YEREMIN, A.V., inzh.; ZAMOTORIN, N.V., inzh.

Results of testing grain combines in 1957. Mekh. i elk. sots. sel'khoz. 15 no.2:45-51 '58. (MIRA 11:5)

1. Ministerstvo sel'skogo khozyaystva SSSR.
(Combines (Agricultural machinery))

STERLIKOV, F.F., student; YEREMIN, A.V., kand.tekhn.nauk, starshiy prepodavatel', nauchnyy rukovoditel'raboty

Self-centering hinged dovetail remover. Sbor.dokl.Stud.nauch. ob-va Fak.mekh.sel'. Kuib.sel'khoz.inst. no. 1:142-146 '62. (MIRA 17:5)

1. Kuybyshevskiy sel'skokhozyaystvennyy institut.

YEREMIN, A. V. Cand Tech Sci -- (diss) "Experimental and theoretical investigation of the stripping devices for the purpose of finding a rational design," Moscow, 1960, 19 pp, 150 copies, (Joint Scientific Council of the All-Union Sci Res Institute for the Mechanization of Agriculture - VIM and the All-Union Sci Res Institute for Electrification of Agriculture - VIESKh) (KL, 42-60, 113)

YEREMIN, A V

EXCERPTA MEDICA Sec.2 Vol.10/2 Physiology,etc Feb57

827. EREMIN A. V. and CHERNIKOV I. N. Chair of Physiol., Milit. Med. Acad., Leningrad. *Regulation of respiration and circulation in dreaming condition FIZIOL. Z. 1956, 42/7 (541-545) (Russian text)

In 4 subjects, reflex vaso-dilatation and constriction of the left forearm was plethysmographically recorded on application of heat or cold to the right forearm. On this basis, differential conditioned visual reflexes were obtained using light of different colours. In a semi-sleepy condition, produced by monotonous sound within 15-20 min. a paradoxical reaction of the conditioned as well as unconditioned stimulus developed: peripheral vasoconstriction to the heat stimulus and peripheral vasodilation to the cold stimulus. In the waking condition, the amplitudes of the respiratory movements and the peripheral pulse volume were fairly stable, but large slow phasic synchronous oscillations (cycle length about 1 min.) appeared in the dreaming condition, together with an increase of respiratory movements and a decrease of the forearm volume.

Simonson - Minneapolis, Minn.

S/865/62/002/000/029/042
D405/D301

AUTHORS : Alifanov, V.N., Vakar, M.I., Yeremin, A.V. and Ivanov, A.Ye.

TITLE: Effect of resistance breathing on respiration under excess pressure

SOURCE: Problemy kosmicheskoy biologii. v. 2. Ed. by N. Sisakyan and V. Yazdovskiy. Moscow, Izd-vo AN SSSR, 1962, 287-289

TEXT: This article was presented at the 10th European Congress on Aviation and Space Medicine, Paris, 26-30 September, 1961. The effect of changes in intrapulmonary pressure, due to pressure breathing, on the respiratory mechanism is investigated. 50 experiments were conducted on seven subjects (young healthy males aged 23-33), under normal atmospheric pressure and also in a pressure chamber with a rarefied atmosphere corresponding to an altitude of 20 km. The oxygen apparatus used in the experiments had a special device which permitted reduction of the excess pressure in the in-

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Effect of resistance ...

halation phase as compared to that in the exhalation phase. Conclusions: If the variations in intrapulmonary pressure exceeded 100 mm water column, then the physiological functions of the organism underwent a general disturbance. The effect of intrapulmonary pressure fluctuations on the organism is the stronger the larger these fluctuations and the more rarefied the ambient atmosphere; the respiratory function is the one to be mostly affected. The replacement of the oxygen mask by a hermetic helmet (i.e. an increase in dead space) caused more serious disturbances in the respiratory mechanism if the pressure-drop in the inhaling phase exceeded 50-100 mm water column. Intrapulmonary pressure fluctuations of 200-300 mm water column were sometimes accompanied by a total disturbance of the respiratory mechanism. The oxygen concentration of the blood decreases. The bioelectric activity of the respiratory muscles is a reliable indicator of respiration distress due to the use of breathing apparatus.

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ACCESSION NR: AT4042679 S/0000/63/000/000/0179/0181

AUTHOR: Yeremin, A. V.; Alifanov, V. N.

TITLE: Changes in counterpressure on the body and the tolerability of respiration under excess pressure

SOURCE: Konferentsiya po aviatsionnoy i kosmicheskoy meditsine, 1963. Aviatsionnaya i kosmicheskaya meditsina (Aviation and space medicine); materialy* konferentsii. Moscow, 1963, 179-181

TOPIC TAGS: positive pressure respiration, suit pressure, counterpressure, intrapulmonary pressure

ABSTRACT: In experiments on healthy young men ranging in age from 20-30 years, the authors investigated the functional displacements in the body (EKG, EEG, EMG, oxymetry, blood pressure, respiratory rate) during respiration with oxygen under excess pressure (55-136 mm Hg), on earth and at a simulated height of 20 kilometers (in a pressure chamber). Particular attention was paid to the effect of changes in counterpressure (from 70 mm Hg below to 50 mm Hg above the intrapulmonary pressure) on either the whole body or separate parts of the body, thus simulating defects in the pressure suit. The results showed that during respiration under excess pressure, either on earth or at a height of 20 kilometers, a difference

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ACCESSION NR: AT4042679

of ± 50 mm Hg between suit pressure and intrapulmonary pressure for 5 minutes did not produce any serious changes in the basic physiological functions. A difference of more than 50 mm Hg caused difficulties in respiration with distinct displacements in the cardiovascular system, which in turn decreased the tolerability of respiration under excess pressure. The most important was found to be compensation of the abdomen and the upper part of the thighs. The thorax and shoulders were less important, followed by the shins and forearms. At a height of 20 km, even slight decreases in counterpressure on the body can be withstood satisfactorily for only 5 minutes, after which a bell-jar effect appears, especially in the area of the extremities.

ASSOCIATION: none

SUBMITTED: 27Sep63 ENCL: 00 SUB CODE: LS

NO REF SOV: 000 OTHER: 000

Card 2/2

GYURDZHIAN,A.A.; YEREMIN, A.V.

Tenth European congress on aviation and space medicine. Izv. AN SSSR, Ser. biol. 28 no.1:138-145 Ja-F'63. (MIRA 16:8)
(AVIATION MEDICINE--CONGRESSES) (SPACE MEDICINE--CONGRESSES)

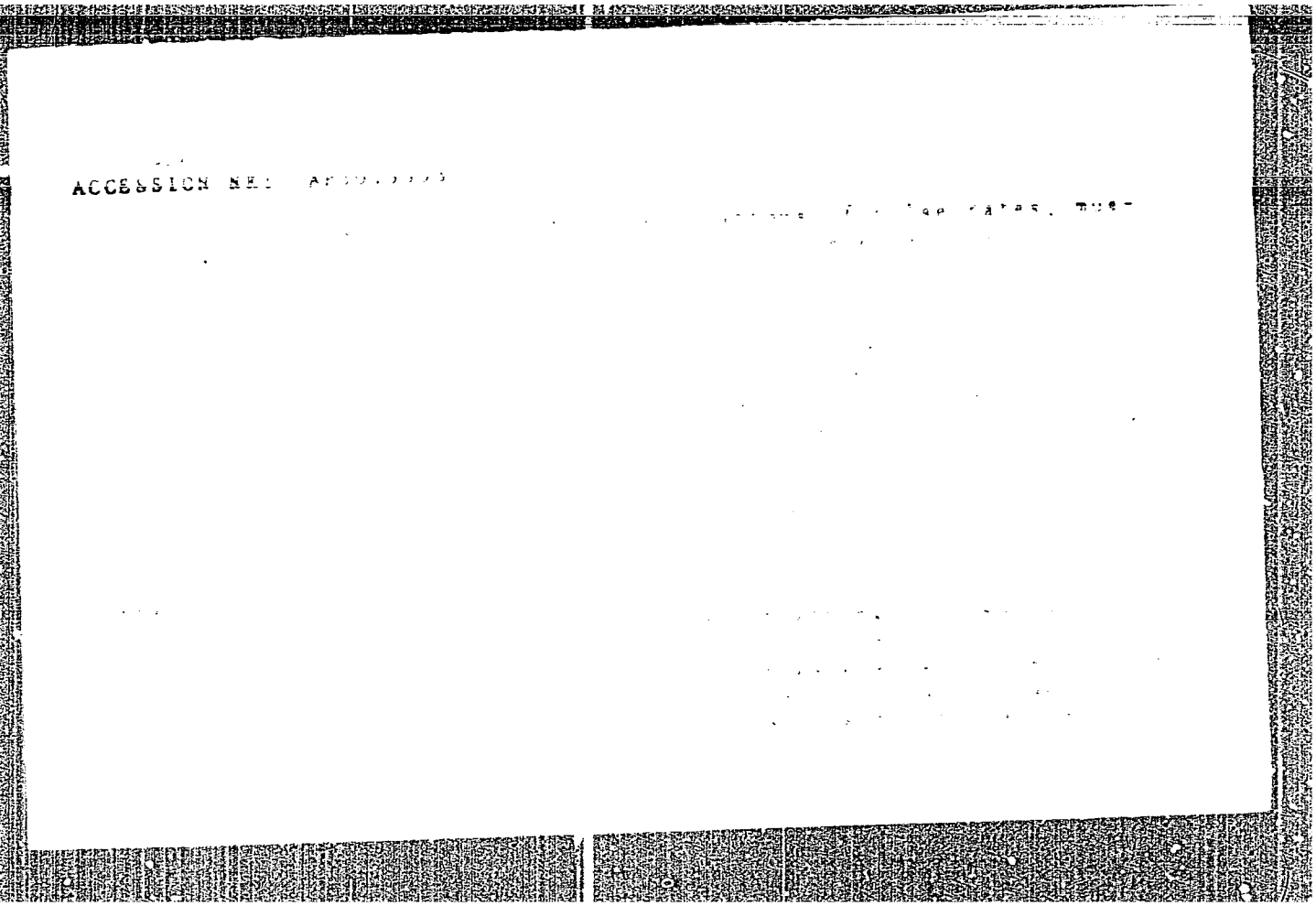
VOLYNKIN, Yu.M.; GOZULOV, S.A.; GYURDZHIAN, A.A.; YEREMIN, A.V.; YUGANOV, Ye.M.

Some problems in current aviation medicine; a review of the literature. Voen. med. zhur. no. 2:61-66 '63. (MIRA 17:9)

YEREMIN, A.V. (Moskva); KOCHETOV, A.K. (Moskva)

Technique of continuous cannulation of major vessels in semi-chronic experiments on dogs. Fiziol. zhur. 49 no.12:1496-1498 D '63. (MIRA 17:12)

TITLE: The working capacity of man under conditions of weightlessness



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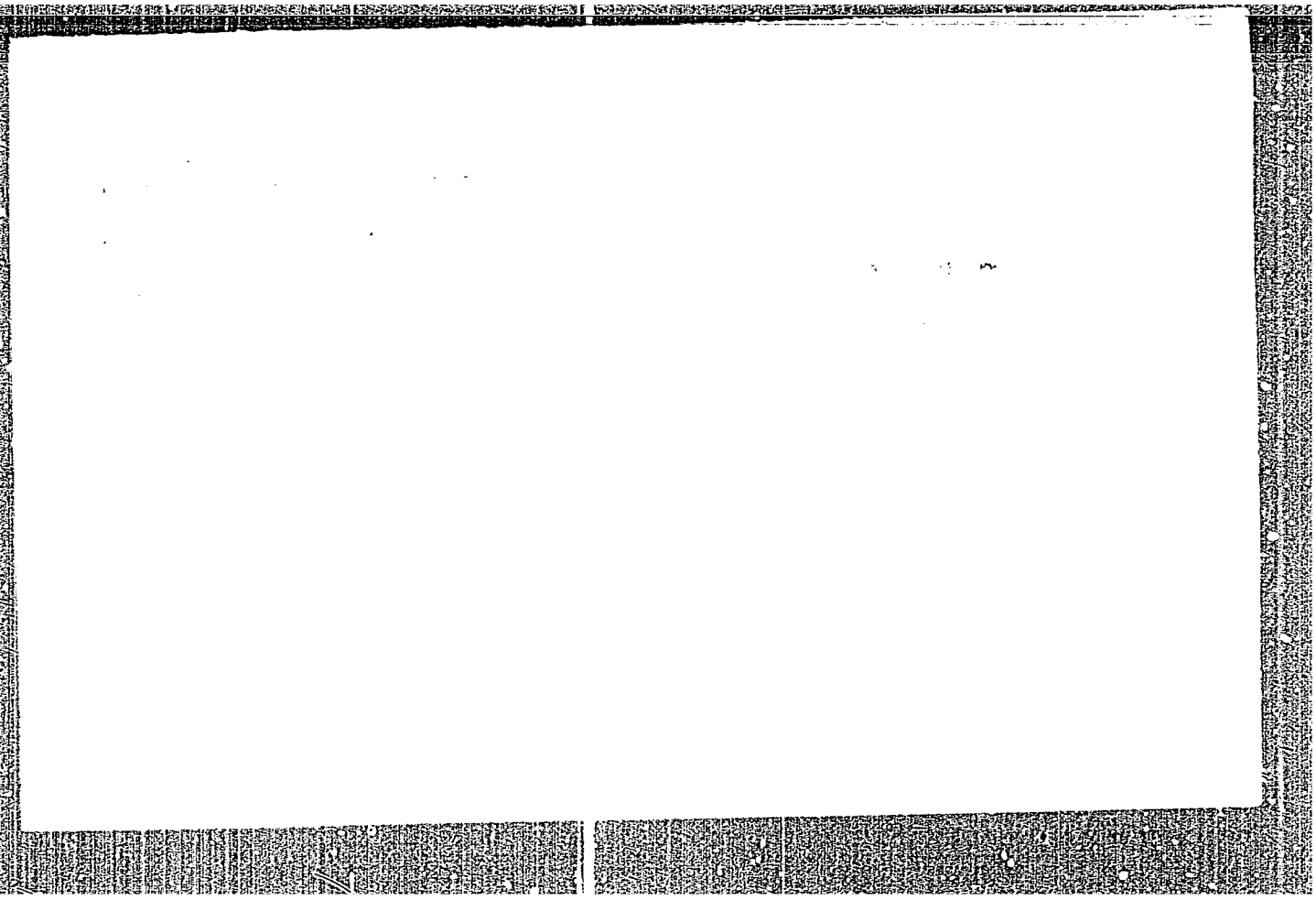
ACCESSION NR: AP5013308

working areas, to improve [illegible] panels, increasing [illegible]



APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962720010-3"

ACC NR: AT6036560 SOURCE CODE: UR/0000/66/000/000/0166/0167

AUTHOR: Yeremin, A. V.; Kopanev, V. I.; Azhayev, A. N.; Lysakov, N. A.; Zhadovskaya, S. V.

ORG: none

TITLE: The effect of high temperatures on human functional capacities [Paper presented at the Conference on Problems of Space Medicine held in Moscow from 24 to 27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 166-167

TOPIC TAGS: hyperthermia, human physiology, work capacity

ABSTRACT: Flight crews in southern parts of the country, like specialists working in so called hot shops, e.g., steel welders, open hearth plant workers, and so forth, are often subjected to the effects of high ambient air pressures. In view of the practical implications of the problem and the inadequacy of its treatment in literature, attempts were made to study the functional capacity of humans exposed for fairly long periods to high temperature conditions.

Three series of investigations were conducted. Unclothed subjects were exposed for an hour to air temperatures of 440C

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(series 1), 460C (series 2), and for 30 min to air temperature of 480C (series 3). Relative humidity in the thermochamber was kept between 15% and 25%, and velocity of air movement between 0.1 and 0.2 m/sec.

Work capacity was evaluated by means of correction tablet tests [A. A. Genkin et al. (1963)], grip strength dynamometry, and a graphic test [Frukuda (1959)]. Visual analyzer function was studied by determining the electrical excitation threshold of the eye, flicker fusion frequency, and the information transmission capacity of the visual analyzer [F. P. Kosmolinskiy, Ye. A. Derevyanko (1962), A. A. Genkin et al. (1963)]; vestibular analyzer function was studied by determining the duration of postrotational nystagmus and the counterrotation illusion, and also the area of displacement while walking in place with eyes closed [Frukuda (1959)]. In addition, pulse and respiration frequencies, electrocardiograms, blood pressure, and body and skin temperature at twelve points were recorded during all experiments, and some of the components of heat exchange were calculated. Not counting the control group (6 men), experiments were conducted on 39 subjects, 14 in series 1, 13 in series 2, and 11 in series 3. It was established that even a

ACC NR: AT6036560

60 min exposure to an air temperature of 440C decreased work capacity (error increase of 2.4% on the correction test, 14.0% on the graphic test, and so forth); the information transmission capacity of the visual analyzer decreased by 13.5%; decreases were also seen in the electrical excitation threshold of the eye and in the weight of the subjects (by 200 g); increases were seen in body temperature (by 0.3C), the frequency of cardiac contractions (by 14/min), and so forth. In series 2 and 3, human functional capacity showed a sharp drop, which was characterized by more pronounced shifts in a number of investigated functions. Thus, at +60C the number of errors increased by 15.6%; at +80C, by 58%; and so forth.

The above data show that even a single hour's exposure of an unclad human to a temperature of +40C affects work capacity; this must be taken into account in organizing industrial medical support and in devising measures to improve work conditions and work schedules in hot climates. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Card 3/3

ACC NR: AT7011644 SOURCE CODE: UR/0000/66/000/000/0001/0004

AUTHOR: Stepantsov, V. I.; Yeremin, A. V.

ORG: none

TITLE: Biodynamics of extravehicular activities

SOURCE: International Astronautical Congress. 17th, Madrid, 1966. Doklady. no. 6. 1966. Osnovy biomekhaniki cheloveka v bezopornom polozhenii, 1-4

TOPIC TAGS: EVA, astronaut orientation, spatial orientation, extravehicular movement, manned space flight

ABSTRACT:
Extravehicular activity during weightlessness requires a total readjustment of coordination and reallocation of motor effort, and the modification of existing motor habits or the development of new ones. EVA away from the ship and without interaction with objects outside the body requires even more drastic modification of motor activity. Early attempts at the solution of the problem of maneuvering the body under these conditions by Kirpichev (1907) and Pol' (1930) are cited. Maneuvering the unsupported, weightless

Card 1/3

ACC NR: AT7011644

body by movements of the extremities depends primarily on the quantitative characteristics of interaction of the different parts of the body, and on anatomical considerations. The authors have computed the moments of inertia of the body and various extremities (head, arms, and legs) in various positions (bent, straight) and combinations for a man 168--172 cm tall weighing 70-75 kg. The authors propose the following maneuvers: 1) to rotate the body around its long axis, both arms are swung in a plane perpendicular to the axis of rotation. One such movement turns the body 60°. The arms are returned to the starting position through a plane parallel to the axis of rotation. Leg movements (initial position with the legs spread wide) are even more efficient, turning the body 160° or 90°. "Yawing" and "pitching" rotations (about a transverse or a front-to-back axis through the body's center of gravity) are accomplished by circular movements of both arms in the sagittal plane, or of one arm in the frontal plane. Initial results indicate that a properly trained person can maneuver his body into any desired position quickly and accurately without the use of any outside equipment (thrusters, etc.) or support.

Card 2/3

ACC NR: AT7011644

Orig. art. has: 1 figure and 1 table. [ATD PRESS: 5098-F]

SUB CODE: 06,22 / SUBM DATE: none

Card 3/3

YEREMIN, B.F., ENGINEER

Metal Cutting Laboratory of the
GAZ imeni Molotow (-1946-)

"A new method for Computing Broaches"
Stanki I Instrument, 17, No. 7-8, 1946

BR-52059019

YEREMIN, B. F. , Engineer

Gazimeni Molotov (-1946-)

"Experimental Verification of Analytic Formulas for Determining the Magnitude of the Diameter of Grinding Wheels for Grinding Broaches" Stanki I Instrument, 17, No. 9, 1946.

BR-52059019

EREMIN, E. F.

Protiagivanie. Moskva, Mashgiz, 1950. 325 p. illus., plates, tables.
Bibliography: p. (283).

Broaching.

DLC: TJ1230.E7

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1953.

1. YEREMIN, B. F.

2. USSR (600)

4. Technology

7. The study and installation of stakhanovite experience in machine-building. Moskva, Mashgiz, 1951

9. Monthly List of Russian Accessions, Library of Congress, February 1953, Unclassified.

YEREMIN, B.F. ; STIGNEYEV, YA. F. ;
KONYASHOV, V.V. ; VISNEVSKIY, P.I.;
SHNEYBERG, V.I. ; GORBUNOV. E.K. ;
ROMANOV. I.I.

Stigneyev, Ya. F.

"Study of Stakhanovite experience, and its introduction into machine building."
Reviewed by S.A. Nikitin. Avt.trakt.prom., no. 7, 1952.

MONTHLY LIST OF RUSSIAN ACCESSIONS, LIBRARY OF CONGRESS, NOVEMBER 1952. UNCLASSIFIED.

YEREMIN, B. F.

Broaching Machines

"Broaching." B. F. Yeremin. Reviewed by P. G. Katsev. Vest. mash. 32, no. 2, 1952

MONTHLY LIST OF RUSSIAN ACCESSIONS, LIBRARY OF CONGRESS, OCTOBER 1952. UNCLASSIFIED.

YEREMIN, B.F., kandidat tekhnicheskikh nauk; NEUMOIN, A.F.

Progressive broaching of holes in steel parts. Avt.trakt.prom. no.9:24-26 S '54. (MLRA 7:10)

1. Gor'kovskiy avtozavod imeni Molotova.
(Metal cutting)

YEREMIN, B. F.

PHASE I BOOK EXPLOITATION SOV/3688

Akademiya nauk SSSR. Institut mashinovedeniya. Komissiya po tekhnologii mashinostroyeniya. Seminar po kachestvu poverkhnosti

Kachestvo poverkhnosti detaley mashin, sbornik 4. Tekhnologicheskiye faktory obrabotki. Metrologiya i pribory. Ekspluatatsionnyye svoystva poverkhnostnogo sloya (Surface Quality of Machine Parts, Collection of Articles, No. 4. Processing Factors in Machining. Metrology and Instruments. Operational Properties of the Surface Layer) Moscow, Izd-vo AN SSSR, 1959. 291 p. (Series: Its: Trudy) Errata slip inserted. 3,200 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya.

Resp. Ed.: P.Ye. D'yachenko, Professor; Ed. of Publishing House: G.B. Gorshkov; Tech. Ed.: T.P. Polenova.

PURPOSE: This collection of articles is intended for technical personnel concerned with the quality of surface finishes of machine parts.

COVERAGE: This collection of articles deals with problems of surface roughness and the effect of surface roughness on the wear and strength of machine parts. Among the topics discussed are the development of international standards for surface roughness, the effect of cutting feeds and cutting-tool vibration on the surface roughness of machined parts, the effect of lay direction on the wear of plane friction surfaces, methods and instruments for measuring surface roughness, and the processing of profilograms of finished surfaces. No personalities are mentioned. References follow several of the articles.

AVAILABLE: Library of Congress

VK/pw/jb
7-12-60

Card 7/7

YEREMIN, B.F.

Experience of the Gorkiy Automobile Plant in introducing the state standard for surface smoothness. Trudy Sem.po kach.poverkh. no.4:244-246 '59. (MIRA 13:6)
(Gorkiy--Automobile industry)
(Surfaces (Technology)--Standards)

YEREMIN, B.F.

Improving surface smoothness and properties of metal-cutting tools.
Trudy Sem.po knch.poverkh. no.4:247-250 '59. (MIRA 13:6)
(Surfaces (Technology))
(Metal-cutting tools)

L 34075-66 EWT(m)/T WW/JW/JWD

ACC NR: AP6012863 SOURCE CODE: UR/0127/66/000/004/0058/0060

AUTHOR: Brichkin, A. V. (Professor, Doctor of technical sciences); Zabudkin, I. L. (Candidate of technical sciences); Nizovkin, V. M. (Engineer); Baydalinov, G. A. (Engineer); Yeremin, B. F. (Engineer); Zayats, Ya. S. (Engineer)

ORG: [Brichkin, Zabudkin, Nizovkin] Kazakh Polytechnic Institute (Kazakhskiy politekhnicheskiy institut); [Zayats, Baydalinov, Yeremin] "Mirgalimsay" Mine (Mirgalimsay rudnik)

TITLE: Industrial tests of igdanits at the "Mirgalimsay" mine

SOURCE: Gornyy zhurnal, no. 4, 1966, 58-60

TOPIC TAGS: explosive, explosive charge

ABSTRACT: In December 1964, tests of igdanits (explosives composed of granulated ammonium nitrate and diesel oil) were begun at the "Mirgalimsay" mine for the purpose of determining the amount of toxic gases formed during their explosion, and the effectiveness of the explosive. The tests showed that the total amount of toxic gases evolved by the igdanits was no greater than in the case of detonite or dinaphthalite. The effectiveness of several types of charging machines was also studied. The substantial advantages of charging blast holes by means of the ZDU-50 machine are listed. The machine gives a charging density of 1.15 g/cm^3; its use for 10 months in 1965 permitted the charging of 20,000 m of blast holes, for which 35,000 kg of igdanit was used, and 95,000 tons of ore was blasted loose. The total savings for this period was 10,200 rubles. Orig. art. has: 2 tables. [08]

SUB CODE: 19/ SUBM DATE: none/ ATD PRESS: 5016 UDC 662.242:622.272

Card 1/1

06339
SOV/141-2-1-11/19

AUTHORS: Bravo-Zhivotovskiy, D.M., Yeremin, B.G., Zagryadskiy, Ye.V., Miller, M.A. and Mochenev, S.B.

TITLE: Experimental Study of the Motion of Electron Beams in Weakly Non-uniform High-frequency Fields

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, 1959, Vol 2, Nr 1, pp 94 - 100 (USSR)

ABSTRACT: It has been shown in previous papers (A.V. Gaponov, M.A. Miller - Refs 1-3) that non-relativistic motion of a changed particle in a weakly non-uniform field can be represented as the superposition of an oscillation with the frequency of the external field $\underline{r}^{(1)}(t)$ and a motion averaged over the period of that field, $\underline{r}^{(0)}(t)$. These components obey Eqs (2) and (3) and since the r.h.s. of Eq (2) contains the electric potential vector the averaged motion of a particle is completely defined by the initial conditions and the form of the high-frequency potential $\overline{Q}(\underline{r})$. The equations are best proved by studying the passage of an electron beam through a high-frequency potential barrier.

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Experimental Study of the Motion of Electron Beams in Weakly Non-uniform High-frequency Fields

The experiments demonstrated deflection of charged particles along the slope of the barrier; reflection from the barrier; high-frequency focusing. It should be possible to study the first effect in an ordinary multi-cavity magnetron working in the π-mode. Such measurements are hindered by a discharge which arises even in a cold magnetron when a high enough power is introduced. In a cold magnetron without magnetic field, the electrons appearing as a result of ionisation must slide down the slope of the potential barrier to the cathode and faster ions will arise there, the height of whose potential barrier is, from Eq (2),

$(m_i/m_e)^2$ times less. Thus, a high-frequency impulse, introduced into a cold magnetron, will produce in the anode-cathode circuit a current pulse of reverse sign with an extended near flank. Measurements have been made by applying a positive voltage to the anode to compensate for the discharge current, with a typical result as in

Experimental Study of the Motion of Electron Beams in Weakly Non-uniform High-frequency Fields

Figure 1. This demonstration is only qualitative since the curve of Figure 1 should be linear. Reasons suggested for the non-linearity are: tunnel-effect, distortion of potential barrier, interaction between electrodes and particle-source in the interaction space. The reflection of electrons from a potential barrier has been studied using the special arrangement of Figure 2 in which a beam of electrons traverses the centre of a waveguide resonator. The resonator is excited with 1 μsec pulses of power at 60 Gc/s. The height of the potential barrier is measured by the negative compensating pulse applied to the cathode of the electron gun. The graphs of Figure 3 are experimental results which agree with the theoretical expectations of Eqs (5) and (6) to better than the experimental error of 7%. The possibility of focusing a rectilinear electron beam has been demonstrated using a form of travelling-wave tube with a helical delay line of mean diameter 5.9 mm, wire diameter 0.3 mm, pitch 0.63 mm. The wavelength was 10 cm. The focusing of the

Experimental Study of the Motion of Electron Beams in Weakly non-uniform High-frequency Fields

electron beam was indicated by the appearance of collector current with high-frequency power sent along the helix. The transverse velocity within the beam could be changed by applying a constant transverse magnetic field over a short length of the flight path. The relation between the limiting transverse velocity of electrons and the power necessary to confine them within the limits of the helix is Eq (8) and the experimental result of Figure 4 shows excellent agreement. V.A. Flyagin and V.A. Lopyrev assisted in preparation of the apparatus.
There are 4 figures and 7 references, 6 of which are Soviet and 1 English.

ASSOCIATION: Issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Radiophysics Research Institute of Gor'kiy University)

SUBMITTED: October 31, 1958

45627

S/141/62/005/006/012/023
E192/E382

24,6730

AUTHORS: Yeremin, B.G. and Miller, M.A.

TITLE: Interaction of electrons at large transit angles with the field of a standing wave

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, v. 5, no. 6, 1962, 1151 - 1159

TEXT: The interaction space (electron gap) is in the form of a two-dimensional rectangular cavity:

$0 \leq x \leq b, \quad 0 \leq z \leq L = \lambda/2, \quad -\infty \leq y \leq +\infty$.

The field inside the cavity is produced by external means and does not change as a result of its interaction with the electrons; the field is given by:

$$E_x = x_o E_o \sin(kz) \sin(\omega t); \qquad (1)$$

$$H_y = y_o E_o \cos(kz) \cos(\omega t)$$

which characterize a standing wave (with respect to the coordinate

Card 1/5

Interaction of electrons ....

z) of the TEM type. By introducing the following normalized symbols:

$$x' = kx, \quad z' = kz, \quad \tau = \omega t, \quad \Psi = eE_o/m_o\omega C \qquad (2)$$

where e is the charge of a particle and m_o is its rest mass, the relativistic equations of motion can be written as:

$$\ddot{x}' = (1 - \dot{x}'^2 - \dot{z}'^2)^{1/2}\Psi\left[(1 - \dot{x}'^2)\sin z' \sin\tau - \dot{z}' \cos z' \cos\tau\right]$$

$$\ddot{z}' = (1 - \dot{x}'^2 - \dot{z}'^2)^{1/2}\dot{x}'\Psi\left[\cos z' \cos\tau - \dot{z}' \sin z' \sin\tau\right] \qquad (3).$$

Since the relativistic effect is significant only at comparatively small transit angles, in this case it was sufficient to take into account only the terms of the second-order in the expansion of Eqs. (3) with respect to $\dot{x}'$ and $\dot{z}'$. In the case of the asymptotic approximation for:

$$\Psi \ll 1, \quad \dot{z}' \sim \dot{x}' \ll 1 \qquad (5)$$

the motion of the particles can be described by an oscillatory component:

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Interaction of electrons ....

$$x'^{(1)} = -\Psi \sin z' \sin \tau \qquad (6)$$

and an averaged component:

$$z'^{(0)} = -\frac{d}{dz'}\left(\tilde{\Phi}\right)\Big|_{\tilde{\Phi}} \qquad (7)$$

where the potential $\tilde{\Phi}$ is given by:

$$\tilde{\Phi} = \frac{\Psi^2 \sin^2 z'}{4} = \frac{x'^{(1)2}}{4} \qquad (9).$$

It is seen from these equations that a gradual increase in the amplitude of the particles in the direction of x' is produced inside the interaction space due to deceleration of the particles along z'. Three types of trajectory are possible: 1) a particle passes through the interaction space at small Ψ and intersects $z' = \pi$ with the same velocity which it had at the input; 2) at larger Ψ the particle is fully reflected from a

Card 3/5

plane whose coordinate is given by $z = \arcsin(\sqrt{2}\, z'_0 \Psi)$; 3) the electrons intersect the plane $x' = 0$ and leave the interaction space. The electron efficiency of the gap for the case of the optimum energy transfer represented by Eq. (5) was evaluated and the efficiency is plotted as a function of Ψ in Fig. 5. The above calculations are valid for the systems with ideally thin electron beams which enter the interaction space in parallel to the plane $x' = 0$. However, the finite width of the beam can be taken into account by integrating the equations with respect to the parameter x'. There are 6 figures.

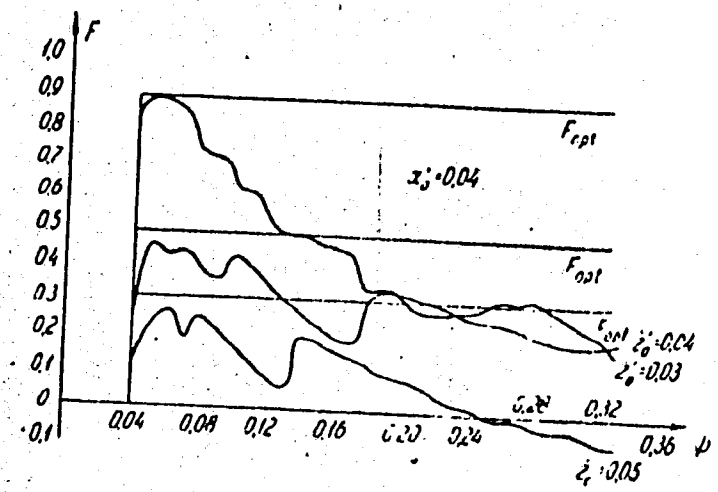
ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom universitete (Scientific Research Radiophysics Institute of Gor'kiy University)

SUBMITTED: April 23, 1962

Interaction of electrons ....

S/141/62/005/006/012/023
E192/E382

Fig. 5:



Card 5/5

L 10365-63
ACCESSION NR: AP3002732 S/0120/63/000/003/0108/0112

44

AUTHOR: Yeremin, B. G.; Mochenov, S. B.

TITLE: Power measurement at shf by means of a probing electron beam

SOURCE: Pribory i tekhnika eksperimenta, no. 3, 1963, 108-112

TOPIC TAGS: shf waveguide channels, pulse power measurements

ABSTRACT: A method for measuring pulse power in an shf waveguide channel, which utilizes the phenomenon of electron reflection from hf potential barriers, was experimentally investigated by means of a model for measuring pulse power in the 3-cm wavelength band. The device consisted of the vacuum section of a waveguide channel, a source of accelerating pulse voltage, and a null indicator for collector circuit current. Fig. 1 of Enclosure is a schematic diagram of the vacuum section, which is a rectangular waveguide section 10 x 23 mm in cross section closed at the ends with mica windows that by continuous evacuation insure a vacuum of not less than 10 sup -6 mm Hg and a standing wave ratio of not more than 1.1. The axis of the electron beam passes through the electric field maximum of the waveguide. Exponentially decreasing waves are excited within the apertures made in the wide waveguide walls, so that the hf potential along the axis of the apertures has the

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L 10365-63
ACCESSION NR: AP3002732

shape of a smooth potential barrier with its maximum in the waveguide center and its zero points in the apertures. The electron beam is shaped by a gun consisting of an oxide-coated cathode with an emitting spot 1 mm in diameter and an accelerating electrode in the form of a grid placed at a distance of 0.3--0.4 mm from the cathode. In order to obtain a working current of approximately 1 microamp, a longitudinal focusing magnetic field of about 200 oe is applied. The potential of the collector is made somewhat higher than that of the waveguide. The velocity of the beam electrons entering the interaction space is determined by the difference between the cathode and grid potentials of the gun. The 25-I pulse oscillograph serves as the null indicator. The results obtained have been compared with the data determined by the calorimetric method; it is concluded that the error in determining cutoff voltage is approximately + or - 1 v. At low power (20 kw), the relative error of measuring power increases to + or - 50%, at approximately 200 kw it is only + or - 5%. These data show that within an accuracy of + or - 1 v for cutoff voltage and + or - 10 kw for power measurements of pulse power by means of the investigated model may be carried out without preliminary calibration. Orig. art. has: 5 figures and 7 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy radiofizicheskiy institut GGU (Scientific Research Institute of Radiophysics GGU)

Card 2/2

BRUK, L.TS.; YEREMIN, B.S.; CHILIKINA, N.D., inzh., red.; MARKIZ, Yu.L., inzh., red.izd-va; TIKHANOV, A.Ya., tekhn.red.

[Handbook for the electric arc furnace steelmaker] Spravochnik stalevara dugovoi elektropechi. Moskva, Mashgiz, 1963. 174 p. (MIRA 17:2)

YEREMIN, D.M.

Photon counters used in the range of visible spectra. Prib. i tekh. eksp. no.1:91-93 J1-Ag '56. (MLRA 10:2)

1. Khar'kovskiy institut inzhenerov zheleznodorozhnogo transporta imeni S.M. Kirova.
(Photons) (Nuclear counters)

Yeremin, D.M.

SUBJECT: USSR/Luminescence 48-4-36/48

AUTHOR: Yeremin D.M.

TITLE: Visual Luminescence of Substractively Colored Sodium Chloride Crystals at Various Temperatures (Vidimaya Lyuminestsentsiya substraktivno okrashenykh kristallov kamennoy soli pri razlichnykh temperaturakh)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1957, Vol 21, #4, pp 580-586 (USSR)

ABSTRACT: Colored alkali-haloid crystals show luminescence both in the ultraviolet and visual protions of the spectrum. Emission in the visual portion has a low intensity. In order to record the visual emission of alkali-haloid crystals special photon counters possessing very high sensitivity in the wide range of spectrum were devised.

As results of investigating the visual luminescence of NaCl crystals excited with X-rays, it was established that:

1. Maxima of luminescence intensity change the spectral composition with the change of crystal temperature. As the crystal temperature rises the maximum of luminescence intensity

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48-4-36/48

TITLE: Visual Luminescence of Substractively Colored Sodium Chloride Crystals at Various Temperatures (Vidimaya Lyuminestsentsiya substraktivno okrashenykh kristallov kamennoy soli pri razlichnykh temperaturakh)

shifts toward shorter wavelengths. The spectral composition of low-temperature intensity maxima of visual emission changes in dependence on the kind of excitation. In the case of exciting a crystal at room temperature with a subsequent roentgenization at liquid oxygen temperature, the maximum of luminescence intensity at -60°C is in blue emission; in the case of excitation at liquid oxygen temperature only, the maximum of intensity at -60°C is in violet emission.

2. The occurrence of de-luminescence action of exciting X-rays was experimentally established for alkali-haloid crystals.

The article contains 4 graphs.

The bibliography lists 15 references, all of which are Slavic (Russian). The report was followed by a short discussion.

INSTITUTION: Department of Physics in the Khar'kov Institute of Railroad Transport Engineers im.Kirov

PRESENTED BY:

SUBMITTED: No date indicated

AVAILABLE: At the Library of Congress.

Card 2/2

SOV-120-58-3-18/33

AUTHOR: Yeremin, D. M.

TITLE: Effects of Cathode Surface Treatment on the Spectral Sensitivities of Photon Counters (Vliyaniye sposoba obrabotki poverkhnosti katoda na spektral'nuyu chuvstvitel'nost' schetchika fotonov)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1958, Nr 3, pp 76-79 (USSR)

ABSTRACT: Earlier work by the same author (Ref.1) is continued, using counters with cathodes of polished aluminium and magnesium. It is shown that heating the metal in vacuo to temperatures above the recrystallization temperature for 3-4 hours results in a complete loss of the sensitivity to visible radiation, since the effect is dependent on the surface being amorphous; this is confirmed by electron-diffraction studies. The main data for good counters are summarized in Figs.1 and 2, which show the quantum efficiency for counters with Mg (1) and Al (2) cathodes (Fig.1) and the Richardson lines for the thermionic emission, M-1 and A-2 respectively (Fig.2). The work-functions are found to be 1.67 and 1.75 eV. The corresponding long-wave edges are 7300 Å and 7200 Å. If the surface becomes crystalline the work-function becomes 2.93 eV or greater. The quantum

Card 1/2

Effects of Cathode Surface Treatment on the Spectral Sensitivities of Photon Counters

yields were evaluated by admitting the light via a 4 mm diameter window in the side. Evaporated-cathode counters, with amorphous surfaces, were prepared using the retractable heated-filament device shown in Fig.3. These show the same properties as cathodes prepared of bulk polished metal (work-functions of about 1.8 eV, rising to more than 3.5 eV on heating). The paper contains 3 figures and 7 Soviet references.

ASSOCIATION: Khar'kovskiy institut inzhenerov zh.-d .transporta (Khar'kov Institute of Railway Transport Engineers)

SUBMITTED: April 8, 1957.

1. Radiation counters--Performance 2. Cathodes--Sensitivity 3. Cathodes--Surface properties 4. Cathodes--Temperature factors 5. Work functions

YEREMIN, D. M., Cand Phys-Math Sci (diss) -- "Photon counters for the visible band of the spectrum". Khar'kov, 1959. 11 pp (Min Higher and Inter Spec Educ, Ukr SSR, Khar'kov Order of Labor Red Banner State U im A. M. Gor'kiy), 150 copies (KL, No 9, 1960, 122)

S/058/62/000/006/053/136
A061/A101

AUTHOR: Yeremin, D. M.

TITLE: The dark background in photon counters

PERIODICAL: Referativnyy zhurnal, Fizika, no. 6, 1962, 26, abstract 60223 ("Tr. Khar'kovsk. in-ta inzh. zh.-d. transp.", 1961, 41, 84 - 86)

TEXT: The magnitude of the dark background in photon counters has been studied for different types of photocathodes in dependence on anode filament treatment, photocathode temperature, and technique of photocathode fabrication. Optimum results (dark background 1 - 2 pulses/sec) are obtained in counters with photocathodes made from aluminum tubes whose internal surfaces are carefully polished.

[Abstracter's note: Complete translation]

Card 1/1

YEREMIN, F. F.

Chekalin, M. A. and Yeremin, F. F.

"Production of Azo Dyes" "Proizvodstvo azokrasiteley) Izd. 2 perer. i Dopol. Moskva, Goskhimizdat, 1952, 447 p. illus., Diagrs., Tables

PHASE I BOOK EXPLOITATION SOV/3482

Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Sverdlovskoye otdeleniye

Mekhanizatsiya i avtomatizatsiya mashinostroitel'nogo proizvodstva (Mechanization and Automation in the Machine-Building Industry) Moscow, Mashgiz, 1959. 519 p. 12,000 copies printed.

Ed.: Ye. V. Pal'mov, Doctor of Technical Sciences; Tech. Ed.: [illegible]; Editorial Board: P. P. Vakhrushev, Engineer, V. V. [illegible], Candidate of Technical Sciences, Ye. V. Pal'mov, Doctor of Technical Sciences, [illegible] Poruchikov, Candidate of Technical Sciences, V. V. [illegible], Candidate of Technical Sciences, K. N. Sobolev, Candidate of Technical Sciences, V. I. Sokolovskiy, Candidate of Technical Sciences, [illegible], Engineer, B. K. Shmayev, Candidate of Technical Sciences, and [illegible], Professor.

PURPOSE: This book is intended for production engineers and personnel engaged in industrial planning.

COVERAGE: The material presented in this book is said to be based on practices developed and tested in the machine-building plants of the Urals and of Siberia. Listed are various methods of mechanization and automation and their applications in foundries, forging shops, and assembly shops. Other fields of use include welding, hoisting, conveying, heat treatment, and quality control on an industrial scale. Various mechanisms, devices, tools, and instruments currently used in mechanization and automation of these industrial processes are described and illustrated. The equipment mentioned is said to have been produced by the plants using their own resources. The economic aspects of mechanization and automation are discussed. There are [illegible]

S/113/60/000/002/008/009
D207/D306

1.1710 also 1454, 1045, 1413

AUTHORS: Chernysheva, S. V. and Yeremin, F. P.

TITLE: The heat treatment of piston pins by high-frequency induction heating

PERIODICAL: Avtomobil'naya promyshlennost', no. 2, 1960, 40-41

TEXT: The Ural'skiy avtozavod (Urals Automobile Plant) has developed and introduced a new technological process for the heat treatment of piston pins by induction heating. Treatment is carried out with a semi-automatic unit from a 250-kwt 2,500-cycle mechanical generator. The semi-automatic unit consists of an inductor, a loader and a hardening device. The latter has a 6-spindle head, each head rotating at 500 rpm while the piston pin revolves at 400 rpm. After receiving the piston pin the spindle pauses for 3 seconds (to allow the temperature to even out throughout the length and section of the pin) and then feeds it successively into the first and second split sprays for cooling to 250-300°C. Rotation and cooling to this temperature prevents the formation of

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cracks in the pin. In tempering, the pins are cooled in 1.5 second to 140-200°C, dry off rapidly and do not corrode. This treatment gives them a hardness of RC 25-30 according to the state standard ГОСТ 776-54 (GOST 776-54). The processed pins show a surface microstructure of fine-spicular martensite merging into troosto-martensite; the core is troostosorbite and sorbite. They had more constant hardness and greater strength than pins treated by old methods. Some 10,000 piston pins have been treated by the new process, the introduction of which has led to an increase in parts quality through a less laborious technology. Less transportation is required and the expenditure of expensive chemicals is avoided. The author recommends the new heat treatment technology for use directly in the mechanical processing line. There are 3 figures and 2 tables.

ASSOCIATION: Ural'skiy avtozavod (Urals Automobile Plant)

YEREMIN, F.S., inzhener.

Making cinder blocks with chamfered edges. Rats. i izobr.predl. v stroi. no.70:3-5 '53. (MLRA 7:10)
(Cinder blocks)

PAVLOV, A.N., otv. za vypusk; VOLODICHEVA, V.N.; IVANOVA, A.I.; KULAKOV, I.N.; LYAMINA, T.N.; MIT'KINA, L.I.; POZDNYAKOVA, N.P.; RODICHOVA, L.I.; ROMANOVA, N.M.; SOFIYEV, E.S.; CHICHKINA, A.A.; TRESORUKOVA, Z.G.; BOGATYREV, P.P.; BROVKINA, A.I.; IVANOVA, L.D.; IVASHKIN, G.A.; KAMNEV, N.I.; LYSANOVA, L.A.; OZHEREL'YEVA, Z.I.; PAVLOVA, T.I.; TYUTYUNOVA, N.I.; UMNITSYNA, A.P.; ZHIVILIN, N.N.; ALESHICHEV, M.P.; VINOGRADOV, V.I.; YEREMIN, F.S.; KRAVCHENKO, Ye.P.; LOVACHEVA, M.V.; NIKOL'SKAYA, V.S.; MAKHOV, G.I.; SKEGINA, A.V.; TAREYEV, A.V.; KHOLINA, A.V.; BRYANSKIY, A.M.; BURMISTROVA, V.D.; GRIGOR'YEVA, A.M.; LUTSENKO, A.I.; OREKHOVA, Z.V.; TEPLINSKAYA, N.V.; FEOKTISTOVA, V.I.; BUTORIN, I.M.; BOCHKAREVA, L.D.; BURENINA, V.A.; VETUSHKO, A.M.; VIKHLYAYEV, A.A.; SOROKIN, B.S.; TSYBENKO, L.T.; KHLEBNIKOV, V.N.; DUMNOV, D.I.; STEPANOVA, V.A.; MANYAKIN, V.I., red.; VAKHATOV, A.M.; MAKAROVA, O.K., red.izd-va; PYATAKOVA, N.D., tekhn.red.

[Soviet agriculture; a statistical manual] Sel'skoe khoziaistvo SSSR; statisticheskii sbornik. Moskva, 1960. 665 p.

(MIRA 13:5)

1. Russia (1923- U.S.S.R.) TSentral'noye statisticheskoye upravleniye. 2. Upravleniya statistiki sel'skogo khozyaystva TSentral'nogo statisticheskogo upravleniya SSSR (for all except Makarova, Pyatakova).

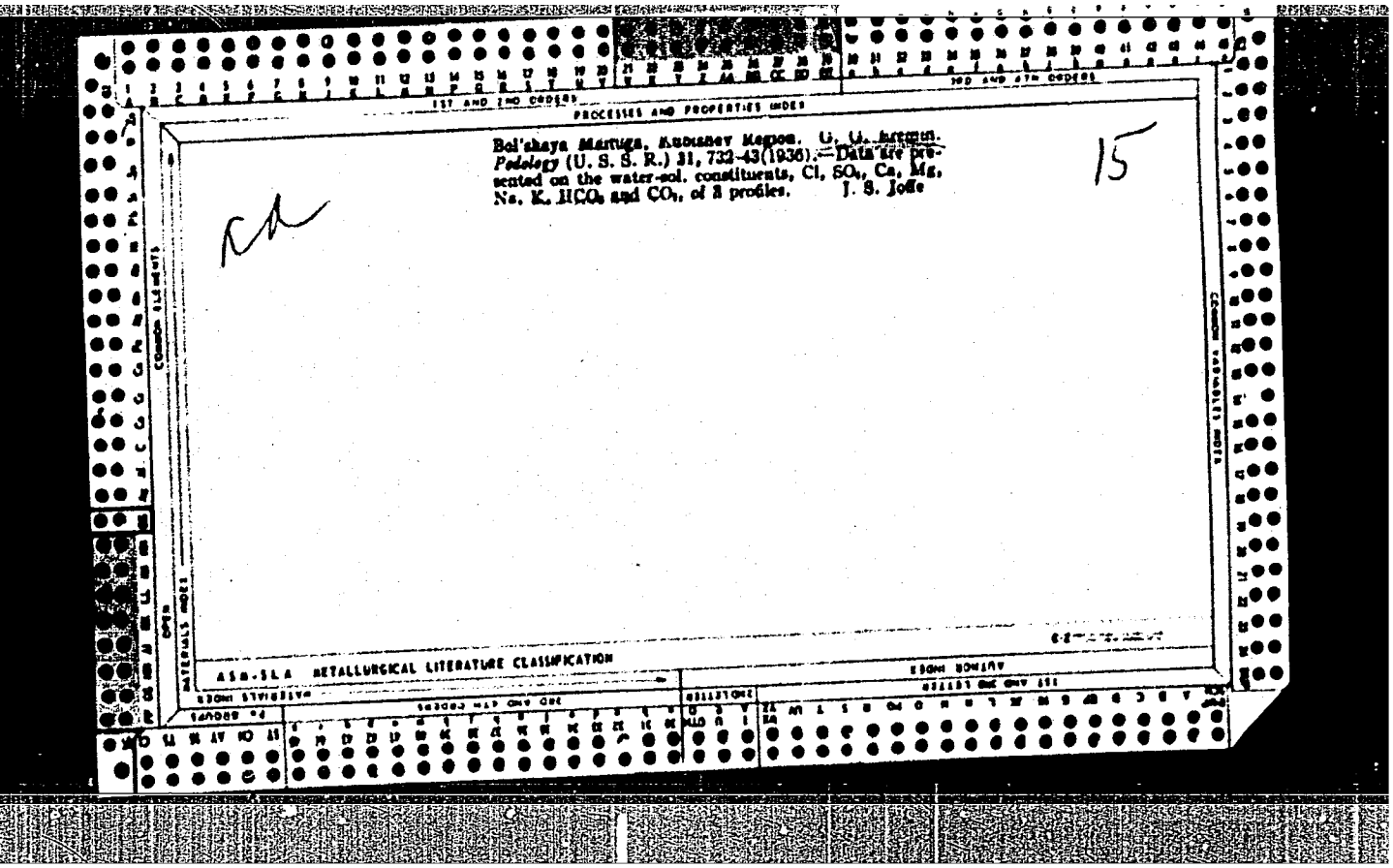
(Agriculture--Statistics)

YEREMIN, G.F.

Two-stage method for obtaining donor blood with higher hemostatic properties. Probl. gemat. i perel. krovi no.5:46-51 '65. (MIRA 18:10)

1. Klinika propedevtiki vnutrennikh bolezney (zav. - dotsent Z.S. Barkagan) Altayskogo meditsinskogo instituta i Altayskaya krayevaya stantsiya perelivaniya krovi (dir. L.S. Poskurova), Barnaul.

APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001962720010-3"



CA

Physicochemical characterization of the salty soil complex of the Bolschaja Maltuga basin. G. G. Eremin. *Proc. Conf. Soil Sci., Saratov* 2, 43-48(1937); cf. C. A. 31, 2720[1].—Analytical results for various profiles are recorded.
H. C. P. A

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

OC

B-3-1

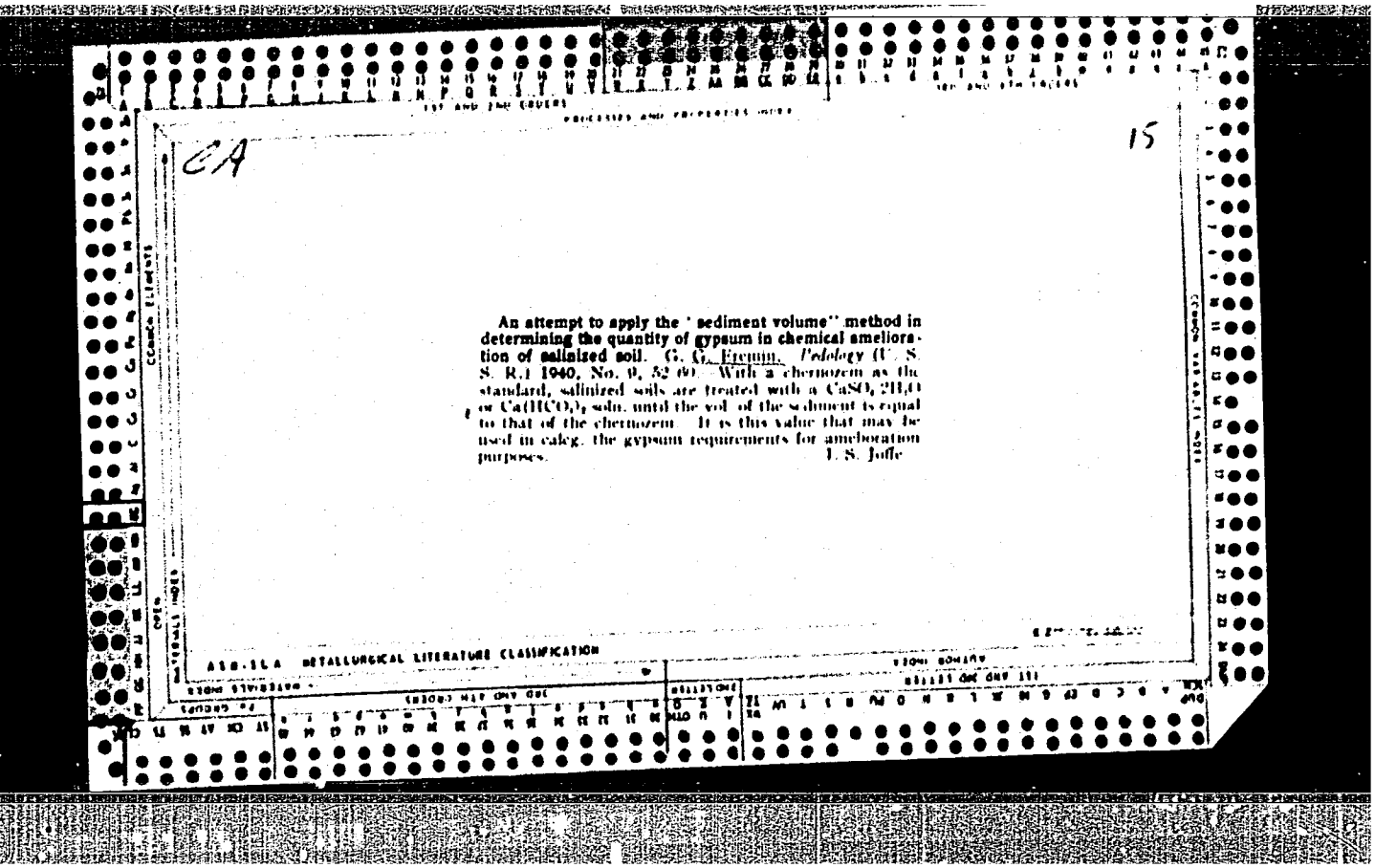
Secondary salinization of alkali soils as one of the stages in the solonchak-solonets process. G. G. Eremin (*Pedology*, 1936, No. 6, 84—90).—The composition of certain solonetschaks, compared with that of associated solonets soils, is given as evidence that the former have been formed by re-salinization of the latter. $Ca(HCO_3)_2$ rises into the soil from the ground-H_2O, the Ca exchanging with the Na in the absorbing complex, thus giving rise to Na_2CO_3 in the H_2O extracts of the soils. S. and F. (m)

ASA-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

Secondary salinization of solonetz as one of the stages of the solonchak-solonetz process. G. G. Fremin. *Pedology (U. S. S. R.)* 1930, No. 10, 81-101; cf. C. A. 33, 8412.—Extensive data on the sol. as well as total constituents of a solonchak and solonetz bring out the nature of the process of secondary salinization. J. S. Joffe

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

15

An attempt to apply the " sediment volume" method in determining the quantity of gypsum in chemical amelioration of salinized soil. G. G. Frenum. *Pedology* (U. S. S. R.) 1940, No. 9, 82-90. With a chernozem as the standard, salinized soils are treated with a $CaSO_4 \cdot 2H_2O$ or $Ca(HCO_3)_2$ soln. until the vol. of the sediment is equal to that of the chernozem. It is this value that may be used in calcg. the gypsum requirements for amelioration purposes. I. S. Joffe

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

YEREMIN, G.G.

"Physical Geography of Kostroma Oblast'."Thesis for degree of Cand. Geographical Sci. Sub 21 Dec 50, Moscow Oblast Pedagogical Inst.

Summary 71, 4 Sep 52, Dissertations presented for Degrees in Science and Engineering inMoscow in1950. From Vechernyaya Moskva, Jan-Dec 1950 /

YEREMIN, G. G.

62

Solonetz and solonetz-like soils of the Krasno-Perekop section of the Crimean region and their improvement. G. G. Yeremin. *Vestnik Moskov. Univ.* 7, No. 12, *Ser. Fiz-Mat. i Estestven. Nauk* No. 8, 99-113(1952).—Four typical soils, a crusty, columnar solonetz (I), a deeply columnar, cloddy solonetz (II), a columnar solonetz, and a carbonaceous, solonetz-like soil are described morphologically and chemically as to content of humus, gypsum, absorbed bases, oxides, anions and cations, alky., etc. These soils are of the chloride-sulfate type and are high in clay content, with heavy mech. compn. (detd. by pipet method) which causes formation of a surface crust. Profile graphs show analogous mech. compn. for the 4 types. The distribution of phys. clay and of sesquioxides shows a typical, well-expressed illuvial horizon (from 13 to 35 cm. depth). Accumulation of SiO_2 on the surface of the soils indicates their recent salinization (of the littoral type), with predominance of Mg over both Ca and Na. This Mg is largely responsible for the unfavorable phys.-agronomical properties. Chlorides and sulfates show max. at 30–5 cm. depth (especially pronounced in I). Gypsum shows 2 max., 30–50 cm. and 150–200 cm. (but at 62–70 cm. only in II). These soils are suitable for irrigation and for forage-crop rotation. A. W. Daly

YEREMIN, I. I.

Salinity of the soils of the Sivash region. G. O. Eremin. *Vestnik Moskov. Univ.* 8, *No.* 6, *Ser. Fiz.-Mat. i Estestven. Nauk* No. 4, 183–44(1953).—A report of a study of soils in which data are used from mech. compn. analyses, especially the distribution of slime particle sizes, and the distribution of SiO_2 and R_2O_3 and data from the aq. ext. of the samples. It was found also that the easily sol. salts, chlorides and sulfates, are found closer to the surface than are the carbonates. Conclusion: The basic reason for the salinity of the soil of the Sivash region is the nearness of the ground water to the surface. Data from chem. analyses are tabulated.

Gladys S. Macy

YEREMIN, G.G.

Saline Prisivash'ia soils. Vest.Mosk.un. 8 no.6:133-144 Je '53. (MLRA 6:10)

1. Kafedra geografii pochv. (Crimea--Soils) (Soils--Crimea)

YEREMIN, Grigoriy Georgievich; POMALEN'KAYA,O.T., redaktor; MEZ'YER,V.V., tekhnicheskiy redaktor

[How to study soils in the field and in the laboratory] Kak issledovat' pochvy v pole i v laboratorii. [Moskva] Izd-vo Moskovskogo univ., 1955. 77 p. (MLRA 9:2)
(Soils--Analysis)

YEREMIN, Grigoriy Georgiyevich; SOKOLOVA, N.A., red.; MASLENNIKOVA, T.A., tekhn. red.

[How to study soils on collective and state farms of the non-Chernozem zone] Kak issledovat' pochvy v kolkhozakh i sovkhozakh nechernozemnoi polosy. Moskva, Izd-vo Mosk. univ., 106 p. (MIRA 14:8)

(Soils)

YEREMIN, G.G.

Genesis of meadow-Chestnut soils in the northern Crimea. Nauch. dokl. vys. shkoly; biol. nauki no.4:203-213 '61. (MIRA 14:11)

1. Rekomendovana kafedroy geografii pochv Moskovskogo gosudarstvennogo universiteta im. M.V.Lomonosova.
(CRIMEA—SOIL FORMATION)

YEREMIN, G.G.

Regional characteristics of the soil cover in the Crimean steppes. Nauch. dokl. vys. shkoly; biol. nauki no.3:211-217 '63. (MIRA 16:9)

1. Rekomendovana kafedroy geografii pochv Moskovskogo gosudarstvennogo universiteta im. Lomonosova.
(Crimea--Soils)

87533

S/079/60/030/012/018/027
B001/B064

53630

AUTHORS: Maklyayev, F. L., Bliznyuk, N. K., and Yeremin, G. I.

TITLE: Diphosphonates. IV. Synthesis of the Tetraalkyl Esters of Some Diphosphonic Acids

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol. 30, No. 12, pp. 4053 - 4055

TEXT: The authors synthesized tetraalkyl esters of the diphosphonic acids of higher alcohols by the scheme:

$$2(RO)_2PONa + Cl(CH_2)_2O(CH_2)_2Cl \longrightarrow (RO)_2\overset{\overset{O}{\|}}{P}(CH_2)_2O(CH_2)_2\overset{\overset{O}{\|}}{P}(OR)_2 + 2NaCl .$$

A solution of sodium dialkyl phosphite in toluene was added to the dichloro diethyl ester heated to 90°C. The reaction byproducts were separated by washing out the reaction mixture with alkali lye and water, and the esters of alkyl phosphinic acids were separated by heating the product in high vacuum. The diphosphonates obtained are high-boiling viscous liquids, crystallizing between 14 and 22°C, and readily soluble in organic solvents. Only $[(iso\text{-}C_5H_{11}O)_2\overset{\overset{O}{\|}}{P}CH_2CH_2]_2O$ and

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87533

Diphosphonates. IV. Synthesis of the Tetra-alkyl Esters of Some Diphosphonic Acids

S/079/60/030/012/018/027
B001/B064

$[(n\text{-}C_6H_{13}O)_2\overset{\overset{O}{\|}}{P}CH_2CH_2]_2O$ can be distilled. The thermal decomposition of the diphosphonate by heating at 290° during five months, proceeded under the formation of the respective unsaturated hydrocarbons and increase of the acidity of the radical. The degree of decomposition of diphosphonate was determined by titration with 0.1 N alkali lye, before and after heating. The dialkyl phosphites of the higher alcohols which are used as initial products, were obtained by data of B. A. Arbuzov (Ref.7). With the use of a solvent and by removing the HCl from the reaction sphere by bubbling with dry air, it was possible to raise the dioctyl phosphite yield to between 45 and 81% and the dinonyl phosphite yield to 83%. There are 1 table and 8 references: 5 Soviet, 2 US, and 1 British.

PRESENTED: February 2, 1960

Card 2/2

YEREMIN, G. K.

"Origin, Distribution, and Isotopic Composition of Chemical Elements." Cand Chem Sci, Moscow State U, Moscow, 1954. (RZhKhim, No 21, Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No.521, 2 Jun 55

YEREMIN, G.K.

130-58-2-11/21

AUTHOR: Yeremin, G.K.

TITLE: Experiment on Improving Roll-pass Design for Strips (Opyt uluchsheniya kalibrovki polos)

PERIODICAL: Metallurg, 1958, Nr 2, pp 20 - 21 (USSR)

ABSTRACT: For a long time, the productivity of the light-section mill at the Sulinskiy metallurgicheskiy zavod (Sulin Metallurgical Works) was low when rolling 20 x 10, 22 x 10 and 22 x 13 mm strip. The author attributes this to incorrect roll-pass design of the finishing line (Fig.1) and shows how this leads to faulty (e.g. non-rectangular) strip. New roll-pass designs (Fig.8) were developed which have aliminated faulty strip production and raised productivity. The author gives equations for calculating the pass designs and outlines their principles. There are 8 figures.

ASSOCIATION: Sulinskiy metallurgicheskiy zavod (Sulin Metallurgical Works)

AVAILABLE: Library of Congress

Card 1/1

1. Rolling mills-Operation

SOV/130-58-10-8/18

AUTHOR: Yeremin, G.K.

TITLE: Experience in the Rolling of a Small-Cross-Section Periodical Section (Opyt prokatki periodicheskogo profilya malogo secheniya).

PERIODICAL: Metallurg 1958, 3/11 Nr.10, pp.23-25 (USSR)

ABSTRACT: The wire mill at the Sulinskiy metallurgical works has been adapted to the rolling of Nr.8 reinforcing periodic section. The mill is in three lines: reducing (2 stands), roughing (3 stands) and finishing (7 stands). The section is rolled from 200-kg 150 x 150 mm billets from the "Azovstal'" works, only 5 of the finishing stands being used. On 144 tons per shift the productivity of the mill is 24 tons less than for wire rod (when 225-kg billets are used and metal loss is less). The roll pass design (Figs.2 and 3) adopted involved difficult roll-machining operations; a "Komsomolets" milling machine has been adapted for cutting the screw channels (Fig.4) using a special single-tooth cutter (Fig.5) of KhVG steel held in a suitable position with respect to the roll (Fig.6).

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SOV/130-58-10-8/18

Experience in the Rolling of a Small-Cross-Section Periodical Section.

Each cutter can produce four grooves per shift. Roll wear when rolling reinforcing section from 25G2S steel is higher ordinarily. There are 6 figures.

ASSOCIATION: Sulinskiy metallurgicheskiy zavod (Sulinskiy Metallurgical Works).

Card 2/2

AUTHORS: Mitrofanova, N. D., Martynenko, L. I., Yeremin, G. K. SOV/78-3-11-13/23

TITLE: On Some Properties of the Complex Acids Produced From Rare Earths With Ethylene Diamine-Tetraacetic Acid (O nekotorykh svoystvakh kompleksnykh kislot, obrazovannykh redkozemel'nymi elementami i etilendiamintetrauksusnoy kislotoy)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 11, pp 2496-2505 (USSR)

ABSTRACT: The complex compounds of the rare earths (Ln) and ethylene diamino-tetraacetic acid (H_4V) were investigated. The composition and the solubility of these complex compounds were determined. Equivalent quantities of aqueous suspensions of H_4Y were transformed with aqueous suspensions of the oxides of rare earths at room temperature. A precipitate of compounds of the following composition is produced: $H[LaV] \cdot 6\ H_2O$, $H[NdV] \cdot 6\ H_2O$, $H[SmV] \cdot 6\ H_2O$. At low temperature the cerium earths form complex compounds with crystal water of integral molar number. Anhydrous modifications of the complex acids with low solubility are produced from the boiling solutions. The formation

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On Some Properties of the Complex Acids Produced From Rare Earths With Ethylene Diamine-Tetraacetic Acid SOV/78-3-11-13/23

of the complexes is as well possible by means of the acidification of the complex salts of the type $Me^{I}[LnV]$ or $Ln[LnV]_3$. The yttrium oxides form as well H_4Y complex compounds with different water content. Anhydrous compounds could not be produced in the case of yttrium oxides. The solubility of the complex acids of La, Pr, Nd and Sm with H_4V at 25°C is given in table 2. On the strength of the solubility difference between yttrium oxides and cerium earths a fractional separation via the anhydrous acids is suggested. There are 4 tables and 12 references, 0 of which is Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im.M.V.Lomonosova Kafedra neorganicheskoy khimii (Moscow State University imeni M.V.Lomonosov, Chair of Inorganic Chemistry)

SUBMITTED: September 7, 1957

Card 2/2

5(2)

05891
SOV/78-4-11-44/50

AUTHORS: Martynenko, L. I., Yeremin, G. K., Kamenev, A. I.

TITLE: Chromatographic Separation of Rare Earths by Means of Tributyl Phosphate

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 11, p 2639 (USSR)

ABSTRACT: The elution of the cerium group from silica gel by means of tributyl phosphate is described. Figure 1 shows that a distinct separation takes place; the content of Me_2O_3 in the eluted products can attain 20 g/l which lies considerably above the concentrations usual in chromatography. As the experiment was not carried out under optimum conditions, it is to be expected that further investigations will yield even better results. There are 1 figure and 2 references.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova, Khimicheskiy fakul'tet, Kafedra neorganicheskoy khimii (Moscow State University imeni M. V. Lomonosov Chemical Department, Chair of Inorganic Chemistry)

SUBMITTED: May 4, 1959

Card 1/1

YEREMIN, G.K.; KAMENEV, A.I.; MARTYNENKO, L.I.

Extraction of neodymium and praseodymium by means of some alkyl phosphates. Zhur.neorg.khim. 6 no.6:1487-1488 Je '61. (MIRA 14:11)

(Neogymium) (Praseodymium)

KAMENEV, A.I.; MARTYNENKO, L.I.; YEREMIN, G.K.

Mechanism of the elution of macroquantities of rare earth elements by means of lactic acid. Zhur. neorg. khim. 6 no.7:1726-1727 Jl '61. (MIRA 14:7)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova, kafedra neorganicheskoy khimii.
(Rare earths) (Lactic acid)

YEREMIN, G.P., jt. au.

Closed pasturage of cattle. Moskva, Gos. izd-vo selkhoz lit-ry, 1950. 46 p.

DA

1. YEREMIN, G. P.

2. USSR (600)

4. Meadows

7. Methods for accelerating grassland improvement. Dost. sel'khoz. No. 5, 1952.

9. Monthly List of Russian Accessions, Library of Congress, January 1953, Unclassified.

1. G. P. ERMIN

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4. Agriculture

7. Work of the V. P. Vil'iams All-Union Institute for Scientific Research in Feeds. Dost sel'khoz. no. 12. 1952

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

YEREMIN, G.
Cattle

Care of cattle in the pasture. Kolkh. proizv. 12 no. 4 (1952)

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Uluchshenie senokosov (Improvement of hay fields). Moskva, Sel'khozgiz, 1953. 61 p. (Peredovoi opyt v sel'skom khoziaistve)

SO: Monthly List of Russian Accessions, Vol. 7, No. 7, 1954

1. EREMIN, G.P.

2. USSR (600)

4. Feeding and Feeding Stuffs

7. Guarantee livestock green feed during the summer, Sots.zhiv. 15 no. 4, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

YEREMIN, G.P., kandidat sel'skokhozyaystvennykh nauk.

Improvement of meadows and pastures. Nauka i zhizn' 21 no.3:14-16 Mr '54. (MLRA 7:3)

(Meadows) (Pastures)

KONYUSHKOV, N.S., kandidat sel'skokhozyaystvennykh nauk; MOVSISYANTS, A.P., kandidat sel'skokhozyaystvennykh nauk; YELSUKOV, M.P., kandidat sel'skokhozyaystvennykh nauk, redaktor; YEREMIN, G.P., kandidat sel'skokhozyaystvennykh nauk, redaktor; SMIRLOV, S.P., doktor biologicheskikh nauk, professor; TSATSENKIN, I.A., doktor biologicheskikh nauk, professor; MOROZOV, D.N., redaktor; HALLOD, A.I., tekhnicheskiy redaktor

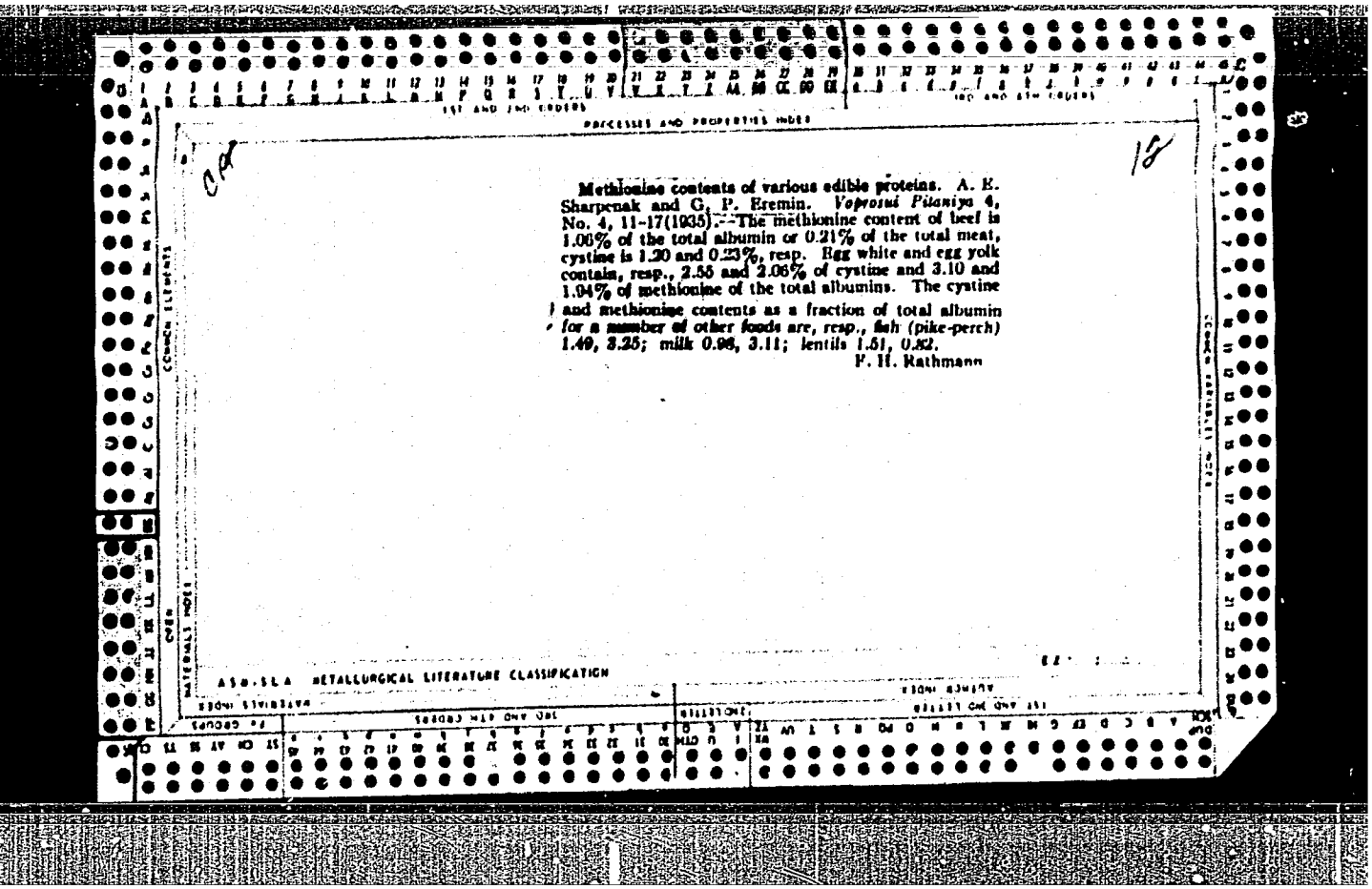
[Meadow and pasture manual] Spravochnik po senokosam i pastbishcham. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 703 p. (MLRA 9:11)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut kormov.
(Pastures and meadows)

YEREMIN, G.P., kand. sel'skokhoz. nauk

Use the fall season for improving natural meadows and pastures.
Zemledelie 7 no.8:66-68 Ag '59. (MIRA 12:10)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut kormov imeni V.R. Vil'yamsa.
(Pastures and meadows)



Methionine contents of various edible proteins. A. E. Sharpenak and G. P. Eremin. *Voprosui Pitaniya* 4, No. 4, 11-17(1935).—The methionine content of beef is 1.06% of the total albumin or 0.21% of the total meat, cystine is 1.20 and 0.23%, resp. Egg white and egg yolk contain, resp., 2.55 and 2.06% of cystine and 3.10 and 1.94% of methionine of the total albumins. The cystine and methionine contents as a fraction of total albumin for a number of other foods are, resp., fish (pike-perch) 1.49, 3.25; milk 0.98, 3.11; lentils 1.51, 0.82.

F. H. Rathmann

YEREMIN, G. P.

Yeremin, G. P. "Prophylactic nutrition in phosphorus poisoning and its effect on the metabolism of the poisoned animals," Nauch. trudy In-ta pitaniya (Akad. med. nauk SSSR), Moscow, 1948, p. 76-85

So: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 13, 1949)

PROCESSES AND PROPERTIES INDEX

11-H

CA

Nutrition and metabolism in phosphorus poisoning. I. Changes of the carbohydrate metabolism and of the oxidation coefficient in phosphorus-poisoned animals on various diets. O. P. Iltemin. *Gigiena i Sanit.* 13, No. 3, 35-40(1948)(in Russian).—Rats, poisoned with 1% soln. of white P in oil, 0.1-0.05 ml. for 1-3 days, and dogs poisoned with 0.1 ml./kg. wt., were kept on a normal and on a prophylactic diet, the latter including, for the rats, egg yolk, corn starch, plum oil, yeast, ascorbic acid, and a mixt. of protein 20, fat 9, and carbohydrates 70%; for dogs, meat, potatoes, bread, milk, sugar, lard, yeast, fish oil, and ascorbic acid, and a mixt. of protein 4.0, fat 2.4, and carbohydrates 22 g. per kg. wt. The poisoned animals kept on the normal diet showed a sharp decrease of blood sugar and a marked accumulation of lactic acid in the blood; these changes were insignificant in animals kept on the prophylactic diet. The oxidation coeff. of the urine increased sharply in dogs on the normal diet, an indication of depression of oxidative processes. In dogs on prophylactic diet, the coeff. remained unchanged.

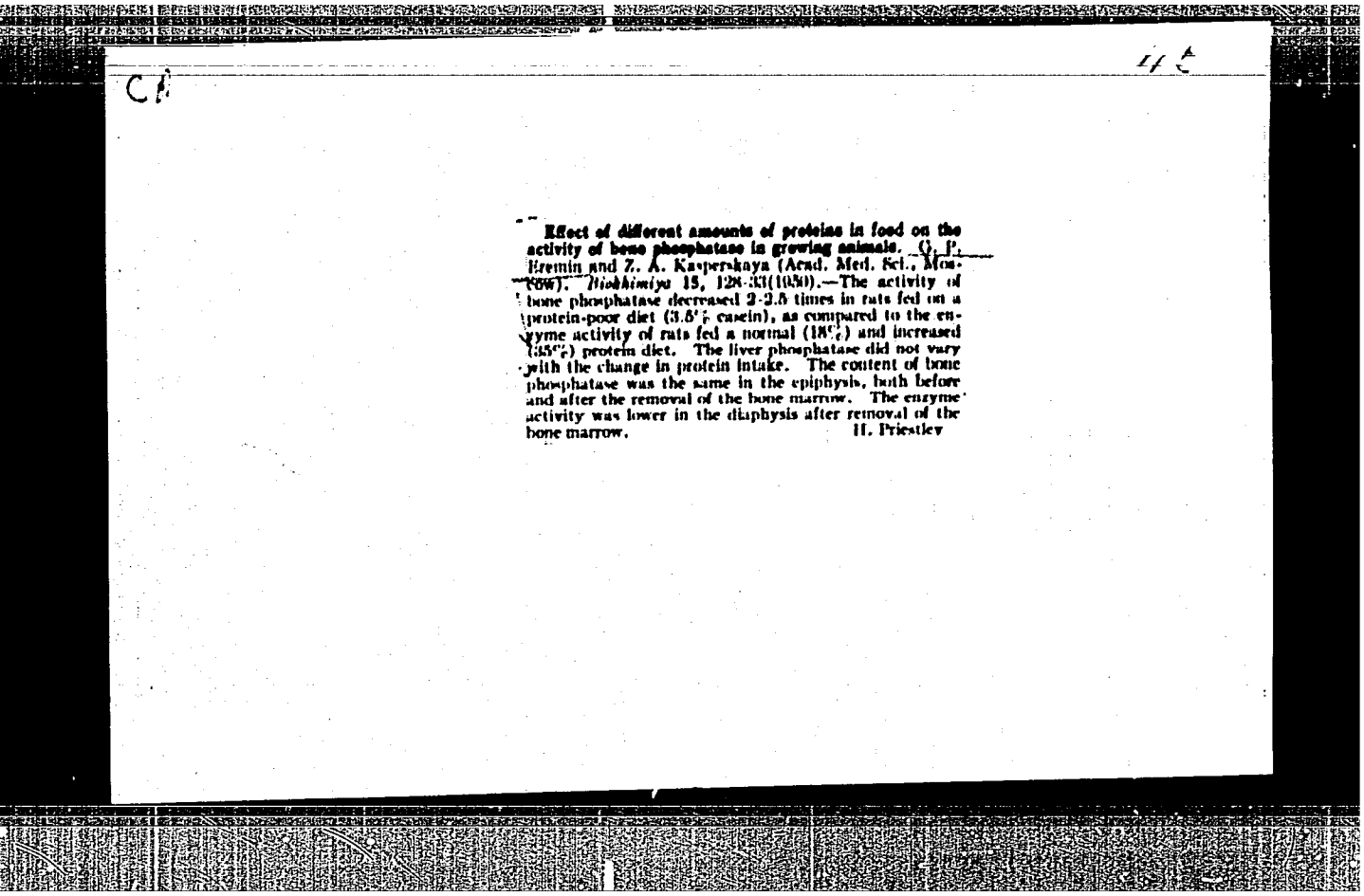
N. Thon

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

11L

Nutrition and metabolism in phosphorus poisoning. II. Calcium, phosphorus, and base metabolism in animals on various diets. G. P. Reemin. *Gigiena i Sanit.* 13, No. 12, 25-32(1948); cf. C.A. 42, 6003e.- On normal diet dogs and white rats display increased elimination of P, Ca, and total bases in the course of prolonged administration of white P in the diet. The prophylactic diet suppresses or prevents this disturbance. The compn. of diets and P dosage is given in Part I. G. M. Kosolapoff



Effect of different amounts of proteins in food on the activity of bone phosphatase in growing animals. G. P. Eremin and Z. A. Kasperskaya (Acad. Med. Sci., Moscow). *Biokhimiya* 15, 128-33(1950).—The activity of bone phosphatase decreased 2-2.5 times in rats fed on a protein-poor diet (3.8% casein), as compared to the enzyme activity of rats fed a normal (18%) and increased (35%) protein diet. The liver phosphatase did not vary with the change in protein intake. The content of bone phosphatase was the same in the epiphysis, both before and after the removal of the bone marrow. The enzyme activity was lower in the diaphysis after removal of the bone marrow. H. Priestley

FD-3287

USSR/Medicine - Nutrition YEREMIN, G. P.

Card 1/1 Pub. 141 - 2/19

Author : Sharpenak, A. E.; Yeremin, G. P.

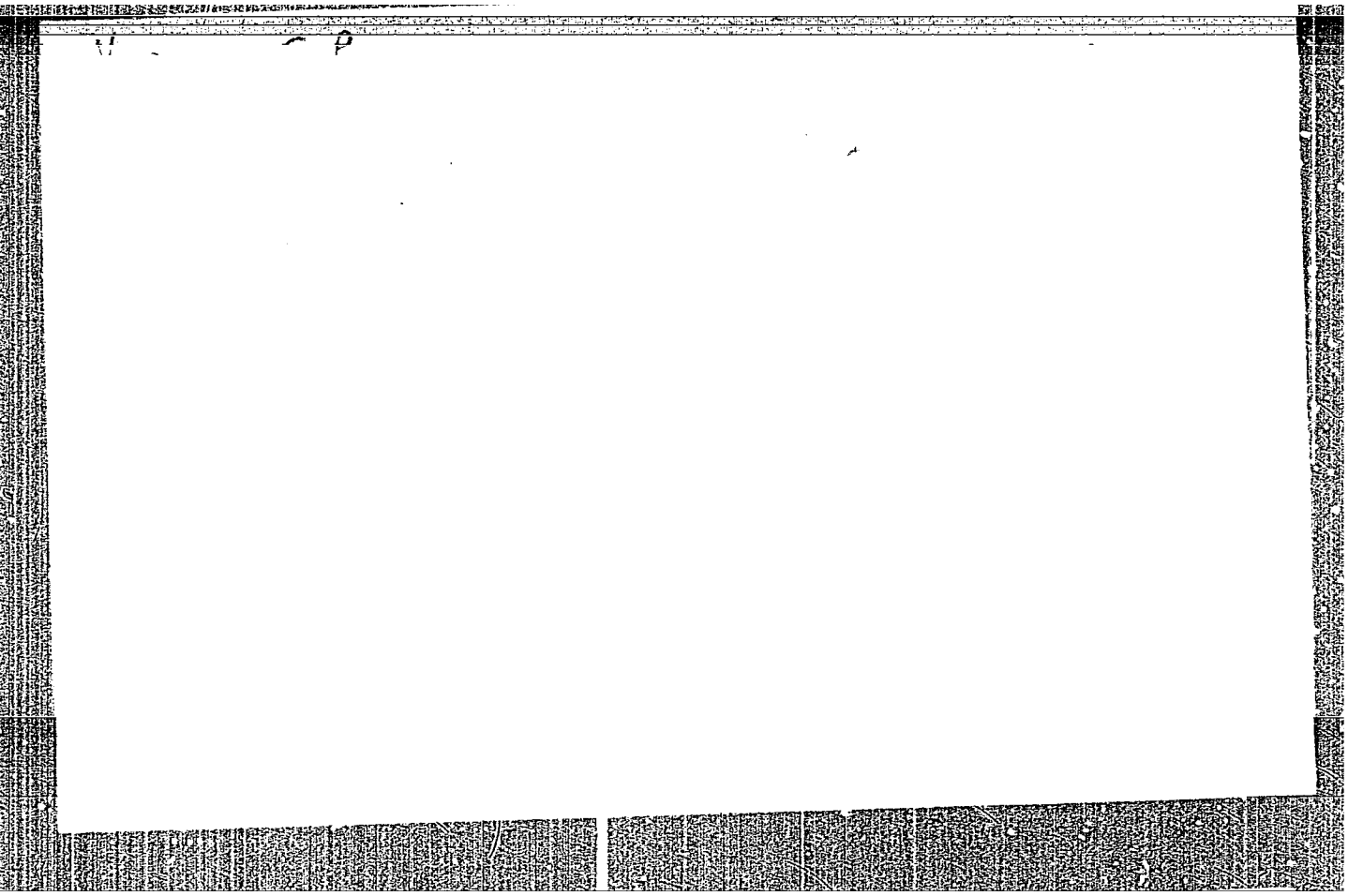
Title : The effect of the eating schedule on protein utilization by the organism

Periodical : Vop. pit., 7-11, Jul/Aug 1955

Abstract : Investigated the effects of varying the number of meals per day and the relative distribution of food among these meals on dogs and humans. Found that abrupt changes in eating schedules temporarily disrupts the nitrogen balance in the system, which returns to normal 4-9 days later. Optimum eating schedule was found to be four meals per day. Distribution of relative quantities of food consumed in these four meals, i.e. 40% in morning and noon and 60% in the evening or vice versa, had little effect on the nitrogen balance. Five graphs; no references.

Institution : Protein Laboratory (Head - Prof. A. E. Sharpenak) Inst of Nutrition, Acad Med Sci USSR, Moscow

Submitted :



NESTERIN, M.F., YEREMIN, G.P.

Effect of nutrition on the course of radiation injuries in animals; review of the literature. Vop.pit. 17 no.5:3-8 S-O '58 (MIRA 11:10)

1. Iz radiobiologicheskoy laboratorii (zav. kand.biol. nauk. G.P. Yeremin) Instituta pitaniya AMN SSSR, Moskva.

(DIETS, eff.
on course of radiation inj. in animals, review (Rus))

(RADIATIONS, inj. eff.
eff. of nutrition on course of radiation inj. in animals, review (Rus))

YEREMIN, G. V.: Cand Master Agric Sci (diss) -- "A study of the winter-resistance of varieties of plums in Krasnodar Kray". Moscow, 1958. 19 pp (Moscow Order of Lenin Agric Acad im K. A. Timiryazev), 110 copies (KL, No 5, 1959, 153)