KLEIMAN, V.M.

Modification of the operation for placing a vaginal fistula for the graphic registration of the contractile activity of the uterus (internal hysterography) in an experiment. Biul.eksp.biol.i med. 54 no.7:109-110 Jl '62. (MIRA 15:11)

1. Iz kafedry normal'noy fiziologii (zav. - prof. M.G.Magendovich) Permskogo meditsinskogo instituta. Predstavlena deyatvitel'nym chlenom AMN SSSR V.V.Parinym.
(FISTULA) (UTERUS)

VLASOV, V.F.; KLEBANER, V.Ya., inzh., retsenzent

[Economics of metal-cutting-tool production] Ekonomika instrumental'nogo proizvodstva. Moskva, Mashinostroenie, 1965. 135 p. (MIRA 18:3)

KLEBANOV, Ya.A.

Public health and epidemic control service in South Kazakhstan Province. Sov.zdrav. 17 no.4:55-57 Ap'58 (MIRA 11:5)

1. Oblastnoy gossaninspektor Yuzhno-Kazakhstanskoy oblasti.
(PUBLIC HEALTH
in Kazakhstan, med. serv. (Rus))

ACC NR: AP6013496 UR/0120/66/000/002/0066/0067

AUTHOR: Klebanov, Yu.D.; Kruchinin, S.P.; Lozina, L.A.

ORG: Institute of Atomic Energy GKAE, Moscow (Institut atomnoy energii GKAE)

TITLE: Differential gas Cerenkov counter

TOPIC TAGS: particle ~~velocity~~ counter, Cerenkov ~~velocity~~ counter, meson, ~~velocity indicator~~, bubble chamber, ~~instrument~~, synchrotron.

ABSTRACT: This paper discusses the theory of operation, the construction and the results of tests of a differential type compressed gas Cerenkov counter, used for high energy particle velocity determination and counting. The counter was slated for work with a godoscopic system (reported previously by L.I. Govor and Yu.D. Klebanov at the Conference for high energy physics at Dubne in 1964) of a bubble chamber. The particle velocity β to be determined is related to the easily measurable angle of the Cerenkov radiation θ, and the adjustable refractive index of the environment, n (compressed freon-13), by the equation:

$$\cos\theta = 1/(\beta.n) \quad (1)$$

Thus the angular resolution of the particle velocity becomes

$$d\theta/d\beta = 1/(\beta^2.n.\sin\theta) = (\mathrm{Ctg}\,\theta)/\beta \quad (2)$$

and this improves with the decrease of θ. However, since the radiation intensity, I, decreases sharply with θ, I being proportional to $\sin\theta^2$, an optimum design angle of the Cerenkov radiation cone exists. This has been found to be 4°. Constructional

Card 1/2

UDC: 539.1.074.4

ACC NR: AP6013496

details of the counter are given. Tests of the counter were conducted in the beam of π^- - mesons with an impulse p = 4 Gev/s on the 7 Gev synchrophazotrone of the ITEF. The meson beam passed thru a 3-scincillator telescope with a space angle of 2.10^{-3} rad. The counter showed its maximum effectiveness (96%) at a gas pressure of 3.7 am. Its resolving power for particle velocities was $d\beta/\beta = 2.10^{-3}$. Authors thank R.S. Shlyapnikov for his valuable discussions and interest in this project. Orig. art. has 2 figures and 3 formulas.

SUB CODE: 18, 20 SUBM DATE: 28Jun65 ORIG REF: 004 OTH REF: 004

Card 2/2

26687
S/056/61/041/005/002/038
B104/B108

26.2321
26.2212

AUTHORS: Klebanov, Yu. D., Sinitsyn, V. I.

TITLE: Injection of plasma from a strong pulsed discharge into a vacuum

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41, no. 5(11), 1961, 1340-1346

TEXT: The authors describe experiments carried out with two plasma injection devices: a small and a bigger one (Figs. 1 and 2). The bigger device in difference from the smaller has two diaphragms with apertures of 5 and 10 mm separating the observation chamber from the discharge chamber. The injection of plasma from a strong pulsed discharge into hydrogen (0.1-1.0 mm Hg) was studied. The capacitance of the discharge circuit of the small device was 40 μF, the voltage was 20-30 kv and the maximum discharge current was 400 ka. The capacitance of the discharge circuit of the bigger device was 80 μF, the voltage was 30-40 kv, and the maximum discharge current was 500 ka. The plasma parameters at different injector conditions were determined photoelectrically together with a temperature-

Card 1/4

Injection of plasma from a ...

scan. It is shown that plasma is ejected in two opposite directions along the discharge axis. The plasma was injected in single pulses (2-5 μsec). The pinches were 30-40 cm long. By means of photoelectric and calorimetric methods the total number of particles injected by one pulse was determined. The density and velocity of the plasma were estimated too. The authors obtained: $N = 8 \cdot 10^{16}$; $n = 6 \cdot 10^{13}$ cm^{-3}; $V_z = 2.8 \cdot 10^7$ cm/sec. N. V. Filippov (D. P. Petrov, N. V. Filippov et al., Fizika plazmy i problema upr. termoyadernykh reaktsiy (Plasma Physics and Problems of Thermonuclear Reactions), v. 4, Izd. AN SSSR, 1958, p. 170) is mentioned. The authors thank Academician L. A. Artsimovich and S. Yu. Luk'yanov for discussion of results, M. A. Savenkov and V. S. Shumanov for assistance. There are 8 figures, 2 tables, and 19 references: 10 Soviet and 9 non-Soviet. The 3 most recent references to English-language publications read as follows: F. H. Coensgen, A. E. Sherman, W. E. Nexsen, Phys. Fluids, 3, 765, 1960; F. R. Scott, R. F. Wenzel, Phys. Rev., 119, 1187, 1960; J. Marschall, Phys. Fluids, 3, 134, 1960.

SUBMITTED: March 21, 1961

Card 2/4

L 25591-66 EWT(m)/T IJP(c)

ACC NR: AT6001556 SOURCE CODE: UR/3136/65/000/900/0001/0011

AUTHOR: Klebanov, Yu. D.; Kruchinin, S. P.; Lozina, L. A. 37 30

ORG: none B+1

TITLE: Cherenkov differential gas counter 19

SOURCE: Moscow. Institut atomnoy energii. Doklady, IAE-900, 1965. Differentsial'nyy gazovoy cherenkovskiy schetchik, 1-11

TOPIC TAGS: radiation counter, hodoscope, bubble chamber, Cerenkov counter, Cerenkov radiation

ABSTRACT: The gaseous differential Cherenkov counter, developed at the Institute of Atomic Energy, is used for work with a hodoscopic device for a bubble chamber. Since the angle of Cherenkov radiation θ is related to the index of refraction of the medium n, and the particle velocity β, then the angular resolution is:

$$\frac{d\theta}{d\beta} = \frac{1}{\beta^2 n \sin\theta} = \frac{\operatorname{ctg}\theta}{\beta} \qquad (2)$$

Thus the optimum angle of Cherenkov radiation θ must be selected due to the sharp drop in intensity which accompanies a decrease of the angle θ. The optimum angle in this case is $\theta \approx 4°$. The Cherenkov light was focused through a convex glass lens, 130 mm in

Card 1/2

L 25591-66

ACC NR: AT6001556

diameter. Focal length was $f = 250$ mm. Photons of Cherenkov radiation were registered by the FEU-36 photomultiplier. The counter was filled with freon -13. The counter was tested in a Pi meson beam on the ITEF Cyclotron. The Pi meson beam passed through a telescope from three scintillation counters measuring 50 x 50 mm^2. The calculated maximum value of p ions with an impulse of $4\frac{Gev}{0}$ = 3.5 atm. The width of the curve at mid-height, $\Delta p = 2$ atm, corresponds to the resolution $\frac{\Delta p}{p} = 2 \cdot 10^{-3}$. The authors thank R. S. Shlyapnikov for his interest in the work and valuable discussions. Orig. art. has: 5 figures and 3 formulas.

SUB CODE: 18 / SUBM DATE: 00/ ORIG REF: 004/ OTH REF: 004

Card 2/2 fv

L 21775-66
ACC NR: AP6007814 SOURCE CODE: UR/0120/66/000/001/0084/0087

AUTHOR: Klebanov, Yu. D.

ORG: Institute of Atomic Energy GKAE, Moscow (Institut atomnoy energii GKAE)

TITLE: A Cerenkov counter with adjustable threshold

SOURCE: Pribory i tekhnika eksperimenta, no. 1, 1966, 84-87

TOPIC TAGS: Cerenkov counter, particle detector

ABSTRACT: Differential gas Cerenkov counters usually operate satisfactorily in the region of $\beta=1$. Registration of particles with velocities noticeably differing from 1 (e. g. $\beta=0.95$) involves a number of technical and theoretical difficulties. Among these are proper index of refraction, impairment of resolution due to dispersion of the working gas and an increase in the probability for registration of background particles. These difficulties arise from the necessity for superhigh pressures. The necessary pressures usually result in liquefaction of the gas used in the radiator. The author describes a Cerenkov counter which eliminates these disadvantages to a certain degree. This detector has a continuously variable threshold for registration of Cerenkov radiation. The instrument has total internal reflection with a resolution of $\Delta\beta/\beta = 10^{-2}$ and registration efficiency of ~90% in the range of velocities $\beta = 0.89$-0.97. The radiator is a polished rectangular plate of transparent plastic measuring

Card 1/2 UDC: 539.1.074.4

L 24775-66

ACC NR: AP6007814

3

170 × 170 × 10 mm. The sides of the plate are parallel to within ~0.1°. The counter housing is made up of two duralumin discs fastened together by bolts with the radiator placed between them. The working gas is pumped into the space between the discs under pressure. The instrument is designed for a pressure of 150 atm. Radiation is recorded by two photomultiplier tubes. In conclusion I consider it my pleasant duty to thank R. S. Shlyapnikov for useful consultation and L. A. Lozina and S. P. Kruchinin for assistance in testing the counter. Orig. art. has: 7 figures, 4 formulas.

SUB CODE: 18/ SUBM DATE: 28Jun65/ ORIG REF: 001/ OTH REF: 002

Card 2/2

SIROTA, I.M., kand. tekhn. nauk (Kiyev); NAUMOVSKIY, L.D., inzh. (Leningrad); TSIREL', Ya.A., inzh. (Leningrad); KLEBANOV, Z.I. (Bobruysk); KAMENSKIY, A.F. (Bobruysk); BOYCHUK, S.I. (Bobruysk); IOZEFAVICHUS, D.I., inzh. (Kaliningrad); SHULOV, B.S., inzh. (Riga)

Neutral operating mode in electric power distribution systems. Elektrichestvo no.1:84-91 Ja '64. (MIRA 17:6)

KLEABANOVA, A. A.

Dept. Exptl. Pathology, Moscow Oblast Sci. Res. Tuberculosis Inst., -c1948-. Medicine.

"The Significance of the Absence of Tubercle Bacilli in Flotation Studies of Gastric Contents Obtained by Lavage Flotation Method," Prob. Tuber., No. 3, 1948.

TRIUS N. V., KLIMASHOVA A. A. AND SUKHOKOVA A. A. The mechanism of streptomycin action Problemi Tuberkuleza, Moscow 1949, 6 (48-50)

Trius found that even in a concentration of 200 I. U./ml. of strptomycin for 10 days tubercle bacilli will survive in small numbers. In clinical meningitis cases CSF was cultured before and during streptomycin treatment. In favourable cases cultures usually became negative after 3-5 injections and laboratory animals failed to become infected with the CSF. However, with the floatation method (with benzene or xylene), it was established that nevertheless tubercle bacilli could sometimes be found for months after the disappearance of all clinical symptoms; when the slightes cell or protein content of CSF is present, tubercle bacilli can be found after careful search, and even sometimes with a quite normal CSF and in the absence of any clinical symptom. The morphology of tubercle bacilli often changes during streptomycin treatment: very short, or thin, or granulated bacilli, or acid-fast granules, or 'shadows' were found along with typical bacilli. The floatation method sometimes gave positive results when inoculation and cultures were negative. It must be supposed that part of the bacilli die, are dissolved, and others become avirulent and grow badly. The author asks: what should be done with clinically healed patients with normal CSF and atypical bacilli still present in their CSF. Only a detailed study of cultures of these bacilli can give the answer to this question. Van der Molen-Terwold (XV, 4, 8)

SO: Neurology & Psychiatry Section VIII Vol 3 No 7-12

KLEBANOVA, A.A.; SKRYABINA, L.B.

Combined flotation and inoculation methods. Prob.tuberk., Moskva No.1:51-55 Jan-Feb 51. (CLML 20:6)

1. Candidate Biological Sciences A.A.Klebanova. 2. Of the Department of Experimental Patology (Head--M.V.Trius), Moscow Oblast Scientific-Research Tuberculosis Institute (Director--Prof.P.V. Shebanov).

KLEBANOVA, A.A., SERYABINA, L.Ye.

Possible errors in application of the flotation method.
Probl. tuberk., Moskva No.6:63-67 Nov-Dec. 1953. (CIML 25:5)

1. Senior Scientific Assistant for Klebanova. 2. Of the Department of Experimental Pathology (Head -- M. V. Trina), Moscow Oblast Scientific-Research Tuberculosis Institute (Director -- Prof. F.V. Shebanov).

KLEBANOVA, A.A., kandidat biologicheskikh nauk

Effect of phthivazid on the causative agent of tuberculosis. Probl. tub. no.4:50-55 Jl-Ag '54. (MLRA 7:11)

1. Iz Moskovskogo oblastnogo nauchno-issledovatel'skogo tuberkuleznogo instituta (dir. prof. F.V.Shebanov, zam. direktora po nauchnoy chasti prof. D.D.Aseyev)

(MYCOBACTERIUM TUBERCULOSIS, effect of drugs on, isoniazid)

(NICOTINIC ACID ISOMERS, effects, isoniazid, on M. tubero.)

KLEBANOVA, A. A.

USSR / Microbiology. Medical and Veterinary Microbiology. V-5

Abs Jour: Referat Zh.-Biol., No 6, 25 March, 1957, 22094

Author : Klebanova, A.A., Pupko, S.L.
Inst :
Title : Electron Microscopic Study of Tubercular Mycobacteria Changes Affected by Antimicrobial Preparations.

Orig Pub: Probl. tuberkuleza, 1956, 34, No 2, 47-52

Abstract: Streptomycin in quantities of 500 units per ml. disturbs mainly the tubercle bacilli (TB) cytoplasmic substance and produces no effect on granules; at first a swelling develops, and then cytoplasm vacuolization with subsequent tearing of the cell envelope and emergence of granules into the surrounding medium. Phtivazide in a concentration of 2 mg/ml preeminently causes changes of the granular substance, which liquefies, accumulates at one cell pole and pours out of it after the envelope is torn. TB isolated from the patients during treatment or before that, those sensitive to medication, manifested no deviation from the norm when examined

Card : 1/2 and Microbiology Lab, Moscow Oblast Sci Res. Tuberculosis Inst -59-

Amer. Egypt. Biol. AMS USSR

in the electron microscope. TB cultures which are resistant to some medical preparations and sensitive to others possessed a clearly expressed polymorphism. After treatment with phtivazide TB often experiences a partial loss of acid-resistance, which makes their detection difficult when dyed according to the Ziehl-Neelsen method, and requires compulsory inoculation or animal infection.

KLEBANOVA, A.A.

White mice as test objects in detecting virulent atypical strains of the tuberculosis bacilli. Lab.delo. 4 no.5:29-32 S-O '58 (MIRA 11:11)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta tuberkuleza (dir. V.F. Chernyshev) Ministerstva zdravookhraneniya RSFSR.

(MYCOBACTERIUM TUBERCULOSIS)
(MICE AS LABORATORY ANIMALS)

KLEBANOVA, A.A., kand.biol.nauk

Biological properties of phthivazid resistant tuberculosis strains [with summary in French]. Probl.tub. 36 no.1:91-96 '58.
(MIRA 11:4)

1. Is mikrobiologicheskogo otdeleniya (zav. T.N.Yashchenko) Moskovskogo nauchno-issledovatel'skogo instituta tuberkuleza Ministerstva zdravookhraneniya RSFSR (dir. V.F.Chernyshev, zam. direktora po nauchnoy chasti - prof. D.D.Aseyev)

(MYCOBACTERIUM TUBERCULOSIS
biol. properties of N-(4-hydroxy-3-methoxy)benzal isonicotinic acid hydrazone resist. strains (Rus))
(ISONIAZID, related cpds.
biol. properties of N-(4-hydroxy-3-methoxy)benzal isonicotinic acid hydrazone resist. M.tubero. strains (Rus))

KLEBANOVA, A.A.

Peculiarities of the agent of tuberculosis at the present time. Lab. delo 5 no.4:44-47 Jl-Ag '59. (MIRA 12:12)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta tuberkuleza Ministerstva zdravookhraneniya RSFSR (dir. V.F. Chernyshev).
(MYCOBACTERIUM TUBERCULOSIS)

ASEYEV, D.D., prof.; KLIMANOVA, A.A., kand.biolog.nauk; UGRYUMOV, B.P., prof.; GUR'YEVA, I.G., kand.med.nauk

Clinical and bacteriological parallels in antibacterial treatment. Probl.tub. 37 no.4:16-23 '59. (MIRA 12:10)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta tuberkuleza Ministerstva zdravookhraneniya RSFSR (dir. - kand.med. nauk V.F.Chernyshev, zam.direktora po nauchnoy chasti - prof. D.D.Aseyev).

(TUBERCULOSIS, ther.
bacteriol. & clin. parallels in antibact.ther. (Rus))

BUNINA, B.N., prof.; DRANKINA, R.O., prof.; KLEBANOVA, A.A., kand. biolog.nauk; KOSMODAMIANSKIY, V.N., prof.; MODEL', L.M., prof.; RABUKHIN, A.Ye., prof.; STRUKOV, A.I., prof.; STUKALO, I.T., prof.; TIMASHEVA, Ye.D., kand.med.nauk; CHISTOVICH, A.N., prof.; SHMELEV, N.A., prof.; MYNIS, V.L., prof., zaslushennyy deyatel' nauki, otv. red., red.toma; KORNEV, P.G., prof., red.; KUDRYAVTSEVA, A.I., prof. [deceased], red.; LEBEDEVA, Z.I., kand.med.nauk, red.; LAPINA, A.I., red.; MASSINO, S.V., doktor med.nauk, red.; SHKRANOV, F.V., prof., zaslushennyy deyatel' nauki, red.; SENCHILO, K.K., tekhn.red.

[Multivolume handbook on tuberculosis] Mnogotomnoe rukovodstvo po tuberkulezu. Moskva, Gos.izd-vo med.lit-ry. Vol.1. [General problems in tuberculosis] Obshchie problemy tuberkuleza. Red. toma: V.L.Minis, A.I.Strukov. 1959. 672 p. (MIRA 13:6)

1. Chlen-korrespondent AMN SSSR (for Strukov, Shmelev). 2. Deystvitel'nyy chlen AMN SSSR (for Kornev).
(TUBERCULOSIS)

KLEBANOVA, A.A., kand.med.nauk

Fluorescence microscopy of modified Mycobacterium tuberculosis.
Probl.tub. 38 no.7:77-84 '60. (MIRA 14:1)

1. Iz Moskovskogo gosudarstvennogo nauchno-issledovatel'skogo instituta tuberkuleza (dir. V.F. Chernyshev, zam. dir. po nauke - prof. D.D. Aseyev) Ministerstva zdravookhraneniya RSFSR.
(MYCOBACTERIUM TUBERCULOSIS)

KLEBANOVA, A.A., kand.biologicheskikh nauk

Current status of the problem of the tuberculosis pathogen.
Probl.tub. 39 no.2:64-72 '61. (MIRA 14:3)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta tuberkuleza Ministerstva zdravookhraneniya RSFSR (dir. V.F. Chernyshev zam. dir. po nauchnoy chasti - prof. D.D. Aseyev).
(MYCOBACTERIUM TUBERCULOSIS)

KLEBANOVA, A.A., kand.biolog.nauk

Are the comments and conclusions of A.M. Khoma-Lemishko mentioned in his articel, "Pigmented mycobacteria in clinical tuberculosis" correct? Probl.tub. no.5:102-104 '61. (MIRA 15:1)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta tuberkuleza Ministerstva zdravookhraneniya RSFSR (dir. - kand.med.nauk V.F. Chernyshev, zam. dir. po nauchnoy chasti - prof. D.D. Aseyev).

(MYCOBACTERIUM TUBERCULOSIS) (KHOMA-LEMISHKO, A.M.)

KLEBANOVA, A. A., kand. biolog. nauk; ZAGLUKHINSKAYA, S. B., kand. biolog. nauk; SKRYABINA, L. S., kand. biolog. nauk

Luminescence method for the study of tuberculosis. Probl. tub. 40 no.5:72-77 '62. (MIRA 15:7)

1. Iz Moskovskogo nauchno-issledovatel'skogo instituta tuberkuleza Ministerstva zdravookhraneniya RSFSR (dir. - kandidat meditsinskikh nauk V. F. Chernyshev, zam. dir. po nauchnoy chasti - prof. D. D. Aseyev)

(MYCOBACTERIUM TUBERCULOSIS)
(FLUORESCENCE MICROSCOPY)

BAGAYEVA, M.I., kand.med.nauk; KLEBANOVA, A.A., kand.biol.nauk

Clinical bacteriological parallels in tuberculous lupus during antibacterial therapy. Vest.derm.i ven. no.8:29-35 '62.
(MIRA 15:9)

1. Iz kozhnogo otdeleniya (zav. - kand.med.nauk I.N. Agapkin) mikrobiologicheskoy laboratorii (zav. - kand.med.nauk T.N. Yashchenko) Instituta tuberkuleza (dir. - kand.med.nauk V.F. Chernyshev) Ministerstva zdravookhraneniya RSFSR.
(LUPUS)

KLEBANOVA, A.A.; SHAPIRO, D.M.; BLAGODARNYY, Ya.A.

Characteristics of Mycobacterium tuberculosis isolated in a remote district in Alma-Ata Province. Izv. AN Kazakh. SSR.Ser. med. nauk 11 no. 2:85-89 '64. (MIRA 17:7)

CHEFRANOV, V.S.; KLEBANOVA, A.A.

Clinical and bacteriological parallels in patients following surgery for pulmonary tuberculosis. Probl. tub. 42 no.1:44-48 '64. (MIRA 17:8)

1. Moskovskiy nauchno-issledovatel'skiy institut tuberkuleza (dir. - kand. med. nauk T.P. Mochalova, zamestitel' direktora po nauchnoy chasti - prof. D.D. Aseyev) Ministerstva zdravookhraneniya RSFSR.

BURKA, N.I.; KLEBANOVA, B.S.

Use of glass filters in pharmaceutical practice. Apt. delo 10 no.4: 61-62 Jl-Ag '61. (MIRA 14:12)

1. Pyatigorskiy farmatsevticheskiy institut.
(FILTERS AND FILTRATION)

KLEBANOVA F. M.

AUTHORS: Tarkovtsev, V. V., Rozenblyum, Ye. N., Kryukova, Z. S., Klebanova, F. M. 75-6-15/23

TITLE: The Determination of Lead Sulphate in the Active Mass of Lead Storage Batteries (Ob opredelenii sulfata svintsa v aktivnykh massakh svintsovykh akkumulyatorov).

PERIODICAL: Zhurnal Analiticheskoy Khimii, 1957, Vol. 12, Nr 6, pp. 736-739 (USSR).

ABSTRACT: The unsuitability of the soda method for the determination of $PbSO_4$ at a low lead content in the active mass of lead storage batteries is described. An incomplete solution of $PbSO_4$ occurs because of Na_2CO_3 whereby the results are lower.

It is recommended to treat the positive charged platelets with acid and the negative charged platelets with a mixture consisting of equal parts of 5%CH_3COOH and 5%CH_3COONH_4. The proposed method is four- to five times shorter than the usual soda method.
There are 3 tables.

Card 1/2

The Determination of Lead Sulphate in the Active Mass of Lead Storage Batteries. 75-6-25/23

ASSOCIATION: Institute of Scientific Research on Storage Batteries, Leningrad (Nauchno issledovatel'skiy akkumulyatornyy institut, Leningrad).

SUBMITTED: October 6, 1956.

AVAILABLE: Library of Congress.

1. Lead sulfite-Determination 2. Storage batteries-Active lead mass

Card 2/2

KLEBANOVA, I.M.

New occurrence of Eocene mammals in eastern Kazakhstan. Paleont.zhur. no.1:144-145 '63. (MIRA 16:4)

1. Paleontologicheskiy institut AN SSSR.
(Kazakhstan—Mammals, Fossil)

KLEBANOVA, I.M.

New locality of Middle Oligocene mammals in the Kyzylkak depression. Paleont. zhur. no.4:99-102 '65.

(MIRA 19:1)

1. Paleontologicheskiy institut AN SSSR. Submitted April 27, 1965.

KLEBANOVA, K. A.

Microscopic structure of the compact matter of long bones of the extremities in some representatives of the family Sciuridae. Trudy Zool. inst. 33:256-282 '64. (MIRA 17:7)

DYNABURG, A.D. [Dynaburg, H.D.]; KLEBANOVA, L.B.; YERYSH, A.I. [IEryzh, A.I.]

Thermoregulation in infectious diseases of the nervous system. Fiziol. zhur. [Ukr.] 11 no.1:37-44 Ja-F '65. (MIRA 18:7)

1. Otdel nevrologii i neyrofiziologii Instituta fiziologii im. A.A. Bogomol'tsa AN UkrSSR, Kiyev.

KLIMENOVA, L.B.

Changes in the vegetative nervous system in varus neuroinfections.
Fiziol.zhur.[Ukr.] 2 no.6:97-105 N-D '56. (MLRA 10:2)

1. Institut fiziologii imeni O.O.Bogomol'tsya Akademii nauk URSR, viddil klinichnoi i eksperimental'noi nevrologii.
(VIRUSES) (NERVOUS SYSTEM--DISEASES)

KLEHANOVA, L.B.

Role of cortical neurodynamics in distrubance of autonomic reactions in neurotropic virus infections [with summary in English]. Fiziol. zhur. [Ukr.] 4 no.2:175-184 Mr-Ap '58. (MIRA 11:5)

1.Institut fiziologii im. O.O. Bogomol'tsya AN URSR, viddil klinichnoi ta eksperimental'noi nevrologii.
(NERVOUS SYSTEM, AUTONOMIC--DISEASES) (REFLEXES)

DIMABURG, G.D. [Dimburg, H.D.]; KLEBANOVA, L.B.]; YERISH, A.I. [Iryeh, A.I.]

Blood pressure and vascular tonus in postinfluenzal neuroinfections. Fiziol. zhur. [Ukr] 4 no.6:804-813 N-D '58. (MIRA 12:3)

1. Institut fiziologii im. A.A. Bogomol'tsa AN USSR, otdel klinichnoy i eksperimental'noy nevrologii.
(BLOOD PRESSURE) (NERVOUS SYSTEM--DISEASE)
(INFLUENZA)

KUCHEROVA, L.L.; KLEBANOVA, L.B.

Amount of protein and protein fractions in encephalomyelitis and multiple sclerosis. Zhur. nevr. i psikh. 60 no.11:1458-1463 '60. (MIRA 14:5)

1. Kafedra nervnykh bolezney (zav. - prof. B.N.Man'kovskiy) Kiyevskogo meditsinskogo instituta i otdel klinicheskoy i eksperimental'noy nevrologii (rukovoditel' - prof. A.F.Makarchenko) Instituta fiziologii imeni A.A.Bogomol'tsa AN USSR, Kiyev.
(ENCEPHALOMYELITIS) (MULTIPLE SCLEROSIS)
(BLOOD PROTEINS)

MAKARCHENKO, A.F. [Makarchenko, O.F.]; PASTERNAK, M.N.; DINABURG, A.D.; MEL'NICHENKO, A.V. [Mel'nychenko, H.V.]; KLEBANOVA, L.B.

Experimental allergic encephalomyelitis. Fiziol. zhur. [Ukr.] 8 no.3:292-308 My-Je '62. (MIRA 15:6)

1. Otdel nevrologii i nevrofiziologii Instituta fiziologii im. Bogomol'tsa AN USSR, Kiyev.
(ENCEPHALOMYELITIS)
(ALLERGY

KRITSKIY, M.S.; KULAYEV, I.S.; KLEBANOVA, L.M.; BELOZERSKIY, A.N., akademik

Two ways of phosphate transport in the fruiting bodies of Agaricus biaporus. Dokl. AN SSSR 160 no.4:949-952 F '65.
(MIRA 18:2)

1. Institut biokhimii im. A.N. Bakha AN SSSR i Moskovskiy gosudarstvennyy universitet.

TSESARSKAYA, S. I;MONOSZON, S. M;SHEYNMAN, Ye. A;YAKHNIS, B. L;GOLDENBERG, A. I;GORLOVSKAYA, Ye. P;KLEBANOVA, M. A.

Role of roentgenological method in examination of children for B.C.G. vaccination. Probl. tuberk., Moskva no.4:31-36 July-Aug. 1950. (CLML 20:1)

1. (Candidate Medical Sciences S. I. Tsesarskaya -- Odessa Tuberculosis Institute; S. M. Monoszon and E. A. Sheynman -- Leningrad Tuberculosis Institute; Prof. B. L. Yakhnis and Candidate Medical Sciences A. Ya. Gol'berg -- Khar'kov Tuberculosis Institute; E. P. Gorlovskaya -- Kiev Tuberculosis Institute.

S/133/61/000/001/015/016
A054/A033

AUTHORS: Tsitver, V. M., Candidate of Economic Sciences, and Klebanova, M. I., Engineer

TITLE: Comparing the Efficiency of Melting Killed Carbon Steel in Large-capacity Open-hearth and Electric Furnaces

PERIODICAL: Stal', 1961, No. 1, pp. 74 - 76

TEXT: Under the Seven-Year Plan the share of electric steel in total steel production will be increased to 9% (nearly double the 1958-figure). No full agreement has yet been reached, however, as to the question whether it is justified to produce killed carbon steel in electric furnaces instead of open-hearth furnaces. To clear up this problem the technical and economic indices of 180-ton electric furnaces and 250-ton open-hearth furnaces (operated with natural gas and oxygen) with an annual output of 1,2 million tons of killed carbon steel have been analysed. The cost of iron and the sales prices of natural gas and electric power, were calculated on the basis of the prices valid for the central area of the USSR, while the prices of the plant (without rework) scrap and supplied scrap were taken as being identical with the iron price. Under these con-

Card 1/7

S/133/61/000/001/015/016
A054/A033

Comparing the Efficiency of Melting Killed Carbon Steel in Large-capacity Open-hearth and Electric Furnaces

ditions open-hearth steel was 9% cheaper than electric steel, (table 1). Calculating scrap at 200 rubles/ton and taking into account the expected electric power costs (5 kopeck /kWh), natural gas (3 kopeck/ cu m) and masut (50 rubles /ton), the cost of open-hearth steel amounts to 317 rubles /ton and that of electric steel to 351 rubles /ton. Since the main factors determining the costs of both steels are the scrap and iron prices and iron consumption per ton of steel, electric steel will be cheaper than open-hearth steel only under the condition, that in some areas of the USSR the price of iron is 70 - 120 r /t lower than that of scrap, which, however, is not very probable for the principal metallurgical plants. With regard to capital investment for open-hearth and electric furnace shops, with 4 furnaces (250 ton and 180 ton capacity respectively) and with an annual output for both shops of 1.2 million tons, the following figures were obtained:

Card 2/7

Comparing the Efficiency of Melting Killed Carbon Steel in Large-capacity Open-hearth and Electric Furnaces

	Open-hearth furnace shop million rubles	Electric furnace shop million rubles
Main workshop building incl.	208.0	159.1
building	57.1	40.7
furnaces	30.0	18.3
2 continuous casting installations	55.2	55.2
Electric transformer station	1.4	6.1
Mixing shop	6.7	6.5
Charge-material stockyard	8.3	5.3
Waste-heat boilers	17.0	-
Various costs	8.6	3.0
In total	250.00	180.0

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S/133/61/000/001/015/016
A054/A033

Comparing the Efficiency of Melting Killed Carbon Steel in Large-capacity Open-hearth and Electric Furnaces

This shows that the capital investment for the construction of 180-ton electric furnace shops is about 30% lower than that for 250-ton open-hearth furnaces of the same capacity. However, when including the figures for the allied industries (power, transport, coal) the capital investment for both types of furnace shops will be about the same. With regard to the above calculations it seems advisable to produce mainly structural alloyed steels in electric furnaces. There are 2 tables.

ASSOCIATION: Leningradskiy GIPROMEZ (Leningrad GIPROMEZ)

Table 1: Costing of open-hearth (A) and electric steel (B)

Cost Items	Prices rubles/t	A		B	
		Quantity ton	sum rubles kop.	quantity ton	sum rubles kop.
①	②	③	④	⑤	⑥

Card 4/7

SAVKEVICH, I.A., inzh.; MAL'CHENKO, V.I., inzh.; KLEBANOVA, M.M., inzh.; OSTAPENKO, V.D., kand.tekhn.nauk

Semidry pressing of roofing tiles. Stroi.mat. 5 no.11: 27-28 N '59. (MIRA 13:3)
(Voronezh--Tiles, Roofing)

NAKHAPETYAN, Ye.G.; KIRSANOVA, O.N.

Investigating heavily-loaded turning gears with Geneva mechanisms of external and internal engagement. Teor. mash. i mekh. no.107/108: 25-39 '65. (MIRA 18:7)

L 13288-66 EWT(d)/EWT(m)/EWP(v)/EWP(j)/T/EWP(k)/EWP(h)/EWP(l) RM

ACC NR: AP6000321 (A) SOURCE CODE: UR/0286/65/000/021/0010/0010

INVENTOR: Belotelov, N. A.; Verkhorubov, B. A.; Kal'nov, V. G.; Kryuchkov, A. D.; Litvin, A. P.; Mel'nichenko, V. Z.; Morozov, G. N.; Olerinskiy, B. I.; Klebanova, I. S.; Solnyshkin, L. M.; Fridman, A. N.; Shilov, L. A.; Shchutskiy, S. V.; Yanovskiy, E. A.

ORG: none

TITLE: A device for automatic control of an installation for polymerizing gaseous olefins. Class 12, No. 175923 [announced by the Leningrad Affiliate of the All Union Scientific Research and Design Institute for Chemical Machine Building (Leningradskiy filial Vsesoyuznogo nauchno-issledovatel'skogo i konstruktorskogo instituta khimicheskogo mashinostroyeniya)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 10

TOPIC TAGS: polymerization, olefin, chemical engineering, automatic control equipment

ABSTRACT: This Author's Certificate introduces a device for automatic control of an

UDC: 66.05-5 : 66.095.26 : 678.742.2

Card 1/3

L 13288-66

ACC NR: AP6000321

0

installation for polymerizing gaseous olefins, e.g. in production of low pressure polyethylene. The unit consists of two temperature controllers connected to a flow regulator for the product reactor, and a pressure regulator connected to the controller for the coolant. For increased productivity and optimization of the process, one temperature controller is connected through a speed reducer to the pressure controller which is connected through a second speed reducer to the flow regulator for the product reactor. The other temperature controller is connected to the flow regulator for the coolant.

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L 13288-66

ACC NR: AP6000321

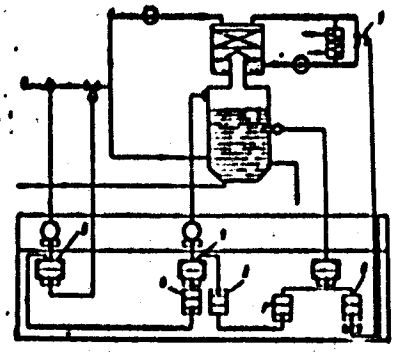


Fig. 1. 1 - first temperature controller; 2 - first speed reducer; 3 - pressure regulator; 4 - second speed reducer; 5 - flow regulator for the product; 6 - second temperature controller; 7 - flow regulator for the coolant.

SUB CODE: 07/ SUBM DATE: 01Feb65/

Card 3/3

KLEBANOVA, YE. A.

Changes in the oxygen requirements of liver tissue with age. E. A. Klebanova. *J. Physiol.* (U. S. S. R.) 23, 436-9 (in German, 439) (1936).—If the O_2 requirement of 1 mg. of liver tissue of adult mice (wt. 22 g.) be taken as 100, then the requirements of 1 mg. of liver tissue of mice at 1 g. (1 day old), 5 g., 10 g. and 15 g. are 217, 181, 142 and 122, resp.

S. A. Karjala

A S O - S L A METALLURGICAL LITERATURE CLASSIFICATION

KLEBANOVA, YE. A.

Klebanova, Ye. A. and Yakovleva, Ye. S. "Changes in the living organism under the influence of its living conditions", Yestestvoznaniye v shkole, 1949, No. 2, p. 18-28.

SO: U-411, 17 July 53, (Letopis 'Zhurnal 'nykh Statey, No. 20, 1949).

KLEBANOVA, Ye.A.

Glycemic reactions in various forms of heliotropic dystrophy of the liver in children. Vopr.pediat. 18 no.2:24-26 Mr '50.(CLML 19:3)

1. Of the Department of Hospital Pediatrics (Head of Department -- Honored Worker in Science Prof. R.S.Gershenovich) and of the Department of Faculty Pediatrics (Head of Department -- Docent A.M.Makaudov) of the Pediatric Faculty of Tashkent Medical Institute imeni V.M.Molotov.

KLEDNITSKAYA, T. M.

KOVESHNIKOVA, A.K.; KLIMANOVA, Ye.A.; TAKOVLEVA, Ye.S.; FANTALOVA, V.L., redaktor; TIMOKHIN, S.T., tekhnicheskiy redaktor.

[Outlines of human functional anatomy; manual for teachers in secondary schools] Ocherki po funktsional'noi anatomii cheloveka; posobie dlia uchitelei srednikh shkol. Moskva, Izd-vo Akademii pedagog. nauk RSFSR, 1954. 339 p. (MLRA 7:12)
(Anatomy, Human)

[redacted], and Novosilkova, K. K.

"Growth changes in the Vascularization of the Human Kidney. Part II: Growth Changes in the Kidney Veins"
Izv, Yestestv.-Nauchn. In-ta im. Lesgafta, No 26, 1954, 43-52

Prepartions were examined from kidneys of newborn children, older children and adults. The volume and number of veins and arteries increased with increasing age. The diameter of the venous anastomoses also increased. There was no change in the volume of the ~~xxxx~~ auxiliary, emissary veins of adults. (RZhBiol, No 9, May 1955)

SO: Sum-No 787, 12 Jan 56

17(1) SOV/20-126-4-60/62

AUTHOR: Klebanova, Ye. A.

TITLE: On the Possible Increase in the Number of Fibers in a Skeleton Muscle Hypertrophied by Work (O vozmozhnosti uvelicheniya chisla volokon v skeletnoy myshtse pri yeye rabochey gipertrofii)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 4, pp 905 - 908 (USSR)

ABSTRACT: It is still unclear whether, beside the enlargement of single muscle fibers, also their quantity increases due to hypertrophy by work. This cannot be fully rejected in the postembryonal period (Refs 1-6). The countings of muscle fibers carried out by the authoress (Tables 1,2, Fig 1) give no reason to deny that in the strengthening of one muscle, fibers are newly formed, split and even degenerate. The results obtained only point to the fact that the enlargement of the muscle mass required for the performance of additional work does not take place in the form of an increase in the numer of fibers in the muscle. There are 1 figure, 2 tables, and 16 references, 10 of which are Soviet.

Card 1/2

On the Possible Increase in the Number of Fibers in a Skeleton Muscle Hypertrophied by Work SOV/20-126-4-60/62

ASSOCIATION: Zoologicheskiy institut Akademii nauk SSSR (Zoological Institute of the Academy of Sciences, USSR)

PRESENTED: February 9, 1959, by Ye. P. Pavlovskiy, Academician

SUBMITTED: January 29, 1959

Card 2/2

BUNAK, V.V.; KLEBANOVA, Ye.A.

Effect of increased mechanical load on the formation of bones of the extremities in growing animals. Arkh. anat. gist. i embr. 38 no. 5:43-50 My '60. (MIRA 14:2)

1. Laboratoriya funktsional'noy morfologii im. P.F. Lesgafta obyazannosti zav. laboratoriyey - Ye.A. Klebanova) Zoologicheskogo instituta AN SSSR.
(BONES) (EXTREMITIES (ANATOMY)) (GROWTH)

KLEBANOVA, Ye.A.; KOMAROVA, A.N.; BUKIN, Yu.V.

Aleksandra Kornil'evna Koveshnikova; on her 70th birthday. Arkh. anat.gist.i embr. 39 no.11:125-127 N '60. (MIRA 14:5)
(KOVESHNIKOVA, ALEKSANDRA KORNIL'EVNA, 1890-)

KLEBANOVA, Ye.A.

Microscopic structure of the compact substance in long tubular bones of jerboas. Zool. zhur. 41 no.3:425-436 Mr '62. (MIRA 15:3)

1. Laboratory of Functional Morphology, Zoological Institute, U.S.S.R. Academy of Sciences, Leningrad.
(Jerboas)

SOKOLOV, I. I.; KLEBANOVA, Ye. A.; SOKOLOV, A. S.

Morphological and functional characteristics of the locomotorium in saiga and goitered gazelle. Trudy Zool inst. 33:319-348 '64. (MIRA 17:7)

KLEBANOVA, Ye.A.

Structure of extremital bones in mammals. Zool. zhur. 44 no.4: 578-592 '65. (MIRA 18:6)

1. Zoologicheskiy institut AN SSSR, Leningrad.

KLEBANOVA, Ye.A.

Causes for the differentiation in the structure of the compact mass of long tubular bones of the extremities in mammals. Trudy Zool. inst. 35:364-374 '65. (MIRA 19:1)

1. Zoologicheskiy institut AN SSSR.

RAVICH-SHCHERBO, V. A.; KLEBANOVA, YE. YE.

Pneumothorax

Broncho- and angiospastic pulmonary reflexes in endoscopy and in spontaneous pneumothorax. Prob. tub. no. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, August 1952. Unclassified.

KLEBANOVA, Ya.Ie. (Kiyev)

Hematological characteristics of various outbreaks of influenza. Vrach. delo no.4:359-361 Ap '59. (MIRA 12:7)

1. Kliniki-diagnosticheskaya laboratoriya Instituta infektsionnykh bolezney AMN SSSR.

(BLOOD--EXAMINATION) (INFLUENZA)

KLEBANOVA, Ye.Ye. (Kiyev)

Blood picture in adenovirus diseases. Sbor.nauch.trud. Inst.infek.bol. no.4:219-222 '64. (MIRA 18:6)

KLEBANOVICH, V. I., CAND MED SCI, "~~CHARACTERISTICS~~ Peculiarities of Diaphyseal Fractures of Tubular Long Bones in Newborn," SARATOV, 1961. (SARATOV STATE MED INST).

KLEBANOVICH, V.P.

Raising the power factor of electric equipment. Gidrolis. i lesokhim. prom. 9 no.4:25-26 '56. (MLRA 9:11)

1. Bobruyskiy gidrolisnyy zavod.
(Electric machinery)

KLEBANOVSKAYA, L.R.

Two cases of bone homoplasty using an "embryonal" transplant. Ortrop. travm.i protes. 21 no.5:77-79 My '60. (MIRA 13:9)

1. Iz kafedry gospital'noy khirurgii (zav. - prof. A.N. Okulova) Omskogo meditsinskogo instituta im. M.I. Kalinina (dir. - prof. I.S. Novitskiy).

(BONE GRAFTING)

KLEBANOVSKAYA, L.R. (Omsk 42, prospekt Marksa, d.22, kv.41)

Homoplasty with embryonal bone tissue. Ortop., trava. i protez. 26 no.2:14-19 F '65. (MIRA 18:5)

1. Iz kafedry khirurgicheskikh bolezney (zav. - dotsent V.I.Larin) Omskogo meditsinskogo instituta imeni Kalinina (rektor - dotsent L.G.Makarov).

KLEBANOWSKI, Jerzy (Address: Rabka-Zdroj, ul. Nowy Swiat 2)

Problem of incision in surgery of the biliary tract. Polski przegl. chir. 26 no.1:29-32 Ja '54.

1. (Praca wplynela do redakcji dnia 27.IV.1952)
(BILIARY TRACT, surgery,
*incision, selection of site)

KLEBANOWSKI, Jerzy

Modern therapy of osteoarticular tuberculosis. Polski przegl. chir. 29 no.5:467-481 May 57.

1. Z Sanatorium im. W. Pstrowskiego w Rabce. Dyrektor: Dr B. Pieczonka Praca wplynela dnia 18. 4. 1956 r. Rabka, Sanatorium im. Pstrowskiego.
(TUBERCULOSIS, OSTEOARTICULAR, therapy,
(Pol))

KLEBANOWSKI, Jerzy

Osteoarticular tuberculosis treated locally by streptomycin. Polski przegl. chir. 31 no.4:549-553 May 59.

1. Z Sanatoriow im. Petrowskiego w Rabce, im. Nowotki w Rabce i im. Zeylanda w Zakopanem.
(TUBERCULOSIS, OSTEOARTICULAR, ther.)
(STREPTOMYCIN, ther.)

KLEBANOWSKI J.

EXCERPTA MEDICA Sec 15 Vol 13/6 Chest Dis. June 60

1617. LOCAL TREATMENT OF SURGICAL TB WITH STREPTOMYCIN - Gruźlica kostno-stawowa leczona miejscowo streptomycyną - Klebanowski J. Sanat. im. Patrowskiego, Rabce - POL. PRZEGL. CHIR. 1959, 31/5 (549-553) Tables 1 Illus. 2

On the basis of 45 of his own cases and observations from other sanatoria the contributor of the article suggests the application of streptomycin to the foci and joints in cases of tuberculous changes in the bones if these are not of a very destructive character. He stresses the contemporary tendency to early radical surgical removal of the foci of caseous necrosis and the importance of applying antibiotics as early as possible and for a prolonged period. (IX, 15)

KLEBANOWSKI, Jerzy; KALINSKA, Melania; SLOMSKA, Irena; ZASADA, Danuta

Treatment of early tuberculosis of large joints in children by means of antibiotics applied topically. Chir.narz.ruchu 25 no.2: 161-165 '60.

1. Z Sanatorium im. J. Krasickiego w Otwocku. Ordynator: dr J. Klebanowski.

(TUBERCULOSIS OSTEOARTICULAR in inf.& child.)

KLEBANOWSKI, Jerzy

Results of conservative therapy of tuberculous synovitis of the hip in children. Gruslica 29 no.6:555-559 Je '61.

1. Z Sanatorium Gruslicy Kostno-Stawowej im. J. Krasickiego w Otwocku Dyrektor: dr med. J. Sowinski.

(TUBERCULOSIS OSTEOARTICULAR ther)

KLEBANOWSKI, Jerzy; SLOMSKA, Irena; KALINSKA, Helmtia

Is it possible to prevent rheumatoid deformities using correct interventions in gonitis? Chir. narzad. ruchu ortop. Pol. 28 no.7:709-710 '63

1. Z Sanatorium Gruzlicy Kostno-Stawowej dla Dzieci im. J. Krasickiego w Otwocku.

LAZOWSKI, Zygmunt; KLEBANOWSKI, Jerzy; POLAKOWA, Irena

Chronic progressive rheumatism originating in a single joint treated as osteoarticular tuberculosis in children. Pediat. Pol. 39 no.12:1337-1346 D '64

1. Z Kliniki Pediatrycznej Studium Doskonalenia Lekarzy Akademii Medycznej w Warszawie (Kierownik: prof. dr.med. E. Wilkoszewski); z Instytutu Reumatologicznego w Warszawie (Dyrektor: dr. med. W. Bruhl) i z Sanatorium Gruzlicy Kostno-St[illegible]owej im. J. Krasickiego w Otwocku (Dyrektor: dr. med. J. Sowinski).

The synthesis of antipyrine and pyramidone. V. B. [illegible] and A. L. [illegible]. — Trans. State Inst. Applied Chem. (Moscow) No. 14, 21-70(1930). — A detailed review is given of the methods of synthesis, and also full directions for the prepn. by somewhat modified means of NaBr, Na_2HPO_4, MeCl, MeBr, AcOEt, $AcCH_2CO_2Et$, $PhNHNH_2$, pyrazolone, antipyrine and pyramidone. H. M. Leicester

METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

ca

10

Preparing ethylene glycol from dichloroethane. A. L. Kleinpeltz and I. M. Dolgopol'skii. *J. Applied Chem.* (U. S. S. R.) 7, 790-800(1934).—In the sapon. of $(CH_2Cl)_2$ with Na_2CO_3 [illegible]% ethylene glycol was obtained when using a mixt. of [illegible] g. $C_2H_4Cl_2$ and [illegible] g. Na_2CO_3 which was heated to 180° for 4 hrs. at a max. pressure of [illegible] atm. in a rotating autoclave. The sapon. with $NaHCO_3$ yielded [illegible]% glycol at a pressure of [illegible] atm. and a temp. of 180° for [illegible] hrs. The use of emulsifiers such as petroleumsulfonic acids, Na oleate, $MeC_6H_4SO_3Na$ and Na stearate did not show any advantages. The ethylene glycol yield was highest (under semi-com. conditions) when working at 175-95° and at least 100 atm. pressure; it then amounted to 87-90%, the balance constituting vinyl chloride which was absorbed in xylene. A detailed description of the process is presented. A. A. B

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

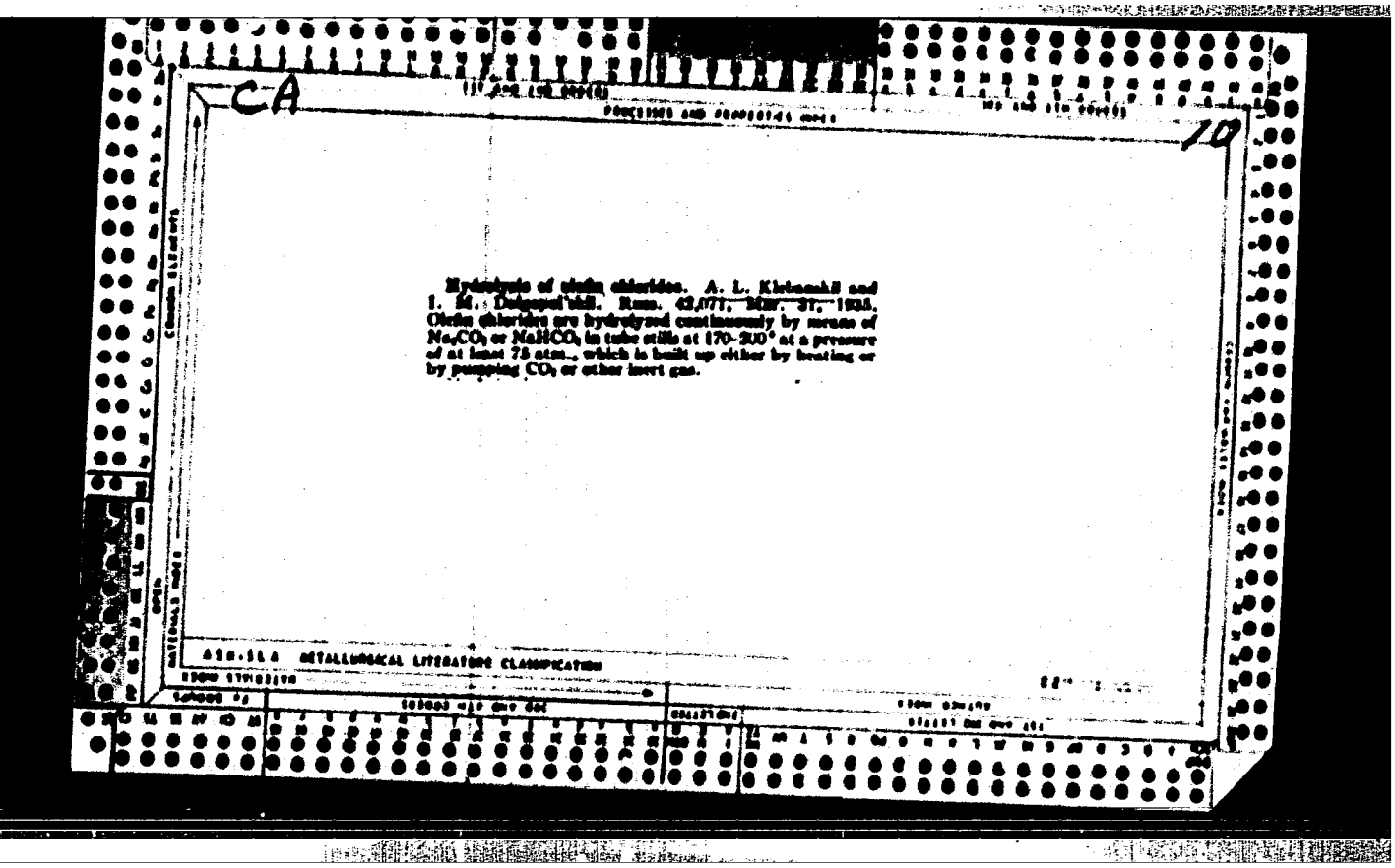
CA

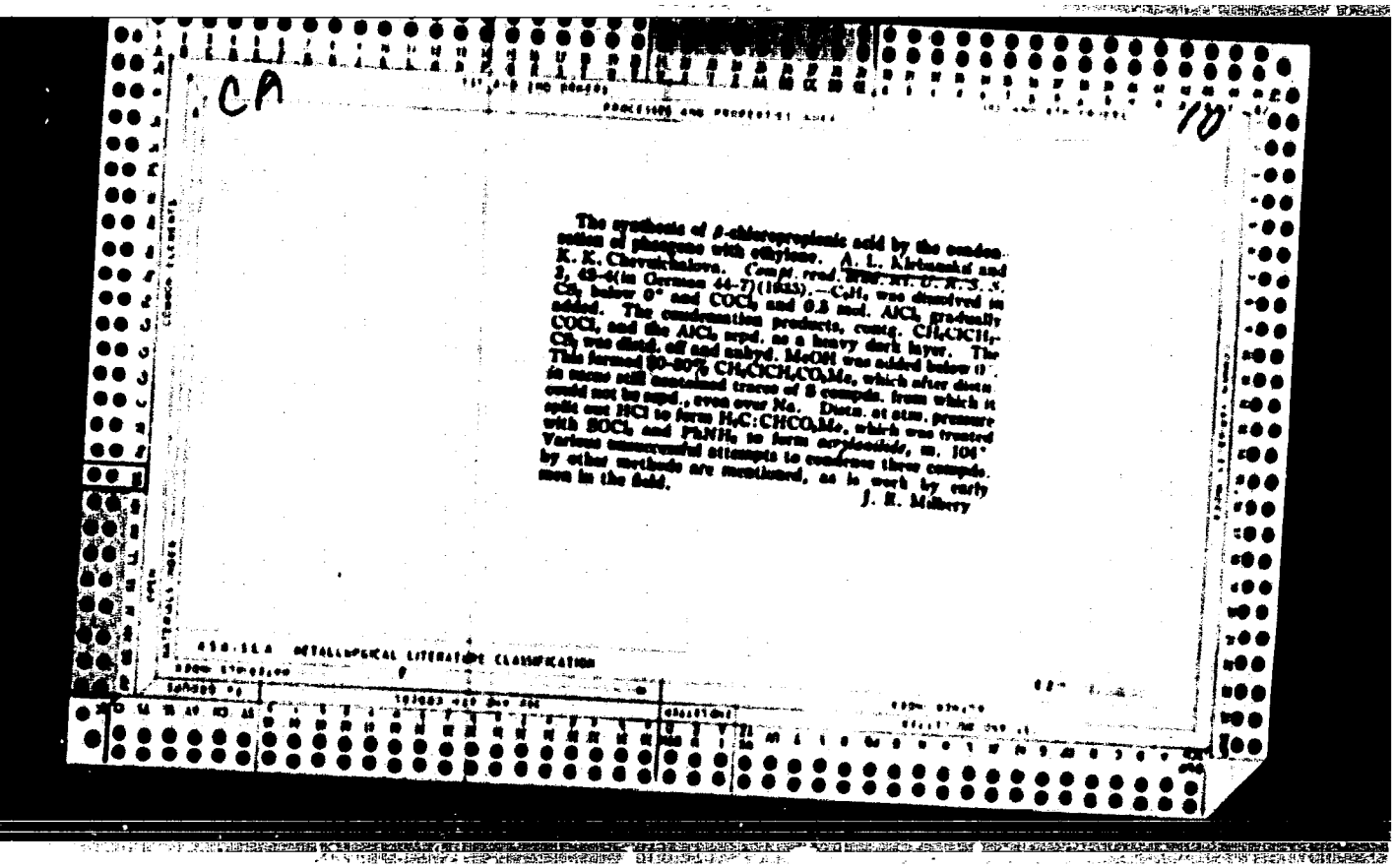
PROCESSES AND PROPERTIES INDEX

10

Preparing propylene glycol from propylene chloride. A. L. Klebanskii and I. M. Dolgopol'skii. *J. Applied Chem.* (U. S. S. R.) 7, 1181-91(1934); cf. *C. A.* 29, 2809.—The sapon. of propylene chloride is more difficult than that of $(CH_2Cl)_2$ because of the presence of a secondary Cl. A sapon. carried out with Na_2CO_3 yielded only 48% of propylene glycol at a temp. of 200° and a pressure of 48 atm., the yields being subject to great variations. $NaHCO_3$ raised the yield to 60-65% at 182 atm. and 210°, yielding in addn. 7-8% of unsatd. compds., mainly α-propylene chloride. The propylene glycol was detd. by oxidation with $K_2Cr_2O_7$: $3MeCH(OH)CH_2OH + 4K_2Cr_2O_7 + 16H_2SO_4 \rightarrow 3AcOH + 3CO_2 + 4K_2SO_4 + 4Cr_2(SO_4)_3 + 22H_2O$. A detailed description of various parts of the procedure is given. A. A. Bolshtikh

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION





CA

10

The synthesis of β-chloropropionic acid by the condensation of phosgene with ethylene. A. L. Klebanskii and K. K. Chevtchukova. *Compt. rend. Acad. Sci. U.R.S.S.* 3, 43–4 (in German 44–7) (1933).—C_2H_4 was dissolved in CS_2 below 0° and $COCl_2$ and 0.5 mol. $AlCl_3$ gradually added. The condensation products, consg. ClH_2CCH_2COCl, and the $AlCl_3$ sepd. as a heavy dark layer. The CS_2 was distd. off and subtrd. MeOH was added below 0°. This formed 90–95% $ClH_2CCH_2CO_2Me$, which after distn. in some still contained traces of S compds. from which it could not be sepd., even over Na. Distn. at atm. pressure split out HCl to form $H_2C:CHCO_2Me$, which was treated with $SOCl_2$ and $PhNH_2$ to form *acrylanilide*, m. 104°. Various unsuccessful attempts to condense these compds. by other methods are mentioned, as is work by early men in the field.

J. R. Mallory

PROCESSES AND PROPERTIES INDEX

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Chloroprene synthetic rubber (Sovprene). A. L. Klebanskii, L. G. Tsyurikh and I. M. Dolgopol'skii. *Bull. acad. sci. U. R. S. S.* 1934, No. 2, 189-228; *J. Research Assoc. Brit. Rubber Mfrs.* 4, 103-4(1935).—In the continuous polymerization of C_2H_2 in a weakly acid soln. of CuCl-NH_4Cl as catalyst, the product contains 75-80% of HC:CCH:CH_2 (I) and 20-25% of the trimer (II) and higher polymers. The yield, calcd. on the C_2H_2, is almost 100%, and a single passage of the gas converts about 40% of the C_2H_2. The optimum condition of the catalyst, the mechanism of the reactions and the main factors which affect this polymerization are discussed, and a method of sepn. and absorption of the gas by solvents is described. A discontinuous method of synthesizing chloroprene (III), and methods for its continuous prepn. from pure I and from soln. of I with C_2H_2 are also described. The polymerization of III to the α-polymer (IV) is then discussed, with particular reference to the conditions which hinder the formation of higher, balata-like polymers. A study was made of the ozonization and oxidation of polymers of III, the first method being applied to IV, to the μ-polymer and to the ω-polymer. The chief product is succinic acid. The compn. of II is discussed and the phys. and chem. properties of the previously unknown *diacetylenevinyl*, H_2C:CHCH:CHC:CH, the formation of which accompanies that of the divinyl, are described. Data are also given on the action of alk. KOH on 2,4-dichloro-2-butene (V), in which reaction *2-chloro-3-butene ethyl ether* is formed. Similar methods are described for the synthesis of chlorobutenol and of dichlorobutenyl ether from chlorobutenol and V are described. In this reaction *2-chlorobutene-4-ol xanthate* is also formed. A series of new syntheses from I is described, including a new synthesis of α,β-dichlorobutadiene. The structure of the product and the method of polymerization are discussed, as well as the fixation of aliphatic org. acids by I in the presence of $HgSO_4$ or a mixt. of HgO and BF_3, with formation of *esters of 2-hydroxy-1,3-butadiene*. The method of synthesis and the structures of the *formates and acetates of 2-hydroxy-1,3-butadiene*, and of the *condensation product with maleic anhydride*, and of their *hydration products*, are described. The combinations of EtOH and of MeOH with I in the presence of alk. alc. are described. In these reactions *1-methoxy-3,4-butadiene* and *2-ethoxy-1,3-butadiene* are formed. The fixation of MeOH by I in the presence of HgO or $BF_3.Et_2O$, and the hydrogenation of I to butadiene are described. Finally the formation of *styrene* by the polymerization of I is discussed. C. C. Davis

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

Ca 10

A new trimer compound of acetylene—acetylenedivinyl. A. L. Klebanskii, U. A. Dranitsina and I. M. Dolgopol'skii. Compt. rend. acad. sci. U. R. S. S. 2, 220-22 (in German 222-4)(1935).—Polymerized acetylene was distd. at 23-35° under 100 mm. to get the trimer fraction contg. 70% divinylacetylene, $CH_2:CHC:CCH:CH_2$ (I), and 20-30% of an active acetylene hydrocarbon. Treatment of the fraction with NH_3-$CuCl.NH_4Cl$ gave a ppt. of the Cu deriv. of acetylenedivinyl, $CH_2:CHCH:CHC:CH$ (II), colorless, b_{10} 22°, d_4^{20} 0.7851, n_D^{20} 1.4800. Treatment of II with HCl and $CuCl.NH_4Cl$ gave an addn. product, C_6H_7Cl (III), b_{10} 37-30°, d_4^{20} 0.9655, n_D^{20} 1.5190. III is easily polymerized. II does not react with p-thiocresol as I does, to give a cryst. product. II reacts with O_2 about twice as fast as I. II turns yellow and forms an explosive peroxide. F. H. Moser

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

The reaction of the combination of organic acids with monovinylacetylene to form butadiene esters. A. I. Klebanskii and K. K. Chevychalova. *Sintet. Kauchuk* 4, No. 4, 8-13(1935).—Monovinylacetylene formate was prepd. by admitting into a flask with agitator and reflux, and contg. 4% of HgO, $Et_2O.BF_3$ and HCO_2H, monovinylacetylene (I) from a dropping funnel. The yield of the ester (II) exceeded 64% after 4 hrs. Expts. carried out with $Zn(OAc)_2$, $Cd(OAc)_2$, $ZnCl_2$, ZnO, CuO and $Cu(CH_3COO)_2$ as catalysts were unsatisfactory. II had the formula $C_5H_6O_2$. Various tests of the II are reported. The reaction carried out with AcOH and I under similar conditions yielded only 21% of the corresponding ester (acetoprene), of the formula $C_6H_8O_2$. According to various tests the product of the reaction of HCO_2H with I is 2-formoxy-1,3-butadiene (III) and that of AcOH with monovinylacetylene is 2-acetoxy-1,3-butadiene (IV). Both III and IV form rubber-like polymers, the polymerization velocity of III exceeding that of IV. The process is described, and 10 references are appended. A. A. Boehtlingk

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

ca 10

Synthesis of β-chloropropionic and acrylic acids by condensation of phosgene and ethylene. A. I. [illegible] and K. K. Chevychalova. J. Gen. Chem. (U.S.S.R.) 8, [illegible] (1938).—A crit. discussion of the literature with more than 30 references is given. The neg. results obtained by Vardanyan and [illegible] (C. A. 30, [illegible]) in the formation of $ClCH_2CH_2COCl$ (I) by the condensation of $COCl_2$ with C_2H_4 in $PhNO_2$ and CCl_4 with $AlCl_3$ as catalyst are confirmed. Similar neg. results were obtained in PhCl solvent. Various conditions of Friedel-Crafts condensation of $COCl_2$ and C_2H_4 and isolation of I attempted are described in detail. The condensation of $COCl_2$ with C_2H_4 with the formation of I is considered as basically possible. The optimum conditions are at the concn. of 0.5 g./mol. of $AlCl_3$ in CS_2 with cooling and stirring. The product of the reaction is, apparently, I, which cannot be isolated as such by the decompn. of the complex. The sepn. of the condensation products may be more conveniently effected in the form of the esters of $ClCH_2CH_2CO_2H$ (II) by decompg. the $AlCl_3$ complex with abs. alc. In addn. to II a considerable formation of the products of polymerized C_2H_4 takes place. No improvement is effected by carrying out the reaction under pressure or by substituting $ZnCl_2$ for $AlCl_3$. Chas. Blanc

METALLURGICAL LITERATURE CLASSIFICATION

Synthesis of α,β-dichlorobutadiene and its polymerization. A. L. Klebanskii, A. S. Vol'kenshtein and A. P. Orlova. J. Gen. Chem. (U. S. S. R.) 5, 1255-67(1935).—Attempts to obtain $CH_2:CHCCl:CHCl$ (I) from $CH_2:CHC:CH$ (II) directly with $SbCl_5$ in the presence of $SbCl_3$ (cf. *Chem. Ind.* 25, No. 1, 23(1931)) and by treating II with a soln. of $CuCl_2$, CuCl and NH_4Cl or $FeCl_3$, CuCl and NH_4Cl resulted in little I and considerable tetramer and tetrachloride. The best results were obtained by converting II with NaClO to $CH_2:CHC:CCl$ (III) and this with HCl to I under the following optimum conditions. III, b. 55-7°, d_4^{15} 1.021, d_4^{20} 1.0134, n_D^{20} 1.4688, M. R. 22.41, exaltation 0.64, was obtained in 87% yield by mechanically shaking for 16 hrs. II with NaOCl contg. 18% NaOH. Several months after this work was completed Jacobson and Carothers (*C. A.* 28, 96[4]) reported that by a similar process they obtained III in 10% yield, possessing extremely explosive properties. This may be explained by contamination of their product with Cl derivs. of C_4H_4. I, b. 80-4°, d_4^{20} 1.207, n_D^{20} 1.5078, M. R. 30.47 (obs.), 29.472 (calcd.), exaltation 0.99, was obtained in 86% yield when 120 g. HCl (d. 1.19) satd. with HCl to 30-3% concn. was treated with 80 g. III, 23.2 g. CuCl and 4 g. NH_4Cl and then allowed to stand for 16 hrs. I is spontaneously polymerized to a rubber-like polymer which on vulcanization gives an ebonite-like substance. Twenty literature references. C. B.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

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The synthesis of the derivatives from 2,4-dichloro-2-butene. The use of by-products from the synthesis of chloroprene. A. L. Klebanskii and K. K. Chevychalova. Sintet. Kauchuk 1935, No. 8, 16 21.—(1). 2,4-Dichloro-2-butene (I) was treated with a 15% excess of 24-30% alc. KOH, by stirring for 4 hrs. on a water bath (60-70°). The product of reaction was sepd. from salts and fractionated in vacuo and was collected at 62-64° at 60 mm.; it had the following consts.: d_{4}^{20} 0.7020, n_{D}^{20} 1.4382, mol. refraction 38.06, Cl 26.07%, C 54.04%, H 8.01%, O 11.78, EtO no. 90.70% of theoretical value, formula $C_6H_{11}OCl$ (Et ether of 2-chloro-2-buten-4-ol); it did not polymerize. (2). I was treated with 15% excess of 18-20% Na_2CO_3, by stirring for 2 hrs. on a boiling water bath. The product of reaction is a chloro alc. (chlorobutenol) (II); it was distd. at 90-110° (yield 70-80%), and b_{13} 62°, d_{4}^{20} 1.108, n_{D}^{20} 1.4652, mol. refraction 28.84, Cl 32.8%, C 45.33%, H 6.47%, O 15.40%, formula C_4H_7OCl; it did not polymerize. (3). To establish the alc. group in II a xanthate was obtained by adding the theoretical amt. of KOH to the II with stirring for 30 mins. and heating on a water bath. KOH was in a suspension; with the addn. of a 20% excess of CS_2 a cryst. ppt. of xanthate was formed; the latter was dried in air or at const. temp. of 30-40°. The reaction proceeded as follows: $CH_3CCl:CHCH_2OH + KOH + CS_2 = KS_2COCH_2CH:CClMe + H_2O$. The resulting xanthate was sol. in water and alc.; it contained Cl 17.6%, S 31.20%; at 142° it changed from yellow to a darker color; it can be used for flotation (equals the K Et xanthate). (4). The water soln. of KOH (15% in excess) was treated with II, heated on a water bath, and I was gradually added with stirring. The reaction was completed in 4 hrs. The product of reaction was washed with water, dried over $CaCl_2$ and distd. in vacuo (yield 80-90%). The consts. of the resulting dichlorodibutenyl ether were b_{10} 142°, Cl 36.9%, d_{4}^{20} 1.171, n_{D}^{20} 1.4980, mol. refraction 50.11, formula $C_8H_{12}OCl_2$. The product did not polymerize. (5). I was passed through a china pipe over silica gel at 245-75°, over Glukhovskaya clay at 230-60° and 250-280° and over molten KOH at 265-400°. In all cases chloroprene was obtained (yield 17-21%), with the following consts.: b_{760} 35°, d_{4}^{20} 0.9578, n_{D}^{20} 1.4570.

A. Pestoff

ASO-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

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The conditions and methods for the preparation of glycerol trichlorohydrin from propylene chloride. A. I. [illegible] and A. S. Vol'[illegible]. *J. Applied Chem.* (U.S.S.R.) [illegible], 166-181([illegible]).—In checking various known methods for the prepn. of glycerol trichlorohydrin by chlorinating propylene chloride in the presence and absence of various catalysts a very complex mixt. of various products contg. mainly 1,1,2-trichloropropane is obtained, while trichlorohydrin is obtained in a very contaminated state and in small quantities. In the splitting of HCl from propylene chloride by means of catalysts and bases α-chloropropene and propadiene are obtained. Sixteen references.

A. A. Bochtlingk

METALLURGICAL LITERATURE CLASSIFICATION

Antipyrine and pyramidone synthesis. II. A. L. Klebanskii and A. L. Lemke. *J. Applied Chem.* (U. S. S. R.) 8, 269-76(1935); cf. *C. A.* 29, 1581.—*Antipyrine* is prepd. by admitting 100 g. pyrazolone and 100 cc. PhMe into a glass or enameled metal flask equipped with a reflux condenser and a stirrer with packing. The mixt. is heated on an oil bath to 180° and 87 g. of freshly prepd. Me_2SO_4 is then admitted drop by drop with steady and vigorous agitation. The heating is continued after the admission of the entire Me_2SO_4 for 4-5 hrs. (at 180°). After cooling, the upper layer, which consists mainly of PhMe, is discharged for regeneration, while the lower layer is mixed with 100 cc. H_2O, followed by heating with agitation to 80° and 90-100 cc. of 40% NaOH is then admitted, maintaining the above temp. After another 30-min. agitation 300 cc. of C_6H_6 is admitted and agitation and heating to 80° is continued for 1 hr. The upper layer contains the C_6H_6 soln. of antipyrine, while from the lower NaOH layer antipyrine is extd. with C_6H_6. The combined C_6H_6 solns. of antipyrine are dried over K_2CO_3, the C_6H_6 distd. off on the water bath and finally in vacuo. The crystals obtained, m. 109.5-10.5°, can be used either for the prepn. of pyramidone or they must be recrystd. from H_2O with 2% animal C to comply with the pharmacopeia. The C_6H_6 residues are treated with HCl, the antipyrine going into the HCl soln., which is then treated with animal C, filtered, made alk. with 40% NaOH, etc. The total yield is 80-85%.

Pyramidone is prepd. by dissolving 80 parts of antipyrine in 400-450 parts H_2O and 72-73 cc. 14.5% HCl, then adding slowly and after cooling 44.7 g. $NaNO_2$ (42%) dild. with an equal amt. of H_2O. To the soln. is added 260 cc. $NaHSO_3$ (40-45%), the mixt. is boiled and simultaneously blown with air for the removal of SO_2, concd., and treated, while cold, with 100 cc. of concd. HCl. After standing for 24 hrs. white crystals of sulfoaminopyrazolone are pptd. which are filtered, washed with H_2O, converted into the Na salt, followed by a treatment of the aq. suspension in 100 cc. H_2O with a 10% soln. of caustic till neutral. The aq. soln. is slowly introduced (3-4 hrs.) into a boiling mixt. of 98 cc. HCO_2H (0.2 g. per l.) and 64 cc. formalin (0.20 g. per l.) and heated on a water bath for 14 hrs. The excess of HCHO and HCO_2H can be distd. off or the product can be treated with strong alkali directly with cooling. The sepd. crystals are removed and the soln. is treated while cold with C_6H_6 and the crystals are also removed in the C_6H_6 soln. and dried over K_2CO_3. The C_6H_6 is evapd. and the crystn. is effected from gasoline and then from PhMe. The pyramidone yield is 75-80% and it complies with the requirements of the pharmacopeia. A. A. B.

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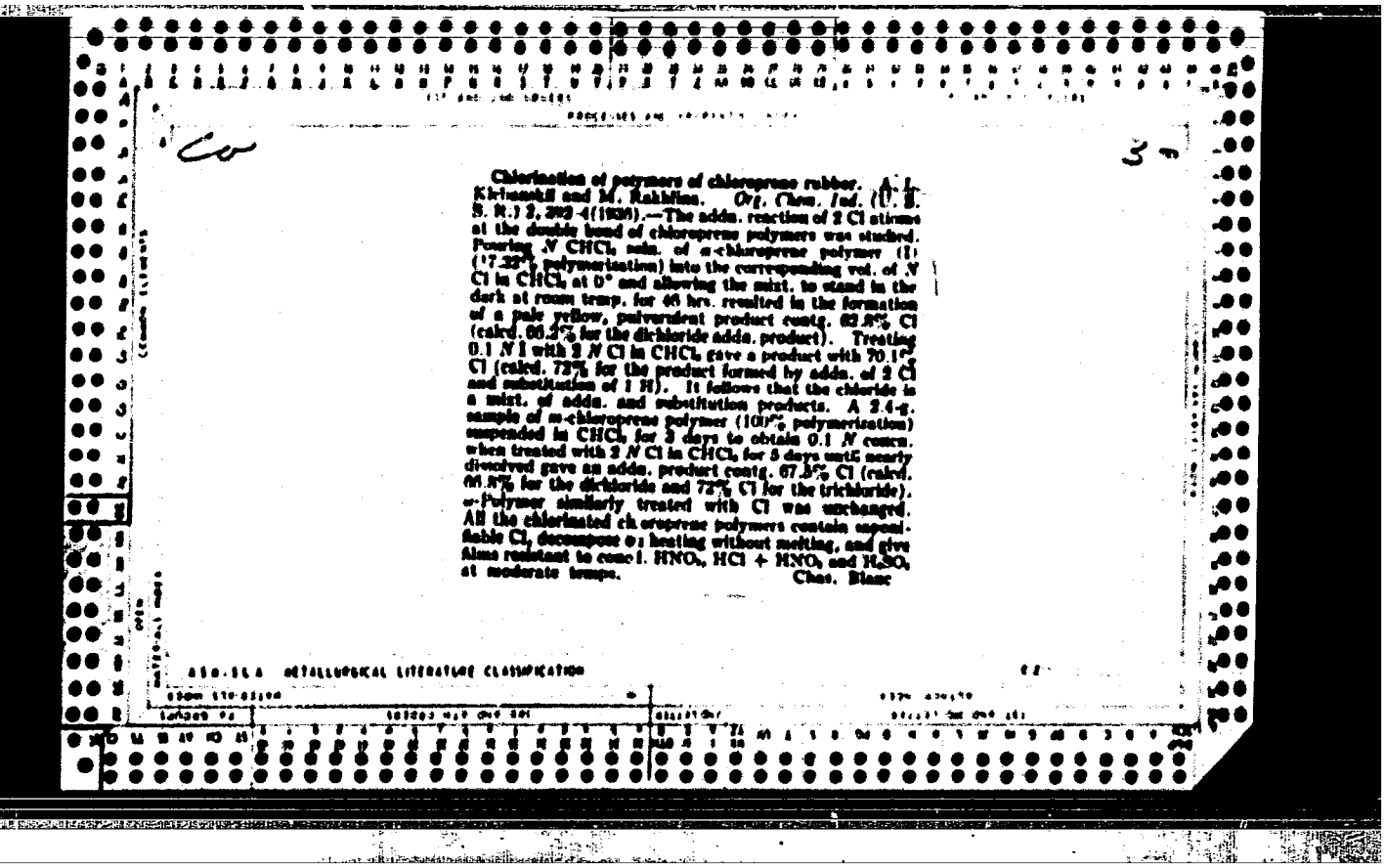
Chloroprene. A. L. Klebanskii and Yu. V. Tremba. Russ. 40,916, May 31, 1934. A mixt. of vinylacetylene and acetylene is passed through an aq. soln. contg. CuCl and HCl catalysts. The mixt. is formed by passing acetylene through a soln. of the same catalyst, and removal of the divinylacetylene formed.

ASO-SLA METALLURGICAL LITERATURE CLASSIFICATION



Chlorination of polymers of chloroprene rubber. A. L. Kirkpatrick and M. Rabbitan. *Org. Chem. Ind.* (U. S. S. R.) 2, 202-4(1936).—The addn. reaction of 2 Cl atoms at the double bond of chloroprene polymers was studied. Pouring *N* $CHCl_3$ soln. of *α*-chloroprene polymer (I; 17.22% polymerization) into the corresponding vol. of *N* Cl in $CHCl_3$ at 0° and allowing the mixt. to stand in the dark at room temp. for 46 hrs. resulted in the formation of a pale yellow, pulverulent product contg. 62.8% Cl (calcd. 66.2% for the dichloride addn. product). Treating 0.1 *N* I with 2 *N* Cl in $CHCl_3$ gave a product with 70.1% Cl (calcd. 72% for the product formed by addn. of 2 Cl and substitution of 1 H). It follows that the chloride is a mixt. of addn. and substitution products. A 2.4-g. sample of *α*-chloroprene polymer (10%; polymerization) suspended in $CHCl_3$ for 3 days to obtain 0.1 *N* concn. when treated with 2 *N* Cl in $CHCl_3$ for 5 days until nearly dissolved gave an addn. product contg. 67.5% Cl (calcd. 66.8% for the dichloride and 72% Cl for the trichloride). *α*-Polymer similarly treated with Cl was unchanged. All the chlorinated chloroprene polymers contain unsaponifiable Cl, decompose on heating without melting, and give films resistant to concd. HNO_3, HCl + HNO_3, and H_2SO_4 at moderate temps.

Chas. Blanc

BC

a-3

PROCESSES AND PROPERTIES INDEX

Study of the structure of polymeroxides of chloroprene by ozonolysis and oxidation by nitric acid. I. A. L. Klebanskii and V. G. Vasil'eva (J. Gen. Chem. Russ., 1936, 6, [illegible]—[illegible]).—The oxide of α-polychloroprene gives succinic acid (I) in [illegible]% yield when treated with 20% H_2O_2 at 100°; substitution of H_2O, an aq. suspension of $BaCO_3$, or 3% HCl in MeOH for H_2O_2 leads to formation of tarry products. The oxides of the μ- and ω-polychloroprenes yield (I) in [illegible]—[illegible]% yield when heated with H_2O at 100°. R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

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Method of technical control of the gas mixture obtained in the manufacture of Sovprene synthetic rubber. Analysis of the ternary mixture acetylene, vinylacetylene and divinylacetylene. A. L. Klebanskii and I. M. Dolgopol'skaya. *Sintet. Kauchuk* (U. S. S. R.) 1936, No. 9, 12-16.—Eighty % H_2SO_4 absorbs vinylacetylene and divinylacetylene (I) from the gas mixt., leaving C_2H_2. The orig. gas mixt. is dild. with an equal proportion of inert gas and the whole mixt. is shaken with alk. $Hg(CN)_2$, which leaves I. The time of analysis is 1-1.5 hr. A. Pestoff

ASO-SLA METALLURGICAL LITERATURE CLASSIFICATION

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BC

a-3

Elimination of hydrogen chloride from ββ-dichloro-Δ¹-butene. II. A. L. Klebanski, K. K. Tschevitschalova, and A. P. Belenkaja (J. Appl. Chem. Russ., 1936, 9, 1986—1989).—Chloroprene is obtained in 65—75% yield by passing CHMeCClCH·CH_2Cl (I) over $CuCl_2$ on Cu turnings at 350—400°, or by passing 1:1 steam-(I) mixture over Cu, also at 350—400°. The inactivated catalysts are regenerated by heating in air at 500—550° for 3—4 hr.

R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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Splitting of hydrochloride acid from 2,4-dichloro-2-butene. II. A. L. Klebanskii, K. K. Chevychalova and A. P. Beletskaya. *J. Applied Chem.* (U. S. S. R.) 9, [illegible] (in German [illegible]) (1936); cf. *C. A.* 30, 1024'.—HCl is split from 2,4-dichloro-2-butene (I) with simultaneous isomerization into chloroprene by the action of fused KOH contg. 10% of water, at 180-[illegible]°, yielding 50% of a chloroprene. The method is not convenient because of the formation of KCl which clogs the app. and because of the high consumption of KOH. The method of catalytic splitting of HCl by anhyd. $CaCl_2$ and Cu shavings with the admission of steam at 350-400° yields 65-70% chloroprene. Superheated steam (based on reacted I) passed with I at a 1:1 ratio increases the activity and life of the catalyst. The latter can be regenerated by heating in a O_2 atm. at 300-[illegible]° for 3-4 hrs. The following catalysts were tested: ($CuCl + NH_4Cl$), "Glukhov" clay, CuCl impregnated on pumice, Cu and ($CaCl_2$ + Cu) which is the best. Four references. A. A. Podgorny

AIO-SLA METALLURGICAL LITERATURE CLASSIFICATION