LIBKIND, Aron Solomonovich; PYLAYEVA, A.P., red.; FEDOTOVA, A.F., tekhn. red.

[Analyzing the economy of collective farms] Analiz ekonomiki kolkhozov. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1957. 227 p. (MIRA 11:4)
(Collective farms--Accounting)

LIBKIND, Aron Solomonovich

[Method of analyzing the annual report of collective farms] Priemy analiza godovogo otcheta kolkhoza. [Moskva] Moskovskii rabochii, 1958. 93 p. (MIRA 11:5)
(Collective farms--Accounting)

L 10478-67 5 EWT(d)/EWT(l)/EWT(m)/EWP(w)/EWP(v)/EWP(k) IJP(c) WW/EM

ACC NR: AP6035734 SOURCE CODE: UR/0413/66/000/019/0097/0097

AUTHOR: Kaplan, V. I.; Druy, M. G.; Libkind, B. N.; Agafonov, B. S.

41

ORG: none

TITLE: Exhaust system. Class 42, No. 186743

SOURCE: Izobreteniya, promyshlennyy obraztsy, tovarnyye znaki, no. 19, 1966, 97

TOPIC TAGS: engine test stand, exhaust gas removal system, rocket test facility

ABSTRACT: The proposed exhaust system for testing engines contains a shaft, a gas collector with an outlet, and a gas line which is connected to the gas collector outlet and to the shaft. The exhaust gases from the test engine nozzle are fed into the gas collector. To test engines with exhaust in the vertical direction, the outlet is mounted under the gas collector and is made in the form of concentric bends, arranged one inside another.

SUB CODE: 21/ SUBM DATE: 07May64/ ATD PRESS: 5103

Card 1/1 UDC: 621.43.06

LIBKIND, L. I. 1964

DECEASED

c. '64

L 22305-66 EWT(d)/T/EWP(1) IJP(c)

ACCESSION NR: AP6005863 SOURCE CODE: UR/0406/65/001/003/0048/0055

AUTHOR: Libkind, L. M.

ORG: None

TITLE: Epsilon-entropy of discrete information sources

SOURCE: Problemy peredachi informatsii, v. 1, no. 3, 1965, 48-55

TOPIC TAGS: random process, entropy, information processing

ABSTRACT: The author investigates the problem of obtaining explicit expressions of the Epsilon-entropy of segments of random processes with the finite number of states and discrete time. The calculations show that these expressions are cumbersome and difficult to form, and that become sufficiently simple in form only at "small" values of Epsilon. It is for this reason that the main attention is given to the obtaining of simple and convenient boundaries. Author is grateful to M. S. Pinsker for the statement of the problem and to R. L. Dobrushin for valuable comments on the initial version of the paper. Orig. art. has: 52 formulas.

SUB CODE: 09, 12 / SUBM DATE: 23Mar65 / ORIG REF: 003
Card 1/1 nst UDC: 621.391.18

LIBKIND, M., prepodavatel'

Visual aids for metal turning. Prof.-tekh. obr. 18 no.5:14 My '61. (MIRA 14:8)

1. Tekhnicheskoye uchilishche No.1, g. Leningrad.
(Turning--Audio-visual aids)

'18(3)

AUTHORS: Kleynman, Ya. M., Libkind, M. A., Engineers SOV/119-59-1-7/20

TITLE: Automatic Control of Iron Smelting Furnaces by Electrodes (Avtomaticheskoye upravleniye elektrodami ferrosplavnykh pechey)

PERIODICAL: Priborostroyeniye, 1959, Nr 1, pp 8-10 (USSR)

ABSTRACT: "Yuvmetallurgavtomatika" has developed a relay of the type ETR and a small series of the mentioned relay has been produced. The main part of the relay is a single contact magnetic amplifier which serves as an attenuator for the current intensity to be controlled and at the same time it regulates the amplification in such a way that a sufficiently small zone of insensitiveness is secured. The relay can be used for both current and impedance regulation. The scheme of the relay shows the parts which belong to a complete relay group: 1 single contact magnetic amplifier, two relays of the type MKU-48, 5 resistances of the type VS, 2 condensers of the type KE-1, and 3 selenium rectifiers. The magnetic amplifier is supplied by a 36 V alternate current. In industry this relay is used as a current regulator in iron smelting furnaces and as an impedance regulator in carbide furnaces. A carbide furnace has already been in use for 11 months without any trouble. From the given

Card 1/2

regulation curves can be seen that the relay operates very firmly. The relay is in a dust-proof case, weighs 9 kg and is constructed in such a way that it is capable of cutting out 1 million times without any disturbance. The regulation ranges of the zone of insensitiveness are between ±2 and ±7%. The time of retardation of the relay in case of a current deviation which does not exceed twice the zone of insensitiveness is between 0.1 and 0.5 sec. There are 6 figures.

LIBKIND, Mark Samuilovich; MARKOVICH, Isaak Moiseyevich; KAMINSKIY, Ye.A., red.

[Electricity on the move] Elektrichestvo v puti. Moskva, Izd-vo "Energiia," 1964. 120 p. (MIRA 17:6)

LEONOV, B.G., inzh.; LIBMAN, M.D., inzh.

Using cold asphalt plaster in waterproofing. Biul. tekh. inform. po stroi. 5 no.4:18-20 Ap '59. (MIRA 12:8)
(Waterproofing) (Asphalt)

BLYUMBERG, V.A.; SERGEYEV, M.A.; KROPIVNITSKIY, N.N., inzh., retsenzent; LIBKIND, M.M., inzh., retsenzent; BARSKIY, M.E., inzh., red.; VARKOVETSKAYA, A.I., red.izd-va; SPERANSKAYA, O.V., tekhn.red.; DLUGOKANSKAYA, Ye.A., tekhn.red.

[Operator of boring and turning lathes] Tokar'-karusel'shchik. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 422 p. (MIRA 12:11)

(Lathes)

LIBKIND, M.S.

LIBKIND, M.S., Cand. Tech. Sci., Mbr., Energetics Inst. Im. G.M. Krzhizhanovskiy

I.S. BRUK, Elektrichestvo (No. 1) 37-44 (1948)

"Alternating Current Calculating Table,"

LIBKIND, M. S.

[redacted]
and P.I.Zubkov have translated into Russian "Transient Processes in Linear Systems," by M. F. Gardner and J. L. Burns. Published by Gosenergoizdat, 1949, 528pp, R 27

SO: W 14743, 1 Nov 1950

LIBKIND, M. S.

158T56

USSR/Mathematics - Computers Mar 50
Approximations

"Errors That Occur During Calculations Carried Out on the 'Calculating Table,'" M. S. Libkind, Power Inst imeni Krzhizhanovskiy, 17 pp

"Iz Ak Nauk SSSR, Otdel, Tekh Nauk" No 3

Gives results of tests on "universal calculating table" constructed at Power Inst, Acad Sci USSR. This machine was described in "Elektrichestvo" No 1, 1948, by I. S. Bruk, et al. Sources of errors are investigated in: measuring complex; resistance, inductance, capacitance coils; generator (oscillator) elements; "parasitic" parameters; and capacity. Submitted 19 Sep 49 by Acad A. V. Vinter.

[redacted] 158T56

ZUBKOVA, P. I. and LIBKINDA, M. S.

Perekhodnie Protzesi v Lineinikh Sistemakh (Transients in Linear Systems), State Publishing House of Tech.-Theoretical Literature, Moscow, 1951.

USSR/Electricity - Network Analyzers Jun 51
Modeling

"Comments on M. P. Kostenko's 'An Electrodynamic Model for Stability Studies' and Rejoinder by Kostenko," M. S. Libkind, Cand Tech Sci, Power Eng Inst imeni Krzhizhanovskiy, Acad Sci USSR

"Elektrichestvo" No 6, pp 78-80

Kostenko's article appeared in "Elektrichestvo" No 9, 1950. Libkind disagrees with Kostenko's preference of electrodynamic models over network analyzers. He believes that each has its own field of application. Network analyzers, according to Libkind, are efficient in rapid and accurate investigations of processes whose physnature is known and expressed in math form (particularly in calcns of the stability of elec systems), and therefore should be used by planning organizations and power systems for practical calcns. Phys models, however, are useful where the nature of the investigated process is unknown, and therefore belong primarily in laboratories of research and educational institutions. Kostenko states that Libkind overestimates the merits of the network analyzer.

200T21

LIBKIND, M.S.

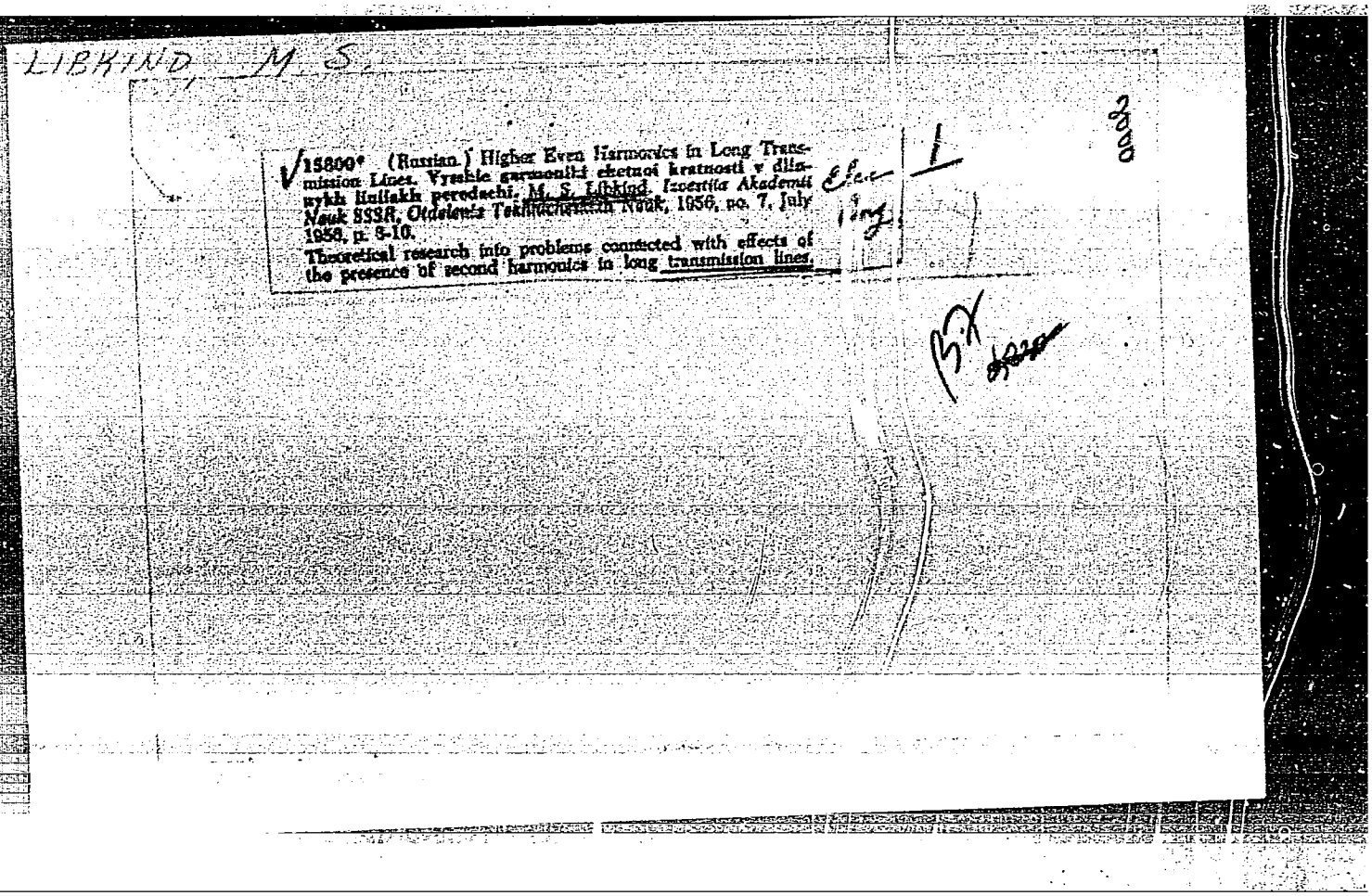
LIBKIND, M.S.; BRUK, I.S., chlen-korrespondent.

Subharmonic oscillations in a simple series circuit. Izv.AN SSSR Otd.tekh. nauk no.9:1248-1261 S '53. (MLRA 6:10)

1. Akademiya nauk SSSR (for Bruk). (Electric circuits) (Oscillations)

LIBKIND, M.S.

Conference on the Kuibyshev--Moscow power transmission system's internal overvoltage. Izv.AN SSSR Otd.tekh.nauk no.11:1662-1663 N '53. (MLRA 7:1)
(Electric networks)



LIBKIND, M. S.

15809* (Russian.) Higher Even Harmonics in Long Transmission Lines. Vysshie garmonik chetnoi kratnosti v dlinnykh liniiakh peredachi. M. S. Libkind. *Izvestiia Akademii Nauk SSSR, Otdelenie Tekhnicheskikh Nauk*, 1956, no. 7, July 1956, p. 8-10.

Theoretical research into problems connected with effects of the presence of second harmonics in long transmission lines.

LIBKIND, M.S., kandidat tekhnicheskikh nauk.

Generalization of experience in long-distance electric energy transmission. (Session in the Institute of Power Engineering). Vest. AN SSSR 27 no.6:107-108 Je '57. (MLRA 10:7)
(Electric power distribution)

LIBKIND, M.S.

110-12-5/19

AUTHOR: Libkind, M.S., Candidate of Technical Sciences.

TITLE: The Magnetisation Power and Loss in Transformer Steel When a Strong Direct Field is Super-posed on a 50 c/s Alternating Field. (Moshchnost' namagnichivaniya i poteri v transformatornoy stali pri nalozhenii sil'nogo postoyannogo polya na peremennoye pole chastoty 50 gts)

PERIODICAL: Vestnik Elektropromyshlennosti, 1957, Vol.28, No.12, pp. 16 - 19 (USSR)

ABSTRACT: Although magnetic amplifiers have mostly been made of small output for control purposes, it would be quite practical to make them of high output. Indeed, this has already been done abroad, and in the USSR successful tests have been made on d.c. magnetisation of 360 MVA transformers for the purpose of using excess reactive power generated by high-voltage transmission lines.

Successful use of the principle of magnetic amplification in power equipment entails d.c. magnetisation of the order of 50 - 100 A/cm. Few investigations have extended beyond 15 A/cm, but G.P. Smirnov has derived characteristics up to 60 A/cm though he gives no values for losses.

This article reports measurements of permeability and power losses for steels 341 and 3310, 0.5 mm thick with a simultaneous

Cardl/4

The Magnetisation Power and Loss in Transformer Steel When a Strong Direct Field is Super-posed on a 50 c/s Alternating Field.

application of direct and 50 c/s alternating fields. The tests were made on small specimens weighing about 4 kg. The direct component of field intensity ranged up to 0 - 120 A/cm and the alternating component from 0.8 to 1.9 webers/m^2. The measurements were made with an alternating component of magnetic flux of almost pure sine wave form. The steel specimens were assembled from sheets of 30 x 230 x 0.5 mm, covered on one side with nitro-lacquer. Three uniformly-distributed windings were wound on the core as shown in Fig.1; the inner measuring winding had 400 turns and the next or magnetising winding had 960 turns. A d.c. winding of 960 turns was used only for measurements of active power.

A formula is quoted which gives the amplitude of the alternating component of magnetic induction directly, as was shown by Rudnyy: the maximum error is $\pm$ 4%.

A schematic diagram of the circuit used to measure the excitation is shown in Fig.2. One ammeter indicates the d.c. component of the magnetising current and another the r.m.s. value of the total current in the circuit. The r.m.s. value of the first harmonic of the magnetising current is measured by a wattmeter.

Card2/4 A formula quoted for the incremental permeability is claimed to

The Magnetisation Power and Loss in Transformer Steel When A Strong Direct Field is Super-posed on a 50 c/s Alternating Field.

be accurate to 3 - 4%. The test results are given in Figs. 3 and 4 in the form of families of curves.

The losses in the steel were measured by the circuit given in Fig.5, using a special wattmeter. The current-transformer is so connected that the current passing through it should contain no even harmonics. It was shown by oscillograph that this condition is fulfilled. An analysis is made of the errors in loss measurement, and the values of the maximum error of individual measurements are tabulated.

The results of the loss measurements are given in Fig.6 for steel 341 and in Fig.7 for steel 3310. Those parts of the curve for which the errors of measurement can be more than 10% are shown dotted. At all values of induction, the tests showed that the super-position of d.c. magnetisation increases the losses. The curves relate to interleaved specimens; with butt joints the losses are somewhat greater.

According to Bessanov, and some other authors, losses in steel are markedly reduced by the super-position of direct magnetisation if the alternating induction exceeds a certain critical value. This finding was not confirmed. At best, there was only a small

 reduction in the losses. It must be supposed that there were

The Magnetisation Power and Loss in Transformer Steel When A Strong Direct Field is Super-posed on a 50 c/s Alternating Field.

large errors in the earlier measurements.
The following participated in the work: S.S. Vorob'yev, Engineer, L.I. Kazanskiy, Engineer, and Yu.S. Vukulov and Ye.I. Smirnov, laboratory assistants. There are 7 figures, 1 table and 12 references, 7 of which are Slavic.

ASSOCIATION: Power Institute of the Ac.Sc. USSR. (Energeticheskiy Institut AN SSSR)

SUBMITTED: April 8, 1957.

AVAILABLE: Library of Congress

Card 4/4

LIBKIND, M.S.

BRUK, Isaak Semenovich; ZUBKOV, Pavel Izrailevich; KRYUKOV, Adrian Aleksandrovich; LIBKIND, Mark Samuilovich; MARKOVICH, Isaak Moiseyevich; SOVALOV, Solomon, Abramovich; GRIGOR'YEV, Ye.N., red.izd-va; NOVIKOVA, S., tekhn.red.

[Long distance transmission of alternating current] Dal'nie peredachi peremennogo toka. Moskva, Izd-vo Akad. nauk SSSR, 1958. 258 p. (MIRA 11:5)

1. Chlen-korrespondent AN SSSR (for Bruk)
(Electric power distribution)

LIBKIND M.S.

105-58-4-20/37

AUTHORS: Markovich, I. M., Doctor of Technical Sciences
Libkind, M. S., Candidate of Technical Sciences

TITLE: On Dynamic Models of Power Systems (O dinamicheskikh modelyakh energosistem)

PERIODICAL: Elektrichestvo, 1958, Nr 4, pp. 73 - 74 (USSR)

ABSTRACT: This is a discussion on the article by I. S. Bruk in Elektrichestvo, 1958, Nr 2. Pointing at the book by V. A. Venikov and A. V. Ivanov-Smolenskiy "Physical Modelling of Electric Systems", 1956, GEI publication, and referring to some paragraphs from this book the author is of opinion that dynamic models can be used in the investigation of various problems as well as for teaching aids. It is useless from the viewpoint of technical possibilities as well as of expenses to compare the dynamic models as means for the quantitative investigation with the electrical network analyzer and with numerical machines before the problem of the accuracy in the carrying out of various calculations by means of the dynamic models will be completely explained. As regards the universal numeric-

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105-58-4-20/37

On Dynamic Models of Power Systems

al machines their use for the calculation of the operation of energy systems will be extended, other devices being replaced to a certain extent.

ASSOCIATION: Energeticheskiy institut im. Krzhizhanovskogo Akademii nauk SSSR
(Institute for Power Engineering imeni Krzhizhanovskiy AS USSR)

AVAILABLE: Library of Congress

1. Electrical systems-Modelling

Card 2/2

LIB KIND M.S.

SOV/110-58-7-18/21

AUTHORS: Yenin, V.T., Candidate of Technical Sciences, and Libkind, M.S., Candidate of Technical Sciences

TITLE: Concerning the article 'New sources of reactive power that can be used to improve the utilisation of generators and synchronous condensers' (Po povodu stat'i 'Novyye istochniki reaktivnoy moshchnosti pozvolyayushchiye uluchshit' ispol'zovaniye generatorov i sinkhronnykh kompensatorov')

PERIODICAL: Vestnik Elektropromyshlennosti, 1958, 29 Nr 7, pp 62-65 (USSR)

Discussion by two authors of an article by Professor V.A. Venikov, Candidate of Technical Science, V.V. Khudyakov, and Engineer A.N. Tsov'yanov, published in Vestnik Elektropromyshlennosti, Nr 12, 1957

Contribution of Yenin

ABSTRACT: The proposal to replace synchronous condensers by a static inertialess installation based on capacitors and a regulating link is attractive, but the rectifier-inverter and rectifier-capacitor circuits proposed are not good choices. The

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Concerning the article 'New sources of reactive power that can be used to improve the utilisation of generators and synchronous condensers'

series-connected capacitors might form resonant circuits; the limits of regulation are very restricted under capacitative conditions when working on reactors; the installed power of the capacitors is too great; the load-factors are too low; and the service life of the capacitors too short. The disadvantages of existing artificial switching circuits that can be used with leading angles of regulation, and of the circuits given in the article, are fundamental. Hence the idea arises of replacing the capacitors by inductive apparatus using the rectifiers or inverters as ionic compensators. A schematic diagram of a double-bridge circuit with a magnetic frequency-tripler is given in Fig. 1; the way in which phase-displacement can be achieved with this equipment is shown in Fig. 2. Tests were made on a model of the circuit; when operating against back e.m.f., the power-factor was varied from 0.5 lagging to 0.5 leading and the output of the frequency tripler ranged from 0 to 0.6 kVA/kW. The reactive power can be varied smoothly. A more efficient circuit than

 this frequency-tripler is the bridge circuit with magnetic

Concerning the article 'New sources of reactive power that can be used to improve the utilisation of generators and synchronous condensers'

frequency-doubler shown in Fig. 4a. The anode transformer consists of a group of single-phase transformers, as in Fig. 4b, and was developed in the Moscow Power Institute by Professor G.N. Petrov and Docent M.S. Mikhaylov-Mikulinskiy. Such a transformer is not difficult to construct and there is no need for an external source of d.c. Voltage and current diagrams are given in Fig. 5. As will be seen from Fig. 6, the greatest effect is obtained when the angle between the fundamental frequency and the second harmonic is 45°. The theory and practice of magnetic frequency-multipliers cannot be developed here, but it is certain that these circuits are better under both normal and fault conditions than those using rectifiers and capacitors. However, detailed technical and economic studies are required before a final choice of method can be made. There are 6 figures and 2 references, one of which is Soviet and 1 German.

Concerning the article 'New sources of reactive power that can be used to improve the utilisation of generators and synchronous condensers'

Contribution of Libkind

The article under discussion considers only one way of compensating transmission lines. The type of equipment recommended is still in the laboratory stage of development and readers are warned not to draw premature conclusions about it. Figure 1 shows in relative units a family of volt-ampere characteristics obtained on a 10 kVA model of a three-phase controlled reactor. It will be seen that the reactive power consumption can be varied by a factor of 5 - 10 by altering the constant component of field intensity. The reactor is soon saturated when the applied voltage is raised; this is very convenient when it is required to limit internal over-voltages. The wave-shape of the reactor current is shown in Fig. 2, and is practically sinusoidal. The reactor current under transient conditions caused by use of d.c. sub-magnetisation is shown in Fig. 3. The transient process is completed in 0.06 seconds. Thus, it may be possible to develop a saturable reactor with sinusoidal

Concerning the article 'New sources of reactive power that can be used to improve the utilisation of generators and synchronous condensers'

current suitable for high-speed control. Such reactors might be built with outputs of 100-200 MVA at voltages of 20 - 30 kV and with high efficiency. This would then be a very economical way of controlling reactive power. Direct-current supplies could be obtained by rectification.

Card 5/5 There are 3 figures and 1 reference, which is Soviet.

1. Generators--Performance 2. Capacitors--Performance 3. Power supplies--Sources

LIBKIND M.S.

PHASE I BOOK EXPLOITATION SOV/3407

Akademiya nauk SSSR. Energeticheskiy institut im. G.M. Krzhizhanovskogo

Problemy energetiki; sbornik posvyashchayetsya akademiku G.M. Krzhizhanovskomu (Problems of Power Engineering; Collection of Articles Dedicated to Academician G.M. Krzhizhanovskiy) Moscow, 1959. 851 p. Errata slip inserted. 2,500 copies printed.

Eds. of Publishing House: B.D. Antrushin, P.V. Dubkov, P.I. Dubkov, and S.M. Moyzhes; Tech. Ed.: T.A. Prusakova; Editorial Board: A.V. Vinter, Academician (Deceased), V.I. Popkov (Resp. Ed.) Corresponding Member, Academy of Sciences USSR, V.I. Veyts, A.S. Predvoditelev, M.A. Styrikovich, K.F. Chukhanov, N.E. Bogdanova, Candidate of Technical Sciences, B.K. Kozlov, Candidate of Technical Sciences, M.M. Lebedev, Candidate of Technical Sciences, and I.N. Sundukov.

PURPOSE: This collection of articles is intended as a tribute to the memory of Academician G.M. Krzhizhanovskiy.

COVERAGE: The collection contains sixty articles by former students and coworkers of the deceased Academician. The articles deal with problems of a wide range of subjects in the field of power engineering: problems of the regional development of electrical and thermal power engineering, power engineering technology, and the physics of combustion. No personalities are mentioned. References are given after most articles.

2/8

LIBKIND, M.S.; KUGUSHEV, G.I.

Increasing the quality of models by means of deep freezing. Nauch.dokl.vys.shkoly; energ. no.1:255-258 '59. (MIRA 12:5)

1. Energeticheskiy institut im. G.M.Krzhizhanovskogo.
(Magnetoelectric machines--Models)

LIBKIND, M.S., kand.tekhn.nauk

Seventh session of the Commission for Long-Distance Power Transmission at the Power Engineering Institute of the Academy of Sciences of the U.S.S.R. Elektrichestvo no.2:84-86 F '59. (MIRA 12:4)

1. Uchenyy sekretar' Komissii dal'nikh peredach pri Energeticheskom institute AN SSSR.
(Power engineering)

SOV/24-59-2-28/30

AUTHOR: Libkind, M. S. (Moscow)

TITLE: On Calculation of the Harmonic Composition of the Magnetizing Current Produced by Superimposing the Direct and Alternating Fields (O raschete garmonicheskogo sostava namagnichivayushchego toka pri nalozhenii postoyannogo polya na peremennoye)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1959, Nr 2, pp 149-150 (USSR)

ABSTRACT: The experiments were carried out in order to determine the effect of a static field on the magnetizing properties of the alternating current of the sinusoidal and nonsinusoidal induction. The latter was determined from expression (1). The results are presented in the table on p 149, showing the characteristic parameters of 5 types of magnetic bodies. The analysis of results showed that the harmonic characteristics of the current can be determined from a typical curve of

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On Calculation of the Harmonic Composition of the Magnetizing Current Produced by Superimposing the Direct and Alternating Fields

magnetization. An accuracy of 10% was obtained for the first harmonic and up to 40% for the second, third and fourth harmonics. There is 1 table.

ASSOCIATION: Energeticheskiy institut AN SSSR (Power Institute, Academy of Sciences, USSR)

SUBMITTED: November 22, 1958.

Card 2/2

LIBKIND, M.S.

Characteristics of extremely long a.c. lines with controlling transverse compensation. Izv. AN SSSR. Otd. tekh. nauk. Energ. i avtom. no.5:50-57 S-O '59. (MIRA 13:1)

1.Energeticheskiy institut AN SSSR.
(Electric lines)

8(2) SOV/105-59-7-14/30

AUTHORS: Libkind, M. S., Candidate of Technical Sciences, Kugushev, G. I., Engineer

TITLE: Diagrams for the Determination of the Harmonic Composition of the Magnetization Current When Superimposing a Constant Field on an Alternating Field (Grafiki dlya opredeleniya garmonicheskogo sostava namagnichivayushchego toka pri nalozhenii postoyannogo polya na peremennoye)

PERIODICAL: Elektrichestvo, 1959, Nr 7, pp 55 - 57 (USSR)

ABSTRACT: The investigation of the harmonic composition of the magnetization current when superimposing a constant field with a frequency of 50 cycles upon an alternating field was carried out in connection with the providing of new controlled static devices for the transversal compensation of alternating current transmission lines. For this work the principle of magnetic amplification was used. Experiments were carried out for the purpose of magnetizing the large power transformers in the Mosenergo-system (at the power plant GES-13 in 1954 and at the 400 kv substation in 1956). When superimposing a constant field upon an alternating field also small samples of electrotechnical steels were investigated (Ref 1). The characteristic feature of these investigations was the fact that

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they were carried out at relatively high values of the constant component of magnetic field strength, which attained 120 a/cm. The results obtained by experiments carried out with the small samples are in good agreement with those carried out with apparatus of high efficiency. It was found that even a small deviation of magnetic flux from the sinusoidal shape influences the harmonic composition of the magnetization current considerably. The initial angles of the shifting of the highest harmonics of the magnetization current with respect to the first harmonic depend on the losses in the apparatus and on the resistance of the external circuit. Figures 1 and 2 show the diagrams for steel E41, and figures 3 and 4 show those for steel E310. These diagrams were made on the basis of experimental results and calculations. The diagrams make it possible to determine the harmonic composition of the magnetization current with the simultaneous action of the direct- and alternating fields with an accuracy of up to 10% in the case of the first harmonic, and of up to 40% in the case of the second, third, and fourth harmonic. An example is given for the calculation of the harmonic

Diagrams for the Determination of the Harmonic Composition SOV/105-59-7-14/30
of the Magnetization Current When Superimposing a Constant Field on an Alternating Field

composition of the magnetization current by means of the diagrams given. There are 5 figures and 1 Soviet reference.

ASSOCIATION: Energeticheskiy institut Akademii nauk SSSR (Institute of Power Engineering of the Academy of Sciences of the USSR)

SUBMITTED: April 20, 1959

Card 3/3

BAUM, V.A., doktor tekhn.nauk, otv.red.; TOLSTOV, Yu.G., doktor tekhn. nauk, red.; PETROV, V.I., kand.tekhn.nauk, red.; KOLCHANOGOVA, I.P., kand.tekhn.nauk, red.; LIBKIND, M.S., kand.tekhn.nauk, red.; NABOKO, I.M., inzh., red.; BABURIN, B.L., inzh., red.; BOL'SHOV, N.D., red.; BURAKOV, S.Ye., tekhn.red.

[Proceedings of the Fifth Conference of Young Scientists] Trudy V konferentsii molodykh uchenykh. Moskva, Akad.nauk SSSR, Energ.in-t. Vol.1. 1960. 91 p. Vol.2. 1960. 79 p. (MIRA 14:3)

1. Konferentsiya molodykh uchenykh. 5th.
(Electric power distribution)

LIBKIND, M.S.; KUGUSHEV, G.I.

Three-phase saturable reactor with sine wave current. Elektro-energetika no.2:134-145 '60. (MIRA 14:3)
(Magnetic amplifiers)

LIBKIND, Mark Samuilovich; TOLSTOV, Yu.G., prof., doktor tekhn.nauk, otv.red.; GRIGOR'YEV, Ye.N., red.izd-va; MAKOGONOVA, I.A., tekhn.red.; RYLINA, Yu.V., tekhn.red.

[Regulated reactor for a.c. power transmission lines] Upravliaemyi reaktor dlia linii peredachi peremennogo toka. Moskva, Izd-vo Akad.nauk SSSR, 1961. 139 p. (MIRA 14:3)
(Electric power distribution)

S/196/61/000/010/018/037
E194/E155

AUTHORS: Libkind, M.S., and Kugushev, G.I.

TITLE: A three-phase saturating reactor with sinusoidal current

PERIODICAL: Referativnyy zhurnal, Elektrotekhnika i energetika, no.10, 1961, 13, abstract 10I 85. (Elektroenergetika, no.2, 1960, 134-145)

TEXT: The article considers the schematic circuit, construction and design of a symmetrical saturable reactor formed by the stator of an induction or synchronous motor whose normal rotor is replaced by a stationary cylinder of laminated ferro-magnetic material. It is shown that if in a symmetrical three-phase system the reserve of magnetic energy is a constant value then the current and voltage contain no higher harmonic components of positive and negative phase-sequence. Therefore, with star or delta connection the current drawn by the reactor from the system should be sinusoidal. Here the magnetic flux in the reactor can vary according to a fairly complicated law. The procedure is used to calculate the volt-ampere characteristics of two types of

Card 1/2

LIBKIND, M.S., kand.tekhn.nauk

Reply to M.S. Mikhailov-Mikulinskii's article "Pricipal magnetic losses in electric machinery with two rotating fields." Izv. vys. ucheb. zav.; elektromekh. 4 no.5:110-112 '61. (MIRA 14:7)

(Electric machinery)
(Mikhailov-Mikulinskii, M.S.)

LIBKIND, Mark Samuilovich; GRIGOR'YEV, Ye.N., red. izd-va; SHEVCHENKO, G.N., tekhn. red.

[Transformer-generated higher harmonics] Vysshie garmoniki, generiruemye transformatorami. Moskva, Izd-vo Akad. nauk SSSR, 1962. 100 p. (MIRA 15:3)
(Electric transformers) (Electric power distribution)

LIEKIND, M.S.; TAN' TSZO-U [T'an Tso-wu]

Use of metallic thermistor for limiting internal overvoltages.
Elektroenergetika no.5:67-73 '62. (MIRA 15:4)
(Electric power distribution--High tension) (Electric protection)

LIBKIND, M.S. (Moskva); MESHCHERYAKOV, K.P. (Moskva)

Minimum loss conditions in a line with regulated transverse compensation. Izv.AN SSSR.Otd.tekh.nauk.Energ.i avtom. no.2:28-35 Mr-Ap '62. (MIRA 15:4)
(Electric power distribution--Alternating current)

POPKOV, V.I.; TOLSTOV, Yu.G.; STEKOL'NIKOV, I.S.; MEYEROVICH, E.A.; MOSKVITIN, A.I.; TAFT, V.A.; GORUSHKIN, V.I.; SOVALOV, S.A.; LIBKIND, M.S.

Sixtieth birthday of I.M. Markovich. Elektrichestvo no.5: 87 My '61. (MIRA 14:9)
(Markovich, Isaak Moiseevich, 1901-)

LIBKIND, M.S., kand.tekhn.nauk (Moskva)

Tuned electric power transmission systems. Elektrichestvo no.6:84-85 Je '62. (MIRA 15:6)
(Electric power distribution)

LIBKIND, M.S.

Some properties of balanced electrical networks. Elektroener-getika no.7:148-154 '63. (MIRA 16:9)

L 17663-65 ENT(1) IJP(c)/SSD
ACCESSION NR: AP4049217 S/0281/64/000/005/0577/0586

AUTHOR: Libkind, M. S.

TITLE: Method for the calculation of the transverse magnetization of a controllable ferromagnetic device

SOURCE: AN SSSR. Izvestiya. Energetika [illegible]

TAGS: transverse magnetization, superposed magnetic field, eddy current, conductivity, anisotropic medium, [illegible] field, ferromagnetic device, magnetic flux, [illegible]

ABSTRACT: The author discusses the method [illegible] the transverse superposed

I 17660-65
ACCESSION NR: AP4049217

the law governing the changes in the voltage of a controlling field which produces a sine wave current in a coil, the dependence of the normal and dynamic magnetic inductivity on the magnetic field voltage, and the voltage/time changes [illegible] controlling field. The method of producing a sine wave current in a [illegible] magnetic circuit is made of ferromagnetic material [illegible] to be applicable also to an anisotropic [illegible]

ASSOCIATION: none

SUBMITTED: 24Feb64 ENCL: 00 SUB CODE: EM, EC

NO REF SOV: 003 OTHER: 004

Card 2/2

KALITIN, N.G., inzhener (g. Sverdlovsk); KOGAN, N.G., inzhener (g.Sverdlovsk)
LIBKIND, M.Ya., inzhener (g. Sverdlovsk)

Track maintenance on section using electric traction. Put.i put.khoz. no.4:6-8 Ap '57. (MLRA 10:5)
(Railroads--Maintenance and Repair)

KALITIN, N.T., inzh.; KOGAN, N.G., inzh.; LIBKIND, M.Ya., inzh.

Improve the quality of rails. Put' i put. khoz. no.10:13-16 O '57.
(Railroads--Rails) (MLRA 10:11)

KOMAROV, I.V.; KALITIN, N.T., inzh.; KOGAN, N.G., inzh.; LIBKIND, M.Ya., inzh. (Sverdlovsk).

Value of warning signals. Put' i put. khoz. no.2:8-10 F '58. (MIRA 11:3)

1. Starshiy dorozhnyy master, Alma-Ata (for Komarov).
(Railroads--Signaling)

KALITIN, N.T., inzh.; KOGAN, N.G., inzh.; LIPKIND, M.Ya., inzh. (Sverdlovsk)

We are eliminating shortcomings in defectoscopy. Put' i put. khoz. no.9:34-35 S '58. (MIRA 11:9)
(Sverdlovsk--Railroads--Rails--Testing)

Libkind, R. I.

KRASTOSHEVSKIY, L.S.; DANCHICH, V.V.; AVDIYENKO, T.G.; ARKHANGEL'SKIY, A.F.; GAK, A.M.; YEPIFANTSEV, Yu.P.; ZELINSKIY, V.M.; IVANOV, P.S.; IVASHCHENKO, P.R.; KALININA, M.D.; KRAVCHENKO, A.G.; KOTLYAROVA, A.V.; KRUGLYAKOVA, M.D.; LEVIKOV, I.I.; LIBKIND, R.I.; NIKOLAYEVA, N.A.; NAUMENKO, V.F.; PRESHMAN, I.B.; PRISYAZHNIKOV, V.S.; POBEDINSKAYA, L.P.; POKALYUKOV, S.N.; POPOV, A.A.; SOLOMENTSEV, M.N.; TARASOV, I.V.; FILONENKO, A.S.; SHISHOV, Ye.L.; SHRAYMAN, L.I.; YAKUSHIN, N.P.; ZVORYKINA, L.N., red. izd-va; LOMILINA, L.N., tekhn.red.

[Horizontal mining in foreign countries] Provedenie gorizontal'nykh vyrabotok za rubezhom. Moskva, Ugletekhizdat, 1958. 342 p. (MIRA 12:4)

1. Kharkov. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii i mekhanizatsii shakhtnogo stroitel'stva.
(Mining engineering)

LIBKOVA, H.; BLASKOVIC, D.; VILCEK, J.; REHACEK, J.; GRESIKOVA, M.; MACICKA, O., ERNEK, E.; MAYER, V.

Incidenge of antibodies against tick-borne encephalitis virus in man and domestic animals in a small village in a natural focus of infection. J.hyg.epidem., Praha 4 no.3:327-332 '60.

1. Institute of Virology, Czechoslovak Academy of Sciences, Bratislava.
(ENCEPHALITIS,EPIDEMIC immunol.)

LIBLIK, M.G.

VIGEL', E.S.; LIBLIK, M.G.

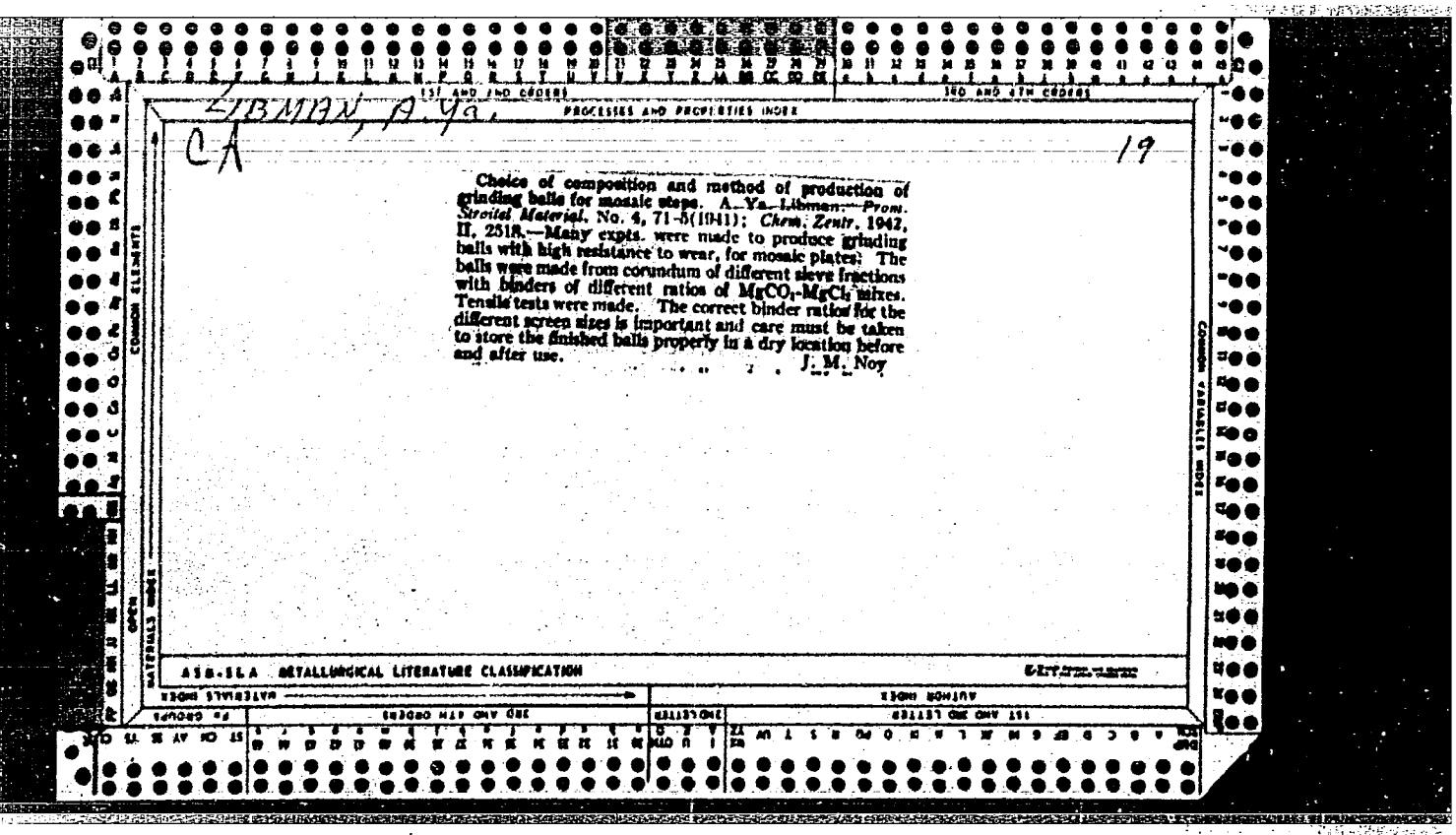
An unknown portrait of N.I.Pirogov. Khirurgiia 32 no.11:79-80 N '56. (MLRA 10:3)

1. Iz fundamental'noy biblioteki Tartuskogo gosudarstvennogo universiteta.
(PIROGOV, NIKOLAI IVANOVICH, 1810-1881)

LIEMAN, A., insh.; MAKUSHIN, B., inzh.; MIRONYCHEV, G., inzh.

Stand for testing electric motors. Prom. koop. 12 no.9:13 S '58. (MIRA 11:10)

(Electric motors--Testing)



LIBMAN, A. Ya.

CA 19

Choice of composition and method of production of grinding balls for mosaic steps. A. Ya. Libman. *Prom. Stroitel. Material.* No. 4, 71-5(1941); *Chem. Zentr.* 1942, II, 2518.—Many expts. were made to produce grinding balls with high resistance to wear, for mosaic plates. The balls were made from corundum of different sieve fractions with binders of different ratios of $MgCO_3$-$MgCl_2$ mixes. Tensile tests were made. The correct binder ratio for the different screen sizes is important and care must be taken to store the finished balls properly in a dry location before and after use.

J. M. Noy

LIBMAN, A.Ya.

Sources of economy and increasing productivity in concrete products plants. Gor.khoz.Mosk.29 no.9:26-28 S'55. (MLRA 8:12)
(Reinforced concrete)

SHEYKIN, A.Ye., prof.; LIBMAN, A.Ya.; GUN TSYA-SEN', inzh.; UR'YEV, TS.D., inzh.; KHAPANTSEVA, L.A., inzh.

Rapid hardening portland cements for making precast reinforced concretes. Bet. i zhel.-bet. no.2:68-71 F '59. (MIRA 12:3)
(Cement) (Concrete--Testing)

LIBMAN, A.Ya.; GERVER, A.V., inzh., red.

[Selection of concrete composition; from work practices of the production-experimental laboratory and factories of the Main Administration of the Building Materials Industry under the Executive Committee of the Moscow City Soviet of Working People's Deputies]Podbor sostavov betona; iz opyta raboty Proizvoditel'no-eksperimental'noi laboratorii i zavodov Glavmospromstroimaterialov. Moskva, Gosstroiizdat, 1960. 41 p. (MIRA 15:8)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu.. 2. Nachal'nik Proizvodstvenno-eksperimental'noy laboratorii Glavnogo upravleniya promyshlennosti stroitel'nykh materialov i stroitel'nykh detaley (for Libman).
(Concrete—Testing)

AMIRIDZHANOV, S.S.; LIBMAN, A.Z.; LUR'YE, M.Ye.

Float liquid level regulators. Vod. i san. tekh. no.10:19-21 '59.
(MIRA 13:1)
(Liquid level indicators)

LIBMAN, I. A.

8(0), 12(3) PHASE I BOOK EXPLOITATION SOV/1545

Zorokhovich, Aleksandr Yefimovich, and Anatoliy Zakharovich Libman

Opyt remonta elektrooborudovaniya passazhirskikh vagonov (Repairing Electrical Equipment of Railroad Passenger Cars) Moscow, Transzheldorizdat, 1958. 90 p. 5,000 copies printed.

Ed.: M.M. Broksh, Engineer; Tech. Ed.: G.P. Verina.

PURPOSE: This booklet is intended for workmen overhauling and repairing the electrical equipment of railroad passenger cars in plants and depots.

COVERAGE: The authors describe the experience of the Elektrotsekh vagonnogo depo st. Moscow III Severnoy dorogi (Electrical Workshop of the Car Depot of Moscow III Station, Northern Railroad) in the repair and overhaul of basic units of electrical equipment of steel passenger cars. They explain the workshop tools, jigs and repair equipment and describe methods of testing and checking. The book also describes new repair methods developed

Card 1/5

and introduced by the crew of this electrical workshop. The repair and test equipment was developed by the crew under the supervision of the Chair of Electrical Engineering of MIIT imeni I.V. Stalin. The authors thank Doctor of Technical Sciences M.A. Petrov, professor at MIIT, Engineer I.V. Surguchev of the Rizhskiy elektromashinostroitel'nyy zavod, and B.V. Makushin, manager of the above-mentioned workshop. There are no references.

TABLE OF CONTENTS:

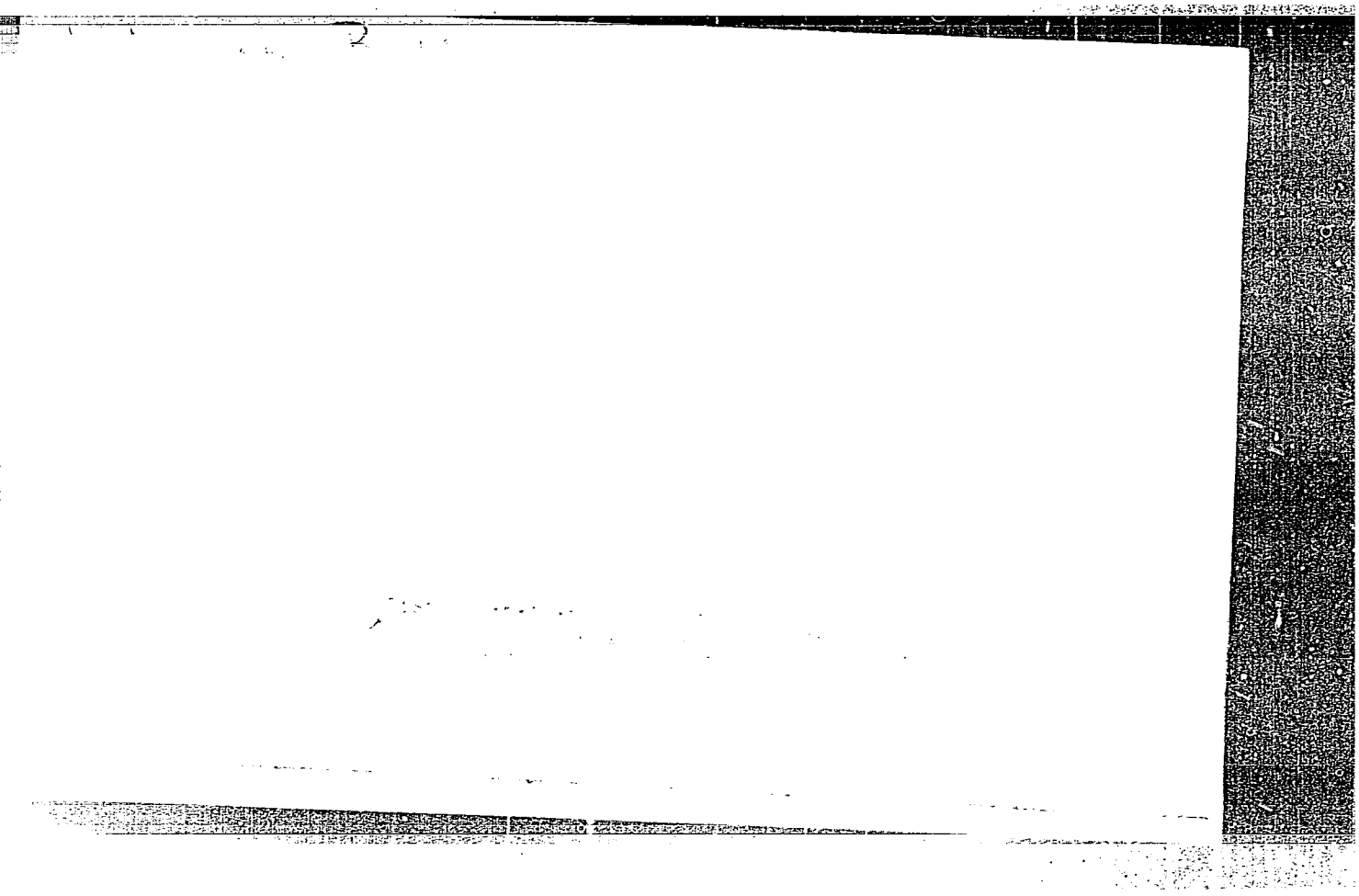
YAKUBAYTIS, E.A., kand.tekhn.nauk; LIBMAN, A.Z., inzh.

Railroad car electric power plants equipped with a.c. generators and semiconductor rectifiers. Vest. TSNII MPS [17] no.7:55-57 N '58. (MIRA 11:12)

(Railroads--Electric equipment)

ZOROKHOVICH, Aleksandr Yefimovich; LIBMAN, Anatoliy Zakharovich; NEKRUTMAN, S.V., red.

[Repair of the electrical equipment of passenger cars] Remont elektrooborudovaniia passazhirskikh vagonov. Moskva, Transport, 1964. 313 p. (MIRA 17:10)



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

SOV/81-5[illegible]-15-5[illegible]

Translation from: Referativnyy Zhurnal, Khimiya, 1958, Nr 15, p [illegible] (USSR)

AUTHOR: Libman, B.Ya.

TITLE: Industrial Methods of Obtaining Benzyl Chloride

PERIODICAL: Stalingr. prom-st' (Sovnarkhoz Stalingr. ekon. adm. r-na), [illegible], Nr 10, pp 7 - [illegible]

ABSTRACT: A review of industrial methods of obtaining $C_6H_5CH_2Cl$ (I.). Data for comparing the economy of the various methods are given, which are based on the production of I in the Stalingrad sovnarkhoz by the chlorination of toluene in the presence of "Porofor" as initiator of the reaction. The method is recommended for organizing the large-scale production of I used for obtaining plasticizers and plastics.

I. Shalavina

Card 1/1

MEL'NIKOV, N.N.; ZETKIN, V.I.; LIBMAN, B.Ya.; SOKOLOVA, Ye.M.; ZAKHAROV, Ye.V.; PARFENOV, A.I.; TRUNOV, P.P.; GOLYSHIN, N.M.

Organic fungicides as substitutes for copper-containing preparations. Khim. prom. no.10:28-30 O '61. (MIRA 15:2)
(Fungicides)

PETROV, K.A.; NIFANT'YEV, E.Ye.; LIBMAN, B.Ya.

Synthesis of di-(2-ethylhexyl) phosphate and phenyldi-(2-ethylhexyl) phosphate. Zhur. prikl. khim. 36 no.8:1853-1857 Ag '63. (MIRA 16:11)

L 4960-66 EWT(m)/EPF(c)/EWP(j)/EWP(t)/EWP(b) IJP(c) JD/RM

ACC NR: AP5025677 SOURCE CODE: UR/0286/65/000/018/0025/0025

AUTHORS: Bliznyuk, N. K.; Kvasha, Z. N.; Solntseva, L. M.; Libman, B. Ya.; Beym, A. I.; Sevitov, I. B.

ORG: none

TITLE: A method for obtaining dialkylphosphites. Class 12, No. 174624 announced by Organization of the State Committee for Chemical Industry at Gosplan SSSR (Organizatsiya gosudarstvennogo komiteta po khimicheskoy promyshlennosti pri gosplane SSSR)

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 25

TOPIC TAGS: phosphorus compound, alcohol, dialkylphosphite

ABSTRACT: This Author Certificate presents a method for obtaining dialkylphosphites by reacting phosphorus trichloride with alcohols or alcoholic solution, with subsequent drying of products by a current of dry air. To increase the yield of final product and to simplify the process, trialkylphosphites are added to the reaction mixture in quantities equivalent to the overall content of acidic products.

SUB CODE: OC/ SUBM DATE: 17Oct64

Card 1/1 UDC: 547.419.1.07

0901 1570

L 4958-66 EWT(m)/EPF(c)/EWP(j)/EWP(t)/EWP(b) IJP(c) JD/RM

ACC NR: AP5025679 SOURCE CODE: UR/0286/65/000/018/0026/0026

AUTHORS: Bliznyuk, N. K.; Vershinin, P. V.; Kabenkova, R. I.; Libman, B. Ya.; Khokhlov, P. S.

ORG: none

TITLE: A method for obtaining trialkyltetrathiophosphates. Class 12, No. 174626 [announced by Organization of the State Committee for Chemical Industry at the Gosplan SSSR (Organizatsiya gosudarstvennogo komiteta po khimicheskoy promyshlennosti pri gosplane SSSR)]

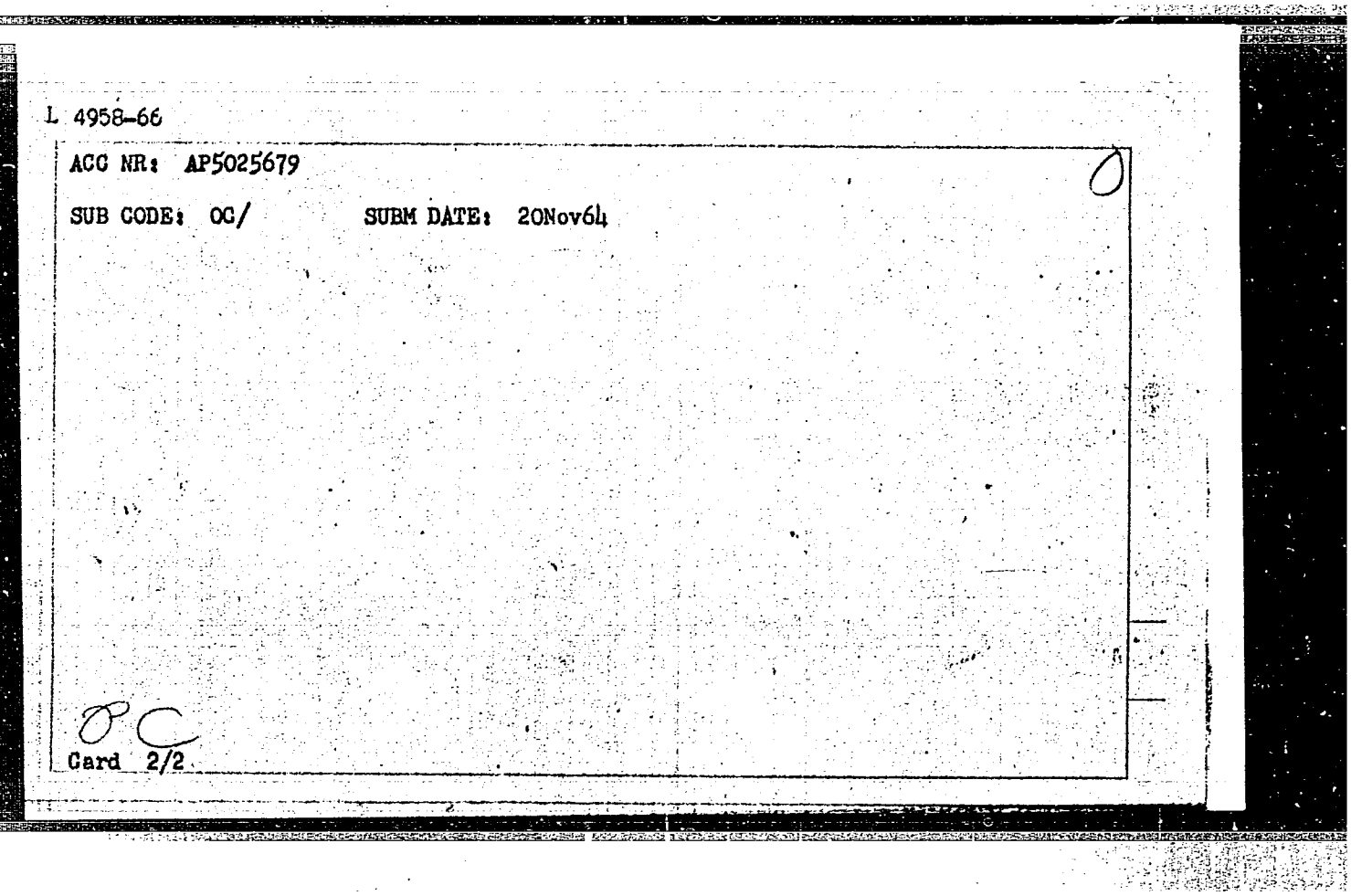
SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 26

TOPIC TAGS: trialkyltetrathiophosphate, thiotrichlorophosphorus, mercaptan, sulfur organic compound, catalyst

ABSTRACT: This Author Certificate presents a method for obtaining trialkyltetrathiophosphates. The compound is obtained by reacting thiotrichlorophosphorus with alkylmercaptans. To increase the purity of the final product, the reaction is carried out in presence of catalysts--quinoline, pyridine or alkyl derivatives of the latter.

Card 1/2 UDC: 547.413.1.07

0901 1573



L 4958-66

ACC NR: AP5025679

SUB CODE: OC/ SUBM DATE: 20Nov64

OC

Card 2/2

L 00907-66 EWT(m)/EPF(c)/EWP(j) RM

ACCESSION NR: AP5019676 UR/0064/65/000/008/0573/0575
661.7:547.269.11'113.7

AUTHORS: Zetkin, V. I.; Libman, B. Ya.

TITLE: Production of perchloromethylmercaptan (trichloromethansulfphenylchloride)

SOURCE: Khimicheskaya promyshlennost', no. 8, 1965, 573-575

TOPIC TAGS: sulfur compound, sulfur dioxide, mercaptan, chlorine inorganic compound, chlorine organic compound, chlorine, chlorination, perchloromethylmercaptan

ABSTRACT: The object of the investigation was to determine optimum conditions for the synthesis of perchloromethylmercaptan (A). The product was obtained by the chlorination of carbon disulfide in the presence of iodine. The influence of temperature, amount of catalyst, time, depth of chlorination, and impurities on the yield of product were determined. The experiments were carried out in a cylindrical reaction vessel equipped with a thermometer and a stirrer. The optimum conditions were found to be: temperature 10-20C, amount of catalyst 0.5 weight percent, depth of chlorination up to d_4^{20} 1.59-1.61. It was found that the presence of iron impurities causes the formation of carbon tetrachloride, and it

Card 1/2

L00907-66

ACCESSION NR: AP5019676

is therefore recommended that chlorination be carried out with freshly distilled carbon disulfide. The purification of A by means of sulfur dioxide described by N. N. Mel'nikov, P. P. Trunov, and Ye. M. Sokolova (avt., svid 136367, 1960; Byull. izobr., No. 5, 24, 1961) is not suitable for commercial production of A. Orig. art. has: 2 tables, 5 graphs, and 4 equations.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: OC

NO REF SOV: 003 OTHER: 003

Card 2/2

OZNAGANYANYAN, R.V.; YAKIMENKO, I.M.; SINITSYN, V.I.; LYASKIN, Ya.S.; ZETKIN, V.I.; LIBMAN, B.Ya.

Radiochemical sulfochlorination of kerosine and synthine. Khim.prom. 41 no.4:7-11 Ap '65. (MIRA 18:8)

DERKACH, G.I.; SLYUSARENKO, Ye.I.; LIBMAN, B.Ya.; LIPTUGA, N.I.

Diisocyanates and diisothiocyanates of alkylphosphonic acids.
Zhur. ob. khim. 35 no.10:1881-1882 O '65. (MIRA 18:10)

1. Institut organicheskoy khimii AN UkrSSR.

ACC NR: AP6027089 SOURCE CODE: UR/0079/65/035/010/1881/1882

AUTHOR: Derkach, G. I.; Slyusarenko, Ye. I.; Libman, B. Ya.; Liptuga, N. I.

ORG: Institute of Organic Chemistry, AN UkrSSR (Institut organicheskoy khimii AN UkrSSR)

TITLE: Siisocyanates and diisothiocyanates of alkylphosphonic acids

SOURCE: Zhurnal obshchey khimii, v. 35, no. 10, 1965, 1881-1882

TOPIC TAGS: cyanate, phosphonic acid, thermal decomposition, chemical decomposition, phosphoric acid, thermal decomposition, chemical decomposition, phosphoric acid, thiocyanate, potassium compound, reaction rate, urea

ABSTRACT: It was shown earlier that the thermal decomposition of esters of diaryloxy(dialkoxy)chlorophosphazocargoylic acids and diesters of urethanephosphoric acids yields diesters of isocyanatophosphoric acid:

$$\left.\begin{array}{l} AlkOCONHPO(OR)_2 \\ AlkOCON{=}P(OR)_2Cl \end{array}\right\} \longrightarrow (RO)_2PONCO$$

Under similar conditions, dicarbethoxy diamides of alkylphosphonic acids form diisocyanates of alkylphosphonic acids:

$$RPO(NHCOOAlk)_2 \longrightarrow RPO(NCO)_2 + AlkOH$$

Diisothiocyanates of alkylphosphonic acids are obtained in good yields by the reaction of alkylphosphonic acid dichlorides with potassium thiocyanate:

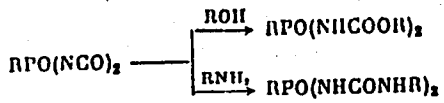
$$RPOCl_2 \xrightarrow{KNCS} RPO(NCS)_2$$

Card 1/2

UDC: 547.241

ACC NR: AP6027089

Diicocyanates and diisothiocyanates of alkylphosphonic acids react vigorously with alcohols, phenols, and amines to form the corresponding phosphorylated urethanes and ureas:



Orig. art. has: 1 table. [JPRS: 36,328]

SUB CODE: 07 / SUBM DATE: 06May65 / ORIG REF: 003

Card 2/2

ACC NR: AP6030567 SOURCE CODE: UR/0413/66/000/016/0035/0035

INVENTOR: Bliznyuk, N. K.; Kvasha, Z. N.; Khokhlov, P. S.; Libman, B. Ya.; Vershinin, P. V.; Beym, A. I.; Mil'gotin, I. M.

ORG: none

TITLE: Preparation of S,S,S-trialkyl trithiophosphates. Class 12, No. 184864

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 35

TOPIC TAGS: ~~trialkyl trithiophosphate preparation~~, mercaptan, phosphoryl chloride, phosphate, chemical reaction, phosphorus chloride

ABSTRACT:
To simplify the technological preparation of S,S,S-trialkyl trithiophosphates by the reaction of mercaptans with phosphoryl chloride, the reaction is conducted in the presence of an ammonium salt of substituted polythiophosphoric or polythiophosphonic acids as catalysts.

SUB CODE: 07/ SUBM DATE: 24May65 [WA-50; CBE No. 11]

Card 1/1

SOURCE CODE: UR/0413/66/000/016/0034/0035

ACC NR: AP6030566

INVENTOR: Bliznyuk, N. K.; Khokhlov, P. S.; Dotsev, G. V.; Libman, B. Ya.; Beym, A. I.; Troitskiy, V. N.

ORG: none

TITLE: Preparation of acid chlorides of dithiophosphoric acid. Class 12, No. 184863

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 34-35

TOPIC TAGS: dithiophosphoric acid chloride preparation, alkyl chlorodithiophosphate, aryl chlorodithiophosphate, alcohol, PHOSPHORIC ACID, CHLORIDE

ABSTRACT: In the proposed method, acid chlorides of dithiophosphoric acid

$$\begin{matrix} RO \\ R'S \end{matrix} > \underset{\underset{S}{\|}}{PCl}$$

(where R and R' are an alkyl and an aryl) are obtained by treating alkyl(aryl) chlorodithiophosphates with alcohols or phenols. The reaction is carried out in organic solvents in the presence of an acceptor of HCl, e.g., tertiary amines. Orig. art. has: 1 formula. [WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 25May65/ UDC: 547.419.1'122'133-312.07

Card 1/1

ACC NR: AP6031382 **Table 1. Monoalkylamides of alkyl methylphosphonates**

$CH_3P(O)(OR)NHR'$

R	R'	yield, %	bp (p, mm)	d_4^{20}	n_D^{20}
CH_3	CH_3	*a*, 37	72—73° (0.02)	1.1288	1.4423
CH_3	C_2H_5	*a*, 58	78—79 (0.02)	1.0779	1.4402
CH_3	изо-C_3H_7	*a*, 42	81—83 (0.03)	1.0402	1.4373
CH_3	н.-C_4H_9	*a*, 36	95—96 (0.1)	1.0192	1.4424
C_2H_5	CH_3	*б*, 82 (69)	86—88 (0.5)	1.0835	1.4390
C_2H_5	C_2H_5	*б*, 72	91—93 (0.4)	1.0482	1.4372
C_2H_5	изо-C_3H_7	*б*, 78 (62)	66—67 (0.03)	0.9995	1.4347
C_2H_5	н.-C_4H_9**	*в*, 54 (11)	100—101 (0.1)	0.9971	1.4400
iso-C_3H_7	CH_3	*б*, 81 (58)	73—75 (0.06)	1.0372	1.4350
iso-C_3H_7	C_2H_5	*б*, 79	69—71 (0.03)	1.0109	1.4338
iso-C_3H_7	изо-C_3H_7	*б*, 63	85—87 (0.07)	0.9863	1.4318
iso-C_3H_7	н.-C_4H_9	*в*, 54 (13)	138—139 (11)	0.9712	1.4376

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ACC NR: AP6031382

Table 1. (Cont.)

MR_D found	MR_D calc.	found, %	formula	calculated
28.89	29.13	N 11.43	$C_3H_{10}NO_2P$	N 11.38
33.54	33.65	CH_3O 22.53	$C_4H_{12}NO_2P$	CH_3O 22.59
38.12	38.36	CH_3O 20.65	$C_5H_{14}NO_2P$	CH_3O 20.53
42.92	42.98	CH_3O 18.74	$C_6H_{16}NO_2P$	CH_3O 18.79
33.32	33.65	N 10.21	$C_4H_{12}NO_2P$	N 10.22
37.92	38.36	N 9.22; P 20.53	$C_5H_{14}NO_2P$	N 9.27; P 20.49
43.08	42.98	P 18.59	$C_6H_{16}NO_2P$	P 18.75
47.39	47.60	N 7.58	$C_7H_{18}NO_2P$	N 7.81
38.03	38.36	N 9.34	$C_5H_{14}NO_2P$	N 9.27
42.53	42.98	N 8.43	$C_6H_{16}NO_2P$	N 8.48
47.11	47.60	N 7.99; P 17.34	$C_7H_{18}NO_2P$	N 8.01; P 17.28
52.13	52.22	N 7.28; P 16.04	$C_8H_{20}NO_2P$	N 7.25; P 16.05

Card 3/4

ACC NR: AP6031382

These amides have strong insecticidal properties but are very toxic to domestic animals. Monoalkylamides of alkyl methyphosphonates react with tert-butyl hypochlorite to form N-chloro-N-alkylamides of alkyl methylphosphonates. The reaction takes place in chloroform at 20—30°C. [WA-50; CBE No. 12]

SUB CODE:06,07/ SUBM DATE: 17Jul65/ ORIG REF: 003/ OTH REF: 014/

Card 4/4

ACC NR: AP6029020 SOURCE CODE: UR/0413/66/000/014/0023/0023

INVENTOR: Bliznyuk, N. K.; Kolomiyets, A. F.; Strel'tsov, R. V.; Kvasha, Z. N.; Varshavskiy, S. L.; Libman, B. Ya.

ORG: none

TITLE: Preparation of O-alkyl-S(β-acyloxy)ethyl thiophosphinates. Class 12, No. 183745. [announced by All-Union Scientific Research Institute of Phytopathology (Vsesoyuznyy nauchno-issledovatel'skiy institut fitopatologii)

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 23

TOPIC TAGS: ~~alkyl acyloxyethyl thiophosphinate synthesis~~, mercaptoethyl ester, carboxylic acid, phosphinic acid dichloride, ORGANIC PHOSPHORUS COMPOUND, PHOSPHONIC ACID, ESTER

ABSTRACT: In the proposed method, O-alkyl S(β-acyloxy)ethyl thiophosphonates of the general formula:
(where R and R' are alkyl, substituted alkyl, substituted aryl, or aryl; R" is lower alkyl) are obtained by the reaction of β-mercaptoethyl carboxylates with a phosphonic ester chloride or with a mixture of phosphonic acid dichloride and an alcohol in organic solvents in the presence of HCl acceptors, e.g., tertiary amines. Orig. art. has: 1 formula. [WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 28Jul65/
Card 1/1 UDC: 547.26'118.07

ACC NR: AP6029024 SOURCE CODE: UR/0413/66/000/014/0024/0024

INVENTOR: Bliznyuk, N. K.; Kvasha, Z. N.; Khokhlov, P. S.; Libman, B. Ya.; Beym, A. I.; Vershinin, P. V.

ORG: none

TITLE: Preparation of S,S-dialkyl dithiochlorophosphates. Class 12, No. 183752

SOURCE: Izobret prom obraz tov zn, no. 14, 1966, 24

TOPIC TAGS: insecticide preparation, dibutyl dithiochlorophosphate, butyl mercaptan, mercaptan, chlorinated organic compound, phosphate, pyridine

ABSTRACT:

To increase the yield in the preparation of S,S-dialkyl dithiochlorophosphates, e.g., S,S-dibutyl dithiochlorophosphate, by the treatment of alkyl mercaptans (e.g., butyl mercaptan) and pyridine with phosphoryl chloride, the reaction is conducted in the presence of ammonium salts of substituted polythiophosphonic acids, e.g., ammonium phenyl dithiophosphonate.

SUB CODE: 07/ SUBM DATE: 24May65 [WA-50; CBE No. 11]

Card 1/1 UDC: 547.419.1.07

ACC NR: AP6030568 SOURCE CODE: UR/0413/66/000/016/0035/0035

INVENTOR: Bliznyuk, N. K.; Kolomiyets, A. F.; Strel'tsov, R. V.; Varshavskiy, S. L.; Libman, B. Ya.; Protasova, L. D.

ORG: none

TITLE: Preparation of O,O-dialkyl S-(β-acyloxy)ethyl thiophosphates. Class 12, No. 184865. [announced by the All-Union Scientific Research Institute of Phytopathology (Vsesoyuznyy nauchno-issledovatel'skiy institut fitopatologii)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 35

TOPIC TAGS: pesticide, dialkylacyloxyethyl thiophosphate, PHOSPHATE

ABSTRACT:
To obtain O,O-dialkyl S-(β-acyloxy)ethyl thiophosphates of the general formula:

$$(RO)_2\overset{\overset{S}{\|}}{P}CH_2CH_2O\overset{\overset{O}{\|}}{C}R'$$

(where R is a lower alkyl, R' is an alkyl, substituted alkyl, aryl, or substituted aryl), dialkyl chlorophosphates are treated with β-mercaptoethyl carboxylates in the presence of HCl acceptors, e.g., tertiary amines. [WA-50; CBE No. 11]

SUB CODE: 07/ SUBM DATE: 28Jul65

Card 1/1 UDC: 547.419.1.07

ACC NR: AP6035682 (A,N) SOURCE CODE: UR/0413/66/000/019/0030/0030

INVENTOR: Bliznyuk, N. K.; Kvasha, Z. N.; Varshavskiy, S. L.; Libman, B. Ya.

ORG: none

TITLE: Preparation of esters of trithiophosphonic acids. Class 12, No. 186464 [Announced by All-Union Scientific Research Institute of Phytopathology (Vsesoyuznyy nauchno-issledovatel'skiy institut fitopatologii)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 30

TOPIC TAGS: phosphinic acid ~~trithio~~phosphonic acid, ester, mercaptan, tertiary amine, acid catalysis

ABSTRACT: To increase the yield in the preparation of esters of trithiophosphonic acids by the reaction of alkyl(aryl)thiophosphinic acid dichlorides with mercaptans, the reaction is conducted in the presence of amine salts of polythiophosphoric or polythiophosphonic acids as catalyst. The catalysts are formed during the reaction when tertiary amines and phosphorus sulfides are added to the initial reaction mixture.

[WA-50; CBE No. 14]

SUB CODE: 07/ SUBM DATE: 15Sep65 [PS]

Card 1/1 UDC: 547.26'118.07

ACC NR: AP6035687 (A,N) SOURCE CODE: UR/0413/66/000/019/0032/0032

INVENTOR: Bliznyuk, N. K.; Kvasha, Z. N.; Kolomiyets, A. F.; Varshavskiy, S. L.; Libman, B. Ya.

ORG: none

TITLE: Preparation of O-alkyl O-aryloxyethyl methylphosphonates. Class 12, No. 186473 [Announced by All-Union Scientific Research Institute of Phytopathology (Vsesoyuznyy nauchno-issledovatel'skiy institut fitopatologii)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 32

TOPIC TAGS: organic phosphorus compound, ~~alkyl aryl methyl~~ phosphonate, tertiary amine

ABSTRACT: In the proposed method, O-alkyl O-aryloxyethyl methylphosphonates are obtained by the reaction of O-alkyl methylchlorophosphonates with aryloxyethanols in the presence of HCl acceptors, e.g., tertiary amines.

[WA-50; CBE No. 14]
[PS]

SUB CODE: 07/ SUBM DATE: 26Jul65

Card 1/1 UDC: 547.26'118.07

ACC NR: AP6035832 (A,N) SOURCE CODE: UR/0413/66/000/020/0037/0037

INVENTOR: Bliznyuk, N. K.; Klimov, O. V.; Libman, B. Ya.; Troitskiy, V. N.; Khokhlov, P. S.; Dotsev, G. V.; Kalutskiy, L. A.; Beym, A. I.; Verhsinin, P. V.; Mandel'baum, Ya. A.; Varshavskiy, S. L.; Mel'nikov, N. N.

ORG: none

TITLE: Preparation of derivatives of tri- and tetraphosphoric acids. Class 12, No. 187019

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyyo znaki, no. 20, 1966, 37

TOPIC TAGS: ~~physiologically active compound~~, alkyl trithiophosphate, alkyl tetrathiophosphate, phosphate, phosphoric acid, mercaptan, tertiary amine, toxin

ABSTRACT: In the proposed method for the preparation of derivatives of tri- and tetrathiophosphoric acids of the general formula:

$$(RS)_3PXR',$$
$$\|$$
$$S$$

Card 1/2 UDC: 547.419.1.07

ACC NR: AP6035832

(where R is a lower alkyl, R' is a substituted alkyl or aryl, and X is O or S), physiologically active compounds with low toxicity to mammals are obtained by treating dialkyl trithiochlorophosphates with alcohols, mercaptans, or thiophenols in organic solvents in the presence of HCl acceptors, preferably tertiary amines. [PS]

[WA-50; CBE No. 14]

SUB CODE: 07/ SUBM DATE: 26May65

Card 2/2

ACC NR: AP7013151 SOURCE CODE: UR/0413/66/000 021 0040/0040

INVENTOR: Bliznyuk, N. K.; Khokhlov, P. S.; Libman, B. Ya.; Vershinin, P. V.; Beym, A. I.; Varshavskiy, S. L.

ORG: none

TITLE: Method for preparing alkyl(aryl)dithiodichlorophosphates. Class 12, no. 187785

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 21, 1966, 40

TOPIC TAGS: heterocyclic base compound, mercaptan, organic phosphate

SUB CODE: 07

ABSTRACT: A method is claimed for the preparation of alkyl(aryl)dithiodichlorophosphates, which differs in that for the purpose of extending the utilization of resources and increasing the yield of useful products, phosphorous thiotrichloride is subjected to reaction with mercaptans in the presence of catalytic quantities of heterocyclic bases, for example pyridine. [JPRS: 40,422]

Card 1/1

LIBMAN, Ed.P.

LIBMAN, Ed.P.

From the history of prospecting for nonferrous metal ores. TSvet. met. 27 no.5:61-66 S-O '54. (MIRA 10:10)
(Prospecting--History)

LIBMAN, Ed.P., kand.ekonom.nauk (Moskva); PLOTKIN, S.Ya., kand.tekhn. nauk (Moskva)

At the sources of scientific work on rare metals. Priroda 53 no. 12:81-83 '64. (MIRA 18:1)