

Summaries

UDC 519.2:621.391

N.S. Dyomin, S.V. Rozhkova
**ON STRUCTURE OF INFORMATION AMOUNT IN THE JOINT
 FILTERING AND INTERPOLATION PROBLEM BY MEMORY
 OBSERVATIONS. CONDITIONALLY-GAUSSIAN CASE**

The paper considers conditionally-Gaussian case of finding Shannon information amount in the joint filtering and interpolation problem of the stochastic processes by continuous-discrete time memory observations. The relations defining time evolution of Shannon information amount are obtained.

UDC 514.76

E.D. Glazyrina
**CAUCHY-RIEMANN CLASSIFICATION OF
 TWO-DIMENSIONAL VARIETY OF CENTRALIZED
 PLANES IN FOUR-DIMENSIONAL EUCLIDIAN SPACE**

In four-dimensional Euclidian space E_4 two-dimensional variety $V_{2,2}^1$ of planes L_1^1 is viewed, where each plane is given one point A (plane centre). This variety associates with the two-dimensional variety $V_{2,2}^2$ of planes L_2^2 , orthogonal to the corresponding planes L_1^1 in points A and which are the equipping planes of the variety $V_{2,2}^1$. There appear reflections between the corresponding planes $L_1^1 \in V_{2,2}^1$ and $L_2^2 \in V_{2,2}^2$; each of them is determined by the system of two non-homogeneous quadratic functions with two unknown variables or by the corresponding complex function. The paper reveals the geometrical meaning of these reflections and considers particular cases when the above mentioned functions are differentiable according to Cauchy-Riemann or D'Alembert-Ailer or harmonic in some or in all points of the corresponding planes L_1^1 or L_2^2 . The paper proves the existence of all above-mentioned particular cases. All the considerations are of local character and the functions stated in the paper are supposed to be analytic.

UDC 681.5

S.A. Gaivoronsky, S.V. Zamyatin
**ANALYSIS OF ROOTS LOCALIZATION FOR INTERVAL
 POLYNOMIAL IN THE GIVEN SECTOR**

The reflection of parametric polynomial polyhedron in sector Γ_m of the root plane which is determined by interval coefficients number m is analyzed. $(2m-2)$ of polyhedron tops are obtained, whose reflection in the given sector Γ provides localization of all interval polynomial roots. The paper formulates the criteria for roots localization in the given sector Γ at different correlations of its angle with the angle of sector Γ_m .

UDC 621.37

E.V. Semyonov
**RESEARCH OF TRANSFORMATION NONLINEARITY OF
 DETERMINED ULTRAWIDEBAND SIGNALS BY LINEAR
 COMBINATION OF OBJECT RESPONSES TO LINEARLY
 DEPENDENT TEST SIGNALS**

The paper considers transformation nonlinearity of determined object signals by its consecutive exposure to two linearly dependent signals and registration of linear combination of object responses to these signals. The paper shows the possibility to distinguish the non-linear constituent bringing linear distortions of the signal with complex frequency de-

pendence (including the ones changing in time) into determined ultrawideband (including impulse) signals with continuous spectrum.

UDK 539.3

V.N. Barashkov
**NUMERICAL MODELING OF THREE-DIMENSIONAL
 ELASTOPLASTIC DEFORMATION OF THE MASTER DEVICE
 SECTORS**

The paper presents the methods of calculating quasistatic spatial stressedly-deformed state of the master device when throwing pivot. These methods allow to model its behaviour at intensive loading and to some extent substitute expensive experimental studies on fine-tuning of device assembly, selection of materials and values of external loadings with relatively cheap and efficient numerical experiment. The problem of elastoplastic deformation is solved by the variation-differed method. Physical correlations are considered in accordance with the theory of elastoplastic deformations. Geometrical correlations are taken in the form of Cauchy equations. Physically the non-linear problem is solved by the method of variable elasticity parameters.

UDC 533.6

V.K. Yakushev
**USAGE OF GROUP MOTION EFFECT FOR DEFINING DRAG
 FORCE FACTOR OF BODIES ON A BALLISTIC LINE**

The paper views the new way of defining the drag force factor based on registration of the parameters of two bodies during one experiment: the studied and the check ones. The method of ballistic experiment is suggested. For defining the required factors calculation equations are given whose form often depends on the choice of aerodynamic form of the check body.

UDC 553.06

I.V. Kucherenko
**THEORY AND PRACTICE OF FORMATIONAL METHOD IN
 MINING GEOLOGY. Part 1**

The paper evaluates the state of formational period in mining geology. The theoretical grounds of the formational period and the following from them approaches to assessment of ore formations content are considered. The definitions of ore formations are given in accordance with mono- and polycomponent branches of ore-formational studies. The substantial and geological content of ore formations in the works of the leading specialists is shown. The conclusion is made that it is necessary to correct diagnostic features of ore formations to improve the formational method.

UDC 550.89

**I.Yu. Annikova, A.G. Vladimirov, S.A. Vystavnov,
 A.N. Vasilevsky, L.V. Vitte, E.N. Moroz**
**GEOLOGICAL-GEOPHYSICAL MODEL OF FORMATION OF
 KALGUTA ORE-MAGMATIC SYSTEM (SOUTHERN ALTAI)**

The paper presents new data concerning tectonic position, depth morphology, internal structure, age and formation history of Kalguta rare-metal-granite solid mass and rare-metal-molybdenum-tungsten field connected with it.

UDC 550.831.05 (571.1)

V.N. Ustinova, V.G. Ustinov
SEISMOMETRIC MORPHOLOGICAL ANALYSIS AT
MAPPING OF HIGH-INTENSIVE COLLECTORS. II. ROLE OF
TECTONIC FISSURING IN THE FORM OF PALEORELIEF AND
FORMATION OF PERMEABLE COLLECTOR CELLS

The solution of lithologic-facial problems at oil and gas deposits might be significantly facilitated by the results of morphological-structural analysis of seismic surfaces. The morphological-structural analysis based on typification of morphological forms and investigation of the relation between the character of distribution of tectonic stresses at elevations with structures type opens new opportunities for studying formation conditions of the facial type of the collector and forecasting stressedly-deformed zones at elevations determining capacitive properties of collectors.

UDC 552.513:553.982:551.763.1(571.16)

T.G. Perevertajlo, A.V. Yezhova, N.M. Nedolivko, E.D. Polumogina
PETROGRAPHIC COMPOSITION AND SPECIFIC FEATURES
OF VOID PORAL SPACE FORMATION IN LOW
CRETACEOUS SANDSTONES OF GURARINSKI OIL FIELD

The microscopic analysis of low Cretaceous sand layers B_{14} , B_{13} , B_{12} , B_{11} was conducted. The following aspects were studied and described: granulometric rock composition; mineralogical composition of rock-forming components; types and forms of cementation; void space structure.

The following conclusion was made – the sandstones are formed in shallow marine basins as a result of intensive wave action. Hydrodynamic activation and clastic material supply correspond to the complex formation of layer B_{12} , which is characterized by the best filtration – capacity properties.

UDC 550.4:628.4

S.V. Azarova, E.G. Yazikov, N.N. Ilyinskikh
ASSESSMENT OF ECOLOGICAL DANGER OF MINING
INDUSTRY WASTES IN THE REPUBLIC OF KHAKASSIA
WITH THE USE OF BIOLOGICAL TESTING

The paper presents the results of geochemical analysis and biological testing of waste samples of mining enterprises in the Republic of Khakassia. In biological testing involving the test object *Drosophila melanogaster* the following aspects were assessed: sex ratio, morphoses, height of pupae elevation, average body and wing length with respect to the concentration of the sample in the medium. The conclusions were made concerning the influence of industrial wastes on living objects; the chemical elements with toxic action were discovered.

UDC 556.3

O.G. Savichev, Ju.V. Makushin
LONG-TERM CHANGES OF THE LEVEL REGIME OF
GROUND WATERS OF THE UPPER HYDRODYNAMIC ZONE
OF TOMSK REGION

The changes of natural ground waters level of Tomsk region are analyzed. The regional centre "Tomskgeomonitoring" and Tomsk geological-exploration expedition presented the initial data on the level of ground waters in 10 monitoring wells in villages Napas, Sredny Vasyugan, Podgornoe, Pudino, Bely Jar for the period from 1960–1970 to 2003. As a result, in all the wells the violation of rows uniformity was discovered; in most cases the tendencies to significant increases in the level of Neogen-Quaternary and palaeogene water-bearing complexes were revealed. It is stated that the most obvious change in the average monthly level of ground waters is observed in winter and at the beginning of spring tide. The average growth of the levels accounts for 0,25 m at decrease in dispersion of average annual values by 0,04 m.

UDC 551.8

Yu.I. Preis
LOW-LAND INVERSION HUMMOCK-RIDGE BOG
COMPLEXES OF THE CRYOLITE ZONE OF MIDDLE SIBERIA

The paper studies the composition, stratigraphy and dynamics of low-land inversion hummock-ridge bog complexes of the basin of the Khatanka River of the right tributary of the Yenisei River. The reasons for their formation are revealed. The peculiarities of their composition and stratigraphy are discovered which may be used in diagnostics of cryogene complexes and reconstruction of paleo-cryogene processes in peat deposits.

UDC 621.373

A.V. Petrov, N.M. Polkovnikova, A.I. Ryabchikov,
V.V. Sokhoreva, I.B. Stepanov, V.K. Strutz,
Yu.P. Usov, I.A. Shulepov
MASSTRANSFER OF ORIGINALLY IMPLANTED
ADMIXTURE UNDER REPEATED INFLUENCE OF POWERFUL
ION BEAMS

The paper presents the results of experimental studies of regularities of mass transfer in Ti-Si, Ti-Fe systems during repeated alternate processes of implantation and irradiation with an intense ion beam with specific heat input $\leq 2 \text{ J/cm}^2$. The final state of sample surface is analyzed; special attention is paid to the choice of processing modes increasing the inculcation depth of the implanted admixture and improving surface morphology.

UDC 621.373.8

G.S. Evtushenko, O.V. Zhdaneev, S.V. Tschadenko
PROCESS MODELLING IN DISCHARGE OUTLINES
OF HIGH-TEMPERATURE LASER ON METAL VAPOURS

The model of the laser discharge outline on metal vapors, self-consistent with the drive circuit is built. The paper studies four electrical pumping circuits. The influence of the parameters of the discharge outline on the characteristics of pumping impulse in laser on lead vapors is analyzed.

UDC 621.38:681.33:535.4

S.M. Slobodyan
ANALYSIS AND SYNTHESIS OF THE OPTIMAL OPTICAL
TRACKING PHASOMETER WITH TIME DISCRIMINATOR

The analysis of the optical tracking phasometer with the time discriminator signal is carried out. The optimal correlation parameters for processing soft-contrast interference field video signal are found. The expressions for the Poisson model of signal and background distribution are given which determine the optimal size and speed of tracking scanning of the soft-contrast interference picture by the data of minimal tracking error of the interference band.

UDC 541.14

E.P. Surovoj, L.N. Bugerko, S.V. Rasmatova
PHOTOLYSIS OF «LEAD AZIDE – CADMIUM TELLURIDE»
SYSTEMS

While studying kinetic and spectral laws of photolysis of systems $\text{PbN}_6(\text{Am})-\text{CdTe}$ depending on the intensity of falling light it has been stated that together with reduction of photolysis and photocurrent speed in the field of intrinsic absorption of $\text{PbN}_6(\text{Am})$ the additive CdTe expands the field of spectral sensitivity, and preliminary exposure of systems to light ($\lambda = 365 \text{ nm}$) increases photolysis speed. After the results of measurements of voltampere characteristics, contact potential difference, contact photoelectromotance were analyzed, the diagrams of energetic zones were built and the model of photolysis of systems $\text{PbN}_6(\text{Am})-\text{CdTe}$ was offered including the stages of generation, recombination, redistribution of non-equilibrium carriers in the contact field, formation of photolysis products and also formation of microheterogeneous systems $\text{PbN}_6(\text{Am})-\text{Pb}$ (photolysis product)- CdTe .

UDC 541.16.182

I.Yu. Mutas, A.P. Iliyn
INTERACTION OF ALUMINUM NANOPOWDERS OF
VARIOUS DISPERSION WITH GASEOUS WATER

The paper studies gaseous water oxidation of aluminum nanopowders of various dispersion, obtained by electrical explosion of metal wire. It is shown that aluminum nanopowders have high transformation degrees ($\alpha = 88\ldots 94\%$). The oxidation of aluminum nanopowders by gaseous water is characterized by the presence of the induction period. The induction period for one group of investigated aluminum nanopowders accounts for about 40 days; another group of nanopowders has the induction period of about 110 days. The interaction speed of Al nanopowders with gaseous water grows together with the increase in surface specific area. The obtained data can be used for forecasting aluminum nanopowders behavior during their storage, transportation, processing and for obtaining hydrogen through the reactions with water and for other reductive-oxidative reactions.

UDC 532.6

V.A. Mamaeva, A.I. Mamaev
MICROPLASMA PROCESSES AT LIQUID/LIQUID
BOUNDARY IN GALVANOSTATIC MODE

The new phenomenon – occurrence of microplasma processes at liquid/liquid boundary is revealed.

The paper deals with theoretical modelling of initial stages of microplasma processes emergence. This occurs due to the change of the concentration of reacting substance and electrical field intensity near and at the boundary of two liquid phases in galvanostatic mode at high-voltage polarisation of phases boundary.

UDC 669.28:54

T.I. Guzeeva
KINETICS OF $3(\text{NH}_4)_2\text{O} \cdot 7\text{MoO}_3 \cdot 4\text{H}_2\text{O}$ BY HYDROGENIUM
FROM FLUORIDE ELECTROLYTIC CELL RESTORATION

The experimental data of research of restoration kinetics of paramolibdenium ammonium by hydrogenium depending on the temperature and HF concentration in hydrogenium are presented. Activation energy and limiting stages of the process are determined.

UDC 669.28:54

T.I. Guzeeva, V.A. Krasilnikov, A.S. Levshanov,
F.A. Voroshilov, F.V. Makarov
RESTORATION THERMODYNAMICS OF
 $3(\text{NH}_4)_2\text{O} \cdot 7\text{MoO}_3 \cdot 4\text{H}_2\text{O}$ BY HYDROGEN FROM
FLUORIDE ELECTROLYSIS

The paper presents the results of thermodynamic calculation of the following system: $3(\text{NH}_4)_2\text{O} \cdot 7\text{MoO}_3 \cdot 4\text{H}_2\text{O} - \text{H}_2 - \text{HF}$. It is stated, that during restoration of $3(\text{NH}_4)_2\text{O} \cdot 7\text{MoO}_3 \cdot 4\text{H}_2\text{O}$ at high temperatures, big surplus of hydrogen is necessary. Formation of MoO_2F_2 is possible in the given system.

UDC 541.183

V.V. Korobochkin, E.A. Khanova
INVESTIGATION OF COMPOSITION AND PARAMETERS
OF POROUS STRUCTURE OF OXIDATION PRODUCT OF
METAL TIN OBTAINED BY ELECTROLYSIS WITH THE HELP
OF ALTERNATING CURRENT

The porous structure of tin dioxide synthesized by electrolysis at alternating current is studied by the methods of differential-thermal and X-ray phase analysis. It is shown that the obtained substance possesses high values of surface specific area and sorption capacity. The dependence of substances texture properties upon treatment temperature is revealed.

UDC 66.097

A.V. Kravtsov, E.D. Ivanchina, S.A. Galushin, D.S. Poluboyartsev
COMPUTER ANALYSIS AND TESTING OF Pt-CATALYSTS
OF REFORMING APPLIED TO DIFFERENT PR CONDITIONS

The article contains descriptions of mathematic modeling methods for processes of catalytic reforming. There are methods calculation activities of catalyst basis at technological data, which have got from different PR (petroleum refinery), in the article. In the article describe recommendations of using reforming catalysts. There are characteristics of foreign and Russian catalyst of reforming and physical-chemical analysis their exploitation on Russian PR. It is shown, that selection Pt-catalysts determines executed in view of features of technology and structure of processed raw material

UDC 541.64:547.759.32

A.A. Lyapkov, V.M. Sutyagin, V.P. Lopatinsky
KINETIC REGULARITIES OF CATION POLYMERIZATION
OF 9-VINYLCARBAZOLE

The kinetics of cation polymerization of 9-vinylcarbazole in trichloromethanediethylaluminum chloride is studied. The constants of reactions speed are determined. It is shown that polymerization of 9-vinylcarbazole in this environment is greatly influenced by complex formation between the monomer and the initiator. This causes limitation of polymerization process by formation of active particles which are supposed to be dications of 9-vinylcarbazole.

The calculations carried out with the help of the created mathematical model prove that acceleration of this reaction is explained by the increase in concentration of active centers with time. Creation of intermolecular connection

between 9-vinylcarbazole and trichloromethanediethylaluminum chloride is proven by emergence of new bands of charge transfer in electron spectrums of their interaction products, as well as by quantum-chemical calculations.

UDC 666.1.022.8

N.S. Krashenninnikova, I.V. Frolova
USE OF QUARTZ SAND OF TUGANSK FIELD IN CONTAINER
GLASS PRODUCTION

The possibility of using enriched sand of Tugansk field as quartz-containing raw material in production of container glass is assessed. It is shown that compacting is an efficient way to prepare glass batches on the basis of fine Tugansk sand. It is stated that the use of Tugansk sand in the compacted glass batch increases its chemical activity in the process of glass-melting and allows to obtain glass that meets the requirements of branch standards.

UDC 539.3

B.A. Ljukshin, P.A. Ljukshin, N.Ju. Matoligina, M.V. Lipovka
ANALYSIS OF STRESSEDLY-DEFORMED STATE OF THE
CHEMICAL REACTOR VALVE ELEMENTS

The paper presents grounds for possible changes in the design of the emergency valve of a high-pressure chemical reactor. Using the numerical methods of elasticity theory the analysis of stressedly-deformed state of the valve's conjugated elements is carried out. With the help of parametric studies, such conjugation of elements is obtained that provides hermetic sealing of a chemical reactor.

UDC 621.833:539.538

B.P. Gritsenko, O.A. Kashin
INFLUENCE OF HIGH-DOSE ION IMPLANTATION AND
ACOUSTIC WAVES IN TRIBOSYSTEM ON DEFORMATION
PROCESSES AND WEAR HARDNESS OF STEEL 45

The influence of implantation by Fe, Pb, Mo, and Si ions on the deformation processes occurring in near-surface layers of steel 45 at friction is investigated. It is shown, that ion implantation may substantially reduce the deterioration value at the wear-in stage. It is proven experimentally, that by damping distribution of acoustic waves, which are generated by the tribological device we can substantially reduce sample deterioration at the first stage. The explanation of kinetic deterioration is suggested which takes into account the influence of acoustic waves generated in the tribological device.

UDC 660.539.382.2

T.M. Poletika, G.N. Narimanova, S.V. Kolosov
PLASTIC YIELDING IN ZIRCONIUM ALLOYS WITH
HEXAGONALLY CLOSE-PACKED LATTICE AT
MACRO- AND MICROLEVELS

The character of deformation localization at the parabolic stage of plastic yielding and the stage of preliminary destruction in the samples of industrial zirconium alloys is studied. Electronic-microscopic investigation of the deformed samples microstructure is carried out. The connection between the parameters of macrodeformation and the ones of dislocation structure is revealed.

UDC 621.316.97:620.193.7

L.D. Safroshkina, Yu.R. Gunger, Yu.V. Dyomin
CALCULATION OF CATHODE PROTECTION OF
EQUIPOTENTIAL GROUNDING DEVICES OF ELECTRICAL
PLANTS

The paper considers the methods of cathode protection of linear corrosion systems. The source of constant voltage which is divided among the anode and the cathode parts of the plant proportionally to their input resistances is connected between the grounding device and the anode.

UDC 621.313.322-81:621.314:21.3.042.681

V.S. Loginov, V.E. Yukhnov
INFLUENCE OF INPUT PARAMETERS ON MAXIMUM
TEMPERATURE OF TURBOGENERATOR'S PRESSURE PLATE

The paper deals with the influence of heating time and heat generation parameters on maximum temperature of the active element when there is no heat discharge. The calculation accuracy of temperature field in the active element depends on the discrepancy of the heat conduction

equation and Fourier number. The range of input parameters is found, at which the complex two-dimensional problem of heat exchange turns into the one-dimensional one.

UDC 622.86:622.26.004.5

T.V. Dyomina
USAGE OF METHODOLOGICAL APPROACH IN ASSESSING INDUSTRIAL INJURIES IN HIGHLY PRODUCTIVE BREAKAGE FACES

The coefficient of production safety is calculated which is composed of the coefficient of workers executive activity, the technical safety coefficient of the production cycle mounts and the degree of correspondence of design decisions to particular conditions. It is stated that the safety level may be increased through the use of progressive technological decisions for the conditions of highly productive extraction of coal-beds.

UDC 681.3.01

O.V. Marukhina, O.G. Berestneva
DATA ANALYSIS AND PROCESSING IN ASSESSMENT OF EDUCATION QUALITY OF UNIVERSITY STUDENTS

Assessment of university education is one of the topical problems which higher educational institutions face. Based on the analysis of statistical data of the expert assessment of the quality of educational process objects, the conclusion is made that the use of any of the indices is conditioned by the type of the expert assessment scale. The complex processing algorithm for the results of expert assessment in accordance with the type of the assessing scale is suggested. The following algorithms are viewed: creation of criteria for assessment of the quality of the educational process objects, making decisions based on the results of testing, making decisions based on the non-uniform identification procedure. All the suggested algorithms are included into the information technology designed for carrying out assessment in higher educational institutions.

UDC 17

I.V. Chernikova
MODERN SCIENCE AND SCIENTIFIC COGNITION IN THE MIRROR OF PHILOSOPHIC REFLEXION

The paper views modern philosophy of science. The main approaches are presented, which determine the problem field of this sphere of philosophy, where methodology of science, sociology of science, cognitive psychology, engineering philosophy, history of science and epistemology intersect.

UDC 17

I.B. Ardashkin
«PROBLEM» AND «PROBLEMATISATION»: CORRELATION AND INTERPRETATION OF CONCEPTS IN MODERN EPISTEMOLOGY

The concepts "problem" and "problematization" are considered. The necessity of cultivation of these concepts in the conditions of modern epistemology is underlined. It is proved, that "problem" characterizes the quality of scientific knowledge, whereas "problematization" is aimed at assessing prior knowledge of a science.

UDC 316.7

O.T. Loiko
RITUAL IN SOCIAL MEMORY

The ritual together with the social code and the sign is regarded as a way to comprehend the content of social memory in archaic and modern cultures. The functions of the ritual are as follows: implicative, communicative and universal. The possible solution to the controversial problem of the origin of the myth and the ritual is suggested. The author represents the myth as a form of existence of social memory, and the ritual as adequate hermeneutical comprehension of its contents.

UDC 316:37

A.Yu. Rykun
SOCIOLOGICAL CLASSICS AS A FIELD OF RESEARCH: CRITERIA OF BEING «CLASSICAL»

The article deals with the issue of sociological classics, whose urgency is caused by metatheoretical discussions activated in mid 1990-s and still remain-

ing topical. The paper presents various criteria of attributing texts and people to sociological classics used by the modern scientific community. The author stresses both debatable nature of investigation methods of classical sociological heritage and contradictoriness of this topic for modern sociology.

UDC 13

S.G. Sychyova, G.M. Tarnapolskaya
ROMANTIC METHOD AS A SPECIFIC STYLE OF THINKING IN THE AESTHETICS OF SEREN KIRKEGOR

The connection between the life and the creative work of S. Kirkegor is investigated in the article. Also the text of his book "Delight and duty" is analyzed. The article proves that the fortune greatly influenced the content of the books of Kirkegor, and he understood his aestheticism as the object, free from ethics rules.

UDC 94 (47+57)

T.V. Kiselnikova
FROM THE HISTORY OF RUSSIAN SOCIALIST CONCEPTION. A.A. BOGDANOV ON "COLLECTIVIST SOCIETY"

The article analyses the concept of socialism as a post-capitalist society presented by A.A. Bogdanov, the outstanding theorist of Russian social democracy of the late XIX – early XX centuries. A.A. Bogdanov was a Marxist, not orthodox but critical one. Therefore, analysis of his heritage enables to reveal the internal potential of Marxism as a socialist theory.

UDC 947(571.1/5)

I.N. Nikulina
FROM THE HISTORY OF POLISH EXILE IN WESTERN SIBERIA IN THE SECOND HALF OF THE XIX CENTURY

The article views the exile of the Poles – participants of the up-rising in Polish Kingdom in the Altai in 1863. The attempt is made to determine their number, class composition, location and occupation in the region.

UDC 378:62:681.3(571)

V.V. Petrik
ACTIVITY OF SIBERIAN ENGINEERING UNIVERSITIES STAFF ON IMPLEMENTATION OF TECHNICAL EQUIPMENT AND COMPUTERS INTO THE EDUCATIONAL PROCESS IN THE 2-nd HALF OF 1960-s – BEGINNING OF 1990-s OF THE XX-th CENTURY (HISTORICAL ASPECT)

The paper views the activity of the staff of Siberian technical universities concerning implementation of technical equipment and computers into the educational process in the 2-nd half of 1960-s – beginning of 1990-s. On the basis of archive documents the reasons for shortage of modern educational equipment in most higher educational institutions of the region are analyzed.

UDC 553.3/.9(571.1) (09)

G.Yu. Boyarko, E.Ya. Goryukhin
POLYTECHNICIANS IN SEARCH OF SOLID MINERALS ON TOMSK REGION

The paper presents the chronicle of discoveries of solid minerals on the territory of Tomsk Guberniya (1901–1919), West-Siberian Krai (1918–1944) and Tomsk Oblast (1944–present time) by TPU staff and students.

UDC 378(571.16):330

N.V. Beringova, L.M. Borisova, E.S. Kogotkova
ECONOMIC DEPARTMENT: A 100-YEAR LONG WAY

In October, 2004 the economic department celebrates its 100-th anniversary. Such outstanding economists as V.V. Radaev, D.M. Kazakevich, V.P. Groshev contributed to the history of the department. Professor Yu. S. Nekhoroshev who was the chair of the department for 37 years also made a significant contribution to its development. Since 2000, the young Doctor of Economy G.A. Barysheva has been in charge of the department. Currently the department employs 4 doctors of science and 25 candidates of science. 5 Assistant professors are working on their theses for a Doctor's degree, 20 members of staff are working on their Ph.D. theses. At least two Ph.D theses are defended at the department annually.