

Use of finned pipes in...

systems.  $Nu = 0.093 \cdot Re^{0.89}$  holds for pipes with  $D = 13$  mm, and

$nu = 0.148 \cdot Re^{0.89}$  holds for pipes with  $D = 18$  mm. The number of pipes used in gas heat exchangers and liquid undercoolers can be reduced to 30-40% and their weight to 35-50%. There are 3 figures, 3 tables, and 4 Soviet references.

fig. 2: Test heat exchangers.

SMYLOVA,

KOSOVA

ПРЕДВ. ПОС. М. С. 1964.

1964, 1965.

Plate content: apparatus for the rectification and for the  
condensation of binary mixtures. Khim. prom. 40 no. 1964  
716-716A.

NADOL'NIKOV, A.G.; FASOVSKIY, V.G.; PETROVICH, Yu.V.

Miniature refrigerating machine. *Tr. Vsesoyuznogo nauchno-issledovatskogo instituta  
188-190 M-I '63.*

1. Vsesoyuznyy elektrotekhnicheskyy institut.

LYKOV, A.V.; MIKHAYLOV, Yu.A.; PETROVSKIY, Yu.V., red.; BORUNOV,  
N.I., tekhn. red.

[Theory of heat and mass transfer] Teoriya teplo- i mas-  
soperenosa. Moskva, Gosenergoizdat, 1963. 534 p.  
(MIRA 17:2)

MALKOV, Mikhail Ietrovich, prof.; LANTHOV, I.B.; ZEL'DOVICH, A.G.;  
FRADKOV, A.B.; PETROVSKIY, Yu.V., red.; BUL'DYAYEV, N.A.,  
tekhn. red.

[Manual on the physico-technical fundamentals of deep cooling]  
Spravochnik po fiziko-tekhnicheskim osnovam glubokogo okh-  
lazhdeniia. [by] I.P.Malkov i dr. Moskva, G.energoizdat,  
1963. 416 p. (MIRA 17:2)

PETROVSKIY, Yu.V., kand.tekhn.nauk; FASTOVSKIY, V.G., doktor tekhn.nauk, prof.

Study of heat transfer and resistance to the flow of oil through  
a canal in the steel of a turbogenerator stator. Vest. elektroprom.  
32 no.6:16-22 Je '61. (MIRA 16:7)  
(Turbogenerators--Cooling)

PETROVSKIY, Yu.V.; FASTOVSKIY, V.G.; RUSANOV, A.A., red.; LARIONOV,  
G.Ye., tekhn. red.

[Efficient modern heat exchangers]. Sovremennye effektivnye  
teplobmenniki. Moskva, Gos. energ. izd-vo, 1962. 255 p.  
(Moscow. Vsesoiuznyi elektrotekhnicheskii institut. Trudy,  
no.70). (MIRA 15:7)

(Heat exchangers)



PETROVSKIY, Yu.V., kand.tekhn.nauk; FASTOVSKIY, V.P., doktor khim.nauk,  
~~prof.~~; ROYZEN, L.I., inzh.

Possibility for the use of plate-type finned heat exchangers in  
air-fractionating apparatus. Khim.mashinostr. no.5:8-12 S-0  
'63. (MIRA 16:13)

PETROVSKIY, Yu.V.; FASTOVSKIY, V.G.; ROYZEN, L.I.

Heat transfer and hydraulic resistance during the lengthwise  
flow of gas around transverse fin tubes. Khim.prom. no.6:433-438  
Je '62. (MIRA 1:11)

(Pipe--Hydrodynamics) (Heat--Transmission)

PETROVSKIY, Yu.V.; FASOVSKIY, V.G.; ROYZEN, L.I.

Use of finned tubes in spiral cross-flow heat exchangers.  
Khim. prom. no.9:58-63 S '61. (MIRA 15:1)  
(Heat exchangers)

ARKHAROV, Aleksey Mikhaylovich; BUTKEVICH, Konstantin Stefanovich;  
GOLOVINTSOV, Andrey Grigor'yevich [deceased]; KULAKOV,  
Viktor Mikhaylovich; MARFELINA, Irina Vasil'yevna; MIKULIN,  
Yevgeniy Ivanovich; STOLPEL, Mikhail Borisovich; Prinsipali  
uchastniye: BAKLANOVA, V.G.; GRIDIN, V.B.; PETROVSKIY, Yu.V.,  
red.

[Low-temperature equipment] Tekhnika nizkikh temperatur.  
Moskva, Energiia, 1966. 447 p. (MIRA 17:12)

FASTOVSKIY, V.G., doktor tekhn. nauk, prof.; KOVIL'SKIY, A.Ye.;  
PETROVSKIY, Yu.V.; PANASENKOVA, Ye.I., red.

[Inert gases] Inertrnye gaz. Moskva, Atomizdat, 1964.  
302 p. (MIRA 17:12)

**PETROVSKY, D.; FRANZEN, F.**

~~Specific therapy of typhus abdominalis.~~ Lek. listy, Brno 6 no.23:729-  
733 1 Dec 51. (CJML 21:4)

1. Of the Infectious Department of Zlate Moravce State Hospital.

PETROVSKY, F., dr.; LANGHAMMER, R., promovany matematik; KOCKOVA, M.  
promovany pedagog

A new form of automobile freight transportation dispatching.  
Doprava no.8:260-263 '62.

PETROVSKY, F., dr. (Praga); SATORIE, J. (Praga); PAVLYUK, Miklos [translator]

On loading of bulk goods. Kozl tud sz 13 no.1:20-28 Ja '63.

1. Pragai Kozledelesi Kutato Intezet tudomanyos munkatarsa (for Petrovsky and Satorie).



PETROVSKY, Frank, Jr., LANTANAMBA, Frank J., promovaný matematik. KOKOVA.  
Marta, promovaný POKROG

New form of dispersion of particles in air medium. (1950-1951)  
Doprava 2 no. 1: 50-61, 1951.

PETROVSKY, Frantisek, dr.; LANGHAMMER, Rudolf, prom.mat.; KOCKOVA, Marie,  
prom.ped.

Improving and making the dispatching operations easier in the  
automobile freight transportation. Siln doprava 11 no.3:20-21  
Mr '63.

PETROVSKY, Frantisek, dr.; LANGHAMMER, Rudolf, matematikus,  
foprogramozo; KOCKOVA, Marta, tudomanyos munkatars

New methods for dispatching motor trucks. Kozleked  
kozl 19 no. 30: 535-546 28 J1 '63.

1. Kozlekedesi Kutato Intezet osztalyvezetohelyettese,  
Praga (for Petrovsky).
2. Kozlekedesi Szamitastechnikai Laboratorium, Praga  
(for Langhammer and Kockova).

PETROVSKY, Frantisek, dr.; LANGHAMMER, Rudolf, promovany matematik;  
KOCKOVA, Marta, promovany pedagog.

A new dispatching system in automobile freight transportation.  
Part 2. Doprava no.12:403-407 '62.

PETROVSKY, G. T.; CHUTA[Cuta], F.

Electrodes made from Na-Ba silicate glass for measurement of  $p^H$  values.  
Coll Cz Chem 26 no.9:2289-2297 '61.

1. Kafedra spetsial'ny h analiticheskikh metodov, Khimiko-tehnologicheskij institut, Praga.

(Electrodes) (Glass) (Hydrogen-ion concentration)

PETROVSKY, J.

Automatic polishing of pressed aluminum products. p.30.  
(Technicka Praca, Vol. 9, No. 1, Jan. 1967, Bratislava, Czechoslovakia)

SO: Monthly list of East European Accessions (HEAL-10, Vol. 6, No. 6, part. 1967. Incl.

PETROVSKIJ, B.V.

Main problems in blood transfusion. Orv. hetil., Budap. 93 no.3:65-69  
20 Jan 52. (CIPL 21:5)

1. Professor.

DEKOVICH, R. [unclear]

Green [unclear] [unclear]  
[unclear] [unclear]



PETROVSKY, V., inz.

"Balancing rotating machines in technical practice" by  
Fryml and Boruvka. Reviewed by V. Petrovsky. Strojirenstvi  
12 no,8:636-637 Ag '62.

24.4100

Z/032/60/010/06/010/029  
E073/E535

AUTHOR: Pětrovský, V., Engineer

TITLE: Influence of Shear and Inertia Moments on the Free  
Frequency of Prismatic Beams ↗

PERIODICAL: Strojirenství, 1960, Vol 10, No 6, pp 428-432

ABSTRACT: If beams are loaded with transverse forces deformation due to shear will occur in addition to bending deformation. The individual particles of the beam become twisted and this brings about additional bending moments caused by inertia forces. Usually, for calculating the natural frequencies of beams, these two influences are disregarded which is permissible in long, slender beams but not in short ones. In this paper the natural frequencies are calculated of beams which are rigidly clamped on one side, whilst the other side of the beam contains a lumped mass and is either free, supported or is also clamped in. The blades of turbo-machinery represent a practical example. For solving the problem a small deformation is assumed, as is usually done in the theory of elasticity, and the coupling with torsional oscillations is disregarded. ✓

Card 1/3

6035.

Z/032/60/010/06/010/029  
E073/E535

Influence of Shear and Inertia Moments on the Free Frequency of Prismatic Beams

This assumption is perfectly fulfilled in beams with an axially symmetric cross-section in the direction parallel to the direction of oscillation. It is furthermore assumed that on the end which is clamped, the inclination of the line of bending deformation is zero and that of the deformation due to shear forces is not zero. A detailed solution is given for the oscillations of beams, one end of which is rigidly clamped and the other is free or supported or also clamped. The results are partly given in the form of graphs. If the influence of the moment of inertia of the lumped mass is disregarded, the graph, Fig 4, can also be used for calculating beams with a lumped mass if  $f_0$  is the natural frequency of the beam with the lumped mass without taking into consideration shear and inertia moments. In very short beams shear and inertia moments can reduce the frequency considerably particularly in higher order oscillations. An engineering method of determining the coefficient of shear deformation

Card 2/3

80317

Z/032/60/010/06/010/020

E073/E535

Influence of Shear and Inertia Moments on the Free Frequency of Prismatic Beams

$k$  for current types of cross-sections is given, it follows from a detailed analysis, published elsewhere (Ref 5) that the maximum error of this method does not exceed 10%. Thus, the calculation error in the natural frequency caused by the inaccuracy of calculating  $k$  will not exceed about 2%. This is adequate, since in short, rigidly clamped beams the elasticity of the clamping will bring about a further considerable decrease of the natural frequency, which cannot be determined with a high accuracy. The accuracy of the experimental values obtained in earlier work (Ref 5) was somewhat lower. By improving the optics of the metering instrument and using a more suitable material and a better manufacturing technology for the membrane, it should be possible to increase considerably the accuracy of experimentally obtained values. There are 7 figures, 1 table and 7 references, 6 of which are Czech and 1 English.

ASSOCIATION: Závody V.I.Lenina, Plzeň (V. I. Lenin Works, Pilsen)  
Card 3/3

PETROV-SPIRIDONOV, A.Ye., kand. biolog. nauk; ZINCHENKO, V.A., aspirant

Polarographic method of determining ~~the~~ reaction of plants to the effect of prop~~an~~. Izv. TSKHA no.4:220-223 '63. (MIRA 17:1)

PETROV-SPIRIDONOV, A.Ye., kand.biologicheskikh nauk

Polarographic method for studying the reaction of plants  
to environmental effects. Izv. TSKHA no.3:221-223 '62.  
(MIRA 15:9)

(Polarography)  
(Botanical research)

PETROVSZKAJA, M.

Tasks of the sawing and woodprocessing industry in the sixth  
Five-Year Plan of the Soviet Union. p. 156  
FAIPAR (Faipari Tudomanyos Egyesulet) Budapest  
Vol. 6, no. 6, June 1956

Source: EEAL - LC Vol. 5. No. 10 Oct. 1956

FBI/DOJ, ...

Silinskiy ... active ... with the ... of ...  
the All-Union Volunteer Society for Assistance to the Army, Air Force, and Navy ...  
Moskva, Izdatel'stvo ... 1943 ... 4 ...

SO: Monthly List of Russian accessions, Vol. ... N. ... 1st March ...



BUDNIKOV, P.I., akademi, SAVEL'YEV, V.G., kand. tekhn. nauk, PETROVYKH,  
I.M., inzh.

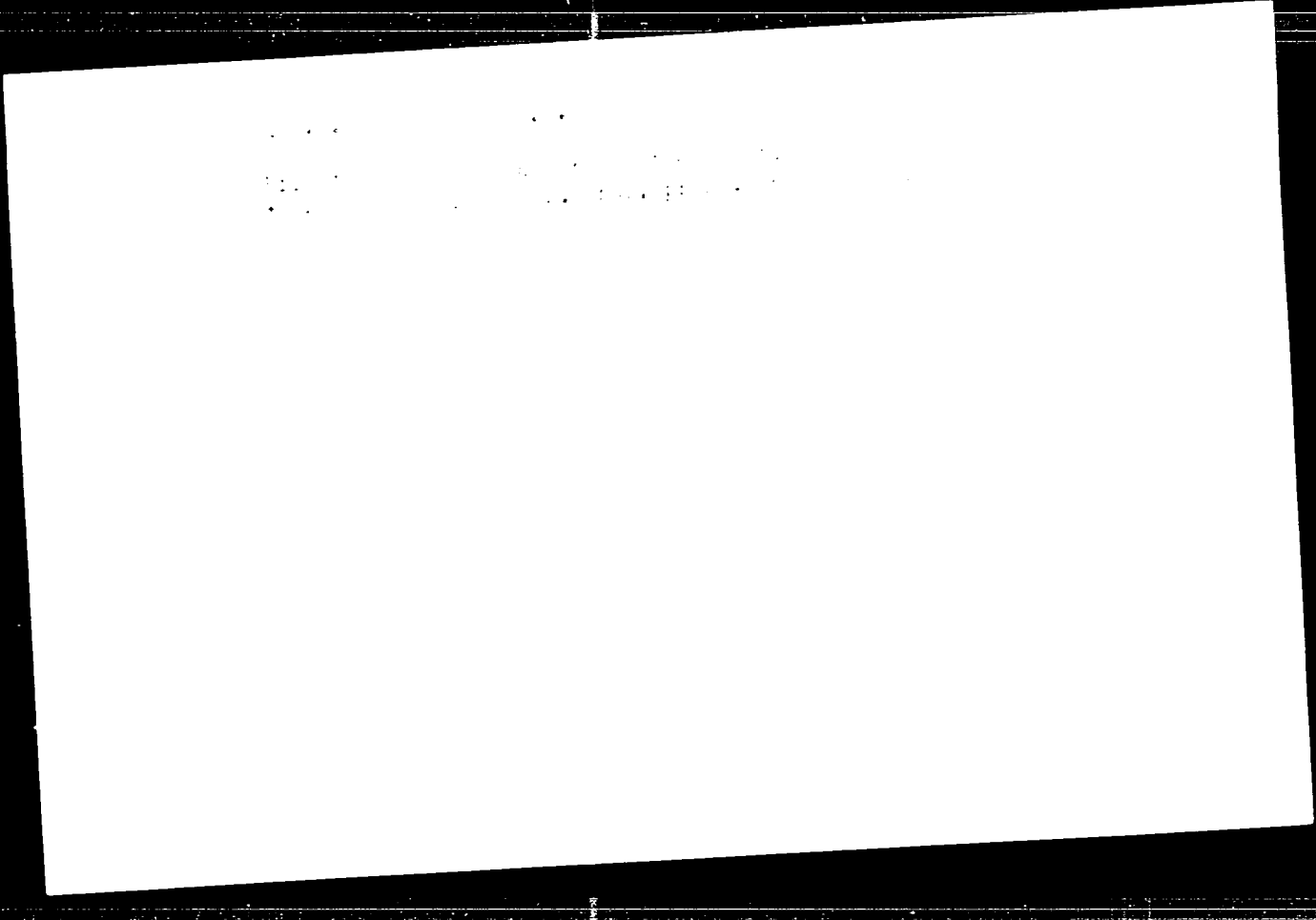
Properties of perlite from the Borogovo deposit. Stroif. mat.  
11 no.1:24-25 Ja '65. (MIRA 1965)

... (for Budnikov).

BUDNIKOV, P.P.; PETROVYKH, I.M.

Zeolites, the molecular sieves. Priroda 52 no.7:32-37 J1 '63.  
(MIRA 16:8)

1. Chlen-korrespondent AN SSSR (for Budnikov).  
(Zeolites)



136704-65 REC(1)-2/ENT(1)/ENT(m)/t IJP(c)

ACCESSION NR: AP5003115

S/0080/65/038/001/0010/0017

20  
18  
8 7

AUTHOR: Budaikov, P. P.; Petrovykh, I. M.

TITLE: Effect of certain factors on the crystallization of synthetic sodium zeolite type A

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 1, 1965, 10-17

TOPIC TAGS: sodium zeolite A, crystallization, time, seeding, adsorption characteristic, water adsorption, carbon dioxide, adsorption

ABSTRACT: The effects of time and of seeding on sodium zeolite A were investigated. Initial crystal formation occurred almost simultaneously with gel formation when alkali solutions of sodium silicate and sodium aluminate were reacted. Well formed crystals were obtained only after 3 hours aging, but their adsorption properties were still weak. Twelve hours crystallization time was required to obtain an adsorbent with normal sorption properties. The zeolite crystal dimensions increased to 10-11 microns as crystallization time was increased to 48 hours, but this increase in size had little effect on the sorption properties. Seed-

Card 1/2

L 36704-65

ACCESSION NR: AP5003115

2

ing with materials having a structure approaching that of the synthetic zeolite had little effect on the ultimate size of the crystal product, but did intensify the zeolite formation process. Optimum seeding concentrations were 3% sodium zeolite A with crystal dimensions  $\sim 3.5$  microns; 3% chabazite with dimensions  $\sim 3.0-3.5$  and 0.1-0.5% chabazite of  $\sim 1.5$  micron size. Samples seeded with 3% sodium zeolite A had the best adsorption characteristics: maximum sorption capacity was 30 amp/100gm adsorbent, 12-12.5 gm CO<sub>2</sub> at 20C and 20 mm Hg and 21.5 gm CO<sub>2</sub> at 20C and 780 mm Hg. "Adsorption measurements conducted by N. V. Kel'taev at the Department of Nitrogen MKhTI im. Mendeleeva."

Orig. art. has: 9 figures

ASSOCIATION: None

SUBMITTED: 16Jan64

ENCL: 00

SUB CODE: GC

NR REF SOV: 008

OTHER: 006

Card 2/2/15

BUEDIKOV, P.P.; PETROVYKH, N.V.

Influence of dispersity of mass and temperature in hydrothermal  
processing on the formation and properties of silicate building  
materials. Trudy NIIMI no.24:96-110 '57. (MIRA 11:6)  
(Silicates) (Building materials--Testing)

PETROVYKH, N. V., Cand Tech Sci -- (diss) "Effect<sup>ly.</sup> of disper-  
sibility of mass and temperature of hydrothermal treatment upon  
the process of hardening and properties of ~~siliceous~~<sup>siliceous</sup> materials." Mos, 1958. 15 pp with graphs (Min of Higher Edu-  
cation USSR, Mos Order of Lenin Chem-Technological Inst in  
D. I. Mendeleev), 170 copies (KL, 35-58, 108)

-47-

Петровский, М. Г.

15(0), 15(2)  
ARTICLE

SOV/30-59-2-45/60

Kolomiys, B. T.,  
Sector of Technical Sciences

The Investigation of Vitreous Semi-Conductors  
(Izucheniye stekloobraznykh poluprovodnikov)

Vestnik Akademii nauk SSSR, 1959, Br 7, pp 103-104 (USSR)

From December 1 to 2, 1958 a conference took place on this problem at the Pribor Institute of the Academy of Sciences, USSR (Physicochemical Institute of the Academy of Sciences, USSR). Total information on the course of the experiments and their general conclusions. Representatives from 11 scientific institutions attended the conference. The following lectures were heard: V. V. Tarasov, Moskovskiy khimiko-tekhnologicheskiy institut (Moscow Chemical Technological Institute) spoke of heat experimental results connected with the investigation of heat capacity at low temperatures of  $As_2S_3$  and  $As_2Se_3$ . His second report dealt with the polymeric concept of glass formation and semiconductors in general.

B. L. Mylter, Goudarstvennyy opticheskiy institut (State Optical Institute) emphasized the decisive role played by the covalent bond in glass formation.

A. A. Kopylov, Institut khimii silikatov Akademii nauk SSSR (Institute of Silicate Chemistry of the AS USSR) described the investigation of the structure of the systems  $As_2S_3-As_2Se_3$  by X-ray methods.

L. I. Zakharova, Institut kristallografi Akademii nauk SSSR (Crystallographical Institute of the AS USSR) reported on the structural investigation of some chalcogenides by electro-diffraction.

A. I. Gubanov and L. Ia. Kharkalpas, Fiziko-tekhnicheskii institut (Physicochemical Institute) reported on theoretical problems of the semiconductor properties of glass types.

V. P. Shilo discussed working criteria in the determination of boundaries in glass formation in the  $As_2S_3$  and  $As_2Se_3$  systems.

B. A. Korzunov compared the boundaries of vitreous state in these systems with the criteria of glass formation obtained by Sakharasov and Vinter-Klybn and found that there exists no correlation between them.

V. P. Masareva investigated the electric properties of semiconductor glass types in the  $VCl_3 - As_2S_3$  system.

B. T. Kolomiys spoke of research work in the field of linear photoconductive effect done by B. S. Mamontova.

B. V. Paraly discussed experimental results of the position of the absorption boundary as dependent on the change of composition of glass types.

V. P. Posdnev reported on material he obtained in the investigation of the viscosity of glass types in the  $As_2S_3 - As_2Se_3$  system.

B. T. Kolomiys summarized the working results obtained by the Physicochemical Institute and found that in the materials investigated the short-range order is not destroyed in the transition from the vitreous state to the crystalline state.

G. K. Matuzan, Leninskoye khimiko-tekhnologicheskoye institut (Leningrad Chemical Technological Institute) described the investigation of the semiconductor properties of silicate and borosilicate glass types with the addition of iron-cobalt and titanium oxides.

M. V. Petrovskiy, Moskovskiy institut elektrotexnicheskoye stekla (Moscow Institute of Electrochemical Glass) outlined the investigation results of the boundaries of glass formation and the electric properties of contiguous semiconductor glass types of the composition  $VCl_3 - P_2O_5 - SiO_2$  systems.

I, II, III, IV and V groups of the periodic system. The next conference on semi-conductor glass types will probably be held in 1959.

Card 1/4



15(2)  
AUTHOR:  
TITLE:  
PERIODICAL:  
ABSTRACT:

Some Glasses  
Glass Science at the VIII Mendeleev Congress  
(Sobremennyye Problemy Khimii i Fiziki Steklyan)

Steklo i keramika, 1979, No. 5, pp. 1-4 (USSR)  
In the beginning of the 1970s the USSR has achieved a qualitative increase in the production of glass and glass products. The USSR has taken the lead in the development of glass technology. The USSR has achieved a qualitative increase in the production of glass and glass products. The USSR has taken the lead in the development of glass technology. The USSR has achieved a qualitative increase in the production of glass and glass products. The USSR has taken the lead in the development of glass technology.

Card 1/4

A. I. Zhuravskiy (LII Lenin Institute) discussed the formation of surface protection films in the destruction of silicate glasses; O. V. Kuznetsov (GOI) discussed the coloring characteristics and the technology of phosphate glasses; O. V. Masurin (LPI) reported on the mobility of sodium ions in glass type of the system Na<sub>2</sub>O-Na<sub>2</sub>SiO<sub>3</sub>-SiO<sub>2</sub>; Z. A. Kosova (LII Stroykeramika) discussed the process of subbing the glasses by lead oxide and silicon; L. G. Mal'nikhenko, Eshkovskiy Politehnicheskii Institut (Eshkovskiy Politehnicheskii Institut) reported on silicate formation and sintering processes in the type of glass; E. M. Sidorov (Glass Institute) reported on the determination of impurities in silica by spectroscopic analysis; O. B. Radonova, and Ye. S. Orlova (Glass Institute) reported on the type of silicate glasses; Ye. S. Orlova (Glass Institute) reported on the formation of crystallization centers in photo-sensitive types of glass; E. M. Sidorov (Glass Institute) discussed the results of the investigation of the tendency of phosphate systems towards glass formation; L. A. Grebenik, L. L. Mal'nikhenko, and V. G. Karpachenko (LIIES) reported on the investigation of types of semiconducting oxide glasses on the basis of V<sub>2</sub>O<sub>5</sub>; E. V. Solov'eva, L. A. Grechansk, I. V. Zhelazova, and Ye. A. Puzberg (LIIES) discussed the production of conductive films on types of glass which contain components easily to be regenerated.

Card 2/4

9.4300 (1035, 1138, 1143)

S/18/60/002/009/015/036  
B004/B056

AUTHORS: Grehanik, L. A. Petrovikh, N. V. Karp-herke, V. G.

TITLE: Synthesis and Investigation of Vitreous Oxide Semiconductors in Systems of the Type  $VO_{2.5} - PO_{2.5} - RO_x$

PERIODICAL: Fizika tverdog tela, 1960, Vol. 2, No. 9, pp. 2131 - 2139

TEXT: On the basis of published data, part of which are given in Table 1, the authors drew the conclusion that in the case of a complex composition, more stable glasses with different semiconducting properties are obtained. In the system  $VO_{2.5} - PO_{2.5}$ , where  $VO_{2.5} > 50\%$ ,  $PO_{2.5} = 0 - 50\%$ , they substituted part of the  $VO_{2.5}$  by 0 - 50%  $RO_x$  ( $LiO_{0.5}$ ,  $NaO_{0.5}$ ,  $KO_{0.5}$ ,  $CaO_{0.5}$ ,  $CaO$ ,  $AgO_{0.5}$ ,  $BeO$ ,  $MgO$ ,  $CaO$ ,  $SrO$ ,  $BaO$ ,  $ZnO$ ,  $CdO$ ,  $HgO$ ,  $LaO_{1.5}$ ,  $CeO_2$ ,  $BO_{1.5}$ ,  $AlO_{1.5}$ ,  $TiO_2$ ,  $ZrO_2$ ,  $SiO_2$ ,  $GeO_2$ ,  $SnO_2$ ,  $P_2O_5$ ,  $AsO_{1.5}$ ,  $SbO_{1.5}$ ,  $BiO_{1.5}$ ,  $CrO_{1.5}$ ,  $WO_3$ ,  $SeO_2$ ,  $MnO_2$ ,  $FeO_{1.5}$ ,  $CoO$ ,  $NiO$ ,  $UO_3$ ). For the ternary systems, the regions of glass formation are given in Fig. 1. Glasses

Card 1/4

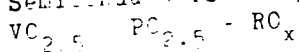
Synthesis and Investigation of Vitreous Oxide Semiconductors in Systems of the Type  $VO_{2.5} - PO_{2.5} - RO_x$

<sup>P4074</sup>  
S/81/60/002/009/015/036  
B004/B056

with  $PO_{2.5} = 20\%$  and an  $RO_y$  content of 10, 20, and 30% were examined as to their technical properties. They all melted at low temperatures (800-200°C), had a low viscosity, tended toward crystallization, and harder-drawn. An addition of  $AsO_{1.5}$ ,  $WO_3$ ,  $SbO_{1.5}$  improved their properties. The coefficient of expansion was (60-150)  $\cdot 10^{-6}$  deg<sup>-1</sup>, the softening temperature was between 250 and 350°C, the elastic modulus was (1.9-5.4)  $\cdot 10^5$  kg/cm<sup>2</sup>. The glasses that were non-transparent in visible light were transparent in infrared within the region of 2-5  $\mu$  with a maximum at 4  $\mu$  (Fig. 2). Measurements were carried out by means of an MKC-14 (IKS-14) spectrophotometer. The electrical conductivity  $\sigma$  was measured by means of an MTB (MTV) measuring bridge in the region of 20-250°C. As shown by Fig. 3, the equation  $\sigma = \sigma_0 \exp(-\Delta E/2kT)$  holds, no break occurring such as is caused by impurities in crystalline semiconductors. With increasing  $RO_x$  content,  $\sigma$  decreases according to the equation  $\sigma = \sigma_0 \exp(-k \cdot C_{RO_x})$  (Fig. 4). The extrapolation of the straight

Synthesis and Investigation of Vitreous Oxide Semiconductors in Systems of the Type

S/81/60/002/000/015/034  
B004/BC56



$\lg \sigma$  for 100%  $VO_{2.5}$  (Fig. 5) yields values of between -3.0 and -3.6, which are thus near the value -3.1 for crystalline  $V_2O_5$ . Between the activation energy  $\Delta E$  of the carriers and  $\sigma$  there exists the dependence  $\sigma = A \exp(-\Delta E/kT)$  represented in Fig. 6. (A, D are constants). The thermo-emf was measured according to Tauc (Ref. 19) by means of a ППТБ-1 (PPTV-1) potentiometer and an ЭМУ-3 (EMU-3) electrometer amplifier. Proportionality was found to exist between the coefficient of the thermo-emf and the concentration of  $RO_x$ . As shown by Fig. 8, the coefficient of the thermo-emf decreases with increasing ordinal number of the elements of the second main group of the periodic system, the oxides of which are under consideration. An increase in the contents of elements of the fifth main group leads to the opposite effect. The authors arrived at the conclusion that the glasses investigated have an intrinsic conductivity of mixed n-p type, which is not influenced by impurities. This is explained by the different parts played by impurities in a crystal lattice and in an amorphous glass having no long-range order.

Card 3/4

КОСМОЛЕТ СТИИ, F.P., полковник медицинской службы, канд. мед. наук;  
ПЕЛЮКИН, V.A., полковник медицинской службы, канд. мед. наук

Means to increase working capacity and their practical significance for the flying personnel. *Воен.-мед. зап.* no. 1:97-99  
Ja '66 (USSR 1961)

PETROVYKH, V.A.

"Food hygiene of flight personnel of the civil air force." Vop.  
pit. 13 no.5:58-59 S-0 '54. (MLBA 7:9)  
(Flight crews) (Nutrition)

SCV/177-58-7-21/38

17(9,11)

AUTHORS:

Kuznetsov, M.I., Candidate of Biological Sciences,  
Petrovykh, V.A., Candidate of Medical Sciences,  
Colonel of the Medical Corps; Lobzin, I.I., Candi-  
date of Technical Sciences, Lieutenant-Colonel of  
the Commissary Corps; and Kudrova, R.V.

TITLE:

Feeding the Flight Crew While Wearing Oxygen Masks  
on Board the Plane

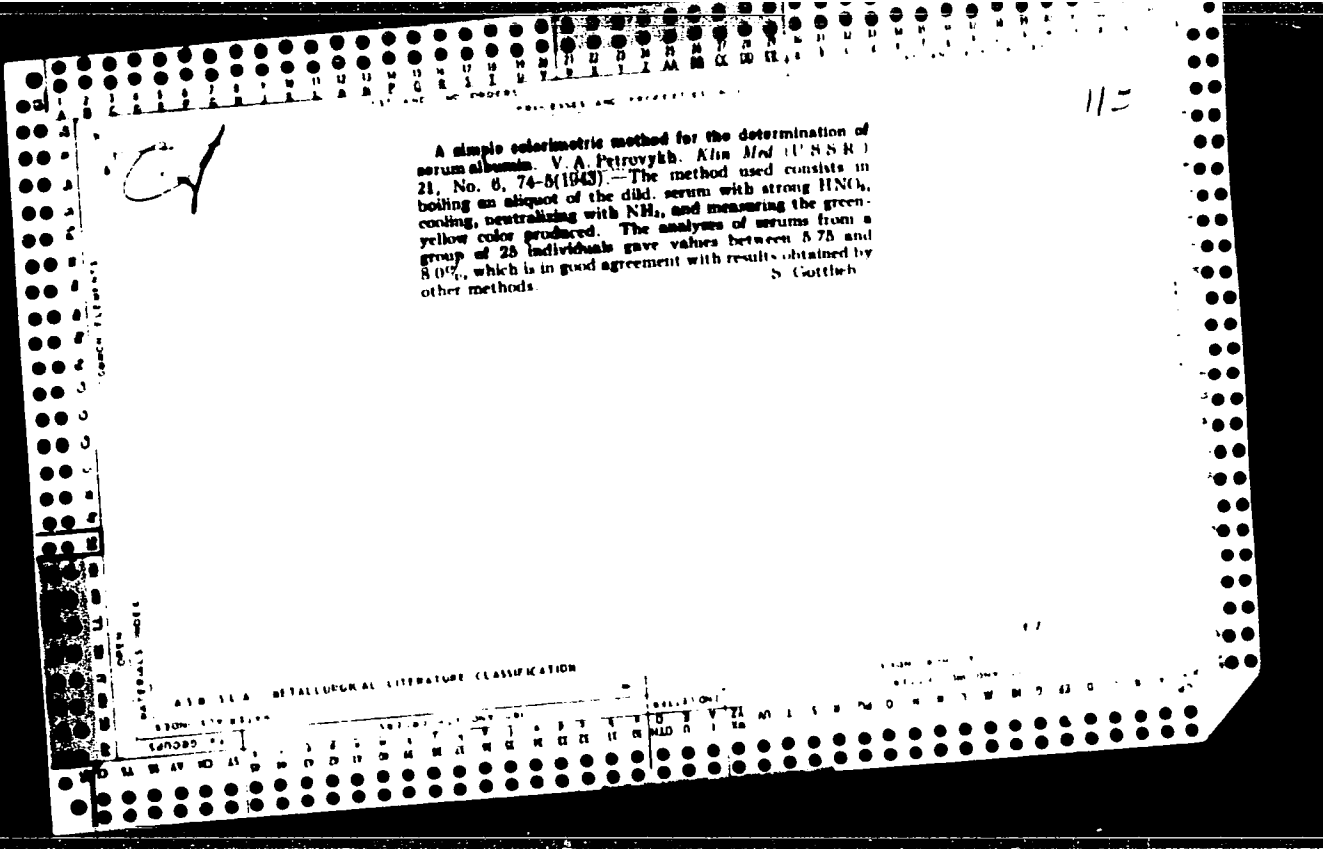
PERIODICAL:

Voyenno-meditsinskiy zhurnal, 1958, Nr 7, P 82  
(USSR)

ABSTRACT:

The authors worked out a recipe for a food mixture  
and a method of feeding pilots with the oxygen mask  
on while on board the plane at high altitudes.  
Strained food, rich in calories, is sucked up by the  
pilot via a rubber tube which leads into the mouth  
thru a valve, thus guaranteeing the hermetic sealing  
of the mask.

Card 1/1





PETHOW, A.; DIMITROW, I. (Sofia)

Pathogenesis, therapy and prevention of thrombophlebitis in surgery  
Polski przegl. chir. 33 no.7/8:1056-1059 '61.  
(SURGERY OPERATIVE compl) (THROMBOPHLEBITIS)

PETROW, D.A.

18  
7  
Research problems on new light alloys. D. A. Petrov (*Acta Tech. Univ. 1957, 18, 121-129*).—The production of high-purity Al is considered. Castings produced by intensive water-cooling show a fine dendritic structure, the alloying metals and impurities being more or less evenly distributed throughout the matrix. The development of Al-Cu, Al-Zn and superdural alloys and the possible use of the last-named in jet aircraft are dealt with. Al-Mg alloys are suitable for coating purposes; an alloy containing 5-6% of Mg can be welded; above this percentage, the alloy is more sensitive to corrosion and its strength is higher. (In German.)

any

PETROW, G.

Group-coil auto transformers. In German p. 25.

PERIODICA POLYTECHNICA. ELECTRIC ENGINEERING. (Budapesti Muszaki ...)  
Budapest, Hungary. Vol. 3, no. 2, 1957.

Monthly List of East European Accessions (EEA) ...

Uncl.

36839-65 EWP(w)/EWA(d)/ENP(y)/I/ENP(z)/ENP(x)/ENP(b)/EWA(c) Pf-4 JD/EM

ACCESSION NR: AP5016575

NO/0020/65/010/001/0127/0150

33  
30  
B

AUTHOR: Petrov, G. I. (Professor, Doctor); Million, A. (Graduate engineer)

TITLE: A contribution to the understanding of the effects of hydrogen diffusion on the formation of cracks in welded joints

SOURCE: Revue Roumaine des sciences techniques. Serie de metallurgie, v. 10, no. 1, 1965, 127-150

TOPIC TAGS: steel welding, weld crack, hydrogen crack, weld hydrogen concentration, hydrogen diffusion, weld quality, hydrogen embrittlement, alloy steel welding

ABSTRACT: The mechanism of the effect of hydrogen on the formation of cracks in welded joints was investigated. A method was developed for studying the distribution mechanism of diffusible hydrogen in steel welds during and following the welding operation. The method is a refined version of that described by N. Christensen, K. Gjermundsen, and R. Rose (British Welding Journal, v. 5, no. 6, 1958, p. 272) and M. Dadian (Soudage et Techniques Connexes, v. 16, no. 3-4, 1962, p. 131). Hardenable and non-hardenable ferritic-perlitic and austenitic steels were investigated by this technique. The findings are summarized in Figures 1 and 2 of the Enclosure. With the aid of these diagrams, it is possible to establish the numerical value of the local hydrogen concentration for any

Card 1/13

L-58839-65.

ACCESSION NR: AP5018575

2

portion of the welded joint as a function of time elapsed after the post-welding quenching if the height of the welding bead ( $h$ ) and the concentration of hydrogen in the welding stock ( $C_s$ ) is known. If, for example,  $C_s = 12.5$  cc/100 g and the  $0-C_s$  distance (in Figures 1 and 2 of the Enclosure) is 10 mm, each 0.8 mm (i. e., 10/12.5) corresponds to a local concentration,  $C$ , of 1 cc/100 g. The time vs. concentration curve is of special significance in the immediate vicinity of the weld joint since cracks usually form at this location. Figure 3 of the Enclosure, drawn on the basis of Figure 1 and 2 of the Enclosure, illustrates the behavior of the four types of steel studied in this respect. The findings show that the amount of hydrogen introduced during the welding operation affects the speed of the hydrogen distribution process but not the distribution itself. The initial hydrogen distribution was about the same in all welds of low-carbon, low-alloy steels that were welded once and quenched immediately thereafter; however, the changes in the hydrogen distribution following quenching were different, depending on the structure and hardness of the materials involved. Austenitic weld stock will not release hydrogen when the affected zone is at room temperature unless the hydrogen concentration there is extremely high. Hardening of the heat-affected zones adjacent to the weld results in an increase in the hydrogen concentration along the melted zone. "This article incorporates some results contained in the dissertation of Adolf Million, Diplomate Engineer, at the Technische Hochschule (Technical University) in Leningrad, USSR, prepared under the guidance of Prof. Dr. G. L. Petrov and submitted on 11Dec83 as the basis for the

Card

2/7

L-58839-65

ACCESSION NR: AP5018575

degree "Candidate of Technical Sciences." A motion picture illustrating the test procedure was also presented. Orig. art. has: 14 figures, 3 tables, and 6 formulas.

ASSOCIATION: [Petrov] Technische Hochschule, Leningrad (Technical University); [Milion] Forschungsinstitut für Maschinenbautechnologie, Bucharest (Research Institute for Machine Building Technology)

SUBMITTED: 04May64

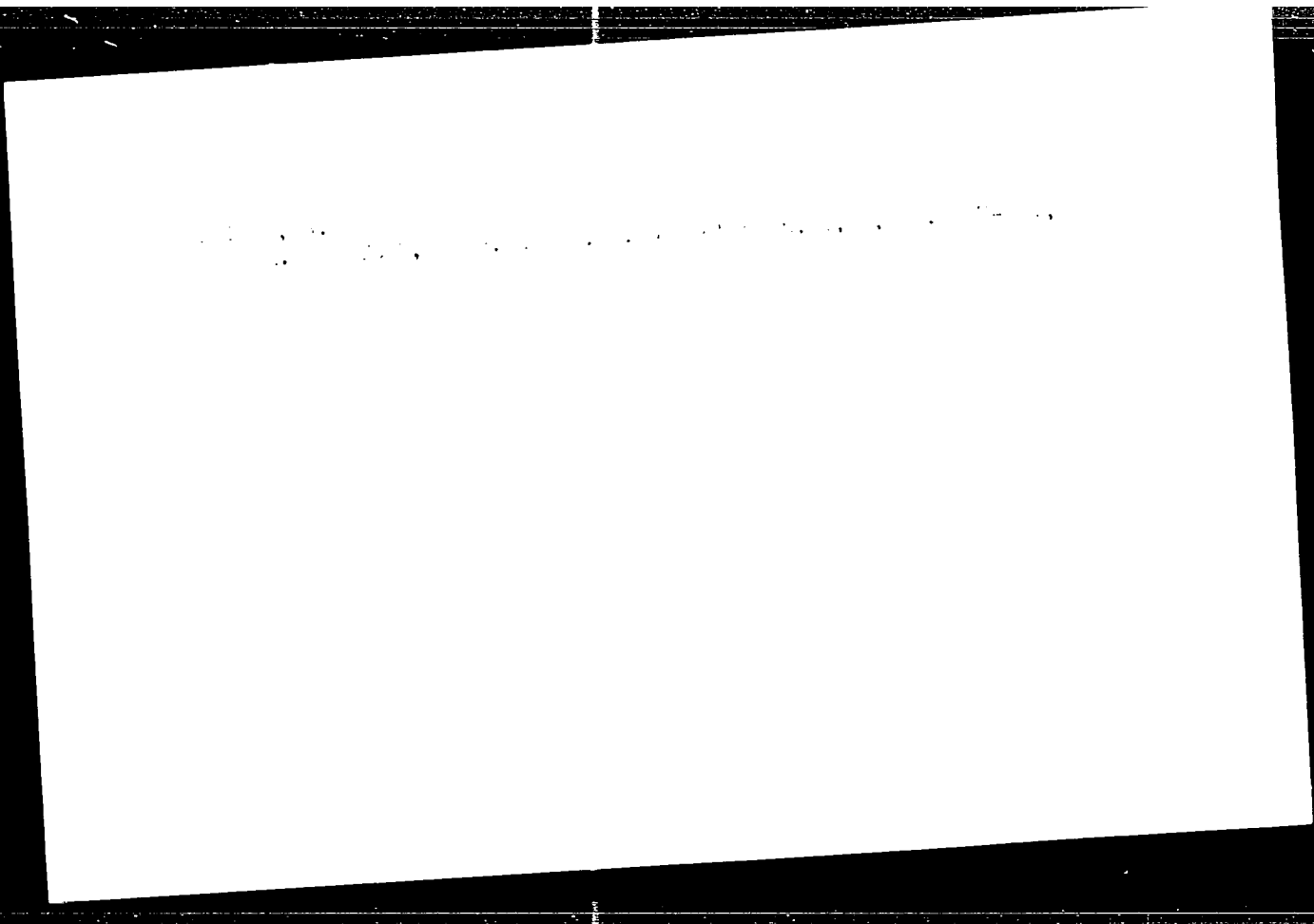
ENCL: 04

SUB CODE: MM, IE

NO REF SOV: 006

OTHER: 013

Card 3/7



PETROV, M. A.

"Sur les composés oxygénés supérieurs de fer. II." M. A. Petrov et B. F. Ormont. (p. 1090)

SO: Journal of General Chemistry (Annales Chimie et Chimie), 1958, Volume 2, No. 11.



POTTSVILLE, Pa.; YORK, Pa.

Etymology and special clinical aspects of respiratory disorders  
in newborn infants and sucklings. (Ann. N.Y. Acad. Sci. 243:435-439)  
1949

J. F. ...

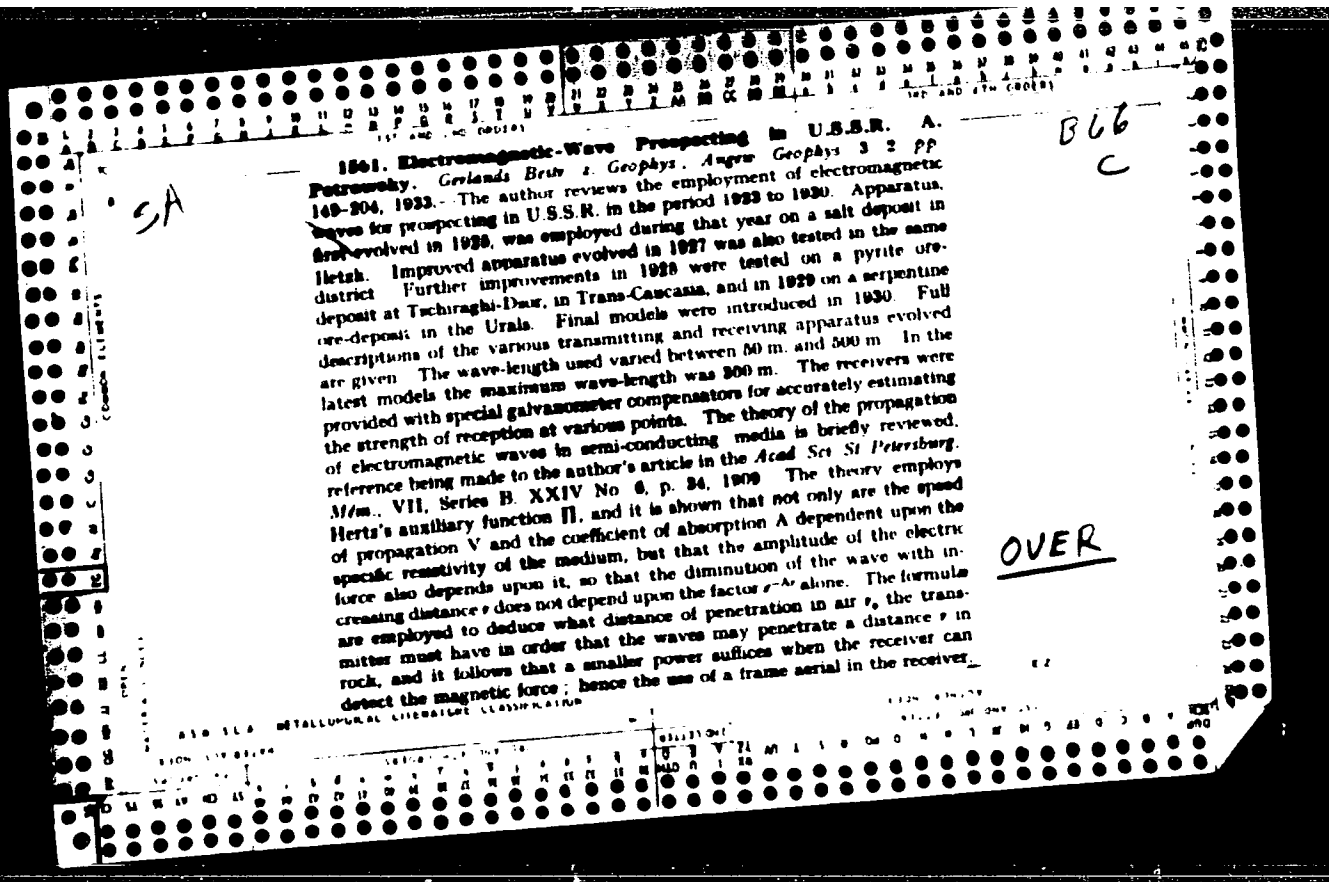
PETROWSKY, A.

*geophysics*

2283. Electromagnetic-Wave Prospecting in U.S.S.R. A. 146-204, 1003

The author reviews the employment of electromagnetic waves for prospecting in U.S.S.R. in the period 1923 to 1930. Apparatus, first evolved in 1925, was employed during that year on a salt deposit in Hetzk. Improved apparatus evolved in 1927 was also tested in the same district. Further improvements in 1928 were tested on a pyrite ore-deposit at Tschiraghi Dsor, in Trans-Caucasia, and in 1929 on a serpentine ore-deposit in the Ural. Final models were introduced in 1930. Full descriptions of the various transmitting and receiving apparatus evolved are given. The wave-length used varied between 50 m. and 500 m. In the latest model the maximum wave length was 300 m. The receivers were provided with special galvanometer compensators for accurately estimating the strength of reception at various points. The theory of the propagation of electromagnetic waves in semi-conducting media is briefly reviewed, reference being made to the author's article in the *Mémoires de l'Académie des Sciences (St. Petersburg)*, III, Series B XXIV, N 6, p 34, 1909. The theory employs Hertz's auxiliary function  $H$ , and it is shown that not only are the speed of propagation  $V$  and the coefficient of absorption  $A$  dependent upon the specific resistivity of the medium, but that the amplitude of the electric force also depends upon it, so that the diminution of the wave with increasing distance  $r$  does not depend upon the factor  $e^{-Ar}$  alone. The formulae are employed to deduce what distance of penetration in air  $r_a$ , the transmitter must have in order that the waves may penetrate a distance  $r$  in rock, and it follows that a smaller power suffices when the receiver can detect the magnetic force, hence the use of a frame aerial in the receiver. It is also shown that provided the wave length does not exceed the

3



1861. Electromagnetic-Wave Prospecting in U.S.S.R. A. Petrovsky. *Gzlands Briv z. Geophys. Angva Geophys* 3 2 PP 149-204, 1933. The author reviews the employment of electromagnetic waves for prospecting in U.S.S.R. in the period 1923 to 1930. Apparatus first evolved in 1923, was employed during that year on a salt deposit in Ural. Improved apparatus evolved in 1927 was also tested in the same district. Further improvements in 1928 were tested on a pyrite ore-deposit at Tschiraghi-Daar, in Trans-Caucasia, and in 1929 on a serpentine deposit in the Ural. Final models were introduced in 1930. Full descriptions of the various transmitting and receiving apparatus evolved are given. The wave-length used varied between 50 m. and 500 m. In the latest models the maximum wave-length was 300 m. The receivers were provided with special galvanometer compensators for accurately estimating the strength of reception at various points. The theory of the propagation of electromagnetic waves in semi-conducting media is briefly reviewed, reference being made to the author's article in the *Acad Sci St Petersburg. Mém.* VII, Series B. XXIV No 6, p. 34, 1909. The theory employs Hertz's auxiliary function  $\Pi$ , and it is shown that not only are the speed of propagation  $V$  and the coefficient of absorption  $A$  dependent upon the specific resistivity of the medium, but that the amplitude of the electric force also depends upon it, so that the diminution of the wave with increasing distance  $r$  does not depend upon the factor  $e^{-Ar}$  alone. The formulae are employed to deduce what distance of penetration in air  $r_0$ , the transmitter must have in order that the waves may penetrate a distance  $r$  in rock, and it follows that a smaller power suffices when the receiver can detect the magnetic force; hence the use of a frame aerial in the receiver.

SA

B66  
C

OVER

1203 Electromagnetic-Wave Prospecting in U.S.S.R. A  
 Pptlyzhnyy. *Izvestiya Akad. Nauk SSSR Geophys. Ser. 1933*  
 149-204, 1933. The author reviews the employment of electromagnetic  
 waves for prospecting in U.S.S.R. in the period 1923 to 1930. Apparatus  
 first evolved in 1925, was employed during that year on a salt deposit in  
 Hertz. Improved apparatus evolved in 1927 was also tested in the same  
 district. Further improvements in 1928 were tested on a pyrite ore deposit  
 at Tschuagh Dzer in Trans-Caucasia, and in 1929 on a serpentine ore  
 deposit in the Urals. Final models were introduced in 1930. Full descrip-  
 tions of the various transmitting and receiving apparatus evolved are given.  
 The wave length used varied between 50 m and 500 m. In the latest  
 model the maximum wave length was 300 m. The receivers were provided  
 with special galvanometer compensators for accurately estimating the  
 strength of reception at various points. The theory of the propagation of  
 electromagnetic waves in semi-conducting media is briefly reviewed,  
 reference being made to the author's article in the *Mémoires de l'Académie  
 des Sciences St. Pétersbourg*. III. Series II, XXIV, N 6, p. 34, 1909. The  
 theory employs Hertz's auxiliary function  $H$ , and it is shown that not only  
 are the speed of propagation  $V$  and the coefficient of absorption  $A$  dependent  
 upon the specific resistivity of the medium, but that the amplitude of the  
 electric force also depends upon it, so that the diminution of the wave with  
 increasing distance  $r$  does not depend upon the factor  $e^{-Ar}$  alone. The  
 formulae are employed to deduce what distance of penetration in air  $r$ , the  
 transmitter must have in order that the waves may penetrate a distance  
 $r$  in rock, and it follows that a smaller power suffices when the receiver can  
 detect the magnetic force, hence the use of a frame aerial in the receiver.  
 It is also shown that, provided the wave-length does not exceed the

distance between transmitter and receiver, it is theoretically advantageous to use as long waves as possible. The tests at Ustak demonstrated that there was no difficulty in picking up electromagnetic waves after transmission through 100-150 m. of salt. Those at Ischitagh Ibas on a pyrite ore-body, showed that the ore body gave an electromagnetic shadow, and indicated the practical utility of the method for outlining the boundary of a deposit. There also appeared evidence of interference phenomena, resulting in a minimum of intensity of reception at some wave length, which was about four times the average height of the neighbouring fives. From the data at Ischitagh Ibas the absorption coefficient of quartz was calculated as about 0.1 per metre of rock for the wave-lengths used. The determination of the wave length of the transmitted signal in the actual rock is considered on theoretical grounds, using the interference of the transmitted wave with the air borne wave arriving at the receiver via the shaft and surface. It is shown that a reduction of wave length of 20% is easily possible. Tests on the serpentine deposit in the Urals showed that a 60 m. air wave was reduced to 12 m. in transmission through the rock. The maxima and minima of reception due to the interference of the two waves were very clearly shown. The article concludes with a discussion of the necessity for dealing with averages of electromagnetic constants in practical geophysics. In practice, for various reasons, the rocks *in situ* are

not homogeneous, and laboratory determinations of rock characteristics can only be regarded as approximately valid. [ 1. ]

PETROY, B.A.

TIKHONOVA, Z.I.; STEPANOVA, M.N., kandidat meditsinskikh nauk; MESHALKIN, Ye.N., kandidat meditsinskikh nauk; BAKULEV, A.N., professor; GULYAYEV, A.V., professor; VOZNESENSKIY, V.P., professor; DMITRIYEV, I.P., professor; OGNEV, B.V., professor; VAZA, D.L., professor; PETROY, B.A., professor, predsedatel'; DOROFYEV, V.I., sekretar'.

Minutes of the session of the Surg'cal Society of Moscow and Moscow Province of June 27, 1952. Khirurgiya no.3:84-88 Mr '53. (117 PA 4-6)

1. Khirurgicheskoye obshchestvo Moskvy i Moskovskoy Oblasti.  
(Heart--Surgery) (Cardiovascular system--Surgery)

PETROZHITSKIY, M.G.

Dorogobuzh trackmen are building homes. Put'i put.khoz. 5 no.5:25  
My '61. (MIRA 14:6)

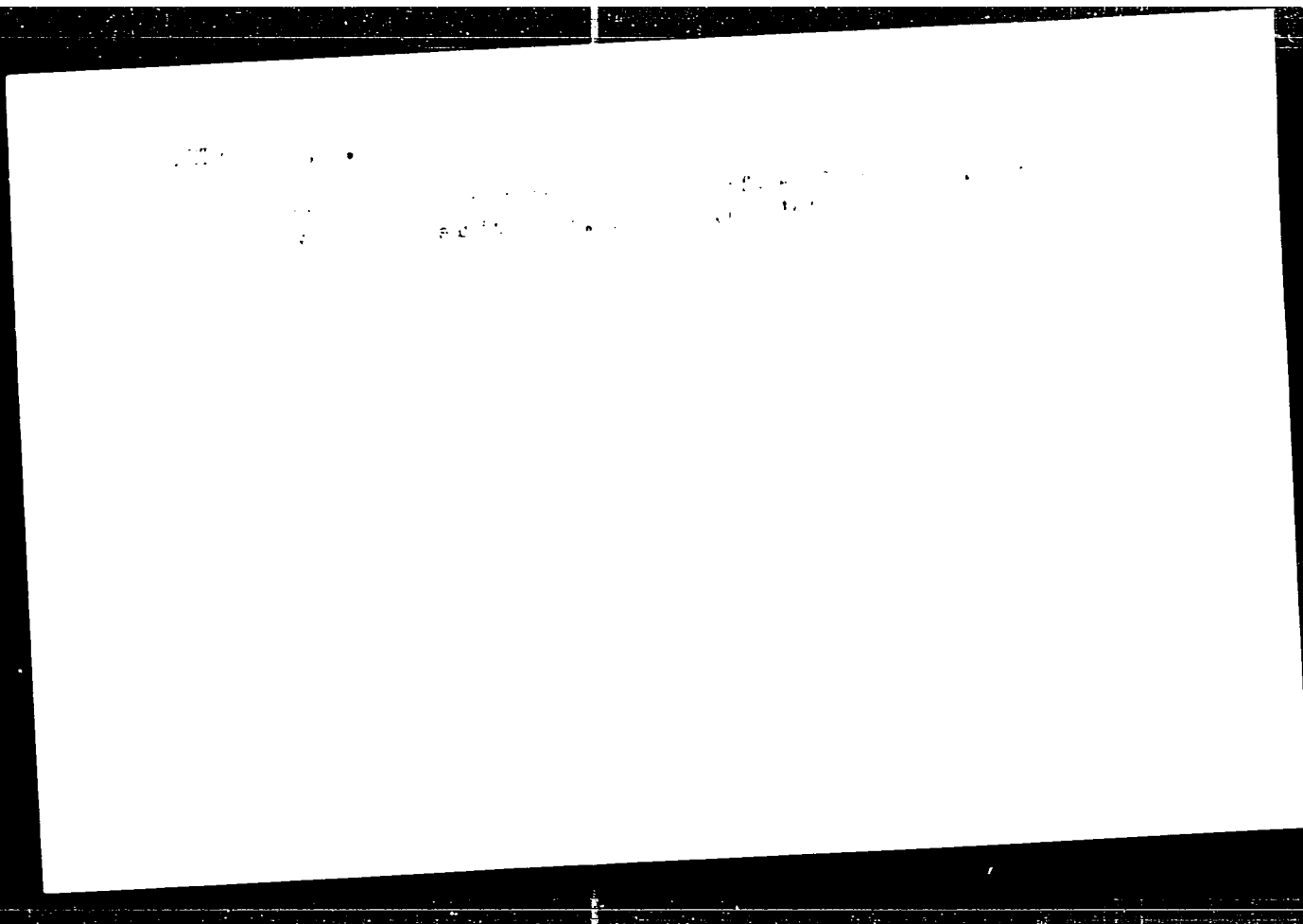
1. Proizvoditel' rabot Dorogobuzhskoy distantsii Kaliniskoy dorogi.  
(Dorogobuzh--Labor and laboring classes--Dwellings)

PETROZHITSKAYA, M.V. (Odessa)

Who is responsible? Zdorov'e 4 no.3:13 Mr '58.  
(PUBLIC HEALTH)

(MIRA 11:3)





PETROZOLIN, W.

Technical progress in the field of pipe material for water supply and sewerage. p. 195

GAS, WODA I TECHNIKA SANITARNA (Stowarzyszenie Naukowo-Techniczne Inżynierów i Techników Sanitarnych, Ogrzewnictwa i Gazownictwa) Warszawa, Poland.  
Vol. 33, no. 5, May 1959

Monthly List of East European Accessions (EEA) LC, Vol. 8, no. 9, September 1959  
Incl.

PETROZOLIN, W.

Corrosion damages a well filter. p. 250

GAZ, WODA I TECHNIKA SANITARNA (Stowarzyszenie Naukowo-Techniczne Inżynierów i Techników Sanitarnych, Ogrzewnictwa i Gazownictwa) Warszawa, Poland.  
Vol. 33, no. 6, June 1959

Monthly List of East European Accessions (EEA1) LC, Vol. 8, no. 9, September 1958  
Uncl.

PETROL LIN, PIETRO

projektowanie sieci wodociagowych (Planning of water-:ipe nets.) 310 p.

Monthly Index of East European Acquisitions (EEAI) LC, Vol, 8, no. 1 Jan 59

BELOPOMOV, V.I.; NAVROTNIY, V.V.; PETLICHENSKIY, A.I.

Correlation between protein fractions, C-reactive protein and erythrocyte sedimentation in different forms of tuberculosis. Promb. tub. no.7:51-54 1963.

.. iz Instituta meditsinskoy klimatologii i klimatoterapii imeni I.M. Sechenova (direktor - S.V. Bogutskiy, Yalta.

SECRET

1. The following information was obtained from a source who has provided reliable information in the past.

2. The source has provided information that is of a confidential nature and is being provided to you for your information only.

3. This information is being provided to you for your information only and is not to be disseminated to other personnel.

PETRYL, J.

"Ethnographic and folkloristic elements in the numismatic literature of  
1950-1956; reviews of articles."

p. 22<sup>2</sup> (Cesky Lid) Vol. 44, no. 5, 1957  
Prague, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4,  
April 1958

PETRYL, J.

Nalezy minci v Cechach, na Morave a ve Slezsku (Coins Found in Bohemia, Moravia,  
and Silesia); a book review.

p. 93 (CESKY LID) Vol. 43, no. 2, 1956,  
Praha, Czechoslovakia

SO: Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 3,  
March 1958



PETRÝL, J.

Production problems of block prints. p. 252.

(Ceskoslovenska Ethnografie. Vol. 4, no. 3, 1956, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 6, June 1957, Uncl.

PETRŤIL, J.

"Social Significance of the Coin in Folklore", p. 215, (ČESKÝ LID, Incl. 40, No. 8, Oct. 1973, Praha, Czechoslovakia)

SC: Monthly List of East European Associations, (EMAL), 10, Incl. 4, No. 1, Jan. 1956, Incl.



PETRU, Adolf, inż.

Effect of various industrial sewages on the water in reservoirs.  
Gosp wodna 23 no.1:27-30 Ja '63.

1. Dyrektor Departamentu Czystosci Wod, Ministerstwo Rolnictwa,  
Lesnej i Wodnej Gospodarki Czechoslowackiej Republiki Socjalistycznej,  
Praha.

C. CZECHOSLOVAKIA/Chemical Technology. Chemical Products and Their Application. Water Treatment. Sewage

Abs Jour : Ref Zhur - Khim., No 24, 1956, No 2195

Author : Petr A.

Inst : -

Title : Effluent Water from the Manufacture of Antidiotics

Orig Pub : Voda, 1956, 35, No. 1, 232-234

Abstract : No abstract

Card : 1/1

14

YUGOSLAVIA / Inorganic Chemistry. Complex Compounds. C

APPROVED FOR RELEASE: 06/15/2000

Abs Jour: Ref Zhur-Khimiya, NO 21, 1957, No 153, CIA-RDP86-00513R001240620007-9"

Author : Petru, Gaek, Yosht.

Inst : Not given.

Title : The Preparation of the Addition Products of Anhydrous Chloride and Bromide of Scandium With Alcohols.

Orig Pub: Croat. chem. acta, 1957, 29, No 3 -4, 457 - 460.

Abstract: Upon the reactions of alcohols in their vapor state with anhydrous  $ScCl_3$  compounds are formed of the composition  $ScCl_3 \cdot nROH$ , where R is  $CH_3$  (n = 4, 3, 2);  $C_2H_5$  (n = 3.5, 3, 2); n- $C_3H_7$  (n = 3.2) n- $C_4H_9$  (n = 3.2); n- $C_5H_{11}$  (n = 3, 2); n- $C_6H_{13}$  (n = 3, 2);  $C_6H_5CH_2$  (n = 3, 2)  $CH_2CHCH_2$

Card 1/2

PETRU, Adolf

Cisteni prumyslovych odpadnich vod. (Purification of Industrial Waste Water. 1st ed. illus., bibl., indexes) Prague, SNTL, 1957. 395 p.

Survey of the various types of industrial waste water, their chemical composition, and purification processes. Both parts of the book contain experiences of the Czechoslovak as well as foreign experts. A bibliography of Czechoslovak and foreign publications.

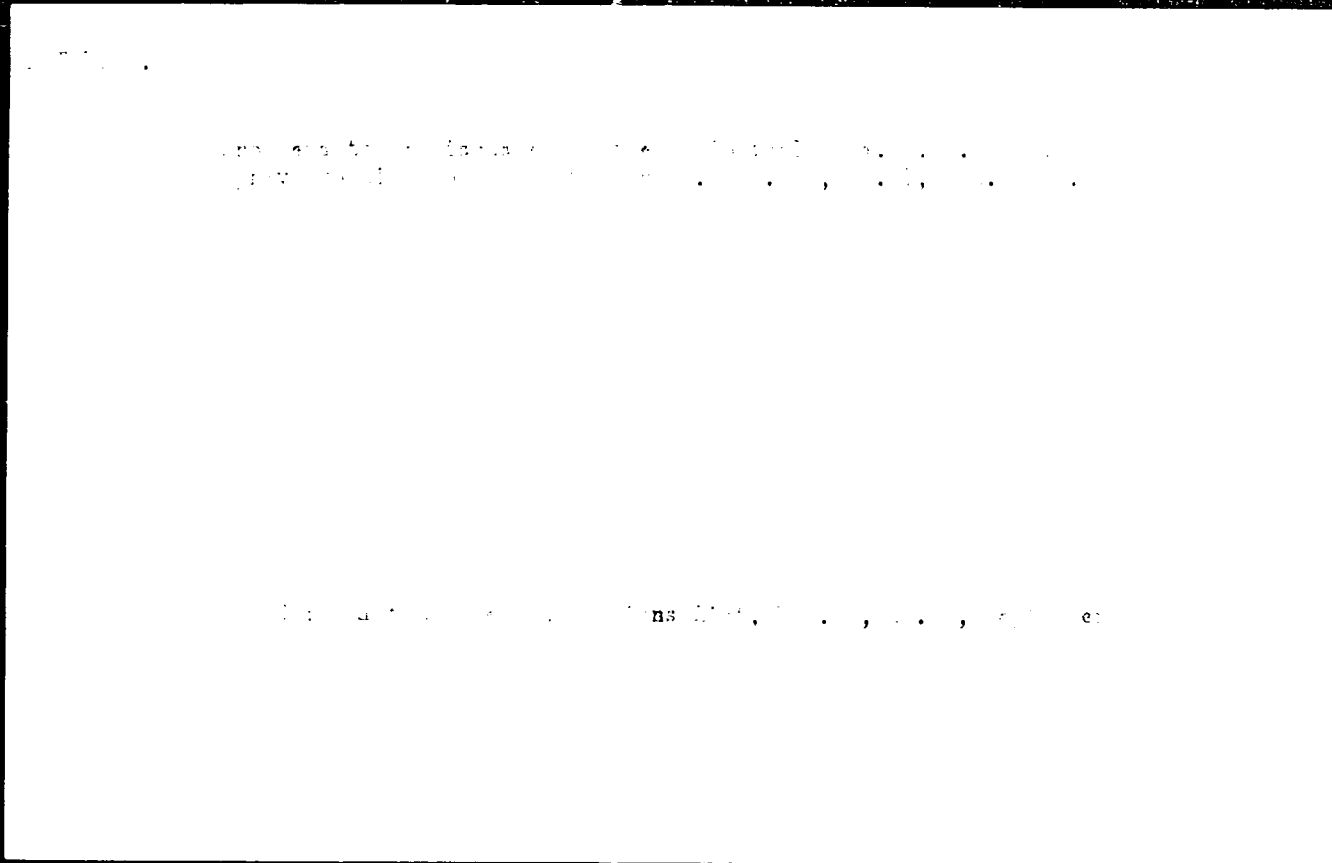
Bibliograficky katalog, CSR, Ceske knihy, No. 37. 22 Oct 57. p. 412.

PETRI, A.

A few notes on the conference of the Prague Purification Institute in Prague, 1967.

P. 329. (VCLA) (Prague, Czechoslovakia) Vol. 30, no. 12, Dec. 1957

SO: Monthly Index of East European Accession (S AI) IC Vol. 7, No. 1, 1967





PETRU, A.

The function and operation of biological filters. p. 61.

Description of a table showing loss of pressure in pipes according to Manning and its application. p. 63 .

VODA Vol. 35, no. 2, Feb. 1956

Czechoslovakia

Source: EAST EUROPEAN LISTS Vol. 5, no. 7 July 1956

PETRU, A.

Some principles of economy in the consumption of water in galvanizing and pickling plants, p. 545, STROJIRENSTVI (Ministerstvo strojirenstvi) Praha, Vol. 5, No. 7, July 1955

SOURCE: East European Accessions List (EEAL) Library of Congress, Vol. 4, No. 12, December 1955

PETRU, A.

PETRU, A. Waters from the manufacture of antibiotics. p. 232

Vol. 35, no. 8, Aug. 1956

VODA

TECHNOLOGY

Praha, Czechoslovakia

So: East European Accession Vol. 6, no. 2, 1957

PETRU, A.

Problems of sewage disposal in hospitals. Cesk. nemoc. 18 no.7-9:  
154-157 Sept-Nov 1950. (CIML 23:2)

1. Prague.



PETRU, A.

"Purification of Dairy Waste Waters." p. 275 (VODA, Vol. 33, No. 10, Oct. 1953: Praha, Czechoslovakia

SO: Monthly List of East European Accessions, Library of Congress, Vol. 3, No. 4, April 1954. Unclassified.

PETRI . . . . .

... ..

... ..

PETRU, Ct.

The problem of arc-back of mercury valves. Cs cas fys 12  
no.5/6:590-596 '62.

1. Statni vyzkumny ustav silnoproutde elektrotechniky, Becho-  
vice.



89300

9.4120 (1003, 1105, 1140)

Z/017/61/050/002/002/004  
E197/E535

AUTHOR: Petrů, Ctibor, Engineer

TITLE: Contribution to the Thermal Balance of Cathodes in Mercury Arc Rectifiers

PERIODICAL: Elektrotechnický obzor, 1961, Vol.50, No.2, pp.108-114

TEXT: Experimental evidence is offered to support previous findings that a free cathode spot develops a constant heat of about 5.5 W/A. The rate of evaporation was reduced by baffles and shields and by anchoring the cathode spot. The increase of current density to about 40 A/cm<sup>2</sup> increased heat generation to 7 W/A. The anchoring of the cathode spot on a molybdenum collar reduces heat generation to 4 W/A and the rate of evaporation to 1/10th of the previous value. The author surveys the literature on the subject for the past 50 years so far as the size and temperature of the cathode spot is concerned, also the mechanism of electron emission and discusses the thermal conditions in the mercury cathode and the effect of load and evaporation. An experimental vessel was constructed with a cathode container of 83 mm diameter and tested with currents up to 300 A in conjunction with rectifier ČKD type UVN 2/4. The experiments confirmed that the voltage drop in a free  
Card 1/4

"9300

Contribution to the Thermal Balance      Z/017/61/050/002/002/004  
E197/E535

cathode spot and its immediate neighbourhood was independent of the current carried and that heat generation amounts to about 5.5 W/A. The heating was measured by calorimetric methods using water as the heat transfer medium and by measuring the amount of condensed mercury. A number of tests were carried out to study the rate of evaporation of mercury, using various arrangements of mercury pools, baffles and shields, improved cathode cooling and by restricting the movement of the cathode spot. The mechanism of cathode spot anchoring was studied by high speed photography at 500 frames/sec. and exposures 1/2 000 to 1/10 000 sec. Six photographs are shown in Fig.7, when a molybdenum collar as per Fig.6 was used for cathode anchoring. Discussed are various means of obtaining a fixed cathode as mentioned in literature and specific reference is made to glass rectifiers "Nevitron" of Messrs Nevelin, London and of metal tubes "Com-Pak" of G E Ltd London. In SVUSE a cathode was produced and successfully tested for average currents of 200 to 300A with a thermal loss of about 4 W/A. the cathode vessel was air cooled. It was realized that a substantial reduction in the rate of evaporation is possible by fixing the cathode spot to a small portion of the mercury surface. There are 7 figures and 38 references.  
Card 2, 4

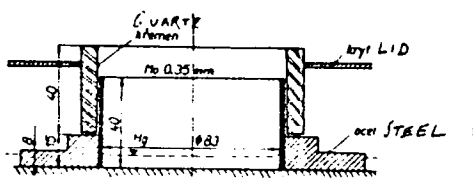
Contribution to the Thermal Balance... Z/017/61/050/002/002/001  
E197/E535

5 Czech and 33 non-Czech.

ASSOCIATION: Státní výzkumný ústav silnoproudé elektrotechniky  
(State Research Institute for Heavy Current  
Electrical Engineering)

SUBMITTED: January 9, 1959

in. 6



Obr. 6. Úprava fixované katody ø 83 mm.

Card 3/4

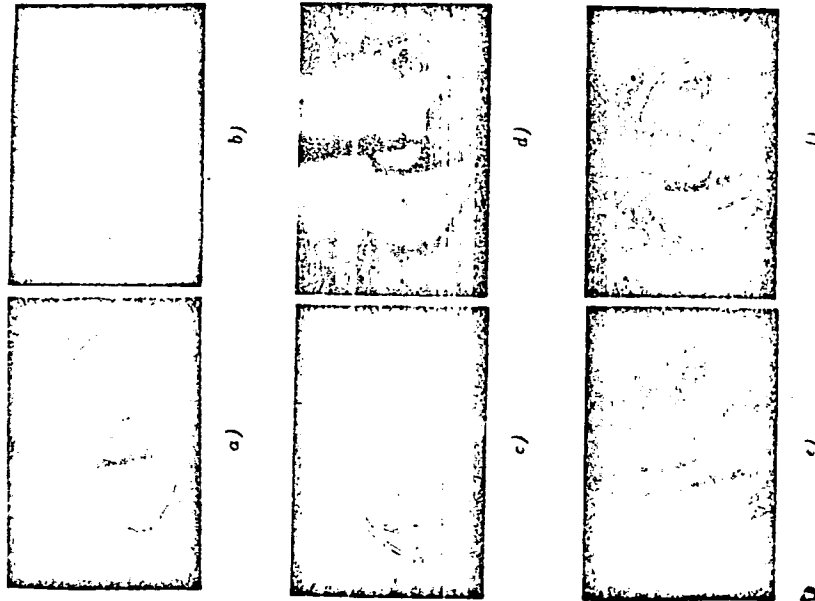
89300

Contribution to the Thermal Balance...

Z/017/61/050/002/002/004

E197/E535

Fig.7 Photographs of a cathode spot anchored as shown in Fig.6.



Card 4/4

PETRU, S.

Glass mercury rectifiers. p. 218.

LEXIKON ČSNR. Vol. 11, no. 3, Sept. 1966

Praha, Czechoslovakia

SOURCE: East European List (EEL) Library of Congress, Vol. 2, No. 1, January 1967

PETRU, Ctibor, inž., CSc.; SCHAFFER, Josef.

Mobile testing station of mercury-arc rectifying valves  
of the State Research Institute of Heavy Current Engineer-  
ing. Elektrotechnik 18 no.11:315-319 N'63.

1. Statni vyzkumny ustav silnoprroude elektrotechniky,  
Bechovice.

Card 1/1

USSR/Microbiology - Antibiosis and Symbiosis. Antibiotics. F-2

Abs Jour : Ref Zhur - Biol., No 3, 1958, 9855

Author : Petru, Danila---

Inst : -

Title : Micromethod for Determining Penicillin in the Blood by Dilution.

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiologii, 1957, No 5, 107-110

Abstract : No abstract.

Card 1/1

PETRU D.

USSR/Microbiology - Microorganisms Pathogenic to Humans and Animals. F-5

Abs Jour : Ref Zhur - Biol. No 4, 1958, 9898

Author : Petru, Danila

Inst : -

Title : Bacteriological Diagnosis of Staphylococcal Infections.

Orig Pub : Zh. mikrobiol., epidemiol. i immunobiologii, 1957, No 3, 70-73

Abstract : A method of enrichment and isolation of pathogenic staphylococci on a medium suggested by the author and a method of conducting reactions of agglutination and coagulation of human citrate plasma in the test-tube are described. Both these reactions, in the author's opinion, are very reliable and easily carried out for the differentiation of pathogenic staphylococci.

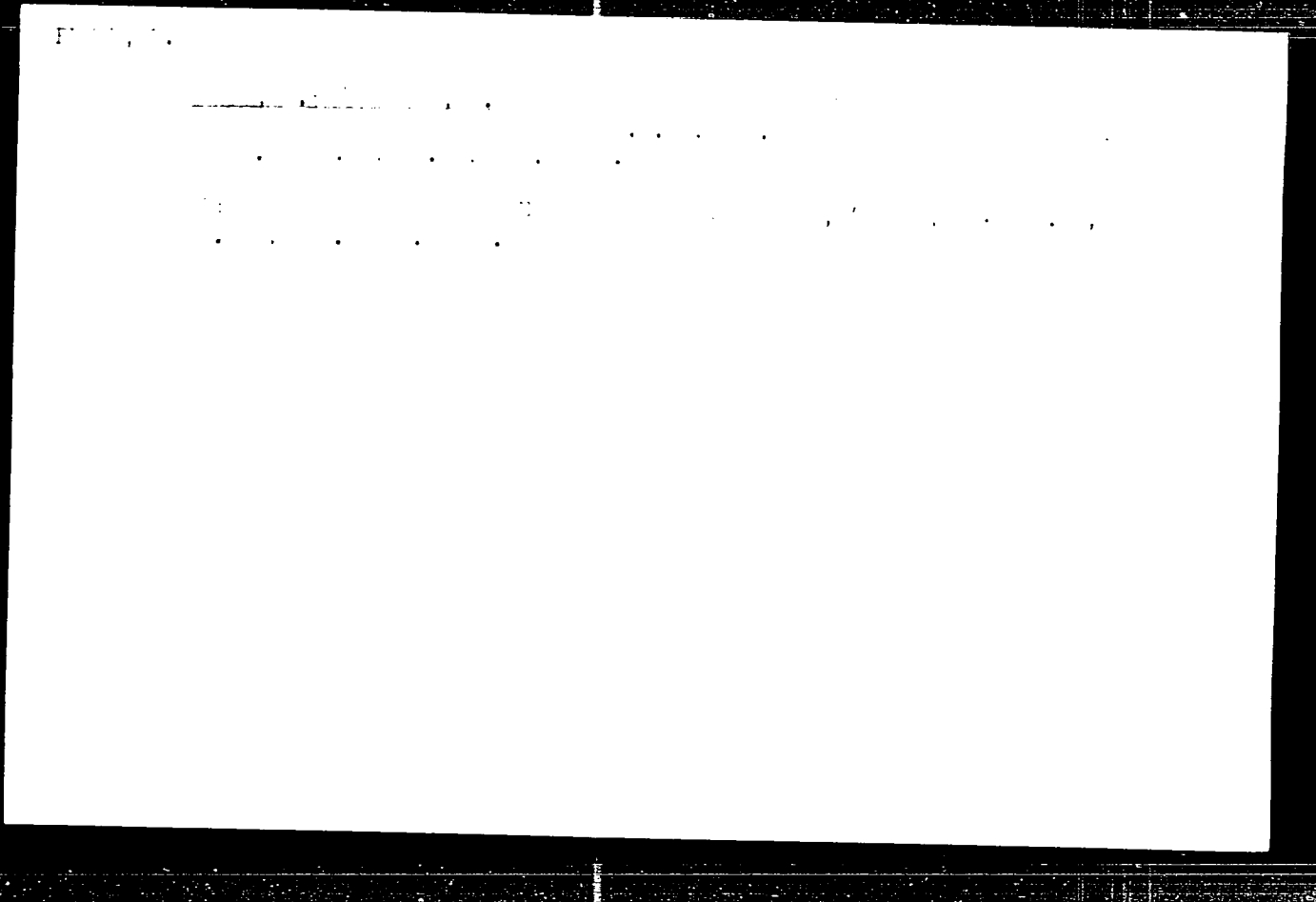
Card 1/1

PETRU, Eva; HRABETOVA, Eva; PUPY, Jaroslav

The technique of obtaining germinating pollen without  
microbial contamination. *Biologia plantarum* 6 no.1:68-69 '64.

1. Department of Plant Physiology and Genetics, Institute of  
Experimental Botany, Czechoslovak Academy of Sciences, Praha -  
Dejvice, Na cvičišti 2.





1978, Vol. 11, 1.

Physiology of the anthocyanin formation in the root explants of carrots  
(Daucus carota L.) p. 134.  
(Chimie biologică Cluj, Vol. 5, no. 1, nov 1978, Cluj, Republica socialistă)

2. Monthly list of East European publications (1977), Vol. 4, no. 1, Dec 1977, pp. 1.

CZECHOSLOVAKIA/General Biology - Genetics. Genetics of Plants. B

Abs Jour : Ref Zhur Biol., No 6, 1959, 23660

Author : Petra, E. Retovsky, R.

Inst : -

Title : The Transformation of a Monoecious Corn Plant into a Female Plant in the Course of Ontogenesis

Orig. Pub : Folia biol. (Czechosl.), 1957, 3 No 5, 319-320

Abstract : By means of separation of the growing points of 7-day old sprouts and subsequent raising by means of cultures of tissues, purely female plants of corn (*Zea mays* var. *tunicata* St. Hil) were obtained by the authors.

Card 1/1

- 22 -

PETRU, E.

Petru, E. Contribution to the study of the cytology of zoonotic infections. Part I. On the two parts of carrier cells cultivated in vitro. *Rev. Roum. Biol.* Vol. 4, no. 4, Aug. 1959. Uncl.

SO: Monthly List of East European Accessions, (SEAL), LC, Vol. 4, No. 11, Nov. 1955, Uncl.