L 6747-65
ACCESSION NR: AP4043867

in the crystal lattice sites. Orig. art. has: 7 figures and 3 formulas.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V. V. Kuyby*sheva (Siberian Physicotechnical Institute at the Tomsk State University)

SUBMITTED: 05Feb63 ENCL: 01

SUB CODE: SS,NP NR REF SOV: 002 OTHER: 001

Card 3/4

L 6747-65
ACCESSION NR: AP4043867

ENCLOSURE: 01

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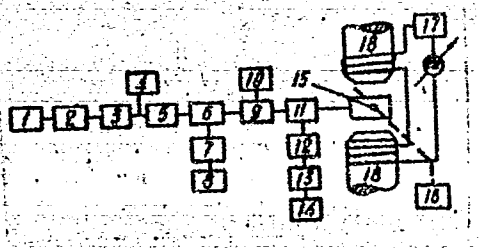

Fig. 1. Block diagram of experimental set-up.

1 - magnetron oscillator; 2 - fixed attenuator; 3, 7 - ferrite gate; 4 - wavemeter; 5, 12 - variable-attenuator block; 6 - waveguide switch; 8 - klystron oscillator, 9, 11 - directional couplers, 10 - power meter; 13 - detector section; 14 - oscilloscope; 15 - cavity with sample; 16 - sample temperature control system; 17 - electromagnet power supply; 18 - electromagnet

Card 4/4

KHLYSTOV, A.S.; PETRAKOVSKIY, G.A.

Effect of additions of copper and cobalt on the characteristics of nickel chromium ferrites. Izv. vys. ucheb. zav.; fiz. no. 1:222-227 '60. (MIRA 13:12)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni V.V. Kuybysheva.
(Nickel chromium ferrate)

KHLYSTOV, A.S.; ZHILYAKOV, S.M.; PETRAKOVSKIY, G.A.

Magnetic characteristics of nickel-chromium ferrites. Izv.vys. uchab.zav.; fiz. no.6:168-169 '59. (MIRA 13:6)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V.V.Kuybysheva.
(Nickel ferrates--Magnetic properties)
(Chromium ferrates--Magnetic properties)

PETRAKOVSKIY, G. A.

Effect of volume and surface imperfections on the relaxation of spin waves in ferrates. Izv. vys. ucheb. zav.; fiz. no.6: 125-131 '62. (MIRA 16:1)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni Kuybysheva.

(Ferromagnetic resonance)
(Nuclear spin)

PETRAKOVSKIY, G. A.

Effect of crystallographic anisotropy on the parametric excitation of spin waves in ferrate single crystals. Izv. vys. ucheb. zav.; fiz. no.6:29-37 '62. (MIRA 16:1)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni Kuybysheva.

(Ferrate crystals) (Nuclear spin)
(Magnetic fields)

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S/139/60/000/01/037/041
E310/E391

AUTHORS: Khlystov, A.S. and Petrakovskiy, G.A.

TITLE: The Effect of Copper and Cobalt Additions on the Properties of Nickel-chromium Ferrites

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika. 1960, Nr 1, pp 222 - 227 (USSR)

ABSTRACT: The authors studied nickel-chromium ferrites with additions of cobalt and copper to determine the optimum compositions and technology of manufacturing temperature-resistant ferrites for 10 cm range resonance rectifiers. Optimum amounts of copper and cobalt additions were found to produce ferrites capable of operating at higher temperatures, maintaining a minimum width of their ferromagnetic-resonance curves. The Curie point of the ferrites is in the vicinity of 400 °C. The initial ferrite powders were compacted under pressure of 2 t/cm^2; initial roasting temperature for ferrites with copper additions was 900 °C for 6 hours, for ferrites with cobalt additions it was 1 100 °C for 8 hours. The roasted compacts were ground in a vibromill. The components were pressed at 2 t/cm^2. Eight percent by weight of a 10%

Card1/3

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S/139/60/000/01/037/041
E310/E391

The Effect of Copper and Cobalt Additions on the Properties of Nickel-chromium Ferrites

water solution of polyvinyl alcohol was introduced as a binder. The final roasting temperature was 1 150 °C for 20 hours (copper added) and 1 350 °C for 12 hours (cobalt added). Measurements of finished specimens show that the width of the ferromagnetic resonance curve is $\Delta H = 500$ Oe for $Ni_{0.985}Co_{0.015}Cr_{0.7}Fe_{1.3}O_4$ and $Ni_{0.980}Co_{0.020}Cr_{0.7}Fe_{1.3}O_4$ ferrites (Figure 3). This makes it possible to use them in the lower UHF range. Rectifiers made from these ferrites and placed on the wider waveguide wall in the optimum position produced a forward loss of 0.5 db and a backward loss of 17 db at 2 980 Mc/s; the standing-wave ratio did not exceed 1.1.

There are 4 figures and 15 references, 4 of which are Soviet, 9 English, 1 French and 1 translation from English into Russian.

Card 2/3

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S/139/60/000/01/037/041
E310/E391

The Effect of Copper and Cobalt Additions on the Properties of Nickel-chromium Ferrites

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V.V. Kuybysheva (Siberian Physico-technical Institute of Tomsk State University imeni V.V. Kuybyshev)

SUBMITTED: April 10, 1959

Card 3/3

PETRAKOVSKIY, G.A.

Problem of parametric excitation of magnetostatic oscillations of magnetization in a ferrite sample. Izv.vys.ucheb.zav.;fiz. 2:158-164 '62. (MIRA 15:7)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni Kuybysheva.
(Ferrates—Magnetic properties)

S/139/62/000/006/006/032
E039/E435

AUTHOR: Petrakovskiy, G.A.

TITLE: The effect of crystallographic anisotropy on the parametric excitation of spin waves in single crystal ferrites

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Fizika, no.6, 1962, 29-37

TEXT: The effect of crystallographic anisotropy on the value of the critical field h_{crit} necessary for the excitation of spin waves in a magnetized ferrite under the action of a continuous high frequency magnetic field is investigated. Measurements are made on single crystals of Mg-Mn and non-stoichiometric Mn ferrite in the 3 cm region. The anisotropy leads to a change in the spin wave spectra of the ferrites and subsequently on the value of the static magnetic field H_o which fulfills the condition

$$\omega_k = \frac{\omega_3}{2}$$

where ω_k is the spin wave frequency and ω_3 is the frequency of the high frequency field for spin waves with the wave vector

Card 1/3

The effect of crystallographic ... S/139/62/000/006/006/032
E039/E435

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V.V.Kuybysheva (Siberian Physicotechnical Institute at Tomsk State University imeni V.V.Kuybyshev)

SUBMITTED: February 8, 1962

Card 3/3

45010

S/139/62/000/006/019/032
E039/E435

AUTHOR: Petrakovskiy, G.A.

TITLE: The effect of volume and surface imperfections on the relaxation of spin waves in ferrites

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Fizika, no.6, 1962, 125-131

TEXT: Measurements are made on spin waves excited by continuous H.F. magnetic fields on magnetized ferrite samples. The apparatus used is as described in an earlier paper (Izv. VUZ Fizika, no.4, 1962, 54). The single-crystal samples of yttrium, Mn and Mg-Mn ferrites in the form of spheres 1 to 3 mm in diameter are used in a type TE_{101} resonator and the magnetic field is orientated along the (111) axis. The width of lines of the ferromagnetic resonance spin waves ΔH_k from single crystals of Mn and Mg-Mn ferrites show little dependence on the surface treatment of the samples and hence must be associated with volume imperfections. ΔH_k for long spin waves from single crystals of yttrium ferrites shows a dependence on the condition of the surface of the investigated sample. The mechanism of the increase in ΔH_k

Card 1/2

PETRAKOVSKIY, G.A.; RED'KIN, G.A.

Parametric excitation of spin waves in ferrites at ultrahigh frequencies. Izv.vys.uch.zav.; [illegible] no.4:54-61 '62. (MIRA 15:9)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni V.V. Kuybysheva.
(Magnetic fields) (Ferrates)

PETRAKOVSKIY, G.A.; RED'KIN, G.A.

Parametric excitation of spin waves in ferrites at ultrahigh frequencies. Izv.vys.uch.zav.[redacted], no.4:54-61 '62. (MIRA 15:9)

1. Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosudarstvennom universitete imeni V.V. Kuybysheva.
(Magnetic fields) (Ferrates)

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S/139/62/000/002/024/028
E032/E514

AUTHOR: Petrakovskiy, G.A.

TITLE: On the parametric excitation of magnetostatic oscillations in the magnetization of a ferrite specimen

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, no.2, 1962, 158-164

TEXT: The behaviour of magnetostatic oscillations in the magnetization of a ferromagnetic spheroid (L. R. Walker. Phys.Rev., 105, 390, 1957) under the action of a UHF magnetic field parallel to the constant external magnetic field is discussed. A parametric coupling between the magnetostatic oscillations with proper frequencies ω_1 and ω_2 and the exciting UHF field at a frequency $\omega_3 = \omega_1 + \omega_2$ is possible. The conditions for this to occur are derived. It is also shown that when a certain critical amplitude of the UHF field is reached there is complete compensation of losses and an exponential increase of certain definite types of the magnetostatic oscillations takes place. Analogous work was published by E. Schlömann and R. I. Joseph. J.Appl.Phys., 32, 1006,

Card 1/2

On the parametric excitation ... S/139/62/000/002/024/028
E032/E514

1961 and K. T. Denton. J.Appl. Phys., 32, 300S, 1961, after this paper went to press.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V. V. Kuybysheva
(Siberian Physico-technical Institute at the Tomsk State University imeni V. V. Kuybyshev)

SUBMITTED: March 3, 1961

Card 2/2

69167

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S/139/59/000/06/026/034
E201/E191

AUTHORS: Khlystov, A.S., Zhilyakov, S.M., and Petrakovskiy, G.A.

TITLE: Magnetic Properties of Nickel-Chromium Ferrites

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1959, Nr 6, pp 168-169 (USSR)

ABSTRACT: Nickel-chromium ferrites ($NiFe_{2-a}Cr_aO_4$) were prepared by the usual ceramic techniques from "ch" and "chda" oxides taken in stoichiometric ratios. The oxides were mixed in steel-ball mills for 24 hours (using ethyl alcohol). After drying, the mixtures were subjected to a preliminary 6-hour heating in a Silit electrical furnace at 1100 °C. Then the materials were quenched by rapid cooling in air. Powders obtained in this way were ground and pressed (2-3 tons/cm^2) into samples of required shape, using polyvinyl alcohol as a binder. Finally the samples were fired at 1300 °C for 12 hours and cooled at the rate of 60° per hour. The measured magnetic properties of the samples are given in Figs 1 and 2 and Table 1. Saturation magnetization, $4\pi M$, was measured at room temperature; it is given as a function of composition (a ranging from 0 to 1.0) in Fig 1 (upper

Card 1/4

Magnetic Properties of Nickel-Chromium Ferrites

curve) and Table 1 (column 2). The value of $4\pi M$ is reduced by introduction of chromium ions into the ferrite: it falls from 2300 gauss at $a = 0$ to practically zero at $a = 1.0$. This behaviour can be explained in terms of Neel's theory (Ref 1). Chromium ions which have the tendency to six-fold coordination (Ref 2) occupy octahedral compositions up to compositions with $a = 1$. Then the structural formula of the ferrite is:

$$Fe[NiFe_{1-a}Cr_a]O_4 \quad (1)$$

Magnetization at the absolute saturation of a ferrite with the structure given by Eq (1) is:

$$\{[2 + (1-a)5 + a\cdot 3] - 5\}\,\mu B = 2(1-a)\,\mu B \quad (2)$$

The above equation shows that magnetization of the ferrite passes through zero approximately at

$$a = 1 \quad (3)$$

which agrees qualitatively with the results obtained

Magnetic Properties of Nickel-Chromium Ferrites

(Fig 1). The results obtained show that at concentrations $0.4 < a < 0.8$ the materials with a comparatively high Curie point (T_c = 480-200 °C) and low saturation magnetization can be obtained. This is of practical importance since the lower frequency limit of very-high-frequency ferrite devices is governed by the losses due to ferromagnetic resonance. This frequency limit is given by (Ref 3)

$$\frac{\omega}{\gamma} > 4\pi M + \frac{2|K_1|}{M} \qquad (4)$$

where K_1 is the first constant of magnetic anisotropy of a cubic crystal, ω is the angular frequency of e.m. waves and γ is the magneto-mechanical ratio. Fig 2 and column 5 of Table 1 show that the initial permittivity μ_o (at 100 c/s) falls sharply with increase of the chromium content. Values of the Curie point, coercive force (in Oe) and density (in g/cm^3) are listed in columns 3, 4 and 6 of Table 1.

Card 3/4

There are 2 figures, 1 table and 3 references, of which 1 is Soviet, 1 French and 1 English.

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S/139/59/000/06/026/034
E201/E191

Magnetic Properties of Nickel-Chromium Ferrites

Note: This is a complete translation apart from the Table.

ASSOCIATION: Sibirskiy fiziko-tekhnicheskiy institut pri Tomskom gosuniversitete imeni V.V. Kuybysheva (Siberian Physico-Technical Institute at Tomsk State University imeni V.V. Kuybyshev)

SUBMITTED: February 21, 1959

Card 4/4

4

PYATAKOVSKIY, G.A.; PUKHOV, I.K.

Anisotropy and temperature dependence of the damping parameter of spin waves in ferrite single crystals. Izv. vys. uchob. zav.; fiz. 8 no.4:72-75 '65. (MIRA 18:12)

1. Sibirskiy fiziko-tekhnicheskiy institut imeni V.D. Kuznetsova.
Submitted December 29, 1963.

L 47060-66 EWT(1) IJP(c)

ACC NR: AR6004341 SOURCE CODE: UR/0274/65/000/009/B073/B073

AUTHOR: Petrakovskiy, G. A.

36
B

REF SOURCE: Dokl. Nauchno-tekhn. konferentsii, posvyashch. dnyu radio. Tomsk. Tomskiy un-t, 1964, 131-137

TITLE: Nonlinear theory of fluctuations in the degree of magnetization of a ferrite disk

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 9B518

TOPIC TAGS: ferrite, SHF, magnetization

TRANSLATION: The problem of parametric excitation by a transverse SHF field of uniform magnetization precession in a disk, magnetized parallel to a plane, is solved. The method of Krylov and Bogolyubov is used to determine the steady state amplitude and the conditions for excitation. The dependence of the imaginary part of the susceptibility χ'' upon the pumping power P coincides with $\chi''(P)$ for the complemented maximum for the perpendicular pumping obtained by Soole. N. S.

SUB CODE: 09/ ~~SUBM DATE: none~~

UDC: 621.373.93

Card 1/1 vlr

ACC NR: AP6032550 SOURCE CODE: UR/0139/66/000/004/0171/0173

AUTHOR: Petrakovskiy, G. A.; Litovchenko, V. F.

ORG: Siberian Physicotechnical Institute im. V. D. Ku tsov (Siberskiy fiziko-te hnic eskiy institute)

TITLE: Magnetic characteristics of yttrium-gallium and yttrium-gallium-gadolinium ferrites

SOURCE: IVUZ. Fizika, no. 4, 1966, 171-173

TOPIC TAGS: thermostable magnetization, SHF ferrite device, yttrium, gallium, gadolinium, ferromagnetic resonance, ferrite, magnetic property, magnetization

ABSTRACT: Measurement results of some magnetic properties of yttrium-gallium and yttrium-gallium-gadolinium ferrites are presented. These ferrites are of special interest from the point of view of the possibility of obtaining materials with thermostable magnetization [at comparatively high Curie temperature] and low value of magnetization within the range of thermostability. Sixteen ferrite samples were prepared according to standard technological methods. The following parameters were measured: apparent density, line width of ferromagnetic resonance of uniform magnetization precession ΔH_0 by 10 cm at room temperature, lattice constant, and magnetization of saturation $4\pi M$ depending on temperature. Measurements of the relationship between the line width of ferromagnetic resonance and temperature were also taken

ACC NR: AP6032550

for a number of ferrites. Results of temperature relationship measurements for yttrium-gallium ferrites magnetization showed that magnetization decreases sharply as gallium content increases from x = 0.00 to x = 0.20. Apparent density rises linearly with the increase of gallium content from 4.25 at x = 0.00 to 4.75 at x = 0.20. Lattice constant decreases linearly from 12,376 Å at x = 0.00 to 12,358 Å at x = 0.20. Similar measurements for yttrium-gallium-gadolinium ferrites revealed magnetization compensation points on the magnetization temperature curve; the position of these points can be adjusted by varying the gallium content. Ferrites with x = 0.10 and x = 0.15 are magnetically thermostable. The lattice constant rises when yttrium is substituted for gadolinium. The reverse phenomenon takes place if gallium is substituted for iron in the ferrites of formulas (2). The density of all the ferrites was approximately 5.05 $g \cdot cm^{-3}$. SHF measurements showed that for all ferrites the line with ΔH_0 rises when the content of gallium and gadolinium increases, and the value of ΔH_0 does not surpass 240 oe. Orig. art. has: 3 figures.

SUB CODE: 20/ SUBM DATE: 15Apr65/ ORIG REF: 001/ OTH REF: 002/

Card 2/2

RZHESHEVSKIY, V.; PETRAKOVSKIY, N.

Review of outdated and erroneous standards. Sots.trud 4 no.5: 108-111 My '59. (MIRA 12:8)

1. Rukovoditel' gruppy Nauchno-issledovatel'skogo instituta truda (for Rzheshevskiy). 2. Starshiy inzhener Mosgorsovnarkhoza (for Petrakovskiy).
(Moscow--Wages) (Production standards)

BELEN'KIY, G.I.; BREYTER, M.Ye.; IVANOV, V.N.; KALINKIN, V.S.; KOZHUSHKEVICH, V.G.; PETRAKOVSKIY, V.M.; RABINOVICH, A.A.; RUBINSKIY, I.A.; SINAYSKIY, M.M.; FEYLER, G.O.; KHOROSHILKIN, L.L.; KOMAR, M.A., red.; BUL'DYAYEV, N.A., tekhn. red.

[Electrical equipment of cranes] Elektricheskoe oborudovanie kranov. Moskva, Gosenergoizdat, 1963. 399 p. (MIRA 16:12)

1. Kollektiv inzhenerov moskovskogo zavoda "Dinamo" imeni S.M.Kirova (for all exept Komar, Bul'dyayev).
(Cranes, derricks, etc.--Electric equipment)

PETRAKOVSKIY, Viktor Mikhaylovich; SINAYSKIY, M.M., red.; BORUNOV, N.I., tekhn.red.

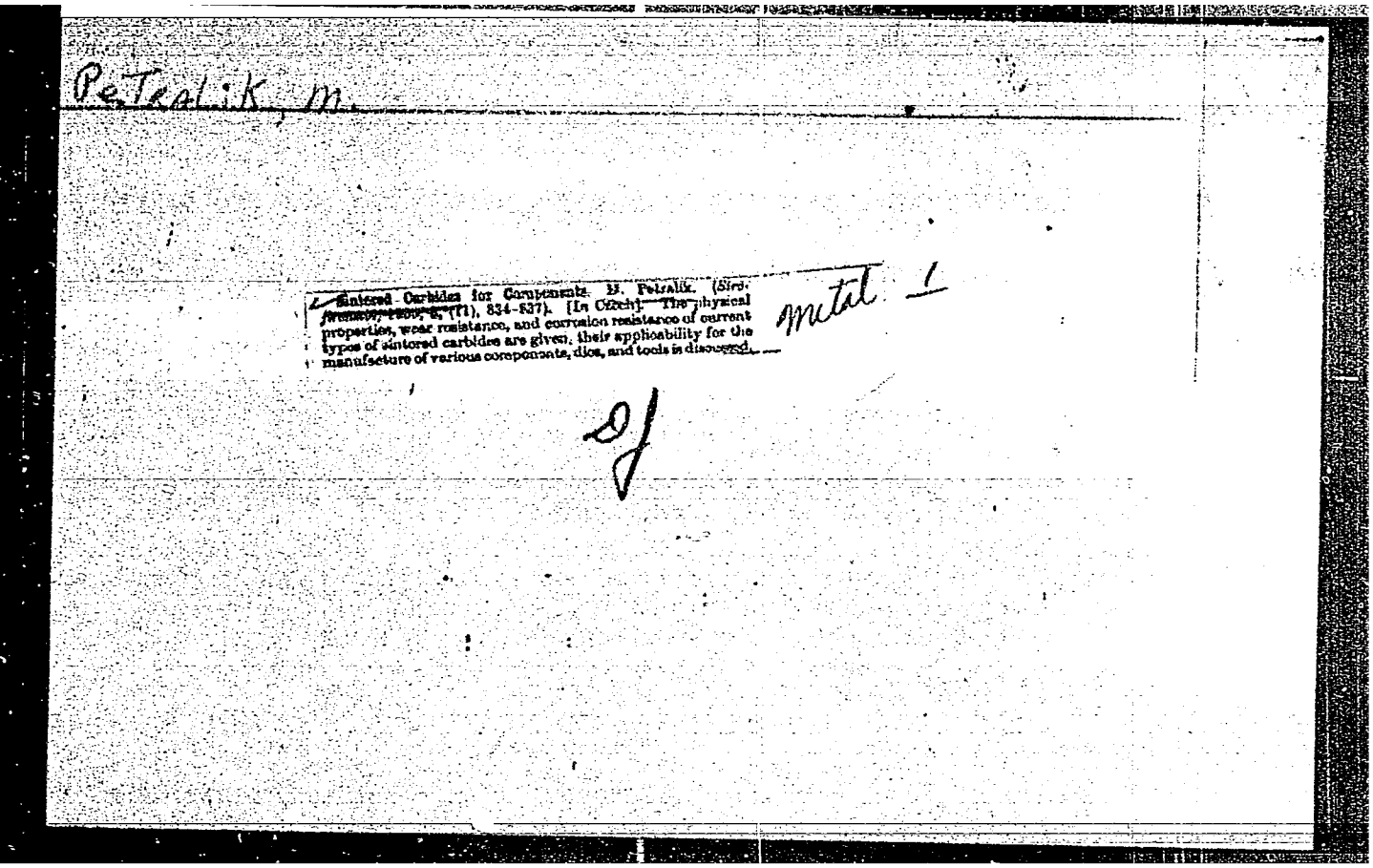
[Alternating current electric crane motors; manual on installation, maintenance, and repair] Kranovye elektrodvigateli peremennogo toka; rukovodstvo po ustanovke, ukhodu i remontu. Moskva, Gos.energ.izd-vo, 1959. 64 p. (Kranovoe elektrooborudovanie, no.1) (MIRA 12:6)
(Cranes, derricks, etc.) (Electric motors, Alternating current)

BUDANOV, G.V., otv. za vypusk.; REZNIKOV, A.I., otv. za vypusk.; PETRAKOVSKIY, Ya. A., red.; PEVZNER, A.S, red. izd-va.; TOKER, A.M., tekhn. red.

[Cost manual for the assembling of equipment] TSennik na montazh oborudovaniia. Moskva, Gos. izd-vo lit-ry po stroit., arkhit. i stroit. materialam. No. 1.[Presses, metal-cutting, forging, and cutting equipment.] Metalloreshushchee, pressovoe, kuznechnoe i liteinoe oborudovanie. 1958. 49 p. (MIRA 11:12)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva.

(Metalworking machinery)



Petalik, M.

Sintered Carbides for Components. M. Petalik. (Strojírenství, Prague, 6, (71), 834-837). [In Czech] The physical properties, wear resistance, and corrosion resistance of current types of sintered carbides are given, their applicability for the manufacture of various components, dies, and tools is discussed.

metal 1

2/

PETRAM, Antonin, C.Sc.

Problem of determining the transportation development for a longer period of time. Letecky obzor 7 no.3:72 Mr '63.

PETRAN, A.

Study on the species of Tintinnoidae along the Rumanian littoral of the Black Sea. p. 75.

HIDROBIOLOGIA. (Academia Republici Populare Romine. Comisie de Hidrologie, Hidrobiologie si Ihtiologie) Bucuresti, Rumania, Vol. 1, 1958.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 8, Aug. 1959

Uncl.

BECHESKU, M. [Bacescu, M.] GOMOII, M.T. [Gomoiu, M. T.]; BODIANU, N. [Bodeanu, N.]; [illegible], Adriana; MIULLER, G. [Miuller, G.] MANIA, V. [Manea, V.]

Ecologic investigations of the Black Sea. Rev biol 7 no. 4: 561-582 '62.

PETRAN, Adriana

Contributions to the knowledge of psammophile ciliate microfauna in the Black Sea on the Rumanian littoral. Studii cerc biol anim 15 no.2:187-197 '63.

1. Comunicare prezentata de Th. Busnita.

PETRAN, Adriana

Some considerations on the composition and qualitative variations of the marine zooplankton of the Rumanian Black Sea littoral. Comunicarile AR 12 no.1:71-77 Ja '62

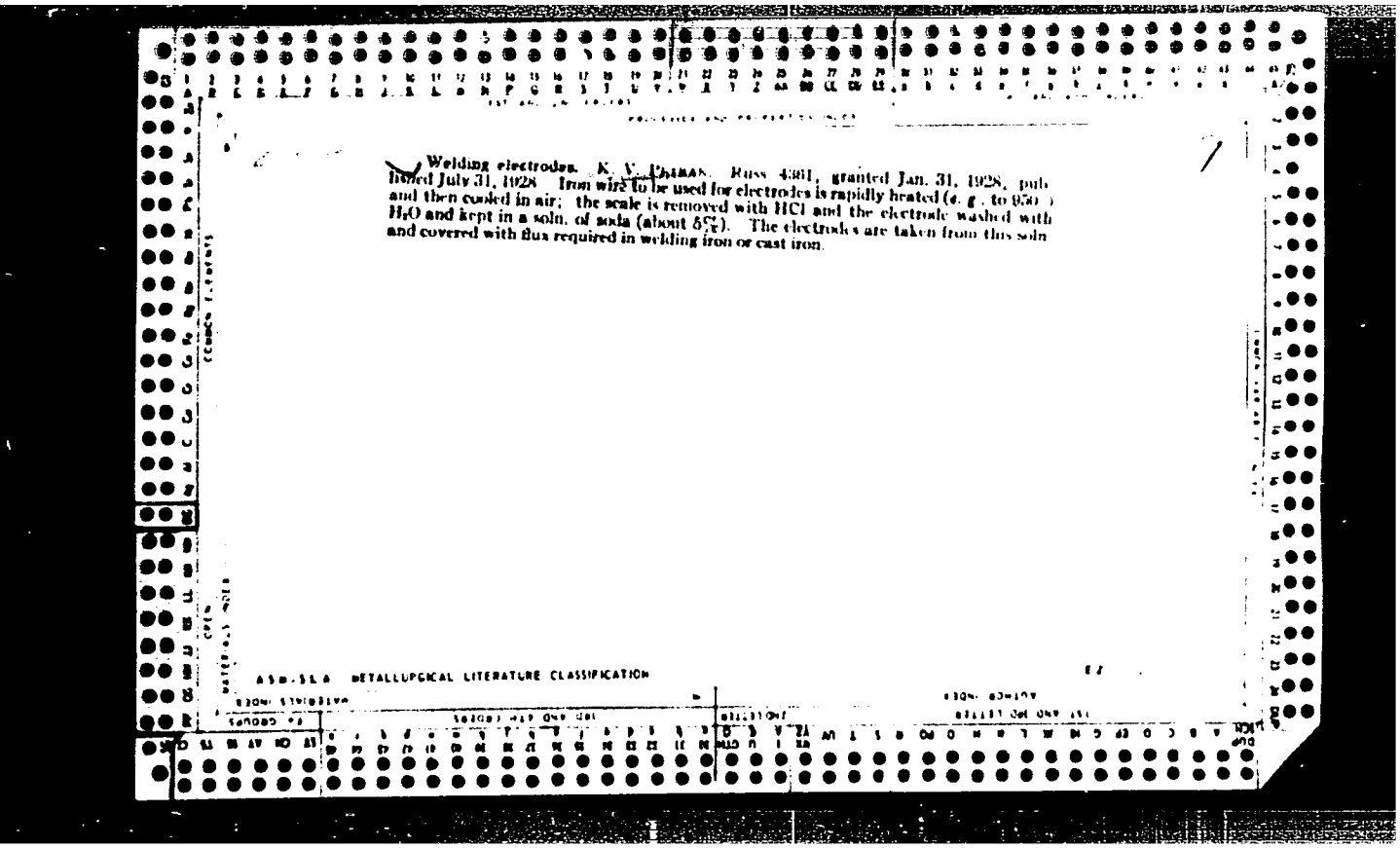
1. Comunicare prezentata de Th. Busnita, membru corespondent al Academiei R.P.R.

BELIN,P.; BENCKO,V.; PETRAN,J.

Air pollution in Svit during 1962. Source of pollution, its characteristics and degree in relation to environment. Cesk. hyg. 9 no.2:73-77 Mr '64

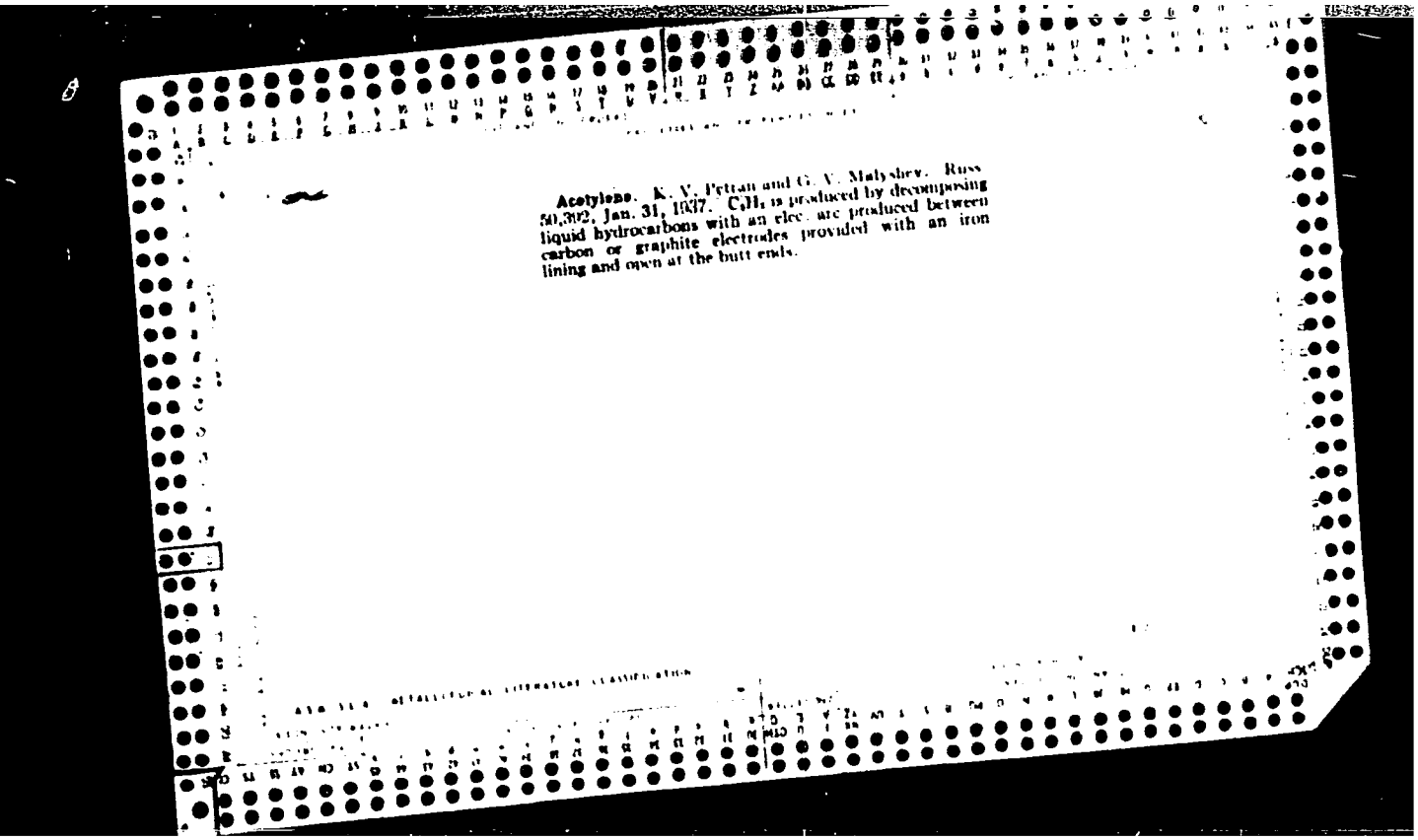
1. Okresna hygienicko-epidemiologicka stanica, Poprad.

X



Welding electrodes. K. V. Delman. Russ 4381, granted Jan. 31, 1928, published July 31, 1928. Iron wire to be used for electrodes is rapidly heated (*e. g.*, to 950°) and then cooled in air; the scale is removed with HCl and the electrode washed with H_2O and kept in a soln. of soda (about 5%). The electrodes are taken from this soln and covered with flux required in welding iron or cast iron.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Acetylene. K. V. Pettan and G. V. Malyshev. Russ. 50,302, Jan. 31, 1937. C_2H_2 is produced by decomposing liquid hydrocarbons with an elec. arc produced between carbon or graphite electrodes provided with an iron lining and open at the butt ends.

PETRAN', K. V. PA 18T14

USSR/Welding - Electrodes Aug 1947
Electrodes

"UONI - 13 Electrodes," K. V. Petran', N. M. Kizin, A. P. Bibikov, 6 pp

"Avtogennoye Delo" No 8

Electrodes with a coating of UONI - 13 permit better alloying of welding metal than electrodes with SiO_2. This holds true in all cases except welding of Al or Ti. Discusses method of producing UONI-13 electrodes. Technology and methods of welding with these electrodes. Tables of results and observations of various experimental types of UONI - 13 (e.g., UONI - 13/45, UONI - 13/

USSR/Welding - Electrodes (contd) Aug 1947
Electrodes

65, etc.) Also lists some altered forms of UONI - 13; e.g., UONI - 13/B for welding nonmetallic alloys with lead base, etc.

18T14

PETRAN' K. V.

181T71

USSR/Metals - Welding, Electrodes Dec 50

"Problems of Manufacturing Electrodes With High-Grade Coatings," K. V. Petran', Cand Tech Sci

"Avtogen Delo" No 12, pp 7-10

Reviews development of welding with coated electrodes, emphasizing effect of phys characteristics of coatings on chem compn of metal deposit. Describes 4 new electrodes of calciferous type, which may be used for welding with dc or ac with any joint position. Two variations are developed: for welding with shallow fusing and low heating of steel, and for deep welding.

181T71

PETRAN', K. V.

USSR/Engineering - Welding, Materials Sep 51

"Fabrication of UONI-13, UP1 and UP2 Electrodes on Power Presses Under High Pressure," K. V. Petran', Cand Tech Sci

"Avtogen Delo" No 9, pp 16-19

Discusses shortcomings of manufg electrodes by power presses and measures for their elimination. Chief measure is modification of coatings by increasing water glass content and adding chalk and soda ash at expense of decreasing amts of quartz, marble and fluorspar. Gives mech properties and chem compn of weld metal.

202T37

YESENBERLIN, Ravnak Yesenberlinovich; PETRAN', K.V., kand. tekhn. nauk, retsenzent; VOLOGDIN, V.V., inzh., red.; BORODULINA, I.A., red. izd-va; POL'SKAYA, R., tekhn. red.

[Furnace brazing of metals in a gaseous atmosphere] Paika metallov v pechakh s gazovoi sredoi. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 93 p. (MIRA 11:10)
(Brazing)

30V/123-59-16-65198

Translation from: Referativnyy zhurnal. Mashinostroyeniye, 1959, Nr 16, p 213 (USSR)

AUTHOR: Petran', K.V.

TITLE: Repairing Defects by Welding

PERIODICAL: V sb. Uluchsheniye kachestva stal'nykh otlivok.M., Mashgiz, 1958, 187 - 199

ABSTRACT: Grades and mechanical qualities of cast metals of carbon steel and high-alloy steel are given and of metals built up with electrodes of well-known grades. The plastic properties and a_k of the built up metal are in almost every case higher than those of the cast steels. Types and grades of electrodes for the welding of defects in cast material of high-alloy steel and the technological process of recovering rejected castings are investigated. 4 figures.

T.A.P.

Card 1/1

PETRAN, Miroslav, promovany geolog

Profile and contour methods of aerial radiometric survey.
Geol pruzkum 6 no. 3:78-80 Mr '64.

1. Central Geological Institute, Prague.

BURESH, Ya.[Bures, Jan]; PETRAN', M.[Petran, Mojmir]; ZAKHAR, I. Zachar, Jozef]; KEDER-STEPANOVA, I.A.[translator]; SMIRNOV, G.D., red.; RAYSKAYA, N.A., red.; YANOVSKAYA, Ye.A., red.; REZOUKHOVA, A.G., tekhn. red.

[Electrophysiological methods of research]Elektrofiziologicheskie metody issledovaniia. Pod red. i s predisl. G.D.Smirnova. Moskva, Izd-vo inostr. lit-ry, 1962. 454 p. Translated from the Czech. (MIRA 15:12)

(Electrophysiology)

PETRAN, M.

V. Kruta's Jiri Prochaska, M.D.; a review of a biography. p. 506.
(CESKOSLOVENSKA FYSIOLOGIE, Vol. 5, No. 4, 195[illegible], Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 12, Dec 1957. Uncl.

PETRAN, M.

Physiological methods and physiological apparatus. Cesk. fysiol. 7 no.2: 81-87 Mar 58.
(PHYSIOLOGY,
methods & appar. (Cz))

KOSHTOYANTS, Kh.S. (SSSR); PETRAN', M. (Chekhoslovakiya).

Russian translation of Jiri Prochazka's book "Physiology." Vop. ist. est. i tekh. no.3:208-211 '57. (MIRA 11:1)
(Prochazka, Jiri, 1749-1820)

PETRAN, M.

Improved method of oscillography on moving film. Cesk. fysiol. 1 no. 2:127-131 1952. (CIML 23:4)

1. Of the Physiological Department of the Central Institute of Biology (Director--Malek).

BURES, J.;PETRAN, M.

Studies on convulsions with electroshock. Cesk. fysiol. 1 no.1:9-17 1952. (CLML 23:4)

1. Of the Physiological Department of the Central Institute of Biology.

PETRAN, M.

"I. Lesny's Zaklady Neurologicke Elektrodiagnostiky (Elements of Neurological Electrodiagnostics); a Book Review." p. 102,
(CESKOSLOVENSKA FYSIOLOGIE, Vol. 3, No. 1, Jan. 1954, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4
No. 5, May 1955, Uncl.

[illegible], V.

"Simple apparatus for slow infusion and a stable slow-impulse generator to set it in motion."
Chekhoslovatskaia Fiziologiia, Praha, Vol 1, No 4, 1952, p. 323

SO: Eastern European Accessions List, Vol 3, No 1, Oct 1954, Lib. of Congress

PETRAN, M.

Improved oscillography recorded on motion-picture films. p. 167.

SO: East European Accessions List, Vol. 3, No. 9, Sept. 1954, Lib of Congress.

PETRAN', M.

Simple apparatus for slow infusion and stable generator of slow impulses usable for application. Chekh. fiziol. 1 no.4:323-326 1952.

1. TSentral'nyy biologicheskiy institut, fiziologicheskoye otdeleniye, Praga.
(INJECTIONS,
appar. for slow inject.)

PETRAN, M.

SKRVIT, Z.; BURES, J.; BURESOVA, O.; PETRAN, M.

Problem of electronarcosis and of electrically induced sleep.
Chekh fiz 2 no.4:337-346 '53. (KRAL 3:7)

1. Biologicheskiy institut Chkhoslovatskoy Akademii nauk, fisiologicheskoye otdeleniye, Praga.
(ELECTROANARCOSIS,
*in animals)

PETRAN', M.

Simple apparatus for slow infusion and a stable slow-impulse generator to set it in motion. Chekh.fiziol. 1 no.4:323-326 '52. (MLRA 7:4)

1. TSentral'nyy biologicheskiy institut, fiziologicheskoye otdeleniye, Praga. (Physiological apparatus)

PETRAN, M.

"Improved Oscillography Recorded on Motion-Picture Films." p. 167, Praha, Vol. 1, no. 2, Sept. 1952.

SO: East European Accessions List, Vol. 3, No. 9, September 1954, Lib. of Congress

PETRAN, M.

Improved oscillography recorded on motion picture films [with summary in German]. Chekh. fiziol. 1 no.2:167-172 '52. (MLRA 6:12)

1. Tsentral'nyy institut biologii, fiziologicheskoye otdeleniye, Praha. (Oscillograph)

BURES, J.; PETRAN, M.

Determination of spasmodic reaction by means of electric shock [with summary in German] Chekh. fiziol. 1 no.1:24-37. (MIRA 6:12)

1. Tsentral'nyy institut biologii, fiziologicheskoye otdeleniye, Praha. (Spasms)

PETRAN, V.
(382E)

Z Kliniky Pracovniho Lekarstvi Karlovy; Z Kliniky Psychiatricke Karlovy Univ. v Praze. Otravy sirouhlikem v tovarne na viskosove hedvabi Carbon disulphide poisoning in a viscose silk factory Casopis Lekaru Ceskych 1948, 87/35 (936-939)

The atmospheric concentration of CS_2 in the workshops of a certain factory, especially in the CS_2 treatment plant, was 70-300 g. per litre. This led to three cases of intoxication, with paranoid schizophrenia and psychosis, and a number of milder cases.

Wolf - Prague (Sec. IV)

So: Excerpta Medica, Vol. II, No 7, Sec. II, July 1949

PELNAR, P.; PETRAN, V.

Chronic mercury and chloride poisoning of workers in alkali production by electrolisys of basic chlorides. Pracovni lek. 3 no.1:11-29 Mar 51. (CIML 20:7)

1. Of the Chemical Plant and of the Department for Industrial Psychiatry of the Psychiatric Clinic of Charles University.

PETRAN, V.

Effect of extensive noise on the mental conditions in workers.
Neur. psychiat. cesk. 14 no. 5-6:217-223 Dec 1951. (CLML 22:3)

1. Of the Psychiatric Clinic (Head--Prof. Z. Myslivecek, M. D.), Prague.

PETRAN, V.

Mental changes and disorders in industrial poisoning with methyl chloride. Neur. psychiat. cesk. 18 no.1:14-19 Feb 55.

(METHYL CHLORIDE, poisoning
indust., causing mental disord.)
(MENTAL DISORDERS, etiology and pathogenesis
methyl chloride pois., indust.)
(POISONING, complications
methyl chloride indust. pois. causing mental disord.)

PETRAN, Vaclav

Certain aspects of toxicomanias. Cas.lek.cesk 99 no.29:1079-1082 19 Ag'60.

1. Subkatedra psychiatrie lekarske fakulty hygienicke KU v Praze.
(DRUG ADDICTION)

PETRAN, Vaclav

Prevention of premature senility from psychiatric viewpoint. Cesk. psychiat. 55 no.4:240-247 June 59.

1. Subkatedra psychiatrie lekarske fakulty hygienicke KU v Praze.
(AGING)

PETRAN V.

EXCERPTA MEDICA Sec 8 Vol 12/10 Neurology Oct 59

5265. SCHIZOFORM REACTIONS IN CHRONIC POISONING WITH CARBON BISULPHIDE - Die schizoformen Reaktionen bei der chronischen Schwefelkohlenstoffvergiftung - Petrán V. Med.-Hyg. Fak., Karls-Univ., Prag WIEN. KLIN. WSCHR. 1958, 70/24 (445-446)

Chronic massive exposure to CS_2 may give rise to schizophrenia-like paranoid psychoses in persons with marked predisposition (premorbid personality) and it may also be a direct aetiological factor in the production of psychoses described as 'schizoform reactions'. (II, 8)

PETRAN, V.

Achievements of Soviet psychiatry. II. Institutional psychiatric care. Cesk. psychiat. 55 no.2:127-136 Apr 59.
(HOSPITALS, PSYCHIATRIC,
in Russia (Rus))

DOBIAS, Jan; DOBRY, Jaroslav; PETRAN, Vaclav

Decompensation of abnormal personalities in marital life. Cesk. psychiat. 54 no.4:223-228 Aug 58.

1. Psychiatricka klinika KU v Praze. J. D., Ke Karlovu 11, Praha 2.
(PERSONALITY, PATHOLOGICAL
psychopaths, showing hypererotism in marital life (Cz))
(SEXUAL BEHAVIOR
hypererotism of psychopaths in marital life (Cz))
(MARRIAGE
same)

Petran V.

CZECHOSLOVAKIA/Safety Engineering. Sanitary Engineering. Sanitation. L

Abs Jour: Ref Zhur-Khimiya, No 3, 1957, 10696

Author : Petran, V.
Inst : Not given
Title : Psychic Effects of Occupational Methyl Chloride Poisoning

Orig Pub: Neurol. a psychiatr. ceskosl., 1955, Vol 18, No 1, 14-19, (in Czech with summaries in English and Russian)

Abstract: Persons exposed to prolonged contact with CH_3Cl (workers in refrigeration plants, etc.) have been observed to display a neurasthenic syndrome accompanied by depression, dullness, and neurovegetative dystony, sometimes also partial amnesia, a state of simple or pathologic intoxication, deep depression with tendencies to suicide, feelings of guilt, and hallucinations.

Card 1/1

VLASENKO, V.G. [Vlasenko, V.H.]; [illegible]YANYY, V.V. [illegible], [illegible]; [illegible], V.I.; [illegible], A.I. [illegible]

Spark chamber. Ukr. fiz. zhur. 10 no.1:21-2[illegible] [illegible]

1. Fiziko-tekhnicheskiy institut AN Ukr[illegible], [illegible].

PETRANEK, J.

"Sedimentological Aspects of the Question of the Pre-Hercynian Crystalline Schists in Central Bohemia", P. 1, (SBORNIK. ODDIL GEOLOGICKY, Vol. 20, 1953, Praha, Czech.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 3, Mar 1955, Uncl.

PETRANEK, J.; STENGLOVA, E.

"Authigenic Quartz in the Devonian Limestones of Central Bohemia", P. 149, (SBORNIK. ODDIL GEOLOGICKY, Vol. 20, 1953, Praha, Czech.)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 3, Mar 1955, Uncl.

PETRANEK, J.

"The alga Cf. acicularia sp. (Acetabularieae) in the Triassic limestone of the Carpathian Mountains."

p.400 (Casopis Pro Mineralogii A Geologii, Vol. 2, no. 4, 1957, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 8, August 1958

PETRANEK, J.

"Notes on the petrography of ore deposits in Ejpovice."

p.451 (Casopis Pro Mineralogii A Geologii, Vol. 2, no. 4, 1957, Praha, Czechoslovakia)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 8, August 1958

PETRANEK, J.; RYBA, O.

Microdetermination of halogens in liquid substances by means of the Schoniger method. Chem Cz Chem 29 no.11:2847-2850 N '64.

1. Institut fur makromolekulare Chemie, Tschechoslowakische Akademie der Wissenschaften, Prague.

PETRANEK, J.

"Composition of the Triassic limestone from Gombasek in the Karst of southern Slovakia"

Sbornik. Oddil geologicky. Praha, Czechoslovakia. Vol. 24, no. 1, 1957 (published 1958)

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

PETRANEK, J.

"Vrstevnatost, stratification and zvrstveni straticulation of sedimentary rocks."

CASOPIS PRO MINERALOGII A GEOLOGII, Praha, Czechoslovakia, Vol. 4, No. 2, 1959.

Monthly list of EAST EUROPEAN ACCESSIONS INDEX (EEAI), Library of Congress, Vol. 8, No. 8, August, 1959.

Unclassified.

PETRANEK, Yan [Petranek, Jan]

Transition of facies from paralic into limnic in the Upper Silesian coal basin (Czechoslovakia). Izv.AN SSSR.Ser.geol. 25 no.1:43-48 Ja '60. (MIRA 13:8)

1. TSentral'nyy geologicheskiy institut, Praga.
(Ostrava-Karvina Basin--Coal geology)

PETRANEK, Jan
SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees:

Affiliation:

Source:

Data: "Basic terminology of ... army ...ocks."

Authors: PETRANEK, Jan
[illegible], Adj Dr
[illegible], Zdenek
[illegible], Vlad Lt

GPO 941[illegible]

RYBA, O.; PETRANEK, J.; POSPISIL, J.

Antioxidation agents and stabilizers. Pt.4. Coll Cz Chem 30 no.3:843-852 Mr '65.

1. Institute of Macromolecular Chemistry of the Czechoslovak Academy of Sciences, Prague. Submitted February 14, 1964.

PETRANEK, Jan

Sixtieth birthday of Doctor Frantisek Fiala. Cas min geol 8 no.4:416 O '63.

PETRANEK, J.

CZECHOSLOVAKIA

POSPISIL, Jiri PETRANEK, Jiri TAUSS, L.

Institute for Macromolecular Chemistry, Czechoslovak Academy of Sciences (Institut fur makromolekulare Chemie, Tschechoslowakische Akademie der Wissenschaften), Prague - (for all)

Prague, Collection of Czechoslovak Chemical Communications, No 1, January 1956, pp 98-105

"Antioxidants and stabilizers. Part XC: On the preparation of some alkaline derivatives of hydroquinone."

PETRANEK, Jan

"Petrography or refractories" by L.I.Karjakin [Karyakin, L.I.] .
Reviewed by Jan Petranek. Vest ust geol 39 no.2:152 Mr'64.

PETRANEK, Jan

Sixth International Congress of Sedimentology in the Netherlands and Belgium. Vest Ust geol 39 no. 1: 77-78 '64.

PETRANEK, Jan, prof. inz.

Study course on the construction of automobile bodies at the Institute of Mechanical Engineering. Podn org 18 no.7:296 Jl '64.

1. Czech Higher School of Technology, Prague, Chair of Automobiles, Tractors and Agricultural Machines.

PETRANEK, Jan

"Geology and paleontology" by H. Holder. Reviewed by Jan Petranek. Vest Ust geol 38 no.4: 252 Je '63.

PETRANEK, Jan

"Northern border zone of the Elbingerode complex in Grafenhagenberg (Mittelharz)" by W. Schwan. Reviewed by Jan Petranek. Cas min geol 8 no.3:325 Jl '63.

PETRANEK, Jan

"Facies and microorganisms of the Paleozoic, Mesozoic and Cenozoic sediments of Japan and her adjacent islands" by S. Hanzawa. Reviewed by Jan Petranek. Vest Ust geol 38 no.1:70 Ja '63.

PETRANEK, Jan

"New Soviet geochronological tables" by D.I. Schtscherbakow [Shcherbakov, D.I.]. Reviewed by Jan Petranek. Cas mineral geol 8 no.1:112-114 Ja '63.

MASEK, Jan; PETRANEK, Jan

A critical note on the use of the term "tonstein". Vestnik ust geolog 37 no.6:415-417 N '62.

PETRANEK, J.

Distr: 4E2c(j)

Identification of organic compounds. XXVI. X-ray diffraction patterns of *S,S*-dialkyl-*N*-*p*-tolylsulfoxylsulfiliminoes. Dobroslav Šnobl, Věra Kadaňková, Jaromír Petránek, and Miloslav Večeřa (Výzkumný ústav org. [redacted] Pardubice-Rybitví, Czech.). Chem. listy 52, 1537-45(1958); cf. *C.A.* 50, 16654i; 52, 13544b.—X-ray diffraction patterns are suitable for the identification of thio ethers after conversion to the title compds., as shown by differentiation of 23 studied derivs. This method is safer than by means of m.ps., eutectical temps., and molten mass as and the derivs. do not require a high degree of purity. Values of the interplanar spacings *d*, as detd. by the usual technique, in org. compds. having a big elementary cell and low symmetry can be distorted owing to superposition, thus showing considerable deviations from tabulated values. The sources of errors and working technique are discussed. Lower dispersion is recommended. L. J. Urbánek

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PETRANEK, JAROMIR

CZECHOSLOVAKIA/Analytic Chemistry - Analysis of Organic Substances. E-3

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46452

Author : XVII - Miroslav Vecera, JiriBorecky. XVIII - Miroslav Vecera, Jaromir Petranek, Jiri Gasparic. XIX - Miroslav Vecera, Jiri Gasparic, Antonin Spevak.

Inst : -

Title : Identification of Organic Substances. XVII. Identification of Anthraquinone Sulfoacids. XVIII. Chromatography of Aromatic Hydrazo Compounds. XIX. Microidentification of Lower Aliphatic Alcohols and O-Alkyl and N-Alkyl Groups by Paper Chromatography.

Orig Pub : Chem. listy, 1957, 51, No 5, 974-976; No 8, 1553-1554; 1554-1556; reports VII, VIII, Collect. czechosl. chem. commun., 1958, 23, No 1, 130-133; No 2, 333-335.

Abstract : XVII. The benzylthiuronic (I) and 1-naphthylmethylthiuronic (II) salts of mono- and disulfo acids of

Card 1/6

25

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46452

in alcohol (IV) or 10%-ual solution of formamide in alcohol (V) and dried. From 0.5 to 200 γ of the sample in 0.1 to 1%-ual alcohol or ether solution is put on the paper. It is developed by the descending method at 21 ± 1° with cyclohexane or benzene. The dried chromatogram is sprayed with 1%-ual solution of n-dimethylaminobenzaldehide (VI) in 95 parts of alcohol and 5 parts of concentrated HCl. At this occasions the III-s regroup into corresponding diamines, which together with VI yield products of characteristic color and fluorescence presented in the report. The values of R_f 8 of III-s are also presented. This method permits to chromatograph several hundreds of γ of the substance and to identify 0.5 γ of a III.; it can be used for the control of the benzidine regroupation at industrial scale. For that purpose, 10 ml of the reaction solution is

Card 3/4

36

[illegible] of corresponding alkyl-3,5-dinitrobenzoates (IX). In order to convert alcohols (X) into IX-s, 0.1 ml of pyridine (XI) and 1 ml of C_6H_6 are added to 10 ml

Card 4/6

Abs Jour : Ref Zhur - Khimiya, No 14, 1958, 46452

of aqueous solution of 5 to 50 mg of X, after which 11 g of K_2CO_3 and the solution of 0.5 g of 3,5-dinitrobenzoyl chloride (XII) in 2 ml of C_6H_6 are added to it at cooling. After having shaken it 3 minutes, IX is extracted with ether, the extract is washed with 1%-ual H_2SO_4 and water, and ether is distilled off. In the case of water-free X, 5 to 50 mg of X are dissolved in 5 ml of C_6H_6, 50 mg of XII and 0.3 ml of XI are added, all is boiled 1 hour, the benzene solution is cooled, washed with 20%-ual NaOH solution, with water, with 5%-ual H_2SO_4, and again with water, and benzene is distilled off. In order to split the alkyl groups off the alkoxy compounds and alkylamines and to obtain IX-s, 1 to 2 (2 to 5 correspondingly) mg of the substance is boiled 1 hour with HI solution in N_2 flow; the alkyl iodides are absorbed while forming by the suspension of 3 to 4 mg of Ag-3,5-dinitrobenzoate

CZECHCSLOVAKIA/Organic Chemistry Theoretical and General Questions on Organic Chemistry. G-1

Abs Jour: Ref Zhur-Khim , No 13, 1958, 43212.

Author : Vecera Miroslav, Petranek Jaromir, Gasparic Jiri
Inst :
Title : Rearrangement of Substituted Aromatic Hydrazo-Compounds.

Orig Pub: Chem. listy, 1957, 51, No 5, 911-919; Sb chekhosl. khim. rabot, 1957, 22, No 5, 1603-1612.

Abstract: A study of the rearrangement of hydrazo-benzene (I), 2- and 4-methyl-hydrazo-benzene (II, III), 2,2'-and 4,4'-dimethyl-hydrazobenzene (IV, V), 4-acetamido-hydrazo-benzene (VI), N-acetyl-hydrazobenzene (VII) and 1,1'-hydrazo-naphthalene (VIII), by action of a solution of HCl in alcohol, or of dry HCl in absence

Card : 1/3

Abs Jour: Ref Zhur-Khim., No 13, 1958, 43212.

of a solvent, at about 20°. The rearrangement products (RP) were isolated by paper chromatography, purified by crystallization and also by chromatography on silica gel impregnated with dimethyl formamide, and were identified by color reactions and fluorescence reactions. Among the RP were found benzidine (IX), diphenylene (X), o-benzidine (XI), o-semidine (XII), p-semidine (XIII), the corresponding azo-compounds (Ia-VIIIa), aniline (XIV). Listing the initial substance and isolated RP: I, IX-XIV, Ia; II, IX-XIII, IIa; III, X-XIII, IIIa; IV, IX-XIII, IVa; V, XI, XII, XIV, Va; VI, XII-XIV, VIa; VII, IX, X; VIII, IX-XIV, VIIIa. Velocity of competing reactions, and proportions of

CZECHOSLOVAKIA/Organic Chemistry. Theoretical and General Questions on Organic Chemistry. G-1

Abs Jour: Ref Zhur-Khim., No 13, 1958, 43212.

the bases that are formed, are affected by the solvent. In polar media there are formed compounds of the type ix, x; in non-polar solvents and in absence of solvent are formed bases of the type XIII and other products of semidine rearrangement. The distribution order of IX-XIII on chromatograms is always the same. Bases of type IX have lowest R_f values, bases of type XIII -- the highest. On the basis of study of RP the possibility of intermolecular mechanism of reactions is discussed.

Card : 3/3

Identification of organic compounds. XXIV. Separation and identification of sulfides by paper chromatography. Jaromír Petránek and Miroslav Večeřa (Výzk. ústav org. synth., Pardubice-Rybitví, Czechoslov.). *Chem. listy* 52, 1279–82(1958); cf. *C.A.* 52, 13544*b*.—Org. sulfides may be sepd. and identified in the form of the *p-nitrobenzenesulfonylsulfilimines* (I) on paper impregnated with $HCONH_2$ using C_6H_6 or C_6H_{12}-cyclohexane as the moving phase. *p*-$O_2NC_6H_4SO_2NH_2$ (5 g.) is dissolved in 1 g. NaOH in 10 ml. H_2O, the soln. cooled to 10° and, before the sulfonamide Na salt begins to sep., 17 ml. cool NaOCl soln. added (contg. 1.95 g. NaOCl and prepd. by passing 7 g. Cl into 8 g. NaOH in 10 ml. H_2O and 30 g. ice). The *p-nitrobenzenesulfochloroamide Na salt* (II) is filtered off and recrystd. from 5–6 ml. H_2O to yield 6 g. yellow crystals contg. 23.5–5.3% active Cl and forming in H_2O and EtOH intensely yellow colored solns. II (200 mg.) in 5 ml. MeOH is added to 0.5 millimole sulfide in 2 ml. MeOH, the mixt. allowed to stand 15 min., dild. with 20 ml. H_2O, treated with 10 ml. 2*N* NaOH, extd. with $CHCl_3$, the ext. (contg. 1–10 μg. I) chromatographed on Whatman No. 4 impregnated with 10% $HCONH_2$ in EtOH, the chromatogram sprayed with a freshly prepd. soln. of 0.7 g. $SnCl_2$ in 100 ml. 15% aq. HCl, and the spots detected (in a 30 min. interval) by spraying with 1% *p*-$Me_2NC_6H_4CHO$ in EtOH contg. 5% aq. HCl. I form yellow spots. The following R_f values of the *p*-$O_2NC_6H_4SO_2N{:}SRR'$ were found in C_6H_6, 3:2 C_6H_6-cyclohexane, and 1:1 C_6H_6-cyclohexane, resp., (R, R', R_f values given): Me, Me, 0.08, 0.02, —; Me, Et, 0.21, 0.08, 0.01; Et, Et, 0.37, 0.19, 0.05; Et, Pr, 0.57, 0.35, 0.11; Pr, Pr, 0.73, 0.55, 0.24; iso-Pr, iso-Pr, 0.72, 0.53, —; Pr, iso-Pr, 0.73, 0.54, —; Et, iso-Bu, 0.72, 0.53, —; Et, Bu, 0.74, 0.54, —; Pr, Bu, 0.83, 0.71, 0.40; Bu, Bu, —, 0.80, 0.57; iso-Am, iso-Am, —, 0.89, 0.75; Me, $PhCH_2$, —, 0.18, —; Et, $PhCH_2$, —, 0.33, —; Pr, $PhCH_2$, —, 0.53, —; Bu, $PhCH_2$, —, 0.69, —; $PhCH_2$, $PhCH_2$, —, 0.0, —; Ph, Ph, —, 0.86, —; Et, Ph, —, 0.56, —; Pr, Ph, —, 0.74, —; Et, *p*-tolyl, —, 0.74, —; Et, *o*-tolyl, —, 0.77, —.

XXV. Identification and separation of aliphatic C_1–C_{18} alcohols by paper chromatography. Jiří Borecký, Jiří Gasparič, and Miroslav Večeřa. *Ibid.* 1283–8.—Aliphatic C_1–C_{18} alcs. and some cyclanols were successfully chromatographed as 3,5-dinitrobenzoates on Whatman No. 3 impregnated with 10% paraffin oil in cyclohexane. New systems of solvents contg. $HCONH_2$ (I) and $HCONMe_2$ (II) were used as the mobile phase. For preliminary information is recommended the system 16:4:4 II-MeOH–H_2O where C_1–C_4 alcs. are in the front and C_{18-n} alcs. near the start. The following systems are suitable for given alcs.: 30:70 I–H_2O, C_1–C_4; 50:50 I–H_2O, C_5–C_8; 70:30 I–H_2O, C_7–C_8; I, C_9–C_{18}; 10:10:1 II–MeOH–H_2O, C_{16}–C_{18}; 70:30 I–H_2O, cyclanols C_5–C_7; 10:10:1 II–MeOH–H_2O, cholesterol. The 3,5-dinitrobenzoates are prepd. by dissolving 0.1 g. alc. in 1 ml. C_6H_6, adding 0.5 g. 3,5-$(O_2N)_2C_6H_3COCl$ in 3 ml. C_6H_6 and 1 ml. pyridine, heating 30 min. on a steam bath, letting cool, extg. with 50% KOH with addn. of H_2O to achieve a quick sepn. of the layers, washing the C_6H_6 ext. with portions H_2O, 1:1 HCl, and H_2O, and drying with Na_2SO_4. The C_6H_6 soln. is used directly for chromatography. The method is also suitable for sepn. and identification of higher fatty alcs. used in the textile manuf.

Jiří Blížil

Distr: 4E2c(j)

PETRANEK, J

SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: [not given]

Affiliation: Research Institute of Organic Synthesis (Forschungsinstitut fuer organische Synthesen), Pardubice-Rybitvi

Source: Prague, Collection of Czechoslovak Chemical Communications, Vol 26, No 10, October 1961, pp 2667-2669

Data: "3,5-Dinitrobenzoate as a Stationary Phase for the Separation of Aromatic Hydrocarbons by Vapor-Liquid Chromatography."

Authors:

PETRANEK, J
SLOSAR, J

PETRANEK, Jaromir

Separation and identification of the rearrangement products of hydrazobenzene. / Miroslav Večeřa, Jiří Gasparič, and Jaromír Petránek (Výzkumný ústav org. syntheses, Pardubice-Rybitví, Czech.). *Chem. listy* 51, 1690–2 (1957); cf. *C.A.* 51, 14691b.—$(PhNH)_2$ (1.5 g.) mixed with 30 g. dry sea sand, exposed 72 hrs. to a stream of dry HCl, the mixt. made alk. with dry NH_3, and the bases extd. with 75 ml. C_6H_6 and chromatographed on Al_2O_3 gave 86% of the following bases identified as the Bz derivs. (m.p., n_D): *benzidine*, m. 368°, —; *diphenyline*, m. 280–2°, n_D^{24-8} 1.5675, *o-benzidine*, m. 191–1.5°, n_D^{25-6} 1.5714; *o-semidine*, m. 135–6°, n_D^{24} 1.6004; and *p-semidine*, m. 106°, n_D^{25-6} 1.6111. The mutual ratio of the bases was 1:1.25:1.08:-0.84:0.09, resp. In addn., $PhNH_2$ and $(PhN:)_2$ were found among the rearrangement products. M. Hudlický

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