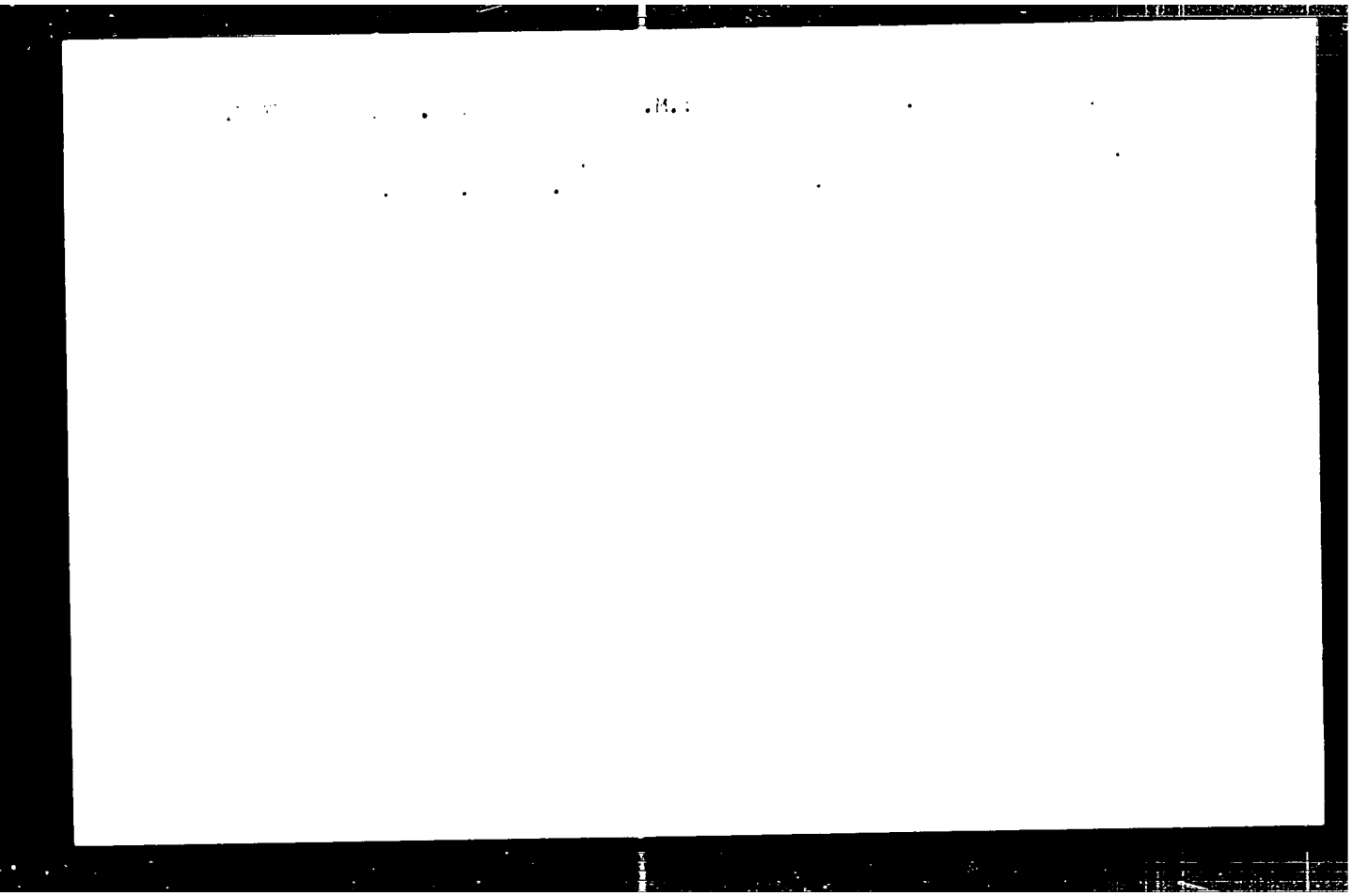
PINAYEVSKAYA, Ye.N.; ANTOSHKINA, N.L.; GUSEVA, G.G.

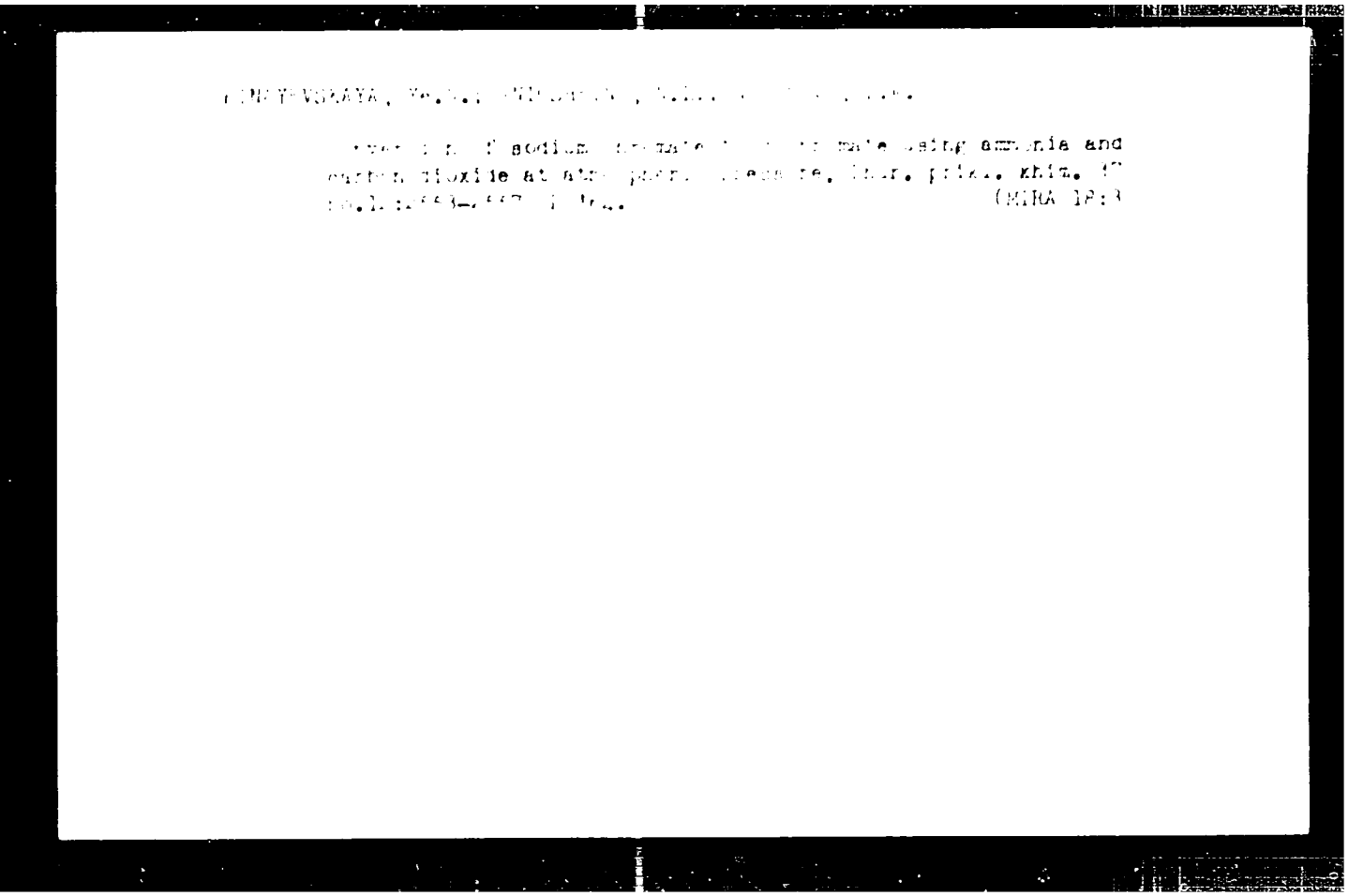
Aqueous reciprocal system of sodium and calcium chromates and nitrates. Zhur.prikl.khim. 34 no.8:1722-1739 Ag '61. (MIRA 14:8)

(Sodium nitrate) (Calcium chromate)

PINAYEVSKAYA, Ye.N.; ANTOSHKINA, N.L.; NOSKOVA, N.N.

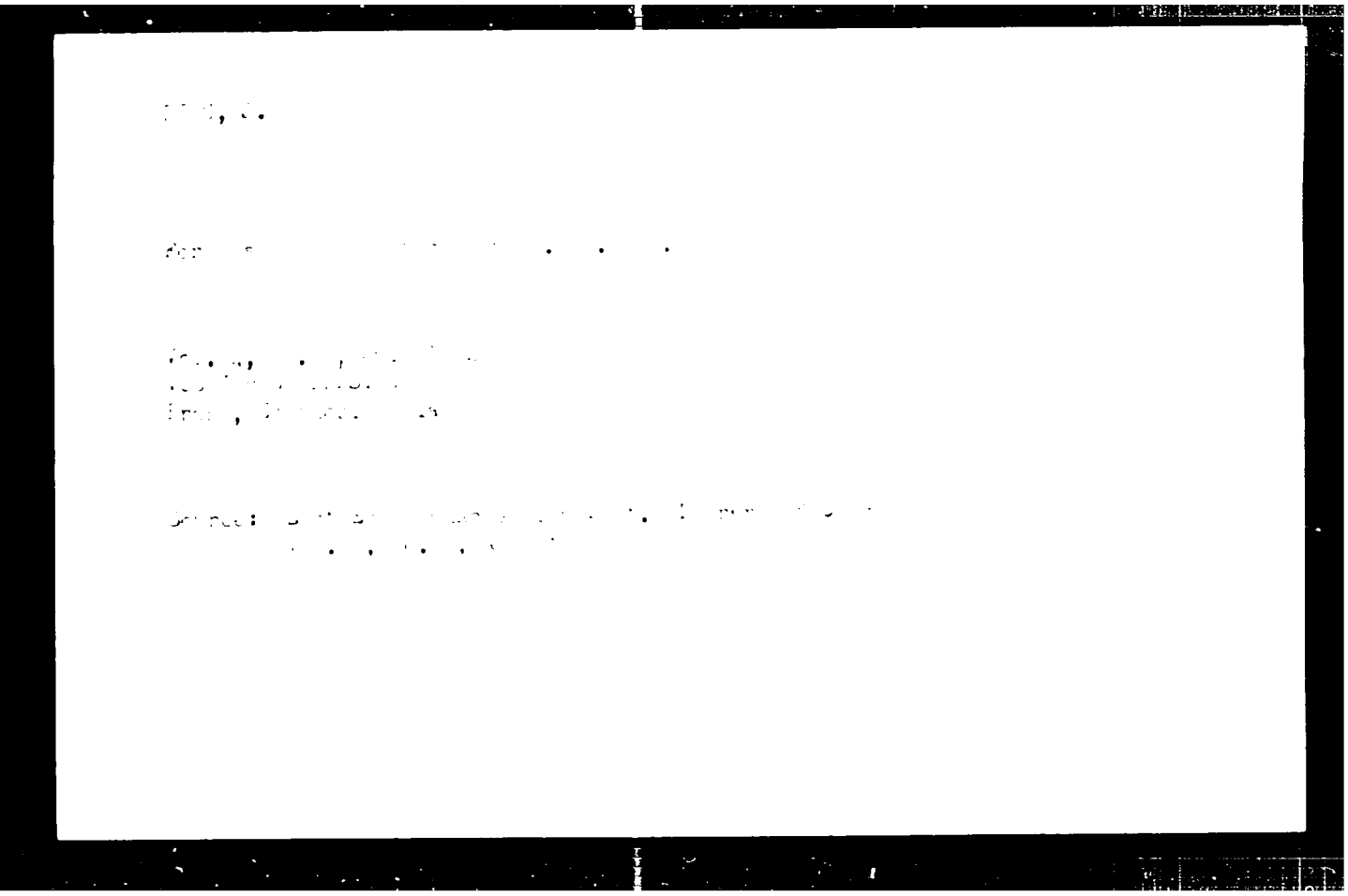
Aqueous reciprocal system of the chromates and bicarbonates of sodium and ammonium. Zhur. prikl. khim. 37 no. 5:989-1000 My '64. (MIRA 17:7)

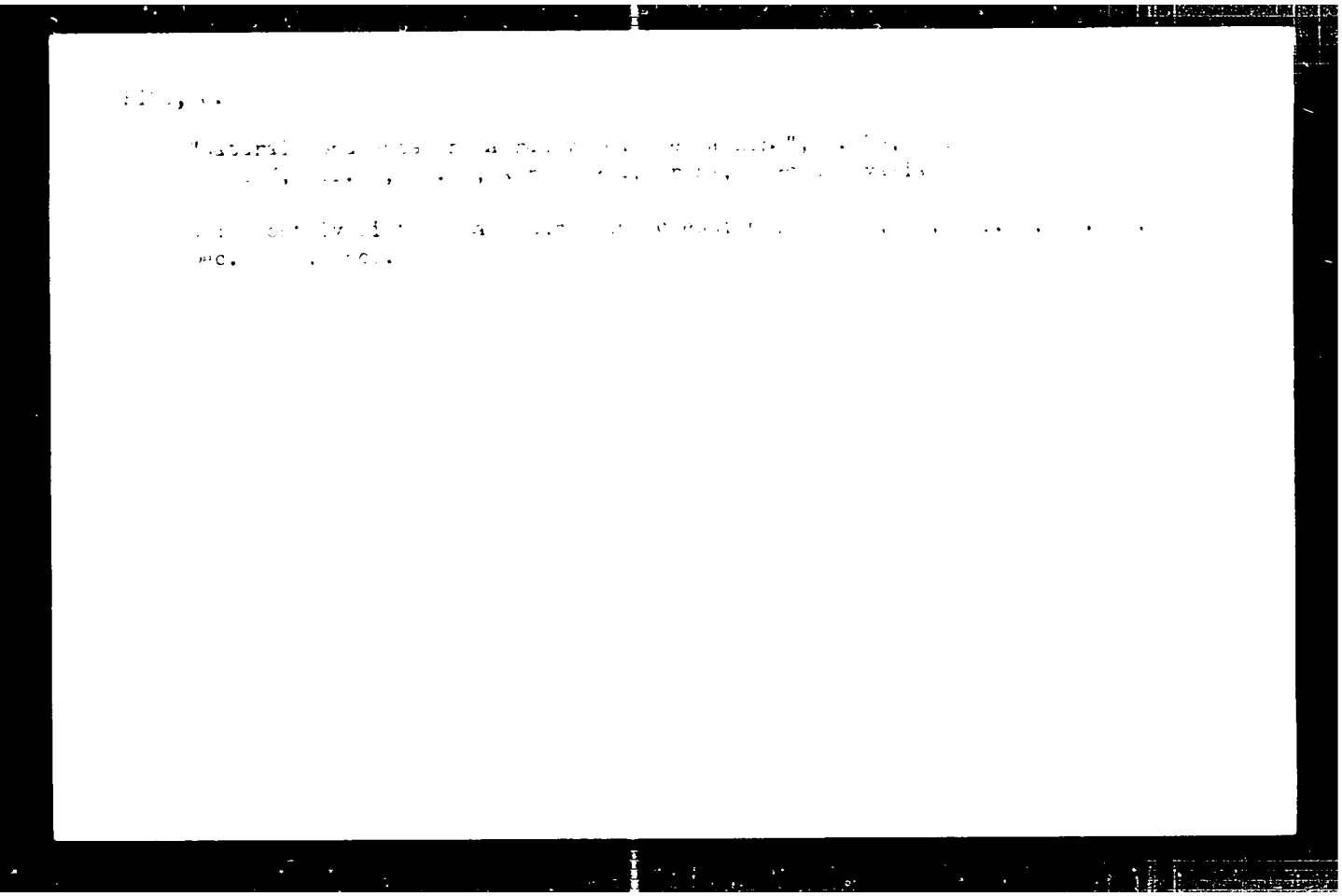




PINC, Frantisek

Extending the study of one's own region in the schools of the North-Bohemia Region. Sbor zem 68 no.1:109-113 '63.





L 6722-65 EWP(h)/EWP(1)

ACCESSION NR: AP5021464 CZ/0034/64/000/011/0833/0833

15
B

AUTHOR: Pinc, J.; Solc, J. (Engineer)

TITLE: Apparatus for turning over of flat objects, such as metal sheets, belts, and plates

SOURCE: Hutnicke listy, no. 11, 1964, 833

TOPIC TAGS: metallurgic machinery

ABSTRACT: The article describes Czechoslovak Patent Application Class 7a, 25, PV 6901-63, dated 14th. December 1963. The apparatus consists of jointed levers and is suitable for use in metallurgical plants and welding workshops. Orig. art. has 1 figure.

ASSOCIATION: none

SUBMITTED: 14Dec63 ENCL: 00 SUB CODE: IE

NO REF SOV: 000 OTHER: 000 JPRS

Card 1/1

POLAND

[illegible]BERGER, Karol and PINC, Pavel, Military Institute of Hygiene, Epidemiology, and Microbiology [original version not given] in Prague (Czechoslovakia) [Polish version by Dr. med. T. OLAKOWSKI]

"Ways of Entry and Effect of Environment on Course of Listeriosis in White Mice."

Warsaw, Przeglad Epidemiologiczny, Vol 16, No 3, 62, pp 301-306.

Abstract: [Author's English summary modified] Authors summarize experimental results. Fatality in infection by cannibalism -- 75-80, by tracheal penetration -- 100, by talcum dust -- 0, by conjuntival penetration -- 35, by skin abrasion -- 10, and by vaginal penetration -- 4 percent. Bacteriemia took place 24-48 hours before death, with simultaneous Listeria release in urine and faeces. Serological reactions were negative up to 65 days following infection. Authors consider deglution of Listeria as main cause in spreading of the disease. About half of the 20 references are from the western bloc.

1/1

L 34231-66 EWP(k)/EWP(t)/ETI IJP(c) JD

ACC NR: AP6026076 SOURCE CODE: CZ/0034/65/000/012/0907/0907

INVENTOR: Becvar, J. (Engineer); Kreuter, F. (Engineer); Pino, Z. (Engineer)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001340910016-6"

ORG: none

TITLE: Machine tool steel and a method of its production. Class 40b, No PV 1667-65

SOURCE: Hutnicke listy, no. 12, 1965, 907

TOPIC TAGS: machine tool industry, metal machining, steel industry, tool steel, metal friction, alloy steel

ABSTRACT: The article is an abstract of authors' Patent Application No Class 40b, 39/54, PV 1667-65, dated 12 March 65. The steel produced according to the invention has improved machining properties, produces higher quality surfaces, and lasts longer. The steel contains a combination of metal additives in amounts up to 0.5% by weight consisting of the following metals: Zn, Cd, Bi, Sn, Pb, Tl, Sb. These metals can be added together or individually according to the composition of the tool steel. A further addition of 0.1 - 0.4% of Se, S, or Te is made. The metal additives decrease the friction between the machined object and the tool. [JPRS: 34,272]

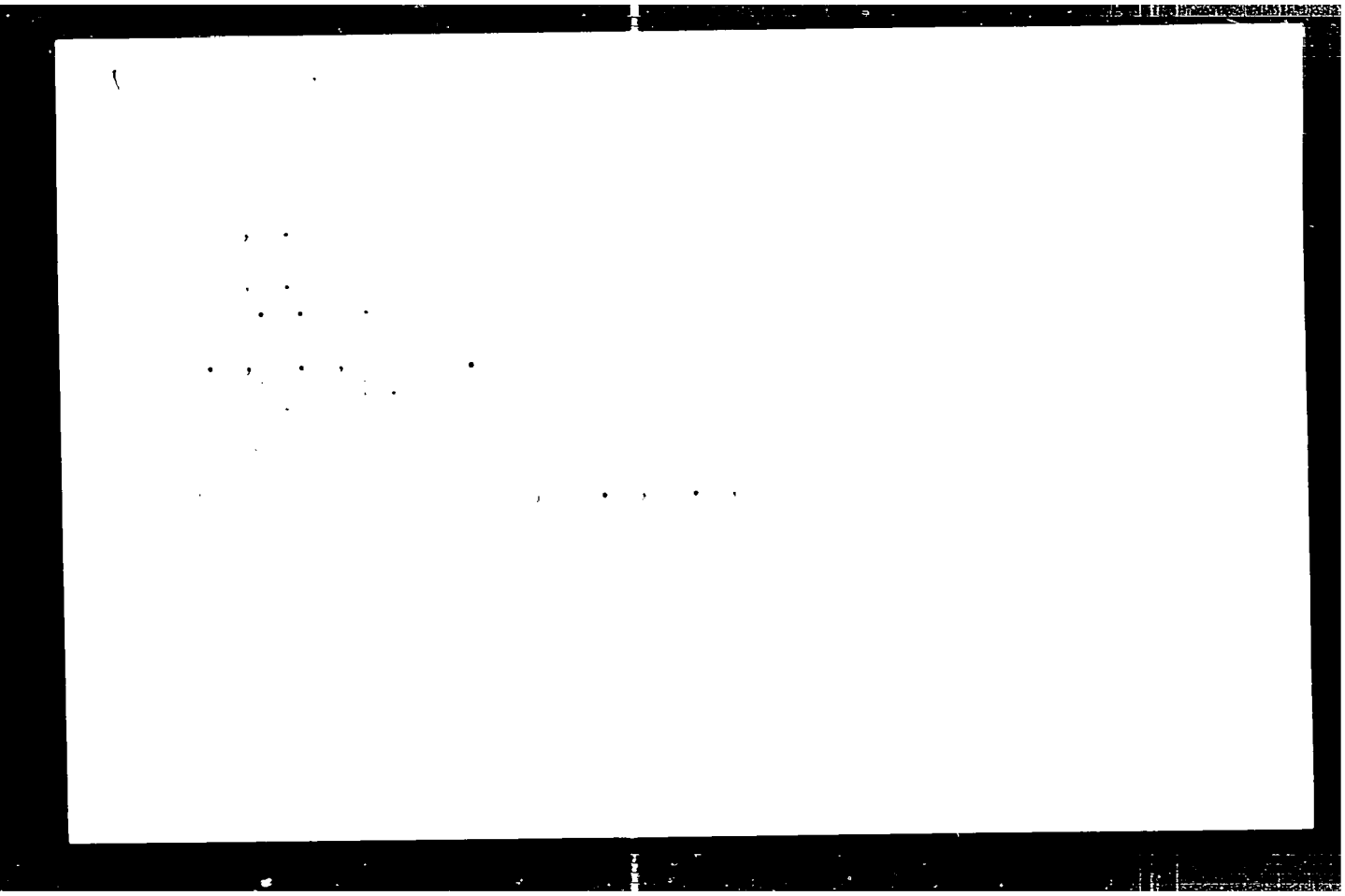
SUB CODE: 13, 11 / SUBM DATE: none

Card 1/1

0916

PINCAS, P., Ing., SMITH, I., Ing.

Nonwoven textiles. Text Ind [illegible] F '64.



PANASEWICZ, J.; PINCEL, J.

Effect of hypothermia on circulatory dynamics in cats. Acta physiol. polon. 8 no.3:506-508 1957.

1. Z Zakladu Fizjopatologii Instytutu Hematologii w Warszawie Kierownik Zakladu: kand. nauk. med. J. Panasewicz Dyrektor Instytutu: doc. dr A. Trojanowski.

(HYPOTHERMIA, effects,
on blood pressure in cats (Pol))
(BLOOD PRESSURE, physiology,
eff. of hypothermia in cats (Pol))

SLYNKO, N.K.; LOMAKIN, T.P.; PINCHASOV, R.A. (Tashkent)

Use of corticosteroids and ACTH in some urological diseases.
Urologiia no.4:21-24 '64. (MIRA 19:1)

VOL'POVA, Ye.G.; SHAL'KOVSKIY, N.G.; ZHUKOV, I.S.; PITSKHELAURI, V.A.; PINCHEVSKAYA, S.I.

Sulfuric acid alkylation of isobutane by butylenes using contactors with various feed systems. Khim. i tekh.topl. i masel 7 no.3:13-17 Mr '62. (MIRA 15:3)

1. Groznenskiy nauchno-issledovatel'skiy neftyanoy institut.
(Propane) (Butene)
(Alkylation)

ARUTYUNOV, Yu.I.; FRID, M.N.; BRESHCHENKO, V.Ya.; PINCHEVSKAYA, S.I.; FRID, Ye.B.

Chromathermographic analysis of a stock and of pyrolysis products in a flow. Khim. i tekh. topl. i masel. 8 no.3: 43-47 Mr '63. (MIRA 16:4)

1. Groznenskiy filial "VNIKAneftegaz".
(Petroleum—Analysis)
(Chromatographic analysis)
(Pyrolysis)

VOL'FOVA, Ye.G.; SHAL'KOVSKIY, N.G.; CHUKOV, I.S.; PITSKHELAURI, V.A; PINCHEVSKAYA, S.I.

Studying the operation of a unit for the sulfuric acid alkylation of isobutane with butylenes with consecutive feeding of the contactors in the Norogroznyy Petroleum Refinery. Trudy GrozNII no. 15:127-136 '63. (MIRA 17:5)

PINCHEVSKIY, A.P.

Temperature field of a [illegible] under conditions of pulsewise variations in temperature. Inzh.-fiz. zhur. 5, no. 1, [illegible]-72 [illegible]. (MIRA 15:2)

BARDILA, P.I.; KITS, A.I.; LAPH, V.I.; PINCHEVSKIY, A.D.; SHPAROV, P.I.

New platinum resistance thermometers. Izm. tekh. no.5:19-21 My'64 (MIRA 17:7)

L 45633-65
ACCESSION NR: AP5006477 S/0294/65/003/001/0149/0153

B

AUTHOR: Pinchevskiy, A. D. (L'vov)

TITLE: Contribution to the analysis of transient characteristics of thermal pickups

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 1, 1965, 149-153

TOPIC TAGS: transient characteristic, thermal pickup, Biot number, Fourier number

ABSTRACT: The purpose of this study was to check whether the transient characteristic $h(\tau)$ of a thermal pickup actually has an exponential characteristic $h(\tau) = 1 - e^{-\tau/\epsilon}$ as is customarily assumed (τ - time, ϵ - pickup time constant). The analysis is based on the determination of the response of a body of simple geometrical form (unbounded cylinder or plate, sphere) to a unit temperature step. This response is given in the form of a series in terms of a function of the Fourier number and of the coordinates, called the coordinate-time function of the body, and the dependence of this function on the coordinates and on the Fourier number for different values of the Biot number is analyzed. It is concluded as a result of the analysis that any thermal pickup can be regarded as a single-

Card 1/2

L 45633-65
ACCESSION NR: AP5006477

capacitance element with variable parameter that depends on the Fourier number. The parameter that determines the dynamic properties of this element is its coordinate-time function, which depends on the position of the sensitive element and on the value of the Biot number. For each value of the Biot number it is always possible to choose a critical cross section in the pickup body for which the coordinate-time function will not depend on the Fourier number during its normal regime. An expression is derived for the determination of the critical cross section, and plots are presented of the dependence of the critical cross section on the Biot number for a cylinder, a plate, and a sphere. The character of the dependence of the coordinate-time function for the critical cross section on the Biot number is also investigated. Orig. art. has: 4 figures and 12 formulas.

ASSOCIATION: None

SUBMITTED: 14Jul64 ENCL: 00 SUB CODE: TD

NR REF SOV: 007 OTHER: 000

Card 2/2

L 4250-66 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l)

ACCESSION NR: AP5018463 UR/0115/65/000/005/0023/0024

536.53.088

45
B

AUTHOR: Pinchevskiy, A. D.

TITLE: Transfer functions of commercial thermometer elements

SOURCE: Izmeritel'naya tekhnika, no. 5, 1965, 23-24

TOPIC TAGS: temperature measurement, thermometer

14

ABSTRACT: The results of an experimental investigation of resistance and thermocouple thermometers are reported. The temperature of water at a temperature difference of about 50C was measured, and the cooling curves were used for determining the time constant of the thermometer element. It is found that a commercial thermometer element cannot be regarded as a single-capacity body; hence, a well-known simplified formula for its transfer function is rejected. A somewhat more complicated formula is suggested which regards the thermometer element (with its ceramic or metal cartridge) as a single-capacity

Card 1/2

L 4250-66
ACCESSION NR: AP5018463

unit having a variable time constant. Also, the effect of the place of the actual temperature sensor in the cartridge on the transfer function is considered. Orig. art. has: 1 figure, 6 formulas, and 2 tables.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: TD

NO REF SOV: 004 OTHER: 000

BVK
Card 2/2

ACCESSION NR: AP4041342 S/0115/64/000/005/0019/0021

AUTHOR: Bardila, P. I.; Kits, A. I.; Lakh, V. I.; Pinchevskiy, A. D.; Shparov, P. I.

TITLE: New platinum resistance thermometers

SOURCE: Izmeritel'naya tekhnika, no. 5, 1964, 19-21

TOPIC TAGS: thermometer, resistance thermometer, platinum resistance thermometer

ABSTRACT: Soviet-make resistance thermometers for a −200 +500C range with platinum wire wound on a mica form have shown these shortcomings: (a) poor seal, (b) mechanical weakness, (c) unwieldy design, and (d) high thermal inertia. A new design, free from the above drawbacks, consists of four helices, made from 0.05—0.07-mm Pt wire, placed in channels in a ceramic cartridge; the channels are subsequently filled with alumina powder. Temperature measurements up to 700C are possible. These types are developed and offered for production:

Card 1/2

ACCESSION NR: AP4041342

Type:	Resistance at 0C, ohms	Sensitive elem. dia., mm	Length, mm	Channel dia., mm
Single	10	2.8	20	0.6
	46	4.8	25	1.3
	46	4.2	35	1.2
	100	4.8	50	1.3
Double	46	4.8	50	1.3

Orig. art. has: 2 figures and 1 table.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00

SUB CODE: TD, IE NO REF SOV: 004 OTHER: 000

Card 2/2

L 8135-66 ETC(m) WW
ACC NR: AP5025056 SOURCE CODE: UR/0286/65/000/016/0096/0097

AUTHOR: Pinchevskiy, A. D.

ORG: none

TITLE: A servosystem for measuring rapidly changing temperatures with variable conditions of heat exchange. Class 42, No. 173986 [announced by State Construction Bureau "Termopribor" of the State Committee for Instrument Construction, Automation Facilities, and Control Systems at Gosplan of SSSR (Gosudarstvennoye konstruktorskoye byuro "termopribor" gosudarstvennogo komiteta po priborostroyeniyu, sredstvam avtomatizatsii i sistemy upravleniya pri gosplane SSSR)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 96-97

TOPIC TAGS: measuring instrument, servosystem, temperature measurement

ABSTRACT: This Author Certificate presents a servosystem for measuring rapidly changing temperatures with variable conditions of heat exchange (see Fig. 1). The system contains a heat receiving vessel, its analog, an automatic compensator, and the measuring instrument. The latter is designed to increase the precision of the temperature measurements. The system is provided with an actuating device for the

Card 1/3

UDC: 536.532:62-503.53

L 8135-66
ACC NR: AP5025056

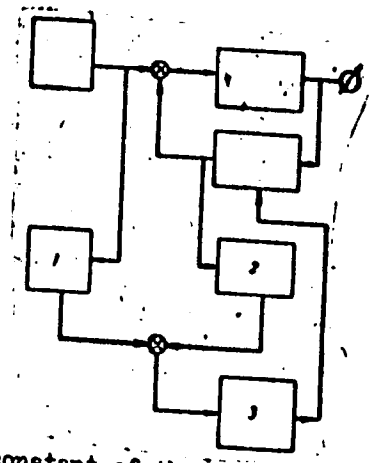


Fig. 1. 1 and 2- functional units; 3- actuating device

automatic adjustment of the time constant of the heat receiver analog to the time constant of the heat receiver. This actuating device is connected to the outputs of the two functional units which generate and compare the ratios of the second derivative signals of the temperature receiver and its analog to their first derivatives. These ratios are proportional to the indicated time constants. Orig. art. has: 1 figure.

Card 2/3

L 8135-66
ACC NR: AP5025056

SUB CODE: EE, TD/ SUBM DATE: 20Jan64

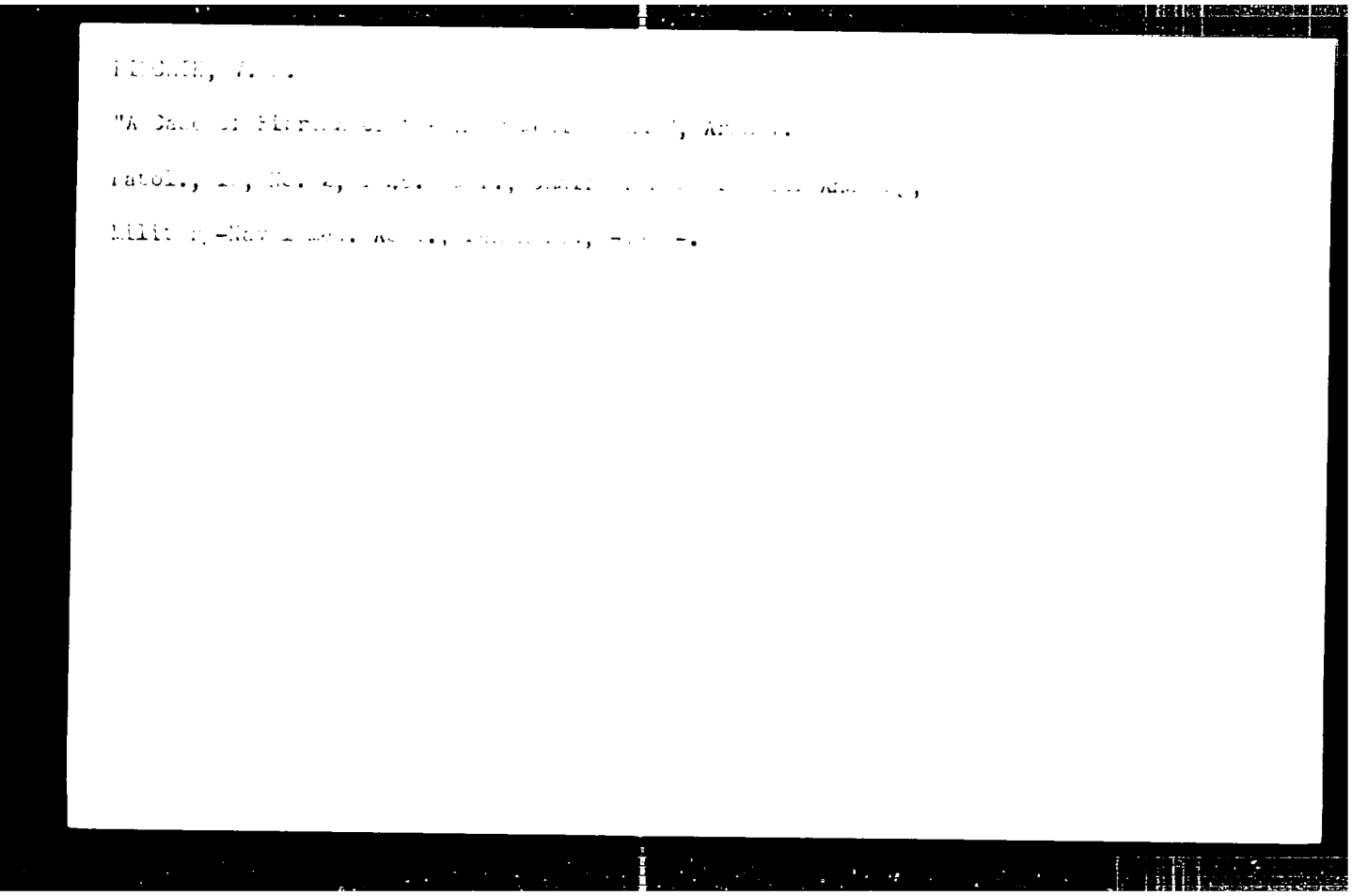
0

Card 3/3 gl

[redacted], Ye. [redacted].,

"Thoracoscopy and Thoracentesis in [redacted] of the Old War [redacted]."
(Dissertation for Degree of Candidate [redacted] Medical S[redacted]
Inst, Warsaw, 19[redacted]

SO: [redacted]



L 8620-66
ACC NR: AP5027032 SOURCE CODE: UR/0120/65/000/005/0194/0197

AUTHOR: Miryasov, N. Z.; Pinchuk, A. A.; Snytkin, B. V.; Shpin'kov, N. I. B-34

ORG: Physics Faculty, MGU (Fizicheskiy fakul'tet MGU)

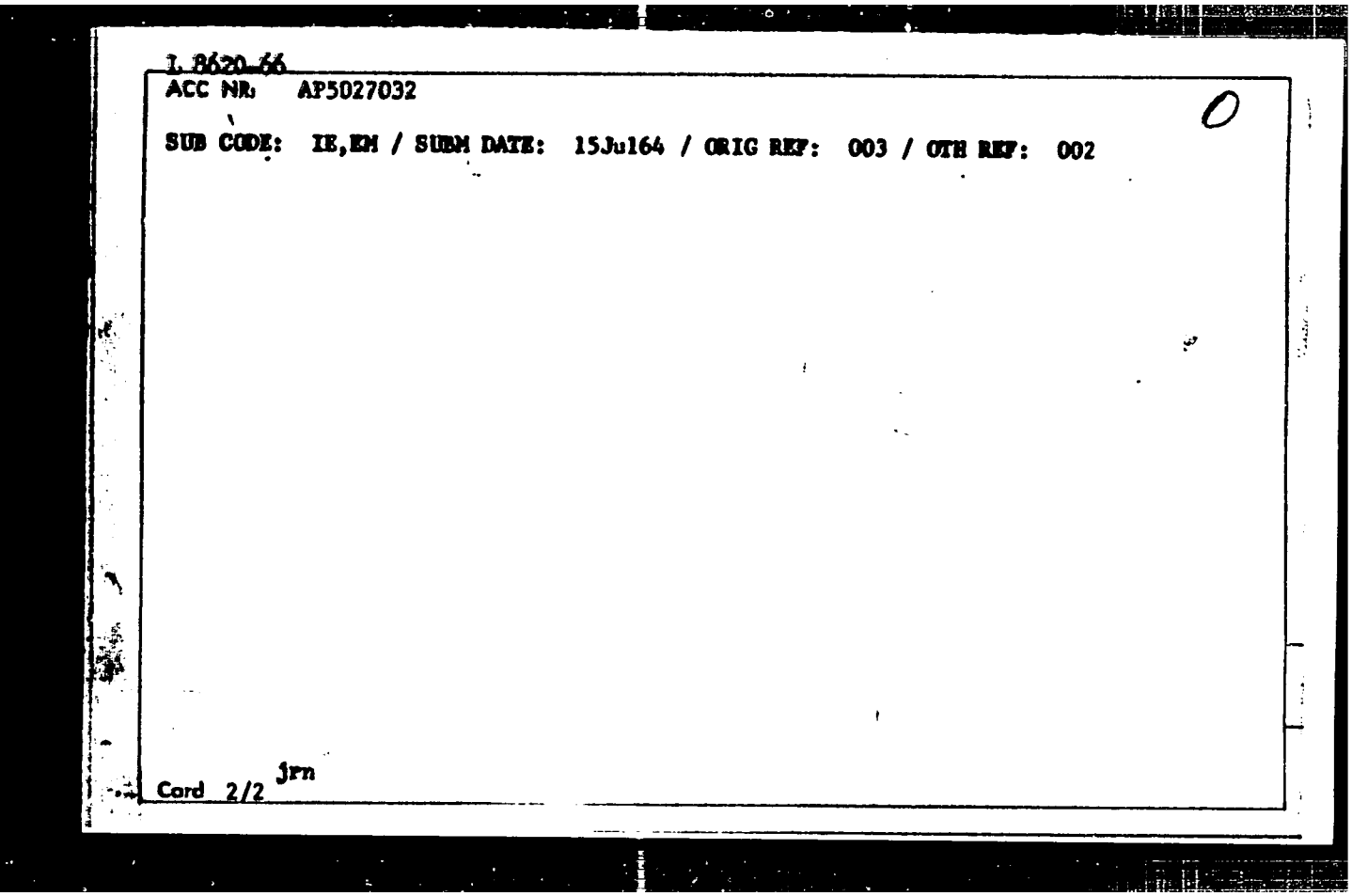
TITLE: A device for ferromagnetic film production by high vacuum evaporation

SOURCE: Pribory i tekhnika eksperimenta, no. 5, 1965, 194-197

TOPIC TAGS: high vacuum, ferromagnetic film, vacuum pump, vacuum chamber

ABSTRACT: Vacuum evaporation chambers, intended for the production of ferromagnetic films, must be placed at considerable distances from vacuum pumps because such pumps are usually made of ferromagnetic materials which influence in an unpredictable way the magnitude and configuration of the magnetic fields used during condensation. However, long vacuum tubing significantly reduces the resulting vacuum. Consequently, the authors designed a unit capable of rotating the sample under vacuum, since it was shown earlier (D. O. Smit, J. Appl. Phys., 1961, 32, 705) that a rapidly moving support makes possible the production of films of complex composition and definite magnetic properties. In addition, because of consecutive pumping, a double vacuum chamber, and heat resistant gaskets with low vapor pressure, the device is capable of reaching $1.0 \cdot 10^{-7}$ Torr. The pumping is carried out by diffusion pumps using VM-1 oil without nitrogen traps. Uniform vertical (horizontal) magnetic fields are created by Helmholtz coils 70 cm (170 cm) in diameter. The maximum field is 450 Oe ($\sim$ 100 Oe). Orig. art. has: 3 figures.

Card 1/2 UDC: 539.234:538.221



I 8620-66
ACC NR: AP5027032

SUB CODE: IE,EM / SUBM DATE: 15Ju164 / ORIG REF: 003 / OTH REF: 002

Card 2/2 jrn

PINCHUK, A. G.

36092 Issledovaniye gazorazryadnykh stabilizatirov. Priborostroyeniye, vyp. 4, 1948, S. 54-58--Bibliogr: 5 nazv.

SO: Letopis' Zhurnal'nykh Statey, No. 49, 1949

L 54542-65 EWT(1)/EWG(m)/EWA(h) Peb

ACCESSION NR: AP5015525 UR/0286/65/000/008/0065/0065

AUTHOR: Pinchuk, A. G. 12 B

TITLE: Converter of dc voltage to ac voltage 25 phase shift. Class 42, No. 170204

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 8, 1965, 65

TOPIC TAGS: voltage to code converter, nonlinear resistance, semiconductor resistance

ABSTRACT: This Author Certificate presents a dc voltage to ac voltage phase shift converter containing nonlinear resistances and a phase shift circuit. To broaden the limits of phase change and to increase the conversion accuracy, controllable nonlinear semiconductor resistances are used as the nonlinear resistances (see Fig. 1 on the Enclosure). One pair of faces of the resistances is connected to the controlling voltage source. The other pair supplies the reference voltage of forward or reverse phase to the output terminals. Voltage is also supplied to the output terminals through the phase shift circuit. Orig. art. has: 1 diagram.

ASSOCIATION: none

SUBMITTED: 19Feb62 ENCL: 01 SUB CODE: DP

NO REF SOV: 000 OTHER: 000

Card 1/2

L 56542-65

ACCESSION NR: AP5015525

ENCLOSURE: 01

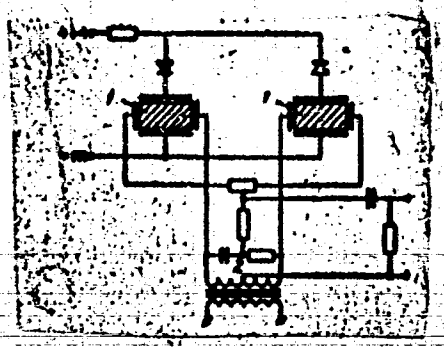


Fig. 1. 1- nonlinear resistances; 2- phase shift circuit

Card 2/2

L 16837-63 EDS
ACCESSION NR: AP3003261 S/0286/63/000/003/0027/0028

AUTHOR: Pinchuk, A. G.

47

TITLE: Contactless switching device[1] Class H 02c; 21c, 45 sub 05. No. 152901

SOURCE: Byul. izobreteniy i tovarnykh znakov, no. 3, 1963, 27-28

TOPIC TAGS: contactless switch, magnetic circuit, switch

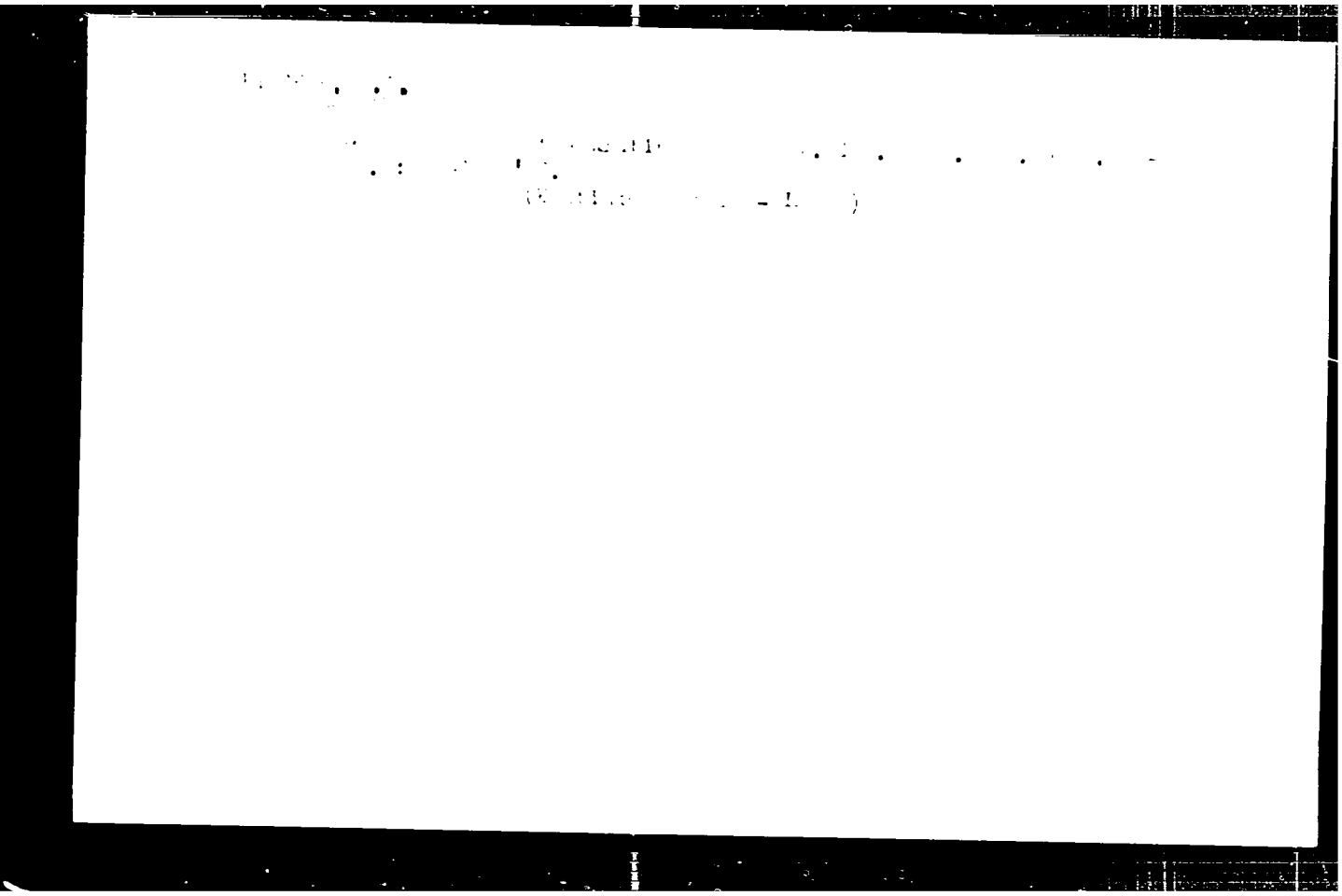
ABSTRACT: Contactless switching device, containing a closed magnetic circuit, on which are placed two primary windings, connected in parallel and located in such a way that their magnetizing forces are in opposing directions; its distinguishing feature is that in order to use it for switching the phases of the voltage, the equipment is provided with a moving magnetic shunt, which in certain fixed positions closes the magnetic flux of one of the primary windings and produces a magnetic circuit for creating E. M. F. in the output windings from the magnetic flux produced by the other primary winding. /Abstracter's note: complete translation./ Orig. art. has: 1 figure.

ASSOCIATION: none

SUBMITTED: 14 Dec 61 DATE ACQ: 23 Jul 63 ENCL: 00

SUB CODE: GE NO REF SOV: 000 OTHER: 000

Card 1/1



DIDENKO, V.Ye., TSAREV, M.N., DMITRIYEV, M.M., LEYTES, V.A.; OBUKHOVSKIY, Ya.M.; IVANOV, Ye.B., CHERTOK, V.T.; URSALENKO, B.N., KRIGER, I.Ya., PINCHUK, A.K.; ANTONENKO, N.Z., SMUL'SON, A.S., VASIL'CHENKO, S.I., DRASHKO, A.M., RAYEVSKIY, B.N.; KUCHIRYAVENKO, D.N.; SAVCHUK, A.I.; ZHURAVLEVA, L.I.; BAUTIN, I.G.; KHRIYENKO, V.Ya.; MOSENKO, N.K., CHEBONENKO, G.P.; LISSOV, L.K.; MAMONTOV, V.V., BELUKHA, A.A., POYDUN, V.F.; VOLODARSKIY, M.B.; KAL'CHENKO, G.D.; LEVCHENKO, V.M.; BASHKIROV, A.A.; VOROB'YEV, M.F.; IL'CHENKO, L.I.; PODSHIVALOV, F.S., MOGIL'NYY, P.P.; LEVI, A.R.; VASLYAYEV, G.P., DURNEV, V.V.; OSYPA, S.S., SAMOFALOV, G.N., FOMIN, A.F., LESHCHINA, A.I., FANKEL'BERG, G.Ye., KHODANKOV, A.T., MAKARENKO, I.S.; KARPOVA, K.K., VASILENKO, I.M., VOLOSHCHUK, A.S., SHELKOV, A.K., FILIPPOV, B.S., TYUTYUNNIKOV, G.N., DOLINSKIY, M.Yu., NIKITINA, P.P.; MEDVEDEV, S.M., TSOGLIN, M.F., LERNER, R.Z., BOGACHEV, V.I.

Mihail IAkovlevich Mor[illegible] [illegible]ary. Koks [illegible] khim. no.3 64 '56. (MLBA 9:8)
(Mor[illegible], M[illegible] IAkov[illegible] [illegible])

MAKAROV, V.I.; PINCHUK, A.K.

Coking me[illegible] with natural gas feed to the [illegible]. [illegible]
no.8:18-21 '62. [illegible]

1. Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnykh gazov (for Makarov). 2. Khar'kovskiy koksokhimicheskiy zavod (for Pinchuk).

S/079/60/030/05/33/074
B005/B016

AUTHORS: Shevchenko, V. I., Stratiyenko, V. T., Pinchuk, A. M.

TITLE: Diphenyl-chloro-phosphazo-sulfone Aryls

PERIODICAL: Zhurnal obshchey khimii, 1960, Vol 30, No. 5, pp. 1566-1570

TEXT: The authors of the present paper synthesized diphenyl-chloro-phosphazo-sulfone aryls (I) by treating aryl sulfonamides with diphenyl phosphorus trichloride. The scheme of the reaction is given. 9 compounds of type (I)($(C_6H_5)_2ClP{=}NSO_2Ar$) are listed in Table 1. Still more readily than with diphenyl phosphorus trichloride, the aryl sulfonamides react with phenyl phosphorus tetrachloride and with phosphorus pentachloride. The compounds (I) may also be obtained by treating the sodium salts of chloramides of aromatic sulfonic acids with diphenyl-chloro phosphine. The scheme of this reaction is described. This procedure, however, is less convenient since a large number of by-products occur. The compounds (I) are colorless crystalline substances. They exhibit the properties of acid chlorides, and thus react readily with alcohols, amines, and phenolates. They are easily hydrolyzed [illegible] by atmospheric moisture. On hydrolysis

aryl-sulfonamido-diphenyl-phosphinic acids (II) are formed according to a given scheme. Table 2 summarizes the 9 compounds of type (II) which were obtained by hydrolysis of the compounds (I) contained in Table 1. Both tables present yield, melting point, empirical formula, and the result of titration with lye for each compound. The compounds (II) are colorless crystalline substances which are very stable to hydrolysis. They may occur in 3 tautomeric forms:

$ArSO(OH)=N-PO(C_6H_5)_2$ (A) $ArSO_2NH-PO(C_6H_5)_2$ (B) $ArSO_2N=P(C_6H_5)_2(OH)$ (C)

It may be assumed that the amide form (B) is most stable since the N-H bond is less polarizable than the O-H bond. The compounds (II) can also be synthesized from N-diphenyl-phosphine-aryl sulfonamides by oxidation with hydrogen peroxide, or by bromination and subsequent hydrolysis The corresponding reaction schemes are given. In an experimental part all conversions carried out are described in detail. A. V. Kirsanov (Refs. 1,2) is mentioned in the present paper. There are 2 tables and 2 Soviet references.

Diphenyl-chloro-phosphazo-sulfone Aryls

S/079/60/030/05/33/074
B005/B016

ASSOCIATION: Dnepropetrovskiy metallurgicheskiy institut (Dnepropetrovsk Institute of Metallurgy)

SUBMITTED: May 13, 1959

Card 3/3

L 52797-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM

ACCESSION NR: AP5016191 UR/0079/64/034/012/3955/3958

AUTHOR: Shevchenko, V. I.; Pinchuk, A. M.; Kozlova, N. Ya.

TITLE: Mixed diarylchlorophosphines

SOURCE: Zhurnal obshchey khimii, v. 34, no. 12, 1964, 3955-3958

TOPIC TAGS: phosphinic acid, chloride, organic phosphorus compound, chlorinated organic compound

Abstract: Mixed diarylchlorophosphines were prepared on the basis of the comparatively readily available mixed diarylphosphinic acids or their chlorides. In the reaction of diarylphosphinic acids or their chlorides with phosphorus pentachloride, diaryldichlorophosphonium hexachlorophosphorates, $[Ar_2PCl_2]PCl_6$, are formed in almost quantitative yield, upon heating with diarylphosphinic acid chlorides, they give diaryltrichlorophosphorus. The diaryltrichlorophosphorus compounds and diaryldichlorophosphonium hexachlorophosphorates are not reduced by methyl dichlorophosphite. The reaction results in the formation of diarylphosphinic acid chlorides, methyl chloride, and phosphorus trichloride. Reduction of the diaryldichlorophosphonium hexachlorophosphorates with red phosphorus

Card 1/2

L 52797-65

ACCESSION NR: AP5016191

produces mixed diarylchlorophosphines. Nitro-substituted diarylchlorophosphines cannot be prepared by this method (only the chlorides of the corresponding arylnitroarylphosphinic acids are isolated from the reaction mixture in approximately 50% yield). Orig. art. has 10 formulas and 2 tables.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk Ukrainskoy SSR (Institute of Organic Chemistry, Academy of Sciences, Ukrainian SSR)

SUBMITTED: 30Sep63 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 001 OTHER: 003 JPRS

Card 2/2

L 52794-65 EWT(m)/EPF(c)/EWP(j)/T/ Pc-4/Pr-4 RM

ACCESSION NR: AP5016190 UR/0079/64/034/012/3954/3955

AUTHOR: Shevchenko, V. I.; Stratiyenko, V. T.; Pinchuk, A.M.

TITLE: Triphenylphosphazosulfonylaryls

SOURCE: Zhurnal obshchey khimii, v. 34, no. 12, 1964, 3954-3955

TOPIC TAGS: organic phosphorus compound, organic sulfur compound, chloride, organic amide

Abstract: A Kirsanov reaction takes place under the action of triphenylphosphorus dichloride on arenesulfamides to form triphenylphosphazosulfonylaryls in 89-94% yield. The reaction rates of diphenylphosphorus trichloride and triphenylphosphorus dichloride with arenesulfamides are approximately the same. Orig. art. has 1 formula and 1 table.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk Ukrainskoy SSR (Institute of Organic Chemistry Academy of Sciences, Ukrainian SSR)

SUBMITTED: 30Sep63 ENCL: 00 SUB CODE: OC, GC

NO REF SOV: 003 OTHER: 001 JPRS

Card 1/1

L 21859-66 EWP(j)/EWT(m) RM

ACC NR: AP6012652 SOURCE CODE: UR/0079/65/035/002/0363/0364

AUTHOR: Shevchenko, V. I.; Stratiyenko, V. T.; Pinchuk, A. M.

ORG: Institute of Organic chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR)

TITLE: Phenyl-p-tolylchlorophosphazosulfonylaryls

SOURCE: Zhurnal obshchey khimii, v. 35, no. 2, 1965, 363-364

TOPIC TAGS: amine, alcohol, hydrolysis, chemical reaction, organic sulfur compound, organic phosphorous compound, chlorinated organic compound

ABSTRACT: Phenyl-p-tolylchlorophosphazosulfonylaryls react readily with amines, alcohols, and other compounds containing an active hydrogen atom. Cold water and moist air slowly hydrolyze these aryls with the formation of arenesulfonylamides of phenyl-p-tolylphosphonic acid. The reaction temperature is 125°, and the reaction time is 0.15 hours. Orig. art. has: 2 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 13Dec63 / ORIG REF: 001 / OTH REF: 001

Card 1/1 mat

L 29285-66 EWT(m)/EWP(t)/T RM

ACC NR: AP6019328 SOURCE CODE: UR/0079/65/035/008/1492/1496

AUTHOR: Shevchenko, V. I.; Pinchuk, A. M. 32 31 B

ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR)

TITLE: Mixed diarylmethoxy- and diarylaroxyphosphazosulfonylaryls 1

SOURCE: Zhurnal obshchey khimii, v. 35, no. 8, 1965, 1492-1496

TOPIC TAGS: organic synthetic process, sulfonic acid, organic azo compound, organic phosphorus compound, chlorinated organic compound

ABSTRACT: Mixed diarylchlorophosphazosulfonylaryls $ArSO_2N{=}P(Ph)(Ar')Cl$ (I) were synthesized by reaction of diarylchlorophosphines with arene sulfonic acid dichloroamides or by reaction of arene sulfonic acid amides with diaryltrichlorophosphorus. The following compounds I were obtained: I (Ar = Ph, Ar' = p-ClC_6H_4); I (Ar = Ph, Ar' = p-BrC_6H_4); I (Ar = Ph, Ar' = p-$MeOC_6H_4$); I (Ar = Ar' = p-ClC_6H_4); I (Ar = p-ClC_6H_4, Ar' = p-BrC_6H_4); I (Ar = p-ClC_6H_4, Ar' = p-$MeOC_6H_4$); I (Ar = p-ClC_6H_4, Ar' = p-MeC_6H_4); I (Ar = Ar' = p-BrC_6H_4); I (Ar = p-$O_2NC_6H_4$, Ar' = p-ClC_6H_4); I (Ar = p-$O_2NC_6H_4$, Ar' = p-BrC_6H_4); I (Ar =

Card 1/3

UDC: 547.558

$p\text{-}O_2NC_6H_4$, Ar' = $p\text{-}MeC_6H_4$); I (Ar = $p\text{-}O_2NC_6H_4$, Ar' = $p\text{-}MeOC_6H_4$); I (Ar = $p\text{-}MeC_6H_4$, Ar' = $p\text{-}ClC_6H_4$); I 9Ar = $p\text{-}MeC_6H_4$, Ar' = $p\text{-}BrC_6H_4$); I (Ar = $p\text{-}MeC_6H_4$, Ar' = $p\text{-}MeOC_6H_4$); I (Ar = $1\text{-}C_{10}H_7$, Ar' = $p\text{-}BrC_6H_4$); I (Ar = $1\text{-}C_{10}H_7$, Ar' = $p\text{-}MeOC_6H_4$); I (Ar = $1\text{-}C_{10}H_7$, Ar' = $p\text{-}MeC_6H_4$). Compounds I were very viscous liquids or brittle vitreous solids. By treating esters of mixed diarylphosphinous acids with Na salts of chloramides of arene sulfonic acids or by replacing Cl in compounds I with a methoxy group or aryloxy groups, diarylmethoxy- and diarylaroxyphosphazosulfonylaryls $ArSO_2N{=}P(Ph)(Ar')OR$(II) were prepared. The following compounds II were prepared: II (Ar = Ph, Ar' = $p\text{-}BrC_6H_4$, R = Me); II (Ar = Ph, Ar' = $p\text{-}BrC_6H_4$, R = Ph); II (Ar = Ph, Ar' = $p\text{-}BrC_6H_4$, R = $1\text{-}C_{10}H_7$); II (Ar = Ph, Ar' = $p\text{-}MeC_6H_4$, R = Ph); II (Ar = Ph, Ar' = $p\text{-}MeC_6H_5$, R = $1\text{-}C_{10}H_7$); II (Ar = $p\text{-}ClC_6H_4$, Ar' = $p\text{-}BrC_6H_4$, R = Ph); II (Ar = $p\text{-}ClC_6H_4$, Ar' = $p\text{-}BrC_6H_4$, R = $1\text{-}C_{10}H_7$); II (Ar = $p\text{-}ClC_6H_4$, Ar' = $p\text{-}MeC_6H_4$, R = $1\text{-}C_{10}H_7$); II (Ar = $p\text{-}O_2NC_6H_4$, Ar' = $p\text{-}BrC_6H_4$, R = Me); II (Ar = $p\text{-}O_2NC_6H_4$, Ar' = $p\text{-}BrC_6H_4$, R = Ph); II (Ar = $p\text{-}O_2NC_6H_4$, Ar' = $p\text{-}BrC_6H_4$,

L 29285-66

ACC NR: AP6019328

R = 1-$C_{10}H_7$); II (Ar = p-$O_2NC_6H_4$, Ar' = p-MeC_6H_4, R = 1-$C_{10}H_7$); II (Ar = 1-$C_{10}H_7$, Ar' = p-BrC_6H_4, R = Me); II (Ar = 1-$C_{10}H_7$, Ar' = p-BrC_6H_4, R = Ph); II (Ar = 1-$C_{10}H_7$, Ar' = p-BrC_6H_4, R = 1-$C_{10}H_7$). Compounds II were isolated in two isomeric forms: a crystalline form (one of the three theoretically possible racemic isomers) and a liquid form (eutectic mixture of racemic isomers.)

The authors thank A. V. Kirsanov for his help and advice. Orig. art. has: 7 formulas and 2 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 06Aug64 / ORIG REF: 005

Card 3/3 CC

L 29287-66 EWP(j)/EWI(m)/T RM

ACC NR: AP6019327 SOURCE CODE: UR/0079/65/035/008/1488/1491

AUTHOR: Shevchenko, V. I.; Pinchuk, A. M.; Kirsanov, A. V.

ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR)

TITLE: Mixed triarylphosphazosulfonylaryls

SOURCE: Zhurnal obshchey khimii, v. 35, no. 8, 1965, 1488-1491

TOPIC TAGS: organic synthetic process, chromatography, chlorinated organic compound, organic sulfur compound, organic azo compound, organic phosphorus compound

ABSTRACT: Mixed triarylphosphazosulfonylaryls $ArSO_2N{=}PAr'Ar''Ar'''$ (I) were prepared by the following five reactions:

$$ArSO_2NCl_2 + Cl_2PAr'Ar''Ar''' \rightarrow 2Cl_2 + I;$$

$$ArSO_2NH_2 + Cl_2PAr'Ar''Ar''' \rightarrow 2HCl + I;$$

$$ArSO_2NCl_2 + PAr'Ar''Ar''' \rightarrow Cl_2 + I;$$

$$ArSO_2NNaCl + PAr'Ar''Ar''' \rightarrow NaCl + I;$$

$$ArSO_2N_3 + PAr'Ar''Ar''' \rightarrow N_2 + I$$

Card 1/3 UDC: 547.558.1

Compounds prepared by reactions of different types were identical. The following compounds were synthesized by the reactions indicated: I (Ar = Ar' = Ar'' = Ph, Ar''' = p-MeC_6H_4); I (Ar = Ph, Ar' = Ar'' = p-MeC_6H_4, Ar''' = Ph); I (R = Ph, Ar' = Ar'' = p-$MeOC_6H_4$, Ar''' = Ph); I (Ar = p-ClC_6H_4, Ar' = Ar'' = Ph, Ar''' = p-MeC_6H_4); I (Ar = p-ClC_6H_4, Ar' = Ar'' = p-MeC_6H_4, Ar''' = Ph); I (Ar = p-ClC_6H_4, Ar' = Ar'' = p-$MeOC_6H_4$, Ar''' = Ph); I (Ar = p-$O_2NC_6H_4$, Ar' = Ar'' = Ph, Ar''' = p-MeC_6H_4); I (Ar = p-$O_2NC_6H_4$, Ar' = Ar'' = p-$MeOC_6H_4$, Ar''' = Ph); I (R = p-MeC_6H_4, Ar' = Ar'' = Ph, Ar''' = p-MeC_6H_4); I (Ar = Ar' = Ar'' = p-MeC_6H_4, Ar''' = Ph); I (Ar = p-MeC_6H_4, Ar' = Ar'' = $MeOC_6H_4$, Ar''' = Ph); I (Ar = β-$C_{10}H_7$, Ar' = Ar'' = Ph, Ar''' = p-MeC_6H_4); I (Ar = β-$C_{10}H_7$, Ar' = Ar'' = p-MeC_6H_4, Ar''' = Ph); I (Ar = β-$C_{10}H_7$, Ar' = Ar'' = p-$MeOC_6H_4$, Ar''' = Ph). Furthermore, eight compounds I (Ar' = Ph, Ar'' = p-BrC_6H_4) were synthesized with Ar = Ph, Ar''' = p-MeC_6H_4; Ar = Ph, Ar''' = p-$MeOC_6H_4$; Ar = p-ClC_6H_4, Ar''' = p-MeC_6H_4;

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ACC NR: AP6019327

Ar = p-ClC_6H_4, Ar''' = p-$MeOC_6H_4$; Ar = p-$O_2NC_6H_4$, Ar''' = p-$MeOC_6H_4$; Ar = p-$O_2NC_6H_4$, Ar''' = p-$MeOC_6H_4$; Ar = Ar''' = p-MeC_6H_4; Ar = p-MeC_6H_4, Ar''' = p-$MeOC_6H_4$. Compounds I were crystalline substances with sharp melting points, except for I (Ar = β-$C_{10}H_7$, Ar' = Ar'' = Ph, Ar''' = p-MeC_6H_4) and I (Ar = p-MeC_6H_4, Ar' = Ph, Ar'' = p-BrC_6H_4, Ar''' = p-$MeOC_6H_4$), which were vitreous solids. None of the compounds synthesized could be separated into isomers either by fractional crystallization or by chromatography. Orig. art. has: 6 formulas and 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: 09Jul64 / ORIG REF: 004 / OTH REF: 002

Card 3/3 cc

L 29286-66 - EWP(1)/EWT(m) RM

ACC NR: AP6019326 SOURCE CODE: UR/0079/65/035/008/1487/1488

AUTHOR: Shevchenko, V. I.; Stratiyenko, V. T.; Pinchuk, A. M. 24 B

ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR)

TITLE: Phenylbenzylethylphosphazosulfonylaryls

SOURCE: Zhurnal obshchey khimii, v. 35, no. 8, 1965, 1487-1488

TOPIC TAGS: sulfonic acid, organic azo compound, chlorinated organic compound, organic synthetic process, cyclic group

ABSTRACT: Phenylbenzylethylphosphazosulfonylaryls (A) can be prepared by oxidative introduction of an $ArSO_2N=$ group into phenylbenzylethylphosphine by means of Na salts of sulfonic acid chloramides or by means of sulfonic acid azides:

$$ArSO_2NNaCl + P(Ph)(CH_2Ph)Et \rightarrow NaCl + ArSO_2N{=}P(Ph)(CH_2Ph)Et \ (A)$$
$$ArSO_2N_3 + P(Ph)(CH_2Ph)Et \rightarrow N_2 + A$$

By using these reactions, compounds A with Ar = Ph, $p\text{-}MeC_6H_4$, $o\text{-}MeC_6H_4$, and $\alpha\text{-}C_{10}H_7$ were prepared. They were crystalline substances melting at 107-8°, 102-3°, 125-6°, and 105-6°, resp. Orig. art. has: 1 formula and 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: 08Jun64 / ORIG REF: 001 / OTH REF: 002

Card 1/1 UDC: 546.185

AKSENOV, V.P., kand.tekhn.nauk; EKLYAKOV, Yu.I., kand.tekhn.nauk; PINCHUK, A.N., inzh.

Prospects for using continuous equipment in open pits of the U.S.S.R. Gor.zhur. no.2:10-13 F '63. (MIRA 16:2)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut ugol'noy, rudnoy, neftyanoy i gazovoy promyshlennosti, Kiyev.
(Strip mining—Equipment and supplies)

TISHCHENKO, Vladimir Pavlovich; PINCHUK, A.P., red.; BOROVINSKAYA, L.M., tekhn. red.

[Individual quality control; manual for contenders in communist competition] Tekhnicheskii samokontrol'; v pomoshch' sorevnuiushchimsia za kommunisticheskii trud. Rostov-na-Donu. Rostovskoe knizhnoe izd-vo, 1962. 159 p. (MIRA 15:7)
(Quality control)

PINCHUK, A.P.

Midwife Tat'iana Andreevna Red'ko. Fel'd. i akush. 22 no.7:62 Jl '57. (MIRA 10:11)

1. Zaveduyushchiy rayzdravotdelom g. Petrikova.
(RED'KO, TAT'IANA ANDREEVNA, 1886-)

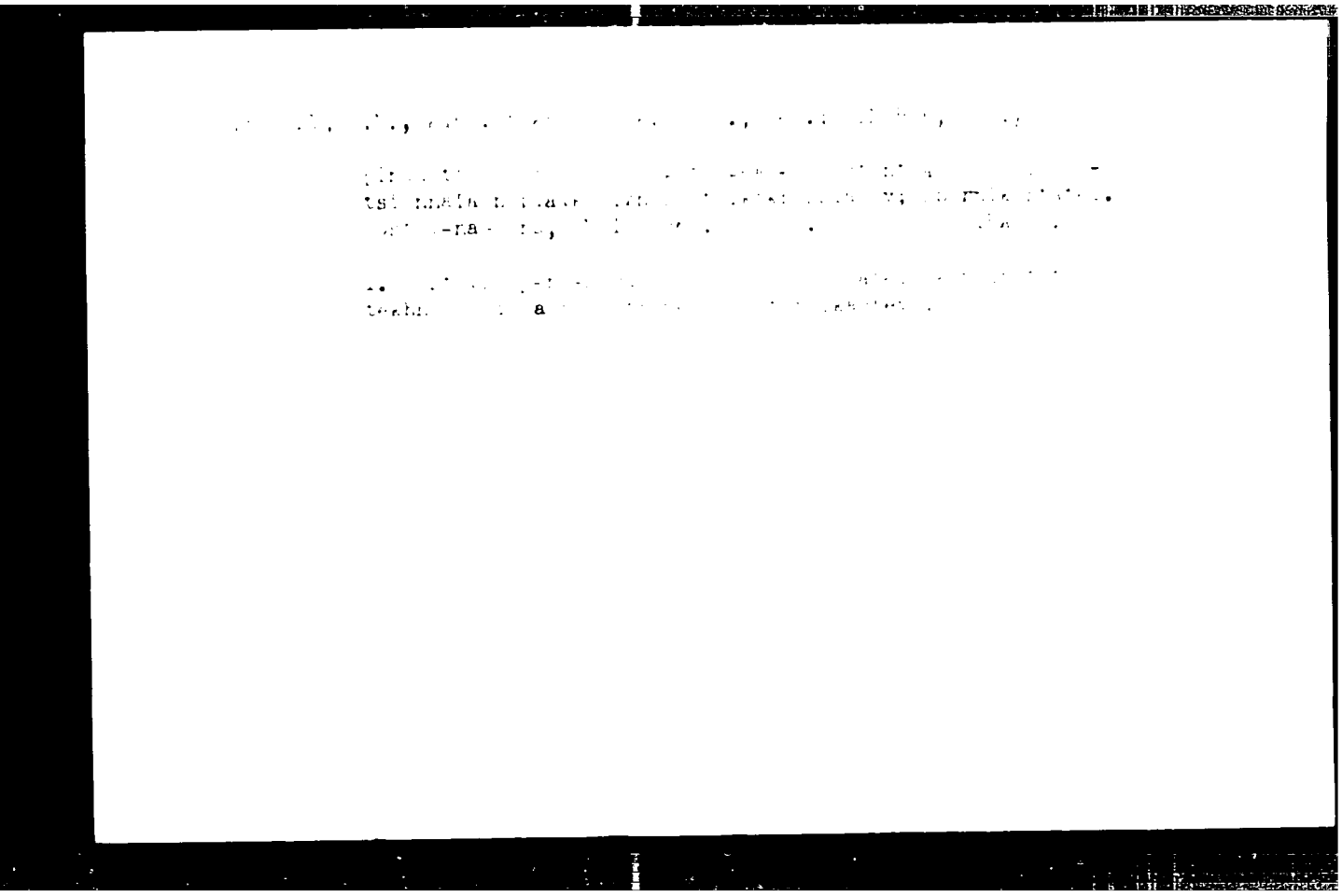
GONCHAROV, Ivan Nikolayevich, nauchnyy sotr.; DOROFEYEV, Yuriy Grigor'yevich, nauchnyy sotr.; MATVEYEV, Vladimir Panteleyevich, nauchnyy sotr.; POPOV, Stepan Nikolayevich, nauchnyy sotr.; PINCHUK, A.P., red.; IVANOVA, R.N., tekhn. red.

[New method for the processing of metal chips] Novyi metod pererabotki metallicheskoi struzhki. Rostov-na-Donu, Rostovskoe knizhnoe izd-vo, 1962. 33 p. (MIRA 15:6)

1. Novocherkasskiy politekhnicheskiy institut (for Goncharov, Dorofeyev, Matveyev, Popov).
(Scrap metal industry)

DUDKO, Georgiy Mikhaylovich; YATSENKO, Konstantin Ivanovich; PINCHUK, A.P., red.; SAAK'YAN, Yu.A., red.izd-va; BOROVINSKAYA, L.M., tekhn. red.

[How to make articles from metal sheets, sections, and pipes] Kak izgotovit' detali iz lista, profilei i trub. Rostov-na-Donu, Rostovskoe knizhnoe izd-vo, 1963. 81 p. (MIRA 17:3)



KOSOV, Nikolay Petrovich; PINCHUK, A.P., red.

[Innovators' attachments for milling machines] Frezernye prisposobleniia novatorov. Rostov-na-Donu, Rostovskoe knizhnoe izd-vo, 1964. 142 p. (MIRA 18:8)

15 7140

27067
S/080/61/034/003/007/017
A057/A129

AUTHORS: Andreyev, D. N., Okhrimenko, I. S., Pinchuk, A. Ye., Lyutyy, V. P.

TITLE: Unsaturated organosilicon polyesters and the properties of lacquers on this base

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 3, 1961, 584 - 588

TEXT: Syntheses of two new polyfumarates, modified with siloxane links, viz., the diester bis(trimethylsilylmethyl)fumarate and the polyester poly(dimethylene-tetramethyldisiloxane)fumarate are described and preliminary results in investigations of their properties are given. Polymaleates and polyfumarates are widely used in the manufacture of lacquers, plastics etc. M. A. Bulatov and S. S. Spasskiy [Ref. 1: Vysokomol. soyed., 2, 5, 658 (1960)] demonstrated already that these esters, when modified with organosiloxanes, as for instance with dimethyldiethoxysilane, obtain high technical properties. Organosiloxane polymaleates and polyfumarates, derivatives of organosiloxane and glycols containing a siloxane link in the molecule, have not been synthesized. Thus the present authors started investigations in this field. To develop the synthesis of the polyester, the synthesis of the diester was carried out first according to the reaction $2(CH_3)_3SiCH_2Cl$ +

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Unsaturated organosilicon polyesters and the...

+ $KOOCCH{=}CHCOOK \rightarrow (CH_3)_3SiCH_2OOCCH{=}CHCOOCH_2Si(CH_3)_3$. In the procedure 0.16 mole of potassium fumarate was mixed with 0.08 mole of fumaric acid in 150 ml of dimethylformamide as solvent. The mixture was boiled, agitated during 30 minutes, dropwise 0.32 mole chloromethyltrimethylsilane was added, heated, agitated for 20 hrs more, while the boiling temperature rose from 124°C to 149°C. After cooling the precipitated potassium chloride was filtered off, the solvent was removed by vacuum distillation and the residue was treated with a soda solution and water-benzene mixture. Then the benzene was dried, evaporated and the fumarate was vacuum-distilled (151°-153°C, 8 torr). The yield was 54.8% of a product with n_D^{20} 1.4548, d_4^{20} 0.980. In an analogous way the polyester was prepared. Potassium fumarate of 0.5 mole was mixed with 0.125 mole of fumaric acid in 300 ml of dimethylformamide and then bis(chloromethyl)tetramethyldisiloxane was added. Instead of benzene ether was used as solvent and after removal of the latter a highly viscous reddish-brown substance insoluble in water but soluble in most organic solvents, except petroleum ether and gasoline, was obtained. The average molecular weight was found to be 2,400 corresponding to a condensation degree of 9. The re-precipitated polyester was investigated by spectrophotometry on an UKC-12 (IKS-12) apparatus. The obtained infrared absorption spectrum proved the presence of double bonds in the trans-

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Unsaturated organosilicon polyesters and the...

position (900 - 990 cm^{-1}, 1,320 cm^{-1}), siloxane bonds (1,020 - 1,091 cm^{-1}), $(CH_3)_2Si$ groups (800 - 814 cm^{-1}, and 1,259 cm^{-1}), ester groups characteristic for fumarates (1,140 - 1,180 cm^{-1}) and end-carboxylic groups (900 - 950 cm^{-1}). The obtained polyester is miscible with styrene within a range from 3.5 : 1 to 0.3 : 1, and transparent homogeneous solutions are obtained. Properties of four lacquers (see table) based on this polyester were investigated and it was observed that in comparison with maleic resins the double bonds in siloxane-modified fumaric resin show lower activity. Thus a lacquer based on this resin required heating to 200°C to "dry" within 30 minutes, i.e., to produce a three-dimensional structuration to 70% (Fig. 3). At 120°C the same degree of structuration requires 7 hrs (Fig. 2). The drying is the result of two independent processes: 1) a catalytic polymerization with an initiator (1% of cyclohexanone peroxide), and 2) an oxidative structuration produced by heating over 100°C. No initiator seems to be necessary for the latter process. Elasticity tests carried out by the NIILK method and hardness tests on a ГИПИ-4 (GIPI-4) machine showed that films obtained from these lacquers have high elasticity, but rather low hardness. Thus lacquer no. III showed after 70 minutes of drying at 200°C a 1 mm flexibility on a rod and a 0.195 hardness. There are 3 figures, 1 table, and 2 Soviet-bloc references.
SUBMITTED: July 9, 1960

Card 3/5

AUTHORS: Lakhtin, Yu. M. Doctor of Technical Sciences
and Pinchuk, D. S., Engineer

TITLE: Nitriding of high strength magnesium inocul...
(Azotirovaniye vysokoprochnogo magniyevogo ...)

PERIODICAL: Metallovedeniye i Obrabotka Metallov ...
pp 39-42 (USSR)

ABSTRACT: For determining the volume dissolution of magnesium in the "selico ferrite", V. D.Yakhnina and A.F. Landa subjected a magnesium inoculated iron to nitriding. According to V. D.Yakhnina the nitrided layer of magnesium inoculated cast iron has a high hardness (up to 900 H_V) and corrosion resistance in water. It was pointed out that for obtaining a given depth of the nitrided layer a considerably smaller duration of the process is required than for nitriding steel and other types of cast iron. For instance, in the case of nitriding at 560 ... dissociation of the ammonia of 45% only ... required for obtaining a 0.16 mm thick layer ... hours for obtaining a 0.35 mm thick layer. For ... a uniform and high hardness of the nitrided layer these authors recommend that pearlite and ferrite-pearlite base magnesium inoculated iron should be subjected to

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129-58-7-9/17

Nitriding of high strength magnesium inoculated iron.

homogenization annealing at 720 to 740°C prior to nitriding. Taking into consideration the possibility of using nitriding for improving the wear resistance and the corrosion resistance of magnesium inoculated iron, the authors of this paper carried out special investigations for studying the kinetics of formation and the phase composition of the diffusion layer obtained in the case of saturation of magnesium inoculated iron with nitrogen and also to establish the influence of the parameters of the process on the properties of the nitrided layer. For the investigations a magnesium inoculated pearlite-ferrite iron was chosen which contained 3.05% C, 2.41% Si, 0.63% Mn, 0.1% S, tensile strength 56.4 k_g/mm^2, relative elongation 2.2%, hardness 245 H_B. Inoculation was in the ladle and, after casting, the iron was annealed at 950°C. Nitriding was effected in laboratory equipment at 500, 550, 600, 650, 700 °C and 800°C for durations of 1, 3, 6, 12 and 24 hours. The graph, Fig.1, gives the dependence of the hardness of the nitrided layer on the temperature of the process. It can be seen that the hardness of the nitrided layer

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Nitriding of high strength magnesium inoculated iron.

magnesium inoculated iron is considerably greater [illegible] that of other iron. This justifies the assumption [illegible] the increase in the hardness is due to the presence of magnesium in the solid solution (Refs.2 and 4) The maximum hardness of the nitrided layer in magnesium inoculated iron will be obtained for a processing temperature of 650 to 700°C unlike aluminium alloyed steel in which the temperature is considerably lower (480 to 520°C). The hardness of a nitrided layer depends to a large degree on the duration of the process of saturation of the iron with the nitrogen (Fig.2) For obtaining maximum hardness the duration of the process should be at least 12 to 24 hours. The higher the temperature the faster the maximum hardness is obtained. The character of the change of hardness with depth of the nitrided layer is shown in the graph, Fig. [illegible] nitrided layer revealed practically no brittleness. The graph, Fig.4, gives the dependence of the depth of the diffusion layer on the temperature and the duration of the nitriding process. The depth of the diffusion layer obtained on magnesium inoculated iron (detected by macro and micro analysis and by the hardness method [illegible]

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Nitriding of high strength magnesium inoculated iron

under otherwise equal conditions, lower than in the case of nitriding of carbon and alloy steels since the coefficient of diffusion of the nitrogen in the ε and the α-phases of the systems Fe-N decreases with increase in carbon content of the alloy. The obtained data do not confirm the conclusions of V. D. Yakhnina, who states that the diffusion of the nitrogen in the magnesium iron is faster than in steel. The structure of the nitrided layer obtained in magnesium inoculated iron differs little from that of the nitrided layer formed in carbon steel (Fig.5). In investigating the micro-structure of the nitrided layer a non-etched bright strip can be detected which corresponds to the carbo-nitride ε-phase. The presence of an ε-phase was confirmed by X-ray analysis. The depth of the ε-phase does not exceed 0.01 mm. With increasing temperature up to 700°C the thickness of the layer containing the ε-phase increases and its hardness decreases. At low nitriding temperatures (short process duration) no ε-phase is detected by X-ray analysis but only the presence of a γ'-phase. After the ε-phase (γ'-phase) an $\alpha + \gamma_{excess}$ (α-phase) or a eutectoid

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Nitriding of high strength magnesium inoculated iron

mixture $\alpha + \gamma'$ (γ-phase) will be present, depending on the nitriding temperature. Formation of a eutectoid was observed only after nitriding at 700°C which indicates an increase in the eutectoidal temperature. In the same way as during nitriding of iron in carbon steel (Ref.5) the transition from one diffusion layer to the other is accompanied by a jump in the degree of concentration (Fig.6). A somewhat increased concentration of the nitrogen in the neighbourhood of the γ-phase is probably linked with movement along the boundary of the ε-phase into the region of the γ-phase (see Fig.5). The obtained data justify the assumption that the kinetics of formation of a nitrided layer in magnesium inoculated iron is basically the same as that described by Lakhtin (Ref.5) for iron and steel. Apparently inoculation of steel with magnesium may prove one of the methods of producing new non-scarce materials for nitriding. The results obtained by the authors justify the recommendation of the process of nitriding for surface hardening of components made of high strength magnesium-inoculated iron.

There are 6 figures and 5 references, all of which are Soviet.

Card 5/5 (Note: This is a full translation except for the first paragraph and the figure captions).

AUTHOR: Pinchuk, F. L., Engineer S/[illegible]/58/11/[illegible]/[illegible]

TITLE: Use of Epoxide Resins (Primeneniye epoksidnykh smol)

PERIODICAL: Mashinostroitel', Nr 11, pp [illegible] - [illegible] (USSR)

ABSTRACT: Epoxide resins are the base of the putties, type E-4020 and E-4021. At the Leningradskiy metallicheskiy zavod (Leningrad Metal Plant), these putties are used for coating machine parts which are to be exported to tropical countries (reduction gears type RM-350 and RM-400). The putties are also used for coating galvanization tanks because they are very resistant to acids. As a filler, asbestos Nr 5 or 7 may be used, or even metal powder. Epoxide resins can also be used as glues. The glues EI-5 and EP-6 are very elastic, have good dielectric properties, are waterproof, etc.

1. Resins--Applications 2. Resins--Properties

Card 1/1

PLECHOK, I.G.

His work serves as an example. Elek. i tepl.tiaga no.7:13 Jl '54.
(MLRA 16:9)

(Locomotive engineers)

PINCHUK, G.A.

KOLOTUKHIN, I.N.; KUZNETSOV, V.G.; KAZARNOVSKIY, S.N.; TSAREGRADSKIY, V.A.; PINCHUK, G.A., redaktor; VERINA, G.P., tekhnicheskiy redaktor

[Technology of lubricating and protective materials] Tekhnologiia smazochnykh i zashchitnykh materialov. Moskva, Gos. transportnoe zhel-dor. izd-vo, 1952. 235 p. [Microfilm]. (MLRA 8:7)
(Lubrication and lubricants) (Corrosion and anticorrosives) (Finishes and finishing)

PINCHUK, G. A.

N/5
668.6
.P6

Tekhnologiya topliva, smazochnykh materialov i vody (Technology of Fuel, Lubricating Material and Water, By) G. A. Pinchuk (L. Dr.), Moskva, Transzheldorizdat, 1954.

351 P. Diagrs., Tables.

"Literatura": P. 346-347.

PINCHUK, GALINA ALEKSANDROVNA

PINCHUK, Galina Aleksandrovna; POKALYUK, Aleksey Ivanovich; TKHENIKHIN, Yevgeniy Fedorovich; MEL'NIK, V.A., inzhener, redaktor; VORONOV, E.M., inzhener, redaktor; ZHILIN, A.S., inzhener, redaktor; KHITROV, P.A., tekhnicheskiy redaktor.

[The technology of fuels, lubricants and water] Tekhnologiia topliva, smazochnykh materialov i vody. Moskva, Gos. transportnoe zhel-dor. izd-vo, 1954. 351 p. (MLRA 7:12)
(Fuel) (Lubrication and lubricants) (Water)

FINCHU, G. A.

"An Investigation of Certain Problems in the Field of Limited Repeated Dynamic Endurance of Steel." Cand Tech Sci, Moscow Order of Labor Red Banner Higher Technical School imeni Baumman, 20 Dec 54. (VM, 8 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (1)
SO: Sum. No. 556 2, Jun 55

GRANOVSKIY, Roman Grigor'yevich, professor; PINCHUK, G.A., kandidat tekhnicheskikh nauk, redaktor; KHITROV, P.A., tekhnicheskiy redaktor

[Boiler installations] Kotel'nye ustanovki. Izd. 2-oe, perer. i dop. Moskva, Gos.transp.zhel-dor.izd-vo, 1957. 344 p. (MLRA 10:9)
(Boilers)

KOLOTUKHIN, Ivan Nikiforovich; KUZNETSOV, Vasiliy Georgiyevich; KAZARNOVSKIY, Semen Naumovich; TSAREGRADSKIY, Vladimir Alekseyevich; PINCHUK, O.A., kand.tekhn.nauk, red.; BOBROVA, Ye.N., tekhn.red.

[Technology of lubricants and protective coatings] Tekhnologiia smazochnykh i zashchitnykh materialov. Izd.2., perer. i dop. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1960. 146 p. (MIRA 13:9)
(Lubrication and lubricants) (Protective coatings)

S/123/62/000/009/010/017
A052/A101

AUTHORS: Pinchuk, G. A., Ivanov, B. A., Nemanov, M. S., Mineyev, Yu. A.

TITLE: The effect [illegible] surface hardening on the fatigue strength of wine electric locomotive axles

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 9, 1962, 38-39, abstract [illegible] sb. "Povysheniye dolgovechnost' detaley mashin poverkhnostn. plastich." Perm', 1961, 27-30)

TEXT: The effect of surface hardening by means of burnishing the under-nave parts of axles on their fatigue strength was investigated. Experimental axle specimens were prepared of steel 45 subjected to normalizing and refinement. Hub specimens to press-on were made of 40 XH (40KhN) steel and refined to hardness HB 240. The burnishing was performed by means of one-roll burnishing appliance under the following conditions: burnishing force 450 kg, burnishing speed = 40 m/min, feed = 0.15 mm/min, number of passes = 2. For burnishing a roll of 45 mm in diameter with the profile radius of 5 mm was used. The investigations have established that the surface hardness after burnishing under mentioned conditions increases by 30%, and the depth of the work hardened

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A052/A101

The effect of surface hardening ...

layer is [illegible] mm. The [illegible] of under-nave axle parts increases their fatigue strength by 150% compared with the not hardened specimens. The presence of a hub pressed-on on the axle reduces the fatigue strength by 60% compared with flat specimens. The tightness does not affect practically the fatigue strength of burnished axles and somewhat reduces that of unburnished axles. An application of steel subjected to refinement instead of normalizing does not affect the fatigue strength of under-nave axle parts. There are 7 figures.

E. Spivak

[Abstracter's note: Complete translation]

Card 2/2

20052

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AUTHORS Nemanov, M [illegible], [illegible] A., [illegible], N [illegible], Polozhenskiy, Nikolayev, V. A.

TITLE Investigation of the [illegible] steel 3N-2[illegible] 31-28[illegible], X 4N2 K 4N2

PERIODICAL Referativnyy zhurnal A., Metallurgiya, [illegible], [illegible], abstract [illegible] Sb. Nauchn. tr. Permsk. gos. [illegible] (PMI), no. 7, 1[illegible]-[illegible]

TEXT The mechanical properties of steel Kh.4N2 with composition [illegible] C 0.1 - 0.[illegible], Cr 16.0 - 18.0, Ni 1.5 - 2.5, Mn ≤ 0.8, Si ≤ [illegible], S ≤ 0.03, P ≤ 0.03 were investigated after heat-treatment for different hardness. It was established that under conditions of static, dynamic, and alternating loadings steel Kh.4N2 has high mechanical properties and is suitable for manufacturing high-stress structures. The top strength and [illegible] characteristics of steel Kh.4N2 and a lowering of its sensitivity to stress [illegible] may be obtained by heat-treatment for extreme hardness. When making [illegible] steel [illegible] loaded parts from steel Kh.4N2 it is necessary to take into [illegible] the effect of ferrite

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26052

Investigation of the [illegible]:

dendrites [illegible]
temperatures [illegible]
in a zone of danger [illegible]

Artificial [illegible]

Card 2/2

S/123/62/000/009/008/017
A052/A101

AUTHOR: Pinchuk, G. A.

TITLE: The effect of surface hardening on the limited repeated impact endurance

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 9, 1962, 38, abstract 9B154 (V sb. "Povysheniye dolgovechnosti detaley mashin poverkhnostn. naklepom", Perm', 1961, 22-30)

TEXT: The effect of surface hardening by means of shot blasting and burnishing with rollers on the limited repeated impact endurance of steel parts was investigated. Notched cylindrical samples of 25 XHBA (25KhNVA), 30 XH3 (30KhN3), and 50 A (50A) steel were subjected to frequent repeated impacts on the impact-fatigue machine after heat treatment and hardening. The hardening by means of shot blasting was carried out with 0.8 - 1.0 mm steel shot during 3 minutes. The shot blast treatment as well as the burnishing produces in the surface layer high compressive stresses. The depth of the work-hardened layer increases with the decreased hardness of the metal. The investigations have found that the shot blast and burnishing are effective methods of increasing

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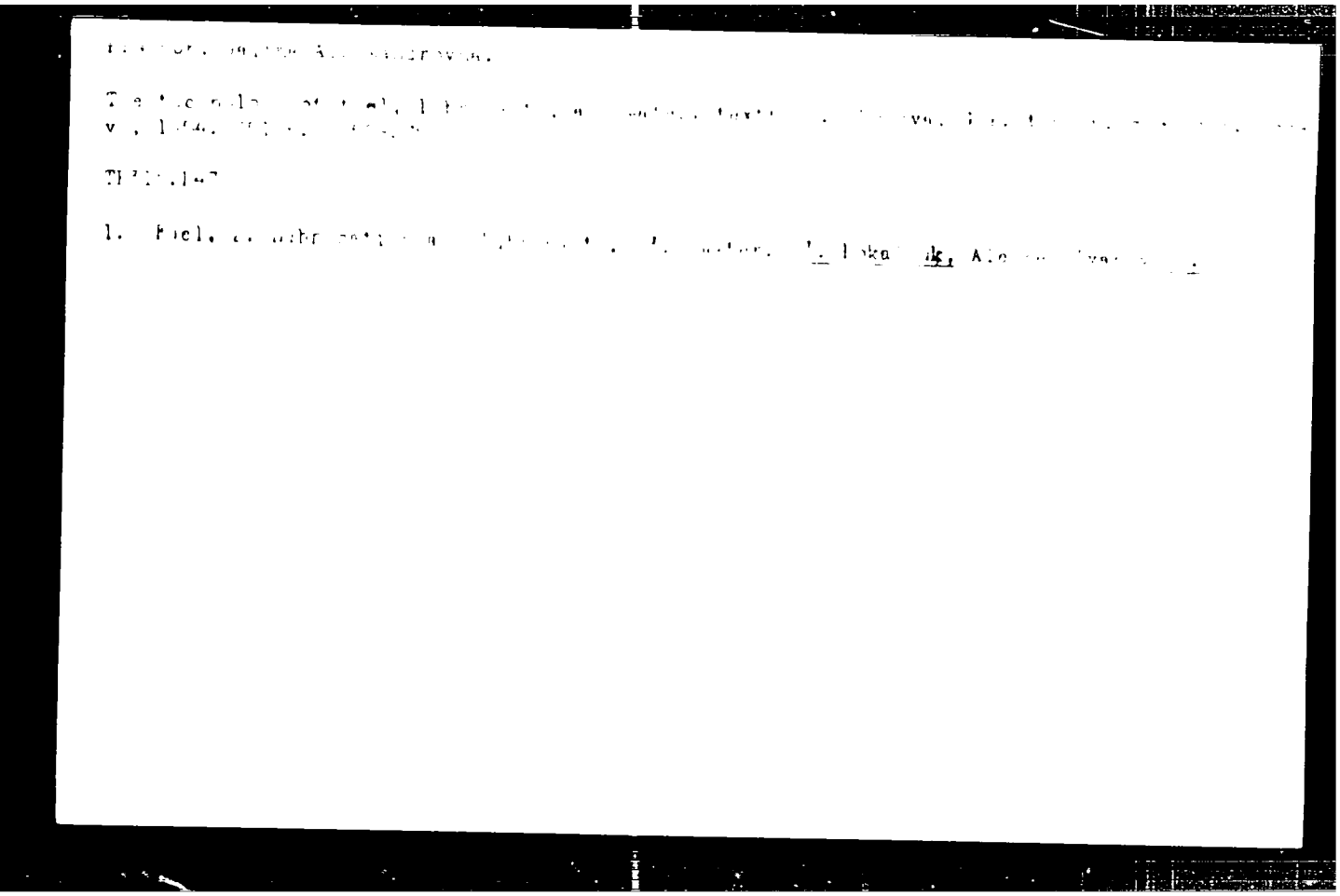
the repeated impact endurance of parts working under considerable overloads. The shot blast hardening increases the repeated impact endurance of 25KhNVA steel heat-treated to HRC -36 by a factor of 2 - 2.5. In the case of 30KhNZ and 50A steel with hardness of HRC 36-39 the shot blast hardening increases the repeated impact endurance by a factor of 1.4 - 1.7. At a hardness below HRC 35 the shot blast hardening increases the repeated impact endurance of these steels by 10 - 15% only. The burnishing over the notch only and over the cylindrical surface only is an effective method of increasing the service life of parts working under repeated impact loads of a high impulse and frequency. In heat-treated samples subjected to hardening the impact-fatigue crack appears later than in not treated samples. It is pointed out that the character of the impact-fatigue crack spread in square samples is different from the character of the impact-fatigue crack spread in cylindrical samples. The relationship has been established between the optimum parameters of surface hardening conditions, the depth of the work-hardened layer, the hardness of the tested material, residual stresses and the limited repeated impact endurance.

E. Spivak

[Abstracter's note: Complete translation]
Card 2/2



PINCHUK, G.I.; KHAN, Ya.M.

Precipitation pneumocystography in the diagnosis of tumors of the urinary bladder. Vop. onk. 6 no. 8:71-74 Ag '60. (MIRA 14:1)
(BLADDER--TUMORS)

PINCHUK, G.I.; KHAN, Ya.M.

Double contrasting in bladder cancer. Vop. onk. 9 no.11: 107-110 '63. (MIRA 18:2)

1. Iz Rostovskogo gosudarstvennogo nauchno-issledovatel'skogo instituta rentgenologii, radiologii i onkologii Ministerstva zdravookhraneniya RSFSR (dir.- kand. med. nauk A.K. Pankov, zav. urologicheskim otdelom - dotsent G.I. Pinchuk, zas. rengenologichesin otdelom - dotsent Ya.M. Khan). Adres avtora: Rostov-na-Donu, 14-ya liniya, d.63. Gosudarstvennyy nauchno-issledovatel'skiy institut rentgenologii, radiologii i onkologii.

PINCHUK, G.I.

Fibroepitheliomas and cancer of the urinary bladder. Vop. onk. 11 no.7:101-104 '65. (MIRA 18:9)

1. Iz urologicheskogo otdeleniya (zav.- dotsent G.I. Pinchuk) Rostovskogo gosudarstvennogo nauchno-issledovatel'skogo instituta rentgenologii, radiologii i onkologii (dir.- kand. med. nauk A.Ye. Pankov).

KONOVALOV, E.Ye.; FEYZULAYEV, Sh.I.; PINCHUK, G.P.; LARIONOVA, I.Ye., KONDRAT'YEVA, L.I.

Use of zonal fusion for concentrating impurities in spectral analysis of pure bismuth. Zhur. anal. khim. 18 no.5:624-633 My '63. (MIRA 17:)

L 44329-66 EWT(m) EAT(t)/ETI IJP(c) JD

ACC NR: AP6019766 SOURCE CODE: UR/0370/66/000/003/0084/0089

AUTHOR: Konovalov, E. Ye. (Obninsk); Peyzulayev, Sh. I. (Obninsk); Larionova, I. Ye. (Obninsk); Kondrat'yeva, L. I. (Obninsk); Pinchuk, G. P. (Obninsk)

ORG: none

TITLE: Determination of equilibrium distribution coefficients of impurities in bismuth

SOURCE: AN SSSR. Izvestiya. Metally, no. 3, 1966, 84-89

TOPIC TAGS: bismuth, metal zone melting, distribution coefficient, metal crystallization

ABSTRACT: In order to calculate the process of zone melting with optimum parameters, it is necessary to have the values of equilibrium coefficients of distribution of the impurities (k_0). These coefficients can be calculated by the method of Burton, Prim, and Slichter (J. Chem. Phys. 21, 1987, 1953) if the effective distribution coefficients k are known from experiments conducted at different crystallization rates (f) but under the same conditions of stirring of the melt. Using this method, the authors determined the values of k_0 for the impurities Ag, Pb, Cu, Tl, Cd, and Ni in bismuth. The values of k were determined by two independent methods, one involving zone melting processes and the other a normal directed crystallization. The two methods produced very similar results. This permitted the recommendation of their mean values as the most reliable values of the equilibrium coefficients of

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ACC NR: AP6019766

distribution for the above-mentioned impurities in bismuth. Orig. art. has: 4 figures, 4 tables, and 4 formulas.

SUB CODE: 11/ SUBM DATE: 23Feb65/ ORIG REF: 004/ OTH REF: 002

Card 2/2

KLEBANOV, G.S.; PINCHUK, G.Ya.

Solubility in the systems KI - NaI - H_2O, KI - HI - H_2O, NaI - HI - H_2O, MgI_2 - HI - H_2O. Zhur. prikl. khim. 37 no.2:289-293 F '64. (MIRA 17:4

1. Leningradskiy khimiko-farmatsevticheskiy institut.

AYZENSHTADT, Girsh-Yesel' Aronovich; PINCHUK, Irina Andrianovna; NEVEL'SHTEYN, V.I., vedushchiy red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

[Yuzhnaya Emba 2 and Tugarakchan 5 key wells] IUzhno-Embenskaia 2 i Tugarakchanskaia 5 opornye skvazhiny Leningrad, Gos.nauchno-tekhnicheskoe izd-vo neft.i gornotoplivnoi lit-ry, Leningr. otd-nie 1961. 293 p. (Leningrad, Vsesoiuznyi neftianoi nauchno-issledovatel'-skii geologorazvedochnyi institut. Trudy, no.184). (MIRA 15:11)
(Kura Lowland region--Petroleum geology)
(Kura Lowland region--Gas, Natural--Geology)
(Ust-Urt region--Petroleum geology)
(Ust-Urt region--Gas, Natural--Geology)

PINCHUK, I.F., inzh.-mekhanik (Stantsiya Nezhin, Yugo-Zapadnoy dorogi).

Mobile electric power plant. Put' i put. khoz. no. 7:22 Jl '58.
(MIRA 11:7)

(Electric power plants)

PINCHUK, I.I.

Immediate results of the treatment of gastric and duodenal ulcer with folliculin. Klin. med., Moskva 30 no. 11:90-91 Nov 1952. (CIML 23:5)

1. Docent. 2. Of the Faculty Therapeutic Clinic (Director -- Prof. Ye. M. Manburg), Stalinc Medical Institute.

L 14987-66 EWT(l)/EWT(m)/EWP(w)/T/EWP(t)/EWP(b) IJP(c) JD/AT

ACC NR: AP5028554 SOURCE CODE: UR/0126/65/020/005/0663/0672

AUTHOR: Samoylovich, A. G.; Pinchuk, I. I.

ORG: Chernovtsy State University (Chernovitskiy gosuniversitet)

TITLE: Theory of galvanomagnetic effects in metals of the bismuth type

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 5, 1965, 663-672

TOPIC TAGS: bismuth, galvanomagnetic effect, tensor analysis, metal physics, solid state physics, electron, electric theory

ABSTRACT: The interaction of electrons with phonons in bismuth is described by the deformation potential in which the scattering of electrons by phonons is assumed to be elastic. A calculation is made of the relaxation time tensor and the galvanomagnetic tensors and the dependence of the Hall tensor on the magnetic field is established. Data on the Fermi surface of bismuth are reviewed (see fig. 1). A theoretical derivation of the relaxation time tensor for electrons and electron "holes" based on the elastic tensor c_{ij} is presented. The kinetic equations for magnetic fields are determined and a calculation for the temperature dependent electrical con-

UDC: 539.292 : 537.312.01

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ductivity are given. The relaxation time tensor for the electrons is:

$$\tau_{11} = \frac{1}{B_{11}(0,0)}; \quad \tau_{22} = \frac{B_{11}(1,1) + |B_{11}(1,-1)|\cos 2\eta_1}{B_{11}^2(1,1) - |B_{11}(1,-1)|^2};$$

$$\tau_{33} = \frac{B_{11}(1,1) - |B_{11}(1,-1)|\cos 2\eta_1}{B_{11}^2(1,1) - |B_{11}(1,-1)|^2}; \quad \tau_{23} = \sqrt{\frac{m_2}{m_3}} \times$$

$$\times \frac{|B_{11}(1,-1)|\sin 2\eta_1}{B_{11}^2(1,1) - |B_{11}(1,-1)|^2}; \quad \tau_{32} = \frac{m_3}{m_2}\tau_{23}.$$

where $B_{ll}(nm) = \frac{\sqrt{2e m_1 m_2 m_3}}{2(\pi\hbar)^3} i^{m-n}\sqrt{(2l+1)(2k+1)}\int \sin\theta\, d\theta\, d\varphi \int_0^{\pi/2} d\Theta \sin\Theta \times$

$$\times \cos\Theta\, W(\theta,\varphi) P_l^0(\cos\Theta) P_k^0(\cos\theta) P_{0n}^k(\cos\theta) P_{0m}^{l*}(\cos\theta) e^{i(m-n)\varphi}. \quad (1.6)$$

1 is the angle of inclination of the electrons of the ellipsoid in the YZ plane,

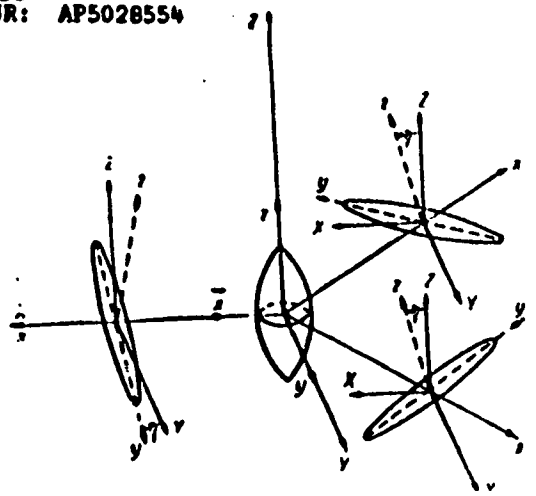

Fig. 1. Fermi surface in bismuth. X, Y, Z - laboratory system of coordinates; x, y, z - principal axes of the mass ellipsoids.

m_i is component of mass. The relaxation time for the electron "holes" is calculated to be:

$$\bar{\tau}_{11} = \bar{\tau}_{22} = \frac{1}{\bar{B}_{11}(0.0)}; \quad \bar{\tau}_{33} = \frac{1}{\bar{B}_{11}(1.1)}.$$

$$\bar{\tau}_{11} = \bar{\tau}_{22} = \bar{\tau}_0 \bar{\omega}_{11}; \quad \bar{\tau}_{33} = \bar{\tau}_0 \bar{\omega}_{33}.$$

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ACC NR: AP5028554

where 0 is obtained from 1.8 substituting m_1, m_2, m_3 for $\bar{m}_1 = \bar{m}_2$ and $\bar{m}_3$. In the kinetic equations, the function $X_i(\varepsilon)$ must be calculated. It is obtained from the tensor coefficients a.

$$X_i(\varepsilon) = \tau_0 \sum_k a_{ik} K_k + \tau_0^2 \sum_{k,l} a_{ikl} H_l K_k + \tau_0^3 \sum_{klm} a_{iklm} H_l H_m K_k + \\ + \tau_0^4 \sum_{klmn} a_{iklmn} H_l H_m H_n K_k.$$

The tensor coefficients a for both the electrons and electron "holes" are presented. Calculations for the electrical conductivity are based on electric conductivity tensors and magnetic conductivity tensors. The results of the experimental findings are to be presented in another paper. Orig. art. has: 2 figures, 3 tables, 30 equations.

SUB CODE: 20/ SUBM DATE: 17Feb65/ ORIG REF: 007/ OTH REF: 003

Card 4/4

DROZDOV, L.N.; PINCHUK, I.N.

Standardization of students' farm work. Politekh.obuch. no.12: 54-57 D '58. (MIRA 11:12)
(Agriculture--Study and teaching)
(Field work (Educational method))

PINCHUK, I.N.

Some shortcomings observed in the teaching of human anatomy and physiology. Biol. v shkole no.1:39-42 Ja-F '59. (MIRA 12:2)

1. Moskovskiy oblastnoy pedagogicheskiy institut im. N.K.Krupskoy.
(Anatomy, Human--Study and teaching) (Physiology--Study and teaching)

PINCHUK, I.S., kand. tekhn. nauk; PATSKEVICH, I.R., kand. tekhn. nauk

Investigating the stability of the automatic weaving-arc hard facing process. [Sbor. st.] CHIPI no.16:34-44 '59. (MIRA 12:9)

(Hard facing--Testing) (Electric welding--Testing)

PINCHUK, I.S.; BELOSHABSKIY, V.I.; RANNEV, G.G.; SHTEYNER, A.L.; GUSACH, V.Ya.

Automatic pouring of cast iron by blast furnace pouring machines. [Sbor. trud.] Nauch.-issl.inst.met. no.4:164-167 '61. (MIRA 15:11)

1. Nauchno-issledovatel'skiy institut metallurgii (for Pinchuk, Beloshabskiy, Rannev, Shteyner). 2. Chelyabinskiy metallurgicheskiy zavod (for Gusach).
(Blast furnaces--Equipment and supplies)