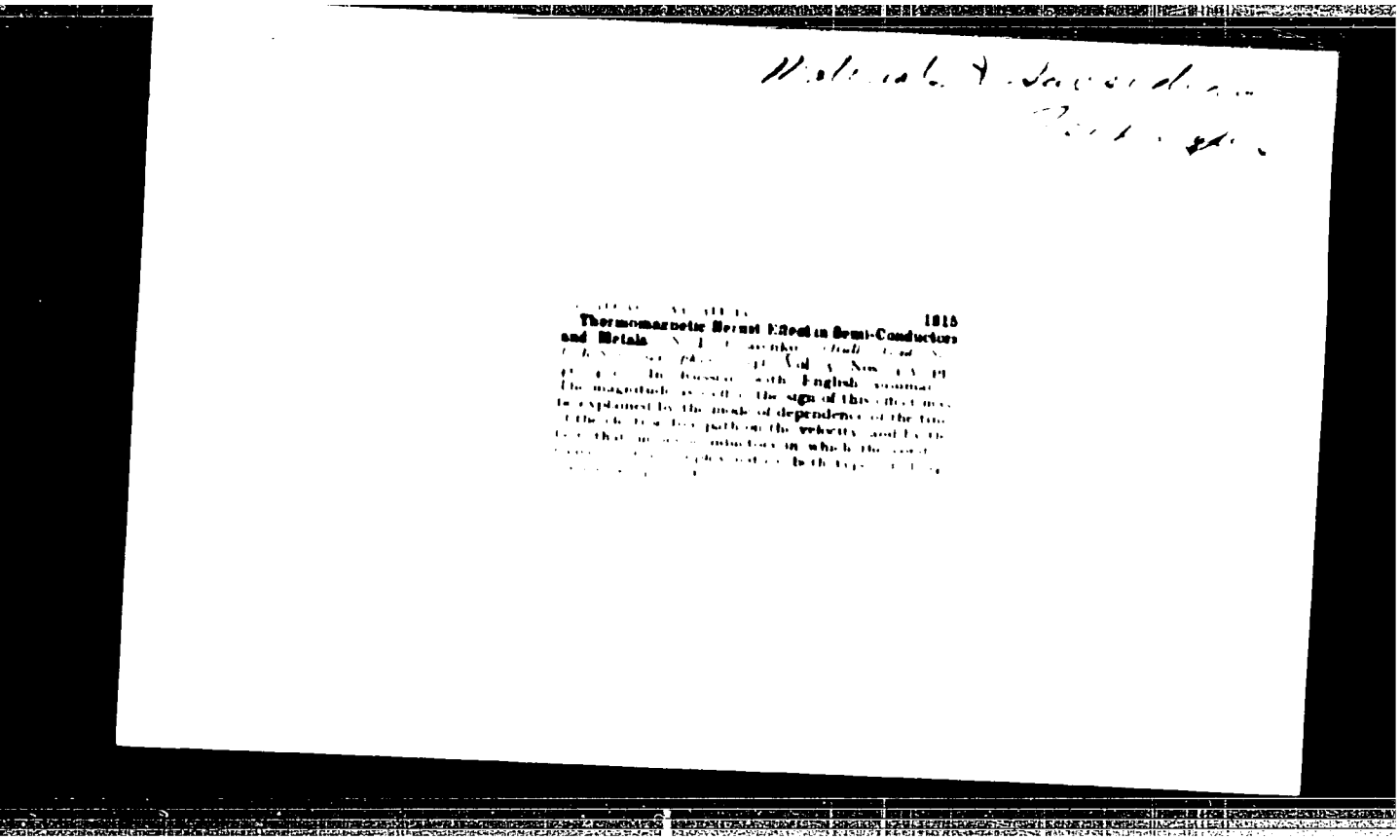
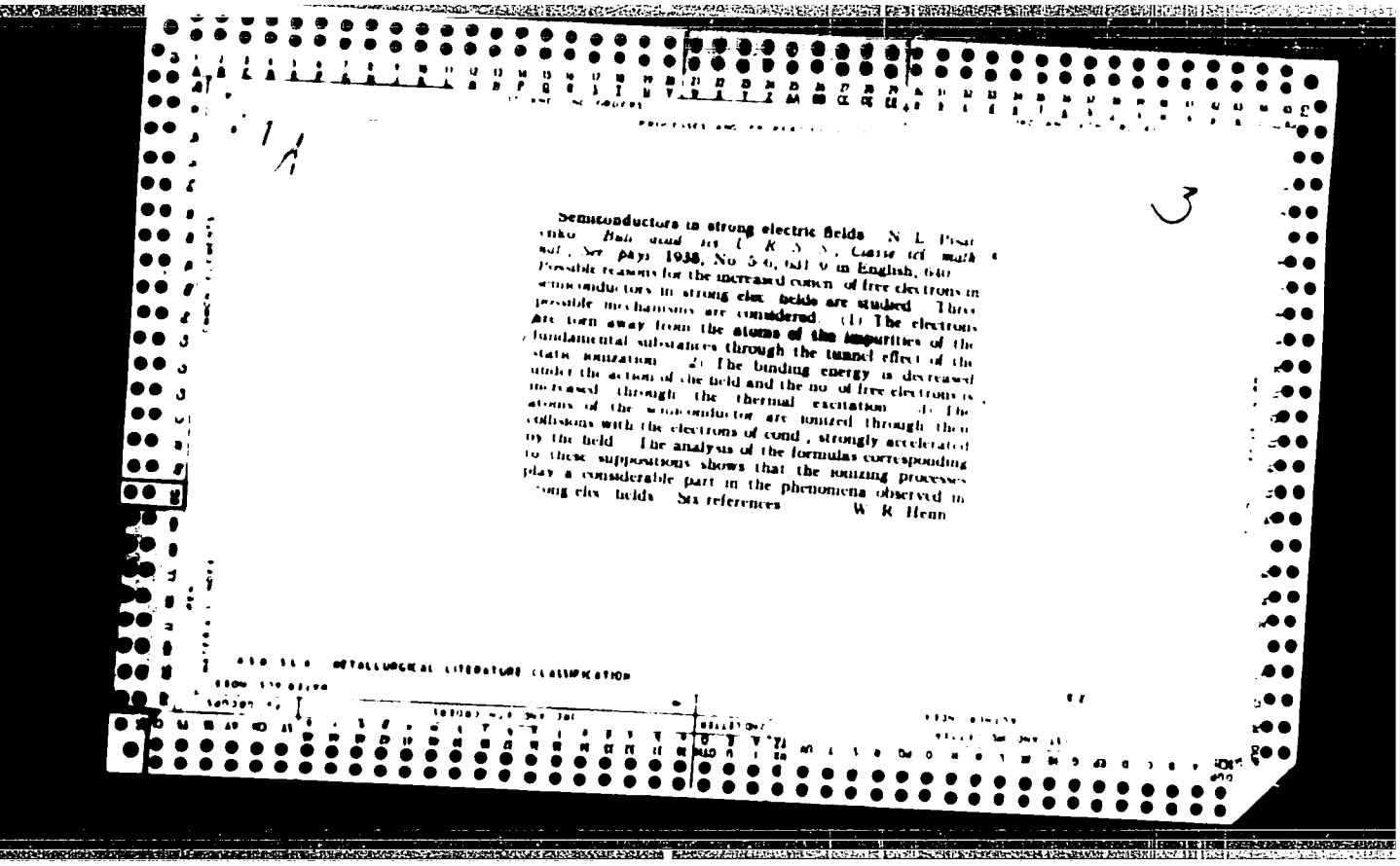
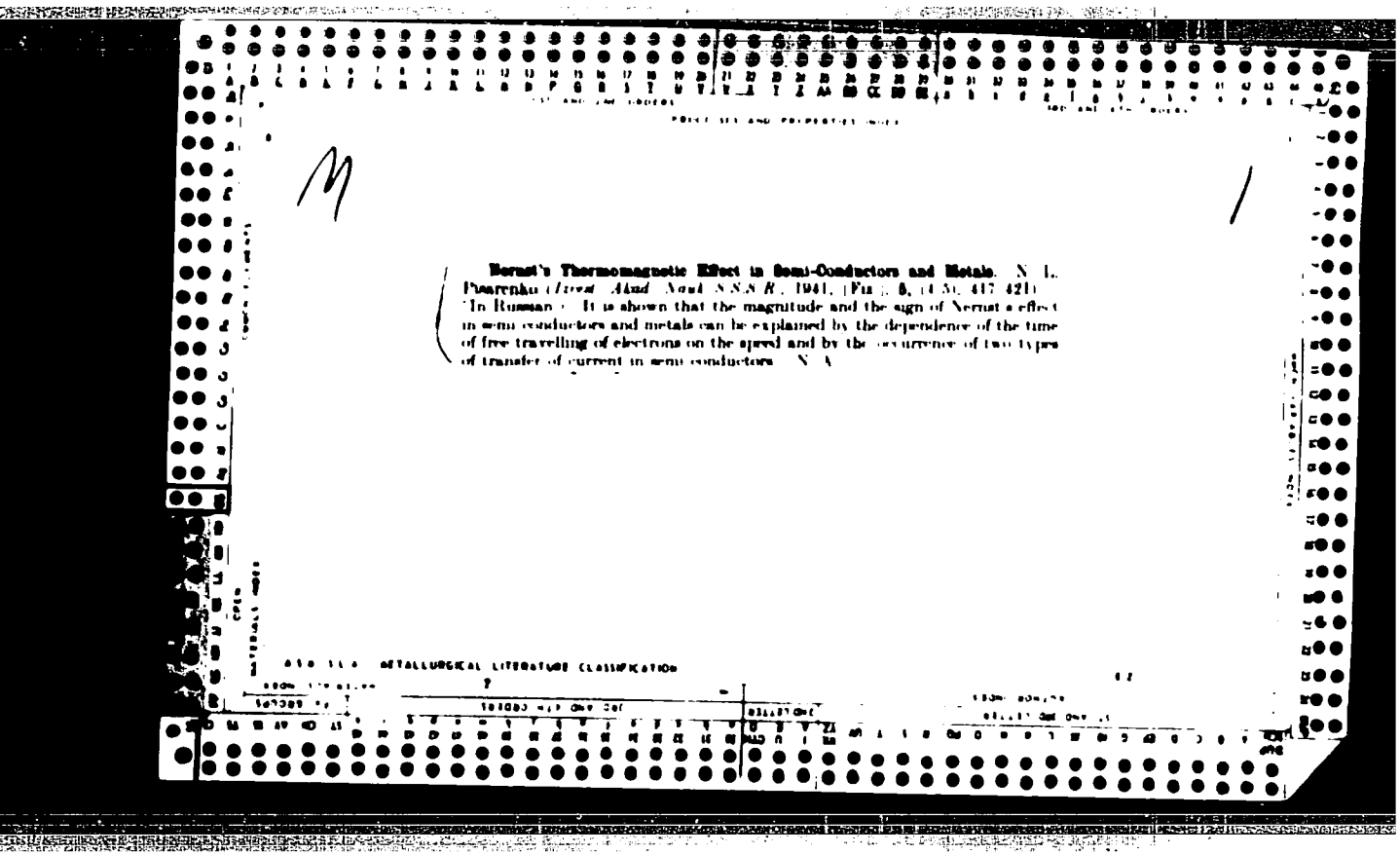


1815
Thermomagnetic Hermst Effect in Semi-Conductors and Metals

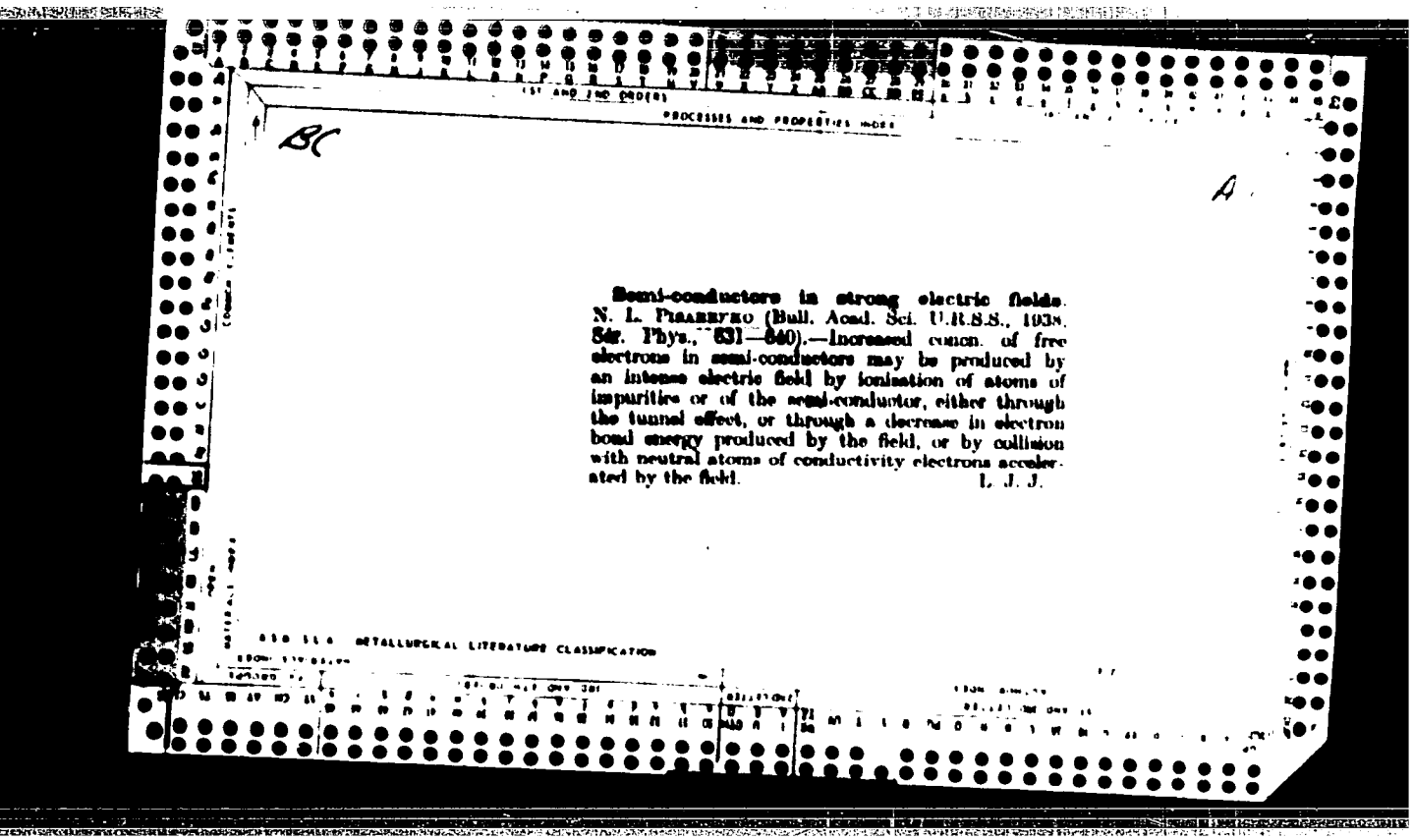


Semiconductors in strong electric fields N L Pisarenko *Bull acad sci U R S S, Classe sci math i nat, Ser phys* 1938, No 5-6, 831-9 (in English, 840)

Possible reasons for the increased concn of free electrons in semiconductors in strong elec fields are studied. Three possible mechanisms are considered. (1) The electrons are torn away from the atoms of the impurities of the fundamental substances through the tunnel effect of the static ionization. 2) The binding energy is decreased under the action of the field and the no of free electrons is increased through the thermal excitation. 3) The atoms of the semiconductor are ionized through their collisions with the electrons of cond, strongly accelerated by the field. The analysis of the formulas corresponding to these suppositions shows that the ionizing processes play a considerable part in the phenomena observed in strong elec fields. Six references. W R Henn



Nernst's Thermomagnetic Effect in Semi-Conductors and Metals. N. L. Pisarenko (*Trans. Akad. Nauk S.S.S.R.*, 1941, [Fiz.], **6**, [4 Sc. 417–421) [In Russian.] It is shown that the magnitude and the sign of Nernst's effect in semi-conductors and metals can be explained by the dependence of the time of free travelling of electrons on the speed and by the occurrence of two types of transfer of current in semi-conductors. N. A.



Semi-conductors in strong electric fields. N. L. Pisarenko (Bull. Acad. Sci. U.R.S.S., 1938, Sér. Phys., 831—840).—Increased concn. of free electrons in semi-conductors may be produced by an intense electric field by ionisation of atoms of impurities or of the semi-conductor, either through the tunnel effect, or through a decrease in electron bond energy produced by the field, or by collision with neutral atoms of conductivity electrons accelerated by the field. L. J. J.

YABLOKOVA, T.B., kand. med. nauk; PISARENKO, N.N.; KAKHIMOVA, N.G.

Improved methodology for the determination of the viability of the BCG vaccine. Probl. tub. no.4:72-77 '64.
(MIRA 18:1)

1. Laboratoriya protivotuberkuleznykh preparatov (zav. - kand. med. nauk T.B. Yablokova) Kontrol'nogo instituta imeni I.A. Tarasevicha (direktor - dotsent I.F. Mikhaylov) i Moskovskiy nauchno-issledovatel'skiy institut epidemiologii i mikrobiologii (direktor S.I. Didenko).

L 62633-65

ACCESSION NR: AP5011288 UR/0016/65/000/004/0131/0136

AUTHOR: Rozenberg, A. M.; Pisarenko, N. N.

TITLE: Golden hamster as an experimental model for the study of tuberculosis and antituberculosis vaccination

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 4, 1965, 131-136

TOPIC TAGS: hamster, tuberculosis, vaccine, immunology

ABSTRACT: In a series of experiments, golden hamsters, white mice, and guinea pigs were immunized subcutaneously with 0.01 mg doses of BCG vaccine to compare survival and multiplication of the Calmette-Guerin bacilli in organs and lymph nodes. Groups of animals were killed at periods of 7 to 390 days following vaccination. Histological examination of the spleen, liver, lungs and lymph nodes, and growth of bacterial colonies in cultures taken from the animals served as indices. Additional experiments were conducted to test the specific resistance of animals to subsequent virulent tuberculosis infection. Findings show that Calmette-Guerin bacilli

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ACCESSION NR: AP5011288

are found in the organs and lymph nodes of golden hamsters in considerable numbers during the 390 day observation period. Multiplication of the bacilli is more intensive in golden hamsters than in white mice. The golden hamster also displays high specific immunity to subsequent tuberculosis infection. The present data indicate that the golden hamster may be used as an experimental model for studying problems relating to antituberculosis vaccination, and for studying the survival of various BCG substrains and attenuated tuberculosis strains. The rapid multiplication of bacilli in the hamster permits the use of minimal doses which in turn facilitates differentiation of strains. However, the hamster is not suitable for the study of allergic skin reactions because of failure to react to tuberculin and BCG tests. Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: Gosudarstvennyy kontrol'nyy institut meditsinskikh biologicheskikh preparatov im. L. A. Tarasevicha.(State Control Institute of Medical Biological Preparations)

SUBMITTED: 03Jan64 ENCL: 00 SUB CODE: LS

NR REF SOV: 001 OTHER: 013

Card 2/2

L 11384-67 EWT(1) SCTB DD/GD
ACC NR: AT6036508 SOURCE CODE: UR/0000/66/000/000/0080/0081

AUTHOR: Buyanov, P. V.; Beregovkin, A. V.; Pisarenko, N. V.; Slesarev, V. I. 27

ORG: none

TITLE: Prolonged hypokinesia as a factor altering the functional state of the cardiovascular system in healthy humans [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, 80-81

TOPIC TAGS: hypodynamia, isolation test, cardiovascular system, human physiology, space physiology

ABSTRACT: The effects of prolonged bed-rest (11-men) and water immersion (2 men) were investigated. In all, 13 experiments were conducted on 11 healthy males aged 22—26. The duration of hypokinesia was 10—15 days. Tests were conducted to evaluate the usefulness of physical exercise (4 tests) and periodic compression of the lower extremities (2 tests) to diminish the deleterious effects of hypodynamia. Examinations of peripheral hemodynamics, intracardiac dynamics, cardiac bioelectricity, contraction capacity of the myocardium of the left venticle, and vascular tonus were conducted. This involved the use of tachooscillograms, arterial oscillo-

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ACC NR: AT6036508

Deconditioning symptoms were less pronounced in subjects who exercised or compressed their lower extremities during hypokinesia.

The genesis of the observed shifts is complicated. Most likely, the inert state of adaptive mechanisms which regulate cardiovascular activity during transition from one level of physical activity to another is responsible. It is suggested that under conditions of prolonged hypokinesia and decreased hydrostatic pressure, proprioceptive and angioreceptive signalization is decreased, which leads to a weakening of reciprocal afferent-effector activity. Transition to activity leads to a steady recovery of these disrupted relationships. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 06 / SUBM DATE: 00May66

Card 3/3 egk

L 11364-67 EWT(1) SCTB DD/GD

ACC NR: AT6036509 SOURCE CODE: UR/0000/66/000/000/0081/0083

AUTHOR: Buyanov, P. V.; Galkin, A. V.; Torent'yev, V. G.; Sholudyakov, Ye. Ye.; Pisarenko, N. V.; Yaroshenko, G. L.

32

ORG: none

TITLE: Problems of the selection of candidates for special crews [Paper presented at conference on problems of space medicine held in Moscow from 24-27 May 1966]

SOURCE: Konferentsiya po problemam kosmicheskoy meditsiny, 1966. Problemy kosmicheskoy meditsiny. (Problems of space medicine); materialy konferentsii, Moscow, 1966, 81-83

TOPIC TAGS: cosmonaut selection, bioastronautics, space physiology, space psychology, psychophysiology, cosmonaut training

ABSTRACT: The systematic exposure of young test pilots to aviation or space-flight conditions is of importance relative to perfecting methods for selecting pilots and cosmonauts. Considering the caliber of professional activity, the test pilot must be in excellent physical and mental condition.

Selection takes place in three stages: preliminary ambulatory selection, stationary examination in special medical establishments, and elimination during the first months of occupational activity.

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ACC NR: AT6036509

During preliminary selection, the medical commission was given documents describing anamnesis data, general and physical development, and medical treatment in the preceding year. After familiarization with these documents, nearly half the applicants were rejected due to therapeutic status or poor eyesight. During preliminary ambulatory examinations, medical specialists (therapists, otolaryngologists, neuropathologists, surgeons) analyzed blood, urine, EKG's during rest and after exercise, x-ray films of thoracic organs and nasal accessory sinuses, and conducted vestibular and other functional tests. In some cases, spinal x-rays, pressure chamber exposure, etc., were conducted.

Rejections during the first examination phase were high. The main reasons for rejection were ear, nose, and throat ailments, neurocirculatory dystonia, and vestibulo-autonomic instability.

During the stationary phase, an expanded program of clinical, physiological, and specialized tests was used. From 25 to 50% of the candidates who had passed the first phase of examinations were rejected. The main causes of rejection were diseases of internal organs (nearly half the rejects), vestibulo-autonomic instability, ear, nose, and throat diseases, and spinal disorders.

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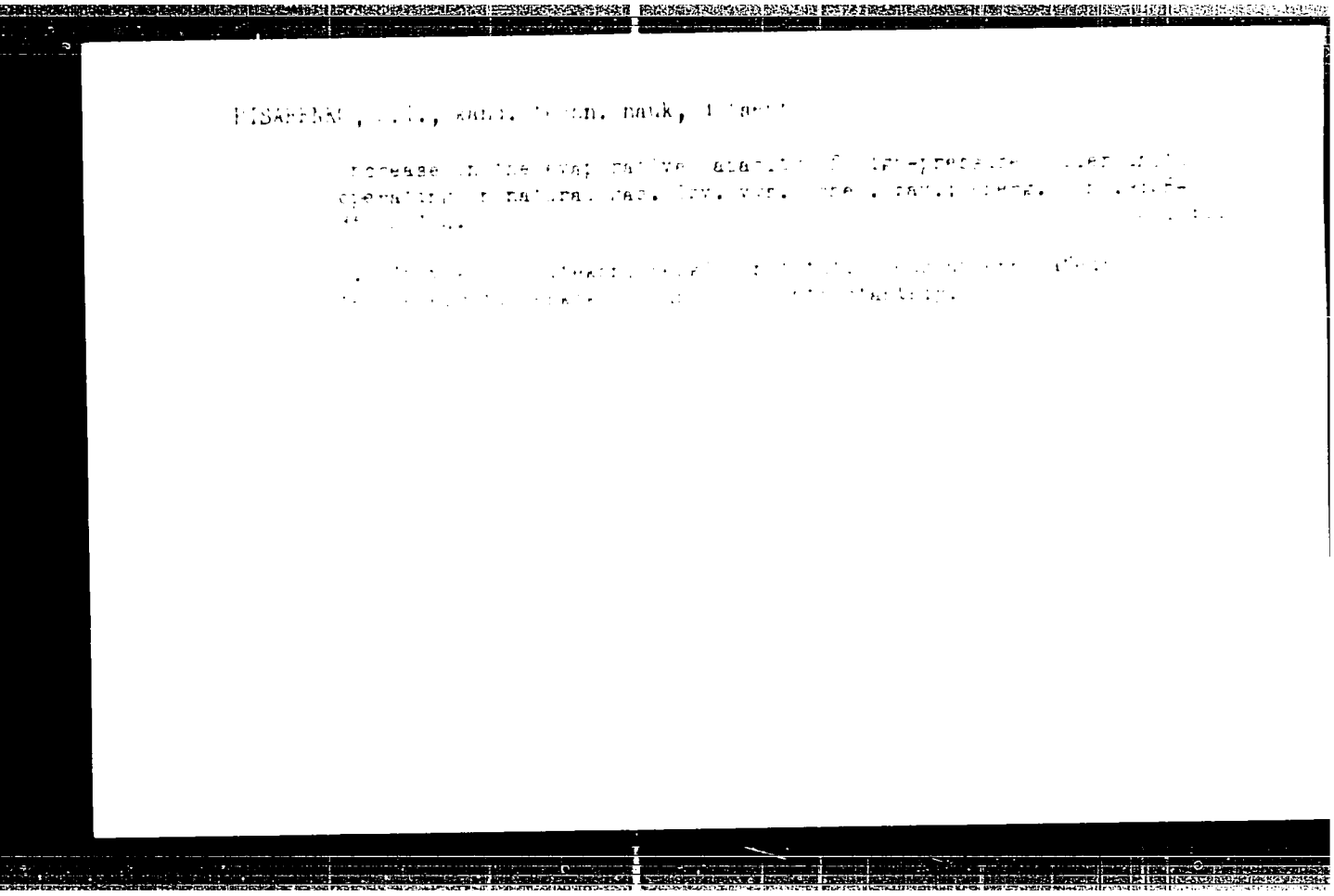
ACC NR: AT6036509

In recent years, rejection of candidates during the second phase has declined as a result of a more detailed examination during the first phase and new methods of examination. For instance, substitution of the standard OR-10 vestibular test with I. I. Bryanov's test (summation of vestibular stimuli during Coriolis accelerations) significantly decreased the number of rejects due to vestibular disorders. At the same time, ear, nose, and throat rejects were more accurately diagnosed by substituting otoscopy and manometric examinations (Politzer and Gerasimov manometers) with pressure chamber tests. Spinal x-rays during the ambulatory phase could not be justified.

The occupational activity of a number of candidates produced some changes which precluded their further participation and caused their rejection from testing work. About 10% of the candidates were found to be unsatisfactory during this phase.

These data permit the examiner to foresee probable deviations in health under occupational conditions during the selection phase, to evaluate individual methods applicable to selection, and to prognose work capacity under the influence of external factors. [W.A. No. 22; ATD Report 66-116]

SUB CODE: 05,06 / SUBM DATE: 00May66
Card 3/3



PISARENKO, S.K., inzh. (Leningrad)

"Reverse" water supply with an overflow pipe in the hot and cold water tanks. Vod. i san. tekh. no.8:23 Ag '62. (MIRA 15:9)

(Water-supply engineering)

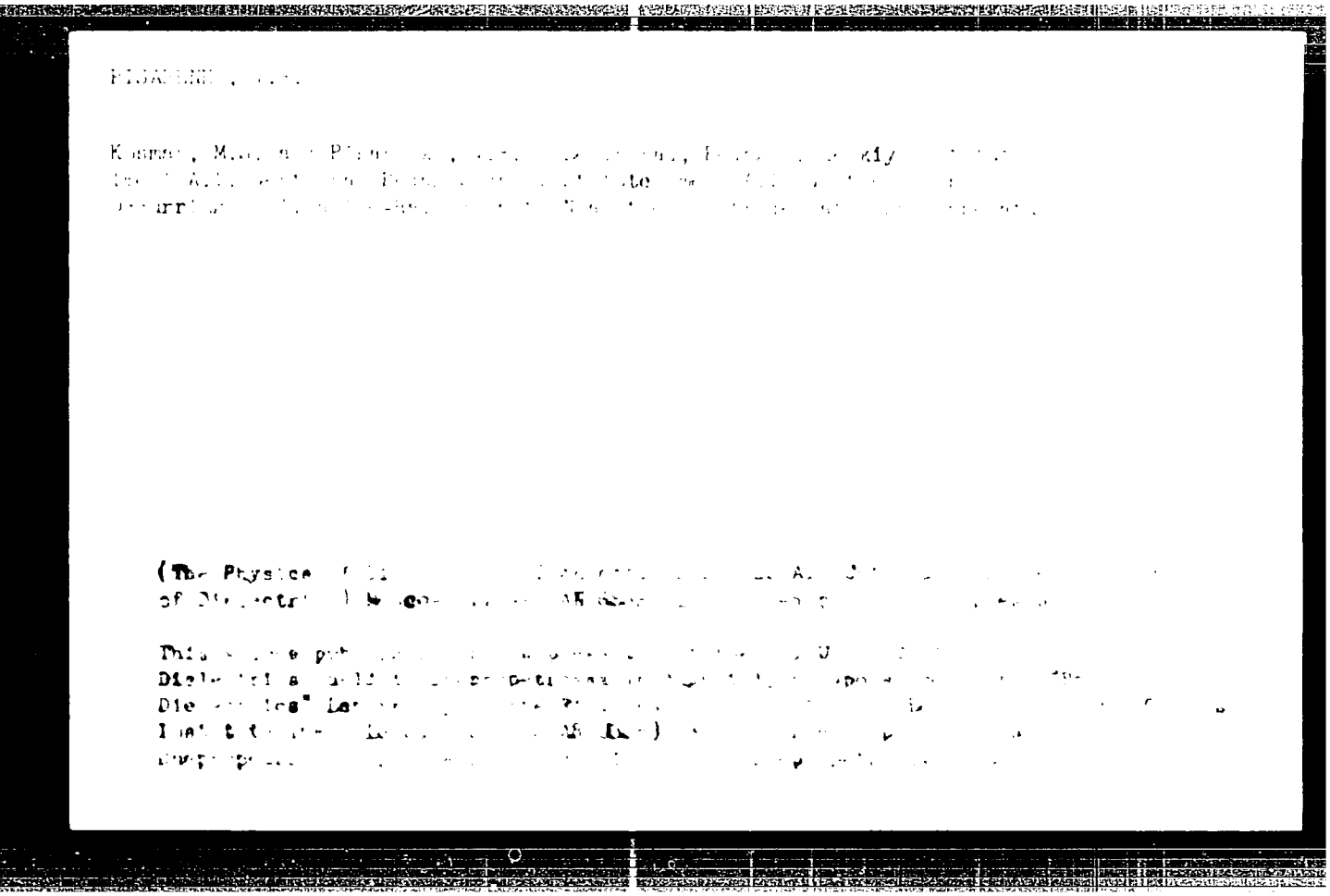
PAPISOV, I. M.; PISARENKO, T. A.; PANASENKO, A.A.; KABANOV, V.A.; KARGIN, V. A., akademik

Nature of the initiator and the phase state of acetaldehyde as influencing the chemical structure of macromolecules formed during acetaldehyde polymerization. Dokl. AN SSSR 156 no. 3:66-467. '64. (MIRA 17:5)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.

YUDIN, Yefim Ivanovich; APONINA, G., vedushchiy redaktor; PISARENKO, V., tekhnicheskiy redaktor

[Founding parts in shell molds] Otlivka detalei v obolochkovye formy. Kiev, Gos.izd-vo tekhn.lit-ry, 1957. 69 p. (MLRA 10:9)
(Shell molding)



PISARENKO, V. F.

4

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21 27

Intercrystalline layers in crystalline phosphors. V. F. Pisarenko (Gertsen State Pedagog. Inst., Leningrad). *Zhur. Fiz. Khim.* 31, 1276-7(1957).—Polemical. In disagreement with Shamovskii, *et al.* (C.A. 49, 1370g) the author found that an x-ray examn. of AgCl(Ag) and KCl-(Ag) phosphors failed to indicate the presence of any intercryst. layers.

W. M. Sternberg

AUTHOR: Pisarenko, V.F. 51-4-22/25

TITLE: Remarks on the work of Hackskaylo. (Zamechaniya o rabotakh Hackskaylo.)

PERIODICAL: "Optika i Spektroskopiya" (Optics and Spectroscopy) 1957, Vol.2, No.4, pp.538-539 (U.S.S.R.)

ABSTRACT: M. Hackskaylo and his co-workers (Phys. Rev., 87, 789, 1952); (J. Chem. Phys., 21, 1434, 1953); (J.Chem. Phys, 21, 552, 1953); (J. Chem. Phys., 23, 1363, 1955) describe metastable NaCl crystals obtained by additive colouring and subsequent electrolytic treatment. Such crystals have low density since they possess 10^{17} pairs of vacancies in 1 cm^3. Their absorption spectrum has two weak bands with maxima at W_1 = 226 mμ and W_2 = 285 mμ. On irradiation with X-rays or ultraviolet light these crystals become coloured with stable F-centres whose density may reach 10^{17} cm^{-3} and their ultraviolet W-bands are partially destroyed. Chemical studies have shown that metastable NaCl contains free Na (10^{17} atoms in 1 cm^3). Hackskaylo et al. regard the formation of vacancies of both types of ions as responsible for all observed effects. The present author agrees with H.F.Ivey(Phys. Rev. 88, 1434, 1952) in regarding the W_1- and W_2- bands as identical with the V-bands not only in NaCl, but also in

Card 1/2

AUTHORS: Kosman, M. S., Pisarenko, V. F. 20-4-16/60

TITLE: Phenomena Within the Electrode Region in Alkali Halide Crystals at High Temperatures (Prielektrodnyye yavleniya v shchelochno-galoidnykh kristallakh pri vysokikh temperaturakh).

PERIODICAL: Doklady Akad.Nauk SSSR, 1957, Vol 115, Nr 4, pp. 693-695 (USSR)

ABSTRACT: The investigation of the optical properties of the region near the electrode of crystals during electrolysis is of great interest. The authors investigated samples of NaCl-, KCl-, KBr- and KJ-crystals. The largest surfaces of these 12x15x5 mm samples were polished and then electrodes of a 10 μ thick aluminum foil were tightly pressed to them. The symples produced in this manner were heated to constant temperatures between 450 and 600°C and exposed to a constant electric field of 50 to 400 V/cm for some minutes to one hour. In this connection the following was measured: the intensity of the current passing through and of the inverse current, the potential difference at the unshortened sample. The variations of amperage and field strength in time are illustrated by a diagram. These processes may be subdivided into two phases: In the first phase the amperage first decreases and then remains constant. The intensity of the inverse current and the potential difference at the ends of the unshortened sample attain

Card 1/2

AUTHOR: Pisarenko, V. F. 20-5-13/54

TITLE: **Conductivity Variation of Potassium Bromide in Strong Fields Within a Temperature Range of 300 - 450° C** (Izmeneniye provodimosti KBr v sil'nykh polyakh v oblasti temperatur 300-450°).

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 115, Nr 5, pp. 898-900 (USSR)

ABSTRACT: The author was able to observe a considerable (100 - 1000 - fold) increase of the conductivity of heated monocrystalline KBr-samples without coloring in relatively strong fields (1000 - 10.000 V/cm). On this occasion no dendrites were produced. The method of investigation has already been described formerly (M. S. Kosman, V. F. Pisarenko, Doklady Akademii Nauk, 1957, Vol. 115, Nr 4), but for the protection of the sample against breakdown a "damping resistance" of 10^5 ohm was switched parallel to the sample in the present instance. An increase of conductivity could be observed between about 300 and 450°. At lower temperatures the dendrites in the samples grow and at a temperature above 450° the samples become colored. The

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Conductivity Variation of Potassium Bromide in Strong Fields Within a Temperature Range of 300 - 450° C

20-5-13/54

change of time of the conductivity of the sample at a constant temperature and voltage is shown in form of a diagram. Conductivity remains constant during a certain time and then increases from a 100 to 1000-fold. On the occasion of the change of the direction of the field, conductivity decreases within a second to its initial value. Passage of the current through the crystal leads to the destruction of the anode, but the cathode is not used up. The volt-ampère characteristic for the crystal with increased conductivity represents a loop-like curve which is not reproduced on the occasion of the repetition of the cycle of voltage change. The crystals with increased conductivity posses different properties than the initial crystals. The domain near the cathode is colored in a layer of about 10 microns. The corresponding absorption spectrum contains F-, M-, U-, and V-bands. These and other phenomena discussed here can be explained by means of the mechanism of electrolysis,

CARD 2/3

PISARENKO, V. F. Cand Phys-Math Sci -- (diss) "Certain electrical and optical properties of alkali-haloid crystals." Len, 195[illegible]. 7 pp (Min of Education RSFSR. Len State Ped Inst im A. I. Gertsen. Chair of General Physics), 100 copies (KL, 11-[illegible], 117)

5 (4 C

68189
SOV/58-59-5-10862

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 5, p 137 (USSR)

AUTHORS Kosman, M.S., Pisarenko, V.F.

TITLE Phenomena Near the Electrodes in Alkali Halide Salts at High Temperatures

PERIODICAL V sb Fiz. dielektrikov Moscow, AS USSR, 1958, pp 89 - 93 Diskus p 99

ABSTRACT The authors studied the absorption spectra of single crystals of KI, KBr, KCl, and NaCl which had been subjected to electrolysis at 450° - 600°C in fields ranging from 40 to 100 V/cm. They observed two phases of change in the current passing through the sample: the first phase was an insignificant initial decrease and subsequent stabilization of the current, the second phase was an increase of current, connected with a coloration of the crystal. V_2-, V_4-, and V_3-bands of weak intensity were detected in samples that had undergone the first phase of change in current in the region near the cathode. After the layer near the cathode has been abraded to a thickness of ~0.05 mm the spectrum of the crystal becomes identical with the initial spectrum. The spectrum of samples that have undergone the second phase of change

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Phenomena Near the Electrodes in Alkali Halide Salts at High Temperatures

in current consists of M-, F-, U-, and V-bands. When colored samples are switched to a circuit with a galvanometer at a high temperature, they deliver 10^{-4} - 10^{-3} coulombs/cm^3 into the external circuit. In this connection the color departs from what had been the anode, and the samples become decolorized. The spectrum of decolorized crystals contains V- and U-bands. The emergence of V-centers can be explained by processes that break out in the thin layer near the cathode and on the boundary between the colored and uncolored parts of the crystal. (Pedagogich.in-t im. Gertsena, Leningrad)

V. Lozovskiy

Card 2/2

[illegible]

AUTHORS: Pisarenko, [illegible] Fedoseyev, [illegible] Tolpygo, A. B. [illegible]

TITLE: Discussions of [illegible] and A. A. Vorob[illegible] V. D. Ku[illegible]; Ye. A. Kon[illegible] V. [illegible] Krasnop[illegible] and G. I. Skanavi [illegible] A. A. Vorob'yeva; L. A. [illegible] Ye. A. [illegible] Kuchina; Ye. A. K[illegible] Skanavi

PERIODICAL: Izvestiya Akademii Nauk SSSR Seriya F[illegible] Vol. [illegible] Nr 4 [illegible] USSR

ABSTRACT: V. B. Pisarenko [illegible] paper by [illegible] A. V[illegible]yev and A. A. Vorob[illegible]yev. He maintains that in the investigation of the breakdown of [illegible] rock salt the influence of space charge was not taken into consideration. I. Ye. [illegible] maintains that the experiments by [illegible] are of great importance, as little research has hitherto been conducted in this field. In the [illegible] Vorob[illegible]yev and Vorob[illegible] the division of breakdown into two stages was not sufficiently

Card 1/3

Discussions on Lectures by: [illegible]
and A. A. Vorob'yev; [illegible]
Ye. A. Koncrova [illegible] V. Kras[illegible]

proved. He considers [illegible] the lecture by Bragin: [illegible] The results [illegible] The investigat[illegible] and therefore cannot be [illegible] Tonkonogov [illegible] y Bragin [illegible] the [illegible] of [illegible] between the [illegible] phenomena [illegible] break down. [illegible] communicates his own experience [illegible] this field. [illegible] contests the results [illegible] communicated in the lecture [illegible] Krasnoperov, K[illegible] and Skanavi. Ye. A. Ko[illegible] answers [illegible] and states [illegible] of [illegible] was impossible. M[illegible] comparison [illegible] thirties are [illegible] employment of [illegible] better samples [illegible] raw material and of a previ[illegible] treatment as well [illegible] that the measurements of breakdown voltage are [illegible] more a[illegible]rately. [illegible] Skanavi comments on the [illegible] and states that the [illegible]

Card 2/[illegible]

Discussions on Lectures by: S. M. Bragin, G. A. Vorob'yev, [illegible]
and A. A. Vorob'yev; L. A. Sorokina and Ye. A. Konorova, V. [illegible]
Ye. A. Konorova, V. V. Krasnopevtsev and G. [illegible] Skinavi

breakdown proves to be of interest. The apprehensions of the authors regarding this problem are to be noticed. Subsequently he deals with some experiments of his own.
There is 1 figure.

AVAILABLE: Library of Congress

[illegible]

Card 3/3

5(4)

AUTHOR: Pisarenko, V. F. SOV/76-32-11-30/42

TITLE: Reply to L. M. Shamovskiy, L. M.Rodionova, G. A. Sidorenko, Yu. N. Zhvanko (Otvet L. M. Shamovskomu, L. M. Rodionovoy, G. A. Sidorenko, Yu. N. Zhvanko)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 11, pp 2646-2647 (USSR)

ABSTRACT: It is pointed out that in the paper (Ref 1) and the letter (Ref 2) there are two essential contradictions. One refers to the annealing temperature of NaCl and NaCl(Ag) crystals, whereas the other is to be found in the data on the sample thicknesses. Thus it is found that the data in reference 1 and reference 2 do not agree. With respect to the observations made in the paper (Ref 1) the following is found: The splitting of the Laue diagrams is carried out by a primary extinction which due to existing impurities in the sample (disturbance of the ideal lattice) is considerably decreased. This is also the case in an isomorphous "introduction" of "impurity atoms" into the basic lattice; this may be seen by the example of the radiogram of KJ-KBr in the paper (Ref 1). It is assumed that

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SOV/76-32-11-30/[illegible]

Reply to L. M. Shamovskiy, L. M. Rotkinova, G. A. Sidorenko, Yu. N. Zhvanko

the authors mentioned in the title observed a primary extinction in their work [Ref. 1], but that they did not realize it as such. In a note by the editors a new paper by L. M. Shamovskiy, L. L. Rotkinova and A. S. Glushkova [Izvestiya AN SSSR, Ser. fizich. 22, [illegible] 1958], is pointed out.
There are [illegible] references.

SUBMITTED: November 25, [illegible]

Card 2/2

SOV/58-59-9-20516

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 9, p 146 (USSR)

AUTHOR: Pisarenko, V.F.

TITLE: Peculiarities of Behavior of Alkali-Halide Crystals in Strong Electric Fields at Temperatures of 300° to 450°C

PERIODICAL: Uch. zap. Leningr. gos. ped. in-ta im. A.I. Gertsena, ..., V. ..., pp 23? - ..

ABSTRACT: The author reports on the results of studying the irreversible increase in the conductivity of KBr when samples are kept a long time in strong electric fields at elevated temperatures (this phenomenon was observed earlier by Shefer in the case of $BaTiO_3$; cf. RZhFiz, 1955, Nr 5, 11635). Some aspects of the formation of dendrites in NaCl, KCl and KBr are also discussed. Samples with dimensions of ? · 15 · 15 mm^3 were pricked out along the cleavage planes of single crystals grown by the Kiropoulus method. The following quantities were measured: the magnitude of the current through the sample, the voltage on it, the reverse current, the temperature of the sample, the time of electrolysis, and the spectral distribution of photoconductivity. The measurements were

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SOV/58-59-9-20516

Peculiarities of Behavior of Alkali-Halide Crystals in Strong Electric Fields at Temperatures of 300° to 450°C

carried out in permanent fields with a voltage of 103 to 104 V/cm and at temperatures up to 600°C. It was found that in sufficiently strong fields the current, after showing an initial diminution, does not change and then increases. Depending on the temperature, the increase in the conductivity of KCl and NaCl is caused either by the intergrowth of dendrites or by coloration. In the case of KBr (and, perhaps, KCl) three temperature regions were found, in which the increase in current, besides the "Shefer effects", is apparently also connected with processes taking place near the electrodes: the variation in thickness of the space-charge layers and the ratio between the field strengths at the cathode and the anode. The greatest increase in conductivity (by 2 to 3 times) was observed for KBr in fields of 103 to 104 V/cm at temperatures of 300° to 450°C. With a reduction of impurities in the sample the boundaries of the region shift toward the higher temperatures. Increased conductivity is annulled by a field of opposite sign. The processes in KBr are similar to the "Shefer effect" in BaTiO3.

I.F. Kalinkin

Card 1/2

S/058/62/000/006/077/136
A061/A101

AUTHOR: Pisarenko, V. F.

TITLE: Problem of the electron conductivity of KCl containing metal impurities

PERIODICAL: Referativnyy zhurnal, Fizika, no. 6, 1962, 24, abstract 6E205 ("Uch. zap. Kabardino-Balkarsk. un-t", 1961, no. 14, 130 - 135)

TEXT: The conductivity, σ, of KCl crystals with Ca, Mg impurities and traces of Al, Cu, Cr, Zn, Ni, Ce, and La at 300 - 500°C has been studied. During the passage of current, σ increases rapidly, and the more so, the higher temperature and voltage. In addition, the crystal acquires a brown color (not the color of F centers). Annealing at 650°C and the commutation of current do not remove the brown color. If the crystal is heated to 500°C during the passage of current, F centers appear. No dendrites are found in the crystal, nor are there traces of electrolysis to be seen near or on the electrodes. This shows that the current is of an electron nature. The absorption spectrum of the "brown" crystal discloses a weak F band and absorption bands with maxima at 445, 390, 328, and 245 mμ.

[Abstracter's note: Complete translation] V. Yuzhakov

Card 1/1

[illegible] 00[illegible] [illegible]

AUTHOR: Pisarenko, [illegible]

TITLE: [illegible] KCl [illegible] temperatures [illegible]

PERIODICAL: Fizika [illegible] [illegible]

TEXT: Crystals were examined [illegible] the temperature range in which [illegible] increases [illegible] without being [illegible] any appreciable structural modification. This phenomenon had been [illegible] observed in KBr [illegible] modification. This phenomenon had been earlier observed in KBr [illegible] were applied to single crystals [illegible] and the current strength in them was measured at different temperatures. A polarization-emf between [illegible] and [illegible] was [illegible] reversing the polarity of the field. A [illegible] preceded definite [illegible] after [illegible] O m[illegible]. At the same time chlorine formation which took place after [illegible] in front of it displayed separated at the anode, and thin crystal [illegible] the appearance of coloring due to colloidal potassium [illegible] near the cathode. On F-centers. Pale [illegible] spots appeared [illegible] The ratio field polarity reversal [illegible] for various specimens. It R_{before} / R_{after} ranged between [illegible]

Card [illegible]

[illegible] 00[illegible] 0[illegible]0 0[illegible] 0[illegible]

Pre breakdown effects in KCl

dropped with progressive [illegible] always remained higher [illegible] unity. As the specimens [illegible] effects were established. The internal reversible [illegible] and the other irreversible and negative. The current [illegible] represented in Fig. [illegible] are explained by electrons from [illegible] traps in the crystal. As a [illegible] the current diminishes rapidly [illegible] released electrons escape from the traps [illegible] A volume charge [illegible] appears and electrons which escape from the [illegible] The irreversible and negative photoelectric effect [illegible] explained in a similar manner. The following is stated in [illegible] dendrite growth is a consequence of thermionic emission from the [illegible] As the dendrite grows, conductivity rises by a factor of [illegible] In the case of illumination [illegible] conductivity [illegible] between [illegible] and 40 C [illegible] Specimens with an intergrown dendrite exhibit a positive inner photoelectric effect at room temperature. A. F. [illegible] Fizika kristall. v. [illegible] and N. A. Petrova [illegible] Soviet references are mentioned. There are [illegible] figures [illegible] and [illegible] Soviet references.

Card [illegible]

[illegible] 81,007 S40,S42,S[illegible]

Pre-br[illegible] effect[illegible] in KCl...

ASSOCIATION: Krasnodarskiy gosudarstvennyy pedagogicheskiy institut im. 40-letiya VLKSM (Krasnodar State Pedagogical Institute imeni 40-letiya VLKSM)

SUBMITTED: May [illegible]

Fig. 4. Example of [illegible] current rise [illegible] specimen.

Le[illegible]: [illegible] min.

✓

Card 3/4

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001341020015-4"

ACCESSION NR: AR4015632 S/0081/63/000/022/0046/0046

SOURCE: RZh. Khimiya, Abs. 22B257

AUTHOR: Pisarenko, V. F.

TITLE: The effect of an admixture of ions of the rare earth elements on the electrical conductivity of KCl

CITED SOURCE: Uch. zap. Kabardino-Balkarsk. un-t, vy*p. 16, 1962, 262-263

TOPIC TAGS: electrical conductivity, KCl conductivity, rare earth, rare earth ion conductivity, monocrystal, KCl monocrystal, KCl monocrystal Ce impurity

TRANSLATION: During cultivation of a monocrystal of KCl, incorporation of Ce is impossible, because Ce compounds are insoluble in molten KCl at about 800C. In one KCl monocrystal, left for 15 days in the crucible in which it was cultivated, Ce was discovered in a surface layer of 4 mm thickness. Samples cut from this monocrystal were colored with an F-center dye in preelectrode areas at 300-400C in a field of about 3000 v/cm. At the time of coloring the electrical conductivity of the samples increased. A change of polarity led to an increase

Card 1/2

ACCESSION NR: AR4015632

in current, which then fell back to its original value. V. Marichev

DATE ACQ: 07Jan64 SUB CODE: CH ENCL: 00

Card 2/2

L 57610-65 EEC-2/EWT(1)/EEC-4/EED-2/EWA(h) Pn-4/Peb/P1-4 JM

ACCESSION NR: AP5015096 UR/0052/65/010/002/0323/0328

AUTHOR: Pisarenko, V. F. (Moscow)

TITLE: Computation of the likelihood ratio for Gaussian processes with rational spectrum

SOURCE: Teoriya veroyatnostey i yeye primeneniya, v. 10, no. 2, 1965, 323-328

TOPIC TAGS: Gaussian noise, statistical analysis, random process

ABSTRACT: Let

$$f_k(x) = \left| \frac{Q_k(i\lambda)}{P_k(i\lambda)} \right|^2, \quad k = 1,2 \qquad (1)$$

where $P_k(z)$ and $Q_k(z)$ are polynomials with negative real parts by the spectral densities of two real Gaussian stationary processes $\xi_k(t)$, $0 \le t \le T$. Under the assumption that the measures describing ξ_1 and ξ_2 are mutually absolutely continuous, the author writes the logarithm of the likelihood ratio $L(T)$ in the form

$$\log L(T) = -\frac{1}{2}\log\prod_1^\infty \nu_m + \frac{1}{2}\sum_1^\infty \frac{1-\nu_m}{\nu_m}\eta_m^2 \qquad (2)$$

Card 1/2

L 57610-65
ACCESSION NR: AP5015096

where ν_m are the eigenvalues of the operator B defined in the Hilbert space $H_1(t)$ associated with ξ_1, by $B_1([B\xi]\eta) = B_2(\xi,\eta)$. Here γ_m are independent Gaussian random variables from H_1 with unit variance, while $\vec{\eta}_m$ are from H_2 and are independent, with Var $\vec{\eta}_m = \nu_m$. He gives a simple approximate expression for log L(T), as well as a method for computing the first and second summands in (2), different from that of J. Hájek (On linear statistical problems in stochastic processes, Chekhosl. matem. sh., 12, 3 (1962), 404-444). Orig. art. has: 13 formulas.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MA

NO REF SOV: 003 OTHER: 004

Card 2/2

PISARENKO, V.F.; ROZANOV, Yu.A.

Some problems for steady-state processes leading to integral equations related to Wiener-Hopf equations. Probl. pered. inform. no.14:113-135 '63. (MIRA 16:12)

PISARENKO, V.F.

Wiener-Hopf type of equation for n-dimensional random processes with rational spectral density. Dokl. AN SSSR 149 no.4:776-779 Ap '63. (MIRA 16:3)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova. Predstavlenc akademikom A.N.Kolmogorovym.
(Differential equations) (Random processes)

L 9018-65 EWT(d)/T IJP(c)/ASD(a)-5/RAEM(t)/AFWL/ESD(t)

ACCESSION NR: AR4043052 S/0044/64/000/006/V026/V026

SOURCE: Ref. zh. Matematika, Abs. 6V148

AUTHOR: Pisarenko, V. F.

B

16

TITLE: Estimation of parameters of the Gaussian stationary process with spectral density /P(iλ)/ sup -2

CITED SOURCE: Lit. matem. sb., v. 2, no. 2, 1963, 159-167

TOPIC TAGS: Gaussian stationary process, spectral density, polynomial, complex variable, maximal probability condition, asymptotically normal distribution

TRANSLATION: This is an examination of the Gaussian stationary process t with spectral density $/P(i\lambda)/^{-2}$, where $P(i\lambda)$ is a polynomial with the real coefficients $p_0, p_1 \ldots\ldots p_{n-1}$ whose root lies in the upper half-plane of the complex variable λ. Properties are studied of the estimate of maximal probability $\hat{p}_T$ of the parameter

$$p = (p_0, p_1, \ldots, p_{n-1}),\ p \in P.$$

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L 9018-65

ACCESSION NR: AR4043052

0

to be determined by realizing the process ξ_t on the segment (o,T). Here P is the limited region in the n-measuring space, the end of P lying in the lower range of the possible values of parameter p. It is shown that if T $\to\infty$ an estimate of maximal probability exists which has a probability very close to unity; this is evenly asymptotically normal and asymptotically efficient over the whole p $\in$ P. Another estimate, $\tilde{p}_T$, is also presented; this is also asymptotically normal and asymptotically efficient; however, in contrast to $\tilde{p}_T$, it is determined from the system of n linear equations and depends only upon n sufficient statistical values. A means is shown to compute probable ranges for the parameter p. The question of estimating some function f(p) from the parameter is discussed. Similar results are formulated for the process with discrete time. M. Fortus

SUB CODE: MA ENCL: 00

Card 2/2

ACC NR: AT6033059 SOURCE CODE: UR/3231/66/000/001/0160/01?0

[illegible], V. [illegible], T. G.

[illegible]

TITLE: [illegible] the station and the focus on the accuracy [illegible] of seismic parameters

SOURCE: AN SSSR. Institut fiziki Zemli. Vychislitel'naya seysmologiya, no. [illegible], 1966. Analiz seysmicheskikh nablyudeniy na elektronnykh mashinakh (Use of electronic computers in the analysis of seismic observations), 160-1[illegible]0

TOPIC TAGS: earthquake, seismologic station, seismicity, statistic analysis

ABSTRACT: The recording of earthquakes [illegible] at every individual station [illegible] some unknown local features and other variables; this causes distortion of the recorded period. Another disturbing factor is the earthquake focus, which generates oscillations with a particular inherent period. In this connection the author presents a new, more accurate statistical method of evaluating the accuracy of the averaging of measurements, based on analysis of variance and the Fischer test. A quantitative measure of the proportion of the effect of specific factors (features of the focus $\gamma_{[illegible]}$, features of the station γ_{ii}, gaussian noise

APPROVED FOR RELEASE: 07/13/2001 CIA-RDP86-00513R001341020015-4"

ACC NR: AT6033669

ν_ϵ) on the scatter of observational findings is introduced. This measure is determined from the formula $\nu_i = \frac{s_i^2}{s^2}$, where s_i^2 is the variance due to this particular scatter and s^2 is the total variance of the individual measurement. It is shown that a large number of averaged measurements is not necessarily required for a high accuracy of the results of the averaging. On estimating by means of prior sampling the variance s^2 of the individual measurement and the degree of influence of one random factor or another, ν_ξ, ν_n, ν_ϵ, it is possible to optimally organize the selection of material for further observations. Orig. art. has: 31 formulas, 4 tables, 1 figure.

SUB CODE: 05, 12, 20/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 001

Card 2/2

ACC NR: AT6033696 SOURCE CODE: UR/3231/66/000/002/0150/0182

AUTHOR: Pisarenko, V. F., Rantsman, T. G.

ORG: none

TITLE: Statistical classification by several characteristics [Pattern Recognition]

SOURCE: AN SSSR. Institut fiziki Zemli. Vychislitel'naya seysmologiya, no. 2, 1966. Mashinnaya interpretatsiya seysmicheskikh voln (Machine interpretation of seismic waves), 150-182

TOPIC TAGS: earthquake, seismic wave, statistic analysis, pattern recognition, seismology

ABSTRACT: A convenient and practical method of statistical discrimination, dispensing with the enormous number of observations that would otherwise be required when applying the Neyman-Pearson test to seismological problems, is proposed. The determining quantity in this method is " a posteriori " probability, calculated on assuming independence of parameters, thus reducing sharply the required amount of source data ("learning material"). The application of this method is illustrated by showing how deep earthquakes can be distinguished from shallow earthquakes according to dynamic characteristics of the tracing. 50 tracings each of deep (H > 50 km) and shallow (with foci within the earth's crust) earthquakes are employed as

Card 1/2

ACC NR: AT6033696

the learning material. Four parameters are considered, (apparent oscillation frequency f_P of P-waves; apparent oscillation frequency f_S of S-waves, time t_{max} between first arrival and maximum amplitude of P-waves, ratio A_P/A_b between maximum amplitude of P waves and mean amplitude of the "background" of oscillations in the interval between P- and S-wave groups), of which two (f_S and f_P) are linked by linear correlation to a correlation factor of the order of 0.6. It is shown that this correlation may be disregarded without detriment to soundness of discrimination, i.e. to percentage of erroneous solutions. It is estimated that, with respect to the characteristics considered, deep earthquakes can be correctly distinguished from shallow earthquakes in 87 $\pm$ 3% of cases. Orig. art. has: 6 figures, 6 tables, 16 formulas

SUB CODE: 08, [illegible] 12, 09 [illegible]/ SUBM DATE: none/ ORIG REF: 007/ OTH REF: 003

Card 2/2

86038

6.8000 (3201, 1099, 1162)

AUTHORS: Brekhovskikh, L. M., Corresponding Member of the AS USSR, Yevtushenko, V. A., Makarov, [illegible] and [illegible]

TITLE: Vertical Profile of Sound Propagation Velocity in the Ocean

PERIODICAL: Doklady Akademii nauk SSSR, [illegible]

TEXT: The authors describe a new method of determining the sound velocity in dependence of the depth of the ocean using the so-called "characteristic points". The ocean depth is divided into a certain number of layers taking their physical and chemical characteristics into account. Each curve which characterizes the mutual dependence of sound velocity and depth is approximated by a broken line, where the dc/dz gradient is constant within each individual layer (c is the sound velocity, z is the ocean depth). The salient points of this curve are the characteristic points in the c-z plane, for which the mean depth and the sound velocity are determined. By changing in time the curve c = c(z) a family of curves is obtained which describe the actual [illegible] much better [illegible]

Card 1/3

86038

Vertical Profile of Sound Propagation [illegible]
Velocity in the Ocean [illegible]

when there are sharp deviations [illegible] the [illegible] The new method [illegible] advantageous through these parameters [illegible] analysis [illegible] The authors were able to determine two types of vertical distribution [illegible] the sonic velocity in a [illegible] degree square [illegible] the North-west Atlantic. The warm Gulfstream influences the first distribution type and [illegible] divided into five layers. The cold Labrador stream influences the other distribution type and can be divided into four layers. Fig. [illegible] shows [illegible] distribution types. The authors thank V. Ya. Tolkachev, G. I. Merin[illegible], N. P. Markova, and N. A. Smirnova for the calculations done. The Gosudarstvennyy okeanograficheskiy institut (State Institute of Oceanography) is mentioned. Legend to Fig. [illegible]: A is the first type of the velocity distribution and B the second. There are [illegible] figures and [illegible] references.

ASSOCIATION: Akusticheskiy institut Akademii nauk SSSR (Institute of Acoustics of the Academy of Sciences, USSR)

SUBMITTED: August [illegible]

Card [illegible]

S/109/61/006/004/003/025
E140/E163

6.9460

AUTHOR: Pisarenko, V.F.

TITLE: The detection of a random signal on a noise background

PERIODICAL: Radiotekhnika i elektronika, Vol.6, No.4, 1961, pp. 514-528

TEXT: The author considers the case where both the signal and noise are random processes. Previous treatments of such problems have studied the values of the process observed at discrete time intervals. The detection characteristics have, as a rule, only been obtained in explicit form where the values of the observed process at the times of observation could be considered independent. The author attempts to solve the problem where all values of the observed process in a certain time interval are available. While the continuous process could be assumed as the limit of a discrete process as the points of observation increase in number, for correlated quantities the calculations are in principle difficult. In effect, it is necessary to invert a matrix of order n, where n is the number of discrete times of observation. On the other hand, with continuous observation, the problem reduces

S/109/61/006/004/003/025
E140/E163

The detection of a random signal..

to finding the characteristic numbers of certain integral equations, and to the solution of these equations, in which the author has succeeded for certain classes of signals and noise. While it is intuitively clear that the information of a given realisation of a process is more completely used in continuous observation than in discrete observation, the author makes no quantitative comparisons since the results for discrete observation have not been calculated. However, where the distance between the points of discrete observation are much smaller than the correlation intervals of the signal and the noise, it could be assumed that the real detection characteristics for the two cases are the same. The formulae derived in the paper appear to the author to be original, but he indicates that the derivations are not rigorous, and this question should be examined later.
Acknowledgements are expressed to R.L. Dobrushin who directed the work, and to M.A. Isakovich for his remarks during the discussion.
There are 14 references: 5 Soviet and 9 English.

·/109/61/006/0[illegible]3/023
E140/E163

The detection of a [illegible] signal on a noise background

ASSOCIATION: Mekhaniko-matematicheskiy fakul'tet Moskovskogo gosudarstvennogo universiteta im. M.V. Lomonosova Kafedra teorii verovatnostey
(Division of Mechanics and Mathematics of Moscow State University imeni M.V. Lomonosov, Department of Theory of Probabilities)

SUBMITTED: December 5, 1959

Card 3/3

PISARENKO, V.I.; RA[illegible]T, L.G.; KORETSKAYA, L.S.

Authors' abstracts. Zhur.mikrobiol., epid. i immun. 42 no.2:143 F '65. (MIRA 18:6)

1. Dushanbinskiy institut epidemiologii i gigiyeny.

PISARENKO, F.S.; PISARENKO, V.I.

New variants of a nutrient medium used in the bacteriological diagnosis of whooping cough. Zdrav. Tadzh. 7 no. 3:42-44 My-Je '60. (MIRA 14:4)

1. Iz Stalinabadskogo instituta epidemiologii i gigiyeny.
(BACTERIOLOGY—CULTURES AND CULTURE MEDIA)
(WHOOPING COUGH)

PISARENKO, V.I.; YELFIMOVA, V.Z

Immunological indications in the descendants of animals immunized with whooping cough vaccine. Zdrav. Tadzh. no.1:32-35 Ja-F '6-.

1. Iz Dushanbinskogo instituta epidemiologii i gigiyeny.

(WHOOPING COUGH)

PISARENKO, V. I.

PISARENKO, V. I. -- "Agglutinins in Dysentery of Children. Based on Material from the City of Stalinabad." Samarkand State Medical Inst Imeni Academician I. P. Pavlov. Stalinabad, 1955. (Dissertation for the Degree of Candidate in Medical Sciences).

So.: Knizhnaya Letopis', No. 6, 1956.

SHAPIRO, S.Ye.,; PISARENKO, V.I.

Widal's reaction in paratyphoid fever patients treated with levomycetin and synthomycin. Zhur. mikrobiol. epid. i immun. 27 no.2:64 F '56. (MLRA 9:5)

1. Iz Tadzhikskogo instituta epidemiologii, mikrobiologii i gigiyeny.
(PARATYPHOID FEVER) (ANTIBIOTICS)

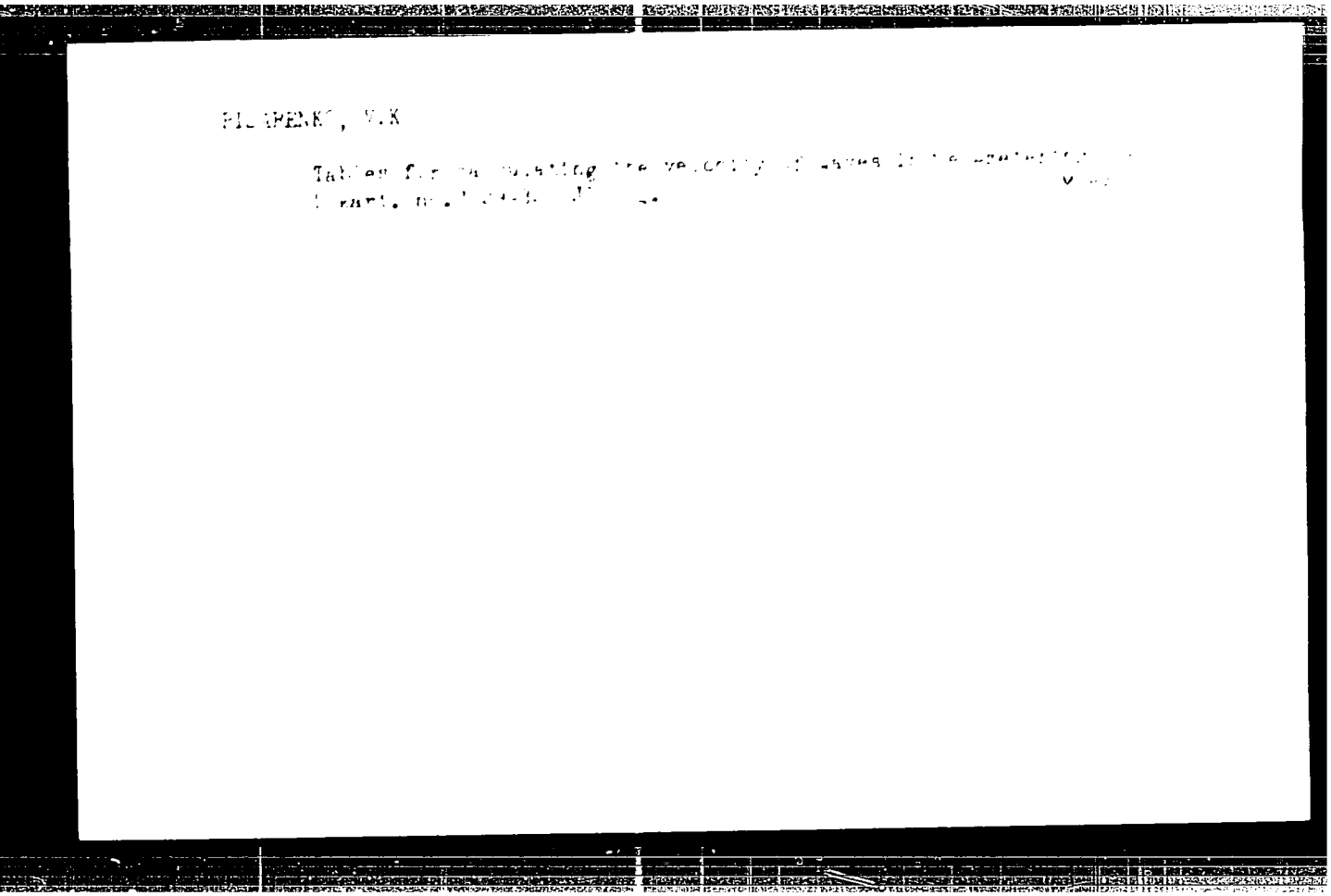
PISARENKO, F.S.; PISARENKO, V.I.

Dry bean hydrolysate medium with albumin for the cultivation of the causative agent of whooping cough. Zdrav. Tadzh. 8 no.4:43-4 Jl-Ag '61. (MIRA 14:10)

(BACTERIOLOGY—CULTURES AND CULTURE MEDIA)
(WHOOPING COUGH)

SHVIDENKO, V.I.; AL'PEROVICH, S.Z., redaktor; PISARENKO, V.I., tekhnicheskiy redaktor.

[Selecting machinery for the installation of structural units] Vybor mashin dlia montazha stroitel'nykh konstruktsii. Kiev, Gos. izd-vo tekhnicheskoi lit-ry USSR, 1953. 73 p. [Microfilm] (Building machinery) (Cranes, derricks, etc.) (MLRA 7:12)



PISARENKO, V.N.; POGORELOV, A.G.; NOVIKOVA, L.A.; IVANOVA, N.G.; KONONOV, N.F.

Use of multiple regression equations for the quantitative analysis of heterogeneous catalysis. Zav.lab. 30 no.3:[illegible] '64. (MIRA 17:[illegible])

1. Institut organicheskoy khimii AN SSSR.

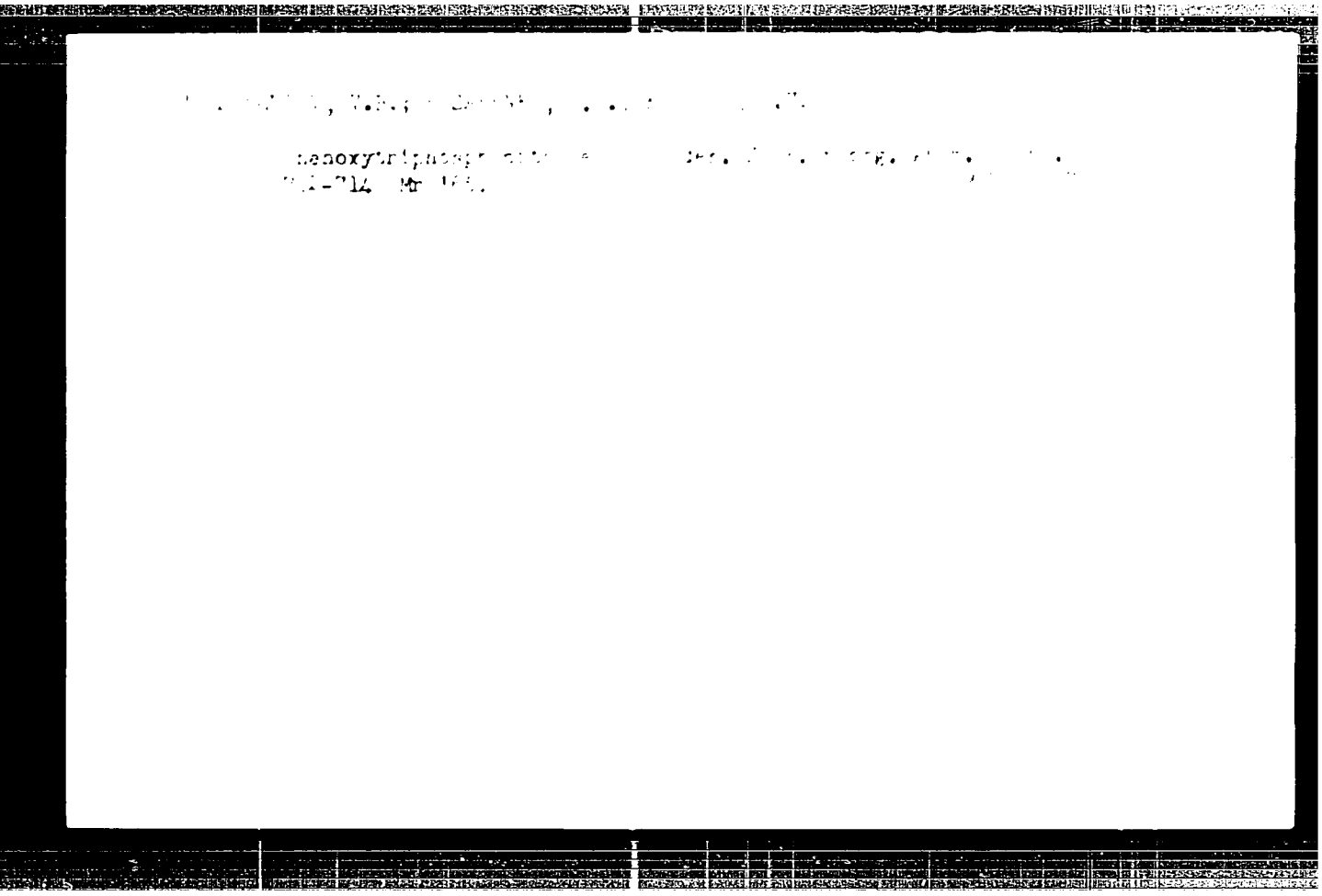
[illegible], A.I., inzh.; [illegible], L.L., inzh., [illegible], V.[illegible], inzh.

Highly maneuverable driving part of a track-gas manipulator.
Vest.mashinostr. 46 no.1:42-45 Ja '66.

MIRONOV, V.F.; PETROV, A.D.; PISARENKO, V.V.

High temperature condensation of alkyldichlorosilanes with chloroolefins. Dokl. AN SSSR 124 no.1:102-104 Ja '59.
(MIRA 12:1)

1.Chlen-korrespondent AN SSSR. (for Petrov). 2.Institut organicheskoy khimii imeni N.D. Zelinskogo AN SSSR.
(Silane) (Olefins)
(Condensation products (Chemistry))



5(3)

AUTHORS: Mironov, V. F., Petrov, A. D., Corresponding Member, AS USSR, Pisarenko, V. V.

SOV/20-124-1-28/69

TITLE: High-Temperature Condensation of Alkyl Dichloro-Silanes With Chloroolefins(Vysokotemperaturnaya kondensatsiya alkildikhlorsilanov s khlorolefinami)

PERIODICAL: Doklady Akademii nauk SSSR,1959,Vol 124, Nr 1,pp 102-104 (USSR)

ABSTRACT: The authors present a survey of publications (Refs 1-4) regarding the reaction mentioned in the title. In the present paper it was established that not only $(CH_3)Cl_2SiH$ with vinyl chloride is condensed at 600° to give vinyl methyl-dichloro-silane but that also $(C_2H_5)SiCl_2H$ with vinyl chloride gives vinyl ethyl-dichloro-silane in a 27% yield. This was possible not only in a glass tube but also in an iron tube without considerably affecting the yield. Trialkyl silane,however,cannot be condensed with vinyl chloride as this reaction proceeds according to another scheme. The author further found that the condensation of $(CH_3)Cl_2SiH$ both with cis and trans-dichloro-ethylene gives the same results, namely 20% yields of $Cl_2(CH_3)SiCH=CHSi(CH_3)Cl_2$ (structure proved by means of methylation and Raman spectra

Card 1/3

taken and interpreted by L. A. Leytes and Yu. P. Yegorov). Irrespective of the fact whether methallyl chloride or isocrotyl chloride was used for the condensation, $Cl_2(CH_3)SiCH - C(CH_3)_2$ (about 13%), small amounts of $Cl_2 CH_3 SiCH_2C - \underset{CH_3}{CH_2}$ as well as a mixture of xylenes were isolated on the whole. Allyl chloride can be condensed also with methyl dichloro-silane and forms (30% yield) allyl methyl dichloro-silane. A small amount (in the iron tube a larger one) of propenyl methyl dichloro-silane is then the result. Chloro-aryls can be condensed in an analogous manner, but the saturated halogen alkyls are not able to condense with hydric silanes. Surprisingly, $(CH_3)Cl_2SiH$ reacted with ethylene, mainly vinyl methyl dichloro-silane (14% yield) was formed. A condensation of $ClCF - CF_2$ with $(CH_3)Cl_2SiH$ [illegible] flames and a detonation broke out in the tube above 500°, thus often causing the tube to be destroyed.

High-Temperature Condensation of Alkyl Dichloro- SOV/20-124-1-[illegible]/69
Silanes With Chloroolefins

A fraction 97 - 100° could however be isolated which probably (according to KRS spectrum) contains $(CH_3)Cl_2SiCF = CF_2$. There are 10 references, 6 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: June 19, 1958

Card 3/3

L 36298-65 EWT(m)/EPF(c)/EPR/EWP(j)/T Pc-4/Pr-4/Ps-4 RPL WW/RM
ACCESSION NR: AP5008487 S/0078/65/010/003/0712/0714

AUTHOR: Tolstoguzov, V. B.; Pisarenko, V. V.; Kireyev, V. V. 27 B

TITLE: (Phenoxy)triphosphonitrile chlorides

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 3, 1965, 712-714

TOPIC TAGS: (phenoxy)triphosphonitrile chloride synthesis, (phenoxy)triphosphonitrile chloride property

ABSTRACT: Mono-, bis-, tris- and tetrakis(phenoxy)triphosphonitrile chlorides, not previously described, have been synthesized from the trimer of phosphonitrile chloride and alkali metal phenolates in benzene or toluene solution. The preparation conditions, yields, compositions, and constants of the synthesized compounds are given. Their IR spectra were taken and interpreted. Orig. art. has: 1 figure and 2 tables. [BO]

ASSOCIATION: none

SUBMITTED: 15Apr64 ENCL: 00 SUB CODE: GC

NO REF SOV: 001 OTHER: 008 ATD PRESS: 3220

Card 1/1

PISARENKO, Ye.I.

VISHNEVSKAYA, S.M.; UDOVICHENKO, G.S.; BIRYUKOVA, K.V.; GERGIL'SKIY, V.L.; MUKVOZ, L.G.; RUBNITSKAYA, N.B.; KORNIYENKO, Ye.I.; GUREVICH, Ye.N.; PISARENKO, Ye.I.; GELLER, I.Yu.; LOI, T.D.; SHEVCHUK, M.K.; KHVALIBOVA, Ye.K.

Epidemiology and prevention of helminth infections in the region of construction of the Kakhovka hydroelectric project and the South Ukrainian Canal. Med. paraz. i paraz. bol. no.3:244-248 Jl-S '54. (MLRA 8:2)

1. Iz gel'mintologicheskogo otdela Ukrainskogo nauchno-issledovatel'skogo instituta malyarii i meditsinskoy parazitologii imeni prof. Rubashkina (dir. instituta I.A.Demchenko, zav. otdelom prof. Ye.S. Shul'man), iz epidemiologicheskogo otdela Kiyevskogo instituta epidemiologii i mikrobiologii (dir. instituta S.N.Terekhov, zav. otdelom otsent Yu.Ye.Birkovskiy), iz kafedry biologii i parazitologii Dnepropetrovskogo meditsinskogo instituta (zav. kafedroy dotsent V.L. Gerbil'skiy), iz Zaporozhskoy oblastnoy protivomalyariynoy stantsii (zav. stantsiyey I.P.Agafonov), iz Dnepropetrovskoy oblastnoy protivomalyariynoy stantsii (zav. stantsiyey M.K.Shevchuk, iz Nikolayevskoy oblastnoy protivomalyariynoy stantsii (zav. stantsiyey S.I.Ganyuni).

(HELMINTH INFECTIONS, prevention and control, Russia, on construction of waterways)

PISARENKO, Ye.I.

VISHNEVSKAYA, S.M.; SHEVCHUK, M.K.; KRAMARENKO, D.P.; KHVALIBOVA, E.I.; MUKVOZ, L.G.; GUREVICH, Ye.P.; KORNIYENKO, Ye.I.; POTEYEVA, N.A.; PISARENKO, Ye.I.; LOY, D.D.; KORABLEV, N.G.; GELLER, I.Yu.

Epidemiology and prevention of helminth infections in the zone affected by the construction of Kakhovska reservoir and ghydroelectric station and the Upper-Ingulets Canal. Med.paraz. i paraz. bol. 25 no.2:121-127 Ap-Je '56. (MLRA 9:8)

1. Iz gel'mintologicheskogo otdeleniya Instituta malyarii i meditsinskoy parazitologii imeni prof. V.Ya.Rubashkina Ministerstva zdravookhraneniya Ukrainskoy SSR (dir. instituta I.A.Demchenko, zav. otdeleniyem - prof. Ye.S.Shul'man) i Dnepropetrovskoy Zaporozhskoy, Khersonskoy, Nikolayevskoy oblastnykh sanitarno-epidemiologicheskikh stantsiy.

(HELMINTH INFECTIONS, prev. and control in Russia, eff. of reservoir & canal constructions)

PISARENKO, E.Ye.

Kherson shipbuilding yard is 150 years old. Mech.transp. 15 no.7: 29-32 Jl '56. (MLRA 9:9)
(Kherson--Shipbuilding)

L 32203-65 EWP(k)/EWT(d)/EWP(h)/EWA(d)/EWP(1)/EWP(v) Pf-4 GS

ACCESSION NR: AT5005422 S/0000/64/000/001/0041/0042

AUTHOR: Remanko, S. D.; Pisarenko, Yu. V.

TITLE: An automatic recorder of the temperature dependence of electrical conductivity

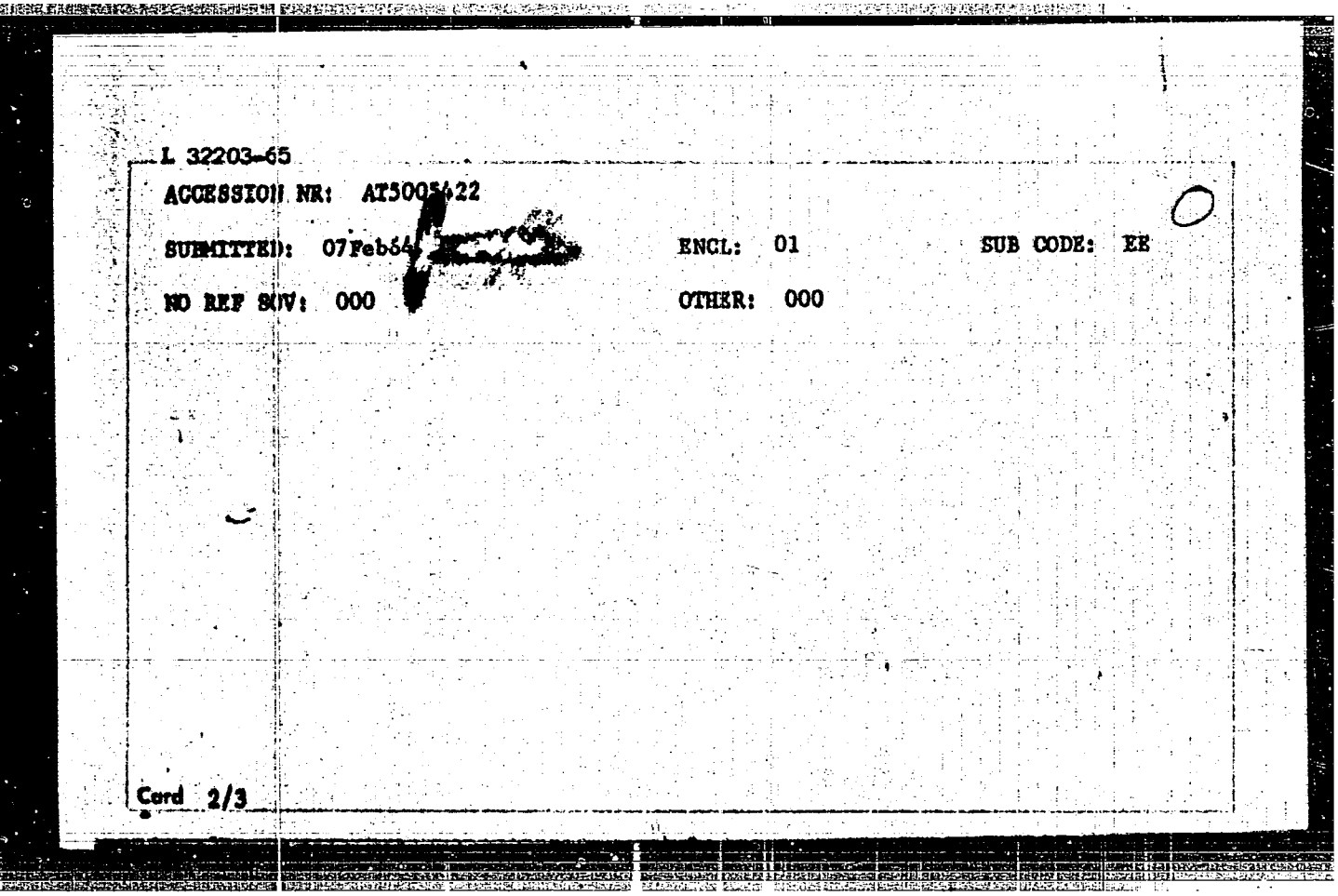
SOURCE: Nauchnaya konferentsiya molodykh uchenykh Moldavii, 3d. Trudy, no. 1: Yestestvenno-tekhnicheskiye nauki (Natural and technical sciences). Kishinev, Gosizdat Kartya Moldovenyaske, 1964, 41-42

TOPIC TAGS: electrical conductivity, automatic conductivity meter

ABSTRACT: The design and operation of an automatic recorder of the temperature dependence of electrical conductivity is described. It consists of a sample holder with a thermocouple (1), and EPP-09 automatic recording potentiometer (2), a hyperbolic converter (3), a logarithmic amplifier (4), and an EO-7 cathode ray oscilloscope (5) with a photographic attachment (see Fig. 1 of the Enclosure). The article shows the logarithmic stage and hyperbolic converter circuits. Orig. art. has: 3 figures.

ASSOCIATION: None

Card 1/3



L 32203-65

ACCESSION NR: AT5005422

SUBMITTED: 07Feb64 [redacted] ENCL: 01 SUB CODE: EE

NO REF SOV: 000 OTHER: 000

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L 32203-65

ACCESSION NR: AT5005422 ENCLOSURE: 01

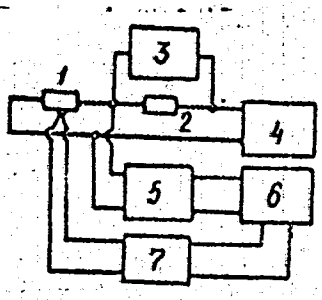

Figure 1. Block diagram of the automatic conductivity recorder.

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PISARENKO, Zh.G.; SHEYNKMAN, M.K.

Etching method to reveal dislocations in CdS single crystals. Fiz. tver.tela 3 no.4:1152-1157 Ap '61. (MIRA 14:4)

1. Institut fiziki AN USSR, Kiyev.
(Dislocations in crystals) (Cadmium sulfide crystals)

SUKHOVERKHOV, F. M., KOROLEVA, V. M., LISARENKOV, A. S.

Fish Culture

Breeding sterlets in ponds, Ryb. khoz., 28 No. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, July 1952, Incl.

22052

S/181/61/003/04/18/33
B102/B214

24.7500 (1136, 1143, 1160)

AUTHORS: Pisarenko, Zh. G. and Sheynkman, M. K.

TITLE: Visualization of dislocations in CdS single crystals by etching

PERIODICAL: Fizika tverdogo tela, v. 3, no. 4, 1961, 1152-1157

TEXT: It is known that on the (0001) plane of CdS single crystals, etch patterns of hexagonal form appear, which are attributed to dislocations. However, no methods of visualizing this for other planes, e.g., $(11\bar{2}0)$ or $(10\bar{1}0)$ are known. Such a method is suggested here. The CdS single crystals were obtained by synthesis and sublimation. First, their orientation was determined by X-rays. They were, for the most part, plane-parallel plates (5 x 3 x 0.01 mm) which were partly smooth like glass and partly striated. Some diverged from this orientation by a few minutes up to 15°. Before and after etching the surfaces were studied by metallographic microscopes, МИМ-5 (MIM-5) and МИМ-8 (MIM-8), visually and by means of microphotos. The best results were obtained by etching in hot hydrochloric acid vapor. Concentration of the acid,

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B102/B214

Visualization of dislocations ...

temperature, and duration of etching were varied to determine the optimum conditions. It was found that the results were most favorable under the following conditions: The crystals were exposed to vapor for 1-1.5 min at 100°C and placed 4-5 cm above the acid surface; the acid concentration was 25-50%. After etching the crystals were rinsed in water. During etching the crystals were placed in a fine molybdenum net. The relationship between etching pits and dislocations was also investigated. The following conclusions were drawn: As in many other crystals, the etching pits are arranged in terrace form, their shape depending on the face indices. If the etching time is extended, no new pits will appear. This indicates that the etching pits correspond to dislocation lines. On studying thin crystals (up to 10 μ) it was found that the etching pits were arranged antiparallel on opposite faces ($11\bar{2}0$). One can assume that these were on one of the dislocation lines passing through the whole crystal. A characteristic feature of dislocations is their behavior on thermal treatment. Experiments of this kind (7[illegible], He atmosphere, 4 hours) showed that the etching-pit density rises up to 100 times on heat treatment. It was also found that the dislocation densities at the center and at the edges of the crystal were very different.

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Visualization of dislocations ...

This shows that the introduction of impurities by diffusion from the surface leads to a highly inhomogeneous distribution of the impurities. Further experiments will show whether there is any relationship between the dislocations of CdS-type crystals and their electrical and photoelectrical properties. The authors thank V. Ye. Lashkarev, Member of the AS UkrSSR, for his interest; and V. N. Vasilevskaya and L. I. Datsenko for discussions and help. There are 5 figures and 6 references: 2 Soviet-bloc and 4 non-Soviet-bloc. The three most important references to English-language publications read as follows: M. Kikuchi, S. Jizima, J. Phys. Soc. Japan, 14, 1638, 1959; D. C. Reynolds, S. J. Chysak, J. Appl. Phys. 31, 94, 1960; J. Nishimura, J. Phys. Soc. Japan, 15, 732, 1960.

ASSOCIATION: Institut fiziki AN USSR Kiyev (Institute of Physics, AS UkrSSR, Kiyev)

SUBMITTED: August 2, 1960 (initially) and October 26, 1960 (after revision)

Card 3/3

SUKHOVERKHOV, F.M.; PISARENKOVA, A.S.

Rearing two-year-old Ctenopharingodon idella, Aristichtys nobilis, Hypophthalmichthys molitrix, and Mylopharyngodon piceus together with carp in the ponds of Moscow Province under conditions of dense stocking. Trudy sov. Ikht. kom. no.14:68-73 '62. (MIRA 15:12)

1. Vserossiyskiy nauchno-issledovatel'skiy institut prudovogo rybnogo khozyaystva (VNIPRKh).
(Moscow Province—Fish culture)
(Moscow Province--Carp)

1. PISARENKOVA, A. S.

2. USSR (600)

4. Carp

7. Survival and growth of the carp Ctenopharyngodon idella in ponds, A. S. Pisarenkova, Gyb. kho., 24 no. 4 '53.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1954, Uncl.

SUKHOVERKHOV, F.M., kand.biolog.nauk; DENISOV, L.I., inzh.; MATSUTSIN, N.G., inzh.; PISARENKOVA, A.S., rybovod; SHCHERBINA, A.K., doktor veterinarnykh nauk; GRIGOR'YEV, Ye.P., red.; DEYEVA, V.M., tekhn.red.

[Fish culturist's handbook] Spravochnik rybovoda. Moskva, Gos. izd-vo sel'khoz.lit-ry, 1960. 350 p. (MIRA 13:9)
(Fish culture)

PISARETS, I.

"Standard contracts in international trade on the world's capitalist market" [in Polish]. J. Zieleniewski. Reviewed by I. Pisarets [with summary in English, p.31]. Vnesh. torg. 36 no.8:26-27 Ag '56. (MLRA 9:10)

(Commerce) (International law, Private) (Contracts)

PISARETS, I.

At the International Poznan Fair. Vnesh.torg. 30 no.8: 33-35 '60. (MIRA 13:8)
(Poznan--Exhibitions)

PISARETS, I.

Poland on the way to new successes in the development of communism.
Vnesh.trog. 29 no.7:10-13 '59. (MIRA 12:11)
(Poland—Economic conditions)

PISARETS, I.

International Leipzig fair in the spring of 1956. Vnesh.torg. 26 no.5:20-22 My '56. (MLRA 9:8)
(Leipzig--Fairs)

PISARETS, IVAN GRIGORYEVICH

Vneshneekonomicheskiye svyazi Polskoy Narodnoy Respubliki. Moscow, Vneshtorgizdat.

1962. 131 p. Tr les.
Includes bibliographical references.

ISAKETS, I G

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Pol'sha ekonomika i vneshnyaya torgovlya (Poland's Economic Development and Foreign Trade, by I. G. Isarets (i dr.)
Moskva, Vnes torgizdat, 1954.

129 p. illus., diagrs., maps, tables.

Bibliogra ical footnotes.

PISAREV, A.

Vulcanizing tire tubes with an iron. Za rul. 17 no.3:32 Mr '59. (MIRA 12:5)
(Automobiles--Tires--Maintenance and repair)

KONSTANTINOV, M.; PISAREV, A.

Study of a chain oscillating system with the introduction of concentrated mass. Godishnik masn elekt 7 no.1:33-38 '60. (publ. '61)

L 40964-65 EWP(1)
ACCESSION NR: AP5006242 S/0292/65/000/002/0027/0029

AUTHOR: Pisarev, A. (Engineer); Minchev, M. (Engineer)

TITLE: Instrument for measuring vibrations of switching equipment

SOURCE: Elektrotekhnika, no. 2, 1965, 27-29

TOPIC TAGS: vibrometer, switching equipment, vibration measurement

ABSTRACT: The development of a special electronic instrument is reported which permits measuring the contact bouncing in switching equipment, such as relays and switches, with practically no current flowing through the contacts. The test contacts control an input amplifier in the instrument in such a way that at each closing (strike) of the contacts, the amplifier output voltage is zero, and at each opening (rebound) of the contacts, the amplifier output voltage is maximum. As a result, the contact vibration is converted into a series of pulses separated by spacings. The instrument provides the electronic means for

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ACCESSION NR: AP5006242

measuring the total vibration period and also the time of individual strikes and rebounds. An experimental model exhibited an overall error of 5.5% (as compared to the readings of a vibration oscillograph). Principal circuit diagrams are given. Orig. art. has: 6 figures and 8 formulas.

ASSOCIATION: Mashinno-elektrotekhnicheskiy institut (Machine and Electrotechnical Institute), Sofia

SUBMITTED: 00 ENCL: 00 SUB CODE: EE, EC

NO REF SOV: 001 OTHER: 001

Card 2/2

PISAREV, A.; KATSAROV, G.

Automatic APV-100 model explosion-proof starter. p. 1[illegible]. (Elektroenergiia, Vol. 8, No. 2, Feb. 1957, Sofia, Bulgaria)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. [illegible], Aug 195[illegible]. Uncl

DERIN-OGLU, G.N., inzh.; PISARENKO, A.A., kand.tekhn.nauk

Magnetic amplifiers with a.c. output for noncontact control systems. Vest.elektroprom. 33 no.6:27-31 Je '62. (MIRA 15:7)
(Magnetic amplifiers) (Automatic control)

OGIYEVICH, V.A., kandidat tekhnicheskikh nauk; PISAREV, A.A., inzhener.

Distribution of the concrete batch with the help of control cards. Stroi. i dor. mashinostr. 2 no.4:20-23 Ap '57.
(Automatic control) (Concrete plants) (MLRA 10:6)

PISAREV, A.I. [Pysarev, A.I.]

Improving the design of KU-2A combines. [illegible]
no.7:7-8 Jl '59. (MIRA 12:11)

1. Glavnyy inzhener Odesskoy remontno-[illegible] kontory [illegible].
(Combines(Agricultural machinery))

SNAGOVSKIY, Yevgeniy Stefanovich, kand.tekhn.nauk; BAKANOV, Konstantin Fedorovich, inzh.; GERCHIKOV, Iosel' Solomonovich, kand.tekhn. nauk; PISAREV, Andrey L'vovich, inzh.; POPOV, Igor' Aleksandrovich, kand.tekhn.nauk; MIRSKAYA, V.V., red.izd-va; LOMILINA, L.N., tekhn.red.; KONDRAT'YEVA, M.A., tekhn.red.

[Automatization in underground transportation] Avtomatizatsiia na podzemnom transporte. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1960. 276 p. (MIRA 13:12)
(Mine haulage) (Automatic control)

PISAREV, A.L., inzhener (Moskva)

Design of saturable reactors for controlled asynchronous drives. Elektrichestvo no.5:10-14 My '56. (MLRA 9:8)
(Electric reactors) (Electric driving)

PISAREV, V. D.

Spectrographic analysis of tin. M. A. Rivkina, V. D. Pisarev, A. V. Kornilov, Z. P. Kostrova, L. A. Kotel'-nikova, and M. P. Levchenko (Railroad Transport Inst. and Tin Plant, Novosibirsk). Zavodskaya Lab. 21, 1081-3 (1955).—Sn fused with 10% Bi, Pb, Sb, and Cu was added to pure Sn at 350°. Alloys contg. Fe and As were prepd. from "black" tin to which the Sn-Fe and Sn-As alloys were added at 500–50°. After stirring and removing the scum of oxides, the alloys were poured into a nest of 6 molds 6 mm. in diam. and 70 mm. deep. These rods served as electrodes of a spark with an analytical gap of 2 mm., exposure 45 sec. Ansorbi was detd., semiquantitatively, visually. In the presence of more than 0.9% Fe, Bi could not be detd. The mean arithmetic error for tin was ±7.0%. The analysis was completed in 50–60 [illegible]. I. Ivancowitz

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