

A B S T R A C T S

A.V. LYUBYASHKIN, V.E. ZADOV, V.A. SOKOLENKO, M.S. TOVBIS
**SYNTHESIS OF ALKYL SUBSTITUTED AMINOPYRAZOLES
WITH 2-NAPHTHYL SUBSTITUENT**

The reaction of catalytic hydrogenation of the naphthylsubstituted nitrosopyrazoles has been carried out. Series of new 1,3-dialkyl-4-amino-5-(2-naphthyl) pyrazoles have been synthesized. Data on UV, NMR ^1H spectra, the element analysis and other characteristics of obtained substances are given.

Key words: hydrogenation, naphthylsubstituted nitrosopyrazoles, UV, NMR ^1H spectra, element analysis

A.Sh. RAMAZANOV, D.R. ATAEV, M.A. KASPAROVA, I.V. SARAeva
**DEPENDENCY OF ADSORPTION PARAMETERS OF AMORPHOUS ALUMINUM HYDROXIDE
ON LITHIUM ON OBTAINING CONDITIONS**

The dependence of adsorption activity of the $\text{Al}(\text{OH})_3$ on the Li^+ ion on synthesis conditions has been studied. The increase in basicity of the initial aluminum hydroxochloride, synthesis temperature and exposition time in mother solution has been established to result in the essential decrease in adsorption activity of the amorphous $\text{Al}(\text{OH})_3$ on the Li^+ ion. The increase in the NaCl concentration in mother solution from 1.5 to 4.0 mole/L does not promote a conservation of initial adsorption activity of the $\text{Al}(\text{OH})_3$ during a long time.

Key words: adsorption, aluminum hydroxide, natural water

A.V. NOSKOV, V.I. PARFENYUK
**APPLICATION OF DIFFUSION MASS TRANSFER THEORY FOR DESCRIPTION
OF PROCESSES ON ROTATING DISC ELECTRODE WITH FRACTAL SURFACE**

An analytical dependence describing the mass transport to the fractal heterogeneous rotating disc electrode under conditions of the mixed diffusion-kinetic control has been established. The method for determination of the electrochemical reaction current, the electrode surface fractal dimension and the reacting particles diffusion coefficient has been offered.

Key words: diffusion, rotating disc electrode, surface heterogeneity, fractal

A.I. SHAFIEI FESGANDIS, V.P. MAIKOV, A.I. BALUNOV
ON CALCULATION OF SINGLE EVAPORATION PROCESS OF NON-IDEAL MIXTURES

On the base of non-local version of thermodynamics the hypothesis on application possibility of concept of minimal thermodynamic volume (macro cell) has been verified for the introduction of activity coefficient to take into account the mixture non-idealness. Taking evaporation as an example, it has been shown that macro cell concentrations in the solution theory perform, at least formally, the role of activities, i.e. «corrected» concentrations.

Key words: non-ideal mixture, activity coefficient, single evaporation

R.M. NUREEV, A.A. KOMAROVA, O.V. LEFEDOVA, M.V. ULITIN
**SOLVATION AND HYDROGENATION REACTION RATE OF 4-NITROANILINE
IN WATER-ORGANIC MEDIA ON NICKEL CATALYST**

The influence of composition of water solvents containing additives of the 2-propanol and 1,4-phenylenediamine on the rate and selectivity of liquid-phase hydrogenation of 4-nitroaniline has been studied.

In water-alcohol media the reaction has been shown to proceed at slight input of internal mass-transfer on hydrogen in total process rate unlike the process conduction in water with the 1,4-phenylenediamine additives. A concentration change both the 2-propanol and the 1,4-phenylenediamine in solution acts essentially on the hydrogenation rate constants and adsorption of the 4-nitroaniline whereas the reaction activation energies is changed less appreciably. The quantitative relation of parameters of solvation interactions in solution and the 4-nitroanyline hydrogenation rate on catalyst surface has been established. The results obtained have been discussed from viewpoint of influence of specific solvation interactions on absorption value and reaction rate constants on the catalyst surface.

Key words: liquid-phase hydrogenation, 4-nitroanyline, process rate, solvation, catalysis

A.A. MISHINA, A.N. ZYABLOV, V.F. SELEMENEV

MODELING OF GLYCINE IMPRINTED POLYMERS BASED ON POLYAMIDOACID AND NITROCELLULOSE

In this paper the electron and energetic properties of glycine complexes with functional monomers of polymers, using for molecular imprinting, have been studied for explaining their conformational peculiarities. The calculation of complex characteristics has been carried out using the program Gaussian 03 by Hartree-Fock methods and theory of density functional with the 6-31G+ and 6-311G+ basis. IR-spectroscopy method has been applied for confirmation of calculation results. Interaction energies, atomic charges, structural parameters have been determined as a result of modeling complexes of polymers with isolate and hydrated glycine.

Key words: glycine, molecular imprinted polymers, quantum chemistry

M.A. TSVETNOV, A.P. ARTEM'YANOV, E.B. ZONOVA, V.V. KHALALOV, N.B. KONDRIKOV

PROPERTIES OF VARIOUS POROUS STRUCTURE CARBON ELECTRODES IN WATER-ORGANIC MEDIA

Electrochemical properties of fibrous and granulated carbon electrodes in water-organic media have been investigated with use of methods of potentiodynamic impulses, polarization curves and recession of potential. Double electric layer (DEL) properties on carbon electrodes in mixed media have been found to describe satisfactorily by Gram's model and the DEL capacity for all samples decreases essentially under the increase in content of organic component of solvent. The fibrous carbon sorbent in mixed aqueous-organic medium has been shown to polarize more effectively as comparing with granulated one and to characterize more penetration depth of electrochemical processes.

Key words: electrochemical properties, carbon electrode, aqueous-organic media

A.R. IZATULINA, O.A. GOLOVANOVA, Yu.O. PUNIN

STUDY OF INTERACTION REGULARITIES OF AMINOACIDS AND CALCIUM OXALATE MONOHYDRATE

The processes of crystallization of the calcium oxalate monohydrate from aqueous solutions have been investigated. The influence of aminoacids on the calcium oxalate monohydrate crystallization has been studied. Amino acids have been shown to inhibit the crystal growth of compounds under study. The effect of amino acid inhibition depends on its structure and increases with the increase in its concentration. The glutamic acid adsorption on samples of the synthesized calcium oxalate monohydrate is described in the frame of Langmuir and Freundlich models. Almost complete mono molecular cover of crystal surface with impurity is reached at amino acid concentrations corresponding to composition of physiological solution.

Key words: calcium oxalate monohydrate, crystallization, amino acid, adsorption

F.I. SHEKILIYEV

INTERACTION OF COBALT WITH SYNERGETIC MIXTURE OF NAPHTHENIC ACID AND BIS-2-OXY-5-ALKYLBENZYLAMINE IN EXTRACTION SYSTEMS

The interaction of the cobalt (II) with new proposed synergetic mixture of the naphthenic acid (NA) and bis-2-oxy-5-alkyl (C₈-C₉) benzylamine (condensed alkyl-phenol -CAP) has been studied. The composition

of extracting compounds has been determined. The application as extractant the NA-CAP mixture has been established to result in the broadening of maximal extraction range and in the increase of metal extraction degree from ammonia solutions as comparison with application of mixture component separately. The maximal synergic effect has been observed at optimal NA-CAP component ratio of 4:1.

Key words: cobalt, extraction, naphthenic acid, bis-2-oxy-5-alkyl benzylamine, synergism

M.Kh. ANNAGIEV, S.S. BAIYRAMOV, S.G. ALIEVA, N.A. IMANOVA, D.T. RUSTAMOVA
**STUDY OF TREATMENT CONDITIONS INFLUENCE OF NATURAL DIATOMITE
ON ITS ELECTRON ACCEPTOR SITES**

This paper presents the results of study on the acetone adsorption on the acidic sites of the samples. Forces, the density of electron-acceptor sites on the surface of the natural and treated diatomite have been determined. It has been established that on the sorbent surface the several types of electron-acceptor sites differing energetically exist.

Key words: adsorption sites, acetone, diatomite

A.S. MAKHNYOV

**MODELING OF VIBRATION MOVEMENTS IN INTERNAL CARTESIAN COORDINATES.
I. WATER MOLECULE**

The application of internal Cartesian coordinates for describing vibration movements has been demonstrated using the water molecule as an example. A matrix of kinematical coefficients in these coordinates for the water molecule and some water isotopes has been found. The inverse vibration task has been solved. A force coefficient matrix united for all molecules under consideration has been calculated. The computer modeling of vibration movements for the water molecule which take place at wide variation of coordinates up to inversion has been carried out.

Key words: water molecule, vibration task, modeling, kinematical coefficients matrix

V.S. KOLOSNITSYN, S.P. KOSTERNOVA, O.A. YAPRYNTSEVA

**PROCESS OF NICKEL ELECTROEXTRACTION FROM LOW CONCENTRATED
SOLUTIONS OF LEACHING**

The process of the nickel electroextraction from the low concentrated solutions of leaching with pH 1-3 has been investigated. The preliminary hydrolytic purification of leaching solutions has been shown to improve the quality of cathode precipitations and to increases of the nickel current yield.

Key words: electrochemical extraction, solution of leaching, current yield, hydrolytic purification

A.P. BESSONOVA, I.E. STAS'

**FREQUENCY DISPERSION OF PHYSICAL-CHEMICAL PROPERTIES OF DISTILLED
WATER AFTER ELECTRO-MAGNETIC ACTION**

As a result of our researches it was shown, that properties of the distilled water change under the action of the electromagnetic field. The increase in conductivity and pH value were revealed. It was shown, that the degree of change of these parameters depends on the field frequency. The maximum values of conductivity and pH value were reached as a result of electromagnetic field action of frequency of 170 MHz.

Keywords: electromagnetic field, water, frequency, conductivity, pH value

M.M. NIKUL'NIKOV, M.Yu. KRASAVIN

**CYCLIZATION OF UGI REACTION PRODUCTS WITH PARTICIPATION
OF INDOLE-2-CARBOXYLIC ACID AT MICRO-WAVE RADIATION ACTION**

The possibility of the 2,3-dihydropyrasino[1,2-a]indoles synthesis with cyclization in the acetic acid of products of Ugi multi-component reaction obtained with participation of the indole-2-carboxylic acid and tert-butylisocyanide under the action of micro-wave radiation has been shown.

Key words: 2,3-dihydropyrasino[1,2-a]indoles, synthesis, micro-wave radiation

V.K. KALENTIEV, O.V. MIKHAIYLOV

IMAGES AMPLIFICATION ON AgHal RADIO-GRAPHIC MATERIALS WITH RE- PRECIPITATION OF ELEMENTAL SILVER IN SOLUTION CONTAINING M(II) COMPLEX WITH N,N'-ETHYLENE-DIAMINETETRAACETATE (M=Fe,Co) AND [BH₄]⁻ ANION

The process of the silver images amplification on the AgHal-photo-materials for X-ray registration by means of two steps treatment has been described. The first step is treatment in water solution of the K₃[Fe(CN)₆], KCl or KBr. The second step is treatment in water solution containing Fe(II) or Co(II) complex with the N,N'-ethylene-diaminetetraacetate-anion, sodium tetraborate (III) and potassium hydroxide. The image obtained has the gray-black or black color and its optical density is higher in 1.5-2 times than optical density on virgin silver image. The photographic sensitivities S_{0.85} and S_{2.00} increase in 2-3 times under the decrease in the haze level D₀ and conservation (or slight increase) of gradient g and resolving ability of photo-material.

Key words: silver photographic image, silver re-precipitation amplification, tetrahydroborate (III)-anion, N,N'-ethylene-diaminetetraacetate-anion

L.M. DIMOVA, G.I. SMIRNOV, N.V. CHEBUNINA, M.T. MUNKUEVA

ION EXCHANGE PROPERTIES OF TIN HYDROPHOSPHATES AT SORPTION OF ALKALINE METAL CATIONS

Ion exchange properties of the tin phosphate (II, IV) at sorption of alkaline metal cations have been studied. A number of selectivity has been shown to look like Cs⁺>Rb⁺> K⁺>Na⁺. Distribution coefficients increase a little with the tin (IV) increase at synthesis due to the increase in the ionite amorphous state. Ion exchange properties of tin phosphate (II) at extraction of the potassium ions from sodium-containing solutions have been studied. It has been established that the sorbent can be used for deep purification and reception of the sodium salts of special purity.

Key words: ion-exchange properties, tin phosphate (II, IV), alkaline metal cations

S.V. LANOVETSKIY, V.Z. POIYLOV, A.M. SIZYAKINA, A.V. STEPANOV, O.K. KOSVINTSEV

STABILITY STUDY OF OVERSATURATED SOLUTIONS OF MANGANESE ACETATE

Studies of influence of mixing, temperature and soluble admixtures on stability of oversaturated solutions of the manganese acetate have been carried out. The rise of mixing rate of saturated solution, the crystallization temperature increase and existence of the SO₄²⁻, Ca²⁺, Na⁺, SiO₃²⁻ ions in solution have been revealed to result in the dropping of solution overcooling. The equations describing satisfactory revealed regularities have been obtained.

Key words: manganese acetate, oversaturation, crystallization, solution stability

O.V. FROLOVA, S.S. POPOVA, Ye.A. SAVELYEVA

INFLUENCE OF OXIDATION ELECTROLYTE COMPOSITION ON KINETICS OF COLORING CATIONS INTERCALATION INTO ANODE ALUMINUM OXIDE

The influence of electrode composition and electrolyte of preliminary oxidation on kinetics of aluminum alloy coloring has been studied. The following parameters have been calculated by means of the method of the thin film chronopotentiometry: the quantity of electricity (q_T), the volumetric concentration (C₀), the volumetric specific charge (q₀) and diffusion coefficient of coloring cations in anodic oxide films on aluminum. The optimal composition of oxidation electrolyte (H₂SO₄ : H₃PO₄ = 1:5) for AMG- alloy and (H₂SO₄: H₃PO₄ = 2:4) for D-16 alloy has been chosen. That composition provides the strongest adhesion of coloring cation and the aluminum oxide film.

Key words: oxidation, electro chemical coloring, aluminum, alloy, thin film chronopotentiometry

S.I. LEVCHENKO, K.S. KUVARDINA, V.R. PEN

INFLUENCE OF STRUCTURE ON THERMAL STABILITY OF QUINOLIC ETHERS

For forecast of quinolic ethers activity in elastomeric compositions the peculiarities of ethers decomposition in solvents have been investigated. The rate of quinolic ethers decomposition has been shown to depend essentially on structure of the substitutes in phenoxy and quinonedioxime fragments of ether molecule. Regularities of the influence of the quinolic ethers structure on kinetic parameters of the investigated process have been studied.

Key words: quinolic ethers, activity, elastomeric compositions, stability

N.N. SMIRNOVA, A.Yu. KULAGINA, Yu.A. FEDOTOV

MACROMOLECULAR REACTIONS BETWEEN SULFONATE-CONTAINING POLYPHENYLEN-PHTHALAMIDES AND POLY- N- (2- AMINOETHYL) ACRYLAMIDE IN AQUEOUS MEDIA

The complexation of the poly- N- (2 -aminoethyl) acrylamide and sulfonate-containing polyphenylenphthalamides in aqueous media has been investigated. The values of effective constants of binding (K_b) in account on functional groups of interacting polyelectrolytes have been determined. It has been shown that reactions with poly-4, 4'-diphenylenisophthalamid-2, 2'-disulfonic acid are characterized by the higher value of effective constants of binding as comparison with reaction of the poly-4, 4'-diphenylenterephthalamid-2, 2'-disulfonic acid at the same transformation degree. Using the polyphenylenphthalamides of various structure it can be changed physical-mechanical and separation properties of film materials on their base in the wide range.

Key words: complexation, poly- N- (2 -aminoethyl) acrylamide, sulfonate-containing polyphenylenphthalamides, binding constants

A.I. SLIVKIN, V.L. LAPENKO, A.A. BOLGOV, D.A. SLIVKIN

SYNTHESIS OF CATION-ACTIVE ANALOGUES OF CHITOSAN AS CARRIERS OF IODINE

Water-soluble and structured analogues of the 2-amino-2-desoxy-D-glycane with anionite properties have been synthesized. Obtained polyelectrolytes have been used for sorption of the I anions from water, ethanol-water solutions of inorganic iodides in order to obtain non-toxic biologically active polymer forms of iodine.

Key words: synthesis, analogues of the 2-amino-2-desoxy-D-glycane, anion sorption, iodine

S.V. PLOKHOV, Yu.V. VELIEVA, R.A. KORNEV, V.A. PLOKHOV

LIGAND INFLUENCE AND REDUSER ON METAL ELECTRO PLATING FROM SOLUTION OF CHEMICAL COPPER COATING

The formation of poly-ligand complexes of the Cu(II) with mole ratio of the Cu(II):Tar²⁻:Y⁴⁻=1:1:1 in the tartrate-trilon solutions has been established with the pH metrical method and spectroscopy method. The depolarizing joint action of ligands and formaldehyde on metal electro plating from solutions of chemical copper coating has been revealed. The diffusion character of process has been revealed as well. The explanation of observed effects has been done. The practical recommendations on electro-chemical copper extraction from used electrolyte of chemical metallization are given.

Key words: poly ligand complexes, tartate-trilon solutions, copper, electro-chemical extraction

S.I. FILIMONOV, Zh.V. CHIRKOVA, I.G. ABRAMOV, A.S. SHASHKOV, S.I. FIRGANG, G.A. STASHINA

SYNTHESIS OF THIOXOTETRAHYDROPYRIMIDINE CARBOXYLIC ACIDS

New 4,4,6-trimethyl-2-thioxo-tetrahydro-pyrimidine-1-yl acids has been synthesized by reduction of isomers mixture of the thioxodihydropyrimidine acids with the sodium borohydride and the limitation of this method has been determined. The structure of products has been proved with the method of the two-dimensional ¹H-¹H correlation spectroscopy.

Key words: synthesis, thioxodihydropyrimidine carboxylic acids, reduction, ¹H-¹H correlation spectroscopy

G.I. KOSTRYKINA, M.A. KOKOREVA, M.V. TSVETKOV

VISCOSITY-ELASTIC CHARACTERISTICS OF SURFACE LAYERS OF TREAD RUBBERS

Using the "Umpulse-1P" device the some viscosity-elastic properties of surface layers of tread resins on the base of natural rubber filled with technical carbon and its combination with silica acid filler and containing milled vulcanizate have been studied.

Key words: viscosity-elastic properties, rubber surface layer, natural rubber, silica-acid filler

B.A. SNIGEREV

NON-ISOTHERMAL EXTRUSION OF POLYMERIC MATERIALS

In the given study the mathematical statement of the task on stationary longitudinal liquid flow with free surface on the outlet from sharply convergent channel has been given. For this task the digital results have been obtained. The rheological behavior of liquid is described with the state relaxation equation of Giesekuzen. The results of dependence of swelling coefficient on the parameters of rheological model of viscoelastic liquid and nozzle geometrical sizes have been obtained.

Key words: viscoelastic liquid, free surface

L.S. DUROSOVA, S.M. DUROSOV, M.E. SOLOVIEV

STUDY OF STRESS- DEFORMED STATE OF RUBBER SAMPLE IN GAP BETWEEN CYLINDRICAL ROLLS AT ROLLING WITH FRICTION

The stress distribution and deformations in rubber plate of right-angled cross-section at rolling with friction have been studied of by method of finite-difference elements. The friction increase has been established to change of character of material destruction in a gap. The field of the crack growth moves to high speed roll. The substance of this study has been shown.

Key words: stress, deformation, friction, material destruction

A.A. SHETNEV, E.S. KULESHOVA, G.G. KRASOVSKAYA, V.V. PLAKHTINSKIY, A.V. KOLOBOV

STUDY OF 4-R-PHTHALIC ANHYDRIDES HYDROLYSIS

The kinetic regularities of hydrolysis reaction of the substituted phthalic anhydrides have been studied. On the base of quantum-chemical calculations the conclusion were made about charge control of reaction.

Key words: hydrolysis, phthalic anhydrides, kinetics, quantum-chemical calculations

V.I. VIGDOROVICH, S.A. SAKURNAEV, V.A. FYODOROV, T.N. PLUZHIKOVA

INFLUENCE OF A NUMBER OF INHIBITORS OF "AMDOR" CLASS ON LOSS DECREASE OF STEEL MECHANICAL PROPERTIES IN HYDROSULFIDE-CARBON DIOXIDE MEDIA

The influence a number of inhibitors of "AMDOR" series on the decrease suppression of the steel mechanical properties in the hydrosulfide (100 mg/l)-carbon dioxide ($P(\text{CO}_2) = 10^5$ Па) media at the conditions of the stretching (St3) and bending (steel 65 G) stresses has been studied. The investigated inhibitors have been shown to decrease in many times the negative influence of the bending stresses after action of the aggressive medium. But the influence of the same inhibitors on the decrease of stretching stresses action is slighter.

Key words: hydrogen sulfide, carbon dioxide, sodium chloride, solution, steel, corrosion, stress, bending, stretching, inhibitor, tiredness, suppression

L.M. KOCHETOV, B.S. SAZHIN, E.V. OTRUBYANNIKOV

CALCULATION OF DURATION OF PROCESSING OF DISPERSE MATERIALS IN VORTICAL DRYERS

The method of calculation of holding capacity of vortical chamber for thermal treatment (partially, drying) of dispersive materials has been proposed. The dependence of holding capacity on gas flow and other process parameters has been analyzed. The optimal range of gas flows in vortical chamber has been obtained.

The regulation possibility of treatment duration of dispersive material in vortical chamber by means of variation of holding capacity and productivity has been shown. The calculation results agreed satisfactorily with experimental ones.

Key words: holding capacity, vertical camera, calculation

A.A. ANDRIASHIN, D.V. DEMICHEV, M.E. SOLOVIEV

**STRESS-DEFORMED STATE CALCULATION OF FLAT CIRCULAR RUBBER SAMPLE
PRESSED TROUGH IN CENTER BY SPHERICAL INDENTOR**

The stress-deformed state for flat circular rubber sample pressed trough in a center by spherical indenter has been determined by the finite-element method. Experimental data obtained with Impulse 1-R apparatus are explained from the viewpoint of the stress-deformed state of the material.

Key words: rubber sample, spherical indenter, finite element method, stress-deformed state

S.N. PETROVA, I.K. SULTANOVA

OXIDATION STABILITY OF SUNFLOWER OIL IN PRESENCE OF ORGANIC SOLVENTS

The influence of dimethylformamide, dimethylsulfoxide and organic oxidant on a process of sunflower oil oxidation has been investigated. The initial rates of the hydroperoxides formation have been calculated. Aprotic solvents have been shown to be able to initiate the oil oxidation. In the case of presence of organic oxidizer which is soluble in organic solvent the dimethylformamide and dimethylsulfoxide act as inhibitors of the oxidation process.

Key words: oil, peroxide number, dimethylformamide, dimethylsulfoxide

T.V. ALEXANDROVA, G.P. KOZLOVSKAYA, N.V. GOLOSHCHAPOVA

**STUDY OF CLAY RAW FOR BLEND COMPOSITION OPTIMIZATION
FOR CERAMIC BRICK PRODUCTION**

The phase and fractional compositions of fusible clays of Malostupkinskogo and Konokhovskogo deposits have been established by means of the X-ray and laser granulometry. Water, mechanical, drying and thermal properties of clays mentioned above has been studied.

Key words: clay, kaolin, montmorillonite, hydro mica, silica, brick, ceramic, X-ray and granulometry

A.V. ZAMANOVA, M.M. KURBANOVA, V.M. FARZALIEV

**DIHYDROPYRIMIDINON (THION) DERIVATIVES AS EFFECTIVE
ANTIMICROBIAL MEDICINES**

Some 3,4-dihydropyrimidin-2(1N)-on(thion)s and some their derivatives have been synthesized. The antimicrobial properties of medicines synthesized have been studied. Those medicines have been established to possess the effective antimicrobial medicines against the gram-negative and gram-positive microorganisms.

Key words: synthesis, 3,4-dihydropyrimidin-2(1N)-on(thion)s, antimicrobial properties

I.A. BUNIYAT-ZADEH, G.G. MAMEDOV, A.A. AZIZOV, R.M. ALOSMANOV, A.M. MAGERRAMOV

MAGNETIC SORBENT FOR THIN OIL FILMS REMOVAL

The results of study of magnetic sorbent obtained on the base of modified and non-modified wood sawdust possessing the ability to removal of thin oil films from water surface have been presented. Magnetic sorbents on the base of modified wood sawdust have been shown to possess higher absorbing capacity and ability to hold the absorbed oil.

Key words: magnetic sorbent, oil, wood sawdust

A.S. VYSOKOVSKIY, I.S. KOROTNEVA

SYNTHESIS OF LATEXES OF BUTADIENE-STYRENE-BUTYLACRYLATE COPOLYMERS WITH USING SODIUM SALT OF ALKYLPHENOL ETHER SULFATE AS EMULSIFIER

Latexes of butadiene-styrene-butylacrylate copolymers with using the sodium salt of alkylphenol ether sulfate as a emulsifier without the dispergator of the leykanol NF have been synthesized. The dosage of emulsifier providing the latexes stability during the synthesis has been established. Some colloid-chemical properties of synthesized latexes have been determined.

Key words: latex, butadiene-styrene-butylacrylate copolymers, synthesis

M.I. GADZHIEV

PFYSICAL-CHEMICAL INTERACTION IN DOUBLE SYSTEM SrO-RuO₂

The system SrO-RuO₂ has been studied with differential-thermal (DTA), X-Ray phase (RFA) and thermal gravimetric (TG) methods of physical-chemical analysis. On the base of the DTA, RFA and TG data the phase diagram of the system SrO-RuO₂ has been built. It has been established that two compounds Sr₄RuO₆ and SrRuO₃ are formed.

Key words: physical-chemical analysis, synthesis, phase diagram, thermal analysis