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Study of cytopathic agents isolated from Ixodes persulcatus ticks. Acta virol. (Praha)[Eng] 7 no.5:475 S '63.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.

(VIRUSES) (TICKS)

LIBIKOVA, H.

Assay of the tick-borne encephalitis virus in HeLa cells. III. Selection and properties of virus antigens for an in vitro neutralization test. Acta virol. (Praha)[Eng] 7 no.6:516-524 '63.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.
(ENCEPHALITIS VIRUSES) (VIRUS CULTIVATION)
(TISSUE CULTURE) (NEUTRALIZATION TESTS)

LIBIKOVA, H., REHACEK,J.; GRESIKOVA, M.; KOZUCH,O.; SOMOGYIOVA,J. Ernek, E.

Cytopathic viruses isolated from ixodes ricinus ticks in Czechoslovakia. Acta virol (Praha) [Engl] 8 no.1:96 Ja'64.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.

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Tick-borne encephalitis viruses recovered by different methods from Ixodes persulcatus ticks. J.hyg. epidem., Praha 8 no.1: 77-86 '64.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.

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MAYER, V.; KOZUCH, O.; LIBIKOVA, H.; ZAVADA, J.

Some biological and physico-chemical properties of Kemerovo virus. Acta virol. (Praha) [Eng.] 8 no.4:302-311 Jl '64.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.

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Isolation from Ixodes persulcatus ticks of cytopathic agents (Kemerovo virus) differing from tick-borne encephalitis virus and some of their properties. Acta virol. (Praha) [Eng.] 8 no.4:289-301 Jl '64.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.

LIBIKOVA, H.

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1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.

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1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.

KOSYAKOV, K.S.; LIBIKOVA, N.I.; MERKINA, T.N.

Excretion of desocycytidine in the urine in acute radiation sickness. Med.rad. no.3:31-35 '62. (MIRA 15:3)
(RADIATION SICKNESS) (CYTIDINE)

LIBIKOVA, N.I.

Effect of cystamine and S-B-aminoethylisothiouronium on the activity deoxyribonuclease II in the spleen and thymus of irradiated rats. Vop.med.khim. 11 no.5:65-68 S-O '65. (MIRA 19:1)

1. Voyenno-meditsinskaya ordena Lenina akademiya imeni S.M.Kirova, Leningrad. Submitted May 13, 1964.

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Isolating from the tick Ixodes persulcatus and from sick persons in Western Siberia a virus differing from the pathogen of tick-borne encephalitis. Vop. virus. 8 no.1:98-99 Ja-F'63. (MIRA 16:6)

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Libin, A.L.

NOGALLER, A.M.; PLAKSIN, V.A.; TSESEL'SKIY, D.S.; LIBIN, A.L.; MEZENIN, N.N.; CHIGRINTSEVA, M.F.; DEM'YANOVSKAYA, Z.N.

Using low-calory diets in the compound treatment of hypertension at the Kislovodsk health resort. Vop.pit. 16 no.1:76-78 Ja-F '57. (MLRA 10:3)

1. Iz Bal'neologicheskogo instituta na Kavkazskikh mineral'nykh vodakh i sanatoriyev imeni Lenina, imeni X let Oktyabrya, "Skala", "Gornyak" No.3 i No.19 Kislovodskogo kurorta.

(HYPERTENSION) (KISLOVODSK--DIET IN DISEASE)
(DIET IN DISEASE)

LIBIN, A.L.; MIROLYUBOVA, Z.A.; GOLIKOV, V.G.; FILIPPOVA, L.S., red.; KHITROVA. N.A., tekhn. red.

[New putty materials for the sealing of freight car bodies] Novye shpaklevochnye materialy dlia uplotneniia kuzovov vagonov. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1960. 9 p. (MIRA 14:12)

(Plastics) (Railroads—Freight cars) (Grain—Transportation)

LIBIN, A.L., inzh. (Sverdlovsk); MIROLYUBOVA, Z.A., inzh. (Sverdlovsk); PASHKEVICH, M.Yu., inzh. (Sverdlovsk)

Investigating the strength characteristics of polymeric mastic for the repair of freight cars. Zhel.-dor.transp. 45 no.12:18-20 D '63. (MIRA 17:2)

1. POPOV, V. YE. and LIBIN, B. L. and FEDOTOV, I. M.

2. USSR (600)

4. Agricultural Machinery

7. Mechanization of post-harvest handling of grain seed. Sel.i sem. 19 no. 12, 1952.

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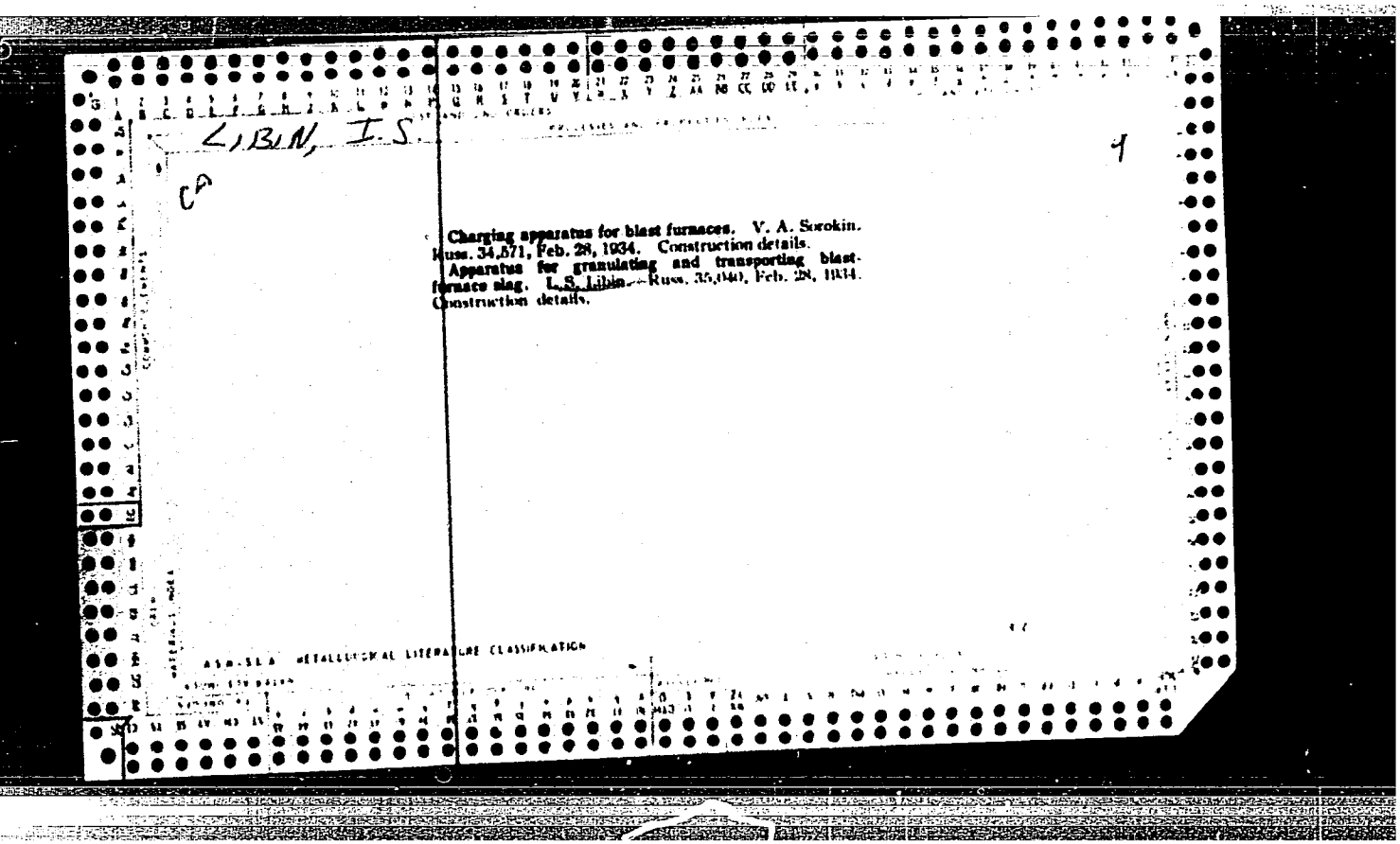

LIBIN, I.S.

CA

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Apparatus for granulating and transporting blast-furnace slag. L. S. Libin. Russ. 35,040, Feb. 28, 1934. Construction details.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

LIBIN, I. Sh.

USSR/Electricity - Discharge, Gas Apr 51

"Widening of Impulse Discharge Channel Through Inert Gases," K. S. Vulfson, I. Sh. Libin, All-Union Elec Eng Inst

"Zhur Eksper i Teoret Fiz" Vol XXI, No 4, pp 510-513

Measured velocity of widening of spark discharge channel through argon, krypton and xenon by rotating mirror. Observed glowing of gas under action of reflected shock wave. Describes case of formation of 2 independent channels in gases.

LC

180T41

VUL'FSON, K. S., LIBIN, I. Sh.

Spectrophotometer

Slit radiator for spectrophotometric measurements. Zhur.tekh.fiz. 22 no. 3 (1952)

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VUL'FSON,K.S.; LIBIN,I.Sh.; CHARNAYA,F.A.

Investigation of the instantaneous brightness of impulse discharge channels in inert gases. Izv. AN SSSR. Ser. fiz. 19 no.1: 61-64 Ja-F '55. (MLRA 8:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy svetotekhnicheskiy institut.

(Spectrum analysis) (Spectrometer)

LIBIN, Izrail' Shneyerovich; VUL'FSON, K.S., redaktor; SKVORTSOV, I.M., tekhnicheskiy redaktor

[Stroboscopes and their use] Stroboskopy i ikh primenenie. Moskva, Gos. energ. izd-vo, 1956. 39 p. (Massovaia ratiobiblioteka, no.246) (Stroboscope) (MLRA 9:11)

SOV/137-58-9-18747

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 85 (USSR)

AUTHOR: Libin, S.G.

TITLE: Analysis of the Operation of Electrostatic Precipitators at the Noril'sk Kombinat (Analiz raboty elektrofil'trov na Noril'skom kombinate)

PERIODICAL: Sb. materialov po pyleulavlivaniyu v tsvetn. metallurgii, Moscow, Metallurgizdat, 1957, pp 177-185

ABSTRACT: Data are presented on the operation of electrostatic precipitators (EP) at the following plants of the Noril'sk Kombinat: Nickel, copper, and by-product metals. At the nickel plant, the shaft-furnace gases are cleaned in 5 GK-30 EP units. The gas velocity in the EP is 1.2-1.3 m/sec. The dust burden of the gases at the EP inlets is 0.8-1.7 g/nm^3, while at the outlet it is 0.07-0.13 g/nm^3. The high C content of the dust (up to 25%) reduces the operating voltage of the EP (220-230 v). The gases of 2 ten-hearth matte-roasting furnaces are cleaned in a vertical 5-compartment EP with two gas ducts and rod-type precipitating electrodes. The gas velocity in the EP is 1.2-1.3 m/sec. The dust burden of the gases at the EP inlets is 3.5-5 g/nm^3,

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SOV/137-58-9-18747

Analysis of the Operation of Electrostatic Precipitators (cont.)

while at the outlet it is 0.15-0.25 g/nm^3. At the copper plant converter gases are purified in 4 EP of model GK-30. At the by-products metals plant the ventilation air and the industrial gases of the roasting furnaces and the DP electric furnace for anode melting are cleaned in 16 model M-134 EP. The EP are divided into 5 groups. Before entering the EP, the gases and ventilation air are cooled in scrubbers. A description of the wet EP process is provided. Dust content at the EP outlet, in g/nm^3: 1st, 3rd, and 5th groups 0.0007-0.005, 2nd group 0.003-0.007, 4th group 0.0009. Also see RZhMet, 1958, Nr 8, abstract 16596-16603.

G.G.

1. Electrostatic precipitators--Operation 2. Electrostatic precipitators--Analysis

Card 2/2

AUTHOR: LIBIN,I.Sh.

TITLE: A Multivibrator with Negative Feed-Back. (Mul'tivibrator s otritsatel'noy obratnoy svyaz'yu, Russian)

109-6-15/17

PERIODICAL: Radiotekhnika i Elektronika, 1957, Vol 2, Nr 6, pp 809-810 (U.S.S.R.)

ABSTRACT: The use of multivibrators in various devices is often limited by an insufficient frequency stability of the oscillations generated by them, when the voltage feed varies. The author here describes the fundamental system of a multivibrator with negative feed-back which is to an essential extent free from this deficiency. The peculiarity of the system is as follows: Due to the potentiometer of the negative feed-back R_1R_2 part of the voltage is directed from the anode of tube L_1 to the line of tube L_2; the presence of the resistance $R_{g2} \gg R$ in the line current circuit of tube L_2 and the negative feed-back do not disturb the conditions for the development of rectangular oscillations in the system. The time constant $C_1R_{g1} \gg CR$ was chosen in such a manner that the pitching moment of the circuit in any given case is determined by the modification of the current by tube L_2. The stabilizing action of the negative feed-back is explained by the fact that in its presence the pitching moment of the system is

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SOV/120-58-6-23/32

AUTHOR: Libin, I. Sh.

TITLE: A Stroboscopic Tube (Strobotron)

PERIODICAL: Pribory i tekhnika eksperimenta, 1958, Nr 6, pp 105-106 (USSR)

ABSTRACT: The tube described is known as the Strobotron type STN-1, and it is in the form of a cold-cathode tube provided with two grids. The tube iscapable of supplying current pulses of up to several hundred A, having a duration of 10^{-5} sec; the average operating current is 50 mA at the repetition rate of 250 p.p.s. The tube is filled with neon at a pressure of 20 mm Hg. In normal operation, the tube is connected in a charging circuit, such as shown in Fig.2; in this, one of the grids is given a positive potential while the other is used as a triggering electrode. The triggering pulses are negative and produce a discharge between the grids, which leads to the breakdown of the anode-cathode gap. The tube is normally operated with anode voltages ranging from 200-300 V. The screen grid of the tube is made of a metal which

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SOV/120-58-6-23/32

A Stroboscopic Tube

is coated with a layer of carbon. The operating life of the tube (when run at 250 p.p.s.) is between 600 and 900 hours; this compares very favourably with the life of the normal American stroboscopic tubes. The paper contains 3 figures and 6 references; 4 of the references are English and 2 are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy svetotekhnicheskiy institut (All-Union Scientific Research Institute for Illumination Engineering)

SUBMITTED: December 6, 1957.

Card 2/2

AUTHOR: Libin, I. Sh. SOV/120-59-2-36/50

TITLE: A Stroboscopic Tachometer (Stroboskopicheskiy takhometr)

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 2, pp 121-123 (USSR)

ABSTRACT: An electronic stroboscopic tachometer is described which was designed to measure angular velocities between 250 and 30 000 revs/min. The accuracy of the strobo-tachometer is 0.2-0.5% and this is due to the use of a frequency divider with a variable conversion coefficient. Since most of the contemporary strobotachometers (Ref 1) have an accuracy not exceeding 1-2% the present tachometer is an important advance. The electronic circuit of the strobotachometer now described is shown in Fig 1. The master oscillator is an RC oscillator of sufficiently high stability and giving a sinusoidal output. The output of the oscillator is fed to the grid of a limiter which produces pulses suitable for the control of the frequency divider. The frequency dividing circuit includes a set of seven cells connected in series and consisting of germanium triodes connected as shown on the lower left hand side of Fig 1. The output of each

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cell is applied through a switch to the grid of an amplifying valve. The output of the latter valve is then used to fire the thyratron which controls the repetition frequency of the pulsed source of light. Since the repetition frequency at the output of each cell in the frequency divider is lower by a factor of 2 than the corresponding frequency at the output it follows that when the master oscillator frequency varies between 500 and 1000 c/s, the repetition frequency of the light pulses varies between 4 and 500 c/s. The light source was in the form of a spherical xenon filled lamp shown in Fig 2. There are 3 figures and 8 references, of which 1 is English and 7 are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy svetotekhnicheskiy institut (All-Union Technology of Light Scientific Research Institute)

SUBMITTED: February 14, 1958

05471
SOV/120-59-3-42/46

AUTHORS: Libin, I. Sh., and Rokhlin, G. N.

TITLE: A High-Temperature Vacuum Furnace (Vysokotemperaturnaya vakuumnaya pech')

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 3, pp 150-151 (USSR)

ABSTRACT: Fig 1 shows the furnace generally. The leads, base, and body of the furnace are cooled by running water. Rubber ring seals are used between the body and the base, and on the viewing port (AB). The body is lifted by wires operating over pulleys with counterweights. Fig 2 shows the demountable heaters and connecting leads, etc. Tantalum wire is used to give temperatures up to 2000°C; nichrome is used for temperatures up to 1000°C. The heated volume at 2000°C is about 20 cm^3; at lower temperatures volumes up to 100 cm^3 can be used. The heaters are screened by molybdenum foil to reduce the heat losses. There are 2 figures.

ASSOCIATION: Svetotekhnicheskiy institut (Institute of Light Technology)

SUBMITTED: February 27, 1958

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SOV/120-59-4-40/50

AUTHOR: Libin, I. Sh.

TITLE: A Tubular Stem for Sealing Off High-Pressure Vessels

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 4, p 148 (USSR)

ABSTRACT: It is often necessary to fill a glass vessel (e.g. a gas-discharge tube) with gas at several tens of atmospheres. Filling with gases which do not condense at the liquid-nitrogen temperature meets with serious difficulties during sealing-off of the vessel from the reservoir with compressed gas. Fig 1 shows a tubular glass stem which can be used for this purpose. The stem is similar to the well known capillary device ("chortik") used for admission of gas from glass cylinders into vacuum systems. After filling the vessel with gas the open end of the capillary shown inside the stem (Fig 1) is sealed off by high-frequency heating of a small metal cylinder placed round the capillary. Since the pressures in the outer tube of the stem and in the capillary are equal, the sealing-off process presents no difficulties. To protect the sealed-off capillary from damage the outer tube of the stem is also sealed off (if necessary the outer tube may be evacuated). When the metal cylinder employed for high-frequency heating is removed, the stem described here can be used as a leak valve in the same way as the "chortik" capill-

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A Tubular Stem for Sealing Off High-Pressure Vessels

ary. If the dimensions of the vessel being filled with compressed gas prevent fitting of a high-frequency inductor over the stem, it is possible to admit a gas from a side tube, shown dashed in Fig 1. In the case of filling of quartz vessels, the high-frequency heating may be dispensed with. The internal capillary made of the usual glass is then sealed to the outer (quartz) tube of the stem by means of intermediate glasses. The capillary is sealed off by heating the outer tube of the stem with a gas burner. The same procedure can be used for stems whose outer walls are made of metal. The use of high-frequency heating may also be avoided as follows: the stem has a "neck" or a partition with an opening small enough to ensure a small rate of leak through it. After a certain time which is necessary to fill the vessel with compressed gas the stem is evacuated and

A Tubular Stem for Sealing Off High-Pressure Vessels

rapidly sealed off: due to the small rate of passage of gas through the partition or "neck", the pressure in the sealed-off tube will be very small. The methods described here are simple, reliable, and are suitable for laboratory conditions. There is 1 figure. Note: This is a complete translation.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy svetotekhnicheskiy institut (All-Union Scientific Research Institute for Illumination)

SUBMITTED: June 14, 1958.

AUTHOR: Libin, I. Sh. SOV/109-4-6-16/27

TITLE: Destruction of the Cathode in Pulse Discharges in Rare Gases (O razrushenii katoda v impul'snom razryade v inertnykh gazakh)

PERIODICAL: Radiotekhnika i elektronika, 1959, Vol 4, Nr 6, pp 1026 - 1032 (USSR)

ABSTRACT: The investigation was carried out on the electrodes which were in the form of small rods with rounded ends. The diameter of the electrodes was 2.5 mm and their length 5 mm. The electrodes were de-greased, then weighed and fixed in special clip holders. The holders with the electrodes were sealed in a glass tube, 4 mm apart. The tube was also provided with a trigger electrode which was situated at a distance of 1 mm from the cathode. The tube was then filled with a rare gas and sealed off. Next, the tube was connected into the circuit shown in Figure 1. This operated at 50 c.p.s; the capacitor C was charged through the rectifier tube to a voltage U which could be varied from 0 to 700 V. After a certain

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period of operation, the investigated tube was dismantled, the electrodes were taken out from their terminals and weighed. The amount of metal lost by the electrodes during the operation could be determined by comparing the weight of an electrode with its original weight. The loss of metal as a function of time is illustrated in Figure 2, where the ordinates show the decrease in weight in mg, while the abscissae give the operation time in hours. Table 1, p 1028, shows the metal "evaporation velocity" for the electrodes of various metals. The dependence of the evaporation rate on the pressure inside the tube for various types of fillings is illustrated in Figure 3. Figure 4 shows the dependence of the evaporation velocity as a function of the resistor R , which is connected in series with the tube (Figure 1). It was found that the evaporation velocities for various metals, as referred to the velocity of zinc, are independent of the type of gas, provided the pressure is the same in all cases; this is illustrated by the results given in Table 2, p 1029.

Destruction of the Cathode in Pulse Discharges in Rare Gases

The experimental results can be explained if it is assumed that the local melting of the cathode in pulse discharges is caused by the bombardment of the cathode by positive ions. It is shown theoretically that the pulverisation rate L of the cathode should be equal to:

$$L = 7.2\rho 10^{-3} \frac{V_i C U f W}{e\gamma T_o \sqrt{M}} = 7.2 \cdot 10^{-3} \frac{V_i i W}{e\gamma T_o \sqrt{M}} \qquad (6)$$

where M is the molecular weight of the gas in the tube,
f is the repetition frequency of the discharge pulses,
i is the average value of the current flowing through the tube,
γ is the specific thermal capacity of the cathode material,
T_o is the melting-point temperature of the cathode and

W is the probability of the transfer of the energy of the ions to the cathode.

Eq (6) was used to determine the pulverisation rates for the cathodes of various metals. The results are shown in Table 3, p 1031, together with the experimental data. It is seen that the theory and the experiments are in good agreement. From the above investigation, it is concluded that the destruction of the cathode in a pulse discharge is caused by the ion bombardment, the process being similar to that encountered in a DC discharge at low pressures. The author expresses his gratitude to Professor K.S. Vul'fson for his advice and to R.S. Nakhmanson for discussing the results. There are 5 figures, 3 tables and 10 references, of which 5 are Soviet, 3 English, 1 German and 1 Czech.

SUBMITTED: April 23, 1958

LIBIN, I.Sh., inzh.; SKOBLOVA, V.I., inzh.

Determination of critical stroboscopic lighting level.
Svetotekhnika 8 no.12:14-16 D '62. (MIRA 16:1)

1. Vsesoyuznyy svetotekhnicheskiy institut.
(Stroboscope)
(Medical electronics--Equipment and supplies)

BYKHOVSKAYA, L.N., kand. tekhn. nauk; LIBIN, I.Sh., kand. tekhn. nauk; CHARNAYA, F.A.

Nitrogen impulse lamps. Svetotekhnika 9 no.10:21-22 O '63. (MIRA 16:11)

1. Vsesoyuznyy svetotekhnicheskiy institut.

L 11065-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACC NR: AT6001391 SOURCE CODE: UR/3180/64/009/0[illegible]/0106/0108

AUTHOR: Bykhovskaya, L. N.; Libin, I. Sh.; Charnaya, F. A. 33 B+1

ORG: none

TITLE: Nitrogen flash lamps

SOURCE: AN SSSR. Komissiya po nauchnoy fotografii i kinematografii. Uspekhi nauchnoy fotografii, v. 9, 1964. Vysokoskorostnaya fotografiya i kinematografiya (High-speed photography and cinematography), 106-108

TOPIC TAGS: flash lamp, nitrogen, optic brightness

ABSTRACT: Sealed flash lamps filled with nitrogen at pressures up to about 10 atm were prepared. The maximum instantaneous brightness was measured with a UIF-1 VNISI pulse photometer. Saturation of maximum brightness was found to occur at nitrogen pressures above 6 atm at U = 12 kv. By raising the gas pressure in the lamp, one can substantially decrease the voltage at which a given peak value of brightness is attained. Up to 15 atm, the maximum brightness of lamps operating under saturation conditions is practically independent of the pressure; an increase in pressure merely prolongs the radiation. The effects of pressure, distance between electrodes and inductance of the discharge circuit on the voltage at which brightness saturation is achieved are the same as in inert gases. The absolute value of the brightness of ni-

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trogen lamps under saturation conditions is more than double that of xenon lamps since the radiation pulse is much shorter. In the entire spectral range where saturation is attained, the discharge channel as a radiator is very close to a black body when the brightness reaches its maximum value. Orig. art. has: 2 figures.

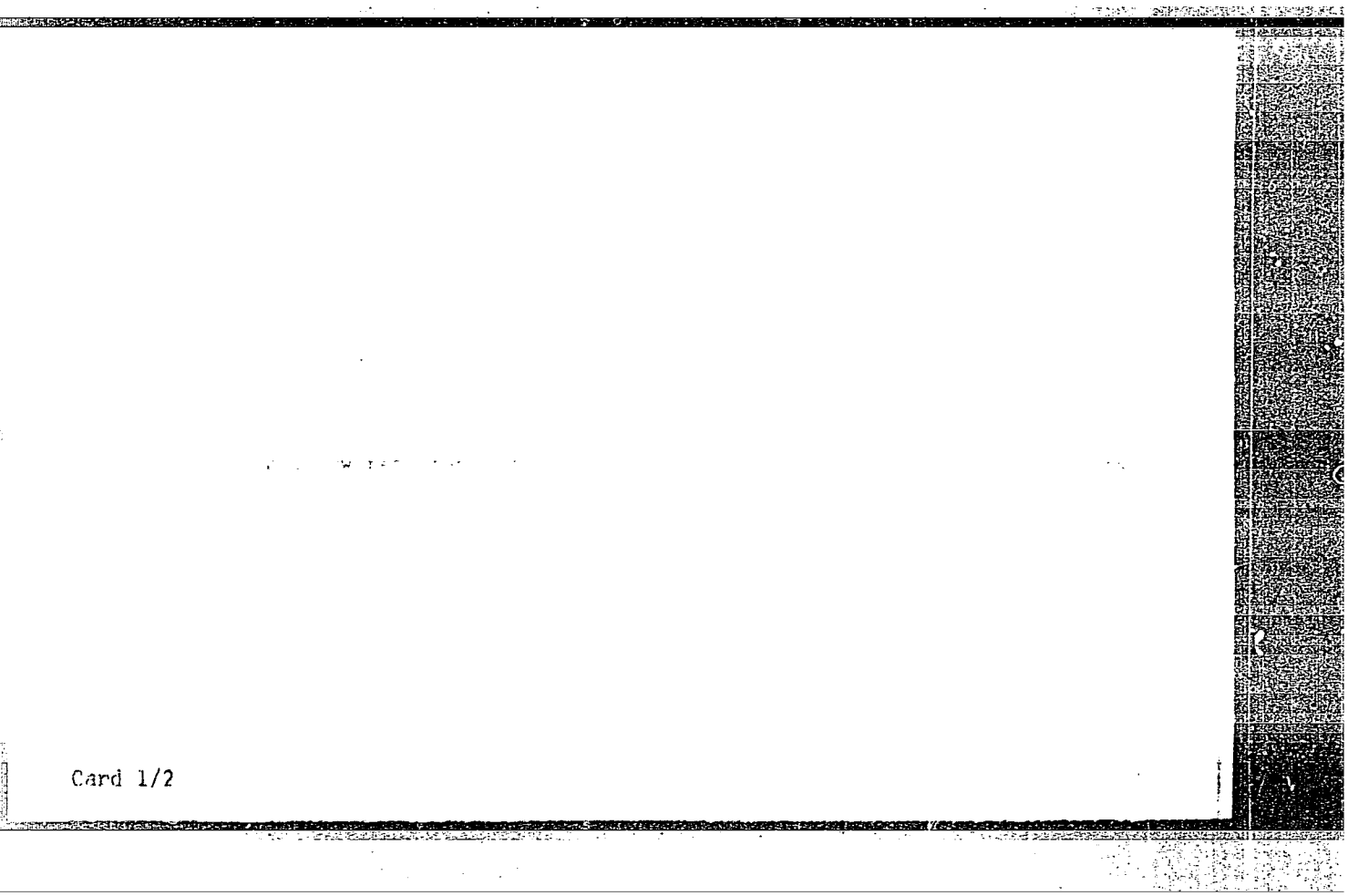
SUB CODE: 13,20 SUBM DATE: 00/ ORIG REF: 007/ OTH REF: 002

Card 2/2

VUL'FSON, K.S.; LIBIN, I.Sh.; CHERNYAK, A.Sh.

Mechanism underlying the appearance of additional radiation peaks following a pulse discharge in Neon. Dokl. AN SSSR 163 no.5:1113-1114 Ag '65. (MIRA 18:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy svetotekhnicheskiy institut. Submitted February 2, 1965.



APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000929820(

L 65182-65
ACCESSION NR: AP5021271

arise in the discharge plasma when there is a sharp change in the discharge current. This hypothesis was experimentally checked by the oscillograph method. It was found that any sharp change in the discharge current, no matter what the causes of this change, is always accompanied by secondary peaks in the neon emission. The amplitude of these peaks is directly related to the rate of change in the discharge current, and in certain cases is 8-10 times greater than that of the fundamental radiation peak. An inductance connected in series with the neon tube or with the bypass discharger always reduced the amplitude of these peaks, or eliminated them entirely. Analysis of the distribution of illumination in the cross section of the discharge also confirms the new hypothesis on the mechanism responsible for this phenomenon. It is noted that could possibly be used for producing extremely intense light pulses with [illegible]. Orig. art. has: 2 figures.

[illegible]

[illegible] ME

ACC NR: AP6034247 (N) SOURCE CODE: UR/0120/66/000/005/0237/0240

AUTHOR: Libin, I. Sh.; Varfolomeyev, L. P.

ORG: VNI Institute of Light Technology, Moscow (VNI svetotekhnicheskiy institut)

TITLE: An instrument for testing of high-speed miniature motors

SOURCE: Pribory i tekhnika eksperimenta, no. 5, 1966, 237-240

TOPIC TAGS: electric motor, magnetic field, electronic measurement, magnetic field measurement, velocity measuring instrument

ABSTRACT: A method used to analyze performance of high speed miniature electric motors is described. The magnetic field surrounding the motor during its operation is sensed, and its ac components corresponding to the instantaneous motor angular velocity n, as well as those corresponding to the slip $f-n$, where f is line frequency, are isolated and recorded. The field is sensed by a small coil with a ferrite core. The line frequency component f is filtered out by means of an M-derived resonant filter. A low-pass filter is used to suppress the $f+n$ and higher harmonic field components. A special automatically tuned filter separates the $f-n$ and $f-2n$ components. The response of this filter depends on the approximate value of the instantaneous motor velocity. The filtered signals corresponding to n or $f-n$ are detected and the varying dc levels are recorded on an X-Y recorder. An instrument based on these principles was constructed

Card 1/2 UDC: 621.317.39:531.7:621.313.13-181.4

ACC NR: AP6034247

and used to investigate the relations of speed, acceleration, torque and load in small electric motors. The contactless method of measurement is particularly advantageous because of its ease of application, accuracy and flexibility. Orig. art. has: 5 figures.

SUB CODE: 09/ SUBM DATE: 21Oct65/ ORIG REF: 004/ OTH REF: 001

Card 2/2

BERRI, R.Ya., dotsent; KOZYLYAYEV, P.A., dotsent; LUNTS, G.L., dotsent; LIBIN, M.L., starshiy prepodavatel'; ROZENTAL', M.I., assistent. Prinimali uchastiye: FUKS, B.A., prof.; VOYEYKOVA, S.V., dotsent; KOZITSIN, V.I., dotsent; TEUSH, V.L., dotsent. ANOSHINA, K.I., red.; KUZ'MINA, N.S., tekhn.red.

[Higher mathematics; instructions and control problems for students specializing in agriculture, fish culture, and forestry in upper-level correspondence schools (departments)] Vysshaia matematika; metodicheskie ukazaniia i kontrol'nye zadaniia dlia studentov sel'skokhoziaistvennykh, rybokhoziaistvennykh i lesokhoziaistvennykh spetsial'nostei zaochnykh vysshikh uchebnykh zavedenii (fakul'tetov). Pod red. G.L.Luntsa. Moskva, Gos.izd-vo "Sovetskaia nauka," 1958. 90 p. (MIRA 12:4)

1. Russia (1923- U.S.S.R.) Ministerstvo vysshego obrazovaniya. Metodicheskoye upravleniye.
(Mathematics)

VINBERG, B.; LIBIN, S.

New trolley head. Zhil.-kom. khoz. 7 no.3:27-28 '57.
(MLRA 10:4)

1. Starshiy inzhener zavoda "Dinamo" im. S.M. Kirova (for Vinberg).
2. Starshiy inzhener Tramvayno-trolleybusnogo upravleniya Mosgorispolkoma (for Libin).
(Electric current collectors) (Trolley buses)

Libin, S.

LIBIN, S., inzhener.

Apparatus for reducing radio interference. Zhil.-kom.khoz.
7 no.9:12-14 '57. (MIRA 10:10)
(Radio--Interference)

9,1000 (2703, 2704, 1103)

S/109/60/005/011/004/014
E140/E483

AUTHOR: Libin, V.A.

TITLE: Certain Characteristics of Antennas with Arbitrary Polarization

PERIODICAL: Radiotekhnika i elektronika, 1960, Vol.5, No.11, pp.1786-1796

TEXT: The author introduces the polarization loss coefficient $K_{\Pi\Pi}$, termed "polarization efficiency" in Western literature, and derives its dependence on the antenna polarization parameters - the axial coefficients of the polarization ellipsi, the angles between their major axes and the direction of field vector rotation. The article contains graphs to support the contention that circular or elliptical polarization is superior to linear polarization. A diagram is given for calculating $K_{\Pi\Pi}$ for arbitrary values of the polarization parameters. Considerations are presented on the gain factor of antennas with arbitrary polarization and the calculation of the gain from measurements with arbitrary polarization characteristics. The dependence of the mean power over a scanning period on the polarization parameters is calculated

Card 1/2

88156
S/109/60/005/011/004/014
E140/E483

Certain Characteristics of Antennas with Arbitrary Polarization

and presented graphically. There are 6 figures and
5 references: all non-Soviet.

SUBMITTED: February 16, 1960

Card 2/2

LIBIN, V.A. [translator]; SHPUNTOV, A.I., kand. tekhn. nauk, red.; YAKIMENKO, L.P., red.; IOVLEVA, I.A., tekhn. red.

[Antennas with elliptical polarization; theory and practice. Collection of translated articles] Antenny ellipticheskoi poliarizatsii; teoriia i praktika. Sbornik statei. Moskva, Izd-vo inostr. lit-ry, 1961. 355 p. (MIRA 14:6)
(Antennas (Electronics))

LIBIN, V.A.

Polarization analyser. Radiotekh. i elektron.6 no.4:661-663 Ap '61. (MIRA 14:3)
(Polarization (Electricity))

DOLOTOV, V.S.; LIBIN, Ya.D.

Attachment for machining spherical surfaces. Mashinostroitel' no.1:27 Ja '65. (MIRA 18:3)

VINBERG, B.G., inzh.; LIBIN, Ye.B., inzh.

Improved design for the head of the trolley bus current collector. Gor. khoz. Mosk. 32 no.5:31-32 My '58. (MIRA 11:5)
(Trolley buses)
(Electric current collectors)

LIBIN, Ye.Yu., inzhener (Leningrad)

Eliminate self-braking in type P-27 tenders. Zhel.dor.transp. 39 no.9:81-82 S '57. (MIRA 10:10)
(Locomotives)

LIBIN, Yu. M.

24(0); 5(4); 6(2) PHASE I BOOK EXPLOITATION SOV/2215

Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni D.I. Mendeleyeva

Referaty nauchno-issledovatel'skikh rabot; sbornik No. 2 (Scientific Research Abstracts; Collection of Articles, Nr 2) Moscow, Standartgiz, 1958. 139 p. 1,000 copies printed.

Additional Sponsoring Agency: USSR. Komitet standartov, mer i izmeritel'nykh priborov.

Ed.: S. V. Reshetina; Tech. Ed.: M. A. Kondrat'yeva.

PURPOSE: These reports are intended for scientists, researchers, and engineers engaged in developing standards, measures, and gages for the various industries.

COVERAGE: The volume contains 128 reports on standards of measurement and control. The reports were prepared by scientists of institutes of the Komitet standartov, mer i izmeritel'nykh priborov pri Sovete Ministrov SSSR (Commission on Standards, Measures, and Measuring Instruments under the USSR Council of Ministers). The participating institutes are: VNIIM - Vsesoyuznyy nauchno-issledovatel'skiy metrologii imeni D.I. Mendeleyeva (All-Union Scientific Research Institute of Metrology imeni D.I. Mendeleyev) in Leningrad; Sverdlovsk branch of this institute; VNIIK - Vsesoyuznyy nauchno-issledovatel'skiy institut Komiteta standartov, mer i izmeritel'nykh priborov (All-Union Scientific Research Institute of the Commission on Standards, Measures, and Measuring Instruments), created from MOIMIP - Moskovskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Moscow State Institute of Measures and Measuring Instruments) October 1, 1955; VNIIFTRI - Vsesoyuznyy nauchno-issledovatel'skiy institut fiziko-tekhnicheskikh i radiotekhnicheskikh izmereniy (All-Union Scientific Research Institute of Physicotechnical and Radio-engineering Measurements) in Moscow; KhOIMIP - Kharkovskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Kharkov State Institute of Measures and Measuring Instruments); and NOIMIP - Novosibirskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Novosibirsk State Institute of Measures and Measuring Instruments). No personalities are mentioned. There are no references.

Card 10/27

SOV/120-59-1-22/50

AUTHOR: Libin, Yu. M.

TITLE: An Instrument for Measuring the Natural Decay Times of Quartz Crystals (Pribor dlya avtomaticheskogo izmereniya vremeni svobodnogo zatukhaniya kvartsevykh rezonatorov)

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 1, pp 89-92, (USSR)

ABSTRACT: The quantity actually measured is the time required for the oscillation amplitude to decay by a factor e or e^2. In the method given (Fig 1) the crystal is excited to oscillation in the circuit of the first tube and is then connected to the input of the wide-band amplifier built up round the next four tubes (by pressing the knob on the multiple-pole switch). The bandwidth is 1 kc/s to about 1 Mc/s. The output is rectified and filtered, and the resulting negative voltage is applied to the grids of the two thyratrons, one of which has a negative bias that is e or e^2 times the bias applied to the other. A signal lamp lights when the first thyratron fires; at the same time an electronic chronometer is started by the relay in the anode circuit, and the time taken for the second thyratron to fire is measured. The changeover switch is used to eliminate

Card 1/2

SOV/120-59-1-22/50

An Instrument for Measuring the Natural Decay Times of Quartz Crystals

errors caused by slight differences in the striking voltages of the thyratrons. The second part of the paper deals with the errors in the results caused by errors or fluctuations in the circuit parameters. The conclusion is that the error will not exceed 5% if the decay time is longer than 0.05 sec. The paper contains 2 figures, and 1 Soviet reference (translation of a Western book).

ASSOCIATION: Khar'kovskiy gosudarstvennyy institut mer i izmeritel'nykh priborov (Khar'kov State Institute of Measures and Measuring Instruments)

SUBMITTED: January 29, 1958.

Card 2/2

L 38980-66 EWT(l)/EWG(k)-2/EWT(m)/EWP(k)/T/EWP(a) IJP(c)

ACC NR: AT6022265 SOURCE CODE: UR/0000/66/000/000/0014/0017

AUTHOR: Gardash'yan, V. M.; D'yachenko, V. V.; Libin, Yu. V.

53
B+1

ORG: none

TITLE: Problems of investigation and design of pulsed lasers 15

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966. Sektsiya kvantovoy elektroniki. Doklady. Moscow, 1966, 14-17

TOPIC TAGS: ruby laser, solid state laser, pulsed laser, laser R and D

ABSTRACT: Various method for enhancing the mean output of ruby lasers and various factors influencing the laser efficiency are briefly discussed. The inside-ruby temperature can be measured as a function of cooling-liquid rate-of-flow and pumping power. The cooling efficiency increases by 2—2.5 times when the rate-of-flow is increased from 10 to 100 lit/min. The cooling efficiency can be enhanced by using a slit cut in the reflector along the ruby rod; this results in doubling the laser output (2 - flashtube pumping). Optimal ruby-rod diameter is 6—8 mm depending on cooling conditions. Rubies with uniformly distributed Cr have been grown in IK AN SSSR; they have a loss of only $\beta = 0.01$ per cm at an efficiency of 1.2%; they permit increasing the mean output by 1.5—2 times as compared to conventional rubies (0.03—0.04 per cm). Also a cooler water (0C instead of 25C) results in about 50% gain in the mean output. Fastening of the ruby rod and sealing its ends are also discussed, as is a new water-immersed ruby-rod laser design. Orig. art. has: 2 figures and 5 formulas. [03]

Card 1/1 UDC: 621.375.826

SUB CODE: 20 / SUBM DATE: 11Apr66/ ATD PRESS: 5050

L 04613-67 EWT(l)/EWP(e)/EWT(m)/EEC(k)-2/T/EWP(k) IJP(c) WG

ACC NR: AP6033539 SOURCE CODE: UR/0170/66/011/004/0526/0531

AUTHOR: Khromov, A. V.; Libin, Yu. V.

ORG: none

TITLE: The heat source density and the temperature field in a ruby laser crystal

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 11, no. 4, 1966, 526- 31

TOPIC TAGS: laser, ruby laser, laser heating, ~~ruby laser heating,~~ laser temperature, laser temperature field , absorption coefficient, laser pumping, heat source

ABSTRACT: An analytical investigation of the problem is made using a cylindrical ruby rod with a constant spatial absorption coefficient and a polished surface. An IFP-800 xenon lamp provided isotropic pulsed pumping radiation with an energy of 200 J at 800 v. The diameter of the rod was considered equal to 0.65 cm. It was assumed that only the 0.3 to 0.7-μ band of the pumping spectrum was effective. Secondary absorption of the luminescent radiation, the change of the absorption coefficient caused by depopulation of the ground level, and the effect of heating on the yield were neglected. The method of numerical integration of pumping and absorbing spectra was used to compute the heat source densities. These values were then applied for calculation of temperature fields under the assumption that the end faces of the crystal are thermally insulated and its surface has a constant coeffi-

Card 1/2 UDC: 536.21:548

L 04613-67
ACC NR: AP6033539

cient of heat transfer. Typical cases of pumping by rectangular, instantaneous, and bell-shaped pulses are considered. Orig. art. has: 2 figures and 21 formulas.

SUB CODE: 20/ SUBM DATE: 14Feb66/ ORIG REF: 008/ ATD PRESS: 5100

Card 2/2

LIBIN, Z. G. and RABINOVICH, U. L.

"Metody Matematicheskoi Fiziki," (Methods of Mathematical Physics), 2d Vol., 544 p., Moscow-Leningrad, 1951. Translated from German by the above.

LIBINA, A. Yu.

"The Use of Vicasol Vitamin K_3 in the Treatment of Gingivo-Stomatitis," Stomatologiya, No. 1, 1948.

Kharkov Stomatol Inst., -c1948-.

LIBINA, F.

New system of wages for workers in the finishing section of rolling mills. Biul.nauch.inform.:trud i zar.plata no.6:9-12 '59. (MIRA 12:9)

(Wages) (Kramatorsk--Metallurgical plants)

LIBINA, M.

Unusual substitute. Znan. ta pratsia no.5:16-18 My '62.
(MIRA 15:6)

(Perfusion pump (Heart))

DANILENKO, V.[Danylenko, V.]; LIBINA, M.

A little about everything. Znan. ta pratsia no.10:30 O '62.
(MIRA 15:10)

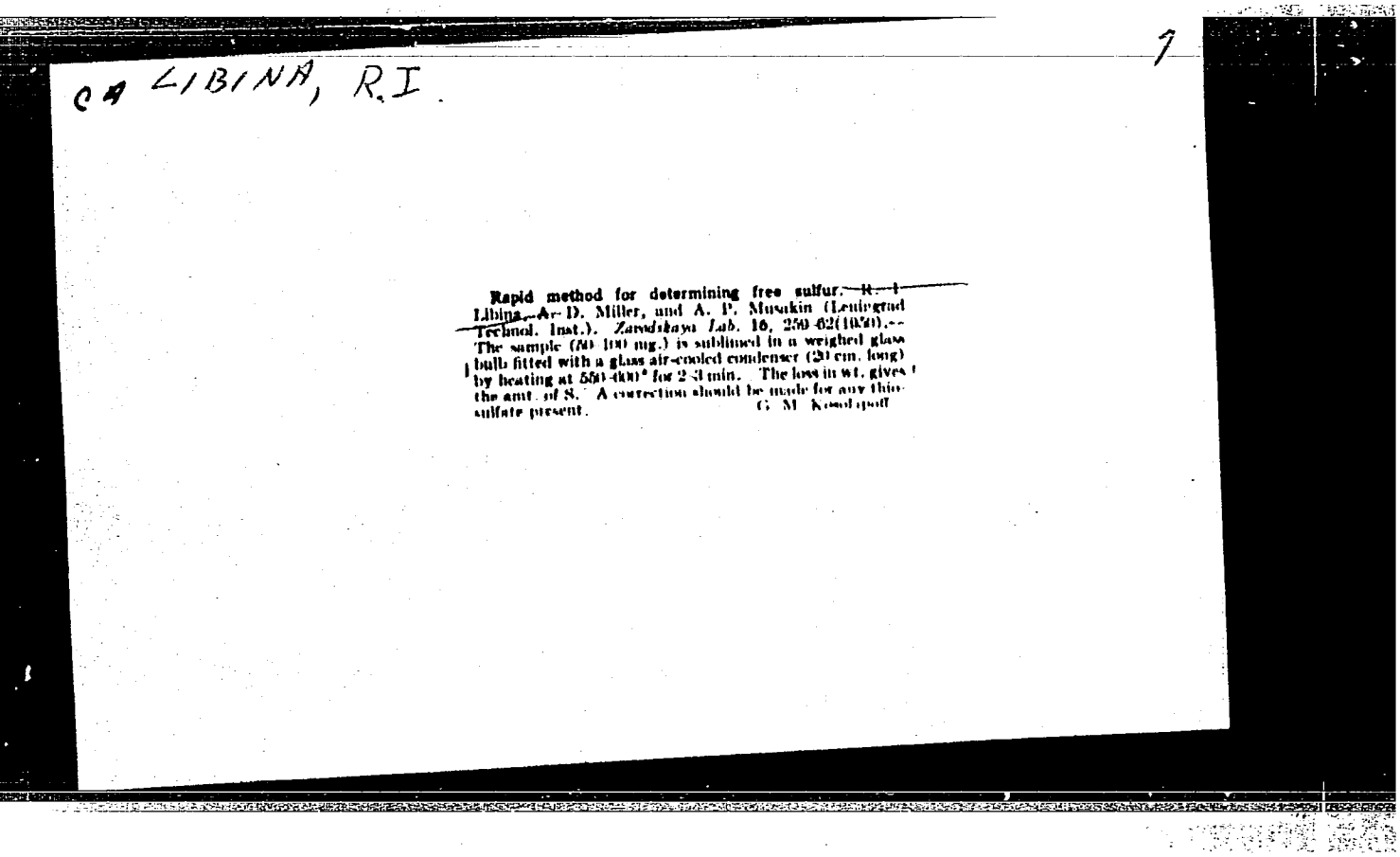
(Science news) (Technological innovations)

AGTE, A.N.; LIBINA, P.I.; MILLER, A.D.; MUSAKIN, A.P.

Calcination of ultramarine charges. Zhur. Priklad. Khim. 24, 1317-21 '51; J. Appl. Chem. (U.S.S.R.) 24, 1483-8 '51 [Engl. translation]. (MLRA 4:11) (CA 47 no.18:9627 '53)

ALESKOVSKIY, V.B., prof.; BARDIN, V.V.; BOYCHINOVA, Ye.S.; BULATOV, M.I.; VASIL'YEV, V.P.; DOBYCHIN, S.L.; DUSHINA, A.P.; KALINKIN, I.P.; KEDRINSKIY, I.A.; LIBINA, R.I.; PRIK, K.Ye.; SETKINA, O.N.; KHEYFETS, Z.I.; YATSIMIRSKIY K.B., prof.; VASKEVICH, D.N., red.

[Physicochemical methods of analysis ; a laboratory manual] Fiziko-khimicheskie metody analiza; prakticheskoe rukovodstvo. Moskva, Khimiia, 1964. 451 p. (MIRA 17:12)



C4 LIBINA, R.I.

7

Rapid method for determining free sulfur. R. I. Libina, A. D. Miller, and A. P. Musakin (Leningrad Technol. Inst.). *Zavodskaya Lab.* 16, 259-62(1950).—The sample (50–100 mg.) is sublimed in a weighed glass bulb fitted with a glass air-cooled condenser (20 cm. long) by heating at 550–600° for 2–3 min. The loss in wt. gives the amt. of S. A correction should be made for any thio-sulfate present. G. M. Kosolapoff

5(2)

AUTHORS: Miller, A. D., Libina, R. I. SOV/75-13-6-8/21

TITLE: Determination of Micro-Quantities of Copper, Lead and Zinc in Natural Water and Soil Extracts (K voprosu ob opredelenii mikrokolichestv medi, svintsa i tsinka v prirodnykh vodakh i vytyazhkakh iz pochv)

PERIODICAL: Zhurnal analiticheskoy khimii, 1958, Vol 13, Nr 6, pp 664-667 (USSR)

ABSTRACT: In the method of separation and determination of copper, lead and zinc by means of dithizon potassium cyanide is used for masking Cu and Zn in the determination of lead (Refs 1,2). The toxicity of KCN, however, is a great disadvantage in applying this method to fields. Furthermore KCN yields insufficient results of lead determination. Two procedures for the separation and subsequent determination of Cu, Pb and Zn without using potassium cyanide have already been devised. In the first method copper is extracted from hydrochloric solution by dithizon, or the sum of the dithizonates of all three elements is extracted from weakly ammoniacal solution in the presence of ammonium citrate, and Pb and Zn are re-extracted afterwards by 0.01 - 0.02 n HCl. In both cases

Card 1/4

copper is determined on the basis of the mixed coloring in the organic extract. The aqueous layer is turned ammoniacal, and Pb and Zn are extracted as dithizonates. The authors of the present paper found that lead can be re-extracted from the extract by means of an aqueous thiosulfate solution, if $p_H(\sim 6)$ is sufficiently low. The aqueous extract is turned ammoniacal, lead is extracted by a solution of dithizon in CCl_4 and zinc which has remained in the organic layer, is determined by comparison with standard solutions or re-extracted and titrated with dithizon. The second well-known procedure is based on the different stability of the solutions of diethyl dithiocarbamates of Cu, Pb and Zn in CCl_4 against hydrochloric acid. In acid aqueous solutions diethyl dithiocarbamic acid is rapidly destroyed (Ref 4). The carbamates of heavy metals, on the other hand, are not so easily destroyed by acids after extraction with carbon tetrachloride (Refs 5,6). Therefore, the authors decided to separate copper, lead and zinc by re-extraction with hydrochloric acid of different con-

centration. Zinc carbamate is quantitatively extracted by 0.1 n HCl, whereas lead carbamate is not influenced by this. It is destroyed by the action of 1 n HCl (completely by the action of 3 n HCl). Copper carbamate is not destroyed even by treatment with 6 n HCl. In the re-extraction Zn and Pb can be determined by dithizon. A method for the quantitative separation of lead from a mixture of the dithizonates of Zn and Pb (after normal separation of copper) was devised. It is based on the treatment with thiosulfate at $p_H \sim 5.5 - 6.0$.

The re-extracted lead is titrated with dithizon at $p_H \sim 8.5$.

A method for the separate determination of Cu, Pb and Zn was devised as well. The diethyl dithiocarbamates of zinc and lead are therein re-extracted with HCl of different concentrations and afterwards titrated with dithizon. This separation yields good results; in very low amounts of Pb (2-4γ), however, by far too high values for Pb are obtained at the expense of Zn traces. The performance of both methods is described in detail in the paper. No cyanide is used in either method, which are suited for geochemical work in fields.

Determination of Micro-Quantities of Copper, Lead and Zinc in Natural Water and Soil Extracts SOV/75-13-6-8/21

There are 2 tables and 7 references, 4 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut metodiki i tekhniki razvedki (All Union Scientific Research Institute for Methods and Technique of Prospecting) Leningradskiy tekhnologicheskiy Institut imeni Lensoveta (Leningrad Technological Institute imeni Lensovet)

SUBMITTED: January 8, 1957

Card 4/4

ALESKOVSKIY, V.B.; LIBINA, R.I.; MILLER, A.D.

Determination of microquantities of lead and copper in solutions after preliminary concentration by means of an ion exchange column. Trudy LTI no.48:5-11 '58. (MIRA 15:4)
(Lead--Analysis) (Copper--Analysis) (Ion exchange)

MILLER, A.D.; LIBINA, R.I.; NAZAROVA, Z.N.

Determination of micrograms of lead, copper, and silver in natural waters after concentration by the method of coprecipitation with calcium carbonate. Trudy LTI no.48:109-118 '58. (MIRA 15:4)
(Metals--Analysis) (Water, Underground)

24 (7)

AUTHORS: Setkina, O. N., Libina, R. I. SOV/32-25-6-24/53

TITLE: News in Brief (Korotkiye soobshcheniya)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 6, p 714 (USSR)

ABSTRACT: The authors report here that they have obtained an increased sensitivity in the spectral determinations of Li, Rb, Cs by causing scattering coronas of alkaline trace elements. Two drops of a saturated NaCl solution and one drop of a 10 % KCl solution are added to the liquid sample concentrates and standard samples (volume 1 ml) and one drop of the mixture is applied to the carbon electrode. The absolute sensitivity of the determination then amounts to $5 \cdot 10^{-10}$ g for Li, $5 \cdot 10^{-9}$ g for Rb and $5 \cdot 10^{-7}$ g for Cs. An increased sensitivity in spectral analyses may be attained also with other elements in a similar way, and a few examples are given in this connection. There is 1 Soviet reference.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut im. Lensoveta (Leningrad Technological Institute imeni Lensovet)

Card 1/1

DEGTYARENKO, A.P.; LIBINA, R.I.; MILLER, A.D.

Concentration by coprecipitation with sulfides and the determination of trace amounts of Cu, Zn, Pb, Co, Hg, Ag, V, W, and Mo, as applied to the analysis of natural waters. Gidrokhim.mat. 29:264-272 '59. (MIRA 13:5)

1. Leningradskiy tekhnologicheskiy institut im. Lensoveta, Kafedra analiticheskoy khimii.
(Trace elements) (Water--Analysis)

SOKOLOV, I.Yu.; AYDIN'YAN, N.Kh.; BELEKHOVA, V.N.; BRODSKIY, A.A., starshiy nauchnyy sotrudnik; GLEBOVICH, T.A.; DAIMATOVA, T.V.; KOMAROVA, A.I.; KOMAROVA, Z.V.; KOPYLOVA, M.M.; KUDRYAVTSEVA, M.M.; LIBINA, R.I.; LOGINOVA, L.G.; MARGOLIN, L.S.; MARKOVA, A.I.; MEDVEDEV, Yu.L.; MILLER, A.D.; MULIKOVSKAYA, Ye.P.; NECHAYEVA, A.A.; OZEROVA, N.V.; PALKINA, I.M.; PETROPAVLOVSKAYA, L.A.; POPOVA, T.P.; REZNIKOV, A.A.; SERGEYEV, Ye.A.; SETKINA, O.N.; STEPANOV, P.A.; SUVOROVA, Ye.G. [deceased]; SHERGINA, Yu.P.; PANOVA, A.I., red.izd-va; IVANOVA, A.G., tekhn.red.

[Methodological handbook on the determination of microcomponents in natural waters during prospecting for ore deposits] Metodicheskoe rukovodstvo po opredeleniiu mikrokomponentov v prirodnykh vodakh pri poiskakh rudnykh mestorozhdenii. Moskva, Gos.nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr, 1961. 287 p.
(MIRA 14:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrogeologii i inzhenernoy geologii (for Sokolov, Brodskiy, Glebovich, Ozerova, Kudryavtseva, Loginova, Markova, Medvedev, Belekhova, Palkina,

(Continued on next card)

SOKOLOV, I.Yu.---(continued) Card 2.
Popova, Petropavlovskaya). 2. Institut geologii rudnykh mestorozhdeniy, petrografii, mineralogii i geokhimii AN SSSR (for Aydin'yan). 3. Vsesoyuznyy nauchno-issledovatel'skiy institut metodiki i tekhniki razvedki (for Miller, Sergeyev, Margolin). 4. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut (for Mulikovskaya, Reznikov). 5. Vsesoyuznyy nauchno-issledovatel'skiy institut mineral'nogo syr'ya (for Komarova, A.).
(Prospecting---Geophysical methods)
(Water, Underground---Analysis)

LIBINA, R.I.; MARGOLIN, L.S.; MILLER, A.D.; SERGEYEV, Ye.A.

Method for analyzing natural waters and water extracts with extraction concentration of diethyldithiocarbamate microelements. Trudy VITR no.3:317-337 '61. (MIRA 15:7)
(Water, Underground--Analysis)
(Trace elements) (Carbamic acid)

ALESKOVSKIY, V.B.; KIRSANOV, A.I.; LIBINA, R.I.

Use of frothers in air drilling. Trudy VITR no.5:41-49 '62.
(MIRA 15:9)

(Drilling fluids)

87922
S/191/60/000/004/003/015
B016/B058

15.8340 2209

AUTHORS: Li, P. Z., Mikhaylova, Z. V., Sedov, L. N., Petrilenkova, Ye. B., Libina, S. L.

TITLE: Laminated Glass-reinforced Plastics. Report VIII. A Polyester Binding Agent for Glass-reinforced Plastics

PERIODICAL: Plasticheskiye massy, 1960, No. 4, pp. 9-12

TEXT: The authors describe polypentaerythrite dichlorohydrin maleinate phthalate (PDP), which was synthetized for the first time. It was the purpose of the study to widen the raw-material basis of polyvalent alcohols for the synthesis of unsaturated polyester resins by using polypentaerythrite. In contrast with the inadequate methods known, the authors proved that unsaturated polyesters with higher fire resistance can be synthetized by using a chlorine-containing alcohol component. For the polycondensation they used pentaerythrite dichlorohydrin (PED), which is formed by saponification of the reaction product of pentaerythrite and thionyl chloride in the presence of pyridine. PDP was synthetized from PED by adding maleic acid and phthalic anhydride (molar ratio 1.0 : 0.5 : 0.5) in

Card 1/2

Laminated Glass-reinforced Plastics.
Report VIII. A Polyester Binding Agent for
Glass-reinforced Plastics

the inert gas at 170-190°C (see scheme). The resin yield was 89 to 92% of the total content of all components. After solidification, PDF mixed with 1/5 styrene gives a product that is difficultly combustible and stops burning after removal of the flame. The product from 70 parts by weight of PDF and 30 units of styrene is still less combustible. PDF may be mixed with methyl methacrylate at any proportion, and its solution in styrene (45 : 55) does not tend toward stratification. Its solutions are gelatinized at room temperature within three hours in the presence of 6% isopropyl benzene hydrogen peroxide and 8% of the accelerator NK(NK). This also occurs within 15 minutes in the presence of 3% methyl-ethyl ketone peroxide and 3% NK. From PDF and glass fabric T$_1$ (T$_1$), the authors produced samples of self-extinguishing glass textolite, which are superior to the product from styrene resin TN-1 (PN-1) with respect to their most important mechanical and insulation properties. The authors prepared a test sample of higher transparency from PDF and glued glass mat. Papers by G. S. Petrov, K. A. Andrianov, and S. I. Dzhenchel'skaya (Ref. 2), as well as G. S. Petrov and K. N. Vlasova (Ref. 3) are mentioned. There are 5 figures, 2 tables, and 7 references: 5 Soviet, 1 French, and 1 German.

Card 2/2

33285
S/191/62/000/002/005/008
B127/B110

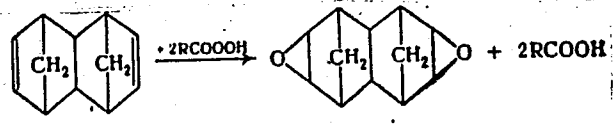
15.8121 1407

AUTHORS: Gosteva, O. K., Libina, S. L., Pryanishnikova, M. A., Akutin, M. S., Plate, A. F.

TITLE: Production of 2,3,6,7-dioxide of 1,4,5,8-di-endomethylene-1,4,4a,5,8,8a-hexahydro naphthalene

PERIODICAL: Plasticheskiye massy, no. 2, 1962, 55

TEXT: According to J. A. Trigaux (Modern Plastics, 38, no. 1, 147 (1960)), specially heat-resistant epoxy resins are obtained on the basis of dicyclopentadiene. In the present study, 1,4,5,8-diendomethylene-1,4,4a,5,8,8a-hexahydronaphthalene developing from bicyclo-(2,2,1)-heptadiene-2,5 and cyclopentadiene was investigated. In the epoxy resinification of diendomethylene hexahydro naphthalene with monoperphthalic acid in ether at 30°C, a hitherto unknown dioxide was obtained:



II III

Card 1/2

Production of 2,3,6,7-dioxide...

The yield was 50 %. The monomer forms white crystals, melting point 179.5°C. II is a byproduct of the manufacture of the insecticide "al'drin". The analysis of the C- and H content corresponded to the formula $C_{12}H_{14}O_2$. The infrared spectrum of the dioxide shows an intensive line at 847 cm^{-1} which belongs to the C-O group in the epoxy group. The disappearance of the line at 1570 cm^{-1}, which corresponds to the C=C double bond, proves completeness of resinification. The absence of the line in the range 3200-3600 cm^{-1}, characteristic of hydroxyl groups, confirms the purity of the product obtained. There are 1 figure and 5 references: 3 Soviet and 2 non-Soviet. The reference to the English-language publication reads as follows: O. D. Shreve, M. R. Heether, H. B. Knight, D. Swern, Anal. Chem., 23, 277 (1951).

Card 2/2

GOSTEVA, O.K. [deceased]; LIBINA, S.L.; RIVKINA, Ye.G.

Syntheses of 3,4-epoxy-2,5-endomethylene-1,2,5,6-tetrahydrobenzyl ether of 3,4 epoxy-2,5-endomethylene, 1,2,5,6 tetrahydrobenzyl acid. Plast. massy no.3:55-56 '65. (MIRA 18:6)

L 16511-66 EWT(m)/EWP(j)/T WW/RM

ACC NR: AP6001495 (A) SOURCE CODE: UR/0191/65/000/012/0015/0016

AUTHORS: Libina, S. L.; Gurman, I. M.; Mironova, N. F.; Klimkina, V. V.

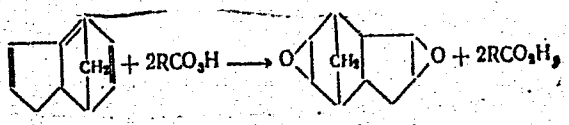
ORG: none

TITLE: Epoxide resins based on dicyclopentadiene and its ethers

SOURCE: Plasticheskiye massy, no. 12, 1965, 15-16

TOPIC TAGS: epoxide, maleic anhydride, epoxy plastic/ ED-5 dian resin

ABSTRACT: Preparation of diepoxy compounds from dicyclopentadiene (I) and its ethers and the properties of resins and plastic glass derived from them are described. Epoxidation of I, according to the equation

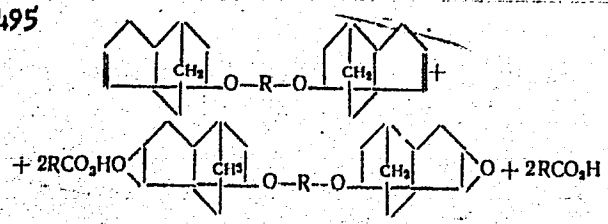


yielded the diepoxy compound in 85% yield, m.p. 183C. Ethylene and diethylene glycol ethers of I were epoxidized according to the scheme

Card 1/2 UDC: 678.644'42'5-678.762.9

L 16511-66

ACC NR: AP6001495



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in 84--90% yield. Diepoxy compounds of I and its ethers were cured with anhydrides of dibasic acids, e.g., maleic anhydride. Physical properties of the products and of their mixtures with dian epoxy resins are tabulated, and thermomechanical curves are shown. Product of the mixture of epoxydicyclopentadiene with dian ED-5 in a 40:60 ratio possessed the best physical-mechanical and dielectric properties. Orig. art. has: 4 tables, 3 figures, and 3 structures.

SUB CODE: 07/ SUBM DATE: none/ OTH REF: 006

Card 2/2 SM

L 11407-67 EWT(m)/EWP(j) RM

ACC NR: AP7003664 SOURCE CODE: UR/0079/66/036/008/1473/1474

AUTHOR: Talyanker, Ye. G.; Libina, S. L.; Geftor, Ye. L.

ORG: none

TITLE: Production of the dioxide of the di(o-allylphenyl) ester of methylphosphinic acid

SOURCE: Zhurnal obshchey khimii, v. 36, no. 8, 1966, 1473-1474

TOPIC TAGS: organic oxide, ester, phosphinic acid, pyridine

ABSTRACT: A new dioxide of the di(o-allylphenyl) ester of methylphosphinic acid was synthesized according by reaction of o-allylphenol with the dichloride of methylphosphinic acid and pyridine, followed by epoxidation of the di(o-allyl-phenyl) ester of methylphosphinic acid produced with excess peracetic acid. [JPRS: 38,970]

SUB CODE: 07 / SUBM DATE: 06Jul65 / ORIG REF: 004 / OTH REF: 001

Card 1/1 JB UDC: 547.26'118

0926 0287

ACCESSION NR: AP4017573 S/0065/64/000/003/0027/0031

AUTHOR: Bernadyuk, Z. A.; Belov, P. S.; Yegorov, N. M.; Korsakov, N. Libinshteyn, I. Ya.; Luppov, L. V.; Sarkisyants, R. A.

TITLE: Industrial production of alkylphenol additives utilizing the KU-2 cation exchange resin

SOURCE: Khimiya i tekhnol. topliv i masel, no. 3, 1964, 27-31

TOPIC TAGS: alkylphenol, oil additive, cationate, benzene sulfonic acid, alkylphenol additive, oil, petroleum, lubricant, engine oil, motor oil

ABSTRACT: The purpose of this work is to find a better substitute for benzene sulfonic acid as a catalyst for the alkylation of phenol. This work was done at the Moskovskiy institut neftekhimicheskogo (Moscow Institute of Petro-chemical and Gas Industry) under the direction of Prof. V. I. Isagulyants. Phenol was alkylated by olefins in the presence of KU-2 cation exchange resin which is a sulfonated copolymer of styrene and divinylbenzene having a functional SO_3H group. This is a heterogeneous catalyst which, unlike benzene sulfonic acid (BSA), does not require washing of the product, there being no phenol contamination of wash water; the

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ACCESSION NR: AP4017573

alkylate is neutral with practically no dialkylphenols formed. The operation can be fully automated. KU-2 operates for a long time without losing activity and is regenerated by washing in polymerized olefins. The preparation of KU-2 for processing, as well as the manufacturing of phenol alkylate, its sulfonation (S_2Cl_2) and saponification with $Ba(OH)_2$, are described. The oil additive product using KU-2 is considerably superior to that prepared with the aid of BSA as catalyst because of the absence of dialkyl phenols, easier sulfonation and saponification, and no sulfur residues. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: None

SUBMITTED: 00 DATE ACQ: 23Mar64 ENCL: 00

SUB CODE: GC, FP NO REF SOV: 005 OTHER: 000

Card 2/2

LIBINSON, G.S.; SAVITSKAYA, Ye.M.; BRUNS, B.P.

Sorption of the organic anion of the dye 1 (2',4' -dimethylphenylazo-2-hydroxynaphthyl-3,6-disulfonic acid on the weakly basic anion exchanger AN-15. Vysokom. soed. 2 no.10:1500-1507 O '60. (MIRA 13:9)

(Azo dyes) (Sorption)

SAVITSKAYA, Ye.M.; SHELLENBERG, N.N.; LIBINSON, G.S.; BRUNS, B.P.; KOLYGINA, T.S.; DRUZHININA, Ye.N.

Method for isolating crystalline 6-aminopenicillanic acid from culture fluids obtained during the fermentation of the microorganism, Penicillium chrysogenum, without a precursor. Antibiotiki 7 no.5:434-437 My '62. (MIRA 15:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(PENICILLANIC ACID) (PENICILLIUM)

SAVITSKAYA, Ye.M.; SHELLENBERG, N.N.; LIBINSON, G.S.; BRUNS, B.P.; KOLYGINA, T.S.

Ion exchange method of isolating crystalline 6-aminopenicillanic acid from the products of the fermentative hydrolysis of penicillin. Antibiotiki 7 no.5:437-440 My '62. (MIRA 15:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(PENICILLIN) (PENICILLANIC ACID)
(ION EXCHANGE RESINS)

BRUNS, B.P.; SAVITSKAYA, Ye.M.; SHELLENBERG, N.N.; LIBINSON, G.S.; KOLYGINA, T.S.; DRUZHININA, Ye.N.

Physicochemical properties of 6-aminopenicillanic acid — titration curves and its solubility. Antibiotiki 7 no.5:440-442 My '62. (MIRA 15:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.
(PENICILLANIC ACID)

LIBINSON, G.S.; SAVITSKAYA, Ye.M.; BRUNS, B.P.

Causes responsible for the establishment of false equilibrium during ion exchange sorption of big organic ions. Dokl.AN SSSR 145 no.1:133-135 Jl '62. (MIRA 15:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov. Predstavleno akademikom V.A.Karginym.
(Ion exchange)

LIBINSON, G.S.; SAVITSKAYA, Ye.M.; BRUNS, B.P. (Moscow)

Kinetics of ion exchange processes. Part 1: Sorption of methylene blue on sulfonated cation exchanger of the type KU-2. Zhur.fiz.khim. 37 no.2:420-425 F '63. (MIRA 16:5)

1. Nauchno-issledovatel'skiy institut antibiotikov.
(Ion exchange) (Methylene blue)

LIBINSON, G. S.; SAVITSKAYA, Ye. M.; BRUNS, B. P.

Kinetics of ion-exchange processes. Part 2. Zhur. fiz. khim. 37 no. 3:641-643 Mr '63. (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.

LIBINSON, G.S.; SAVITSKAYA, Ye.M.

Kinetics of ion exchange processes. Part 3. Zhur. fiz. khim. 37 no.4:899-901 Ap '63. (MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.

LIBINSON, G.S.; SAVITSKAYA, Ye.M.

Kinetics of ion exchange processes. Part 4. Zhur.fiz.khim. 37 no.10: 2330-2333 O '63. (MIRA 17:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov.