

ABSTRACTS

Section of «Metallurgy»

UDC 669.162.267 Sigarev E., Sigarev N., Gurzhiy D. DISTRIBUTING OF GAS PHASE IN A SCOOP WITH REVOLVED SUBMERGED LANCE. Offered chart forming area of interfusion, expression for the calculation time of interfusion and satiation gas of liquid bath, blown gas through nozzles immobile and revolved submerged lance. Specific features and behavior bath, accommodation and output parameters zones of gas bubbles on the surface bath when the speed rotation the lance. The optimum ratio of the carrier gas flow and the speed rotation the lance to prevent mergers pop gas volumes.

Keywords: scoop, revolved lance, gas volumes, bath.

UDC 669.184.125 Sigarev E., Nedbaylo N., Semenova D., Chernyatevich I. TWO-LEVEL LANCE FOR THE CONVERTER OF PJSC „DMKD”. The constructions of two-level lance, intended for blowing of slag bath, providing safe terms labour, the declines of production inputs became increases of efficiency operation repairing surface.

Keywords: converter, lance for slag splashing, repairing.

UDC 669.182.001.57 Ogurtsov A., Dushkevych D., Koval A. STARTING A CONTINUOUS CASTING MACHINE THE „ARSELORMITTAL KRYVY RIH PLANT”. The data on the technical specification of CCM and Ladle-fuinae of are indicatel in the article. As well as the data on casting the first heat on the caster CCM are reptesented. The data also contain the information on technological difficulties occurring during casting, i.e large- section of billets with the description of their macrostructure. As well as the comparison of the first large-sections of subsequent heats.

Keywords: machine of continuous cast billets, steel casting, ladle furnace characteristics, quality of fillets.

UDC 517.958:532.546 Samokhvalov S., Nadrygaylo T., Pobehutsa A. MATHEMATICAL MODEL OF FILTRATION OF ADMIXTURES IS IN DENDRITIC FRAMEWORK OF SOLIDIFYING INGOT. The non-equilibrium theory of multiphase area of crystallization which takes into account possible motion of crystals and redistribution of admixtures is presented in this work. The process of crystallization of ingot is considered taking into account the transfer of admixtures in dendrite framework. The two-dimensional mathematical model of crystallization of ingot is resulted taking into account the transfer of admixtures. The finite-difference scheme of filtration equations of motion of the melt in the dendrite framework is given.

Keywords: crystallization, ingot, the dendrite framework, multiphase area, the transfer of admixtures.

UDC 669.1.785 Rudenko M., Musienko K., Rudenko R. ANALYSIS OF THE CONSTRUCTIONS OF THE GRATES OF AGGLOMERATING MACHINES. Various factors affect the performance of grate sintering machines. The analysis of some construction the grate. Designs of grates for different sintering charge on sinter machine.

Keywords: batch, grate, working body, active section, productivity.

UDC 621.785.539:787.044:669.296 Hubariev S. TEMPERATURE STABILITY AND FEATURES OF CRYSTALLIZATION OF METAL GLASSES ON THE BASIS Zr-Cu. By methods of resistance and X-ray diffraction analyses evaluated temperature intervals of amorphous structure stability, the regularity of phase changes occurring in the conditions of the continuous heating of amorphous alloys Zr_xCu_{100-x} ($x=38-62$). It is shown, that transition of

amorphous alloys in an equilibrium state can proceed in one or two stages by consecutive formation of equilibrium phases. With increase of concentration Zr the temperature of the crystallisation beginning T_k and, means, and thermal stability of an amorphous state decrease. Effort can find application in the field of production thermally stable amorphous zirconium alloys.

Keywords: amorphous alloys, temperature stability, resistance and X-ray diffraction analyses, specific electroresistance, resistance temperature coefficient.

Section of «Rolling production»

UDC 621.771.01 Maksimenko O., Izmailova M., Loboyko D., Atamas' A. THE ANALYSIS LONGITUDINAL SUSTAINABILITY PROCESS OF ROLLING IN A NEW MODEL FRICTION IN THE ROLLING GAP. The paper proposes a new model of friction for determining the of tangential stresses in the rolling gap. The estimation of the longitudinal stability strips at continuous rolling with tensioning, that showed that of the resulting of longitudinal forces decreases when the specific tension of the strip increases. And consequently, decreases longitudinal stability of stripes.

Keywords: model of friction, tension of, longitudinal stability, rolling gap.

UDC 621.771.2-52 Meshaninov S., BagryV. IMITATING MODELING OF A FEEDING SYSTEM OF A ROD IN THE AUTOMATED COMPLEXES OF TRANSVERSE-PROFILE ROLLING. The questions of choice of criterion of efficiency of automatic complexes are considered transversal-profile rolling and development on this basis of strategies of management. The purpose of work is a question of increase of coefficient of the use of metal and productivity of complexes on the basis of reasonable compromise between these indexes. The got results allow to perfect management algorithms a process transversal-profile rolling.

Keywords: transversal is the profile rolling, criterion of efficiency, coefficient of the use of metal, management strategy.

UDC 621.771.2-52 Bagriy V., Voloshin R., Gharov I. IMITATION DESIGN OF SYSTEM SERVES TRUDGE IN AUTOMATED COMPLEXES TRANSVERSAL PROFILE ROLLING. Process transversal-profile rolling used for making of details of type of step billows and has wide technological possibilities. For the terms of rolling on the automatic complexes of by a basic factor qualificatory the productivity and size of the coefficient use of metal, there is control system by the serve of with the changed mass in the zone of deformation on set long for every detail. On the base of analytical models of technological process of rolling of is created simulation model necessary for choice of optimal of parameters of executive mechanisms and strategies managements, methods and facilities of intercommunication of management subsystems, are worked out aggregate-by the module complexes of rolling of cylindrical details.

Keywords: process transversal-profile rolling, automatic complexes, control system by the serve of trudge, management subsystem aggregate-by a module complex, imitation design by a complex.

UDC 621.771.01 Yershov S., Kravchenko E., Nagorniy S. INVESTIGATION OF STRAIN STATE IN ROLLING IN TRIMMER CALIBER. We have investigated the strain state of the metal during the rolling of beam number 18B2 with parallel shelves in the first crimp on stand tandem mill company „SMS-MEER” and change it along the deformation zone. Modeling of the rolling process was carried out using the software package ESV-Deform, developed at the department of OMD of DSTU. An analysis of the data was determined by the degree of deformation, the direction and amount of displacement of the metal particles in the different, directions on the elements of the profile.

Keywords: beams, dissected gauge, mill tandem, degree deformation, metal flow.

UDC 621.771.01 Yershov S., Kravchenko K., Brus M. STUDY OF DEFORMATION CONDITION IN ROLLING RAILS R65 ON TECHNOLOGY CCS. The results of studies of the deformed state of the metal in the rolling rails R65 on modern mill „SDI” company „SMS-Meer” which includes roughing crimp and cage group stands tandem. The calculation was performed using the software package that was developed at the Department of OMD DSTU. Analysis of the data gave a qualitative picture of the caliber of metal forming, as well as allowed us to determine the direction of flow of the metal of different parts of a peal, the degree of deformation and shear strain rate.

Keywords: rail, caliber, mill, deformation, metal flow.

Section of «Engineering. Mechanics»

UDC 671.791,927.5 Kamel G. BIMETALLIC OF MATERIALS USED IN MANUFACTURED ROTOR FEEDER HIGH PRESSURE. The paper cited data about the choice of materials for making and repair of rotors after 10-15 restoration overlaying. Given to recommendation during realization of repair-restoration works the regimes of the heat treatment of domestic and foreign materials, the characteristic forms of destroyings of rotors in different enterprises in the field.

Keywords: rotors, overlaying, bimetallic metal, heat treatment, destructions, wear-proofness.

UDC 669.187.2:536.24 Kamel G. RATIONAL EXPENDITURE OF THE BIMETALLIC JACKET OF THE FEEDER HIGH PRESSURE. Research on the application of new design body shirts to reduce a lot of blanks, cut waste during their production and increase the durability of the feeder at 30-40%. Speed design of a bi-metallic shirt allows you to increase the amount of compensation to clamp the rotor while preserving the overall dimensions of the feeder..

Keywords: rotors, feeder, longevity, body, shirt clip rotor, speed design, the dimensions of the feeder.

UDC 671.791,927.5 Kamel G. RESEARCH OF DYNAMICS OF PROCESSES, WHAT BE QOINQ ON WORKERS THE BIMETALLIC MATING CONICAL SURFACES OF FEEDERS OF A PIPELINE TRANSPORT SYSTEM. Questions, related to the technological processes, what be going on workers the attended conical surfaces of rotor feeders high-pressure continuous loading of kier a pipeline transport, are considered. It is set that loading and unloading of wood chips take place on 40%; on 50% circulation of lye takes place in narrow cracks is formed and on 10% - grounds and middle bridges which take place border frictions.

Keywords: taper, impacts was, alkali circulation, boundary friction feeder, pressure, rotor, chips.

UDC 621.9.048 Revenco Yu., Volodko E. IMPROVING THE EFFICIENCY DIMENSION OF HOLES IN CARBIDE DETAILS COMBINED ULTRASONIC AND ELECTROCHEMICAL METHOD. As a result of studies of physical and chemical processes in combined ultrasonic and electrochemical machining holes in hard alloys was bred dependence of performance on her technological parameters. This dependence on a computer will quickly calculate the optimal modes corresponding to maximum productivity and accuracy combined US and ECh handle the holes cemented carbide in detail.

Keywords: optimal mode, productivity, processing of apertures, carbide details.

UDC 621.941.014.8 Tihontsov A., Grechanik E., Chasov D. PERFORMANCE ANALYSIS OF A SCREW CONVEYOR WITH ESTABLISHED FRINGE BLADES. The results of studies experimentally obtained, the performance gain of the screw conveyor installed and secured one blade on the body of the pen screw over previously known and widely used screw conveyor with a classical design.

Keywords: screw conveyors, blades, auger, performance, chips.

UDC 629.463-621.821 Beygul O., Shulga A., Shulga O. RESEARCH SLIDING VELOCITY IN THE SUPPORT FRAME ON THE TRUCK INDUSTRIAL TRANSPORT DEVICES. In the robot suggested methodology for calculating the velocity slip in a pair the heel- thrust bearing supports the body on the trolley transport equipment industries. It was found that the mechanism of destruction of working surfaces of parts absent power that thermal overload, which leads to pathological wear at first grasp or another kind.

Keywords: transport devices, heel, toe, sliding velocity, wear.

Section of «Radioelectronics»

UDC 621.396.67 Syanov A., Kosuhina E., Gnatyk M., Beloborodova E. SOLUTION OF INTEGRAL EQUATION OF ELECTRODYNAMICS BY METHOD OF MOMENTS. The algorithm of integral equations solutions of SHF electrodynamics with the use of RWG base function has been presented in the given paper. In application to the calculation of radiative devices this algorithm allows to define their basic parameters. The algorithm presented in the article can be applied to metallic aeriels of arbitrary configuration.

Keywords: aerial, method of moments, RWG base functions, diagrams of orientation.

UDC 621.396 Marchenko S., Kalistratov A. MATHEMATICAL MODELLING OF INFINITE WAVEGUIDE PHASED ARRAY WITH MATCHING PERIODIC STRUCTURE. The 3D problem of radiation from planar infinite phased-array antenna containing of main array and sub-array located over main array some distance with the same diametrical dimensions is presented. An affect of the dimensions (a sub-array length and a distance between the main array and the sub-array) on matching PAA with free space is investigated in frequency band and scanning angels ratio. Investigation of frequency characteristics of PAA with matching structure for triangular and rectangular radiators lattice was conducted.

Keywords: phased array antennas, Integral equation, Green's function, matching structure, penetrating area method.

UDC 616.12-073.7:621.396.63 Zubarev I., Trikilo A. THE DEVICE TRANSMISSION ELECTROCARDIOGRAPHIC SIGNAL USING GSM NETWORKS. Given functionalist-flax and the structural scheme of the device that provides automatic ECG data to a personal cell phone and home PC, PC doctor, medical institutions and the center of emergency medical care.

Keywords: ECG, the readout device ECG, ECG transmission, GSM network.

Section of «Electromechanics. Electrical engineering»

UDC 621.31:621.316.9:622.3 Klyushnik V. LEAKAGES OF CURRENT IN THE ELECTRIC SYSTEMS WITH SEMICONDUCTOR POWER TRANSFORMERS. In the article the algorithms of calculation of currents of monophas and unipolar leakages are considered on earth in the electric systems with the combined electric courkits at presence of and at practical absence of leakages of current on earth through the isolation of connections semiconductor power transformer and direct- current resiver. The method of calculation of alternating component currents of unipolar is offered on earth leakages with the use of Fur'e-transformation of voltage on the output of semiconductor power transformer. The results of

calculations within the limits of errors of measurements coincide with experimental, got in laboratory terms on the experimentally-industrial standard of setting of plasma expansion of mining holes in the mountain breeds of large fortress.

Keywords: currents of monophasic leakages on earth, combined electric circuits, unipolar leakages on earth, transformation of Fur'e.

UDC 621.371: 621.314.4 Dorochenco A., Vodichev V. RELATIVE TO THE PHYSICAL BASICS OF MODELING ELECTRIC POWER SYSTEMS. With the purpose of increase of efficiency of performance of design and research works in the field of electric and Electromechanical systems, offered before mathematical modeling to produce „ideological and theoretical” modeling, the task of which is to clarify the physical essence of the basic of processes in the system, which is regarded by defining how and why these processes. In the work of the definitions of the physical nature of the understanding of the active and reactive power, and understanding them as a commodity output for the power system.

Keywords: power generation, modeling, materiality in power, ideological-theoretical model, mathematical model.

UDC 62-83 Derets A.L., Sadovoy A.V. SELF-TUNING ALGORITHM FOR SLIDING MODE SUBMISSIVE CONTROL SYSTEM FORMING EXTREMELY APERIODIC TRANSIENT. The article presents an algorithm of servo-drive control system settings adaptation to transient trajectory form variation with condition of canonic coordinates limitation. Adaptation carries out according to master control magnitude by discerning of current positioning mode with calculation of suitable magnitudes for speed and acceleration and further calculation of feedback gains.

Keywords: sliding mode control; N-i switches method; time-optimal transient.

UDC 62-83:612.313 Beloha G., Samchelev Y., Dryuchin V., Bakaev O. COMPARATIVE ANALYSIS OF FREQUENCY CONVERTERS BASED SYSTEMS CURRENT STABILIZATION. Shows circuit design of eight variants of frequency converters (FC), made on the basis of current stabilization system with relay control, and oscillograms of generated by sinusoidal currents in the load and consumption of network. A comparative analysis of the inverter circuitry on the input and output stages, frequency relay mode, the values of the capacitors and passes frequencies. The corresponding the analytical expressions for their calculation.

Keywords: frequency converter, relay control, electromagnetic compatibility, frequency bandwidth.

UDC 669.187.004.18 Iashyna K., Sadovoy O. METHOD OF TECHNOLOGICAL PROCESSES' DYNAMIC MODELS CONSTRUCTION. The new method of technological processes' models constructing is presented in the article. This method allows to perform simulations in a dynamic mode and to unite several types of simulations for describing the same process. The method developed by the authors has been effectively applied in the design of modern automated control systems to optimize the load on the controllers, the algorithms management and the training of technical staff.

Keywords: modeling, process, process flow diagram, process aids, OpenSca.

Section of «Heat-power Engineering. Heat Engineering»

UDC 622.691.2 Sadovenko I., Inkin A. EXPERIMENTAL STUDIES OF THE FILTRATION PROPERTIES RESERVOIR ROCKS IN ACCUMULATING HYDROCARBON GASES. Based on the analysis of geological conditions Leventsovsky structure Western Donbass isolated aquifer, capable of holding natural gas reserves in an amount of 150 million m³. The laboratory studies found negligible (15-20%) increase in the permeability of this res-

ervoir and its underlying rocks in contact with saves gas. It is shown that the influence of the gas caused by aggressive destructive skeletal changes occur in rocks of the surface area of a power of several millimeters. The results indicate the alleged leak gas storage during the entire period of operation.

Keywords: gas storage water bearing, hydrocarbon gas permeability, tightness.

UDC 621.63+621.51 Gotsulenko V.V., Gotsulenko V.N. DYNAMIC DAMPING OSCILLATIONS (SURGE) BLOWER WITH A HELMHOLTZ RESONATOR. The mathematical model with lumped parameters for describing the dynamics of pneumatic fan, on pressure line which is a Helmholtz resonator. By varying the parameters of acoustic oscillation circuit pneumatic and Helmholtz resonator justified to exercise self-oscillation damping dynamic (surge). A new anti-surge device with the location of the Helmholtz resonator in the battery weight by pneumatic pressure line.

Keywords: longitudinal self-oscillations (surge), vibration damping, Helmholtz resonator, pneumatic system.

UDC 533.1:532.7 Kravchenko A. VAPOR PRESSURE: 3. EVALUATION OF THE ACCURACY OF THE TEMPERATURE DEPENDENCE OF THE NEW. The calculation of the coefficients of the equation describing the dependence of the vapor pressure of organic and inorganic substances in the whole range available for measurements of temperature and pressure. The magnitude of the residual standard deviation concluded regular nature of this equation and the high efficiency of its use.

Keywords: vapor pressure, temperature dependence of accuracy.

UDC 669.162.1 Mnyh A. THE SOLUTION OF THE TEMPERATURE DISTRIBUTION IN THE SINGLE VOLUME OF THE SINTER LAYER BY FINITE ELEMENT METHOD CONSIDERED INTERNAL HEAT SOURCES. The stages of the finite element method for the numerical solution of the temperature distribution in the unit volume considered sintered layer sinter mix have been described. The results are compared to the theoretical solution of the problem MathLab based on the finite element method with numerical modeling software product Ansys. The analysis of the results shows a high accuracy of the results obtained by the above procedure.

Keywords: numerical methods, boundary conditions, conductivity, specific heat, segregation, charge.

Section of «Chemistry. Biotechnology. Ecology»

UDC 547.822.1 Hryshchenko H., Nesterova O., Kompanets O., Vynokurova T. AUTOXIDATION AND KINETIC ASPECTS OF 1,4-DIHYDROPYRIDINES IN THE PRESENCE SYSTEM $C_{O(II)}/NHPI$. The process of catalytic aerobic autoxidation of Hantzsch 1,4-dihydropyridines in the presence system $(CH_3COO)_2Co/NHPI$ in different solvents and studied the main kinetic regularities of oxidation of 1,4-DHP by the titrimetric method.

Key words: Hantzsch 1,4-dihydropyridines, N-hydroxyphthalimide, acetonitrile, glacial acetic acid, autoxidation.

UDC 57.084 Gulyaev V., Kryukovska O., Filimonenko O., Senypostol A. ANALYSIS of *PROPIONIBACTERIUM* INFLUENCE on *ESCHERICHIA COLI* GROWTH in MILK PRODUCTS. Was analyzed the Propionibacterium influence on *E. coli*. Established that bacteria genus *Propionibacterium* in combination with lactic acid bacteria are able to reduce the concentration of *E. coli* in milk products, improving the quality and competitiveness of goods.

Keywords: propionic acid, bacteria, milk, *E. coli*, microflora, lactic acid bacteria.

UDC 57.084 Gulyaev V., Kryukovska O., Filimonenko O., Senyostol A.O. INFLUENCE of LIGHT on the ABILITY of PROPIONIBACTERIUM SYNTHESIZE B₁₂ VITAMIN. The influence of the light factor on the ability of bacteria of the genus *Propionibacterium* synthesize B-vitamin B₁₂. Established that maintaining the culturing process of *Propionibacterium* in the light contributes to the accumulation of biomass and increasing concentrations of the vitamin in the product.

Keywords: propionic acid bacteria, milk, vitamin, cobalamin, lactic acid bacteria.

UDC57.084.1 Gulyaev V., Kovalenko A., Kornienko I., Galenko M. MICROBIOLOGICAL EXAMINATION OF RAW MATERIALS AND FINISHED PRODUCT-GOAT RENNIN CHEESE SULUGUNI. Microbiological examination of raw materials and finished product – goat rennet cheese suluguni. To provide rennet cheese Suluguni health care properties used sourdough trademark VIVO state enterprise bacterial starter cultures Technological Institute of milk and meat (Timmy, Kyiv): „Bifivit”, „Symbilakt”, „Streptosan” and pharmaceuticals „Lactobacterin Biopharma” and „Bifidumbacterin-Biopharma”, which consist of a set of bifidobacteria-, lacto-, propionic and acetic acid bacteria. According to the method developed in the preparation of rennet cheese bacterial conducted studies have shown the effectiveness of using different types of bacterial starter cultures with respect to improving the quality characteristics of raw materials and finished product using probiotics from different manufacturers to improve therapeutic and prophylactic action of the product.

Keywords: suluguni bacterial yeast, dairy products, dysbiosis, dairy bacteria.

UDC 57.084.1 Gulyaev V., Kovalenko A., Kornienko I., Galenko M. INVESTIGATION OF PHYSICAL AND CHEMICAL PARAMETERS OF RAW MATERIALS AND FINISHED PRODUCTS WITH AIM OF IMPROVING RECIPES COOKING GOAT RENNIN CHEESE SULUGUNI WITH INCREASED MEDICAL NUTRITIONAL PROPERTIES. Investigation of physical and chemical parameters of raw materials and finished products with the aim of improving recipes cooking goat rennet cheese suluguni with increased MEDICAL nutritional properties. The research found full compliance with the chosen material - goat milk for cooking nutritional product enriched with probiotics. Determined that the basic physical and chemical indicators of the quality of the finished product such as fat, protein, sugar, pH, and the solid residue meet the full requirements for the degree of election materials. We recommend using casein as osadzhuvacha fermenttoho drug pepsin followed by administration of probiotics.

Keywords: suluguni, probiotics, lactobacilli, bifidobacteria, intestinal microflora.

UDC 502.7:614.72 Kabysh S., Voloshin M., Avramenko S. DEVELOPMENT OF MEASURES ON IMPROVEMENT OF AN ECOLOGICAL CONDITION DNIPRODZERZHINSK – URGENT NECESSITY. The materials on emissions of polluting substances in an atmosphere of air from stationary sources in city Dniprodzerzhinsk for the period with 1990 for 2012 years are assembled. The reduction of emissions in an atmosphere of city is observed. The concentration of some harmful substances exceed extreme admitted, namely: a dust, ammonia, sulfated hydrogen, oxide of nitrogen, fenol. It is necessary to strengthen the control of atmospheric air, to study major factors (seasons of year, enterprise, transport and another), that influence a condition of atmospheric air and to plan ways of its improvement.

Keywords: atmosphere, ecological condition, control, air.

UDC 628.218 (031) Gulyayev V., Kornienko I., Bondarenko S. ESTIMATION OF INFLUENCE HYDROBIOLOGICAL BIOCENOSIS of LOCAL SEWAGE TREATMENT PLANTS OF „NITROGEN” ON HIGH-QUALITY DESCRIPTIONS OF BIOCHEMICAL CLEANING (ON EXAMPLE OF CITY OF DNIPRODZERZHINSK). Is studied the negative influence of the conditions of biosynthesis of the aqueous organisms of the walls of second sump on the qualitative characteristics of the purified effluents relative to nitrogen am-

monium, nitrate, nitrite and suspended matter. Is established the presence in the composition of the biocenosis of second sump the predominantly specific variety of the simple, that relate to polisaprobionte. The development of the shielding constructions in the form of the screens, which prevent the destruction of ferroconcrete constructions.

Keywords: biosynthesis of the aqueous organisms of, biogenic elements, immobilization, biocenosis.

UDC 628.163 Ivanchenko A. UTILIZATION LIQUID WASTES PRODUCTIONS OF AMMONIA. The process of reagent treatment the high-mineralized sewer water of separation cleaning water in ammonia is in process investigational from natural gas with the use of soda method. Using the soda method of treatment, it maybe to bring down permanent inflexibility in downlow water of to 7,5-8,75 mg-ekv/l³ is shown. That the dose of soda depends on content of ions magnesium in initial downlow water, thus with the increase of concentration of ions of magnesium the dose of soda increases it is experimentally educed. Mathematical equalization for being necessary dose of soda depending on quality the initial high-mineralized water is shown out.

Keywords: ammonia, high-mineralized sewer water, soda method, inflexibility of water.

Section of «Life Safety»

UDC 622.453 Evstratenko L., Yurchenko A.A. INVESTIGATION OF AIR FILTRATION IN POROUS MEDIA IN POROUS MEDIA ZONES COLLAPSE MINES KRYVBASS. The estimation of the parameters of seepage flow and air flow regimes in porous media zones collapse mines. It is shown that the gas filtration in a porous medium, the pressure loss is more correct to define the binomial formula, taking into account the parameters of rock on which the motion of the gas. The empirical relationship between the parameter and the turbulence of the porous medium permeability coefficient.

Keywords: mine, collapse zone, porous medium, gas filtration.

UDC 613.6.027:669-131.2 Romanjuk R., Levchuk E. LABOR SAFETY AT TIN ROLLING. Paper is devoted the assaying of dangerous and harmful factors of cold rolling a tin and working out of recommendations about martempering of working conditions, lowerings of a traumatism and occupational diseases. The process of manufacture a tin is with that end in view presented, its basic stages are gated out and are short observed, and also dangers which workers of these sections can face are analyzed. Provisions on martempering of working conditions on the chosen sections and makings of safety working conditions in cold rolling departments are resulted.

Keywords: tin, factors, ventilation, hermetic sealing, individual defence resorts.