

14059-66

ACC NR: AP6003600

EWT(1)/EWA(j)/T/EWA(b)-2 RO/JE

SOURCE CODE: UR/0016/65/000/010/0047/0054

AUTHOR: Pilipenko, V. G.; Shchekina, T. A.; Verkhovtseva, G. N.

ORG: Stavropol' Plague Institute of the Caucasus and Transcaucasus (Stavropol'skiy protivochumnyy institut Kavkaza i Zavkavkaz'ya)

TITLE: Properties of a dry cutaneous associated vaccine against plague, tularemia, and brucellosis, prepared in a single ampoule

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 10, 1965, 47-54

TOPIC TAGS: vaccine, immunity, infectious disease, microbiology, brucellosis, tularemia

ABSTRACT: Tests on animals and humans showed that the dry associated trivalent vaccine prepared by the authors in a single ampoule was equivalent to a mixture of dry standard live univalent vaccines or agar subcultures in reaction-producing properties, nature of the vaccinal process, and creation of immunity against plague, tularemia, and brucellosis. As in the univalent vaccines, the associated vaccine contained, after drying, the following quantities of live bacteria: 10-20% plague,

UDC: 615.371 : [576.851.45+576.851.48

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L 14059-66
ACC NR: AP6003600

10-20% tularemia, and 50-60% brucellosis. The trivalent vaccine is particularly suited for large-scale production should the need arise. Orig. art. has: 4 figures, 7 tables.

SUB CODE: 06/ SUBM DATE: 11Feb65/ ORIG REF: 004/ OTH REF: 000

Card 2/2 *BK*

ILINENKO, V. I.; SHIBKINA, T. A.; POLYAKOVA, A. M.

Immunobiological effectiveness of associated vaccine against plague, tularemia and brucellosis in various methods of its epicutaneous use. Zhur. mikrobiol., epid. i immun. 4: 10-11, 1974.

1. Stavropolskiy profilakticheskiy institut zaraza... 1974.

PILIPENKO, V.G.; SHCHEKINA, T.A.; TIFLOVA, L.A.

Mechanism of the resistance of natural tularemia microfoci as related to their control problem. Zool. zhur. 44 no.4:494-506 165.
(MIRA 18:6)

1. Nauchno-issledovatel'skiy protivochumnyy institut Kavkaza i Zakavkaz'ya, Stavropol'-Krayevoy.

PILIPENKO, V.I., inzh.; SNEPELEV, V.M., inzh.

Manufacture of large reinforced concrete structures for the State
Regional Electric Power Plant No. 2, 00. Energ. stroi. no. 34:6-12
'63. (MIRA 17:1)

1. Kuraknovskiy zavod stroitel'stva i konstruktsiy (for Pilipenko).
2. Trest "Domkhozremont" (for Snepelev).

PILIPENKO, V.I.

Data on the functional morphology of the peripheral nervous system;
neural cells and ganglia in vegetative nerves. Arkh.anat.gist. 1
embr. 32 no.1:11-17 Ja-Mr '55. (MLRAB:9)

1. Iz laboratorii neyrogistologii imeni B.I. Lavrent'yeva (sav.
laboratoriyey Ye. K. Plechkova) Instituta fiziologii ANH SSSR
(AUTONOMIC NERVOUS SYSTEM, anatomy and histology)

PILIPENKO, V. I.

"Histophysiology of Slices of the Pericardium in Connection With
the Formation and Absorption of Fluid in the Pericardial Cavity."
Sub 9 Oct 51, Acad Med Sci USSR. *Card Res 1951*

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

SO: Sum. No. 130, 9 May 55

PILIPENKO, V.I.

Materials on functional morphology of the peripheral nervous system.
Report II. Functional nature of type II Dogiel's cells. Biul. eksp.
biol.med. 41 no.5:70-74 May '56. (MLRA 9:8)

1. Iz laboratorii neyrogistologii imeni B.I.Lavrent'yeva (zav. Ye.K.
Plechkova) Insituta normal'noy patologicheskoy fiziologii (dir. dey-
stvitel'nyy chlen AMN SSSR prof. V.N.Chernigovskiy) AMN SSSR, Moskva.
Predstavlena deystvitel'nym chlenom AMN SSSR V.N.Chernigovskim.
(NERVES, physiol.
Dogiel's cells, type II, funct. in various animals)

USSR / Human and Animal Morphology. Nervous System. S-2
Peripheral Nervous System.

Abs Jour: Ref Zhur-Biol., No 14, 1958, 64793.

Author : Pilipenko, V. I.

Inst : ~~NOT GIVEN.~~

Title : On the question of the Morphological and Functional Characteristic of the Receptors of the Internal Organs.

Orig Pub: V sb.: Probl. morfol. nervn. sistemy, L.,
Medgiz, 1956, 72-79.

Abstract: Research in total examples of the layers of the wall of sex organs, stained with methylene blue, is particularly suitable to the study of widespread receptors covering an area of some square centimeters and ending in very fine branches in various tissue structures. The

Card 1/2

USSR/Human and Animal Morphology (Normal and Pathological)
Peripheral Nervous System

S-3

Abstr Jour : Ref Zhur - Biol., No 12, 1958, No 55095

Author : Pilipenko, V.I.

Inst : Not Given

Title : Synaptic Relationship Between the Neurons of the Vegetative
Nervous System's Peripheral Section

Orig Pub : Byul. eksperiment. biol. i meditsiny, 1957, 43, No 4, 112-116

Abstract : The method for the complete removal of the medulla in cats
is described. After regeneration of the preganglionic nerve
fibers (on the 12th-21st day after the operation), pericel-
lular web of very thin fibers were disclosed (which were
located on the periphery of the nerve ganglion). They were
braided around the neurons and sometimes presented thickened
points in the form of little buttons. From time to time,
the fibers wandered from one neuron to another. A neurotomy
performed on the sensory fibers of the postganglionic nerves led
to a regeneration of these synapses, a fact which proves that

Card : 1/2

USSR / Human and Animal Morphology - Nervous System. S

Abs Jour : Ref. Zhur. - Biol., No. 22, 1958, No. 101464

Author : Pilipenko, V.I.

Inst : -

Title : Materials on the Functional Morphology of the Peripheral Nervous System. The Distribution of Sensory Neurons in Vertebrate Animals and Man.

Orig Pub : Arkhiv Anatomii, gistol., i embriol., 1958, Vol. 35, No. 1, 28-33.

Abstract : Through the entire extent of the spinal roots of a number of animals, sensory nerve cells can be demonstrated which sometimes form supplementary nerve ganglia either within or about the periphery of the roots. Nerve cells are also found along the course of the peripheral nerves far from the ganglia. Part of these belong to efferent neurons

Card 1/2

PILIPENKO, V.I.

Synaptic connections between neurons of intramural ganglia of the pelvic organs [with summary in English]. Biol. eksp. biol. i med. 46 no.8:113-118 Ag '58 (MIRA 11:10)

1. In laboratorii neurohistologii imeni B.I. Lavrent'yeva (zav.-kand. biol. nauk Ye.K. Plechikova) Instituta normal'noy i patologicheskoy fiziologii (dir. - deystvitel'nyy chlen AN SSSR V.E. Chernigovskiy) AN SSSR, Moskva. Predstavlena deystvitel'nyy chlenom AN SSSR V. N. Chernigovskim.

(GANGLIA, AUTONOMIC,

synaptic connections between neurons of intramural ganglia of pelvic organs (Rus))

PILIPENKO, V.I.

Physiologicomorphological characteristics of receptors [with
summary in English]. Izv. AN SSSR Ser.biol. 24 no.1:34-44 Ja-P '59.

(MIRA 12:2)

1. Institute of Normal and Pathological Physiology Academy of
Medical Sciences of the U.S.S.R., Moscow.
(RECEPTORS (NEUROLOGY))

PILIPENKO, V.I.

Synaptic connections of the peripheral neurons with the pre-ganglionic nerve fibers and axons of peripheral sensory neurons of Dogiel's cells of the second type. *Biul. eksp. biol. i med.* 49 no. 4:118-121 Sp '60. (MIRA 13:10)

1. Iz Instituta normal'noy i patologicheskoy fiziologii (dir. - deystvitel'nyy chlen AMN SSSR V.N. Chernigovskiy) AMN SSSR, Moskva. (NERVES, PERIPHERAL)

PILIPENKO, V.I. [Pylypenko, V.I.]

Experimental morphological investigations of interneuronal connections of the spinal cord. *Fiziol.shur.Ukr.* 6 no.4:470-480 J1-Ag '60. (MIRA 13:7)

1. Institut normal'noy i patologicheskoy fiziologii AMN SSSR, Moskva.

(SPINAL CORD)

PARIN, V.V., otv. red.; VOLOKHOV, A.A., zam. otv. red.; NIKITINA,
G.K., red.; PILIPENKO, V.I., red.; CHUMAK, V.I., red.;
BYKOV, V.D., red.; LYUDEKOVSKAYA, N.I., tekhn. red.

[Problems in the physiology and pathology of the central nervous
system of man and animals in ontogenesis] Voprosy fiziologii
tsentral'noi nervnoi sistemy cheloveka i zhivotnykh v ontogene-
ze; sbornik nauchnykh rabot. Moskva, Medgiz, 1961. 223 p.
(MIRA 15:8)

1. Akademiya meditsinskikh nauk SSSR, Moscow.
(NERVOUS SYSTEM)

PILIPENKO, V.I.

Central regulation of the inflow of sensory impulses in the light of some general regularities in the structural and functional organization of the central nervous system. Zhur. vys. nerv.deiat. 11 no.5:884-894 S-O '61. (MIRA 15:1)

1. Laboratory of Comparative Ontogenesis of the Nervous System, Brain Institute, U.S.S.R. Academy of Medical Sciences, Moscow.
(NERVOUS SYSTEM)

PILIPENKO, V.I.

Significance of a recurrent axon collateral in the structural organization of nerve centers. Biul. eksp. biol. i med. 53
no.2:106-111 F '62. (MIRA 15:3)

1. Iz laboratorii sravnitel'nogo ontogeneza nervnoy sistemy (zav. - prof. A.A. Volokhov) Instituta normal'noy i patologicheskoy fiziologii (dir. - deystvitel'nyy chlen AMN SSSR V.V. Parin) AMN SSSR, Moskva. Predstavlena deystvitel'nym chlenom AMN SSSR V.V. Parinym.

(NERVES—ANATOMY)

I. 22450-66 EWT(1)/EWT(m)/EVP(f)/T-2 WW/DJ
ACC NR: AP6002537 SOURCE CODE: UR/0286/65/000/023/0039/0039

AUTHORS: Zinov'yev, V. S.; Rasarenov, R. G.; Pilipchuk, V. I.; Sukharev, A. P.

ORG: none 27

TITLE: Diaphragm compressor. Class 27, No. 176656 B

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 39

TOPIC TAGS: diaphragm, compressor, gas compressor

ABSTRACT: This Author Certificate presents a diaphragm compressor. The compressor includes a case divided by a diaphragm into two chambers (one pneumatic and one hydraulic) containing a working piston with a crankshaft drive. To simplify construction and to increase reliability, the hydraulic chamber is equipped with a suction valve and a plunger-type liquid pressure compensator (see Fig. 1). The latter is placed in the piping connecting the hydraulic chamber with the lower piston chamber.

UDC: 621.512.8

Cord 1/2

L 22450-66

ACC NR: AP6002537

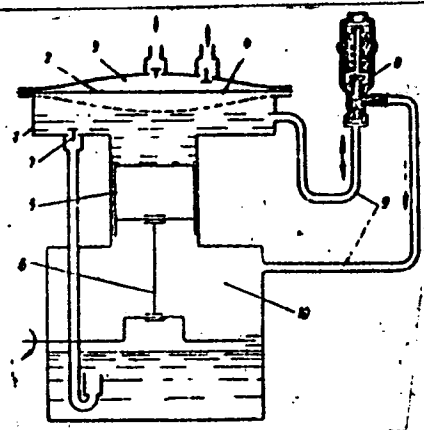


Fig. 1. 1 - case;
2 - diaphragm; 3 - gas
chamber; 4 - hydraulic
chamber; 5 - piston;
6 - crankshaft drive;
7 - suction valve;
8 - pressure compensator;
9 - piping; 10 - lower
piston chamber.

Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 18Nov64

Card 2/2 *SW*

PIIIPENKO, Viktor Ivanovich; SHEPERDIN, Leonid Mefodievich,
FINKINSHTEYN, S.A., izdat. zad.

[Reinforced framed and concrete panels for exterior walls
of the State Regional Electric Power Plant; practices of
the Kurakhov Plant for reinforced concrete elements of
the "Donets Basin Power Plant Construction" Trust; Arm-
penozhlo etonnye paneli dlia naruzhnykh sten (PES; opyt
Kurakhovskogo zavoda zhelezobetonnykh konstruktsii iresta
"Donbassenergostrai." Izdava, Gosstroizdat, 1963. 15 p.
(MLA 1719)

1. Moscow. Nauchnoissledovatel'skiy institut organizatsionnoy
mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu.
2. Glavnyy inzhener Kurakhovskogo zavoda zhelezobetonnykh
konstruktsiy (for Piiipenko). 3. Zamestitel's Avangarda
inzhenera iresta "Donbassenergostrai" (for Sheperdin).

PILIPENKO, V.I.

Evolutionary principle in the study of general rules of the structural organization of the central nervous system. Zhur. vys. nerv.deiat. 13 No.2:338-351 Mr-Ap'63. (MIRA 16:9)

1. Laboratory of Comparative Ontogenesis of the Nervous System, Institute of Brain, U.S.S.R. Academy of Medical Sciences, Moscow.

(NERVOUS SYSTEM) (EVOLUTION)

PILIPENKO, V. I.

Morphological and functional characteristics of the preterminal sections of the sensory and synaptic nerve endings. Arkh.anat., gist.i embr. 44 no.1:84-92 Ja '63. (MIRA 16:5)

1. Laboratoriya sravnitel'nogo ontogeneza nervnoy sistemy (zav. - prof. A.A. Volokhov) Instituta mozga AMN SSSR. Adres avtora: Moskva, per. Obukha, 5. Institut mozga AMN SSSR. (NERVES)

PILIPENKO, V.I., inzh.; SHEPELEV, V.M., inzh.

Built-up (no-attic) roofs made of mesh-reinforced fly-ash foamed concrete. Energ. stroi. no.22:55-59 '61. (SIRA 15:7)

1. Kurakhovskiy zavod stroymaterialov (for Pilipenko). 2. 1st "Donbassenergostroy" (for Shepelev).
(Roofing, Concrete) (Lightweight concrete)

PILIPENKO, V.I., inzh.; SHEPELEV, V.M., inzh.

Protection of the reinforced of fly-ash foamed concrete articles
from corrosion. Energ. stroi. no.22:95-98 '81. (M.L. 15:7)

1. Kurakovskiy zavod stroymaterialov (for Filipenko). 2. Trast
"Donbasenergostroy" (for Shepelev).
(Concrete reinforcement) (Protective coatings)

BERENSHTEYN, S.A.; VAYSLEYB, V.P.; VARENİK, I.F.; DOBKYNCHENKO, M.V.;
YEGOROV, B.P.; KLISENKO, Yu.F.; MOGILEVSKIY, I.I. [deceased];
PEREYASLAVTSEV, N.A.; PILIPENKO, V.I.; SAPOZHNIKOV, F.V., inzh.;
SHEPELEV, V.M.; SIMULEVICH, M.L.; YARMOLINSKIY, I.M.; SHAGALOV,
Ye.S., red.; KORIKOVSKIY, I.K., red.; LARIONOV, G.Ye., tekhn. red.

[Construction of the V.I.Lenin State Regional Electric Power
Plant in Simferopol] Opyt stroitel'stva Simferopol'skoi GES
im. V.I.Lenina [by] S.A.Berenshtein i dr. Moskva, Gosenergoizdat,
1962. 151 p. (MIRA 15:6)

(Simferopol--Electric power plants)

~~PILIPENKO~~, Viktor Ivanovich; SHEPELEV, Vasilii Metod'yevich;
~~KASITSINA~~, K.N., inzh., red.

[Transporting reinforced concrete structural units by rail-
road; practice of the "Donbassenergostroi" Trust] Perevozka
zhelezobetonnykh konstruksii zheleznodorozhnykh transportom;
opyt tresta "Donbassenergostroi." Moskva, Gosstroizdat,
1962. 38 p. (MIRA i6:8)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut or-
ganizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'-
stvu. 2. Glavnyy inzhener Kurakhovskogo zavoda zhelezobeton-
nykh konstruksiy (for Pilipenko). 3. Zamestitel' glavnogo
inzhenera tresta "Donbassenergostroy" (for Shepelev).
(Reinforced concrete--- Transportation)

RODOV, G.S. KAN: TERNI... (K...), ... (M...)
Inzh., ... (M...), ... (M...)

Improving the technology of manufacturing prestressed concrete
beams on the ... extended stand ... (Sib. fil. ...)
no. 30110-131-20 (Girders)

ACC NR: AT6034350

SOURCE CODE: UR/0000/66/000/000/0072/0078

AUTHOR: Pilipenko, V. M.

ORG: Dnepropetrovsk State University (Dnepropetrovskiy gosudarstvennyy universitet)

TITLE: The nonlinear properties of electroluminescent indicators

SOURCE: AN UkrSSR. Poluprovodnikovaya tekhnika i mikroelektronika (Semiconductor engineering and microelectronics). Kiev, Naukova dumka, 1966, 72-78

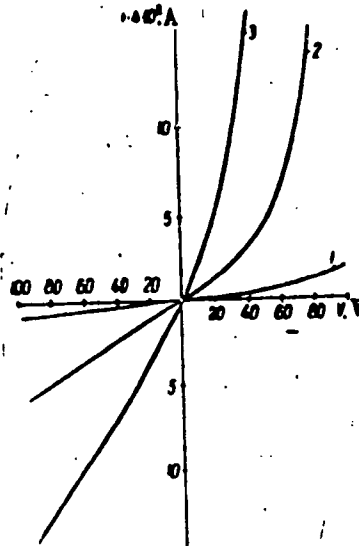
TOPIC TAGS: volt ampere characteristic, phosphor, electroluminescence, semiconductor rectifier, resin, audio frequency oscillator/ EL-510M phosphor, K-411-02 resin, K-421-02 resin, EP-096 resin, ZG-10 audio frequency oscillator

ABSTRACT: The nonlinear properties of electroluminescent indicators were studied. The specimens were prepared from EL-510M phosphor by the usual method, and the dielectric binders were K-411-02 and K-421-02 polymerized resins, a 50% mixture of them, and EP-096. The phosphor was applied to a glass substrate with a transparent conducting coating. After 1.5 hours' drying at room temperature, the specimens were placed in a thermostat at 165C for 1.5 hrs. The voltage from a ZG-10 audio oscillator was fed to the specimens through an isolating capacitor. The voltage on the specimen was measured with a VKS-7B vacuum-tube voltmeter. Analysis of the volt-ampere characteristics showed them to be similar to those of ordinary semiconductor rectifiers (see Fig. 1). The application of ac voltage to the samples and increasing the

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Fig. 1. Volt-ampere characteristics:
1 - unexcited; 2 and 3 - excited



frequency of the voltage lead to an increase in the direct current through the specimen. Orig. art. has: 1 diagram, 1 formula, and 3 graphs.

SUB CODE: 09/ SUBM DATE: --Dec64/ ORIG REF: 003/ OTH REF: , 001

Card 2/2

ACC NR. AP7004971 SOURCE CODE: UR/0048/66/030/009/1454/1457

AUTHOR: Yakunin, A.Ya.; Pilipenko, V.M.

ORG: Dnepropetrovsk State University (Dnepropetrovskiy gosudarstvennyy universitet)

TITLE: Variation of the through conductivity of ZnS:Cu electroluminophors during radiation /Report, Fourteenth All-Union Conference on Luminescence (Crystal Phosphors) held at Riga, 19-23 Sept. 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 9, 1966, 1454-1457

TOPIC TAGS: electroluminescence, electric conductivity, impact ionization, zinc sulfide, copper

ABSTRACT: The authors have measured the direct conductivity of ZnS:Cu electroluminescence cell as a function of the temperature and the voltage of the 20 kHz alternating potential applied to excite it to luminescence. It was found that $\log(I/I_0)$ is a linear function of $1/V$ for fixed temperature T , where I is the direct conduction current, I_0 is a constant, and V is the alternating exciting voltage. This relation is consistent with the simple impact ionization mechanism of current carrier multiplication. When $\log(\log(I/I_0)/T)$ was plotted against T for fixed V there resulted a broken line with a single knee at about 350°K . The straight line dependence is in accordance with the impact ionization mechanism, and the knee is explained by assuming that charges are preferentially freed at different temperatures from different levels. The derivatives dI/dV and dB/BdV , where B is
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ACC NR: AP7004971

the brightness of the luminescence, were calculated from the experimental curves and plotted against V . The value of dI/dV passed through a maximum as a function of V , and the value of V for maximum dI/dV was a linear function of T . This behavior is also consistent with the simple impact ionization mechanism. It is concluded that the electroluminescence of ZnS:Cu phosphor is accompanied by increase in the electrical conductivity; that the increase in the conductivity is the greater, the more intense the luminescence; that the relation between the electroluminescence and the conductivity stems from the fact that both effects are due to ionization; and that the observed behavior of the two phenomena is not in conflict with the hypothesis that the electroluminescence is excited by impact ionization propagating through the ZnS lattice due to the presence of a strong exciting electric field. Orig. art. has: 8 formulas and 3 figures.

SUB CODE: 20 SUBM DATE: none ORIG. REF: 012 OTH REF: 004

Card 2/2

SHIBENK, A.M.; IAKONIN, A.Ya.

Electroconductivity of excited electron-transporting systems. *Phys. Chem. USSR*, 1967, vol. 41, no. 3, p. 418-421. S. 167.

L 12622-65 EMT(1)/EEC(b)-2 IJP(c)

ACCESSION NR: AP4044854

s/0051/64/017/003/0418/0421

AUTHORS: Pilipenko, V. M.; Yakunin, A. Ya.

TITLE: Electric conductivity of excited electroluminescent cells

SOURCE: Optika i spektroskopiya, v. 17, no. 3, 1964, 418-421

TOPIC TAGS: electric conductivity, electroluminescence, photocon-
ductivity, photoelectric cell

ABSTRACT: The laws governing the variation of electric conductivity and brightness of electroluminescent cells and their dependence on the excitation conditions was investigated in two types of samples. The electric conductivity of the samples shown in Fig. 1a of the enclosure was measured in a direction parallel to the alternating exciting electric field. The conductivity of the samples of the second type (Fig. 1b) was measured in a direction perpendicular to the field. The measurement circuits are illustrated in Fig. 2 of the

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ACCESSION NR: AP4044854

enclosure. The test results lead to the following conclusions:
1. A glow-producing alternating voltage causes also an increase in the electric conductivity of ZnS-Cu electroluminescent cells. 2. The increase of the conductivity is not connected with heating of the sample, nor is it the consequence of the internal photoeffect.
3. The law governing the variation of the electric conductivity of ZnS-Cu electroluminescent cells excited by an alternating electric field is analogous to the law governing the increase in electric conductivity of the gas under impact ionization. Orig. art. has:
4 figures and 2 formulas.

ASSOCIATION: None

SUBMITTED: 06Nov63

SUB CODE: OP, EM

NR REF SOV: 006

ENCL: 02

OTHER: 002

Card 2/4

ACC NR: AP7004973

SOURCE CODE: UR/0048/66/030/009/1461/1462

AUTHOR: Kolomoitsev, F. I.; Pilipenko, V. M.; Yakunin, A. Ya.

ORG: Dnepropetrovsk State University (Dnepropetrovskiy gosudarstvennyy universitet)

TITLE: On slow processes involved in the electroluminescence of ZnS:Cu phosphors /Report, Fourteenth All-Union Conference on Luminescence (Crystal Phosphors) held at Riga, 16-23 Sept. 1965

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 9, 1966, 1461-1462

TOPIC TAGS: electroluminescence, zinc sulfide, copper, ^{LIGHT}aging, fatigue, rectification, electrolysis, LUMINO PHOR

ABSTRACT: The authors have investigated the processes of aging and fatigue in ZnS:Cu electroluminophors. The loss of brightness of an electroluminescent cell during operation is in part reversible (fatigue) and in part irreversible (aging). Recovery from fatigue takes place by diffusion processes and is described by the sum of two exponential terms with time constants (at 80° C) of the order of 1 and 10 hours. It is hypothesized that aging is due to electrolytic action of the rectified current through the cell. To test this hypothesis cells were operated with forward and back dc biases of such magnitude as to alter the direct current through the cell by a factor of 3. Loss of brightness during operation was found to be appreciably accelerated by the forward bias and retarded by the back bias. The recovery curves of

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ACC NR: AP7004973

the biased cells are not discussed. It was also found that loss of brightness could be retarded by carefully drying the cells and sealing them from moisture. A well-dried cell actually increased in brightness during the first hour of operation at 1 kHz. It is concluded that build-up of brightness can be achieved not only in certain classes of electroluminescent cells, but in all types of them, by taking measures to reduce to a minimum the effects of rectification. Orig. art. has: 3 figures.

SUB CODE: 20

SUBM DATE: none

ORIG. REF: 003

OTH REF: 001

Card 2/2

PALATNIK, S.S.; ...

X-ray study of ...

... Khar'kov ...

~~L 1355-66~~ ~~EWP(m)/EWP(i)/EWP(t)/EWP(v)~~ ~~IJP(c)~~ ~~JD/EW~~
 ACCESSION NR: AP5921938
 UR/0126/65/020/002/0200/0287
 539.292; 548.4

56
 53
 B

AUTHOR: Palatnik, I. S.; Kos'ma, A. A.; Fuks, M. Ya.; Filipenko, V. V.
 4/55 4/55 4/55 4/55

TITLE: X-ray examination of packing defects in vacuum-condensed cobalt films

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 2, 1965, 280-287

TOPIC TAGS: crystal lattice defect, cobalt, metal film, vaporization, crystal lattice structure

ABSTRACT: Crystal-structure defects in vacuum-condensed Co films are relatively uninvestigated. Yet they are of special interest in view of the presence in Co of a polymorphic transformation with signs of a martensitic nature. Hence, the authors investigated, by means of a X-ray diffractometer, the packing defects, dispersity of regions of coherent scattering, and randomness of distribution of microdeformations in specimens of ~ 4 μ thick vacuum-evaporated pure (99.95%) cobalt film with different proportions of hexagonal and cubic Co modifications. Deformation-caused packing defects were detected in hexagonal cobalt Co^h. In the presence of substrate temperature T_s = 240°C their probability is σ = 0.057,

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whereas at $T_s = 475^\circ$ they were not detected at all. The dependence of the dimensions of regions of coherent scattering (r.c.s.) and magnitude of microdeformations on T_s is nonmonotonic. At $T_s = \sim 380^\circ\text{C}$ the r.c.s. decrease and microdeformations increase, which is in agreement with the decrease in the microhardness of the film. The film containing mostly cubic cobalt Co^c displays both types of packing defects at $T_s = 240^\circ\text{C}$. Deformation-caused packing defects are less heat-resistant than growth defects; at 530°C they can no longer be detected, whereas the probability of growth defects persists as far as 610°C , at which temperature two varieties of cubic Co can be detected: one defect-free, forming in the process of heating, and the other with growth defects, forming in the process of condensation. The high probability of packing defects in vacuum-condensed cobalt films as compared with the vacuum-condensed films of other metals is conditioned by the specific nature of polymorphism in cobalt as well as by the low energy of packing defects in this metal. Harmonic analysis of line profile is the most reliable method of determining the probability of packing defects in vacuum-condensed cobalt. Orig. art. has: 3 figures, 3 tables, 4 formulas.

ASSOCIATION: Khar'kovskiy politekhnicheskii institut im. V. I. Lenina ^{44,55} (Khar'kov

Card 2/3

I 1355-66

ACCESSION NR: AP5021938

Polytechnic Institute)

SUBMITTED: 093a164

NO REF SV: 009

EXCL: 00

SUB CODE: SS, NM

OTHER: 004

Card

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ORNEVA, A.V., NABAROVA, I.N., ILLIENK, V.V.; IODIGUN, A.I.

A polarographic method used in investigating complex
formation in the systems $CdCl_2 - F_2 - H_2O$ and $CdCl_2 - KBr - H_2O$.
Nauk. zhhegd Khim. fak. Od. un. nov. 7-12 '61. (MIRA 17.8)

DMITRAVSKIY, G.Ye.; CHINEVA, G.V.; LILIPENKO, V.V.

Adsorption of hydrogen sulfide by grey-green clays of Idzha
Is. (MIRA 1987)

ACCESSION NR: AT4010697

S/2601/63/000/017/0132/0137

AUTHOR: Gertsriken, S.D. (Deceased); Dakhtyar, I. Ya.; Kumok, L. M.; Pilipenko, V.V.; Khazanov, M.S.

TITLE: A study of the processes of diffusion and oxidation in the alloy ZhS-6k under conditions of cyclic heat treatment

SOURCE: AN UkrRSR. Insty*tut metalofizy*ky*. Sbornik nauchny*kh trudov, no. 17, 1963. Voprosy* fiziki metallov i metallovedeniya, 132-137

TOPIC TAGS: thermal fatigue, heat treatment, flaw formation, chromium diffusion, nickel diffusion, volatilization, concentration gradient, oxidation, alloy ZhS-6k, cyclic heat treatment, radioactive isotope, diffusion

ABSTRACT: The number of cycles of heating and cooling before the appearance of cracks is usually taken as a measure of thermal fatigue. After studying the dynamics of the appearance of cracks using the roentgenographic (X-ray) method, V.I. Arkhirov noted that it is preceded by the development of block structure and the bending and buckling of blocks. One must assume that diffusion with high temperature conditions and cyclic stresses plays an important, if not decisive, role. Diffusion and cyclic stresses lead to the separation of a

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second phase (carbides and intermetalloids) into a finely-dispersed state, and in addition, to the redistribution of elements between the body of the grain and the border zones; thus, these two processes do have a substantial influence on the durability of materials. As a rule, cyclic heat treatment has a negative effect on the mechanical characteristics of materials: with an increase in cycles, durability decreases. The diffusion of Cr and Ni in the alloy ZhS-6k was investigated by vaporization in a vacuum and by radioactive isotopes. If one of the components of an alloy has a comparatively high vapor tension, it will be easily vaporized when heated in a vacuum. As a result of this vaporization, a gradient of concentration will form in the alloy, and this component will evaporate from the surface to the extent that the substance arrives at the surface by means of diffusion. Measuring the quantity of evaporated substance, it is possible to determine the coefficient of diffusion of the component with high vapor tension. Calculations of this coefficient were made according to the formulas given by Grinberg and later made more precise and tabulated by Herzricken and his associates. For instance, knowing the percentage of Cr in an alloy it is possible to determine its absolute weight in a given sample. The change in the weight of the sample during heat treatments results,

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ACCESSION NR# AT4010697

it is assumed, from the evaporation of the volatile element Chromium. Therefore, it is possible to determine the coefficients of diffusion of Cr at various temperatures. In this particular case, the coefficients of diffusion were obtained for 5 temperature points between 1273 and 1423K. To determine the energy of activation of the process of diffusion of the alloy under investigation, the dependence of the coefficient of diffusion on temperature was utilized. High values of the energy of activation of diffusion of the alloy under investigation and its comparatively low coefficients of diffusion showed that this alloy to a considerable degree resists softening at high temperatures. Diffusional annealing of the samples was carried out in a quartz tube pumped out, filled with Argon and placed in an electric furnace. The oxidation of the alloy ZhS-6k at constant temperature was investigated. A special installation which permits weighing samples without taking them out of the furnace was developed to investigate the alloy for isothermic oxidation. Hence, continuous annealing and continuous observation of changes in weight due to oxidation was assured. Table I of the Enclosure shows the time-temperature-weight interrelation for three temperature points. The curves are in accordance with the law of parabolic oxidation. In contrast to the results of continuous heating, a decrease in the weight of samples dependent on the time of treatment took place in conditions of cyclic heat treatment. The weight

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decreased because of the breaking away of oxides at the moment of a sharp change in temperature. Comparison of results obtained from our alloy with the data about oxidation obtained from Nichrome (Ni-Cr-Fe alloy) showed that at 1373K the speed of oxidation of ZhS-6k is approximately 1.5 times less than that of Nichrome under similar conditions. Orig. art. has: 3 formulas, 4 figures, and 2 tables.

ASSOCIATION: Instytut metalofizyky*, AN UKrRSR (Institute of Metallurgical Physics AN UKrRSR)

SUBMITTED: 00

DATE ACQ: 31Jan64

ENCL: 01

SUB CODE: MM

NO REF SOV: 004

OTHER: 000

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ACCESSION NR: AT4010697

ENCLOSURE: 01

T°, K	Interval in secs. where K=constant	K, $\frac{mg^2}{sec.}$
1273	0,36 0,36-1,8	$1,53 \cdot 10^{-4}$ $1 \cdot 10^{-4}$
1373	0-0,9 0,9-4,5	$3,3 \cdot 10^{-4}$ $1,97 \cdot 10^{-4}$
1473	0-0,054 0,054-0,18 0,18-3,6	$14,7 \cdot 10^{-4}$ $7,73 \cdot 10^{-4}$ $0,00 \cdot 10^{-4}$

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GERTSRIKEN, S.D. [deceased]; DEKHTYAR, I.Ya.; KUMOK, L.M.; PILIBENKO, V.V.;
KHAZANOV, M.S.

Studying diffusion processes and oxidation in the ZnS-Cu alloy un-
der the effect of thermocyclic treatment. Sbor. nauch. pap. Inst.
metallofiz. AN URSR no.17:132-137 '63. (MIRA 17:3)

PILIPENKO, Ye.A.; ANDREYEV, Yu.N. [deceased] (Karaganda)

Determination of adhesive forces in rubber. Zhur. fiz. khim.
38 no.1:16-19 Ja'64. (MIRA 1964)

KOSTRZHEVA, Yelena Ippolitovna, inzh.; BUZHIYEVSKIY, Ivan Iosifovich,
inzh.; PILIPENKO, Yelizaveta Antonovna, inzh.; SABASHNIKOVA,
Galina Petrovna, inzh.; PRANTSEVICH, N.N., inzh., ~~retsensent~~;
BONDARENKO, O.P., inzh., red.izd-va; STARODUB, T.A., tekhn.
red.

[Norms for the output, normal losses and expenditure of raw products and materials in the processing of cattle, poultry and rabbits, and in the manufacture of sausage products in the meat processing enterprises of the Ukrainian S.S.R.] Normy vykhodov, estestvennoi ubyli, raskhoda syr'ia i materialov pri pererabotke skota, ptitsy, krolikov i vyrabotke kolbasnykh izdelii na miasopererabatyvaiushchikh predpriatiakh Ukrainoskoi SSR. Kiev, Gostekhzdat USSR, 1962. 130 p. (MIRA 16:5)
(Ukraine--Meat industry--Production standards)

KALYUS, Vyacheslav Yaroslavovich; KONDRATYUK, I.I., kand. tekhn. nauk,
doks., retsenzent; ... retsenzent; FILIFEKOC,
Y.P., inzh., red.; GORNOSTAYPOL'SKAYA, E.S., tekhn. red.

[Hay-harvesting machines; design, calculations, and the principles
of utilization] Samoborochnye mashiny; konstruktsiia, raschet i os-
novy ekspluatatsii. Moskva, Mashgiz, 1961. 274 p. (MIRA 1:12)
(Hay—Harvesting) (Agricultural machinery)

89747

S/064/61/000'000'000'000'
B101/B006

51330

11.3110

AUTHORS:

Buyanov, R. A., Zel'dovich, A. G., Pilyayev, Ya. K.

TITLE:

Some problems of catalytic production of liquid p-hydrogen

PERIODICAL:

Khimicheskaya promyshlennost', no. 2, 1961, 105-106

TEXT: Three methods of incorporating reaction vessels for catalytic production of p-hydrogen into the system of a hydrogen-liquefying plant are described. In the introduction, the purpose of producing p-H₂ is explained (long durability owing to low evaporation losses), as well as the use of hydrogen for producing deuterium, as charge for targets and bubble chambers and as rocket fuel. The three methods of incorporating reaction vessels are shown diagrammatically. Schemes a and b were elaborated at the kriogennaya laboratoriya (Cryogenic Laboratory) of the authors' Institute. Scheme b was proposed by A. F. Fradkov. In the liquefier of the type a, the hydrogen leaving the heat exchanger (1) of the cold zone under high pressure is branched into two currents. One part enters into the collecting vessel (4) for H₂ of normal composition (n-H₂) through the bottle valve (3). The other part entering into cooling coil (3) through the valve (2) is liquefied.

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P101/B 04

Some problems of

entirely and supercooled liquid, the effect of partial evaporation of the liquid is (4). From (4) H_2 enters into reaction vessel (2), where it is converted into $p-H_2$. Evaporation and heating of liquid H_2 leads to the release of heat of conversion. Dissipation of the heat of conversion and condensation takes place in cooling coil (3). The pressure in the cooling coil is regulated by the valve apparatus. The $p-H_2$ flows through (3) into the collecting vessel (5), from where it is filled into Dewar vessels for storage (6). The $n-H_2$ vapor is drawn off through the countercurrent tubes of the heat exchanger. This variant does not warrant an isothermal course of the process and is therefore only suitable for the production of $p-H_2$. In the type 6 reaction vessel (2) is designed as a coil and immerses in the collecting vessel (4) for $n-H_2$. Heat dissipation occurs not only in the coil but also through the walls of (4). This variant permits the production of 23-25% $p-H_2$. The hydrogen enters from (1) through valve (7) into the reacting vessel (5), where a pressure of 1.5 to 2.0 KM/CM^2 is maintained. Helium valve (8). The vapor and the liquid $n-H_2$ flow through (8) into the collecting vessel (4), where the pressure is 0.1 KM/CM^2 , and is released to

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S/064/61/000/002/001/001
B101/B206

Some problems of . . .

(1) The liquid H_2 enters from (5) into reaction vessel (2) and is then (3), and is drained off as p- H_2 by means of valve (6). In the variant 6

the vessel (2) is fed by a separate line with H_2 enriched with 1% p- H_2 . The n- H_2 circulates separately and serves only as a carrier. The H_2 that be converted is purified in a column filled with active carbon and cooled by liquid N₂. Partial conversion of n- H_2 sets in already here. Possibilities of incorporating such reaction vessels into existing hydrogen liquefaction plants are discussed, and it has been found that type 6 is suited for liquefiers of high and low capacity. Type 6 is suited for liquefiers of low capacity (100-300 l/hr), which operate according to the refrigeration cycle. Type a is recommended for incorporation into liquefiers, where difficulties would arise when incorporating type 6. The following operating conditions are given on the basis of experimental data (Refs. 2-5): charge of the reaction vessel with 30-100 g/hr of H_2 per m² of cross section. The capacity of the liquefier drops by 33 to 35% when producing p- H_2 . Chromite-based catalysts, $Fe(OH)_3$, $Cr(OH)_3$, and $Mn(OH)_4$ are mentioned as catalysts. As the $Cr(OH)_3$ catalyst is difficult to activate (Refs. 4, 5) . . .

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S/064/61/000/002/001/001
B101/B206

Some problems of . . .

O_2 , it is only recommended for continuous operation. The hydroxide catalysts are activated at 0.1 mm Hg by heating them at 95 to 105°C for 24 hr. The poisoning by C_2 is reversible. If these catalysts are filled into the reaction vessel immediately after heating, their activity is reduced, so that twice as much must be taken. They can, however, be reactivated without heating, only in a vacuum. The required amount of the catalyst is calculated from the equation:

$V_H/V_k = 44.7K \left\{ \log \left[\frac{(1 - C_0/C_p)}{(1 - C/C_p)} \right] \right\}$, where V_H is the given capacity of the installation (l H_2 per hr. with concentration C); V_k is the required volume of the catalyst, cm^3 ; C_0 is the initial concentration of H_2 (25% as a rule); C_p is the equilibrium concentration of H_2 at the working temperature (99.8% as a rule); and K is the rate constant of the conversion reaction. The values of K for various catalysts are given in a table. There are 1 figure, 1 table, and 6 references. 5 Soviet bloc and 3 non-Soviet bloc.

Card 4/5

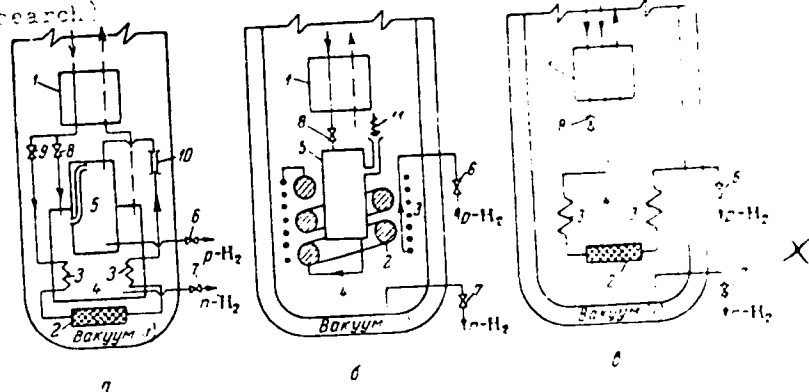
89747

S/064/61/000/002/001/001
 B101/320

Some problems of ...

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

Legend to Figure: v/vacuum



Legend to Table: 1) constants
 $K \cdot 10^3 \text{ g-mole/cm}^3 \cdot \text{sec}$; 2) catalysts;
 3) chrome-nickel
 Card 5/5

1) Катализаторы	Константы $K \cdot 10^3 \text{ г-мол/см}^3 \cdot \text{сек}$	
	78°K	22°K
3) Хромоникелевый	1.5-1.7	1.6-2.1
Fe(OH) ₃	1.0-2.3	0.9-2.0
Cr(OH) ₃	0.56-0.74	0.4-1.1
Mn(OH) ₂	0.73-1.2	1.5-2.0

ZEL'DOVICH, A.G.; PILIPENKO, Yu.K.

Hydrogen liquifier with an output of 50 liter per hour of liquid
hydrogen. Prib. i tekhn. eksp. 6 no.2:185-187 Mr-Ap '61.
(MIRA 14:9)

1. Ob'yedinennyy institut yadernykh issledovaniy.
(Gases--Liquifaction) (Hydrogen)

BUYANOV, R.A.; ZEL'DOVICH, A.G.; PILIPENKO, Yu.K.

Liquifier for producing parahydrogen and catalizers for the
ortho-para conversion of hydrogen. Prib. i tekhn. eksp. 6 no.2:
188-190 Mr-Ap '61. (MIRA 14:9)

1. Ob'yedinennyy institut yadernykh issledovaniy.
(Gases--Liquifaction) (Hydrogen)

L 20840-66 EWP(t) IJP(c) WW/JW/JD

ACCESSION NR: AT5009454

CZ/0000/64/000/000/0172/0178

AUTHOR: Zeldovich, A. G. ; Pilipenko, Yu. K.

TITLE: Large laboratory hydrogen liquifier V02 for use with large liquid hydrogen bubble chambers

SOURCE: Conference on Low Temperature Physics and Techniques. 3d, Prague, 1963. Physics and techniques of low temperatures; proceedings of the conference. Prague, Publ. House of the Czechosl. Academy of Sciences, 1964, 172-178

TOPIC TAGS: bubble chamber, liquid hydrogen, para hydrogen, liquefaction technique, cryogenic device

ABSTRACT: The apparatus described is a Joule-Thomson liquifier based on a registered invention by the authors (Byulleten' izobreteniy No. 19 (1960), 18), and a smaller version was described by the authors earlier (PTE no. 2 (1961), 185 and no. 4 (1963), 191). A diagram of the liquifier is shown in Fig. 1 of the Enclosure. Its rated capacity is 200 liters of para-hydrogen per hour. The considerations governing the choice of some of the components of the equipment are discussed. Tables listing different characteristics for para-hydrogen production in the liquifier and of the design calculations are presented. Calculations based on the ex-

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ACCESSION NR: AT5009454

perimental results show that the liquifier can work with 1500 m³/hr of compressed hydrogen and hence can produce 460 and 200 liters/hour of normal and para-hydrogen, respectively. "The authors thank N. K. Zel'dovich, A. A. Belushkina, L. P. Belonogova, A. A. Demin, and G. G. Khorev who took part in the design and assembly of the liquifier." Orig. art. has: 2 figures and 2 tables.

ASSOCIATION: Ob'yedinennyy institut yadernykh issledovaniy (Joint Institute of Nuclear Research)

SUBMITTED: 00

ENCL: 01

SUB CODE: NP

NR REF SOV: 004

OTHER: 002

Cord 2/3

L 20840-66

ACCESSION NR: AT5009454

ENCLOSURE: 01

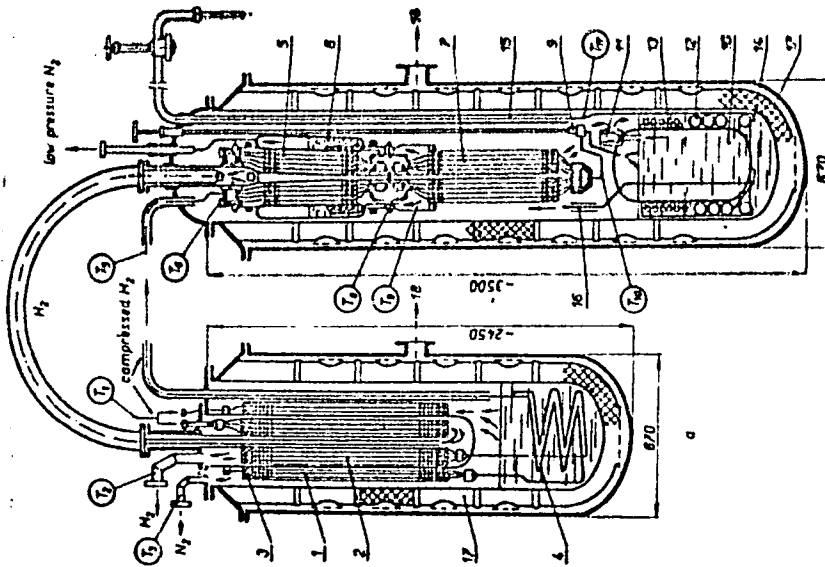


Fig. 1. The liquefier V02.

- 1 - nitrogen section of exchanger "hot" zone, 2 - hydrogen section of exchanger "hot" zone, 3 - fittings, 4 - coil in liquid nitrogen bath, 5 - heat exchanger of "intermediate" zone, 6 - nitrogen low pressure bath, 7 - heat exchanger "cold" zone, 9 - throttle valve, 10 - subsidiary collector, 11 - pneumatic valve, 12 - reactor, 13 - condensing coil, 14 - supplementary reactor, 15 - outlet valve for para-hydrogen, 16 - outlet valve for normal hydrogen, 17 - Dewar flask, 18 - To the vacuum pump.

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L 15680-65 EWT(m)/EPP(c)/EPR/FCB(1)/EWP(1)/EWP(b) Pr-4/PB-4 ASD-3/
AFFTC/AFMDC/ESD-3/IJP(c)/RPL BW/JD/WH/JW
ACCESSION NR: AP4047490 S/0120/64/000/005/0203/0206

AUTHOR: Zel'dovich, A. G.; Pilipenko, Yu. K. 6
11

TITLE: VO₂ hydrogen liquefier intended for supplying large liquid-hydrogen
chambers 27

SOURCE: Pribery* i tekhnika eksperimenta, no. 5, 1964, 203-206

TOPIC TAGS: liquefier, hydrogen liquefier / VO₂ hydrogen liquefier 10

ABSTRACT: A new large-capacity hydrogen liquefier is described which has
been designed along the lines of the authors' earlier smaller-capacity liquefiers
(PTE, 1961, no. 2, 185, and PTE, 1963, no. 4, 191). The new liquefier's
technical characteristics are: 125-atm-compressed-hydrogen input, 725 nm³/hr;
liquid-normal-hydrogen output, 230 liter/hr at a liquefaction ratio of 25%; liquid-
para-hydrogen output, 140 liter/hr at l.r. 15%; para-hydrogen concentration, up
to 98%; liquid nitrogen flow, 1.15 liter per one liter of normal H₂; principal-

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L 15680-65

ACCESSION NR: AP4047490

6
collector pressure, 0.3 atm; nitrogen-bath vacuum, 630 torr; starting time, under 1 hr, 10 min; warming-up (to room temperature) time, under 2 hr, 30 min; other details given. Cross-sections and appearance of the liquefier are presented. "The authors are deeply grateful to N. K. Zel'dovich, A. A. Belushkina, L. P. Belonogova, A. A. Demin, and G. G. Khorev for their part in designing and assembling the liquefier." Orig. art. has: 3 figures and 2 tables.

ASSOCIATION: Ob'yedinenny'y institut yaderny*kh issledovaniy (Joint Nuclear Research Institute)

SUBMITTED: 05Oct63

ENCL: 00

SUB CODE: IE, NP

NO REF SOV: 004

OTHER: 002

Card 2/2

PILIPENKO, V.K., glavnyy vrach

Nicotinic acid (vitamin PP) in the treatment of sciatica. Zdrav. Belor
5 no.2:48-49 P '59. (MIRA 12:7)

1. Khvoyenskaya sel'skaya bol'nitsa Turovskogo rayona Gomel'skoy
oblasti.

(NICOTINIC ACID) (SCIATICA)

FILIPENKO, Ye.G.; SAMOYLOVA, V.P. (Kiev)

Group preventive procedure for children up to 1 year of age
in the mother and child room. Sov. zdravookhr. 12 no. 3: 1-11
(MIRA 1981)

1. Iz detskoy kliniki y bol'nitsy Sovetskogo rayona Kiyeva.

VENTSEL', Sergey Veniaminovich; BARABASH, M.L., kand. tekhn.
nauk, retsenzent; LOSIKOV, B.V., doktor tekhn. nauk,
prof., red.; PILIPENKO, Yu.P., inzh., red.;
GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Lubrication of internal combustion engines] Smazka dvi-
gatelei vnutrennego sgoraniia. Moskva, Mashgiz, 1963. 179 p.
(MIRA 16:4)

(Gas and oil engines--Lubrication)

D'OMIN, A.I., nauchnyy sotr.; PILIPENKO, Yu.P. [Pylypenko, IU.P.],
prepodavatel' sredney sholy; TKHORZHEVSKIY, D.O.
[Tkhorzhevs'kyi, D.C.], red.; SHEVCHENKO, L.I., tekhn.red.

[Classes in fitting and repairing; tractor repair] Uroki z
sliusarno-remontnoi spravy; remont traktora. Za red. K.I.
Shvetsova. Kyiv, Radians'ka shkola, 1962. 74 p.

(MIRA 16:3)

1. Nauchno-issledovatel'skiy institut peagogiki Ukr.SSR (for
D'omin).

(Tractors--Maintenance and repair)

BELOTSERKOVSKIY, Aron Grigor'yevich, inzh.; MIKHALEVICH, Aron Abramovich,
inzh.; KALISSKIY, V.S., inzh., retsenzent; PILIPENKO, Yu.P.,
inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Handbook for motor-vehicle drivers] Pamiatka voditelia avto-
mobilier. Moskva, Mashgiz, 1963. 155 p. (MIRA 16:4)
(Automobile drivers--Education and training)

NASTENKO, Nikolay Nikolayevich; BOROSHOK, Lev Abramovich;
DVOROVENKO, G.P., kand. tekhn. nauk, rensent; GOLOVIN,
D.D., rensent; PILLPENKO, Yu.P., inzh., red.;
GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Automation of production processes in agriculture] Avtoma-
tizatsia proizvodstvennykh protsessov v sel'skom khoziai-
stve. Moskva, Mashgiz, 1963. 194 p. (MIRA 16:7)
(Automation) (Agricultural machinery)

FILONENKO, Serafim Nikolayevich; AFANAS'YEV, V.F., kand. tekhn.
nauk, retsenzent; BARAB-TARLE, M.Ye., inzh., red.;
PILIPENKO, Yu.P., inzh., red.; GORNOSTAYKOL'SIAYA, M.S.,
tekhn. red.

[Metal cutting] Rezanie metallov. Moskva, Mashgiz, 1963.
209 p. (MIRA 16:7)

(Metal cutting)

VINOGRADOV, Gleb Andreyevich, kand. tekhn. nauk; RADOMYSEL'SKIY,
Izrail' Davidovich, kand. tekhn. nauk; SAMSONOV, G.V.,
retsenzent; PILLIPENKO, Yu.P., inzh., red.; GORNOSTAYPOL'SKAYA,
M.S., tekhn. red.

[Pressing and rolling ceramic metal materials] Pressovanie i
prokatka metallokeramicheskikh materialov. Moskva, Mashgiz,
1963. 198 p. (MIRA 16:5)

1. Chlen-korrespondent Akademii nauk Ukr. SSR (for Samsonov).
(Ceramic metals)

KORNEYEV, Georgiy Vasil'yevich; SEDLETSKIY, I.D., inzh., retsenzent;
PILIPENKO, Yu, P., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn.
red.

[Hoisting and conveying devices of agricultural repair workshops,
Pod'emno-transportnye ustroistva sel'skokhoziaistvennykh
remontnykh masterskikh. Moskva, Mashgiz, 1963. 95 p.
(MIRA 16:6)

(Hoisting machinery) (Conveying machinery)

NAYGUZ, Natan Iosifovich; BASIN, Mikhail Natanovich; MOKROV, I. I., ~~1963.~~,
retsensent; PILIPENKO, Yu. P., inzh., red.; GORNOSTAYPOL'SKAYA, M. S.,
tekh. red.

[Presses for cold briquetting of metal scrap] Pressy dlia kholod-
nogo briketirovaniia metallicheskoj struzhki. Moskva, Mashgiz,
1963. 94 p. (MIRA 16:6)
(Power presses) (Scrap metals)

RUDINSKIY, Stepan Yakovlevich; ROZHNETSKIY, G.A., kand. tekhn. nauk,
doks., retsenzent; ZAMANSKIY, S.M., inzh., red.; PILIPENKO,
Yu.P., red.; GORNOSTAYPOL'SKAYA, H.S., tekhn. red.

[Machine tools; collected problems and laboratory work] Metal-
lovezhushchie stanki; sbornik zadach i laboratornykh rabot. Mo-
skva, Mashgiz, 1961. 380 p. (MIRA 15:3)
(Machine tools)

44

LEONOV, Andrey Yevstaf'yevich; KHAYMOVICH, Ye.M., prof., doktor tekhn.
nauk, retsenzent; PILIPENKO, Yu.P., red.

[Pumps used in hydraulic systems of machine tools and machinery]
Nasosy gidravlicheskikh sistem stankov i mashin. Moskva, Gos.
nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 225 p.
(MIRA 13:12)

(Pumping machinery) (Hydraulic machinery)

YATSENKO, Viktor Avanas'yevich; GRIN', L.P., kand. tekhn. nauk,
retsensent; PILIPENKO, Yu.P., inzh., red.; GORNIOSTAYPOL'SKAYA,
M.S., tekhn. red.

[Operation and repair of agricultural machinery] Eksploatatsia
i remont sel'skokhoziaistvennykh mashin. Moskva, Mashgiz,
1961. 314 p. (MIRA 15:4)
(Agricultural machinery)

DASHEVSKIY, Il'ya Isaakovich; ZASLAVSKIY, Simon Shlemovich;
FAL'KOVSKIY, B.L., inzh., retsenzont; FILIPENKO, Yu.P.,
inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Mechanization of the manufacture of metalworking and forging dies] Mekhanizatsiia izgotovleniia shtampov i press-form.
Moskva, Mashgiz, 1962. 172 p. (MIRA 15:8)
(Dies (Metalworking))

OS'MAK, Illarion Terent'yevich; STEPANENKO, K.N., inzh., retsenzent;
PILIPENKO, Yu.P., inzh., red.; GORNOSTAYPOL'SKAYA, M.S.,
tekh. red.

[Machines for harvesting and ensilaging green fodder] Mashiny
dlia uborki i silosovaniia zelenykh kormov. Moskva, Mashgiz,
1961. 106 p. (MIRA 15:12)
(Ensilage) (Agricultural machines)

KLEBANOV, Boris Vladimirovich, inzh.; KUZ'MIN, Vladimir Grigor'yevich, inzh.; MASLOV, Vladimir Ivanovich, inzh.; LEONOV, I.S., inzh., retsenzent; SOROKIN, A.A., inzh., retsenzent; PILIPENKO, Yu.P., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Repair of motor vehicles and tractors] Remont avtomobilei i traktorov. Pod red. B.V.Klebanova. Moskva, Mashgiz. Pt.2. 1962. 301 p. (MIRA 16:2)

(Motor vehicles--Maintenance and repair)
(Tractors--Maintenance and repair)

KONDRATYUK, Pavel Ivanovich; STEFANENKO, A.I., inzh., retsenzent;
PILIPENKO, Yu.P., inzh., red.; GORNOSTAYPOL'SKAYA, M.S.,
tekhn. red.

[Machines for the over-all mechanization of hay harvesting]
Mashiny dlia kompleksnoi mekhanizatsii uborki trav na seno.
Moskva, Mashgiz, 1962. 156 p. (MIRA 15:7)
(Hay--Harvesting) (Harvesting machinery)

SHAL'NEV, Viktor Grigor'yevich; KONSTANTINOV, I.G., kand. tekhn. nauk,
red.; PILIPENKO, Yu.P., inzh., red.; GORNOSTAYPOL'SKAYA, M.S.,
tekhn. red.

[Progress in forging and ~~sheet~~-metal working methods] Razvitie
metodov obrabotki metallov davleniem. Moskva, Mashgiz, 1962.
618 p. (MIRA 19:10)

(Forging) (Sheet-metal work)

DUDNIK, Prokofiy Yermolayevich; OLEYNIK, V.T., inzh., retsenzent;
PILIPENKO, Yu.P., inzh., red.; GORNOSTAYPOL'SKAYA, M.S.,
tekh. red.

[Burnishing and flattening tools and mandrels] Obrabotki,
raskatki i dorny. Moskva, Mashgiz, 1962. 73 p.

(MIRA 15:4)

(Metalworking machinery)

SOLOMKA, Yakov Fedorovich; VLASENKO, S.K., inzh., retsenzent; PILIPENKO,
Yu.P., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Manufacture of bimetallic parts] Proizvodstvo dvukhsloinykh
detalei. Moskva, Mashgiz, 1962. 116 p. (MIRA 15:4)
(Metalwork) (Laminated metals)

TKACHENKO, Aleksey Yefimovich; KARPENKO, Sergey Aleksandrovich;
VORONEZHSKIY, V.I., inzh., rets. nzent; PILIPENKO, Yu.P.,
inzh., red.; GORNOSTAYPOL'SKAYA, M.S., teKhr. red.

[Machines for the over-all mechanization of field crop cultivation] Mashiny dlia kompleksnoi mekhanizatsii rabot v polevod-
stve. Moskva, Gos. nauchno-tekh.izd-vo mashinostroit. lit-ry,
1961. 128 p. (MIRA 15:2)

(Farm mechanization)

KORENYAKO, Aleksandr Stepanovich; KREMENSHTEYN, Lev Isaakovich;
PETROVSKIY, Sergey Dmitriyevich; OVSIYENKO, Grigoriy
Mikhaylovich; BAKHANOV, Vasiliy Yefimovich; KROLEVETS, M.S.,
dotaent, kand.tekhn.nauk, retsenzent; PILIPENKO, Yu.P.,
red.; GORNOSTAYPOL'SKAYA, M.S., tekhn.red.

[Project work for course credit in the theory of mechanisms
and machines] Kursovoe proektirovanie po teorii mekhanizmov
i mashin. Izd.3., dop. i perer. Pod red. A.S.Koreniako.
Moskva, Gos.nauchno-tekhn. izd-vo mashinostroit.lit-ry,
1960. 259 p. (MIRA 14:3)
(Mechanical engineering)

VASHCHENKO, Konstantin Il'ich; SOFRONI, Laurentsio; PILIPENKO, Yu.P.,
inzh., red.

[Magnesium cast iron] Magnievyi chugun. Izd.2., dop. 1 perer.
Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960.
486 p. (MIRA 13:11)

(Cast iron)

(Magnesium)

LEONOV, Andrey Yevstaf'yevich; KHAYMOVICH, Ye.M., prof., doktor tekhn.nauk,
retsensent; PILIPENKO, Yu.P., red.

[Pumps for the hydraulic systems of machine tools and machinery]
Nasosy gidravlicheskiikh sistem stankov i mashin. Moskva, Gos.
nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 224 p.

(MIRA 13:10)

(Pumping machinery) (Machine tools--Hydraulic driving)

DEMIN, Anatoliy Ivanovich [D'omin, A.I.]; PILIPENKO, Yuriy Petrovich [Pylypenko, IU.P.]; KIREYEV, Vasiliy Petrovich [Kyriev, V.P.]; SUSHKO, I.S., red.; BERMAN, Z.G. [Berman, Z.H.], tekhn. red.

[Repair of tractors and automobiles; manual for secondary schools]
Remont traktoriv i avtomobiliv; pidruchnyk dlia seredn'oi shkoly.
Kyiv, Derzh. uchbovo-pedagog. vyd-vo "Radiants'ka shkola," 1960. 291 p.
(MIRA 14:11)

(Motor vehicles—Maintenance and repair)

PILIPENKOV, A. T.

10-124. The Use of Diphenylthiocarbamide (Dithizone) in Analysis. Part II. Dissociation Constants of Zinc, Cadmium, and Lead Dithizonates. A. I. Babko and A. T. Pilipenko. Journal of Analytical Chemistry (U.S.S.R.), v. 2, no. 1, 1967, p. 33-42. (In Russian).

Results of a study of the composition of the above compounds in CCl_4 solution, equilibria between the dithizonates and the metal salts at different pH and concentration values, and equilibria between the dithizonates and H_2S . Relationships between the dithizonates, sulphides, and the ammoniates of the respective metals.

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ACCESSION NR: AP4011435 S/0076/64/038/001/0016/0019
AUTHORS: Pilipenko, Ye. A. (Karaganda); Andreyev, Yu. N. (Deceased,
Karaganda)

TITLE: Investigation of the adhesive forces of rubber

SOURCE: Zhurnal fiz. khim, v. 38, no. 1, 1964, 16-19

TOPIC TAGS: rubber, work of adhesion, adhesive force, adhesive force determination method, divinyl nitrile copolymer, natural rubber, divinylstyrene copolymers, polybutadiene polymer, nitrile group, SKN-3, SKN-18, SKN-26, SKN-40, SKI, NK, SKS-30-A, SKS-30-AM, SKD

ABSTRACT: A new method for determining the work of adhesion between a solid material and water is based on determining the adhesive forces from the motion of drops on a rotating disc surface. The adhesive forces of a number of rubbers were compared: divinyl nitrile copolymers containing different amounts of acrylonitrile--SKS-3, SKN-18, SKN-26, SKN-40; cis-1,4-polyisoprene SKI; natural

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ACCESSION NR: AP4011435

rubber NK; divinylstyrene copolymer SKS-30-A and SKS-30-AM (the latter containing 15% "Antol-18" oil); and polybutadiene polymer SKD. The work of adhesion of the different materials in water increases with increasing number of polar groups. The increase in the number of nitrile groups sharply increases the work of adhesion and can be evaluated quantitatively. Orig. art. has: 4 tables and 3 equations.

ASSOCIATION: None

SUBMITTED: 18Nov60

SUB CODE: MA, PH

DATE ACQ: 14Feb64

NO REF SOV: 004

ENCL: 00

OTHER: 000

Card 2/2

L. N. 41-44

ACC NR. 41452-417

UNCLASS CODES: UR/COB1/7/100 (UR/COB1/COB1)

AUTHOR: Belent'ev, P. V.; Zna-enskaya, Ye. A.; Pilipenok, D. A.; Stalevich, A. M.;
Petryayev, S. V.

TITLE: Deformation properties of polymeric materials

SOURCE: Ref. zh. Khimiya, Part II, Abs. 23621

REF SOURCE: Tr. N.-i. proyektno-konstrukt. in-ta tekhnol. mashinostr., no. 1, 1965,
75-95

TOPIC TAGS: thermosetting material, thermoplastic material, polymer rheology, thermo-
elasticity, elastic modulus, thermal expansion

ABSTRACT: Thermosetting and thermoplastic polymers in the range of small deformations were tested, and their physicomachanical characteristics were treated mathematically. The following quantities were determined: thermal extension of polyolefins, dependence of Brinell hardness on the elastic modulus and molecular weight, initial elastic modulus from the thermoelastic effect, and relationship between the latter and the coefficient of linear thermal expansion. The elastic properties of PVA fibers were studied at ~20°. On the basis of the experimental data, a nomogram of the thermoelastic properties of thermoplastic polymers was constructed which enables one to find the relationship between the initial elastic modulus, the coefficient of linear thermal expansion, and the thermoelastic coefficient. Z. Ivanova. [Translation of abstract]

SUE CODE: 11

Card 1/1

L 08471-67 EWP(j)/EWI(m) LOP(c) Rv./w
ACC NR: AR6016475

SOURCE CODE: UR/0124/65/000/012/V096/V097

AUTHOR: Melent'yev, P. V.; Znamenskaya, Ye. A.; Pilipenok, D. A.; Stalevich, A. M.;
Petryayev, S. V.

TITLE: Deformation properties of polymer materials

34
-
P

SOURCE: Ref. zh. Mekhanika, Abs. 12V829

REF SOURCE: Tr. N.-i. proyektno-konstrukt. in-ta tekhnol. mashinostr., no. 1,
1965, 75-95

TOPIC TAGS: material deformation, polymer physical property, metal deformation, polyethylene plastic

ABSTRACT: The authors point out differences between the deformation properties of polymer materials and metals. The following empirical formula is proposed for curves describing creep in polymers under constant stresses:

$$\epsilon = a + b t^{0.25}$$

where ϵ is deformation, t is time and a and b are the curve parameters. These parameters are linear functions of stress; at low temperatures T the curve parameters vary fairly smoothly as T is raised, but after T reaches some critical value (e. g. 40°C for high-pressure polyethylene) a and b increase sharply with the application of

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L 08471-67

ACC NR: AR6016475

heat. An attempt is made to establish a correlation between hardness H_B and the initial modulus E_0 . The effect which the molecular weight M of polyethylenes has on the characteristics of E_0 and H_B was studied in the range $M=5 \cdot 10^4 - 9 \cdot 10^5$. It was found in contrast to previous data (see Alfrey, T., "Mechanical Properties of High Polymers", Moscow, Izd-vo in. lit., 1962) that rigidity has a maximum in the region of moderate M . The authors suggest the use of the thermoelastic effect (more precisely, the Joule effect) for determining the initial modulus. In conclusion, data are given on the relaxation properties of various fibers. Bibliography of 10 titles. N. I. Malinin.
[Translation of abstract]

SUB CODE: 11, 20

✓
Card 2/2

KARPENKO, I.V., doktor sel'khoz. nauk, zasl. uchitel' nauki RSFSR;
KELESHOV, N.N., akademik, retsenzent; MALOVSKIY, N.I.,
prof., retsenzent; FILIPENKO, G.G., prof., retsenzent;
IVANOV, S.Z. prof., retsenzent; GRACHEVA, I.S., red.

[Sugar-beet growing. Sveklovoledstvo. Izd.3., perer. Mo-
skva, Kolos, 1964. 307 p. (MIRA 17:10)

ZEL'DOVICH, A.G.; PILIPENKO, Yu.K.

Improvement and acceleration of a VO1 hydrogen liquefier. Prib.
i tekhn. eksp. 8 no.4:191 J1-Ag '63. (MIRA 16:12)

1. Ob"yedinennyy institut yadernykh issledovaniy.

GRISHANIN, Ye.I.; KUKAVADZE, G.M.; LEPENDIN, V.I.; MAMELOVA, I.Ya.;
MOROZOV, I.G.; ORLOV, V.V.; PILIPETS, B.T.

Measurement of the absorption cross section for ^{256}Pu atom.
energ. 19 no.5:459-460 N '65. (MIRA 19:17)

ACC NR: AP7002172 SOURCE CODE: UR/0089/66/021/006/0514/0515

AUTHOR: Barchuk, I. F.; Pilipets, D. T.

ORG: none

TITLE: Method of checking the tightness of the fuel elements of the VVR-M reactor

SOURCE: Atomnaya energiya, v. 21, no. 6, 1966, 514-515

TOPIC TAGS: reactor fuel element, nuclear fission, fission product, metal cladding/
VVR-M reactor

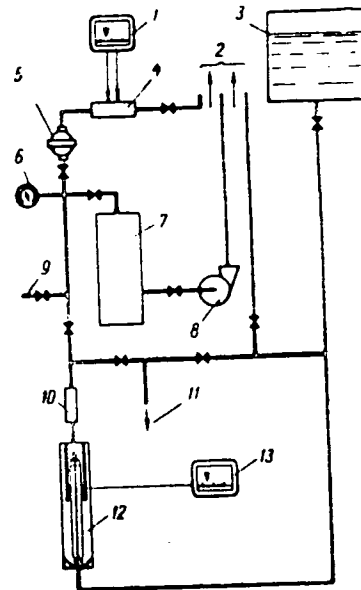
ABSTRACT: The method described by the authors was developed at the Physics Institute of the Ukrainian Academy of Sciences in 1962. Its features are that the gaseous fission products accumulated in the fuel elements are extracted from an unsealed fuel element by vacuum into a large volume, after which they are gathered and concentrated in an ionization chamber whose volume is 100 times as small (Fig. 1). This greatly increases the sensitivity of the method. The current produced in the ionization chamber by the radioactive products from the fuel element serves as a criterion for determining the degree of its tightness. A procedure for applying this method under reactor conditions is described. The time it takes to test one fuel element is about one hour and requires the services of only one operator. Orig. art. has: 1 figure.

UDC: 621.039.547

Cord 1/2

ACC NR: AF7002172

Fig. 1. Schematic diagram of installation for checking tightness of fuel elements: 1 - Measurement of ionization current, 2 - to special ventilator, 3 - distillate tank, 4 - ionization chamber, 5 - filter, 6 - vacuum meter, 7 - forevacuum flask, 8 - forevacuum pump, 9 - compressed air, 10 - water-measuring beaker, 11 - to special waste disposal, 12 - vacuum chamber, 13 - measurement of fuel element temperature.



SUB CODE: 18/ SUBM DATE: 07Apr66

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