakov V.N.
MATHEMATICAL MODEL OF DETERMINING
HEAT CONDITION IN DESUBLIMATION PROCESS
VOLATILE METAL FLUORIDES

To optimize the technological parameters of the process and to create the automatic regulation system of desublimation process the mathematical model for desublimation process of volatile metal fluorides in surface devices (by the example of uranium hexafluoride) has been developed. Optimal conditions for sublimation designed with the use of the model developed were tested and showed good agreement with the experimental data.

UDC 621.889

Koval E.O., Bogomolov M.S., Mayer E.A., Bondaletov V.G.
ADSORPTION REFINEMENT OF WASTE TRANSFORMER
OIL USING INDUSTRIAL MONTMORILLONITE-CONTAINING
SORBENTS

The possibilities of adsorption contact refining of waste transformer oil with active montmorillonite-containing sorbents of "Filtrol" series of BASF Catalysts LLC corporation and Zikeevsk M-80 deposit sorbent have been investigated. Usage of F-160 sorbents of "Filtrol" series in the refinement process allows high quality degree of lean transformer oil, permitting its further use in the equipment with operating voltage to 750 kV.

UDC 620.18:669.14

Aspov A.M., Valuyev D.V., Danilov V.I.
ON POSSIBLE REASONS FOR DEFECTS IN LARGE BLANKS
OF LOW-CARBON MANGANESE STEEL AT "YURMASH"

Mechanical properties and microstructures of forged large blanks of low-carbon steel without necessary incoming ultrasound test have been studied. The examination was performed to find out the reasons for product defects. Abnormalities in structure and disagreement of metal plasticity with standard requirements are revealed. On the basis of the results obtained it is assumed that the reasons for the defects could be deviations from standard chemical composition and irregularities in hot forging.

UDC 621.314.2, 621.613.538.244.2

Yukhnov V.E.
APPROXIMATE CALCULATION OF TEMPERATURE MODES
IN BETATRON WINDINGS WITH LIMITED NUMBER
OF HEATING AND COOLING CYCLES

Estimation dependencies for nonstationary temperature condition calculations of betatron winding with limited number of heating and cooling cycles have been obtained.

UDC 519.876.5

Belousov A.V.
TECHNIQUES OF ANALYSING HEAT CONDITIONS
IN ELECTRON DEVICES OF SPACECRAFT

On the bases of thermal macrolevel models electron device and construction elements the technique of analysing heat conditions of unpressurized electron spacecraft equipment has been developed. The technique involves formation of electric loss sequence diagram for connected thermal and electric analysis, which makes possible to increase the accuracy and reliability of heat analysis for the device and its elements.

UDC 621.313

Borovikov Yu.S., Kachin S.I., Sablukov V.Yu.
METHOD FOR BASIC MEASUREMENT ADJUSTMENT
OF COMMUTATOR PROFILES

The possibility of error minimization as a result of noncontact measurement of the distance between eddy-current converter and commutator has been shown. The problem was solved by means of correction in transfer constant of the device measuring channel in the process of measuring distance to arbitrary taken commutator bar according to the method proposed.

UDC 681.3.06

Pogrebnoy A.V.
DETERMINATION OF DATA TRANSFER CONTENT
IN COMPUTER NETWORK FOR SPECIFIED MODEL
OF SOFTWARE LOAD

The factors which determine the data content transferred between the stations of MP computer system have been revealed. The methods for construction of information graph of software load model and its cutset for forming the plan of station resource use are suggested. It is shown that criterion taken in the cutset problem corresponds to content minimization of the transferred data.

UDC 002.53:004.89

Tuzovskiy A.F.
FORMATION OF SEMANTIC METADATA
FOR THE OBJECTS OF KNOWLEDGE CONTROL SYSTEM

The methods of forming semantic metadata for different elements of knowledge management system are proposed. The method of manual annotation of different objects in knowledge management system using metadata editor is considered. For the documents the semi-automatic annotation method involving surface linguistic analysis is suggested.

UDC 371.14

Barysheva G.A., Arefiev P.V.
MODERN INDUSTRIAL ECONOMICS AND PROBLEMS
OF COST RELATION TRANSFORMATIONS

The analysis of innovation sector of the regional centre has been carried out from the viewpoint of the formation approach. The issue is raised on cost relation transformation in the modern industrial economics. The conclusion on necessity of global innovation development without wide attraction of manpower resources to achieve the modern stage in industrial development is made. This stage involves transformation of cost relations with following the basic laws of the cost theory.

UDC 334.012.62

Trifonov V.A., Lobanov M.M.
THE WAYS OF INNOVATION INTERACTION BETWEEN
THE SELF-GOVERNMENT AUTHORITIES
AND TOWN-FORMING ENTERPRISES

Under the condition of multi-profile cities the question of using innovation potential of town-forming enterprises has become rather urgent to solve social-economical problems of municipality. The key moment in interaction of local self-government authorities and a town-formation enterprise is creation of innovation system capable of providing the association of energy for the sake of accelerated and effective application of scientific and technological achievements, creation of reliable budgetary circumstances and population employment.

UDC 001.2

Rubanov V.G.
DIALECTIC INTERCONNECTION OF NEW
AND OLD ELEMENTS IN FORMATION OF A SCIENTIST'S
PERSONALITY: HISTORY AND PRESENT DAY

Interconnection of new and old aspects in a scientist's activity is a fundamental regularity of scientific action. The mechanism of scientific succession has been improved depending on objective and subjective factors. Philosophers of different epochs and generations suggested their ideas of this problem. The author proposes his variant of this problem solution. From his point of view, on the bases of existing output scientific aggregate, the paradigm of scientific way of thinking is formed. This complex social-cultural phenomenon has several forms (determining, peripheral, wandering) each of which possessing its own orbit of existence. In the society scientific paradigms interact with each other. Owing to information pressure and activity of scientific activity subject there occurs a breakup in protective belt of dominant paradigm, interference of wandering and peripheral contents of other paradigms, substitution of existing paradigms accompanied by transformation, succession with proceeding accumulates output scientific aggregate.

UDC 1:001

Kornienko A.A., Pogukaeva N.V.
ORIGIN OF THEME ANALYSIS AS A METHODOLOGICAL
ORIENTATION OF SCIENCE INVESTIGATION AND ITS STATUS
IN THE CONTEMPORARY SCIENTIFIC PHILOSOPHY

The principles and bases of epistemology are given; the characteristics of J. Holton's philosophical system are presented. "Theme analysis" is shown as a reflection of modern tendencies of science methodology.

UDC 378.014.1

Korneva O.Yu., Ivankina E.A., Filippova A.B.
REALISATION OF ACCESSIBILITY PRINCIPLE OF HIGHER
PROFESSIONAL EDUCATION SYSTEM AND EFFICIENCY
OF RUSSIAN SCIENTIFIC POTENTIAL

The problems of accessibility of higher professional education system (HPES) from the viewpoint of economical, social development of the society and creation of country intellectual potential are discussed. The role of higher education in achieving stable economic growth of the country, formation of information society, development and introduction of new science intensive technologies is defined. Interconnection of HPES accessibility and scientific-technical, scientific-academy potentials, their influence on stable economic growth is investigated. The definitions of HPES

accessibility, scientific-technical and scientific-academy potentials are given, their content and influence degree on each other is revealed. Comparative analysis of HPES accessibility, scientific-technical and scientific-academy potentials of Russia and developed countries is performed. The urgent problems are revealed, possible ways of their solving are proposed.

UDC 930.2

Kirsanova E.S.
ON INFLUENCE OF NEGATIVE PSYCHOLOGICAL FEATURES OF SCIENTIFIC SCHOOL FOUNDER'S CHARACTER ON ITS DEVELOPMENT

On the bases of analysis of outstanding Russian historian V.I. Gerie's biography complex collisions in ideological and personal relations between the founder of scientific school and his disciples are considered in the situation when the teacher is a man of difficult nature.

UDC 17

Ardashkin I.B.
CONTINUATION OF A PROBLEM AS AN ONTOLOGICAL FEATURE OF THE STATUS IN THE CONTEXT OF Z. DELEZ'S PHILOSOPHY

Continual measurement of a problem is considered. It is proved that continuation of a problem demonstrates the semantic priority of cognition over the truth.

UDC 009

Nikitina Yu.A.
INNOVATIONAL ACTIVITY OF SOCIAL SYSTEMS AS EFFECTIVE ADAPTATION MECHANISM UNDER THE CONDITIONS OF INCREASING INSTABILITY OF THE ENVIRONMENT

Possibilities of social systems' adaptation to the unstable environment are analyzed in the article. Quite new forms of innovation activity are typical for self-organized social system. It is shown that development of such forms is the primary factor determining adaptability of social systems.

UDC 130.06

Nekita A.G.
INSTITUTIONAL FORMS OF ARCHETYPE GENERIC EXPERIENCE DECOMPOSITION

The article is devoted to determination of leading institutional forms of archetype's generic experience decomposition in the context of contemporary social reality. The author insists on similar processes appearing and strengthening only at the background of escalation of a man's unconscious estrangement from not assimilated by him world contents during some generations. These contents are governmentally formed in leading social institutes permitting the authorities to build imitation-virtual picture of variety and changeability of existence. In the article the most significant modern social institutions - state, science, and ideology are considered. It is they which represent the regeneration field of "transformed form" of conscious. Society liberation from dictatorship of social institutions is possible only by mastering generic experience of generations that is essentialized in universal archetype action.

UDC 316.7

Kashpur V.V., Popravko N.V.
INSTITUTIONAL CULTURE IN TOMSK REGION: STATE, PROBLEMS, MODELS OF CONSUMER BEHAVIOUR

The paper is based on the investigation results performed in December of 2004 – April of 2005 by the Department of Sociology of Philosophy Faculty at TPU by the order of Culture Department of Tomsk region. The current situation in the sphere of Tomsk region culture, namely in the field of its institutional "formation" are analysed. The main problems of cultural sphere as well as characteristic models of consumer's behaviour are studied.

UDC 803.074-087

Alexandrov O.A.
CHARACTERISTICS OF "INSULAR" DIALECT PHONETIC SYSTEM OF SIBERIAN GERMAN

Complete description of German "insular" dialect phonetics of Kozhevnikovo settlement in Tomsk region has been presented. The author designs consonant and vocal subsystems of disappearing language form, compares them with sound peculiarities of modern German literary language and considers them from the viewpoint of characteristics of German dialect development.

UDC 94(571.1) "18"

Andreev S.M.
SOURCES OF FORMATION OF THE SIBERIAN LINEAR COSSACKS DURING THE PRE-REFORMING PERIOD

The insufficiently explored historical problem of the Siberian linear Cossacks has been considered: mechanisms of its population "artificial" growth during the Pre-reforming period. Particular attention is paid to the governmental measures in peasants' mass enrolment in military estate.

UDC 348.(571.1/.5) 1949/1952

Gorbatov A.V.
GOVERNMENT-CHURCH RELATIONS IN SIBERIA (1949-1952)

The history of relation between the state and the organizations of Russian Orthodox church in Siberia in 1949-1952 has been analysed. Administrative and ideological methods of Soviet State policy in the sphere of state-religious relation are considered.

UDC 001.895:316.422(09)

Nagornov V.I., Yalovskaya G.V.
CONTRIBUTION OF THE FIRST SIBERIAN SCIENTIFIC FORUM TO INDUSTRIAL MODERNIZATION OF THE REGION

On the basis of documents of the First Siberian Scientific-Research Forum published at the end of the 1920's the state of Siberian scientific potential by the middle of the 1920's has been revealed. The urgent necessity of increase in scientific-research work and integration of scientific forces in terms of industrial modernization of the region requiring scientific-technical and economic grounds is shown.

UDC 947.081/083

Bykov A.A.
TO THE QUESTION ON CHARITY IN SPHERE OF EDUCATION IN THE WESTERN SIBERIA (XIX – THE BEGINNING OF XX CENTURY)

Charity in sphere of education in the Western Siberia in the pre-revolutionary period is considered. Genesis and transformation of functions of the basic charitable organizations working with various categories of the population are analyzed. The multilevel differential systems of social support of pupils for modernization of social-cultural and economic spheres of region are estimated.

UDC 338.431

Lettetskaya O.M.
ABORIGINALS' AND TOMSK PEASANTS' CONCEPTS ON THE CONDITIONS OF FORMATION OF THE LAND LAW IN THE XIX – AT THE BEGINNING OF THE XX CENTURY

Aboriginals' and Tomsk peasants' concepts on the Land Law are characterised. The similarities in peasants' and aboriginals' views on conditions of appearance of the Land rights are revealed. The factors contributing to strengthening of these categories in the consciousness of population to understand the rights to agricultural territories are determined.

UDC 940.3/.4

Kazakovtsev S.V.
**VYATKA PROVINCE DURING THE FIRST WORLD WAR:
EVOLUTION OF PUBLIC OPINIONS**

The questions of influence of the First World War on public opinions in Vyatka region have been considered, their evolution is shown. The reaction of Vyatka population to the beginning of the War and mass behaviour of large people's group is shown. Complex situations that local authorities faced at the beginning of the War are considered.

UDC 930.1

Gaman L.A.
**SOVIET HISTORY BY G.P. FEDOTOV (1886–1951):
METHODOLOGICAL ASPECT**

In this article some aspects of historical-philosophical ideas of G.P. Fedotov (1886-1951) are considered. These ideas are connected with his interpretation of Soviet history. The scientist's aspiration to bring out connection of soviet period with the previous development of Russia as well as with general world's tendency is also given.

UDC 930.1(44)

Trubnikova N.V.
**CONTINUITY AND INNOVATION IN HISTORICAL MAGAZINE:
«THE ANNALS OF THE ECONOMIC AND SOCIAL HISTORY»
IN THE CONTEXT OF DEVELOPMENT OF THE PROFESSIONAL
PERIODICAL PRESS**

The article is devoted to research of continuities and innovations in the sphere of the French historical professional periodical press. On a background of the general development of historical magazines the author analyzes the project and an embodiment of "The Annals of an economic and social history" from the point of view of their innovative characteristics.

UDC 687.01+745.04

Zatuliy A.I.
**MYSTICAL SIGNS IN COSTUMES OF THE END OF XX –
BEGINNING OF XXI CENTURIES AS A SEMANTIC FIELD
OF VANGUARD**

The tendencies of application of sacral-magic – Old Norse runes, Cabbala signs, etc. in the costume at the end of the XX – beginning of the XXI centuries have been considered. It is stated that complex combinations of magic signs allow designers to include mythological and astrological symbols, mythic heritage of different peoples, elements of love and apothropic magic into information field of costume.

UDC 37:01,301:151

Kozlova N.V.
**PECULIARITIES OF PERSONAL–PROFESSIONAL
DEVELOPMENT IN THE CONDITIONS
OF EDUCATIONAL INNOVATIONS**

Conceptual-ackmeological constituents of students' personal-professional development under the conditions of modern higher education on the bases of theoretical-methodological foundations in strategies of innovation development and achmeology methodology have been analysed. The levels of pre-professional world image in its value-sense measurements are determined and educational conditions in the context of these levels are shown. Content of definite characteristics of students' pre-professional world image as a main criterion of personal-professional development is presented.

UDC 373.5

Kozlova N.V., Lukov D.V.
**COMPLEX PROGRAMME OF INCREASING MOTIVATION
FOR SCIENTIFIC ACTIVITY
(PSYCHOLOGICAL–ACKMEOLOGICAL APPROACH)**

Theoretical and applied aspects of increasing motivation for students' scientific activity are analysed. Psychological-ackmeological approach making possible to develop psychological-pedagogical condi-

tions of personal development in complex is determined. Dynamics in increasing interest in future career, self-development, and scientific investigation is presented.

UDC 378:681.5

Buynovski A.S., Medvedeva M.K., Molokov P.B., Stas N.F.
**SYSTEM CONTROL AS A METHOD
OF STUDENTS' TRAINING AND EDUCATION.
P. 1. Entrance, current and thematic control**

The article is devoted to theoretical foundation and practice in organization of students' knowledge control in educational institution preparing specialists for atomic branch of industry. The use of entrance, current and thematic control as a method of students' training and education is shown.

UDC 378:681.5

Buynovski A.S., Medvedeva M.K., Molokov P.B., Stas N.F.
**SYSTEM CONTROL AS A METHOD
OF STUDENTS' TEACHING AND EDUCATION.
P. 2. Module control and examination**

Requirements for control means, approaches to estimation of knowledge quality, automation of control processes as well as rating system have been considered. The methods of students' module control and examination in studying general and inorganic chemistry are described.

UDC 378.14.015.62:54

Stas N.F., Mamontov V.V., Galanov A.I.
**ESTIMATION OF EXAMINATION TASK QUALITY
BY THE EXPERT METHOD**

By the example of chemistry the complex estimation of test task quality developed for control of students' training quality in technical universities has been performed. Their correspondence to the list and level of controlled knowledge, test requirements, modern terminology and discipline symbols, difficulty and other characteristics is determined. The tasks irrelevant for knowledge control and measurement are revealed. The directions in optimization of task quality are pointed out.

UDC 37.01

Kardanova E.Yu.
**LEVELLING OF INDEXES IN THE CASE
OF EXPERT KNOWLEDGE ESTIMATION**

The procedure of levelling indexes obtained at using different variants of the same test in the case of expert knowledge estimation is described. The given procedure is available in terms of G. Rash' models of multiparametric analysis.

UDC 530.1(075.8)

Erofeeva G.V., Sklyarova E.A., Kruchkov Yu.Yu.
**METHODICAL SYSTEM OF TEACHING PHYSICS
IN TECHNICAL HIGHER SCHOOL**

In the article the concept, model and methodic system of the students' training in physics at the technical university are examined. The concept, model and methodic system have been developed taking into account technical university's specifications as well as characters of students who have taken technical direction. Besides, directions of Russian education modernization and modern methods, principles and points of view in physics studying are taken into account in this article.

UDC 51(07)

Tarbokova T.V.
**TEACHING TECHNOLOGIES AS DIDACTIC SYSTEM
OF STUDENTS' MATHEMATICAL TRAINING**

Efficiency of applying teaching technologies as a didactic system in students' mathematical training developed in terms of stated pedagogical conditions (content, organisation, motivation) is shown.

UDC 941.5

Fedorchuk L.S.
MASTERS' TRAINING IN TEACHER'S
PROFESSIONAL-PEDAGOGICAL ACTIVITY
IN TECHNICAL HIGHER SCHOOL

Didactic methods used in the process of masters' educational training in technical higher school are considered, the conditions providing their preparation for professional-pedagogical activity are described.

UDC 159.9:316.6

Sladkov E.I., Subbotina O.A., Shulmin M.P.
PSYCHOLOGICAL PREPARATION OF INVALIDS
FOR PROFESSIONAL EDUCATION

The presented results of pilot investigation in psychological preparation of entrant-invalids for professional education have been obtained on the basis of psychological-pedagogical communication of investigators with a group of young invalids – students of pre-entrance training course.

The results prove that professional education is the leading goal for the invalids, it is connected with achievements of the most important purposes in life and possibility of self-realization in future for them.

UDC 803-085

Galanova O.A.
ON THE PROBLEM CONCERNING THE APPLICATION
OF FACTOLOGICAL INFORMATION WHEN TEACHING
DIALOGUES WITHIN THE FRAMES OF DISCUSSION

The role of information base in foreign discussion interaction is characterised, its detailed description is given, and the way of didactic organisation of information base for foreign dialogue speech in the context of discussion in scientific and professional spheres of professional activity is suggested.

UDC 908

Ishchenko O.V.
THE TTI PROFESSORS' ATTITUDE TO THE STUDENTS' ACTI-
VITY IN THE PERIOD OF THE FIRST REVOLUTION IN RUSSIA

The problems of interaction on the three parts: local authorities, students and teaching staff of Tomsk Technological Institute have been considered in the period of the First Russian Revolution. The most attention is concentrated on position of the Technological Institute Committee, managing to stand for autonomy of the higher school and requirements for civil rights in the country in the condition of both the authority and students' pressure.