

YEGOROV, A.L. (Moskva); PARNYUK, V.A. (Zaporozh'ye)

Problems for extracurricular work. Fiz.v shkole 22 no.1:77-79
Ja-F '62. (MIRA 15:3)
(Physics--Problems, exercises, etc.)

BELOGORSKAYA, N.I.; BLUDOV, M.I.; BRAVERMAN, E.M.; BULATOV, N.P.;
GALANIN, D.D.; GOL'DFARB, N.I.; YEVROPIN, G.P.; YEGOROV, A.L.
YENOKHOVICH, A.S.; ZVORYKIN, B.S.; IVANOV, S.I.; KAMANETSKIY, S.Ye.;
KRAUKLIS, V.V.; LISENKER, G.R.; MALOV, N.N.; MANOVETOVA, G.P.;
MENSHUTIN, N.F.; MINCHENKOV, Ye.Ya.; PERYSHKIN, A.V.; FOKROVSKIY, A.A.;
POPOV, P.I.; RAYEVA, A.F.; REZNIKOV, L.I.; SOKOLOV, I.I.; YUSKOVICH,
V.F.; ZVENCHIK, Z.Ye.

Dmitrii Ivanovich Sakharov; obituary. Fiz.v shkole 22 no.1:109-
110 Ja-F '62. (MIRA 15:3)

(Sakharov, Dmitrii Ivanovich, 1889-1961)

YEGOROV, A. L., (Moskva)

Analysis of the development of phenomena in the solution of
problems. Fiz. v shkole 22 no.4:48-50 J1-Ag '62.
(MIRA 15:10)

(Physics--Problems, exercises, etc.)

YEGOROV, A.L. (Moskva)

Studying the great program of the development of communism in
the process of teaching physics. Fiz.v shkole 22 no.5:22-37

S-0 '62.

(MIRA 15:12)

(Physics—Study and teaching) (Automation—Study and teaching)

YEGOROV, A.L. (Moskva)

Using students' knowledge of mathematics and physics in
teaching mechanics in the 9th grade. Fiz. v shkole 23 no.5:
29-37 S-0 '63. (MIRA 17:1)

YEGOROV, A. M.,

"Study of Methods of Combating Vibrations In Lathework." (Dissertation for Degree
of Candidate for Technical Sciences) Min Higher Education USSR, Moscow Aviation
Technology Inst, Moscow, 1955

SO: M-1036 28 Mar 56

YEGOROV, A.M., kandidat tekhnicheskikh nauk.

Prevention of vibrations while working with production
cutting tools. Vest. mash. 36 no.9:39-43 S '56. (MLRA 9:10)

(Cutting tools)

YEGOROV, A.M.

~~Two-layered grinding balls. A. M. Egorov, S. M. Polish-
 chuk, and M. V. Alekseyev. U.S.S.R. 107,117, Aug. 25,
 1957. The inside of the ball is made of ~~iron~~ and this is
 coated with a layer having a hardness of not less than 6
 Mohs scale, such as pyrophyllite, corundum, mullite, ba-
 salt, or diabase. The inside part of the ball is coated with an
 adhesive slurry, rolled in the powd. material of the outside
 layer, and finally sintered.~~



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 4E2C

YEGOROV A.M.

ISAYEV, A.I., doktor tekhnicheskikh nauk, professor; YEGOROV, A.I.,
kandidat tekhnicheskikh nauk.

Investigating the vibration resistance of elastic systems
during turning. Trudy MFTI no.32:7-29 '57. (MLBA 10:8)
(Lathes--Vibration)

YEGOROV, A. M. , P. S. TITOV, F. M. LOSKUTOV, AND V. S. LOVCHIKOV, A. N. VOL'SKIY,
R. A. ARACHEVA

"On Hydrometallurgical Treatment"

Mintsvetmetzoloto

report submitted at a conference on new methods of lead production from concentrates,
Gintsvetmet (State Inst. Non-Ferrous Metallurgy), Moscow 22-25 June 1958.

(for entire conf. see card for LIDOV, V. P.)

S/708/59/000/002/004/008
D221/D304

AUTHOR: Yegorov, A.M. Candidate of Technical Sciences

TITLE: Elimination of low-frequency vibrations during metal machining

SOURCE: Izhevsk. Mekhanicheskiy institut. Voprosy tochnosti metallovezhushchikh stankov i mekhanicheskoy obrabotki, no. 2, 1959, 58 - 71

TEXT: Investigations of a lathe under various conditions of loading, and the oscillographic study of conditions required for vibrationless machining are described. The lathe slide takes up the whole cutting force, whereas the spindle and tailstock contribute together to the reaction. In addition, the support possesses the largest amount of junctions which explains its minimum stiffness and low anti-vibrational resistance: $\frac{1}{j_m} = \frac{1}{j_{sl}} + \frac{1}{4} \left(\frac{1}{j_h} + \frac{1}{j_t} \right)$ kg/mm, where j_m is the rigidity of the machine tool, j_{sl} is the rigidity of the

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D221/D304

Elimination of low-frequency ...

slides; J_n that of the headstock, and J_t of the tailstock. Therefore, the stiffness of a lathe depends in the first instance upon the rigidity of the support. The equivalent force was indicated by a dynamometer designed by Candidate of Technical Sciences, A.A. Voronin. The experiments were carried out on three different lathes. The following conclusions are made: There are ratios between the components of the cutting force which result in minimum radial deformation. This corresponds to the highest rigidity along the Y-axis and forms a discontinuity during the transition from negative to positive rigidity of the slide. The rigidity of the system increases when the ratio P_y/P_x drops. The axis of maximum stability depends on the ratio between the component forces and the general state of the elastic system. The use of these elastic properties and loading along the axis of maximum strength ensure a safe operation as far as vibrations are concerned. The tests have demonstrated that the directions of the equivalent forces are of the utmost importance for the rigidity of the system. The change in the arrangement of loading may be achieved by altering the tool geometry, or by the rota

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Elimination of low-frequency ...

tion of the tool in respect of lathe centers and OY axis, when all cutting angles are maintained. The conventional tool clamping results in significant radial deflection which leads to vibrations. The elimination of the risk is ensured by the direction of the resultant cutting force along the axis of maximum strength. The dynamic tests were carried out with electrical gear consisting of a seismic transducer, recording oscillograph, and screened leads. The intensity of vibrations was increased by changing one parameter only (width of cut). A detailed description of conditions is given. The plot of data reveals that the optimum angle of tilt of the tools in respect to the center line of the lathe, coincides with the values obtained by the analysis. Further rotation, produces a 'negative rigidity of the slide and 'drawing-in' of the tool. Four zones are distinguishable during the change of the tool position. The investigations proved that the proposed method ensures a stable operation in unfavorable conditions. Similar tests were made by altering the ratio of width and thickness of the chip in order to deduce the anti-vibration capacity. The author draws the following conclusions:
The introduction of tools with wide cutting edges should be encouraged.

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Elimination of low-frequency ...

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raged, due to their increased output. This, however, requires elimination of vibration, by changing the character of loading. The examination revealed the need for modifications in design of the slide. There are 7 figures and 2 tables.

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KRESTOVNIKOV, Aleksandr Nikolayevich; VLADIMIROV, Leonid Pavlovich;
GULYANITSKIY, Boris Stepanovich; FISHER, Aleksandr
Yakovlevich; YEGOROV, A.M., red.; ARKHANGEL'SKAYA, M.S.,
red. izd-va; MIKHAYLOVA, V.V., tekhn. red.

[Handbook on calculations of equilibrium of metallurgical
reactions; rapid methods] Spravochnik po raschetam ravnovesii
metallurgicheskikh reaktsii; uskorennye metody. [By] A.N.
Krestovnikov i dr. Moskva, Metallurgizdat, 1963. 416 p.
(MIRA 16:7)

(Metals--Thermodynamic properties)
(Chemistry, Metallurgic--Handbooks, manuals, etc.)

ACC NR: AP7002608 (A, N) SOURCE CODE: UR/0413/66/000/023/01 7/0117

INVENTOR: Yegorov, A. M.; Isayev, A. I.

ORG: None

TITLE: An electrochemical method for machining components with complex shapes. Class 48, No. 189275 [announced by the Central Scientific Research Institute of Technology and Machine Building (Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii i mashinostroyeniya)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 117

TOPIC TAGS: electroerosion machining, metal machining, precision finishing

ABSTRACT: This Author's Certificate introduces an electrochemical method for machining components with complex shapes using movable electrodes based on Author's Certificate No. 142141. Sectional electrodes are used to provide greater accuracy in machining three-dimensional curved surfaces with large angles of twist. These electrodes are brought together in pairs successively or simultaneously at the optimum angles to the corresponding sections of the surface being machined, collectively producing the given profile in the finished component.

SUB CODE: 13/ SUBM DATE: 09Mar64

Card 1/1

UDC: 621.9.047.7

0930 2727

ZAGORODNOV, O.G.; FAYNBERG, Ya.B.; YEGOROV, A.M.

Reflection of electromagnetic waves from a plasma moving in slow-
wave guides. Zhur. eksp. i teor. fiz. 38 no.1:7-9 Jan '60.
(MIRA 14:9)

(Electromagnetic waves) (Plasma (Ionized gases)) (Wave guides)

YEGOROV, A.M.

34437
S/185/61/006/006/016/030
D299/D304

24,2120 (1049,1163,1538)

AUTHORS: Lifshyts', Ye.V., Yehorov, A.M., and Zahorodnov, O.H.

TITLE: Measuring high-frequency field strength in a plasma by means of the Stark effect

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 6, 1961, 793 - 796

TEXT: A method is proposed for measuring parameters of plasma waveguides which has the advantage (over existing methods) of introducing only very small perturbations. The Stark effect is used for determining the mean field strength in plasma waveguides in a magnetic field. First, the radial distribution of the electric-field components in the waveguide are determined, and then the phase velocity of the wave and the field strength at the waveguide axis. The field-strength measurements were based on the Epstein-Schwartzschild formula:

$$\Delta v = \frac{3hE}{8\pi^2 \mu Ze} \{n_2(n_\eta - n_\xi)_2 - n_1(n_\eta - n_\xi)_1\} \quad (1)$$

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Measuring high-frequency field ...

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for the static Stark effect. It was found that the magnitude of the Stark line broadening was considerably greater in the experiments conducted, than line broadening due to other factors which could therefore be neglected. The diameter of the plasma waveguide was 20 mm, the plasma density varied between 10^{10} - 10^{11} . The field strength was measured by the broadening of the H_{γ} - line. This line was selected because it was more suitable for the operating conditions of the spectrograph used in the experiment. The discharge spectrum was recorded on photographic plates of type "Pankhrom"; the exposure varied between 30 minutes to 2 hours. A figure shows a typical line shape. The line broadening, due to the experimental apparatus, was taken into account by means of a calibration device, incorporating a thyratron. From formula (1) follows that the field strength $E = 2.31 \cdot 10^3 \Delta\lambda$, where $\Delta\lambda$ is expressed in Å, and E - in kw/cm. The obtained values of E are listed in a table, together with the values of $\Delta\lambda$. The described method is effective; its effectiveness increases with higher field strength. The use of photoelectric recording ensures much greater speed of measurement. There

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are 2 figures, 1 table and 6 references: 5 Soviet-bloc and 1 non-Soviet-bloc (in translation).

ASSOCIATION: Fizyko-tekhnichnyy instytut AS UkrRSR (Physico-Technical Institute of the AS UkrSSR), Kharkiv

X

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20921

S/057/61/031/003/005/019
B125/B202

9.2585

AUTHORS: Zagorodnov, O. G., Gaynberg, Ya. B., Yegorov, A. M., and Bolotin, L. I.

TITLE: Multiplication of the frequency by means of plasma "slamming"

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 3, 1961, 297-300

TEXT: The present paper deals with the experimental study of the problem of frequency multiplication by slamming. As is known, a Doppler effect occurs when electromagnetic waves are reflected from a moved surface. In this case frequency and amplitude of the incident wave are changed. The effect concerned can be considerably increased in the case of multiple reflection. This is attained, e.g., by concentrating the electromagnetic energy in a volume completely or partially filled with the plasma. This volume is then rapidly reduced by slamming the plasma. In this case not only density but also the total electromagnetic energy are increased. In the case concerned the energy of the photons that are multiply reflected from the plasma is increased. This effects the reversal of the Fermi

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B125/B202

Multiplication of the frequency...

acceleration effect. In the case of multiple reflection frequency and amplitude strongly increase even in the case $V_{\phi} \gg C (V \ll C)$. This effect was experimentally checked for an H_{011} wave in the 10-cm region. The electromagnetic field was compressed in a resonator having the shape of a metallic rectangular resonator. The plasma piston entered the resonator by a grating consisting of three metal bands. The second front face of this waveguide gradually passed into a waveguide with the critical wavelength $\lambda_{cr} = 4.6$ cm. This waveguide serves as filter for the harmonic frequencies. The plasma piston was produced by a two-electrode discharge with special ignitor and with additional electrodynamic acceleration. Fig. 1 shows the general block diagram of the experimental arrangement. The beginning of discharge can be regulated such that the plasma compression occurs two to three microseconds after the beginning of the high-frequency pulse in the waveguide. On slamming also the frequency of the electromagnetic field increases as a result of multiple reflection from the moved plasma until the frequency of the field exceeds the critical frequency of the waveguide filter. Fig. 3 illustrates the oscillograms of the high-frequency signals with the "multiplied" frequency at different instants of time of the

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B125/B202

Multiplication of the frequency...

plasma slamming. In this case the maximum pulse height of the high-frequency signal with the multiplied frequency corresponds to the shortest duration of slamming. These outputs are separated from the high-frequency pulse which is interrupted by the moving piston by the time interval τ . This time interval corresponds to the "slamming time", i.e., the time required for the multiplication of the frequency of the initial value (in this case 2840 megacycles) to a value slightly exceeding the critical frequency of the waveguide (6530 megacycles). Thus, the frequency was increased by little more than 2.3 times. The spectrum of the oscillations produced by the magnetron contained harmonic oscillations of small amplitudes which penetrate into the waveguide. Their amplitudes reproduce the form of the magnetron pulse. During slamming dissipation of the field energy caused by losses in the cavity, and in the plasma compression occurs besides the frequency multiplication and the intensification of the field amplitude. To obtain a sufficiently large amplitude of the signal at the output the "slamming time" must be of the same order of magnitude as the attenuation time $\tau_0 = Q/\omega$. In the experiments described slamming takes ~ 0.4 microseconds, which corresponds to a

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B125/B202

Multiplication of the frequency...

velocity of motion of $2 \cdot 10^7$ cm/sec of the plasma compression. Thus, it was shown that by slamming a sufficiently strong frequency multiplication can be attained. There are 3 figures and 8 references: 6 Soviet-bloc and 2 non-Soviet-bloc. The 2 references to English language publications read as follows: E. L. Ginston, Science, 127, 3303, 1958; A. C. Kolb, Phys. Rev., 107, 345, 1957.

ASSOCIATION: Fiziko-tekhnicheskii institut AN USSR Khar'kov (Institute of Physics and Engineering of the AS UkrSSR Khar'kov)

SUBMITTED: May 20, 1960

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S/781/62/000/000/003/036

AUTHOR: Zagorodnov, O. G., Faynberg, Ya. B., Yegorov, A. M., Kivshik, A. F.

TITLE: Reflection of electromagnetic waves from a moving plasma. Investigation of waveguide properties of a plasma

PERIODICAL: Fizika plazmy i problemy upravlyayemogo termoyadernogo sinteza; doklady I konferentsii po fizike plazmy i probleme upravlyayemykh termoyadernykh reaktsiy. Fiz.-tech. inst. AN Ukr. SSR. Kiev, Izd-vo AN Ukr. SSR, 1962, 9-20.

TEXT: The first part of the article describes experiments on the reflection of slow electromagnetic waves from a moving plasma, aimed at ascertaining whether the frequency multiplication and increase in the reflected-wave amplitude attainable in the case of slow waves is sufficient to lead to the development of new methods of amplification of microwaves and acceleration in a plasma, and also to stabilize a plasma. Since the Doppler shift in the frequency and the change in the amplitude of an electromagnetic wave reflected from a moving mirror can be made appreciable only by increasing greatly the velocity of the reflecting surface or

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Reflection of electromagnetic waves from . . .

by changing the phase velocity of the wave in the space where the interaction takes place, and since it is not practical to obtain high physical mirror velocities (even when an electron beam or a plasma is used as a reflecting surface), the experiment was carried out with an electromagnetic wave of a phase velocity slowed down to that of the reflecting plasma. The slow-wave structure consisted of a helical waveguide comprising a porcelain tube 40 mm in diameter, with a helix made of copper wire 0.4 mm in diameter wound at a pitch of 0.8 mm. The experimentally measured phase velocity in the helix was $v_{ph}/c = 1/200$. A plasma piston was produced by discharging a 750 microfarad capacitor bank charged to 4.5 kV. At 24.75 Mcs, the frequency of the reflected wave was found to be increased by 11 per cent relative to the incident wave, and when the phase velocity was decreased to $1/375$ of the velocity of light, the frequency increased by 20 per cent. The velocity of the plasma piston was calculated to be $v = 8.45 \times 10^6$ cm/sec. This effect can be used for amplification and generation of microwaves, acceleration of particles, and various measurements in plasma and also to increase the stability of a plasma.

The second part of the investigation was devoted to waveguide properties of plasma. A plasma waveguide was produced by a high frequency discharge in a quartz tube 1500 mm long,

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Reflection of electromagnetic waves from . . .

In which a vacuum of 7×10^{-3} mm Hg was maintained. The plasma density in the waveguide could be varied up to 10^{11} cm⁻³. A slow electromagnetic wave of low power (on the order of 1 watt) at frequencies from 150 to 2000 Mcs was excited in the plasma waveguide, and the resultant phase velocity of the standing wave was measured as a function of the frequency for different plasma densities and for several values of longitudinal magnetic field. A study of the dependence of the waveguide field intensity on the high-frequency power applied to the plasma (in the range from 100 to 1.5 kW) has shown this dependence to be non-monotonic, probably owing to resonance in the plasma column. Other quantities measured were the radial dependence of the longitudinal component, the nonlinear distortion of low-power signals passing through the plasma waveguide and the microwave losses in the plasma waveguide. The acceleration in the plasma was investigated by means of a small model of a helical-plasma accelerator. An analysis of the energy spectrum of the beam, made by electrostatic deflection, shows that the spectrum is quite broad and that a considerable fraction of the electrons had the expected energy near 5.5 keV. This shows that the field is capable of penetrating and reaching the axis of the plasma and that the electrons become accelerated.

K. D. Sinel'nikov is credited with suggesting one possible reason for signal distortion in the

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Reflection of electromagnetic waves from . . .

S/781/62/000/000/003/036

plasma waveguide. There are nine figures and sixteen references, including articles by S. S. Buchsbaum and S. C. Brown, Phys. Rev. 106, 196 (1957), V. Josephson, J. Appl. Phys. 29, 30 (1958); Ginzton, Science, 127, 3308 (1958), and M. Lampert, Phys. Rev. 102, 289 (1956).

Card 4/4

L 4242-66 EWT(1)/EWT(m)/ETC/EPF(n)-2/ENG(E)/EPA(w)-2/ENA(m)-2 IJF(c)
ACCESSION NR: AT5007973 GS/AT/JXT S/0000/64/000/000/1023/1029 106
103
121

AUTHOR: Berezin, A. K.; Berezina, G. P.; Bolotin, L. I.; Gorbatenko, M. F.;
Yegorov, A. M.; Zagorodnov, O. G.; Kornilov, B. A.; Kurilko, V. I.; Lutsenko, Ye.
I.; Laypkalo, Yu. M.; Pedenko, N. S.; Kharchenko, I. F.; Shapiro, V. D.;
Shavchenko, V. I.; Faynberg, Ya. B. 44.55 44.55 44.55

TITLE: Acceleration of charged particles with the aid of longitudinal waves in
plasma and plasma waveguides 44.55

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. 44.55
Trudy. Moscow, Atomizdat, 1964, 1023-1029

TOPIC TAGS: high energy accelerator, electron beam, plasma accelerator, plasma
waveguide

ABSTRACT: Plasma waveguides and noncompensated electron and ion beams can be uti-
lized as accelerating systems in linear accelerators (Faynberg, Ya. B., Symposium
CERN 1, 84 1956); *Atomnaya energiya* 6, 431 (1959)). In such systems, slow elec-
tromagnetic waves $v \leq c$ are propagated, which are necessary for particle accelera-
tion. The waveguide properties of restrained plasma and noncompensated beams are
displayed in the case of waves in the meter and centimeter range even for com-
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paratively small plasma densities around 10^9 to 10^{13} cm^{-3}). Under these conditions the high-frequency energy losses during wave propagation, which are due to the collisions of plasma particles, are small. The density of electrons in metals (about 10^{23}) is many orders greater than is necessary for ensuring waveguide properties in the microwave range. This leads to great losses of high-frequency power during wave propagation in metallic conductors. For plasma densities around 10^9 to 10^{13} cm^{-3} , the energy losses during particle transit through the plasma, which are proportional to plasma density, are insignificant, from 10^{-5} to 10^{-6} ev/cm . This means that plasma waveguides are "transparent" for accelerated particles. According to the conditions of acceleration the particles are divided into individual bunches. Thus the loss of particles moving in the plasma can increase greatly because of the occurrence of coherent deceleration representing the inverse of the effect of coherent acceleration, which was established by V. I. Veksler (Symposium CERN 1, 80 (1956)). However, even for accelerated particle fluxes of the order of tens of amperes, these losses are all insignificant. Because waveguide properties are determined by the plasma, the metal surfaces can be remote from regions with large field strengths or eliminated altogether, which permits a significant increase in the permissible voltages of the accelerating fields and a substantial de-

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crease in the high-frequency energy losses. It is also important to concentrate the electromagnetic energy in the radial direction only in the regions where the accelerated particles are moving. Thus for a given field strength the electromagnetic energy flux decreases markedly. If the fluxes of accelerated particles are large, the waveguide properties necessary for acceleration can be ensured by the particles of the beam which are not entrapped in the acceleration process, through which particles the entrapped particles move. The beam itself which is injected into the accelerator operates under these conditions of an accelerating system. To clarify the possibilities of particle acceleration by means of electromagnetic waves excited by charged particle beams, and also to investigate the influence of beam instabilities upon the acceleration process, the Physicotechnical Institute, Academy of Sciences Ukrainian SSR conducted theoretical and experimental investigations on the interaction of charged particle beams with a plasma. These investigations were intended to lead to, not the design and construction of a definite accelerator model, but the physical processes occurring during the interaction under consideration, and in this way to a determination of the possibilities of plasma methods of acceleration which are being developed at this institute. The theory developed up to the present time of the interaction between beams and plasma has been essentially a linear theory. As a result of the work of V. D. Shapiro and V.

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I. Shevchenko at this institute for the case of beams of not very large density, a nonlinear theory has been created which permits one to trace the process of interaction of an initially nonmodulated beam and mono-energetic beam with a plasma from the initial stage to saturation. As is shown, a large part of the beam's energy of ordered motion (75% of its initial energy) is lost by the beam as a result of collective interactions with the plasma. Thus the energy expended upon excitation of oscillations amounts to 30%; upon increasing the thermal energy of the plasma, to 30%; and upon increasing the thermal energy of beam, to 15%. The experimental investigations of this interaction were carried out by I. F. Kharchenko and A. K. Berezin and their respective co-workers. Their results are in agreement with the theory of M. F. Gorbatenko. The mentioned institute has also carried out further theoretical and experimental investigations on the problems of electromagnetic wave propagation in plasma waveguides excited by high-frequency wall sources. The experimental studies, by O. G. Zagorodnov, et al., showed that the results agree well with theory under conditions of insignificant nonlinear effects. Current experiments are concerned with highly-ionized plasmas with density 10^{11} to 10^{12} . Orig. art. has: 4 figures, 1 table.

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ACCESSION NR: AT5007973

ASSOCIATION: Fiziko-tehnicheskii institut AN UkrSSR (Physicotechnical Institute,
AN UkrSSR)

3

SUBMITTED: 26May64

ENCL: 00

SUB CODE: NP

NO REF SOV: 005

OTHER: 001

BVK.
Card 5/5

YEGOROV, A.M.; ODINETS, Z.K.

Calculating the temperature dependences of weak electrolyte dissociation constants. Sbor. nauch. trud. Gintsvetmeta no.23:241-246 '65.

Temperature dependence of the instability constants of certain complex ions. Ibid.:247-251 (MIRA 18:12)

YEGOROV, A.M.; SMIRNOVA, M.N.

Study of the mean heat capacities of zinc and nickel
orthosilicates at high temperatures. Zhur. fiz. khim.
39 no.9:2131-2135 S '65.

(MIRA 18:10)

AUTHOR: YEgorov, A.M. 586

TITLE: Temperature Dependence of the Solubility Product. (Temperaturnaya zavisimost' proizvedeniy rastvorimosti).

PERIODICAL: "Zhurnal Neorganicheskoy Khimii" (Journal of Inorganic Chemistry, Vol. II, No. 2, pp. 460-464. (U.S.S.R.). - 1956

ABSTRACT: A thermodynamic method for calculating the effect of temperature on the solubility product. Calculation of the coefficients in the equation for the solubility product in terms of temperature enables values of the product to be calculated. This has been done for several sulphides and halides for temperatures from 0 to 100°C.

There are eight references, five of them Russian.

There are seven Tables and ten Equations.

Received 23 January, 1956.

Card 1/1

YE GOROV, A.M.

✓ Low-temperature tar bases, effective retarders of steel corrosion in acid solutions. K. S. Kuryndin, R. A. Mikhonoz, I. S. Livshits, A. M. Egorov, and A. B. Egorova. 18 4E2C

Khim. i Tekhnol. Topiva i Masel 1957, No. 3, 57-62
Bases from the kerosene fraction of the box-rod cooking tars of Kuzbas bituminous coal were investigated. The bases were extracted with 20% H₂SO₄ or diluted with 20% acid solution with water to a low amount of the desired strength and base content. The presence of such kerosene fraction bases reduced the rate of the steel solution in 10% HCl to 0.1-0.2 in 10% acid, and to 0.0125-0.02 in 20% acid, depending on the steel. The inhibiting action is further greatly increased by the addn. of small amts. of NaCl or HCl, reducing the soln. rate to 0.007-0.01 in 10% H₂SO₄, and to 0.07-0.10 g²/sq. m. hr in the 20% acid. The less resistant a steel is to corrosion in dil. acid, the higher the inhibiting effect, with or without the Cl⁻ addn. The inhibiting power of the bases is retained for a long time at 95-118°. A mixt. contg. 0.2% of the bases lowers the soln. rate of low-C steel at 20° in 10% HCl to 6.18 g²/sq. m. /hr. The 20% H₂SO₄ with the inhibitor and with Cl⁻ eliminates the scale on steel in 5-10 min. at 95±5°.

W. M. Sternberg
MT

SOV/180-59-3-8/43

AUTHORS: Agracheva, R.A., Vol'skiy, A.N. and Yegorov, A.M. (Moscow)

TITLE: Investigation of a Method of Treating Lead Sulphide Concentrates by the Application of Ferrichloride Solutions

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1959, Nr 3, pp 37-46 (USSR)

ABSTRACT: The thermodynamics of the interactions between sulphides and chlorides of heavy metals in aqueous solutions is worked out. Results are given in Table 1. The thermodynamics of the processes between chlorides and sulphides of different metals was also examined and results given in table 2. An experimental investigation was carried out on the dissociation of sulphides of heavy metals by ferrichlorides. Results (table 3) show that galena, chalcocite, silver sulphide and covellite are easily decomposed; pyrrhotite, marmatite and chalcopyrite are slowly decomposed; but pyrites are unaffected. Experiments were carried out on a lead concentrate containing 63.77 Pb, 2.56 Cu, 5.4 Zn, 4.73 Fe, 17.36 S, 0.59 SiO₂ 1.06 H₂O and 4.48% remainder. The results for two temperatures (60 and 80°C) and two times (90 and 120 minutes) are given in Table 4 (q° = degree of

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SOV/180-59-3-8/43

Investigation of a Method of Treating Lead Sulphide Concentrates by the Application of Ferrichloride Solutions

extraction). Results of further experiments on a more complex mixture are given in Table 5. The extraction of lead is greater than 99%. The method of treating lead concentrates is thus: treatment with iron ferrichloride solution which converts PbS to $PbCl_2$, leaching with a solution saturated with $CaCl_2$ and $NaCl$ and electrolytic extraction of Pb from the solution. Experiments on purification of the anolyte showed that copper is almost completely precipitated by lead sulphide (Table 6, q = degree of precipitation) but precipitation of zinc is very slow (Table 8) and this method is unsatisfactory. There are 8 tables and 8 references, 6 of which are Soviet and 2 English.

SUBMITTED: April 26, 1958

Card 2/2

YEGOROV, A.M.; VOL'SKIY, A.N.

Special case of the hydrolysis of poorly soluble or weakly
dissociated electrolytes. Zhur. neorg. khim. 5 no. 12:2677-
2680 D '60. (MIRA 13:12)

(Hydrolysis) (Sulfides) (Carbonates)

GUL'DIN, I.T.; YEGOROV, A.M.; BUZHINSKAYA, A.V.

Decomposition voltage of natural sulfides of some metals and of sodium sulfide in fused salts. Zhur. prikl. khim. 34 no. 12:2674-2680 D '61.
(MIRA 15:1)

(Sulfides) (Electromotive force)

DZLIYEV, Islam Iosifovich; YEGOROV, A.M., kand. tekhn. nauk, retsenzent;
NEYMAN, M.N., red.; EL'KIND, L.M., red. izd-va; DOBUZHINSKAYA,
L.V., tekhn. red.

[Cadmium metallurgy] Metallurgiya kadmiia. Moskva, Metallurgiz-
dat, 1962. 188 p. (MIRA 15:6)
(Cadmium--Metallurgy)

YEGOROV, A.M.; ODINETS, Z.K.; Prinizhala uchastiye: KUZNETSOVA, M.G.,
laborant

Behavior of the sulfides of copper, zinc, lead, and iron during
roasting in presence of sodium chloride. Sbor. nauch. trud.
Gintsvetmeta no.19:293-307 '62. (MIRA 16:7)

(Nonferrous metals--Metallurgy)
(Sulfides--Metallurgy)

YEGOROV, A.M.; TITOVA, Z.P.

Temperature dependence of solubility products of salts with
multiatomic ions. Zhur.neorg.khim. 7 no.2:275-278 F '62.
(MIRA 15:3)

(Salts) (Solubility)

YEGOROV, A.M.; ODINETS, Z.K.

Approximate calculation of the dependence of metal hydroxide solubility products on temperature. Sbor. nauch. trud. Gintsvetmeta no.19:308-313 '62. (MIRA 16:7)

(Hydroxide) (Solubility)
(Metals, Effect of temperature on)

YEGOROV, A.M.; ODINETS, Z.K.

Certain conclusions from V.I.Kuznetsov's hypothesis of analogies.
Zhur.neorg.khim. 7 no.3:706-708 Mr '62. (MIRA 15:3)
(Chemistry, Analytical)

YEGOROV, A.M.; SMIRNOVA, M.N.

Preparation of nickel orthosilicate. Zhur. neorg. khim. 8 no.8:
1987-1988 № '63. (MIRA 16:8)

1. Institut obshchey i neorganicheskoy khimii imeni N.S. Kurnakova
AN SSSR.

(Nickel silicates)

YEGOROV, A. N.

Yegorov, A. N. "On river intakes in the Bada river basin (Southern Kazakhstan)," Trudy Novocherkas. politekhn. in-ta im. Ordzhonikidze, Vol. XVII, 1948, p. 3-13 - Bibliog: 11 items

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, no. 3, 1949)

YEGOROV, A.P.; BOCHKAREV, V.V. [authors]; FARBER, V.B., doktor meditsinskikh nauk
[reviewer].

"Hemopoiesis and iontophoretic radiation." A.P.Egorov, V.V.Bochkarev. Re-
viewed by V.B.Farber. Terap.arkh. 25 no.3:83-86 My-Je '53. (MIRA 6:9)
(Radiation) (Blood) (Egorov, A.P.) (Bochkarev, V.V.)

YEGOROV, A.P.

[Morphological blood analysis; handbook for doctors and students]
Morfologicheskii analiz krovi; rukovodstvo dlia vrachei i studentov. 5. izd., perer. i dop. Moskva, Medgiz, 1954. 49 p. (MLRA 8:1)
(Blood--Analysis and chemistry)

YEGOROV, A. P.

"Course in the Technology of Minerals," bk., Moscow, 1944.

YECOROV, A. P.

A course in the technology of mineral substances. 2 izd., perer. Moskva,
Gos. nauchno-tekh. izd-vo khim. lit-ry, 1950. 534 p. (51-26276)

TP155.E3 1950

YEGOROV, A.P.

PAGE I

TREASURE ISLAND BIBLIOGRAPHIC REPORT

AI 169-I

BOOK

Author: VOL'KHOVICH, S.I., YEGOROV, A.P. and EPSHTEIN, D.A.

Full Title: GENERAL CHEMICAL TECHNOLOGY (VOL. I)

Transliterated Title: Obshchaya khimicheskaya tekhnologiya

Publishing Data

Originating Agency: None

Publishing House: State Scientific-Technical Publishing House of Chemical Literature (SUSKHIMIZDAT)

Date: 1953

No. pp.: 632

No. of copies: 25,000

Editorial Staff

Editor: Luchinskiy, G.P.

Tech. M.: None

Editor-in-Chief: Vol'khovich, S.I., Acad.

Appraiser: None

Others: Gratitude is expressed to several Soviet scientists for their valuable comments.

Three additional authors are mentioned: Z.A. Rogovin, Yu. P. Lundenko
I.V. Shmanenkov.

Text Data

Coverage:

The book consists of two volumes. Volume I is devoted to general problems of chemical technology (such as raw materials, energetics, technology of water and fuel), to the manufacture of gases, acids,

OBCHONAYA KHIMICHESKAYA TEKNOLOGIYA

alkalies, salts, fertilizers, and to electrochemical processes, etc. Some illustrations of machinery, tables, and diagrams are included. The book might be of interest because it mentions names of many Soviet scientists and their contributions to the development of various chemical industries. Deposits of some raw materials in the U.S.S.R. and goals set by the Five-Year Plan (1951-1955) for some industries are cited.

Purpose: Approved by the Ministry of Higher Education of the U.S.S.R. as a textbook for departments and colleges of chemical technology.

Facilities: Names of many Soviet chemists are mentioned.

No. of Russian and Slavic references: 145 (1922-1952)

Available: A.I.D., Library of Congress.

2/2

YEGOROV, A. P.

USSR/Chemistry - Chemical Technology Sep 53

"Review of S.I. Vol'fkovich, A.P. Yegorov and D.A. Epshteyn's book 'General Chemical Technology (Obshchaya Khimicheskaya Tekhnologiya)' Vol I, 632 pp, Goskhimizdat, Moscow, 1953," (P.P. Budnikov, reviewer)

Usp Khim, Vol 22, No 9, pp 1165-1168

In this book material is organized on the basis of similarity of technol processes and partly on the basis of common raw material source. The section on thermal treatment of fuels discusses pyrolysis of solid fuel, conversion of petroleum and natural

268T17

gas, and gasification of solid fuel, including subterranean gasification. Development of the chem ind during prewar 5-yr plans and the leading USSR chem schools are discussed. The section on basic inorganic synthesis describes new processes for production of conc HNO_3 by direct synthesis and combined production of HNO_3 and H_2SO_4 . While the book has some shortcomings, it is a valuable textbook for higher educational institutions.

268T17

15-0000V, A P

История Алана в Министерстве А. И. Степанов

SLOMYANSKAYA, F.B., kandidat tekhnicheskikh nauk; DYATLOVA, V.N.; AFANAS'YEV, P.S.; YEGOROV, A.P.; VITKOVSKIY, M.N.; MISHIN, I.A.; MEDOVAR, B.I.; LANGER, N.A.; PAL'CHUK, N.Yu., kandidat tekhnicheskikh nauk; FRID, Ya.L.; LEVIN, I.A., kandidat tekhnicheskikh nauk.

Methods of testing stainless steels for susceptibility to intergranular corrosion. Zav.lab.21 no.11:1314-1340 '55. (MIRA 9:2)

1.Vsesoyuznyy nauchno-issledovatel'skiy i konstruktorskiy institut khimicheskogo mashinostroyeniya (for Slomyanskaya, Dyatlova).2.Nachal'nik Tsentral'noy zavodskoy laboratorii (for Afanas'yev).3.Nachal'nik laboratorii eksperimental'nogo zavoda khimicheskogo mashinostroyeniya.4.Sumskoy mashinostroitel'nyy zavod imeni M.V.Frunze (for Vitkovskiy, Mishin).5.Institut elektrosvarki imeni Ye.O.Patona, Akademii nauk SSSR (for Medovar, Langer).6.Moskovskoye vyssheye tekhnicheskoye uchilishche imeni N.E.Baumana (for Pal'chuk).7.Zamestitel' nachal'nika Tsentral'noy zavodskoy laboratorii zavoda "Serp i Molot" (for Frid).

(Steel, Stainless--Corrosion)

YEGOROV, A.P.
BARSUKOV, V.L.; YEGOROV, A.P.

Some geochemical peculiarities in the formation conditions of
hypogenic borate deposits [with summary in English]. *Geokhimiya*
no.8:673-683 '57. (MIRA 11:2)

1. Institut geokhimii i analiticheskoy khimii im. V.I. Vernad'skogo
AN SSSR, Moskva.

(Borates)

YEGOROV, A.P.

"The principles of chemical technology" by D.A. Epshtein. Reviewed
by A.P. Egorov. Zhur. prikl. khim. 31 no.1:150-151 Ja '58.
(MIRA 11:4)

(Chemistry, Technical)
(Epshtein, D.A.)

YEGOROV, A.P., inzh.

Mobile magnetic flaw detector. Khim. mash. 3 no.3:41-42

My-Je '59.

(MIRA 12:12)

(Materials--Testing)

YEGOROV, A.P.

Role of magnesium in the composition of metasomatic formations with borate mineralization. *Geokhimiia* no.2:164-176 '60. (MIRA 13:6)

1. V.I.Vernadsky Institute of Geochemistry and Analytical Chemistry,
Academy of Sciences, U.S.S.R., Moscow.
(Borates) (Magnesium) (Metasomatism)

YEGOROV, A.P.

Accuracy of height determinations from topographic maps in
regional gravity surveys. Geofiz. razved. no.6:118-124 '61.
(MIRA 15:4)
(Siberia--Gravity prospecting)

YEGOROV, A.P.

Data on the boron content in some metamorphic rocks and their granitized varieties in the Tazhnoye iron ore deposit in southern Yakutia. Geokhimiia no.9:775-783 '61. (MIRA 15:2)

1. V.I. Vernadskiy Institute of Geochemistry and Analytical Chemistry, Academy of Sciences U.S.S.R., Moscow.
(Yakutia--Boron)

YEGOROV, A.P.; NEMTSOV, L.D.

Practice of conducting semidetailed gravity surveys under
the taiga conditions of Siberia. Razved. i prom. geofiz.
no.42:62-71 '61. (MIRA 16:11)

YEGOROV, A.P.

Recalculation of chemical compositions in minerals
and rocks on the basis of crystallochemical data.

Geokhimiia no.9:778-793 '62.

(MIRA 15:11)

I. V.I. Vernadsky Institute of Geochemistry and Analytical
Chemistry, Academy of Sciences, U.S.S.R., Moscow.

(Minerals--Analysis)

(Rocks--Analysis)

YEGOROV, A.P.

Barometric leveling and aerial photographic surveying in
geophysical surveying. Geod. i kart. no.5:27-30 My '63.
(MIRA 16:7)

(Barometric hypsometry)
(Aerial photogrammetry)

YEGOROV, Afanasy Petrovich; SHERESHEVSKIY, Abram Isaakovich;
SHMANENKOV, Ivan Vasil'yevich; AVRAMOVA, N.S., red.;
KOGAN, V.V., tekhn. red.

[General chemical technology of inorganic substances] Ob-
shchaya khimicheskaya tekhnologiya neorganicheskikh ve-
shchestv. Izd.4., perer. Moskva, Izd-vo "Khimia," 1964.
687 p. (MIRA 17:3)

YEGOROV, A.P.; KULAKOV, I.N.; SLOUSH, M.M.; SHKULEPOVA, L.G.

Field testing of MBN-P microbarolevels. Geofiz.razv. no.14:
143-154 '63. (MIRA 17:3)

ACCESSION NR: AT4002127

S/2702/63/000/014/0143/0154

AUTHOR: Yegorov, A. P.; Kulakov, I. N.; Sloush, M. M.; Shkulepova, L. G.

TITLE: Field investigations of the MBN-P microbarometric levels

SOURCE: USSR. Glavnoye upravleniye geologii i okhrany* nedr. Geofizicheskaya razvedka, no. 14, 1963, 143-154

TOPIC TAGS: surveying, surveying instrument, level, microbarometric level, aneroid, MBN P microbarometric level

ABSTRACT: The design and operating principles of the MBN-P microbarometric levels, manufactured by the "Gidrometpribor" plant, are described and illustrated (see Figs. 1 and 2 of the Enclosure). Several such instruments were standardized prior to field tests. Field tests carried out to check the elevations of gravimetric stations showed level errors of +0.56 m (366 readings) and 0.68 m (315 readings) in sightings to gravimetric station elevations of 7 and 14 km, respectively, from the initial station level. The mean square error of closure was $\pm 0.5-0.7$ m. Orig. art. has: 3 figures, 7 tables and 11 formulas.

ASSOCIATION: Glavnoye upravleniye geologii i okhrany* nedr (Main Bureau for Geology and Conservation of Natural Resources)

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Card

ACCESSION NR: AT4016747

8/2604/63/000/049/0080/0085

AUTHOR: Yegorov, A. P.; Lozinskaya, A. M.

TITLE: Comparative tests of high accuracy microbarometers

SOURCE: Moscow. Vses. n.-i. inst. geofiz. metodov razvedki. Razvadochnaya i promy*sllovaya geofizika (Prospecting and industrial geophysics), no. 49, 1963, 80-85

TOPIC TAGS: surveying, high accuracy surveying, barometer, aneroid barometer, microbarometer

ABSTRACT: In almost inaccessible regions of Siberia and the Soviet Far East, barometric levelling is of great importance. Barometric levelling is also widely used for gravimetric prospecting at scales of 1:1,000,000 and 1:200,000 when the mean square error in the determination of height is approximately +5.0 and 2.5 m. Two types of highly accurate instruments have recently been designed by VNIIGeofizika - an aneroid level with a microscopic micrometer and a string microbarometer. The following barometers have been designed by other institutions: an optical microbarometer (SNIIGGIMS), a microbarometer with a flexible transmission (Gidrometeoropribor plant in Moscow) and a microbarometer with a microscopic micrometer (VNIKAZ neftegaz). A diagram of the first aneroid level is
Card 1/3

ACCESSION NR: AT4016747

shown in Fig. 1 of the Enclosure. In the string microbarometer, which is designed for use as a field barometric station, the sensitive element is a hermetically sealed siphon. Practical use of these instruments will permit an increase in the number of meteorological stations for detailed gravimetric prospecting in a given area. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Vses. n.-i. inst. geofiz. metodov razvedki, Moscow (All-Union Scientific Research Institute of Geophysical Prospecting)

SUBMITTED: 00

DATE ACQ: 13Feb64

ENCL: 01

SUB CODE: ES

NO REF SOV: 003

OTHER: 000

Card 2/3

YEGOROV, A.P.

Some characteristics of the localization of metasomatism and the mineralization related to it in regionally granitized Pre-Cambrian formations. Izv. AN SSSR Ser. geol. 29 no.7:12-23 J1 '64
(MIRA 18:1)

1. Institut geokhimii i analiticheskoy khimii imeni V.I.Vernadskogo AN SSSR, Moskva.

L-08519-57 EWT(1) GH
ACC NR: AM6019453

Monograph

LR/

YEGOROV, Aleksandr Pavlovich

Geodetic works during geophysical explorations (Geodezicheskiye raboty pri geofizicheskikh razvedkakh) Moscow, Izd-vo "Nedra", 66. 0191 p. illus., biblio. 3; 250 copies printed. 62
B+1

TOPIC TAGS: geodesy, geodetic survey, geodetic instrument, topography, aerial photography, barometer, radar mapping, height finding, coordinate

PURPOSE AND COVERAGE: This book views the problems of preparing geodetic work during geophysical explorations, such as seismic, electrometric, gravimetric, magnetometric work and others. The book also includes problems, instruments, methods and procedures of laboratory study of results from the observations made during geophysical explorations. Special attention is given to new instruments used in production as well as to methods for carrying out the studies. This book is recommended for technical engineers performing geodetic work during geophysical explorations. It can also be useful to specialists in other fields in which the determination of coordinates and heights of points is produced by simplified methods.

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Ch. I. Geodetic works -- 5

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UDC:528:550.83(075.6)

L 08519-67

ACC NR: AM6019453

- Ch. II. Use of topographic maps -- 25
- Ch. III. Use of aerial photography material -- 37
- Ch. IV. Barometric leveling -- 71
- Ch. V. Radiogeodetic measuring -- 133
- Ch. VI. Construction of work basis -- 172
- Bibliography -- 189

SUB CODE: 08 / SUBM DATE: 01Feb66/ ORIG REF: 034/ OTH REF: 000

Card 2/2 afs

YEGOROV, A.S., dotsent

Uterine atresia. Akush. i gíg. 33 no.2:56-61 Mar-Apr '56. (MLBA 9:7)

1. Iz kafedry akusherstva i ginekologii (zav.-prof. Ya.V.Kukolev)
Dnepropetrovskogo meditsinskogo insituta.

(UTERUS, abnorm.
atresia, surg.)

(ABNORMALITIES
atresia of uterus, surg.)

YEGOROV, A. S.

Pathogenesis of intrauterine asphyxia of the fetus in prolonged pregnancy, late toxicosis and heart defects in pregnant women. Akush. i gin. no.4:52-59 '62. (MIRA 15:7)

1. Iz kafedry akusherstva i ginekologii (zav. - dotsent A. S. Yegorov) fakul'teta Dnepropetrovskogo meditsinskogo instituta.

(ASPHYXIA) (PREGNANCY, PROTRACTED) (TOXEMIA)
(HEART--DISEASES)

YEGOROV, A.S. (Leningrad)

Studying the aiming capacity of the eye [with summary in English].
Vop. psikhol. 4 no.5:47-55 8-0 '58. (MIRA 11:12)
(Eye)

YEGOROV, A. S.

Hypogene nonuniform lixiviation of quartz in iron-bearing
quartzites of the Kursk Magnetic Anomaly. Dokl. AN SSSR 147
no.4:920-923 D '62. (MIRA 16:1)

1. Institut geologii rudnykh mestorozhdeniy, petrografii,
mineralogii i geokhimii AN SSSR. Predstavleno akademikom
D. S. Korzhinskim.

(Kursk Magnetic Anomaly—Quartz)
(Metamorphism(Geology))

CA
 YEGOROV, H. S. 2

The ternary system of silver, cadmium, and lead eno-
 rides. M. I. Prokof'ev and A. B. Kgorov, *Uchenye
 Zapiski Kazan. Gosudarst. Univ., Ser. F., Uchenye
 Lenin 101, No. 3, Sbornik Studentcheskikh Rabot No. 3,
 70-1 (1941).*—The most sol. component is AgCl; the least
 sol. is CdCl₂. There is a ternary eutectic at 280° and 23.7%
 CdCl₂, 29.7% AgCl, and 20.6% PbCl₂. The soly. of the
 components is the greater, the lower the m.p. of the system.
 H. M. Leicester

ASB-55A METALLURGICAL LITERATURE CLASSIFICATION

COMMON ELEMENTS
 COMMON VARIABLES INDEX

ASB-55A METALLURGICAL LITERATURE CLASSIFICATION

COMMON ELEMENTS
 COMMON VARIABLES INDEX

YEGOROV, A.S.

✓ New types of silver chloride reference half-elements.
A. S. Egorov and G. L. Visnevskaia (Kiev Branch All-
Union Sci. Research Inst. Reference Electrodes). *Ukrain.*
Khim. Zhur. 20, 232-5 (1964).—These half-elements and
their characteristic properties are described. Their use is
recommended for precise pH detns. and for potentiometric
titrations. J. Rovtar Leach

CH

①

MT
MET

STABNIKOV, V.N.; YEGOROV, A.S.; VISNEVSKAYA, G.L.; SOKOL'SKAYA, Ye.V.

Composition of the ether-aldehyde fraction. Trudy UkrNIISP
no.5:139-145 '59. (MIRA 16:11)

YEGOROV, A.S.; MYAKOTA, L.I.; POLUNIN, I.P.; TARANETS, A.M.

Improving the design of ionometers. Trudy UkrNIISP no.5:129-
196 '59. (MIRA 16:11)

YEGOROV, A.S.

Experimental investigation of the overcoming of difficulties under competitive conditions [with summary in English]. Vop. psikhol. 6 no.1:128-134 Ja-F '60. (MIRA 13:6)

1. Kafedra psikhologii.
(Sports--Psychological aspects)

S/245/62/000/005/002/002
D222/D307

AUTHOR:

Yegorov, A.S.

TITLE:

The adaptation of sportsmen to hypoxemia during repeated suppression of breathing under different mental attitudes

PERIODICAL:

Voprosy psikhologii, no. 5, 1962, 84-90

TEXT:

This study was carried out owing to the lack of information in the literature on the possibilities, direction, limits and mechanism of adaptation to hypoxemia under various mental attitudes. Four series of experiments were carried out with 40 subjects. In the first series the mental attitude was uncontrolled; in the second the subjects were asked to do simple arithmetical calculations; in the third they were asked to concentrate on the difficulties of their situation; in the fourth they were asked to take a positive attitude and to think of activities where oxygen intake is small. Each subject underwent 10 periods of suppression, the duration of these periods were defined by the time taken to reduce the oxyhemo-

Card 1/2

The adaptation of sportsmen ...

S/245/62/000/005/002/002
D222/D307

globin contents of arterial blood to 6% of the initial level. The average times for the four experimental conditions were as follows: 1 min 25.5 sec; 1 min 31.3 sec; 1 min 20.3 sec and 1 min 37.8 sec respectively. The differences in the development of adaptation can be seen from the differences between the first and last periods of suppression: 17 sec, 23 sec, 13 sec, and 32 sec respectively for the four series. These results can be explained according to the Pavlovian theory by invoking certain signalling functions of consciousness. The author concludes that the results of this investigation constitute evidence showing that mental attitudes can influence the adaptation of the organism to hypoxemia. There are 2 tables and 1 figure.

ASSOCIATION: Kafedra psikhologii institut fizicheskoy kul'tury im. P.F. Lesgafta, Leningrad (Department of Psychology, Institute of Physical Education im. P.F. Lesgaft, Leningrad)

Card 2/2

YEGOROV, A.S.

Experimental study on overcoming difficulties in dynamic work.

Vop. psikhol. 8 no.1:19-27 Ja-F '62.

(MIRA 15:4)

1. Kafedra psikhologii instituta fizicheskoy kul'tury imeni
P.F.Lesgafta, Leningrad.

(CONDITIONED RESPONSE)

(EXERCISE)

ARTYUKHOV, V.G.; YEGOROV, A.S.; BEREZNIKOVA, D.S.

Movement of nitrogen compounds in the column during the rectification of alcohols produced from molasses. Izv. vys. ucheb. zav.; pishch. tekhn. no.6:31-33 '63.

(MIRA 17:3)

1. Ukrainskiy nauchno-issledovatel'skiy institut spirtovoy i likerovodochnoy promyshlennosti, laboratoriya khimii i rektifikatsii spirta.

ARTYUKHOV, V.G.; BEREZNIKOVA, D.S.; YEGOROV, A.S.; KLIMENKO, K.V.

Losses of fusel oil in the products of yeast separation. Spirit.
prom. 29 no.6:36-37 '63. (MIRA 16:10)

1. Ukrainskiy nauchno-issledovatel'skiy institut spirtovoy i
likero-vodochnoy promyshlennosti.
(Distillation) (Fusel oils)

ARTYUKHOV, V.G.; YEGOROV, A.S.; Primala uchastiye Klimenko, K.V., khimik

Movement of fusel oil in the rectification column of a beer still
with indirect action during the manufacture of high purity alcohol
from molasses mash. Trudy Ukr.NIISP no.8:36-47 '63. (MIRA 17:3)

MATYUSHA, A.G.; YEGOROV, A.S.; PETROVSKAYA, M.V.

Investigating alcohol losses and impurities in the return of the
ether-aldehyde fraction to the production in molasses distilleries.
Trudy Ukr.NIISP no.8:48-59 '63. (MIRA 17:3)

MATYUSHA, A.G.; YEGOROV, A.S.; PETROVSKAYA, M.V.

Studying the balance of esters, aldehydes and acids in the
fractional distillation of molasses alcohol. Trudy UkrNIISP
no.9:44-50 '64. (MIRA 17:10)

ARTYUKNOV, V.G.; YEGOROV, A.S.; MAL'TSEV, P.M.; BEREZHNIKOVA, D.S.

Studying the balance of fusel oil in the production of higher
alcohols from molasses beer. Trudy UkrNIISF no.9:51-58 '64.
(MIRA 17:10)

DANILKO, G.V.; YEGOROV, A.S.; STABNIKOV, V.N., prof., nauchnyy konsul'tant

Use of ion exchange resins for removal from the alcohol of
impurities inseparable during the rectification. Trudy UkrNIISP
no.9:59-71 '64. (MIRA 17:10)

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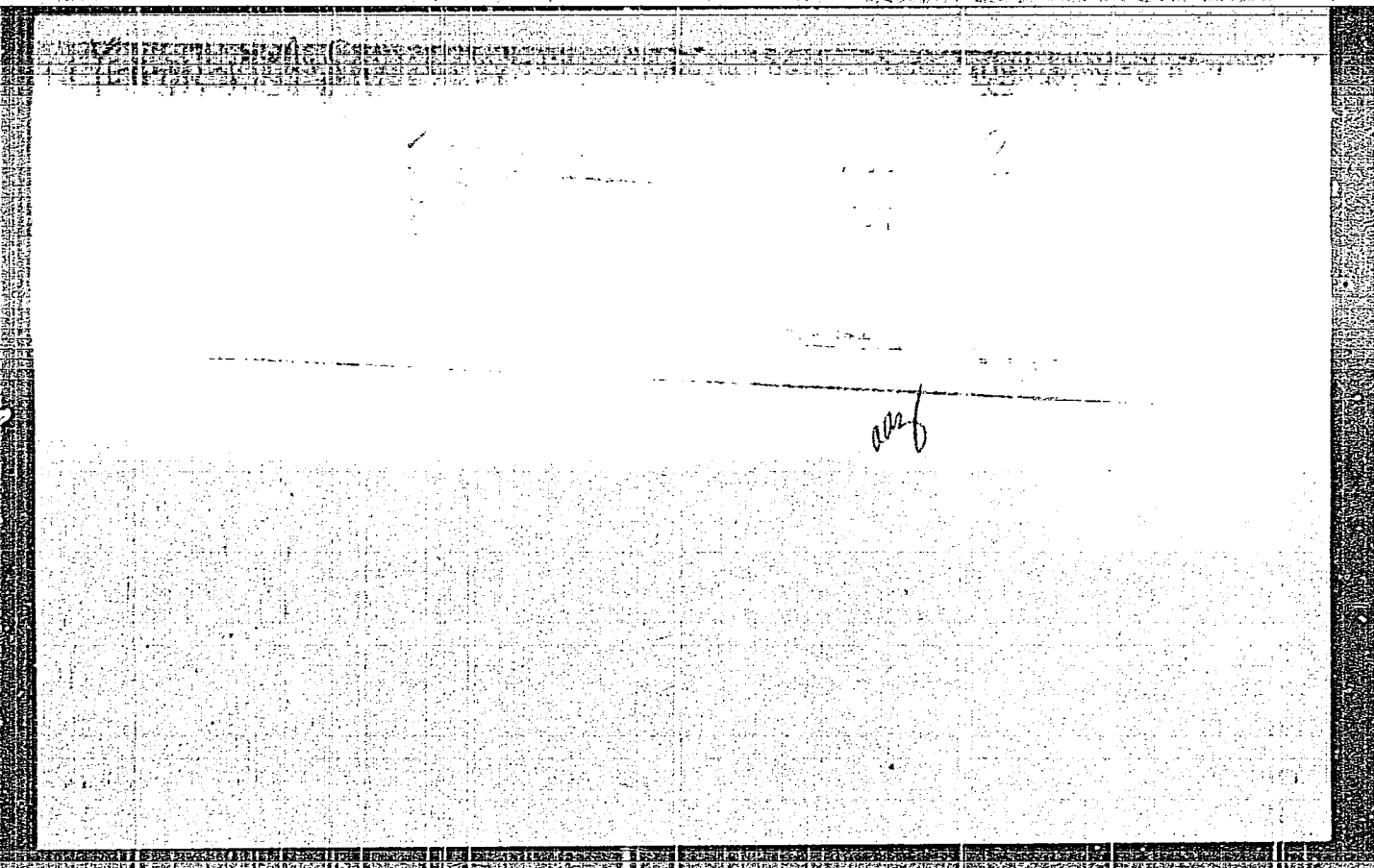
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