

I. 6377-66

ACC NR: AP5026765

SOURCE CODE: UR/0286/65/000/017/0045/0045

AUTHOR: But, D. A.; Bertinov, A. I.

ORG: none

TITLE: A transverse magnetogasdynamic Hall generator with a two-component magnetic field. Class 21, No. 174288

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 17, 1965, 45

TOPIC TAGS: Hall generator, magnetogasdynamics

ABSTRACT: This Author's Certificate introduces a transverse magnetogasdynamic Hall generator with a two-component magnetic field. The design of the generator is simplified and its operating reliability in a high-temperature gas stream is improved by making the device from two coaxial electrodes with the excitation winding on the same axis.

UDC: 538.4:621.313.12.024

Card 1/2

L 6377-66

ACC NR: AP5026765

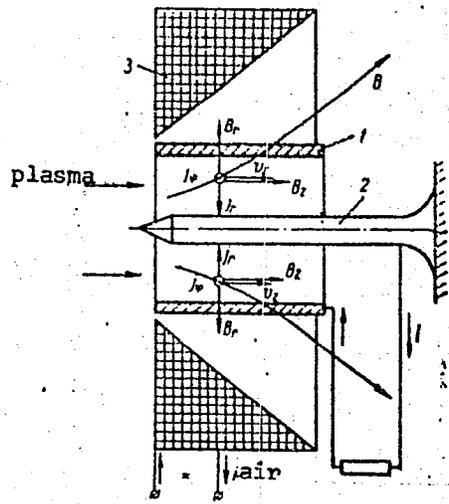


Fig. 1. 1 and 2--coaxial electrodes;
3--excitation winding

SUB CODE: ME,EM,EC/ SUBM DATE: 07Sep64/ ORIG REF: 000/ OTH REF: 000

BC
Card 2/2

I 13361-66

ACC NR: AP6001675

EWT(1)/EWP(m)/T-2/EWA(m)-2

IJP(o)

SOURCE CODE: UR/0281/65/000/006/0102/000

AUTHOR: Bertinov, A. I. (Moscow); But, D. A. (Moscow); Gorbakov, S. A. (Moscow)

95
B

ORG: none

TITLE: Axisymmetrical linear magnetohydrodynamic flow with the Hall effect in a two-component field

SOURCE: AN SSSR. Izvestiya. Energetika i transport, no. 6, 1965, 102-110

TOPIC TAGS: magnetogasodynamics, magnetohydrodynamics, Hall effect, Faraday effect, MHD generator, axisymmetric flow, EMF, electrode

ABSTRACT: These known magnetohydrodynamic-generator (MHDG) configurations are briefly examined: (1) Continuous-electrode channel, Faraday emf; (2) Sectionalized-electrode channel, loads fed with Faraday emf's; (3) Sectionalized-electrode channel, Hall emf; (4) Montardi scheme. The potentialities of these two combined configurations are considered; (5) A coaxial channel with a two-component magnetic field in which the emf is generated by both Faraday and Hall effects; no magnetic field is needed, and a small-size superconducting magnetic system is

UDC: 533.99:538.122

L 13361-66

ACC NR: AP6001675

applicable; (6) Same, but the electrodes are sectionalized as in (2). The latter two schemes are explored analytically. It is found that: (1) Scheme 5 with continuous electrodes obviates the difficulties connected with insulating walls and inserts in the channel; however, its specific (per unit volume) electric power (maximal at $\beta = 1-2$) is only 1/12 to 1/3 as high as that in other MHDG schemes; the specific power can be stepped up considerably if a higher temperature — and, therefore, higher gas conductivity — be used; (2) The characteristics of scheme 6 approach those of scheme 3; however, scheme 6 has no advantages stemming from the absence of insulating inserts; (3) The axial symmetry of the working flow and the applicability of simple torus superconducting magnetic systems are the two advantages of magnetohydrodynamic flows using the Hall effect and two-component field. Orig. art. has: 5 figures and 38 formulas.

SUB CODE: 20,10,09 / SUBM DATE: 20May65 / ORIG REF: 001 / OTH REF: 001

Card 2/2

L 10027-67 EWT(1)/EWP(m) IJP(c)

ACC NR: AP6034577

SOURCE CODE: UR/0382/66/000/003/0029/0038

AUTHOR: Bertinov, A. I. ; But, D. A. ; Gorbatkov, S. A. 44

ORG: none

TITLE: Conical magnetogas-dynamic flow with the Hall effect in an axial magnetic field

SOURCE: Magnitnaya gidrodinamika, no. 3, 1966, 29-38

TOPIC TAGS: magnetogas dynamics, magnetogas dynamic flow, Hall effect, axial magnetic field, transverse magnetic field, Faraday effect

ABSTRACT: The authors analyzed a conical magnetogasdynamic flow of an ideal incompressible conducting gas with the Hall effect in an axial magnetic field. The power supplied by the electrodes is produced through the Faraday and Hall effects. The magnetic Reynolds number is assumed to be much less than unity. Analytical relationships have been derived permitting an estimation of the basic electrodynamic and power energy characteristics of flow. Optimization is carried out for output power relating to various parameters. It is shown that by the specific power the above-mentioned flow, is less than that of MHD flows in a transverse magnetic

Card 1/2

UDC: 533.95:538.4

L 10027-67

ACC NR: AP6034577

field with power takeoff. However, there is no need for insulated duct walls when the above-mentioned effect is involved. It leads to an increase in the permissible temperatures of the working medium simplification of duct design, and increased reliability of the device. Orig. art. has: 4 figures and 55 formulas. [Based on authors' abstract]

SUB CODE: 20/SUBM DATE: 16Feb66/ORIG REF: 002/OTH REF: 001/

Card 2/2 end

a L 10271-66 ENT(m)/EWP(j)/T/ETC(m) *44* *55* *44* *55* *44* *55* *44* *55*
ACC NR: AP5028365 SOURCE CODE: UR/0369/65/001/005/0516/0521

AUTHOR: Dmitryuk, G.N.; Gorokhovskiy, G.A.; But, G.P. *66* *20*

ORG: Kiev Institute of Civil Aviation Engineers' (Kiyevskiy institut inzhenerov grazhdanskoy aviatsii) *44* *55*

TITLE: Quantitative evaluation of the durability of a metal to metal-polymer composition friction couple *15*

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 1, no. 5, 1965, 516-521

TOPIC TAGS: friction, wear material, wear resistance, metal property, polymer *44* *55*

ABSTRACT: The authors present several formulas for the quantitative evaluation of the durability of a friction couple made of a metal and a metal-polymer composition (poly-tetrafluorethylene)¹⁵. It is noted that the following procedures should be performed in order to employ the formulas obtained: 1) evaluation of the effect of the metal base, the chemical composition, and the relative content of the polymer on the wearability of the metal-polymer composition; 2) investigation of the effect of the force on the wearability of the metal-polymer composition and the metal roller in contact with it, taking the time factor into consideration; and 3) mathematical processing of the data obtained for the determination of the coefficients in one of the formulas, and evaluation of the dispersion of the test results by methods of probability theory and mathematical statistics. The purpose of this investigation is to determine the wear intensity of a metal-polymer composition with an optimal content of

Card 1/2

L 10271-66

ACC NR: AP5028365

the polymer and a metal roller in contact with it at the initial period of operation, as well as in a period of stabilized wear as a function of the time and the coupling mode, taking into account the quantitative and the qualitative mechanisms on the boundary of the friction couple. On the basis of principles of the wear process of the metal to metal-polymer composition friction couple, a method is developed for calculating the durability of metal-polymer couplings. Orig. art. has: 3 figures and 5 formulas.

SUB CODE: 11 / SUBM DATE: 04Dec64 / ORIG REF: 006

PC
Card 2/2

L 02963-67 EWT(m)/EWP(w)/EWP(j)/I/EWP(t)/ETI IJP(c) JD/WH/DJ/RM

ACC NR: AP6032717

SOURCE CODE: UR/0374/66/000/004/0580/0584

AUTHOR: Dmitryuk, G. N.; But, G. P.

ORG: none

TITLE: Wear resistance of metal-polymer bearing surfaces

SOURCE: Mekhanika polimerov, no. 4, 1966, 580-584

TOPIC TAGS: bearing material, slider bearing, metal polymer composite, solid lubricant

ABSTRACT: The feasibility of using antiseizure polymer-metal composites in slider type bearings has been studied. To preserve the antiseizure properties of polymers and at the same time to take advantage of the high thermal conductivity and mechanical strength of metals, bearing inserts and bushings made of composites consisting of bars of polymer imbedded in a metal base were developed and tested. The polymers used were floroplast-4, polytetrafluoroethylene, low-pressure polyethylene, poly(vinyl chloride) and ebonite. The metal base was B20F7-02T(br) bronze or Armco iron. In this design the polymer bar protrudes so that it rubs against the steel shaft. The polymer interacts with the metallic surface of the shaft to form non-metallic structures [sic] which prevent immediate contact of the metals. Study of the effect of service conditions on the wear of the friction couple composite-metal

Card 1/2

UDC: 678.620.178.162+678:5

56
55
8

L 02963-67

ACC NR: AP6032717

showed that the principal factor is load. The shaft/insert wear ratio was 1/3.5 (dry friction) and 1/5 (heavy regimes). It is noted that the manufacture of the porous metal-polymer composites in use outside the USSR is complex and that their construction is not always reliable. In contrast, it is claimed that the polymer-metal composites proposed are relatively simple to make and are more wear-resistant.
Orig. art. has: 6 figures.

SUB CODE: 11/ SUBM DATE: 17Sep65/ ORIG REF: 003/ ATD PRESS: 5099

Card 2/2 J.C

MAGUA, I.I., prof.; VORONIN, I.I., dotsent; BUT, I.F., aspirant

Use of synthetic materials in veterinary surgery. Veterinariia 41
no.12:43-47 D '64. (MIRA 18:9)

1. Khar'kovskiy zooveterinarnyy institut.

BUT, I. V.

"Shower Inversions of Temperature," *Meteorologiya i Gidrologiya*, Issue No. 1, 1949.



But, I. V.

Subject : USSR/Meteorology

AID P - 3867

Card 1/1 Pub. 71-a - 30/35

Authors : But, I. V., G. I. Perelet, and L. I. Sakali

Title : Pavel Ludvigovich Tomashevich

Periodical : Met. i. gidr., 6, 62, N/D 1955

Abstract : An obituary of the oldest Ukrainian weatherman, Tomashevich, who worked in Kiev on meteorology and climatology, was a professor at the Khar'kov Hydro-meteorological Institute, and died in June 1955.

Institution : None

Submitted : No date

BUT, I.V.

USSR/Physics of the Atmosphere - Dynamic Meteorology, M-2

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36083

Author: But, I. V., Perelet, G. I.

Institution: None

Title: Concerning the Problem of the Dynamics of the Dry Wind and the Possible Role of Vertical Velocities in the Development of the Dry Wind

Original

Periodical: Tr. Odessk. gidrometeorol. in-ta, 1955, No 7, 23-29

Abstract: The appearance of the dry-wind effect (sharp reduction in the relative humidity during daylight hours) at very initial period of the anticyclogenesis may be due to the effect of the downward motion in the lower 1.5-km layer of the troposphere. During night hours this effect is masked owing to the radiation cooling of the surface layer. Upon further development of the anticyclone, the role of the downward stream in its influence on the field of the relative humidity is completely blanketed by an intensive transformation under the influence of the underlining surface.

Card 1/1

BUT, I.V.; MIROCHNIK, S.F.

Celebrating the 25th anniversary of the Odessa Hydrometeorological
Institute. Meteor. i gidrol. no.9:58 S '57. (MLRA 10:9)
(Odessa--Meteorology)

BUT, I.V.; GRINVAL'D, D.I.

Twenty-fifth anniversary of the Odessa Hydrometeorological Institute.
Trudy OGMI no.11:3-5 '57. (MIRA 11:3)
(Odessa--Hydrometeorology)

BUT, I.V.

Rise and drain phenomena in the lower Dniester River and
synoptic conditions producing them. Trudy UkrNIGMI no.11:
71-92 '59. (MIRA 13:3)
(Dniester River--Hydrology)

BUT, I.V.

Relation between the general circulation of the atmosphere and
the present-day distribution of glaciers in the Northern
Hemisphere. Inform.sbor.o rab.Geog.fak.Mosk.gos.un.po
Mezhdunar.geofiz.godu no.9:10-39 '62. (MIRA 16:2)
(Glaciers) (Atmosphere)

BUT, I.V.

Problem of effective modification of frontal cloud systems in
mountainous regions. Meteor. i gidrol. no.4:46-47 Ap '62.
(MIRA 15:5)

(Weather control)

BUT, I.V.

Training specialists in meteorology. Meteor. i gidrol. no.4:34-
36 Ap '63. (MIRA 16:5)

1. Odesskiy gidrometeorologicheskiy institut.
(Metereologists—Education and training)

L 52557-65 EWT(1)/PCG GW

ACCESSION NR: AP5009231

UR/0362/65/001/002/0125/0105

AUTHOR: Marchuk, G. I., Kurbskii, G. P., But, I. V., Panzhuk, V. I., Kabanovskii, Ye. Ye.

TITLE: An operative, quasi-geostrophic, five-level, short-range weather forecasting scheme

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 1, no. 2, 1965, 129-135

TOPIC TAGS: short range weather forecasting, quasigeostrophic weather forecasting, weather forecasting algorithm, multilevel forecasting, numerical forecasting

ABSTRACT: The development of nongeostrophic weather forecasting schemes based on the solution of the complete set of hydrodynamic equations seems to offer the most promising approach for the improvement of short range numerical forecasting.

L 52557-65

ACCESSION NR: AP5009231

materialized. Consequently, a quasi-geostrophic scheme for short-range forecasting developed at the Vychislitel'nyy tsentr SO AN SSSR (Computer Center SO AN SSSR) simultaneously with the two-geostrophic scheme described earlier (Izvestiya Akademii Nauk SSSR, Seriya fiziko-matematicheskie nauki, no. 12, 1964). The present article is devoted to the description of the latter scheme.

ASSOCIATION: Vychislitel'nyy tsentr, Sibirskoye otdeleniye AN SSSR, Novosibirsk, SSSR

ACC NR: AP7005466

SOURCE CODE: UR/0050/66/000/003/0016/0022

AUTHOR: But, I. V. (Professor)

ORG: Computer Center, Siberian Department, AN SSSR (Vychislitel'nyy tsentr, Sibirskoye otdeleniye AN SSSR)

TITLE: Effect of foehns on ablation of mountain glaciers

SOURCE: Meteorologiya i gidrologiya, no. 8, 1966, 16-22

TOPIC TAGS: atmospheric wind, atmospheric circulation

ABSTRACT: The purpose of this study was to determine to what extent there can be an increase in the ablation of a glacier under the influence of strong and persistent foehns. Such a case occurred in Kirgiziya during the period 8-14 July 1958 when ... there was a Vangengeym type-C circulation and the Tien Shan mountain system perturbed large-scale atmospheric flow. The study is based on meteorological and glaciological observations made on two glaciers in this area, as well as systematic observations of other years made in various places. Orig. art. has: 3 tables. [JPRS: 39,180]

SUB CODE: 04 / SUBM DATE: 13Oct65 / ORIG REF: 004

Card 1/1

UDC: 551.324.433.551.555.3

0926 2354

L 42039-65 EWT(1)/EWA(n) Feb

ACCESSION NR.: AP5010952

UR/0286/65/000/007/0133/0133

AUTHORS: Dobrov, Ye. V.; But, L. I.

TITLE: Multiplier-divider device. Class 42, No. 169883

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 7, '65, 133

TOPIC TAGS: multiplier circuit, divider circuit, Hall device

ABSTRACT: This Author Certificate presents a multiplier-divider device with a
Hall effect element. The device is designed for the automatic control of
the position of a rotating body. The device consists of a multiplier-divider
circuit and a Hall effect element. The multiplier-divider circuit is
described in the accompanying drawing.

ASSOCIATION: Institut avtomatiki i elektrometrii Sibirskogo otdel'eniya AN SSSR
(Institute of Automation and Electrometry, Siberian Division)

SUBMITTER: 03sep65

ENCL: 01

NO REF SOV: 000

OTHER: 000

Card 1/2

D 12039-65

ACCESSION NR: AP5010952

ENCLOSURE: 01

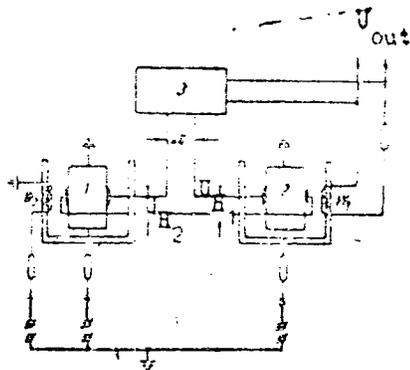


Fig. 1. Multiplier-divider device
1 and 2 - Hall emf detectors; 3 - amplifier

Card 2/2 *mt*

AZNAURYAN, M.P., inzh.; ~~BUT~~, N.D., inzh.

Pulverization of catalyst salts. Masl.-zhir.prom: 27 no.1:39 Ja
'61. (MIRA 14:1)

1. Saratovskiy zhirovoy kombinat.
(Catalysts)

PROCEDURES AND PROPERTIES INDEX

BUTN L.

A 4

BC

Activity (and nerve supply) of face sweat glands. N. I. Boor (*J. Neuropatologia i Psichiatria*, 1939, 8, 144-145).—Clinical investigations of the secretory activity of the sweat glands of the face were made on 20 patients suffering from facial palsy, 17 with trigeminal neuralgia, and 3 with traumatic neuritis of the 1st, or 1st and 2nd, divisions of the trigeminal nerve. The lesions of the facial nerve, of inflammatory or traumatic origin, were situated in the region of the geniculate ganglion in 2 cases, at the entry of chorda tympani in 6, below that level in 12. In all the patients with facial palsies and trigeminal neuralgia the secretion of sweat started earlier and was more abundant on the affected side, mostly so in areas giving a complete reaction of degeneration. The patients with traumatic trigeminal neuritis showed a diminished sweat secretion in the areas supplied by the injured divisions. Inhibitory parasympathetic fibres are considered to run in the trunk of the facial nerve and secretory sympathetic fibres in the peripheral divisions of the trigeminal nerve. T. T.

ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

GROUP	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50
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1944

USSR / Morphology of Man and Animals. Nervous System.

S-1

Abs Jour : Ref Zhur - Biol., No 5, 1958, No 21656

Author : But, N. I.

Inst : Not given

Title : On Formation of Cerebral Sulci During Human Intra-uterine Development.

Orig Pub : Nauchn. zap. Uzhgorodsk un-t, 1956, 19, 64-73

Abstract : It was determined on 236 fetal specimens, 1-10 months (of gestation), that the sulci originate as depressions or impressions. During the 2nd month a depression appears which later develops into the Sylvian fissure. During the 3rd month there is an initial appearance of the olfactory sulcus of corpus callosum, the parieto-occipital and calcarine fissures. During the 4th month, corpus callosum, parieto-occipital and calcarine fissures begin to appear. During the 6th month, the appearance

Card 1/2

Country : USSR
Category : General Biology. B
 : General Histology.
Abs. Jour : RZhBiol., No. 3, 1959, No. 9625
Author : But, N. I.
Institut. : Uzhgorod University.
Title : The Transformation of Cartilaginous Cells
 : into Osteoblasts and Osteocytes.
Orig Pub. : Dokl. i soobshch. Uzhgorodsk. un-t, Ser. med.
 : 1957, No 1, 47-49.
Abstract : The transformation of cartilaginous cells(CC)
 : in endochondral ossification of vertebrae was
 : studied on specimens obtained from 117 verte-
 : bral columns of human embryos, fetuses and
 : newborn babies. It has been established that
 : during the period of endochondral ossifica-
 : tion of vertebrae not all CC perish and that
 : young CC with processes remain in the calci-
 : fied cartilage, as well as CC with a partial-
 : ly destroyed protoplasm and capsule. Various
 : forms of differentiated osteoblasts and

Card: 1/2

BUT, N.I. (Zakarpatskaya obl., g.Uzhgorod, ul. Grabarya, d.6, kv. 1)

Development of intervertebral disks in embryogenesis of the human.
Arkh. anat. gist. i embr. 36 no.3:30-35 Mr '59. (MIRA 12:7)

1. Kafedra anatomii (zav. - dots. N.I. But) meditsinskogo fakul'teta
Uzhgorodskogo universiteta.

(INTERVERTEBRAL DISK,
develop. in humans (Rus))

BUT, N. I.

Doc Med Sci - (diss) "Problem of the intra-fetal development of the spinal column in the human being. (Anatomo-histological study)." Kiev, 1961. 27 pp; (Kiev Order of Labor Red Banner Medical Inst imeni Academician A. A. Bogomol'ts); 250 copies; price not given; list of author's works on pp 26-27; (KL, 5-61 sup, 199)

BUT P P

AID P - 3828

Subject : USSR/Mining
Card 1/1 Pub. 78 - 16/25
Author : But, P. P.
Title : ~~USSR/Mining~~ To speed-up the use of volume meters of oil products
Periodical : Neft. khoz., v. 33, #11, 80-82, N 1955
Abstract : The advantages of volume meters as compared with weight meters for oil products distribution are emphasized and a list of such meters of different design manufactured in the USSR is given.
Institution : None
Submitted : No date

BUT, P.P.

AID P - 2105

Subject : USSR/Engineering

Card 1/1 Pub. 78 - 18/24

Author : But, P. P.

Title : Speed-up the production of valves with packing rings made of vinyl plastic

Periodical: Neft. khoz., v.33, no.4, 83-85, Ap 1955

Abstract : The author suggests making packing rings for valves in pipelines not from non-ferrous alloys like bronze or brass which are scarce, but from vinyl plastic, a non-metallic material made from polychlorovinyl resin. Packing rings made from this material withstood all the required tests. Tables, diagrams.

Institution: Glavneftesbyt (Main Administration for Oil Distribution)

Submitted : No date

BUNCHUK, V.A.; BUT, P.P.

The state and methods for improving storage facilities. Neft.khoz.
34 no.10:59-64 0 '56. (MLBA 9:11)
(Petroleum--Storage)

AUTHORS:

But, P.P.
Banchuk, V.A., and But, P.P.

93-57-7-14/22

TITLE:

Decreasing Oil Losses Due to Evaporation (Rezervy snizheniya poter' nefteproduktov ot ispareniya)

PERIODICAL: Neftyanoye khozyaystvo, 1957, Nr 7, pp 47-51 (USSR)

ABSTRACT:

PKhV-1 white coloring on oil tanks is more effective in minimizing oil losses due to evaporation than AL-177 aluminum paint. Table 1 shows that for aluminum paint, oil losses are 1.3-1.5 greater than for white enamel. Tables 2 and 3, and a diagram show that the annual losses of stored gasoline are smaller for white coloring than for aluminum paint. Annual losses were calculated with the aid of a formula worked out by N.N. Konstantinov of the All-Union Scientific Research Institute for the Processing of Petroleum and Gas and for the Production of Synthetic Liquid Fuel (VNII NP). The temperature range was

Card 1/4

Decreasing Oil Losses Due to Evaporation

93-57-7-14/22

determined by the attenuation of thermal waves, a method developed by V.A. Bunchuk of the State Institute for the Design and Planning of Structures, Transportation and Storage in the Petroleum Industry (Giprotransneft'). The coefficient of sunray absorption was determined using the method devised by M.A. Mikheyev, the author of "Principles of Heat Transfer" (Osnovy teploperedach), Gosenergoizdat, 1949. On the basis of these findings the State All-Union Production Office "Lakokraspokrytiye" under the USSR Ministry of the Chemical Industry recommended the testing of white perchlorvinyl gasolineproof enamel PKhV-1 (VTU MKhP No. 2701-51), and the All-Union Scientific Research Institute of Lightning Engineering (VNISI) under the former USSR Ministry of the Electrotechnical Industry recommended the testing of white photostable enamel consisting principally of zinc aluminate pigment. The latter enamel is highly resistant to light and moisture and its coefficient of sunray reflection is 0.85-0.9. As it is produced in limited quantities for special industries and is quite expensive, the authors suggest using PKhV-1 enamel which is

Card 2/4

Decreasing Oil Losses Due to Evaporation

93-57-7-14/22

produced in large quantities by the plants of the USSR Ministry of the Chemical Industry. The authors also recommend the KhSL-1 white enamels and the chemically stable PKhV-101 enamel produced in large quantities by the plants of the same ministry. For metal tanks exposed to the atmosphere the "Lakokraspokrytiye" office recommended: a) one layer of base paint, No. 138 GOST 4056-48, and two layers of AL-177 aluminum paint, or b) one layer of base paint, No. 138 and three layers of PKhV-1 white enamel. Tables 4 and 5 give the results of applying enamel in this sequence to 5,000 cu. m. of oil tank surface. According to Table 5 the white enamel will reduce oil losses due to evaporation by 25-30 percent and cover the capital investment of the painting job in several months. The 1956 petroleum output is expected to amount to 135 million tons. If the average annual output in 1956-60 amounts to 10 million tons of petroleum yielding approximately 50 percent of light

Card 3/4

Decreasing Oil Losses Due to Evaporation

93-57-7-14/22

petroleum products, the loss of light petroleum products due to evaporation in storage will amount to 0.5-1 percent, i.e., a minimum annual loss of 250 thousand tons. This loss can be compensated for by coating the storage tanks with white enamel costing 50 million rubles, the price of 70 thousand tons of petroleum products. Therefore, the authors suggest that the tank farms of the Main Administration for Petroleum Marketing (Glavneftesbyt), and first of all the tank farms in the Southern regions, be adequately supplied with PKhV-1 white enamel, and that the USSR Ministry of the Chemical Industry develop and organize the production of tank coatings which will be more durable and more stable than PKhV-1 enamel. There are 5 tables, 1 diagram, 2 Soviet references, and 2 English references.

ASSOCIATION:Giprotransneft' (V.A. Bonchuk)

AVAILABLE: Library of Congress

Card 4/4 1. Oil-Evaporation

BUT, P.P.
AUTHOR: But, P.P., Engineer

92-58-3-23/32

TITLE: Ordinary Fireproof Fittings for Gas Conduits in Storage Tanks of Tank Farms (Obychnyye rezervuarnyye ognevyye predokhraniteli dlya gazovyykh obvyazok rezervuarnyykh parkov)

PERIODICAL: Neftyanik, 1958, Nr 3, pp 24-24 (USSR)

ABSTRACT: To prevent evaporation losses in petroleum products stored in bulk plant tanks, the tanks must be equipped with a gas-equalizing system composed of gas conduits which connect the various gas-containing sections of storage tanks. This system usually consists of equipment such as gas meters, gas holders, various steel cylinders, adsorbers, absorbers, etc. (Fig. 1). Gas collecting equipment draws the excess of gas from gas-containing sections of a storage tank. From an economical point of view, the installation of gas-equalizing systems is highly advisable and the cost can be amortized within a short period of time. In

Card 1/2

Ordinary Fireproof Fittings for Gas (Cont.)

92-58-3-23/32

spite of this fact, the bulk plants, pipelines, pump stations and refineries have delayed installation of such systems. The main reason for this delay has been the lack of fireproof fittings designed to protect groups of storage tanks from fire and explosion if one tank in the group would catch fire. To solve the problem it has been found necessary to check the adequacy of ordinary fireproof fittings manufactured by the Armavir machine building plant. For this purpose fittings were tested in July 1957 on a special stand (Fig. 2), and the test results were satisfactory. Consequently, the Glavneftesbyt organization authorized the use of the fireproof fittings of the Armavir plant for gas conduits for storage tanks provided that a selective testing of these fittings on a special stand is arranged from time to time. There are two sketches, one showing a gas-equalizing system, and the other, the special stand with an extended pipe used for testing fireproof fittings suitable for gas conduits of tank farms.

AVAILABLE: Library of Congress

Card 2/2

BUT, P.

Oil tank equipment. Neftianik 1 no.12:29 D '58. (MIRA 12:3)
(Tanks)

BUT, P.P.

Volumetric meters for measuring the inflow and outflow of
petroleum and petroleum products are not yet in general use.
Neft.khoz. 36 no.2:50-54 F '58. (MIRA 12:4)
(Flow meters)

11(0)

AUTHOR: But, P.P.

SOV/93-58-11-13/15

TITLE: The Improvement of Auxiliary Tank Farm Equipment Must be Given More Attention (Bol'she vnimaniya usovershenstvovaniyu rezervuarnogo oborudovaniya)

PERIODICAL: Neftyanoye khozyaystvo, 1958, Nr 11, pp 65-67 (USSR)

ABSTRACT: The increase in petroleum production to 350-400 million tons per annum in the next 12-15 years will require additional storage facilities and efficient equipment. But the auxiliary tank farm equipment was not improved in the past ten years. The only improvement was made by the Giproneftemash Institute in 1957 when it designed KD breather valves and KPS safety valves of 200 mm water-column pressure. However, the maximum diameter of these valves is only 350 mm and the through-put capacity 600 cu m/hr. The industry requires valves of larger diameters and through-puts of 1,000, 1,500, and 2,000 cu m/hr suitable for operation under fall and winter conditions. The available tank cleaning equipment does not satisfy the present day requirements. The design of universal tank cleaning tools must take into account the experience of individual scientific-research and planning institutes as well as of the Glavneftesbyt's tank farms. The new storage tanks, such as the tanks with floating or breather roofs designed for a

Card 1/2

The Improvement of Auxiliary Tank (Cont.)

SOV/93-58-11-13/15

pressure of 0.3-0.4 kg/sq cm will require new types of auxiliary equipment. The Giproneftemash Institute was entrusted with the responsibility of developing these equipment, but it failed to carry it out. This Institute was assigned the staff of the former VNITneft' Institute as well as the assignments of the Giprotransneft' and Giproneftezavody institutes but it only succeeded in developing breather and safety valves of 200mm water-column pressure for vertical tanks above the ground. The national interest requires that the Gosplan of the USSR and the Giproneftemash Institute give this matter their immediate attention.

Card 2/2

TITKOV, V.I.; BELINSKIY, M.L.; BUNCHUK, V.A.; ~~BUT, P.P.~~; VINOGRADOV, A.F.;
KOPMAN, S.R.; KUKUSHKINA, R.N.; MATSKIN, L.A.; MOSKAL'KOV, I.I.;
MISHIN, B.V.; NADEZHGIN, M.D.; OLENEV, N.M.; ROZEN, S.N.; NOVIKOVA,
vedushchiy red.; TROFIMOV, A.V., tekhn.red.

[Handbook on oil tank equipment] Spravochnik po oborudovaniiu
neftebaz. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi
lit-ry, 1959. 463 p. (MIRA 12:12)
(Petroleum--Storage)

14(0)

SOV/92-59-2-23/40

AUTHOR: But, P.P., Staff Member of the Giprotuboprovod

TITLE: New Mazout Gages (Novyye mazutomery)

PERIODICAL: Neftyanik, 1959, Nr 2, pp 23-24 (USSR)

ABSTRACT: The Khar'kov Instrumentation Plant started to turn out piston-type mazout gages (Fig.1). These gages are designed to count the amount of liquid consumed, and particularly the amount of dark petroleum products transported by pipelines. Gaging units of this type are able to record a flow from 500 lit/hour to 4000 lit/hour, as the highest rate, and from 75 lit/hour to 600 lit/hour as the lowest rate. They can be used when the pressure in the pipeline does not exceed 10 atm and temperature 100°C. The weight of the gaging unit varies between 36 and 78 kg. The piston-type gage is provided with a hydraulic motor. There are several types of mazout gages, namely the metering gage, totaling gage, registering and recording gage, and a package gage. Gages under discussion will, no doubt, find a wide application in different branches of the Soviet industry.

ASSOCIATION: Giprotuboprovod (State Institute for Design and Planning of Pipelines)

Card 1/1

BUT, P.P.

Fire preventing device. Neftianik 5 no.10:22-23 0 '60.
(MIRA 13:10)

1. Sotrudnik Giprotzuboprovoda.
(Petroleum industry--Fires and fire prevention)

BUT, P.

Combination pressure vent valves. Neftianik 5 no.11:23-24 N '60.

(MIRA 13:11)

(Valves)

BUT, P.P.

Technical and economic indices for the determination of the optimum parameters of main petroleum and petroleum product pipelines. Trudy MINKHIGP no.45:19-33 '63.

(MIRA 16:7)

(Petroleum pipelines)

BUT, P.P., inzh.

Study of specific technical and economic indices of pipelines
for petroleum and petroleum products. Trudy VNIIST no.143
142-163 '62. (MIRA 16:12)

BUT, P.P.; YELISEYEV, M.Ya.

Optimum parameters of petroleum and petroleum products pipelines.
Transp. i khran. nefiti no.9:3-7 '63. (MIRA 17:1)

1. Gosudarstvennyy institut po proyektirovaniyu magistral'nykh
truboprovodov.

BELINSKIY, M.L.; BUT, P.P.; KANTOROVICH, Z.L.; KRYLOV, Yu.V.;
VLADIMIROV, P.F.; ZAYTSEV, B.Z.; KOVEL', I.I.; LESHCHINSKIY,
M.P.; KOTIK, V.G.; LEPEKHIN, S.P.; RATS, P.G.; SERIKOV, S.S.;
KHAYTOVICH, M.S. [deceased]; TSVET'KOV, N.Ya.; KULIKOV, A.A.,
red.; MATSKIN, L.A., red.; RYABSKIY, N.A., red.

[Handbook on petroleum-pipeline equipment] Spravochnik; obo-
rudovanie magistral'nykh truboprovodov. Moskva, Nedra, 1965.
610 p. (MIRA 18:6)

BUT, P.P.

List of tank storage equipment produced by Soviet industry in 1961.
Transp. i khran. nefi i nefteprod. no. 10:34-36 '61.

(NRA 17:10)

1. Gosudarstvennyy institut po proyektirovaniyu magistral'nykh
truboprovodov.

BUT, S.

Transfer to a seven-hour workday and the regulation of wages in
river transportation. Rech.transp. 19 no.1:20-23 Ja '60.
(MIRA 13:5)

1. Zaveduyushchiy otdelom truda i zarplaty Tsentral'nogo
komiteta profsoyuza rabochikh morskogo i rechnogo flota.
(Inland water transportation--Employees)
(Hours of labor)

BUT, S.M.; LAKHOZVYANSKIY, I.G.

[Automatic electric welding with rivets in ship building and ship repair]
Avtomaticheskaiia svarka elektrozaklepkami v sudostroenii i sudoremonte.
Moskva, Izd-vo Ministerstva rechnogo flota SSSR, 1953. 24 p. (MIRA 6:7)
(Ship building) (Electric welding)

measurements are based on the number of reversals and the

2. JNH. 10 + (k) → 2CO When CAMs was used it was 100%

USSR/Chemical Technology. Chemical Products and Their Application - Silicates. Glass. Ceramics. Binders. I-9

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 12505

Author : But T.S., Fadeyeva V.C., Sirotkina N.L.

Inst : Kazan' Filiate of the Academy of Sciences USSR

Title : Use of the Burette of L.G. Berg in the Investigation of Ceramic Materials

Orig Pub : Tr. Kazansk. fil. AN SSSR, Ser. khim. n., 1056, No 3, 89-95

Abstract : The method of L.G. Berg for a quantitative determination of gaseous phase evolved on heating of substances, by measuring its volume, was utilized by the authors to determine hydration water of clays and kaolin, and also the air content of the raw materials. Determination of water by this method is not affected by the presence of carbonate, iron and organic admixtures, and is effected by measuring the volume of hydrogen or acetylene formed

Card 1/2

- 59 -

BUT, T.S.; VINOGRADOV, B.N.; GAVRILOVA, T.I.; GORSHKOV, V.S.; DOLGOPOLOV,
N.N.; MYAGKOVA, M.A.; SIROTKINA, N.L.; FADEYEVA, V.S., doktor
tekhn. nauk, red.; GURVICH, E.A., red. izd-va; GOL'BERG, T.M.,
tekhn. red.

[Modern methods of studying building materials]Sovremennye meto-
dy issledovaniia stroitel'nykh materialov [By] T.S.But i dr. Pod
obshchei red. V.S.Fadeevoi. Moskva, Gosstroizdat, 1962. 238 p.
(MIRA 16:1)

(Building materials)

BUT, V.P.

Soil algae in some districts of Surkhan-Darya Province, Uzbek S.S.R.
Uzb. biol. zhur. no.2:34-39 '59. (MIRA 12:7)

1. Institut botaniki AN TadzhSSR.
(Surkhan-Darya Province--Algae) (Soil micro-organisms)

BUT, V.P.

Effect of additional ultraviolet radiation on the development of
algae in soil. Uzb. biol. zhur. 6 no.2:30-33 '62. (MIRA 15:4)

1. Botanicheskiy institut AN TadzhSSR.
(ALGAE) (PLANTS, EFFECT OF ULTRAVIOLET RAYS ON)

BUT, V.P.

Algae of meadow soils in the western Pamirs. Izv. Otd. Biol.
nauk AN Tadzh. SSR no.1:29-33 '63. (MIRA 17:10)

1. Botanicheskiy institut AN Tadzhikskoy SSR.

BUT, V.P.

General characteristics of the communities of algae in some soils
of the western Pamirs. Trudy Pam. biol. sta. 1:274-275 '63.
(MIRA 17:10)

BUT, Yu.S.

Dynamics and conditions of underground waters of Miocene sediments in the convergence zone of the Galicia-Volyn' syncline and Carpathian piedmont fault. Trudy Inst.geol.nauk AN URSR Ser.gidrogeol.i inzh.geol. no.8:46-51 '62. (Ukrainian. Western--Water, Underground) (MIRA 15:7)

BUT, Yu.S., inzh.

Hydrogeologic characteristics and drainage features of sulfur
deposits of the Ukrainian S.S.R. Nauch.zap.Ukrniiproekta
no.5:83-88 '61.

(Ukraine--Mine drainage)

(MIRA 15:7)

9.3120 (1003, 1140, 1331, 1160)

22050
S/181/61/003/004/016/030
B102/B214

AUTHOR:

But, Z. P.

TITLE:

Effect of the method of surface treatment on photoelectronic emission from germanium

PERIODICAL:

Fizika tverdogo tela, v. 3, no. 4, 1961, 1137-1143

TEXT: The author reports on investigations of the spectral and volt-ampere characteristics of photoelectronic emission from n-type Ge single crystals whose emitting surface, the (111) plane, was subjected to different treatments. The investigations were made in the system of a spherical capacitor. A glass sphere with gold coating having a diameter of 120 mm served as the collector. The emitter was irradiated by a mercury arc discharge through a quartz window. The photocurrent was measured by an electrometer having a sensitivity of 10^{-16} a. The measurements were made in a vacuum of $\sim 10^{-7}$ mm Hg. The samples were in the form of small disks of 8 mm diameter. Their resistivity was 30 ohm·cm. Other shapes were also investigated, but no effect of the shape of the emitter on the results could be found when account was taken of the ratio between the

Card 1/9

22050

Effect of the...

S/181/61/003/004/016/030
B102/B214

sizes of the collector and the emitter. The samples were treated in the following manner: grinding with electrocorundum, polishing, etching in perhydrol and etching in (P-4 (SR-4). Germanium films as well as surfaces obtained by splitting the crystal in air were studied. After polishing and etching the samples were washed in twice-distilled water and then dried at about 100°C. Otherwise the samples were not exposed to thermal treatment of any kind. The Ge film was obtained by evaporating Ge pieces on a gold-plated glass sphere at 10^{-6} mm Hg. The base was not heated so that an amorphous hole-type Ge film was obtained. The measurements were made 6-10 hr or 3 days after the preparation. The volt-ampere characteristics were taken in the wavelength region of 2700-2200 Å. To compare the characteristics for different samples at a given quantum energy, the photocurrent was referred to the saturation current. The reverse currents amounted to no more than 2-4 % and were taken into account in the usual manner. The results are shown in diagrams, and the numerical values are collected in a table. Fig. 1 shows the volt-ampere characteristics; the upper arrows indicate the saturation potential U_s . For the same emitter, the spectral characteristics of the quantum yield are shown in Fig. 2.

Card 2/9

22050

Effect of the...

S/181/61/003/004/016/030
B102/B214

These can be analytically represented by $Y = a(h\nu - \phi_0)^4$, where ϕ_0 is the photoelectric work function, and a is a constant. The values given in the table are the mean of at least 5 values. Besides U_B , the δ -values, and ϕ_0 , the table also gives ϕ_T (thermionic work function), $\Delta\phi_0$ (band curvature at the surface), and ϕ_s (surface potential). From the electron concentration (determined from conductivity and Hall effect) the position of the Fermi level was determined (0.31 eV below the bottom of the conduction band). From this and from the energetic distance δ between the Fermi level and the highest energy band, $\Delta\phi_0$ and ϕ_s were determined. Further results are shown in Figs. 3 and 4. From the results it follows that a mechanical treatment of the surface causes defects on the Ge surface with close energy spectra. Etching with SR-4 and perhydrol leads to a filling of levels which are situated in a similar manner in the forbidden band. The maximum lowering of the photoelectric work function is obtained by etching in perhydrol and polishing. For high densities of the filled surface states, the participation of electrons of the surface levels in photoelectric emission is high. It is possible that the emission of electrons from surface states leads to a narrowing of the photoelectron energy distribu-

Card 3/9

22050

Effect of the...

S/181/61/003/004/016/030
B102/B214

J

tion curve at high energies. Professor P. G. Borzyak, Professor V. I. Lyashenko, and O. G. Sarbey, Candidate of Physical and Mathematical Sciences, are thanked for having read the manuscript and for a discussion of the results. There are 4 figures and 17 references: 7 Soviet-bloc and 10 non-Soviet-bloc.

SUBMITTED: July 26, 1960 (initially)
November 30, 1960 (after revision)

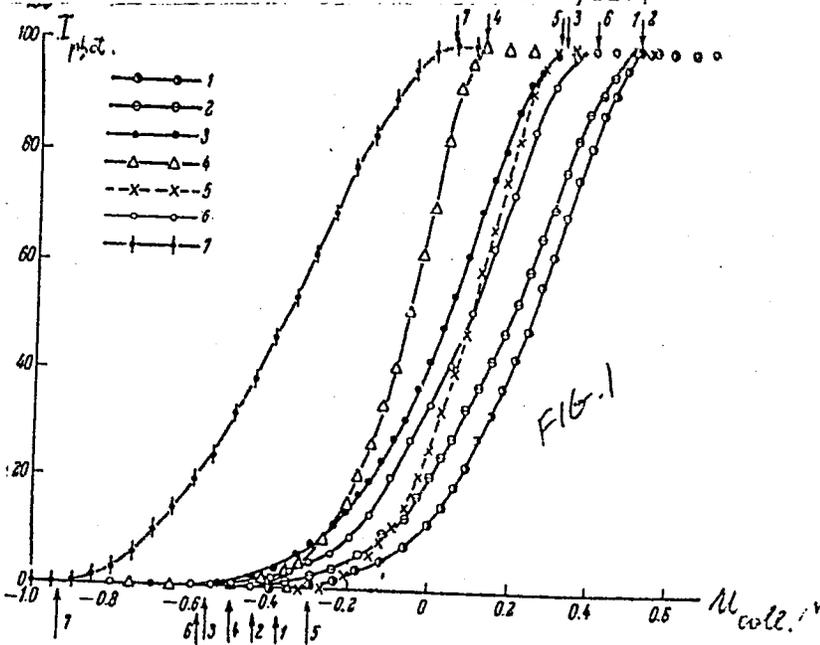
Legend to Fig. 1: Volt-ampere characteristics at $\lambda = 2302 \text{ \AA}$. 1 - germanium single crystals, surface-ground; 2 - polished; 3 - etched with perhydrol; 4 - etched with SR-4; 5 - split off; 6 - germanium film; 7 - gold. Abscissa: Collector potential, volts; ordinate: photocurrent, relative units.

Card 4/9

Effect of the...

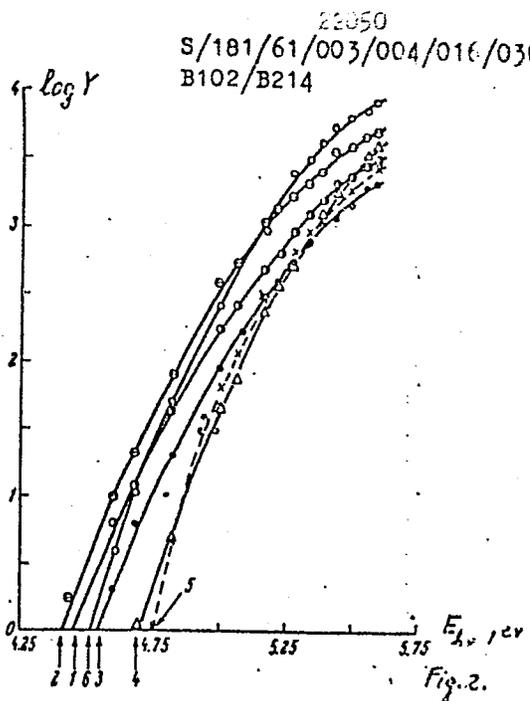
72050

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B102/B214



Effect of the...

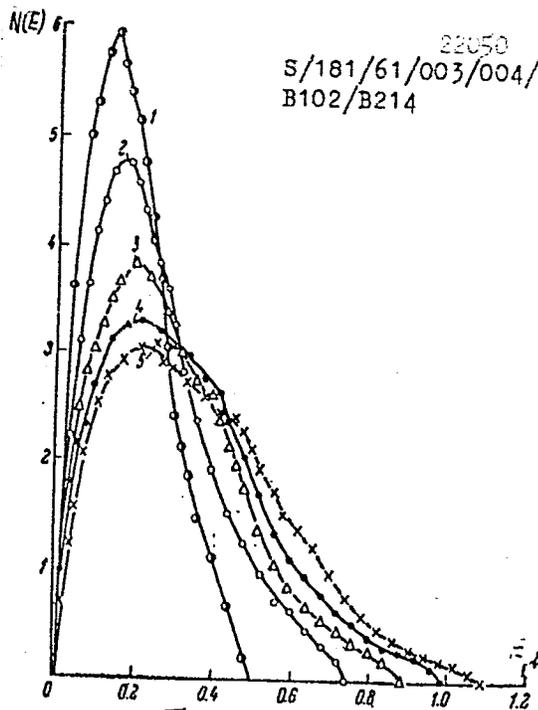
Legend to Fig. 2:
abscissa: photon
energy, eV; ordinate:
log Y (relative units).
Symbols as in Fig. 1.



Card. 6/9

Effect of the...

Legend to Fig. 3:
Energy spectrum of
the photoelectrons
for a ground ger-
manium surface.
 λ (in Å): 1 - 2652 Å,
2 - 2399 Å, 3 - 2302 Å,
4 - 2259 Å, 5 - 2216 Å.
 $N(E)$ - number of photo-
electrons (relative
units); E_{ph} - energy of
photoelectrons.



Card 7/9

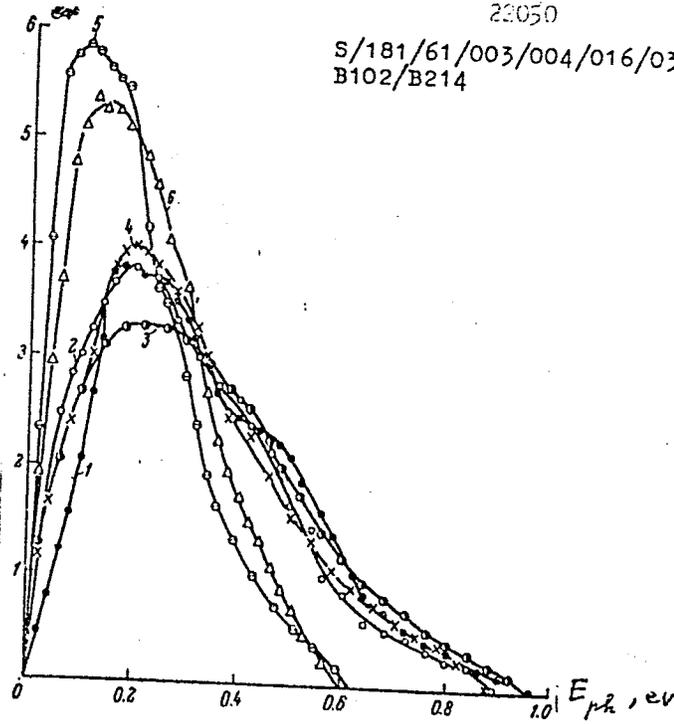
Effect of the...

Legend to Fig. 4:
Energy spectrum of photoelectrons for different surfaces (at $\lambda = 2302 \text{ \AA}$):
1 - germanium film;
2 - ground surface;
3 - polished; 4 - etched with perhydrol; 5 - with SR-4; 6 - split off.

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S/181/61/003/004/016/030
B102/B214

X



Card 8/9

22050

S/181/61/003/004/016/030
B102/B214

Effect of the...

Legend to the Table: 1) Surface, 2) split off, 3) ground, 4) polished,
5) etched with H₂O₂, 6) etched with SR-4, 7) film.

① Поверхность	U _д , н v	δ, мк с/	γ _ф , мк с/	γ _г , н v	Δγ _ф , н v	γ _д , н v
② Сколотая	0.32±0.02	0.58±0.04	4.69±0.04	4.11±0.03	0.21 *	0.25**
③ Шлифованная	0.53±0.02	0.55±0.02	4.48±0.03	3.93±0.02	0.18	0.22
④ Полированная	0.53±0.02	0.42±0.06	4.4 ±0.1	3.94±0.02	0.05	0.09
⑤ Травленая H ₂ O ₂	0.35±0.06	0.40±0.03	4.45±0.08	4.10±0.04	0.03	0.07
⑥ Травленая SR-4	0.13±0.02	0.42±0.02	4.73±0.04	4.32±0.03	0.05	0.09
⑦ Пленка	0.38±0.01	0.53±0.02	4.54±0.03	4.00±0.01	—	—

X

Card 9/9

30338

S/185/61/006/005/017/019
D274/D303

9.4160 (also 1147)

AUTHOR: But, Z.P.

TITLE: On the frequency dependence of the work function of
semiconductors

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 6, no. 1, 1961,
709 - 710

TEXT: Experiments are described which had the purpose of ascertain-
ing whether the work function is frequency dependent. The results
obtained for germanium show that the work function is independent
of the frequency of the incident light. If the photocurrent is ex-
cited by a source with line spectrum, the intensity of the various
lines is different. Hence, the accuracy in determining the retard-
ing potential V_m varies from frequency to frequency. As a light-
source, the mercury-quartz lamp ПРК-4 (PRK-4) was used. In process-
ing the results by the ordinary method (Ref. 7: P.I. Skirskiy, O
fotoeffekte, Gostekhizdat, 1933) an increase (by 0.2 - 0.3 ev.) in
the work function (calculated by Einstein's equations) was observed

Card 1/3

On the frequency dependence of ...

30338
S/185/61/006/005/017/019
D274/D303

for germanium emitters over a relatively small spectral interval. For metallic emitters, practically the same values of the work function was obtained with spectral lines of higher frequency ($h\nu$ ranging from 5.28 to 5.60 ev.) whereas for longer $h\nu$, the observed values were lower. It can be assumed that the larger values of V_m for the long-wave range, is due to the presence of scattered radiation with higher energy. The use of a high-sensitivity electrometer permitted intensity measurements of very weak lines. It was found that the intensity of the lines of longer wavelength exceeds that of the lines of shorter wavelength tenfold to a hundredfold. The current-voltage characteristics of metals and of several germanium emitters were processed, account being taken of the intensity of radiation. The values of V_m , determined by parabolic extrapolation, turned out to be smaller than the earlier obtained values for strong long-wave lines, and larger than those for weak short-wave lines. The values of the work function were the same for all $h\nu$, for metals as well as for semiconductors. The results for gold and germanium, are listed in a table. The results show that the work function for germanium, obtained from data which took into account the intensity of

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Card 2/3

30338

On the frequency dependence of ...

S/185/61/006/005/017/019
D274/D303

radiation does not depend on the frequency of the incident. Hence the conclusion that the changes in the work function, observed by other authors, were due to the experimental method used. There are 1 table and 7 Soviet-bloc references.

ASSOCIATION: Instytut fizyky ANURSR, m. Kyiv (Institute of Physics AS UkrSSR, Kyiv)

SUBMITTED: May 31, 196*

X

Card 3/3

I 12920-63

BDS/EWT(1)/EWG(k)/EWP(q)/EWT(m)/ES(w)-2 AFFTC/ASD/
SSD/ESD-3 Pz-4/Pab-4 JD/AT/IJP(C)/JG

ACCESSION NR: AP3000563

S/0109/63/008/005/0814/0820

AUTHOR: But, Z. P.

74
72

TITLE: Photoemission from Ge exposed to electron bombardment

SOURCE: Radiotekhnika i elektronika, v. 8, no. 5, 1963, 814-820

TOPIC TAGS: germanium, photoemission, quantum yield

ABSTRACT: Changes in photoemission from Ge whose surface has been cleaned of adsorbed films and subjected to various heat treatments have been investigated. An evacuated glass vessel whose working portion consisted of a spherical capacitor 130 mm in diameter with a collector formed by a layer of gold was used. Disk-shaped Ge samples were suspended from a wire track in the vessel, so that they could be positioned over a spiral tungsten emitter for annealing or bombardment, and then slid into the spherical chamber for room-temperature photoemission tests. These tests were conducted through a quartz window in the sphere, using an EMR-3 monochromator and an electrometer. A voltage of 3-5 Kev was applied between the sample and the tungsten spiral during electron bombardment at a pressure approximately 10^{-9} mm Hg. Samples of both p- and

Card 1/2

L 12920-63

ACCESSION NR: AP3000563

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n-type Ge were tested in a general sequence of bombarding, cooling, and annealing. Subsequent spectral distribution of quantum yield showed a shift of the spectral characteristic into the long-wave region after electron bombardment, followed by a slow drift back to a shorter-wave stable state; the drift could be hastened by radiant heating or annealing of the sample. The cycle was repeatable. An analogous change in the photoemission volt-ampere characteristic occurred, indicated by a lateral shift and distortion of the curve in the vicinity of the emission threshold. The conclusion that changes in the sample surface structure owing to bombardment were responsible for the observed photoemission shifts is apparently justified by the fact that direct Joule heating of a sample to the same temperature did not yield either of the above shift phenomena. "The work was carried out in the laboratory under the direction of P. G. Borzyak, to whom the author expresses his sincere thanks for placing this possibility at his disposal and for valuable instruction. The author also expresses his thanks to O. G. Sarbey for useful advice in conducting the experiments and for participation in the discussion of the results." Orig. art. has: 3 figures.

ASSOCIATION: none

Card 21/2

BUTA, I.; SANDULACHE, AI

Lakes of the Ludus River Basin. Probleme geog 8:499-509 '61.

SANDULACHE, Al.; BUTA, I.

Some hydrologic data concerning the lakes Sintejude and Stiuca
in the lower basin of the Fizes River, Transylvanian Plain.
Probleme geog 9:307-314 '62. (publ. '63)

FUTA, Iulia

Some considerations on the hydrologic balance in the Somesul
Mare Basin, Studia Univ B-B S. Geol-Geog 8 no.2:75-82 '63

BUTA, S.

Recent injuries of the ligaments of the knee. Acta chir.iugosl. 7(8)
no.3:227-235 '60.

1. Traumatoloska bolnica u Zagrebu (Ravnatelj prim. dr. M.Grujit)
(KNEE wds & inj)

SANDULESCU, R., ing.; BUTA, T., ing.; RADU, N., ing.

Growing tobacco seedlings under plastic film covering.
Ind alim veget 13 no.3:78-85 Mr '62.

1. Institutul de cercetari alimentare (for Sandulescu).

BUTABAYEVA, M.

Pathogenic protozoans of fishes in Degrezskoye Reservoir.
Vop. biol. i kraev. med. no.4:275-278 '63.

(MIRA 17:2)

BUTABAYEVA, M.; ALLAMURATOV, B.

Two new species of Myxosporidia from the gall bladder of *Varico-*
thinus capoëta heratensis natio steindachneri (Kessler), Uzb.
biol. zhur. 9 no. 6:53-55 '65 (MIRA 19:1)

1. Institut zoologii i parazitologii AN UzSSR. Submitted
April 12, 1965.

PATRULIUS, D.; CONTESCU, L.; BUTAC, A.

Research on the Cretaceous Flysch in the upper valley of the Trotus River and the surroundings of the city of Miercurea Ciuc, Eastern Carpathians. Studii cerc geol 7 no.3/4:409-428 '62.

ALEKSANDRU, I. [Alexandru, I.] (Bukharest); BUTACHU, F. [Butaciu, F.]
(Bukharest); BALINT, I. (Bukharest)

Hydrolysis of polyvinyl acetate to polyvinyl alcohol by the con-
tinuous method. Plast.massy no.9:6-8 '64. (MIRA 17:10)

BUTACIU F.

Distr: 4E2c(j)

✓ Problems in the manufacture of poly(vinyl alcohol) fibers. Alexandru Lupu, Virgil Ciobanu, Ekat. Maritan, Florica Butaciu, and Alceu Ciocanel (Inst. for Chem. Res., Bucuresti, Romania). *Faserforsch. u. Textiltech.* 11, 213-18 (1960).—The relations between certain manufg. operations and the properties of the resulting fibers were studied. The increase in viscosity of the pptg. bath with increasing concn. is sharpest in the 18-20% concn. range. Filterability decreases with increasing polymer concn. The viscosity decreases sharply with increasing temps. in the 20-50° temp. range and slowly at higher temps. Na₂SO₄ has high coagulating efficiency, however, to achieve a homogeneous coagulation throughout the entire fiber cross-section, the addn. of 20-30% ZnSO₄ is necessary; this will somewhat reduce the efficiency of Na₂SO₄. To avoid the crystn. of the salts the temp. of the pptg. bath must be kept between 40 and 45°. (NH₄)₂SO₄ will ppt. the poly(vinyl alc.); however, owing to its low efficiency, additives will serve no useful purpose. Baths contg. ZnSO₄ only will cause no pptn. even at high concns. Owing to the fact that the soly. of NaCl in water is limited, this salt is not practicable for use as coagulant. Acetone, cyclohexanone, EtOH, MeOH, AcOEt, and cyclohexanol also have coagulating ability; however, to a much

lower extent than inorg. salts. The soly. of poly(vinyl alc.) fibers in mild. salt solns. (used for the rinsing of the freshly pptd. fiber) is lowest with low concns., at low temp., and with contact periods not exceeding 1-2 min. The soly. of the fiber in water increases with increasing temp. and (or) increasing exposure duration and decreases with an increasing degree of stretch in the fiber. During heat-setting the initial crystallinity of the fiber will increase from 40-50% to 70-85%; this causes a redn. in shrinkage and hot-water soly. The degree of acetalization, under identical acetalizing conditions, depends upon the crystallinity of the fiber. The acetalization is considered to be confined to the fiber surface and to the amorphous portions only. Conversely, the

degree of acetalization can be used to establish the degree of crystallinity. Heat-setting in the relaxed condition causes a higher degree of crystallinity than setting under stress. Max. crystallinity is achieved by presetting at lower temps. (150-60°) followed by setting at higher temps. (220-30°) without stress. Fibers with a high (50-65%) degree of acetalization and a low degree of crystallinity show the highest shrinkage in hot water, while fibers in which only 1/3 of the OH groups are acetalized will not shrink even at a high degree of crystallinity. G. J. Bryner

7
1000(10)
1

ALEXANDER, L.; BUTAGIU, F.

Synthesis of polyvinyl alcohol. Note 6. Inverse
hydrolysis of polyvinyl acetate by polyvinyl alcohol.
Rev chimie Min petr 13 no.2:80-83 F '62.

EUTACIU, Florica; TANCO, L.

Fractioning polyvinyl alcohol. Rev chimie Min petr 14
no. 11/12:643-646 N-D°63.

1. Institutul de Cercetari Chimice al Ministerului Industriei
Petroliului si Chimiei (for Tanco).

BUTACIU, Florica; ALEXANDRU, L.

Separation and purification of polyvinyl alcohol after the
hydrolysis operation. Rev. chimie Min petr 14 no.10:596-
599 0'63.

R/003/60/011/008/001/005
A125/A026

AUTHORS: Moldoveanu, A.; Butaciu, I., Engineers

TITLE: Development of the Synthetic Rubber Industry ¹⁶

PERIODICAL: Revista de Chimie, 1960, Vol. 11, No. 8, pp. 442 - 446

TEXT: Subject article deals with the development of the Rumanian synthetic rubber industry. The following installations will be established: The Petrochimic Combinat (Petrochemical combine) in Borzesti, which will be put into operation step by step starting in 1960; a new Petrochemical combine in Ploesti; and a new synthetic rubber plant, the construction of which will soon be started. The capacity of the existing plants will be increased. Natural gas and casing-head gas will be used for the production of synthetic rubber. The construction of the first Rumanian Combinatul de cauciuc sintetic si produse petrochimice (Synthetic Rubber and Petrochemical Products Combine) in Borzesti was started with Soviet help in 1957 - 1958. The combine is to produce 50,000 t synthetic rubber, 18,000 t phenol and 11,000 t acetone yearly. The synthetic rubber will be a product of the copolymerization of butadiene and α -methylstyrene produced by the same Combine. The raw material i.e., butadiene, butane-butylene fractions, propane-propylene

Card 1/2

Development of the Synthetic Rubber Industry

R/003/60/011/008/001/005
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fractions and benzene, will be mainly supplied by the Refinery in Borzești. Reference is made to the cold and warm copolymerization of butadiene and α - methylstyrene. Production of soft rubber with a deformation index "Defo" of approximately 600 - 800 is planned. For production of tires the Rubber Combine in Borzești will produce soft divinylmethylstyrenic rubber mixed with natural rubber. The production of butylic and isoprenic rubber is also considered to be advantageous for Rumania. The authors briefly describe these two types of rubbers, mentioning the Soviet methods of M.O. Farberov and M.S. Nemtov, worked out for the production of isoprene. ✓

Card 2/2

BUTACIU, J.

~~BUTACHU~~, Yu. [Butaciu, J.], inzh.

Petroleum chemistry. Nauka i zhizn' 25 no.5:53-55 My '58.
(MIRA 11:5)

1. Tekhnicheskiy direktor instituta neftekhimii "Petrokhim,"
Ploeshti, Rumynskaya Narodnaya Respublika.
(Rumania--Petroleum industry)

BUTAKOV, A.

Calculation of the hydraulic jump. Rech. transp. 21 no.2:48-49
F '62. (MIRA 15:3)
(Hydraulic jump)

BUTAKOV, A.A.; SHMELEVA, V.M.; IRKHO, O.G.; ROZHINA, L.I.; KLUSS, Yu.A.;
AKSYUTICH, Yu.A.

Conference of the readers of the periodical Plasticheskie massy.
Plast. massy no.4:79 '65. (MIRA 18:6)

L 53651-65 EWT(1)/EBC(m)/EWT(m)/EPF(e)/EPR/EWP(j)/T/EWA(h) P₂A/P₂L/P₂C
P₂L/P₂S-4/P₂L-4 W₂/W₂M

ACCESSION NR: AP5010000

UR 0112/4 (see/see/see/see/see/see)

AUTHORS: Kharitsyn, I. M.; Vorobtsov, V. N.; Putakov, A. I.

TITLE: Practical use of the UDU-2 and UED-2 level gages

SOURCE: Nefteprozrabotka i neftekhimiya, no. 3, 1985, 43-4

TOPIC TAGS: Fuel tank, storage tank / UDU-2 level gage, UED-2 level gage

ABSTRACT: The authors discuss some of the disadvantages of the UDU-2 and UED-2 level gages for use in storage tanks of petroleum products. The disadvantages are: the gages are complicated and frequent repairs are required. The equipment is very heavy and difficult to handle. The gages are covered with heavy grease about the pulley, and this too freezes in cold weather. The measuring disk gets tangled after long use and becomes unusable. A number of modifications are suggested. The use of a roller instead of a pulley is suggested for both gages. A roller can be rolled over the measuring disk, and with the use of the polyfluorocethylene roller of a certain length is employed. The modifications are shown in Figures 1 and 2 on the enclosure. Fig. 1, 2.

Cont 1/4

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ASSOCIATION: none

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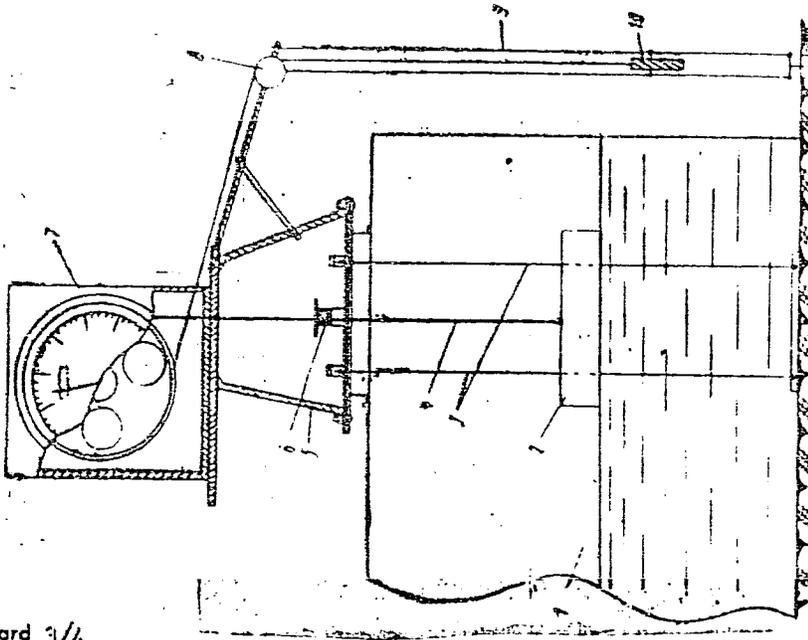


Fig. 1.

Modified setup for the UDU-2

- 1- tank with liquid oil product; 2- float;
- 3- guide cables for the float; 4- cable to indicator; 5- stand; 6- felt plug; 7- level gauge indicator; 8- polyfluoroethylene resin pulley; 9- guide cables for counterbalance; 10- counterbalance.

Card 3/4