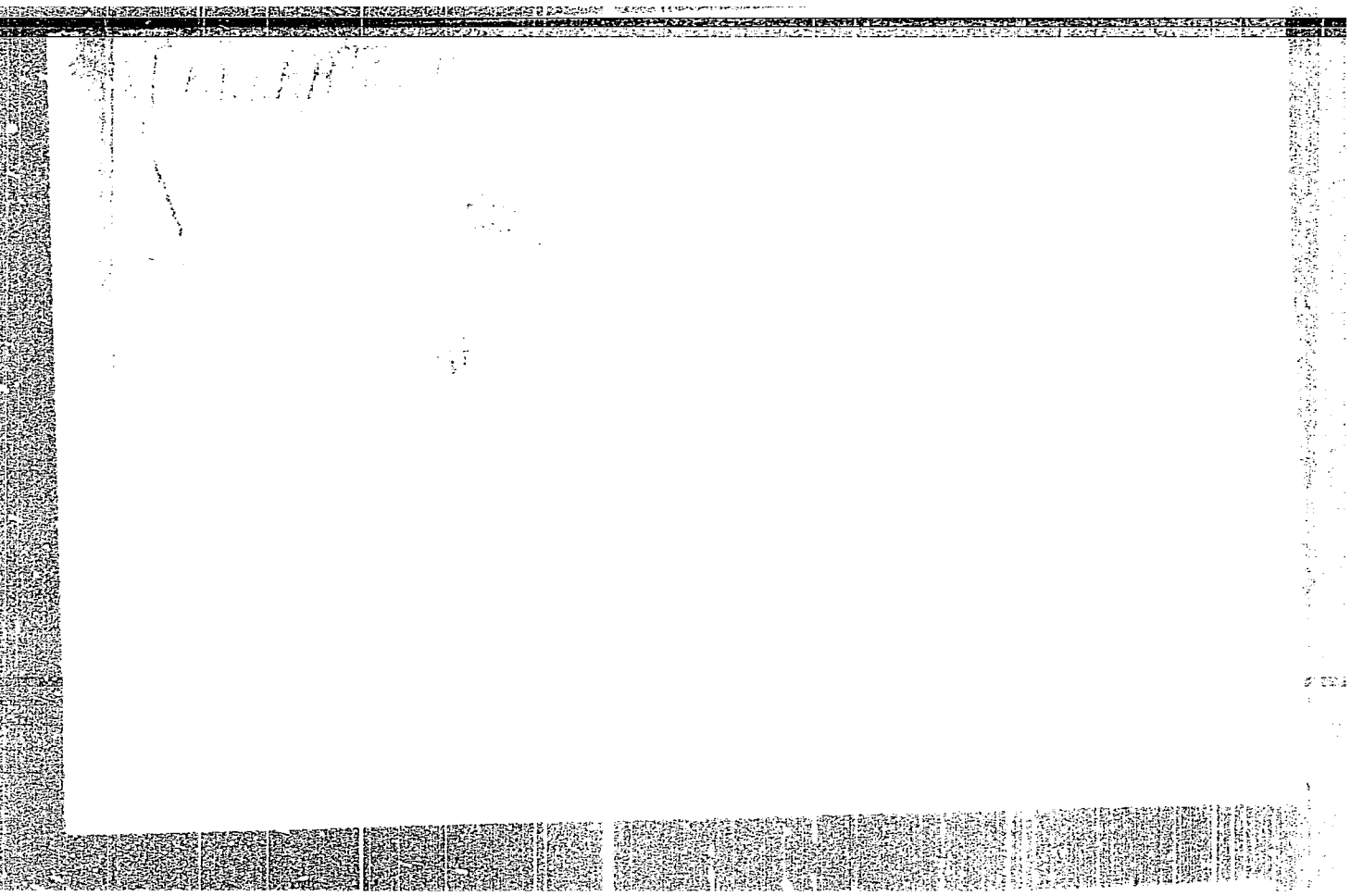
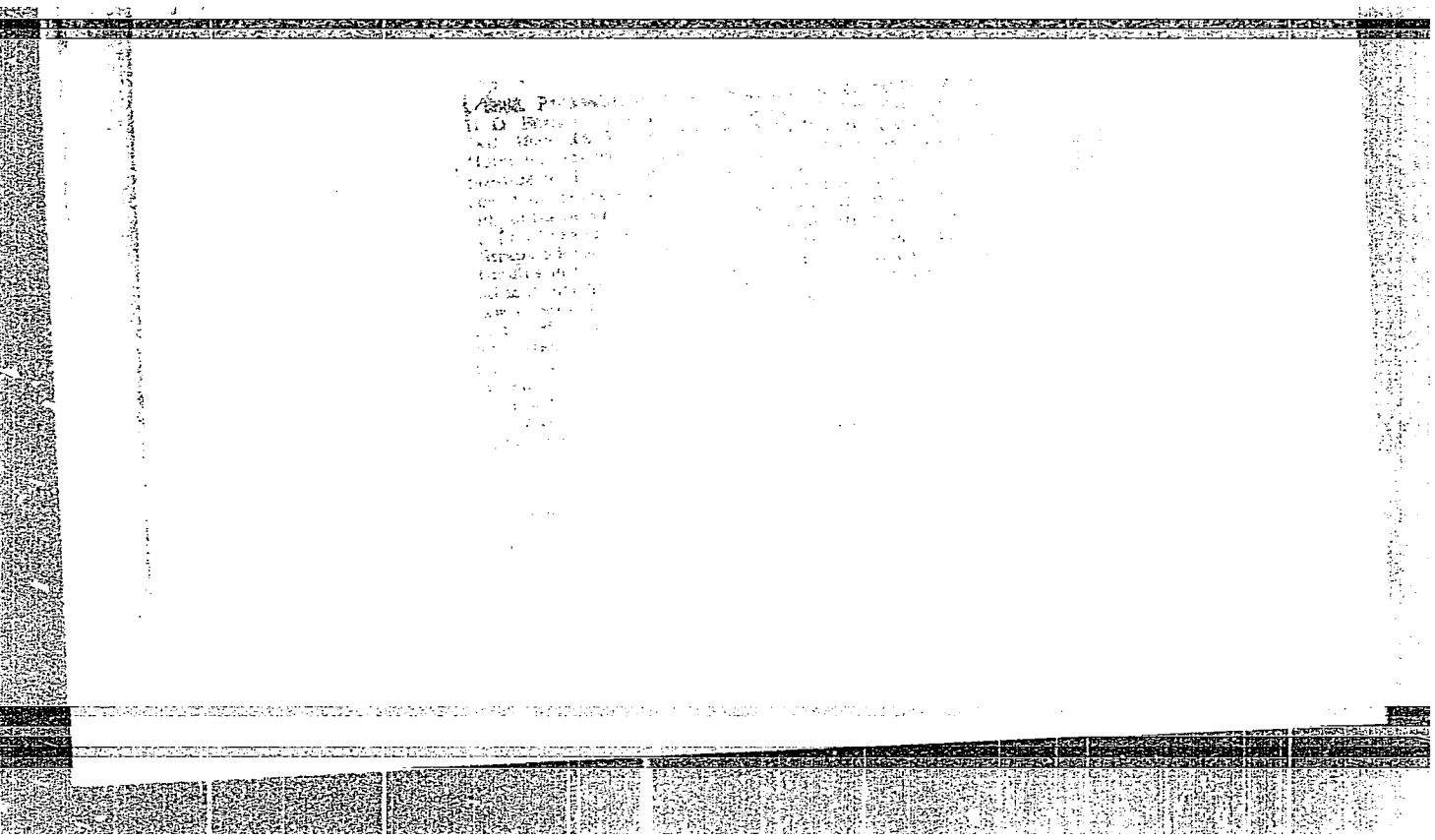




SMIRNOVA, Z.M.; PANKRATOV, M.A., prof., nauchnyy rukovoditel' raboty

Physiology of the motor analyser. Uch. zap. Ped. inst. Gerts. 239:93-97 '64. (MIRA 18:3)

IVANOVA, V.P.; PANKRATOV, M.A., prof., nauchnyy rukovoditel' raboty

Localization of extinctive inhibition in the cerebral cortex.
Uch. zap. Ped. inst. Gertsa. 239:99-107 '64.
(MIRA 18:3)

MALOV, Yu.S.; PANKRATOV, M.A., prof., nauchnyy rukovoditel' raboty

Irradiation of stimulation in the cerebral cortex. Uch. zap. Ped. inst. Gerts. 239:109-116 '64.

(MIRA 18:3)

TARASOVA, O.V.; PANKRATOV, M.A., prof., nauchnyy rukovoditel' raboty.

Effect of bromine on the extinction of a conditioned motor reflex. Uch. zap. Ped. inst. Gerts. 239:117-122 '64. (MIRA 18:3)

ASFINA, L.G.; PANKRATOV, M.A., prof., nauchnyy rukovoditel' raboty

Effect of bromine and caffeine on the extinction of conditioned motor reflexes. Uch. zap. Ped. inst. Gerts. 239:123-129 '64.
(MIRA 18:3)

TKHOR, T.G.; PANKRATOV, M.A., prof., nauchnyy rukovoditel' raboty

Restoration of reflexes from the auricular skin of a rabbit as related to the regeneration of nerves. Uch. zap. Ped. inst. Gerts. 239:131-137 '64. (MIRA 18:3)

PANKRATOV, M.A.; POGORELOVA, P.M.; POLTINNIKOVA, A.A.

Phenomenon of parakinesis in conditioned reflexes. Zhur. vys. nerv. deiat. 12 no.4:637-642 Jl-Ag '62. (MIRA 17:11)

1. Herzen Pedagogical Institute, Leningrad.

PANKRATOV, M.A. (Leningrad)

Problem of functional localization in the cerebral cortex.
Zhur.vys.nerv.deiat. 9 no.3:383-387 My-Je '59. (MIRA 12:9)

1. Leningradskiy gosudarstvennyy pedagogicheskiy institut im.
A.I.Gertsena.
(CEREBRAL CORTEX - physiol.)

PANKRATOV, M. A.

Pankratov, M. A. - "Reflexes from the cat's skin. Analysis of the scratching reflex," Trudy Fiziol. in-ta im. Pavlova, Vol. III, 1949, p. 82-87 -- Bibliog: p. 87

SO: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 14, 1949).

PANKRATOV, Mikhail Alekseyevich; MARKOV, N.G., red.; KOZLOVSKAYA, M.D., tekhn. red.

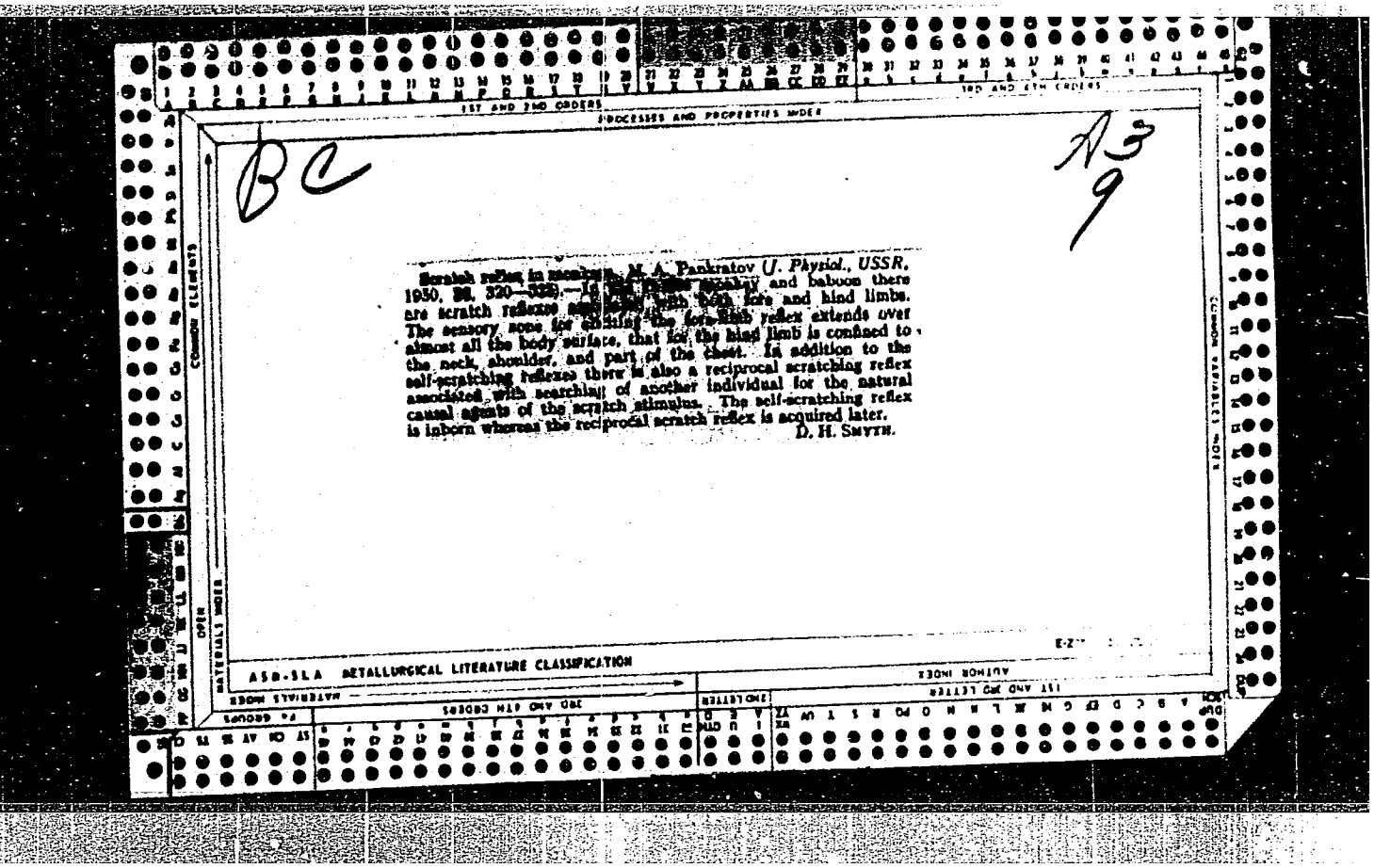
[Method for producing conditioned reflexes in animals in school nature-study projects] Metodika vyrabotki uslovnykh refleksov u zhivotnykh; v ugolkakh zhiv i prirody shkol. Moskva, Gos. uchebno-pedagog. izd-vo M-va prosv. RSFSR, 1961. 71 p. (MIRA 15:5)

(Conditioned response) (Sleep) (Hypnotism)

BA

TLL

Influence of cerebellum on course of pregnancy in the cat. M. A. Pankratov. *U. Physiol., USSR*, 1951, **37**, 59—63).—Two cats in which the cerebellum had been removed were kept 4 and 1 year, respectively and a number of pregnancies observed. During pregnancy there was loss of wt., general trophic disturbances, and a number of the progeny died. In one cat, section of the posterior columns of the spinal cord was also carried out and this increased the disturbances during pregnancy and was accompanied by failure to secrete milk. D. H. SMYTH.



Scratch reflex in monkeys. M. A. Pankratov *U. Physiol., USSR,* 1950, 36, 320—328).—In [illegible] monkey and baboon there are scratch reflexes [illegible] with both fore and hind limbs. The sensory zone for eliciting the fore-limb reflex extends over almost all the body surface, that for the hind limb is confined to the neck, shoulder, and part of the chest. In addition to the self-scratching reflexes there is also a reciprocal scratching reflex associated with scratching of another individual for the natural causal agents of the scratch stimulus. The self-scratching reflex is inborn whereas the reciprocal scratch reflex is acquired later.
D. H. Smyth.

MELKOV, M.P.; PANKRATOV, M.P.; BABENKO, V.A.

Cohesiveness of plating in the electrodeposition of iron from a chloride electrolyte. Zhur.prikl.khim. 35 no.4:803-807 Ap '62. (MIRA 15:4)

1. Saratovskiy politekhnicheskiy institut.
(Cohesion) (Iron plating) (Electrolytes)

KLYUSHKIN, I.Ye.; PANKRATOV, M.P.

Methods for determining the strength of bonding of electrolytic coatings with the base metal. Zav.lab. 31 no.10:1202-1203 '65.
(MIRA 19:1)

1. Saratovskiy politekhnicheskiy institut.

PANKRATOV, M.P.

Reconditioning parts by electrolytic iron plating. Mashinostroitel' no.7:15 Jl '62. (MIRA 15:7)

(Iron plating)

S/080/62/035/004/011/022
D217/D301

1.1800

AUTHORS: Melkov, M. P., Pankratov, M. P., and Babenko, V. A.

TITLE: Adhesion of iron coatings deposited from chloride electrolytes

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 4, 1962, 803-808

TEXT: Anodic treatment of components in a 30% sulphuric acid solution prior to hard iron deposition is known to be the most effective operation in preparing the metal surface to ensure subsequent satisfactory adhesion of the coating. However, in most cases it is also necessary to suspend the components in the plating bath without switching on the current, prior to electrodeposition. The initial current density used is 4 - 5 times lower than the working one and is increased to the nominal value with 3 - 5 minutes. The authors have expressed the opinion that suspending components in the bath without passing current serves the purpose of preheating the cathode layer of the electrolyte. This assumption is based on the fact that preheating the components in water prior to plating also

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Adhesion of iron ...

ensures good adhesion to the deposit. The question arises to what temperature the cathode layer of electrolyte must be preheated. From experience it is known that good adhesion can be obtained at 50 - 60°C and lower temperatures. However, a bath maintained at 60°C is operated at a hydrochloric acid concentration of 2.5 - 3.0 g/l instead of 0.5 - 0.8 g/l, i.e. at concentrations suitable for a solution working at 80°C. In order to study the changes in electrolysis conditions in relation to electrolyte temperature, polarization curves were plotted at 25, 40, 60 and 80°C, using an electrolyte containing 200 g/l $FeCl_2 \cdot 4H_2O$ and 0.8 g/l HCl. The electrolysis cell was placed in a thermostat; a 0.45% C steel plate of 1 cm^2 surface area was used as cathode, the anode being electrolytic iron. The cathode potential was measured against a saturated calomel electrode. It was found that adhesion of the coating to the base metal in the deposition of hard iron, using a deposition method developed at the Saratov Polytechnic Institute, exceeds 4500 kg/cm^2. A qualitative relationship was found to exist between the adhesion of the coating on the one hand, and temperature and

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acidity of electrolyte on the other. A higher hydrogen current efficiency during the first moment of electrolysis was established to be necessary in order to activate the cathode surface. Finally, it was established that the optimum soaking period without passage of current in the iron plating bath at constant bath temperature is a function of the acidity of the electrolyte and diameter of the components. There are 3 figures and 6 Soviet-bloc references.

ASSOCIATION: Saratovskiy politekhnicheskiy institut (Saratov Polytechnic Institute)

SUBMITTED: April 15, 1961

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X

PANKRATOV, M.P., inzhener.

Strength of some units of the S-6 combine. Sel'khozmashina no.10:26 O '56. (MLRA 9:12)

(Combines (Agricultural machinery))

PANKRATOV, N., polkovnik, kand.istoricheskikh nauk

Party fights against the exploiters, for the dictatorship of the proletariat. Komm. Vooruzh. Sil 3 no.2:75-81 Ja '63. (MIRA 16:2)
(Communist Party of the Soviet Union)

PANKRATOV, N.; POLONSKIY, L.

Organizing the maintenance and repair of motor vehicles in an automotive transportation unit. Av.transp. 40 no.7:17-21 Jl '62. (MIRA 15:8)

1. Ministerstvo avtomobil'nogo transporta i shosseynykh dorog RSFSR. 2. Glavnyy inzh. Glavnogo upravleniya avtokhozyaystv Povolzh'ya i Urala (for Pankratov). 3. Glavnyy inzh. gruzovogo avtokhozyaystva Ryazanskogo avtotresta (for Polonskiy).
(Motor vehicles--Maintenance and repair)

PANKRATOV, N.

Small self-regulating suction column. Muk.-elev.prom. 20 no.10:26 O '54. (MLRA 7:26)

1. Yushavtopromstroy.
(Pneumatic-tube transportation)

PANKRATOV, N.

Maintenance and repair by units and in specialized areas should be introduced everywhere. Avt. transp. 42 no.11: 15-16 N '64. (MIRA 17:12)

1. Nachal'nik tekhnicheskogo upravleniya Ministerstva avtomobil'nogo transporta i shosseynykh dorog RSFSR.

PANKRATOV, N.

Ways for reducing labor consumption and expenses in the maintenance and repair of motor vehicles. Avt. transp. 43 no.6:2-4 Je '65. (MIRA 18:6)

1. Nachal'nik Tekhnicheskogo upravleniya Ministerstva avtomobil'nogo transporta i shosseynykh dorog RSFSR.

PANKRATOV, N. A.

Bearings (Machinery)

Ways and means of economizing metal in the bearing industry. Podshipnik, No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, April 1952. UNCLASSIFIED.

PANKRATOV, N.A.

VEYNGEROV, M.L.; GERLOVIN, Ya.I.; PANKRATOV, N.A.

A negative optico-acoustical phenomenon. Opt. i spektr. 1 no.8: 1023 D '56. (MLRA 10:2)

(Molecular dynamics) (Infrared rays)

PANKRATOV, N.A

51-5-18/26

AUTHOR: Pankratov, N.A.

TITLE: On the Relationship between Specific and Threshold Sensitivity of a Selective Optico-acoustic Receiver Chamber and its Time Constant. (O svyazi udel'noy i porogovoy chuvstvitel'nosti kamery selektivnogo optiko-akusticheskogo priyemnika s yego postoyannoy vremeni)

PERIODICAL: Optika i Spektroskopiya, 1957, Vol.2, No.5, pp. 662 - 666 (USSR)

ABSTRACT: A selective optico-acoustic receiver is a receiver of radiant energy in which under the action of intermittent light gas pressure pulses arise. The radiation in the receiver is absorbed directly by the molecules of the gas filling the receiver chamber. Such a receiver has a wide application in gas analysis. The pressure pulses are recorded by a microphone. The limiting sensitivity and the time constant of the selective receiver was first calculated by M.L. Veyngerov [Ref. 1]. Further work on the subject was done by M.A. Yel'yashevich et al. [Ref. 2], P.V. Slobodskaya [Ref.3] and A.O. Sall' [Ref.4]. This paper discusses excitation of acoustic vibrations in the selective-receiver chamber in a way analogous to that for the non-selective receiver [Ref.5]. The relationship between specific and threshold sensitivities of the chamber with its time

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On the Relationship between Specific and Threshold Sensitivity of a Selective Optico-acoustic Receiver Chamber and its Time Constant.

constant is derived since the latter quantity is easily determined experimentally. Under the action of the incident radiation, an increase in temperature, pressure and density of the gas is produced. Only alternating components of these quantities are of interest. To find these three quantities, the author uses 3 equations: the equation of thermal equilibrium, the equation of state and the equation of conservation of mass in the chamber. The author shows that the specific sensitivity of the chamber u is given by:

$$u = \frac{\overline{P}_{eff.}}{Q_{inc.}} = \frac{\sqrt{2}\, P_0 \int_{\nu_1}^{\nu_2} (1 - e^{-k_\nu l}) d\nu}{\Delta\nu\,(4\sigma' T_0^3 + \beta)\pi T_0 S'' \sqrt{1 + (\omega\tau)^2}} \qquad (8)$$

where $\overline{P}_{eff.}$ is the mean effective pressure in the chamber, $Q_{inc.}$ is incident energy, P_0 is mean pressure, ν is frequency of the incident light, k_ν is coefficient of absorption of

On the Relationship between Specific and Threshold Sensitivity of a Selective Optico-acoustic Receiver Chamber and its Time Constant.

of light of frequency ν by the gas, σ' is emissivity of a layer of gas of an effective thickness l, T_o is mean gas temperature, β is coefficient of heat loss by conduction, convection and work in expansion of the gas, S'' is the total surface area of the receiver, ω is the frequency of light modulation, τ is time constant of the receiver which is the time in which mean temperature rise reaches 63% of its maximum value. At low frequencies, when $(\omega\tau)^2 < 1$, the effective pressure and the specific sensitivity of the receiver do not depend on frequency and are inversely proportional to the heat losses. In the case of high frequencies when $(\omega\tau)^2 \gg 1$, the sensitivity is inversely proportional to the frequency and does not depend on the coefficient of heat loss nor the emissivity of the gas. In this case, the sensitivity is determined only by the specific heat of the gas. The threshold sensitivity of the receiver is defined as the ratio of the intrinsic noise to its specific sensitivity. This intrinsic noise is due to fluctuations of temperature and pressure in the gas filling the receiver. The author shows that temperature fluctuations, and consequently, those of pressure, depend on the emissivity of

On the Relationship between Specific and Threshold Sensitivity of a Selective Optico-acoustic Receiver Chamber and its Time Constant.

the gas, its coefficient of heat loss, time constant and the frequency at which observations are made. The threshold sensitivity can be calculated from:

$$Q_t \geq \frac{n\Delta\nu}{\int_{\nu_1}^{\nu_2} (1 - e^{-k_\nu l})d\nu} \sqrt{4\pi^2 kT^2 S''(4\sigma' T_0^3 + \beta)\Delta f} \qquad (14)$$

where Q_t = threshold incident radiation energy, n = the number of times the increase of temperature of the gas due to the incident light must exceed the spontaneous temperature fluctuations (noise) for the former to be recorded with confidence, T = temperature, Δf = the band-width of the amplifying system. The threshold sensitivity does not depend on frequency and it can be calculated from eq.(14) without any assumptions about the microphone used as a detector.

There are 6 references, of which 5 are Slavic.

SUBMITTED: October, 15, 1956.
AVAILABLE: Library of Congress
Card 4/4

SOV/51-4-6-15/24

AUTHORS: Veyngerov, M.L., Nechayeva, L.M., Pankratov, N.A., and Sivkov, A.A.

TITLE: A New Method of Investigation of Emission Spectra of Bodies at Room Temperature (Novyy metod issledovaniya spektrov ispuskaniya tel, nakhodyashchikhsya pri komnatnoy temperature)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol IV, Nr 6, pp 797-799 (USSR)

ABSTRACT: A new differential method of investigation of emission spectra of bodies at room temperature is reported. This method is based on the use of two refrigerators, in the same way as in the analysis of gases by means of the negative optico-acoustic effect described in Ref 3. Principles of the method can be seen from Fig 1. In front of a monochromator slit 1 there is a plane mirror 2, a concave mirror 3 and a non-selective optico-acoustic receiver (see Ref 4). The signal produced by the receiver 4 is amplified by the amplifier 5 and after synchronous rectification by a detector 6 is measured by a mirror galvanometer 7. In front of the other monochromator slit a mirror modulator 8 and two vessels 9 and 10 filled with liquid air are placed. A generator for the synchronous detector is on the axle of a motor 11. Directly above each vessel filled with liquid air there is a cell which has sylvite windows. Plane mirrors are placed at an angle of 45° to the

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horizontal above each of these cells. The arrangement is shown in Fig 1 on the right-hand side. According to the position of the mirror modulator 8, radiational exchange between the receiver 4 and one or other of the liquid-air refrigerators will occur. The resulting signal produced by the receiver is equal to zero unless one of the cells is filled with the gas to be studied. In the latter case the resulting signal is proportional to emission of gas in the spectral region selected by the position of the monochromator prism. Using the apparatus described the authors obtained emission spectrum of methane at room temperature in the region near 8 μ. The results obtained are shown in Fig 2. The monochromator slit widths used were 2 mm which correspond to a spectral interval of 0.73 μ. The method described can be applied to liquids and solids, as well as to gases. The authors point out that Stepanov and Khvashchevskaya (Ref 7) described an apparatus consisting of a refrigerator, a monochromator, the substance studied and a receiver which was used to obtain curves from which by the usual methods the absorption or emission spectrum

A New Method of Investigation of Emission Spectra of Bodies at Room Temperature

could be obtained. There are 2 figures and 5 Soviet references.

ASSOCIATION: Gosudarstvennyy Opticheskiy Institut im. S.I. Vavilova (State Optical Institute imeni S.I. Vavilov)

SUBMITTED: November 27, 1957

67157

5.5800

Pankratov, N.A. and Vinogradova, L.M.

TITLE: On the Maximum Possible Sensitivity of a Selective Optico-Acoustic Receiver

PERIODICAL: Optika i spektroskopiya, 1959, Vol 7, No 6, pp 789-797 (USSR)

ABSTRACT: An optico-acoustic receiver consists of two main parts: a receiver chamber and a microphone. When a condenser or an electrodynamic microphone is used in the receiver the properties of the chamber cannot be separated from those of the microphone. On the other hand when an optical microphone is used in conjunction with a selective-receiver chamber, the properties of the chamber and those of the microphone can be determined separately. It was for this reason that the authors used an optical microphone shown schematically in Fig 1. A receiver chamber (1) was filled with a gas which can absorb infrared radiation. Pulsations of the gas pressure, produced by a "pulsed" infrared beam, act on a celluloid membrane (2) coated with a specular layer of antimony. This membrane was used both as a chamber wall and a microphone membrane. An objective (3) was placed at a distance of 15 mm from the membrane. In the focal plane of the objective there was a glass raster (4) through which light from a source (6) was projected by a condenser (5) on to the membrane (2). The light was reflected from the membrane and, after

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On the Maximum Possible Sensitivity of a Selective Optico-Acoustic Receiver

passing through the objective and the raster, it was deviated by a mirror (7) on to a single-stage photomultiplier (9) of FEU-2 type. The construction of the chamber is shown in Fig 2. It consisted of a working space (1), a ring-shaped channel (2), a channel joining the working space and the region immediately behind the membrane (3), the membrane and its supporting ring (4), a compensation channel (5), an entry window (6), a window used to protect the membrane (7) and the chamber casing (8). Two chambers were constructed: one was cylindrical in shape (10 mm depth and 9.4 mm diameter), and the other was rectangular (6 x 7 mm cross-section and 3 mm depth). When filled with CO_2 the cylindrical chamber had a time constant of 0.03 sec and the rectangular one - 0.003 sec. Absorption of radiation emitted by a Hefner candle (a selective source) amounted to 13% in the cylindrical chamber and 6% in the rectangular one. The root-mean-square noise at light-interruption frequency of 10 c/s was equivalent to a radiation flux of 3×10^{-9} W in the cylindrical chamber and 8×10^{-9} W in the rectangular chamber. The noise decreased with increase of the light-interruption frequency (Fig 4). At low frequencies (10-15 c/s) an optical microphone made it possible to reach the sensitivity limit of the optico-acoustic receiver, since the noise of the receiver was practically entirely due to the chamber noise. The cylindrical chamber had a lower sensitivity limit because of the smaller heat losses and

On the Maximum Possible Sensitivity of a Selective Optico-Acoustic Receiver

higher absorption of infrared radiation; it suffered from the disadvantage of a comparatively large time constant. The heat losses in both chambers were primarily due to thermal conduction and the radiation losses were very small. It is possible to increase the chamber sensitivity quite considerably by increasing its dimensions, filling it with gas at low pressure and using multiple passage of radiation through the chamber. Then absorption of radiation should be of the same order as in one of the chambers described above but the sensitivity should be higher. Moreover, under such conditions the thermal conduction and radiation losses will be of comparable magnitude. This is important since in the case of non-selective receivers the optimum chamber dimensions are obtained when the conduction and the radiation losses are equal; this may also be true for selective receivers. Acknowledgment is made to Professor M.L. Veyngerov for his guidance. There are 7 figures and 22 references, 17 of which are Soviet and 5 English.

SUBMITTED: May 5, 1959

Card 3/3

68317

SOV/51-8-1-17/40

6.3000

AUTHOR: Pankratov, N.A.

TITLE: A Selective Optico-Acoustic Receiver with an Electrodynamic Microphone

PERIODICAL: Optika i spektroskopiya, 1960, Vol 8, Nr 1, pp 109-115 (USSR)

ABSTRACT: The paper deals with various properties of selective optico-acoustic receivers in which resonance electrodynamic microphones are used. The author determined first the dynamic impedance of the microphone between 50 and 1000 c/s. Through a microphone R_m and a calibration resistance R an alternating current was passed from an audio-frequency oscillator ZG-10 (Fig 1). R was varied until it was equal to R_m; equality was checked by measuring the voltage fall across R and R_m by means of a tube (valve) voltmeter MVL-2M. The author determinedalso the noise at the output terminals of the microphone using a technique described earlier (Ref 1). The measured noise spectrum (curve 1, Fig 2) agreed quite well with noise deduced using Nyquist's formula, from the measured dynamic impedance of the microphone (curve 2, Fig 2). In both curves the maxima occurred at the resonance frequency of 540-550 c/s. Above the resonance frequency the noise fell and was governed by the impedance of the microphone coil. Below the resonance

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AUTHORS: Pankratov, N.A. and Vasil'yev, E.F.

TITLE: A Non-Selective Optico-Acoustic Receiver With a Capacitor Microphone

PERIODICAL: Optika i spektroskopiya, 1961, Vol.10, No.1, pp.127-130

TEXT: A new version of a pneumatic infrared detector with a capacitor microphone is described. The chopped beam passes through the 3 mm window 1 and is absorbed by the aluminum layer deposited on the organic film base located in chamber 2 and fastened to the brass ring 3. The detecting membrane, metallized by antimony or silver and maintained under a tension of 1.6×10^4 dyne/cm, makes contact with the brass ring 4. A perforated brass electrode 5 is placed in the plexiglas ring 6 parallel to the detecting membrane at a distance of 10 to 15 μ from it. The latter, with electrode 5, forms a capacitor microphone with a capacitance of 4 to 6 μμF; it can withstand a polarizing voltage of 5 to 15 V. Slow changes of temperature are compensated by joining the volume in front and behind the membrane by means of a channel 9. The capacitor microphone is

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A Non-Selective Optico-Acoustic Receiver With a Capacitor Microphone

connected to the balanced r-f (320 kc) bridge. The h-f bridge voltage is amplitude-modulated by the interrupted signal and feeds the amplification unit which consists of an r-f amplifier, a detector, an a-f amplifier, a synchronous detector and a d-c indicating instrument. With a 0.15 c amplifier transmission band and a 10 c pulse repetition rate, the rms noise value is 1.2×10^{-10} V. The threshold sensitivity of this detector is 2 to 4 times lower than that of a detector which uses an optical microphone. However, the detector with a capacitor microphone is simpler and lends itself to wider use in cases where the radio flux to be measured is chopped at low frequency. Acknowledgments are made to M.L.Veyngerov who directed this work. The first of the two authors (Pankratov) developed the receiver, the second (Vasil'yev) developed the amplifier. There are 2 figures and 15 references: 9 Soviet and 6 non-Soviet.

SUBMITTED: April 19, 1960

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A Non-Selective Optico-Acoustic Receiver With a Capacitor Microphone

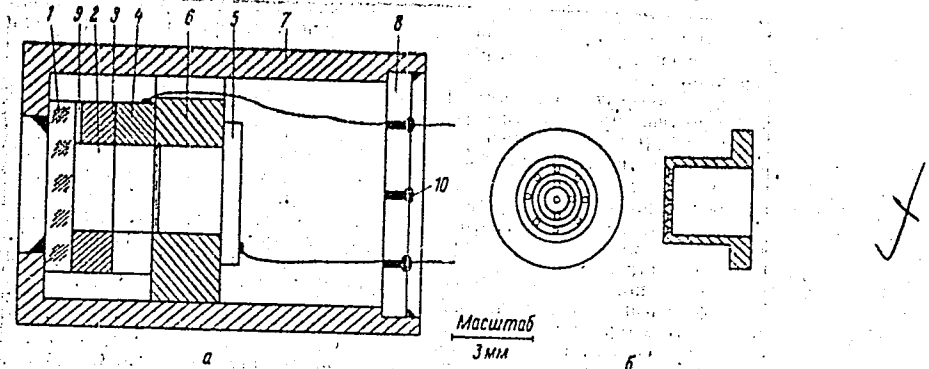

Рис. 1.

Fig.1.

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E202/E192

AUTHOR: Pankratov, N.A.

TITLE: Non-selective optico-accoustic radiation receivers with electrodynamic microphone

PERIODICAL: Optika i spektroskopiya, v.11, no.5, 1961, 681-683

TEXT: The author set out to build a non-selective receiver with a resonance electrodynamic microphone and evaluated its sensitivity. This type of receiver was developed earlier by S.M. Luchin (Ref.4: ZhTF, v.16, 1115, 1946). The construction of the receiver is shown in Fig.1. A modulated flux of radiation passes through the *diaphanous to infrared-radiation window 1, and is absorbed in a fine Al film deposited on a thin organic backing 2. The film is mounted by means of two Al rings 3. The radiation sets temperature pulses in the film and in the gas which lead to pressure fluctuations actuating the membrane 4, of the microphone 5. The whole receiver is protected by a glass or metal capsule 6. Microphone leads are taken out through metal tube 7, sealed into the capsule. The capsule is partially evacuated and channel 8 serves to balance the pressure

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* Window 1 (which is) transparent to infrared radiation...

Non-selective optico-accoustic ...

on both sides of the membrane. Various types of microphone were used. The characteristic parameters were as follows: membrane diameter 6 mm; natural resonance frequency 600-700 c.p.s; coil resistance 180 ohm; dynamical resistance at the resonant frequency 1000-1200 ohm. The sensitivity of microphones in the open space with 10^6 ohm load was of the order of 7-8 mw/bar. The signal from the microphone was amplified using a narrow band pass width of 20 c.p.s. The receivers were evaluated by illuminating them with the radiation from a Hafner candle. It was found that with the frequency of modulation of 730 c.p.s. and a 20 c.p.s. band pass of the amplifier, the radiation flux corresponding to the mean square noise of the receiver was 5×10^{-8} w, and with the band pass at 0.15 c.p.s., 3.5×10^{-9} w. The main advantage of this instrument lies in its low inertia.
Acknowledgments are expressed to M.L. Veyngerov for directing the work.
There are 2 figures and 4 Soviet-bloc references.
SUBMITTED: January 21, 1961

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Non-selective optico-accoustic ... 32054
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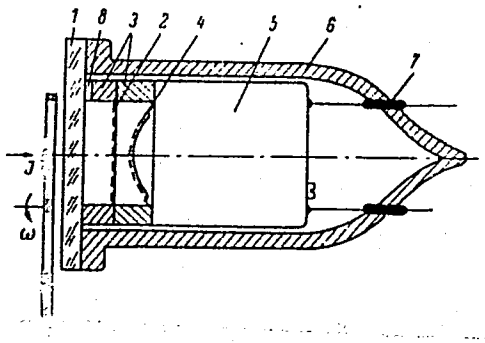
E202/E192

Fig.1



Card 3/3

L 12875-66 EWT(1)/ETC(m) IJP(c) WW

ACC NR: AP6002842 SOURCE CODE: UR/0237/60/000/001/0037/0048

AUTHOR: Pankratov, N. A.

59
58
B

ORG: none

TITLE: A non-selective optico-acoustic receiver with an optical microphone

SOURCE: Optiko-mekhanicheskaya promyshlennost', no. 1, 1960, 37-48

TOPIC TAGS: IR measurement, IR sensor, IR detection, optic system, optic receiver, optic microphone

ABSTRACT: The paper describes a non-selective optico-acoustic receiver of infrared radiation developed by the author with the assistance of V. I. Lin'kov and G. P. Shashunov. The instrument consists of a radiation absorption chamber and an optical microphone. A diagram of the optical system is shown in the figure. An intermittent stream of radiation

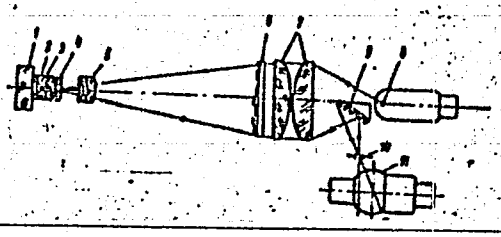


Fig. 1.

Card 1/2

L 12875-66

ACC NR: AP6002842

passes through fluorite window *1* and is absorbed by a thin layer of aluminum applied to an extremely thin celluloid substrate *2*, which is located in the optico-acoustic chamber *3*. Pressure pulsations are generated by absorption of the radiation in the chamber. These pulsations cause celluloid diaphragm *4* to oscillate. This diaphragm, which is coated with a reflecting layer of antimony, is simultaneously one of the walls of the chamber and also the diaphragm of the microphone. A transparent glass grating *6* is located in the focal plane of lens *5*, which is separated from diaphragm *4* by a distance of 15 mm. An image of light source *8* is projected through the grating onto the diaphragm by condenser lens *7*. This image is then reflected through the second half of the grating to mirror *9* and from there through iris *10* to single-stage photomultiplier *11*. The vibration of the microphone diaphragm causes a periodic displacement of the image along the optical axis which results in oscillations of the light flux sent from the auxiliary source to the photomultiplier. The separate components of the instrument are discussed in detail with consideration to characteristics which affect the parameters of the receiver. An electrostatic microphone may be substituted for the optical microphone without changing the threshold of sensitivity. The author takes this occasion to thank Professor M. L. Veyngerov for constant interest and guidance. Orig. art. has: 18 figures, 3 tables. [14]

SUB CODE: 17,20/ SUBM DATE: 17Jul59/ ORIG REF: 009/ OTH REF: 010

ATD PRESS: 4181

Card 2/2 HW!

PANKRATOV, N.F.

Gauge for measuring the shape of upper weight hooks on small P66-1 spinning machines. Obm.tekh.opyt. [MLP] no.16:65-66 '56. (MIRA 11:11)

(Spinning machinery)

PANKARTOV, N.I.; LUK'YANOV, A.D.; POKAMESTOV, V.V.

New method for preparing peat fields. Biul.tekh.-ekon.inform. no.5:8-10 '60. (MIRA 14:3)

(Peat machinery)

USSR / Forestry. Biology and Typology of the Forest. K-1

Abs Jour: Ref Zhur-Biol., N 6, 1958, 24850.

Author : Pankratov, N. M.
Inst : Not given.
Title : The Influence of Temperature on the Flowering of the Oak.

Orig Pub: Sb. rabot po lesn. kh-vu. Vses. n.-i. in-t lesovodstva i mekhaniz. lesn. kh-va, 1956, vyp. 32, 217-224.

Abstract: The determination of temperatures injurious for male and female in florescences was carried out with the aim of elaborating methods for the safeguarding of the oak from the late frosts in the

Card 1/3

USSR / Forestry. Biology and Typology of the Forest. K-1

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24850.

Abstract: forest. The periodicity of the fruitification of the oak is not an invariable biological property but depends on the conditions of its existence. Late frosts, by impairing the normal rate of nutrition of the tree, exert a harmful influence on the crop of the current and subsequent year. The male buds of the oak perish through the effect of twenty-four hours of low temperatures (positive) from 0.3 to 1°; through the effect of temperature from -0.3 to -0.5 - in the course of 1 - 3 hrs.; through the effect of temperatures below -1° in the course of one hour. Low positive temperatures do not show a noticeable influence on the female blossoms of the oak. A 3-hour effect of -4.5° temperature appears to be pernicious to the ovary, as well as fast warming after a 5-hour effect of

Card 2/3

USSR / Forestry. Biology and Typology of the Forest. K-1

Abs Jour: Ref Zhur-Biol., No 6, 1958, 24850.

Abstract: -1° temperature. Mature leaves perish at -4.5° in three hours. An injurious effect of a rapid transition from a low to a high temperature is registered. It is supposed that, under natural conditions, the blossoms of the southern and the eastern part of the crown will suffer from frosts to a great degree, since their warming under the effect of sun's rays proceeds more rapidly.

Card 3/3

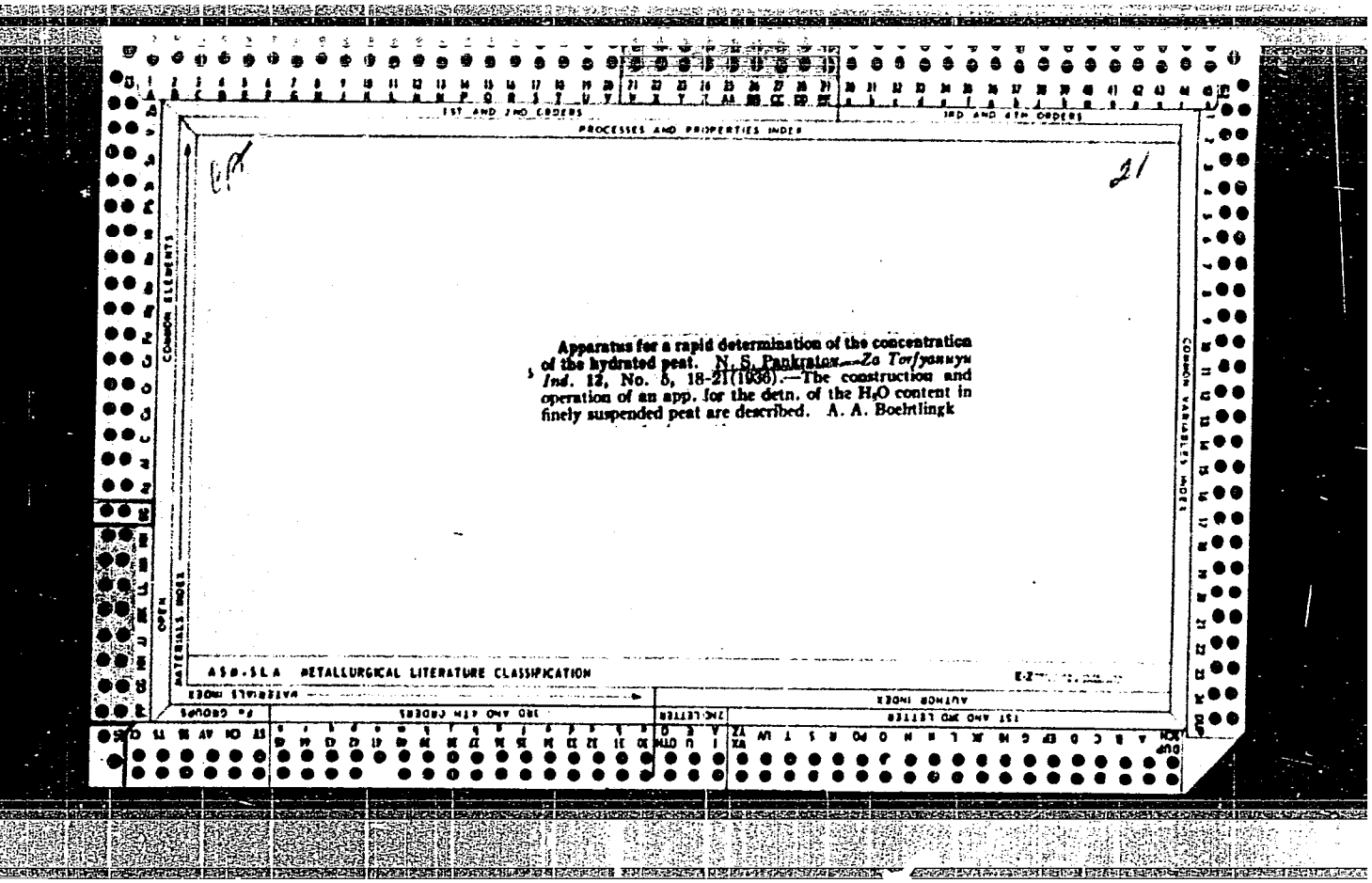
PANKRATOV, N.N., inzh.

Cold welding of contact wires; mobile unit. Elek. i tepl. tiaga 7 no.9:11-12 S '63. (MIRA 16:10)

PANKRATOV, N. N.

25931 Pankratov, N. N. Sluchay osoboy travmy vodolaza. Voyen.- med. zhurnal, 1948, No. 6, s. 23-24.

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948.



PANKRATOV, N. S.

42300: PANDRATOV, N. S. - Nablyudeniya za sushkoy torfa, sformovannogo formuyushchimi gusenitsami FG-2 i FG-3. Torf. prom-st', 1948, No11, s. 21-28.

SO: Letopis' Zhurnal'nykh Statey, Vol. 47, 1948.

F

A

5006. FLOATING HYDROPEAT WINNING PLANTS. Kushman, O.I. and Parkratov, N.S. (Torf. Prom. (Peat Ind.), June 1951, 25-29). (R).

PANKRATOV, N.S. --

"Investigating the Kinetics of the Process of Convectional Drying of Lump Peat in an Apparatus Having an Artificial Climate." Cand Tech Sci, Moscow Peat Inst, Moscow, 1954. (RZHKhim, No 20, Oct 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (10)

SO: Sum. No. 481 5 May55

PANKRATOV, N.S.

ALEKSEYEV, Ye.T.; APENCHENKO, S.S.; BASOV, A.P.; BAUSIN, A.F.; BERSHADSKIY, L.S.; VELLER, M.A.; GINZBURG L.N.; GUSEV, S.A.; DANILOV, G.V.; DOLGIKH, M.S.; DRUZHININ, N.N.; YEFIMOV, V.S.; ZAVADSKIY, N.V.; IVASHECHKIN, N.V.; KARAKIN, F.F.; KUZHMAN, G.I.; LOBANOV, S.P.; MERKULOV, Ya.V.; NIKODIMOV, P.I.; PANKRATOV, N.S.; PYATAKOV, L.V.; RODICHEV, A.F.; SMIRNOV, M.S.; STRUKOV, B.I.; SAVOCHKIN, S.M.; SAMSONOV, N.N.; SINITSYN, N.A.; SOKOLOV, A.A.; SOLOPOV, S.G.; CHELYSHEV, S.G.; SHCHEPKIN, A.Ye.

Fedor Nikolaevich Krylov; obituary. Torf. prom. 35 no.6:32 '58. (MIRA 11:10)

(Krylov, Fedor Nikolaevich, 1903-1958)

LUK'YANOV, A.D., inzh.; PANKRATOV, N.S., kand. tekhn. nauk; POKAMESTOV, V.V., inzh.

Preparation of the surface of peat fields by the deep milling of stump-containing layers. Torf. prom. 36 no.5:8-11 '59. (MIRA 13:1)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut torfyanoy promyshlennosti.
(Peat machinery)

PANKRATOV, N.S., kand.tekhn.nauk, MALKOV, L.M., inzh.

Conditions of the formation of cracks in the process of drying. Torf.prom. 37 no.1:15-18 '60. (MIRA 13:6)

1. Vsesoyuznogo nauchno-issledovatel'skogo instituta torfyanoy promyshlennosti.
(Peat--Drying)

MALKOV, L.M., kand.tekhn.nauk; PANKRATOV, N.S., kand.tekhn.nauk; KOLOTUSHKIN, V.I., red.; LARIONOV, G.Ye., tekhn.red.

[Investigating the process of radiation-convective drying of granulated and lump peat] Issledovanie protsessa radiatsionno-konvektivnoi sushki granulirovannogo i kuskovogo torfa. Moskva, Gosenergoizdat, 1961. 215 p. (Leningrad. Vsesoiuznyi nauchno-issledovatel'skii institut torfianoi promyshlennosti. Moskovskii filial. Trudy, no.1). (MIRA 16:12)

PANKRATOV, N.S., kand. tekhn. nauk; POKAMESTOV, V.V.; LUK'YANOV, A.D.; GAVRILOV, Yu.M.; IVANOV, Yu.I.; KONDRASHOV, A.S.; MAYEVSKAYA, K.T.; MALKOV, L.M.; FOMIN, V.K.; KOLOTUSHKIN, V.I., red.; LARIONOV, G.Ye., tekhn. red.

[New equipment and technology of peat-bog preparation and the winning of granulated peat] Novaia tekhnika i tekhnologiia bolotno-podgotovitel'nykh rabot i dobychi granulirovannogo torfa. Moskva, Gos. energ. izd-vo, 1961. 86 p. (MIRA 15:2)

1. Leningrad. Vsesoyuznyy nauchno-issledovatel'skiy institut torfyanoy promyshlennosti. Direktor filiala Vsesoyuznogo nauchno-issledovatel'skogo instituta torfyanoy promyshlennosti (for Pankratov).

(Peat bogs) (Peat machinery)

PANKRATOV, N.S., kand.tekhn.nauk; LUK'YANOV, A.D., inzh., POKAMESTOV, V.V., inzh.

Mechanizing the preparation of peat deposits and swamplands. Mekh.i avtom.proizv. 14 no.5:30-32 My '60. (MIRA 14:2)
(Peat machinery—Technological innovations)

PANKRATOV, N.S., kand.tekhn.nauk; LASHNEV, V.I., inzh.

Peat and ammonia fertilizers contributing to higher yields. Torf. prom. 37 no.3:28-30 '60. (MIRA 13:9)

1. Filial Vsesoyuznogo nauchno-issledovatel'skogo institutatorfyanoy promyshlennosti.
(Peat) (Ammonia) (Fertilizers and manures)

PANKRATOV, P.

CHEKASIN, M.; MIKHAYLENKO, A.

"Organization and methods of auditing the taxation work of finance organizations." P. Pankratov, L. Skvirskii. Reviewed by M. Chekasin and A. Mikhailenko. Fin.SSSR 16. no. 6:91-92 Je '55. (MLRA 8:6)
(Pankratov, P.) (Taxation)

1. PANKRATOV, P. A.

2. USSR (600)

4. Boring

7. Highly productive wells. Soob.TFAN SSSR no. 31, 1951

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

PANKRATOV, P.A.

Designing and building high-discharge wells. F.S.Belaritsev. Reviewed by P.A.Pankratov. Izv.Otd.est.nauk AN Tadzh.SSR no.1:97-100 '52. (MLRA 9:10)

1.Institut geologii Akademii nauk Tadzhikskoy SSR.
(Wells)

PANKRATOV, P.A.

High-speed construction of highly productive wells. Dokl.AN Tadzh. SSR no.4:7-11 '52. (MIRA 9:9)

1.Chlen-korrespondent AN Tadzhikskoy SSR. 2. Institut geologii Akademii nauk Tadzhikskoy SSR.
(Soviet Central Asia--Wells)

PANKRATOV, P. A

5312. Pankratov, P. Organizatsiya i metody revizii nalogovoy raboty finansovykh organov. M; Gosfinizdat, 1954 112 s. 20 s 6.000 ekz. 3 r. -- (55-1062) ; 336.2.027

SO: Knizhnaya Letopis', Vol. 1, 1955

PANKRATOV, P.A.

Prospects for using ground water and measures for preventing salt formation in the irrigated area of Central Asia. Izv.otd.est.nauk AN Tadzh.SSR no.8:33-44 '54. (MIRA 9:9)

1.Institut geologii AN Tadzhikskoy SSR.
(Soviet Central Asia--Water, Underground) (Soviet Central Asia--Alkali lands)

15-57-10-14640

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10, p 212 (USSR)

AUTHOR: Pankratov, P. A.

TITLE: Some Theoretical Questions on Ground Water Flow and Collection (Nekotoryye voprosy teorii dvizheniya i zakhvata gruntovykh vod)

PERIODICAL: Tr. AN TadzhSSR, 1956, Nr 58, pp 159-168

ABSTRACT: The author considers that when ground waters are pumped out of wells, the water level does not correspond to the flow pressure in a given vertical section. At any point in a depression cone, water pressure ought to vary at different levels in the aquifer. The author offers his own conclusions as to the interaction of wells in a ground water flow, and also describes the results of a 1936 experiment which he made in a trough simulating field conditions. (The results of this experiment differ from accepted views on water movements in porous soils.-Ed.).

Card 1/1

A. F. Vol'fson

PANKRATOV, P.A.

Hydrogeological conditions in irrigated Tajik massifs in connection with problems of land improvement and use of underground waters. Trudy AN Tadzh. SSR 77:309-364 '57. (MIRA 11:9)
(Tajikistan--Water, Underground)

BARATOV, R.B., otv. red.; KUKHTIKOV, M.M., zam. otv. red.; BABAKHODZHAYEV, S.M., red.; BABKOV, K.V., red.; DZHALILOV, M.R., red.; ZAKHAROV, S.A., red.; NOVIKOVA, T.I., red.; PANKRATOV, P.A., red.; REYMAN, V.M., red.

[Problems of the geology of Tajikistan; festschrift for the 23d Session of the Geological Congress in Delhi] Problemy geologii Tadzhikistana; sbornik, posviashchennyi XXII sessii Mezhdunarodnogo geologicheskogo kongressa v Deli. Dushanbe, AN Tadzhik SSR, 1964. 290 p. (MIRA 18:3)

1. Akademiya nauk Tadzhikskoy SSR, Dushanbe. Institut geologii.

PANKRATOV, P.B.

VERSHINSKIY, V.V., inzhener; MOROZOV, I.A., inzhener; MEYER, A.V., inzhener; PANKRATOV, P.B., inzhener.

New machine for spot welding large-sized, flat steel construction. Vest.mash. 34 no.10:50-52 O '54. (MLRA 7:11)
(Electric welding)

PANKRATOV, P.B.

USSR/ Engineering - Welding equipment

Card 1/1 : Pub. 128 - 10/31

Authors : Vershinskiy, V. V., Morozov, I. A., Meyer, A. V., and Pankratov, P. B.

Title : An apparatus of a new design for a contact spot-welding of large-diaphragm steel platforms

Periodical : Vest. mash. 10, 50 - 52, Oct 54

Abstract : A narrative report is given concerning the operation and function of a new type contact spot-welding apparatus, designed and produced by the Kalinin Rolling Stock Construction Factory. Diagrams; illustrations.

Institution : ....

Submitted : ....

PANKRATOV, P. B.

B. T. R.
V. 3 No. 3
Mar. 1954
Welding and Joining

4269* Contact Welding of Roofs of All-Metal Railroad Passenger Cars. (Russian.) V. V. Vershinskii, T. A. Morozov, A. V. Meier, and P. B. Pankratov. *Vestnik Mashinostroeniia*, v. 33, no. 8, Aug. 1953, p. 82-86.
Special equipment is described. Photographs, diagrams.

PANKRATOV, R.

Tilting log dump. Mast. lesa 2 no.7:14 Jl '58. (MIRA 11:9)

1.Nachal'nik proizvodstvenno-tekhnicheskogo otdela Vetlyanskogo lespromkhoza, Permskaya oblast'.
(Lumbering--Machinery) (Loading and unloading)

PANKRATOV, S.

Troubles of ordinary members. Izobr. i rats. no.6:27 Je '61.
(MIRA 14:6)

1. Predsedatel' Leningradskogo soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov.
(Germany, East--Technological innovations)

PANKRATOV, S.

Error after error. Izobr.i rats. no.12:39 D '59.
(MIRA 13:8)

1. Predsedatel' Leningradskogo oblastnogo soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov.
(Technological innovations)

PANKRATOV, S.A., doktor tekhn. nauk; SOLDATKIN, Ye.P., kand. tekhn. nauk; FEDOROV, D.I., kand. tekhn. nauk

Determining the tangential constituent forces in excavation activating the working elements of rotary excavators. Stroi. i dor. mash. 9 no.9:4-6 S '64.

(MIRA 17:11)

PANKRATOV, S.A.

How we organized our work. Izobr. i rats. no.9:5 S '58.
(MIRA 11:10)

1. Predsedatel' Leningradskogo oblastnogo soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov.
(Leningrad Province--Efficiency, Industrial)

PANKRATOV, S.A.

24-8-28/34

AUTHOR: Pankratov, S.A. (Moscow)

TITLE: On practical methods of solving the systems of non-linear, differential equations. (O prakticheskikh metodakh resheniya sistem nelineynykh differentsialnykh uravneniy)

PERIODICAL: "Izvestiya Akademii Nauk SSSR. Otdeleniye Tekhnicheskikh Nauk." (Bulletin of the Academy of Sciences USSR. Technical Sciences Section.) No.8, pp. 156-159 (U.S.S.R.)

ABSTRACT: Stationary solutions of systems of non-linear, differential equations which are sufficiently simple can be found by transforming from the equations for ordinary derivatives to equations containing partial derivatives and representing the solutions in the form of expansions in fractional powers of a small parameter. The author investigates a number of equations in the resonance solutions of systems of differential equations for the oscillations of a jib of a dragline excavator:

$$\frac{d^2x}{dt^2} + \varrho_1^2 x + a_1 x^2 + b_1 xy + c_1 y^2 + \lambda_1 F_1 \cos \omega_1 t = 0$$

$$\frac{d^2y}{dt^2} + \varrho_2^2 y + a_2 x^2 + b_2 x.y + c_2 y^2 + \lambda_2 F_2 \cos \omega_2 t = 0$$

Card 1/2

Pankratov, S.A.

PANKRATOV, S.A. (Moskva)

Practical methods for solving systems of nonlinear differential equations. Izv.AN SSSR Otd.tekh.nauk no.8:156-159 Ag '57. (MIRA 10:11)

(Differential equations)

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AUTHOR: Pankratov, S.A. (Moscow)

TITLE: On a Numerical Method for the Determination of the Roots of Characteristic Equations

PERIODICAL: Prikladnaya matematika i mekhanika, 1960, Vol.24, No.5, pp.967-968

TEXT: If the equation

$$(1) \qquad x^n+A_{n-1}x^{n-1}+\ldots+A_1x+A_0 = 0$$

has a real root λ then it can be written in the form

$$(2) \qquad (x-\lambda)(x^{n-1}+a_{n-2}x^{n-2}+a_{n-3}x^{n-3}+\ldots+a_1x+a_0) = 0.$$

The a_i are determined so that (1) and (2) differ only by the free term, i.e.

$$(3) \qquad \begin{aligned} a_{n-2} &= \lambda+A_{n-1} \\ a_{n-3} &= \lambda a_{n-2}+A_{n-2} \\ a_{n-4} &= \lambda a_{n-3}+A_{n-3} \\ &\cdots\cdots\cdots\cdots \\ a_0 &= \lambda a_1+A_1 \end{aligned}$$

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On a Numerical Method for the Determination of the Roots of Characteristic Equations

Let A_o' and A_o'' be values of A_o corresponding to the roots λ_1, λ_2 ($A_o^i = -a_o \lambda_i$). Then let the new value λ_3 be defined by

$$\lambda_3 = \lambda_1 + \frac{A_o - A_o'}{A_o' - A_o''} (\lambda_1 - \lambda_2). \tag{4}$$

It is suitable to choose λ_1 and λ_2 so that $A_o' - A_o$ and $A_o'' - A_o$ have different signs. When for λ_3 the corresponding value A_o''' is calculated then the next approximate value λ is again determined by interpolation, where one starts from two values λ_i and λ_j for which $A_o^i - A_o$ and $A_o^j - A_o$ have a different sign, etc. If e.g.

$$x^4 + A_3 x^3 + A_2 x^2 + A_1 x + A_o = 0 \tag{5}$$

has two pairs of complex roots then (5) is written in the form

Card 2/4

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C111/C222

On a Numerical Method for the Determination of the Roots of Characteristic Equations

(6) $$(x^2+a_1x+a_0)(x^2+b_1x+b_0) = 0,$$

and the a_i, b_i are obtained from the preceding condition, i.e.

(7) $$\begin{aligned} a_1+b_1 &= A_3 \\ a_0+b_0+a_1b_1 &= A_2 \\ a_0b_1+a_1b_0 &= A_1 \end{aligned}$$

(here one coefficient, e.g. a_1, can be chosen arbitrarily.). The free term is $A_0 = a_0b_0$. If there are two values A_0', A_0'' corresponding to the values a_1',a_1'' of a_1 then the new value is defined by

(8) $$a_1^3 = a_1' + \frac{A_0-A_0'}{A_0'-A_0''}(a_1'-a_1'').$$

Card 3/4

87802

S/040/60/024/005/028/028
C111/C222

On a Numerical Method for the Determination of the Roots of Characteristic Equations

By a multiple repetition the author determines a value a_1^i for which A_o^i is little different from A_o, and therewith he finds an approximate value of the sought solution.
The method is extended to equations with n pairs of complex roots. The method is recommended for programmings.

SUBMITTED: June 6, 1960

Card 4/4

PANKRATOV, S. A.

"Methods for Calculation of Revolving Platforms of Heavy-Duty Excavators." Sub 12 Jun 51, Moscow Order of the Labor Red Banner Construction Engineering Inst imeni V. V. Kuybyshev

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

PANKRATOV, S.A., kandidat tekhnicheskikh nauk.

Experimental investigation of dynamic loading on the dragline boom of the E-505 excavator. Stroi.i dor.mashinostr. 1 no.10:3-5 O '56. (MLRA 9:11)

(Excavating machinery)

PANKRATOV, S. A. Doc Tech Sci -- (diss) "~~Foundations~~ Principles of the Dynamic Calculation of the Booms of Excavators and Cranes." Mos, 1957. 28 pp 20 cm. (Min of Higher Education USSR, Mos Order of Labor Red Banner Construction Engineering Inst im V. V. ~~KUYK~~ Kuybyshev), 130 copies (KL, 25-57, 111)

PANKRATOV, S.A.

122-1-2/34

AUTHOR: Pankratov, S.A., Candidate of Technical Sciences.

TITLE: The guy outriggers of dragline excavators of the "Uralmash" Plant (Vantovyye strely ekskavatorov-draglaynov Uralmash-zavoda)

PERIODICAL: "Vestnik Mashinostroyeniya" (Engineering Journal) 1957, No.1, pp. 12 - 19 (U.S.S.R.)

ABSTRACT: The report is concerned with dragline excavator types Э.ЩІ-14/75, Э.ЩІ-10/75 and Э.ЩІ-20/65 with Guy Outriggers. These are lighter than other designs but their dynamic loads are difficult to evaluate. The determination of the loads in the outrigger frame members by means of strain gauges is described. Typical strain gauge records are reproduced taken in operation, which show structural vibrations. The basis for a rational design of the outriggers is discussed.

There are 9 figures, including 2 photographs and 4 oscillographic records.

Card 1/1

AVAILABLE: Library of Congress

PANKRATOV, S.A., kandidat tekhnicheskikh nauk.

Improving the design of booms for dragline excavators and cranes.
Stroi.i dor.mashinostr. 2 no.7:3-5 Jy '57. (MLRA 10:7)
(Excavating machinery) (Cranes, derricks, etc.)

VETROV, Yu. A., kandidat tekhnicheskikh nauk.; PANKRATOV, S.A., kandidat tekhnicheskikh nauk.; RYAKHIN, V.A., kandidat tekhnicheskikh nauk.

"Principles of the theory of single-bucket excavators" by E. R. Peters. Mekh. trud. rab. 11 no.2:47 F '57. (MLRA 10:5)
(Excavating machinery) (Peters, E.R.)

PANKRATOV, S.A., kandidat tekhnicheskikh nauk.

Guy booms used in drag line excavators designed in the Ural Machinery Plant. Vest.mash.37 no.1:12-19 Ja '57. (MLRA 10:2)
(Excavating machinery)

PANKRATOV, S.A., dots., kand.tekhn.nauk

Dynamic analysis of excavators and cranes. Nauch.dokl.vys. shkoly; stroi. no.2:135-141 '58. (MIRA 12:1)
(Excavating machinery) (Cranes, derricks, etc.)

PANKRATOV, S.A., dotsent, doktor tekhn. nauk

Pending torsional vibrations of dragline guy booms. Izv. vys. ucheb. zav.; mashinostr. no.9:162-168 '58. (MIRA 12:10)

1. Moskovskiy inzhenerno-stroitel'nyy institut im. Kuybysheva.
(Excavating machinery--Vibration)

PANKRATOV, S.A., doktor tekhn. nauk

Dynamic calculation of excavator and crane units. Izv. vys. ucheb. zav.; mashinostr. no.11/12:46-50 '58. (MIRA 13:3)

1.Moskovskiy inzhenerno-stroitel'nyy institut.
(Cranes, derricks, etc.) (Excavating machinery)

PANKRATOV, S.A., kand.tekhn.nauk

Designing turntables for heavy-duty excavators. Sbor.trud. MISI no.26:81-106 '58. (MIRA 12:1)
(Excavating machinery)

PANKRATOV, S.A., kand.tekhn.nauk

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