L 21032-66 EWP(e)/EWT(m)/EWP(j)/T WW/DJ/GS/RM/WH

ACCESSION NR: AT5020438 UR/0000/65/000/000/0134/0138

AUTHORS: Oparina, Ye. M.; Sentyurikhina, L. N.; Dmitriyeva, V. G.; Pisarevskaya, Ye. E.; Petrova, L. N.

TITLE: High temperature lubricants based on dyes

SOURCE: AN SSSR. Nauchnyy sovet po treniyu i smazkam. Teoriya smazochnogo deystviya i novyye materialy (Theory of lubricating action and new materials). Moscow, Izd-vo Nauka, 1965, 134-138

TOPIC TAGS: lubricant, dye based lubricant, lubricant additive/ TsIATIM 221s lubricant, PFMS 4 silicone fluid, ETs 3 centrifuge, FM1322/300 silicone fluid

ABSTRACT: Lubricants based on dyes which are stable up to 350C were investigated. Polymethylphenyl-siloxane liquids with different methyl and phenyl group ratios (E.M. Oparina i dr. Khimiya i tekhnologiya topliv i masel, 1961, No. 1) were used as the dispersion media. It was found from the volumetric mechanical properties that vat dyes blue "K," indigo, dioxyviolanthrone, and dimetoxyviolanthrone have weak thickening properties while the other dyes (pigment "SA)" vat dyes blue "N," "O," and isoviolanthrone) form lubricants which are similar in mechanical properties and colloidal stability to silicone lubricants (TsIATIM-221s, for example). To

L 21032-66

ACCESSION NR: AT5020430

8

determine storage stability and high temperature stability, the lubricants were tested by the KSA method (350 gm load) and on heated centrifuge ETs-3 (at 150C for 5 hours) respectively. It was found that with PFMS-4 fluid the colloidal stability of good thickening dyes was better than that of less effective thickeners and comparable to TsIATIM-221s. Percent weight loss of lubricant based on different fluids (using pigment SA) was found to be 3.0, 4.2, 6.3 and 11.0% at 250C and 0, 17.1, 18.0 and 29.1% at 300C for PFMS-4, copolymer 2/300, copolymer 3, and FM1322/300 fluids respectively. It was also found that the plastic properties, i.e., effective viscosity and strength of isoviolanthrone-based lubricants (after heat stabilization), were practically unchanged after 1000 hrs at 150C. Indanthrene and isoviolanthrone silicone lubricants were tested in ball bearings at high speeds ($D_n$ = 300 000 mm rev/min) at 150C and 15000 kg/cm$^2$ and were found inferior to TsIATIM-221 lubricants. At lower speeds (to 10000 mm rev/min) and low loads the above lubricants operated longer than 1500 hours at 200C. Dyes can be used as thickeners in conjunction with graphite and molybdenum disulfide, giving up to 2500 hrs of service at 200C, 100 rpm, and 20000-25000 kg/cm$^2$ (lubricant NK-50 fails after 8-10 hrs under these conditions). At lesser speeds and loads service of 3000 hrs at 350C can be obtained. Orig. art. has: 4 tables.

ASSOCIATION: Nauchnyy sovet po treniyu i smazkam, AN SSSR (Scientific Committee on Friction and Lubrication, AN SSSR)

2/3

L 21032-66
ACCESSION NR: AT5020438

SUBMITTED: 22May65 ENCL: 00 SUB CODE: FP

NO REF SOV: 001 OTHER: 000

3/3 EK

PETROV, [illegible]

PETROVA, L.N.; SKVORTSOVA, A.B.; NOVIKOVA, Ye.N.

Determination of aldehydes in the presence of ketones. Zhur. anal. khim. 18 no.1:131-136 Ja '63. (MIRA 16:4)

1. All-Union Scientific-Research Institute of Synthetic and Natural Perfumes, Moscow.
(Aldehydes) (Ketones) (Aniline)

ASATURYAN, A.Sh.; PETROVA, L.N.

Strained conditions of a pipeline in nonsymmetrical loading. Trudy NIITransneft' no.1:268-275 '61. (MIRA 16:5)
(Pipelines) (Strains and stresses)

SVIRIDOV, V.P.; PETROVA, L.N.

1. Determining optimum parameters in the vibrational heating of petroleum products in tanks. Trudy NIITransneft' no.1:73-82 '61. (MIRA 16:5)

(Petroleum, Heating of)

SKVORTSOVA, A.B.; PETROVA, L.N.; NOVIKOVA, Ye.N.

Quantitative determination of aldehydes in the presence of acetals. Zhur.anal.khim. 17 no.7:896-897 O '62. (MIRA 15:12)

1. All-Union Scientific-Research Institute of Synthetic and Natural Perfumes, Moscow.
(Aldehydes) (Acetals)

PETROVA, L.N.

Thermoelectromotive force of alloys. Fiz. met. i metalloved. 13 no.2:173-179 F '62. (MIRA 15:1)

1. Ural'skiy politekhnicheskiy institut im. S.M.Kirova.
(Alloys--Electric properties) (Thermoelectricity)

KONDRAT'YEVA, Ye.N.; PETROVA, L.N.; FEDENKO, Ye.P.

Utilization of organic compounds by the green bacterium Chloropseudomonas ethylicum as related to the presence of carbon dioxide and hydrogen sulfide. Dokl. AN SSSR 154 no.2:453-456 Ja'64. (MIRA 17:2)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova. Predstavleno akademikom V.N. Shaposhnikovym.

DUSHEYKO, D.A.; PETROVA, N.A.; VILENSKIY, Yu.B.

Interaction of polyvinylacetal of 2,4-disulfobenzaldehyde with gelatin. Zhur. nauch. i prikl. fot. i kin. 9 no.1:14-18 Ja-F'64. (MIRA 17:2)

1. Filial Vsesoyuznogo nauchno-issledovatel'skogo kinofotoinstituta, Shostka.

ASATURYAN, A.Sh.; PETROVA, L.N.

Strained condition of a pipeline under an asymmetrical load. Izv. vys.ucheb.zav.; neft' i gaz 4 no.7:95-101 '61. (MIRA 14:10)

1. Zaporozhskiy mashinostroitel'nyy institut i NIItransneft'.
(Petroleum—Pipelines) (Strains and stresses)

24.2700

S/126/62/013/002/002/019
E039/E135

AUTHOR: Petrova, L.N.

TITLE: On the question of the thermal electromotive force of alloys

PERIODICAL: Fizika metallov i metallovedeniye, v.13, no.2, 1962, 173-179

TEXT: On the basis of the electron theory of Mott a formula is derived for the absolute thermal e.m.f.'s of metals and alloys. The temperature dependence of the thermal e.m.f. is investigated for ordered alloys. It is shown that when the Fermic energy lies near the bottom of the conduction band the temperature dependence of the thermal e.m.f. is linear for temperatures $T$ less than the transition temperature $T_0$. Near $T_0$ the slope decreases and may become negative. For temperatures greater than $T_0$ the thermal e.m.f. again increases but with a smaller slope than when $T \ll T_0$. In the case when the Fermi energy lies near the top of the conduction band for $T \ll T_0$ the thermal e.m.f. increases linearly with temperature. As the temperature passes through $T_0$ the slope increases. These

Card 1/ 3

calculations are compare with known experimental data for the alloys CuPt and $Cu_3Au$. Good agreement is obtained in the case of CuPt which has a Curie point at 800 °C. The ratio of the thermal e.m.f.'s at 900 °C and 600 °C

$$S_{900\ ^\circ C}/S_{600\ ^\circ C} = 0.99$$

according to theory, while the experimental ratio is 0.94. Good agreement is also obtained for the alloy $Cu_3Au$. Calculations are made for the thermal e.m.f. of a non-ordered alloy and its pendence on composition. It is shown that the thermal e.m.f. passes through a minimum for the majority of non-ordered binary alloys and that this minimum does not occur at the same composition for which the maximum electrical resistance is observed. It is predicted that this displacement will occur for metals with a large Fermi energy. Experiment shows the opposite effect for non-ordered alloys Ag-Au, Pt-Pd and others, the displacement of the minimum of the thermal e.m.f. occurring for metals with a small Fermi energy.

On the question of the thermal ... S/126/62/013/002/002/019
E039/E135

Acknowledgments are expressed to Professor P.V. Gel'd for his attention to the work.
There are 4 figures.

ASSOCIATION: Ural'skiy politekhnicheskiy institut im. S.M. Kirova
(Ural Polytechnical Institute imeni S.M. Kirov)

SUBMITTED: May 10, 1961

Card 3/3

NOVIKOVA, Ye.N., kand.khim.nauk; PETROVA, L.N., kand.khim.nauk; SHARAPOVA, R.I.

Controlling the content of perfume compounds and liquids. Masl.-zhir. prom. 27 no.9:29-30 S '61. (MIRA 14:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sintticheskikh i natural'nykh dushistykh veshchestv.
(Perfumes)

ZELENETSKAYA, A.A.; PETROVA, L.N.

Quantitative determination of chlorine in tetrachloroalkanes. (MIRA 14:10)
Trudy VNIISNDV no.5:77-81 '61.
(Paraffins) (Chlorine--Analysis)

PETROVA, L.N., Cand. Med. Sci., — (diss) "To the question on the change of reactivity of the organism in patients with chronic tonsillitis," Leningrad, 1961, 15 pp (First Leningrad Medical Institute im Acad. I. P. Pavlov) 300 copies (KL-Supp 9-61, 192)

L 21032-66 EWP(e)/EWT(m)/EWP(j)/T WW/DJ/GS/RM/WH UR/0000/65/000/000/0134/0138

ACCESSION NR: AP5020138

AUTHORS: Oparina, Ye. N.; Sentyurikhina, L. N.; Dmitriyeva, V. O.; Pisarevskaya, Ye. E.; Petrova, L. N.

28
20
B+1

TITLE: High temperature lubricants based on dyes

SOURCE: AN SSSR. Nauchnyy sovet po treniyu i smazkam. Teoriya smazochnogo deystviya i novyye materialy (Theory of lubricating action and new materials). Moscow, Izd-vo Nauka, 1965, 134-138

TOPIC TAGS: lubricant, dye based lubricant, lubricant additive/ TsIATIM 221s lubricant, PFMS 4 silicone fluid, ETs 3 centrifuge, FM1322/300 silicone fluid

ABSTRACT: Lubricants based on dyes which are stable up to 350C were investigated. Polymethylphenyl-siloxane liquids with different methyl and phenyl group ratios (E.N. Oparina i dr. Khimiya i tekhnologiya topliv i masel, 1961, No. 1) were used as the dispersion media. It was found from the volumetric mechanical properties that vat dyes blue "K," indigo, dioxyviolanthrone, and dimetoxyviolanthrone have weak thickening properties while the other dyes (pigment "SA," vat dyes blue "N," "O," and isoviolanthrone) form lubricants which are similar in mechanical properties and colloidal stability to silicone lubricants (TsIATIM-221s, for example). To

L 21032-66
ACCESSION NR: AT5020438

8

determine storage stability and high temperature stability, the lubricants were tested by the KSA method (350 gm load) and on heated centrifuge ETs-3 (at 150C for 5 hours) respectively. It was found that with PFMS-4 fluid the colloidal stability of good thickening dyes was better than that of less effective thickeners and comparable to TsIATIM-221s. Percent weight loss of lubricant based on different fluids (using pigment SA) was found to be 3.0, 4.2, 6.3 and 11.0% at 250C and 0, 17.1, 18.0 and 29.1% at 300C for PFMS-4, copolymer 2/300, copolymer 3, and FM1322/300 fluids respectively. It was also found that the plastic porperties, i.e., effective viscosity and strength of isoviolanthrone-based lubricants (after heat stabilization), were practically unchanged after 1000 hrs at 150C. Indanthrene and isoviolanthrone silicone lubricants were tested in ball bearings at high speeds ($D_n$ = 300 000 mm rev/min) at 150C and 15000 kg/cm$^2$ and were found inferior to TsIATIM-221 lubricants. At lower speeds (to 10000 mm rev/min) and low loads the above lubricants operated longer than 1500 hours at 200C. Dyes can be used as thickeners in conjunction with graphite and molybdenum disulfide, giving up to 2500 hrs of service at 200C, 100 rpm, and 20000-25000 kg/cm$^2$ (lubricant NK-50 fails after 8-10 hrs under these conditions). At lesser speeds and loads service of 3000 hrs at 350C can be obtained. Orig. art. has: 4 tables.

ASSOCIATION: Nauchnyy sovet po treniyu i smazkam, AN SSSR (Scientific Committee on Friction and Lubrication, AN SSSR)

2/3

L 21032-66
ACCESSION NR: AP5020438

SUBMITTED: 22May65 ENCL: 00 SUB CODE: FP

NO REF SOV: 001 OTHER: 000

3/3 BK

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240520020-5"

[illegible], L.I., [illegible]

Methodology and first experiment in certifying [illegible] of the stability factor (utility) of slopes with [illegible] clay soils for the evaluation of the shear strength of [illegible]. Nek.rep. VZIIT no.13:78-[illegible]

(MIRA 1[illegible])

KAZMINA, T.I.; PETROVA, L.P.

Material composition of carbonate rocks of southeastern Fergana.
Trudy VNIGRI no.155:234-248 '60. (MIRA 14:1)
(Fergana--Rocks, Carbonate--Analysis)

ORLOVA, O.P.; PETROVA, L.P.

Multisocket blocks with a simplified replacement of insertable molds. Lit. proizv. no.6:29-30 Je '61. (MIRA 14:6)
(Founding)

PETROVA, L.P.

Physicochemical methods of determining forms of sulfur in aqueous solutions. Trudy VNIGRI no.155:329-340 '60. (MIRA 14:1)
(Electrochemical analysis) (Sulfur)

3(5) PHASE I BOOK EXPLOITATION SOV/1897

Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy geologorazvedochnyy institut

O proiskhozhdeniy nefti v kamennougol'nykh i permskikh otlozheniyakh Volgo-Ural'skoy oblasti; sbornik statey (Origin of Petroleum in the Carboniferrous and Permian Sediments of the Volga-Ural District; Collection of Articles) Leningrad, Gostoptekhizdat, 1958. 283 p. (Series: Its: Trudy, vyp. 117) Errata slip inserted. 1,500 copies printed.

Ed.: Zinaidy L'vovny Maymin; Exec. Ed.: G.A. Dayev; Tech. Ed.: I.M. Gennad'yeva.

PURPOSE: This book is intended for geologists and geochemists, particularly those interested in questions dealing with the origin, development, and structure of oil deposits.

COVERAGE: This collection of articles deal with the Carboniferous and Permian sediments of the Volga-Ural district and methods of determining possible petroleum source-beds. The lithologic and

Card 1/4

geochemical characteristics of the sediments are discussed as are the conditions of oil deposition. The author thanks the following geologists working in the Second Baku area: A.Z. Dubinin, L.P. Zadov, K.B. Ashirov, I.L. Khanin, A.M. Mel'nikov, S.P. Yegorov, and I.A. Shpil'man. Further thanks are extended to Professor M.F. Dvali for his advice and encouragement. References accompany each article.

TABLE OF CONTENTS:

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240520020-5"

KAZ'MINA, T.I.; PETROVA, L.P.; ROGACHEVSKAYA, TS.A

Chemical indicators of depositional conditions of Carboniferous and Permian sediments in the Volga-Ural area. Trudy VNIGRI no.117:64-114 '58. (MIRA 12:4)
(Volga Valley--Rocks, Sedimentary)
(Ural Mountain region--Rocks, Sedimentary)

KAZMINA, T.I.; GERASYUTO, Z.S.; PETROVA, L.P.

Connate waters in sedimentary rocks. Trudy VNIGRI no.131:393-398
Trudy VNIGRI no.131:393-398 '59. (MIRA 12:9)
(Water, Underground)

PETROVA, L.R.

Development and anatomicomorphological characteristics of lemmas in Triticum. Bot. zhur. 43 no.8:1160-1169 Ag '58. (MIRA 11:9)

1. Botanicheskiy institut im. V.L. Komarova AN SSSR, Leningrad.
(Wheat) (Flowers--Morphology)

cooling

PETROVA, L.R.

Characteristics of head formation in spring wheat when the root system is cooled. Izv. Kar. i Kol'. fil. AN SSSR no.1:87-97 '59. (MIRA 12:3)

(Wheat)

PETROVA, L.R.

General features of megasporogenesis and microsporogenesis in wheat raised **under** conditions of a cooled and uncooled root system. Trudy Kar. fil. AN SSSR no.28:52-69 '60. (MIRA 14:9)
(Plants, Effect of soil temperature on) (Spores (Botany))
(Wheat)

PETROVA, L.R.

Morphology of the reproductive organs of the bamboo Melocanna bambusoides Trin. Bot. zhur. 50 no.9:1288-1304 S '65. (MIRA 18:10)

1. Botanicheskiy institut imeni Komarova AN SSSR, Leningrad.

PETROVA, L.R.; DROZDOV, S.N.

Effect of frost on the formation of reproductive organs in spring wheat. Bot. zhur. 48 no.8:1097-1107 Ag '63. (MIRA 16:10)

1. Institut biologii Karel'skogo filiala AN SSSR, Petrozavodsk i Botanicheskiy institut imeni V.L. Komarova AN SSSR, Leningrad.
(Wheat) (Plants—Reproduction)
(Plants, Effect of cold on)

PETROVA, L.R.

Histogenesis of the organs of an ear of wheat grown while keeping the roots under low temperature. Trudy Bot.inst.Ser. 7 no.5: 130-147 '62. (MIRA 15:2)
(Wheat) (Plants, Effect of temperature on)

SAVCHENKO, M.I., PETROVA, L.R.

Morphology of the ovule of barley (Hordeum vulgare L.) and some characteristics of its development. Bot. zhur. 48 no.11: 1623-1638 N '63. (MIRA 17:4)

1. Botanicheskiy institut imeni Komarova AN SSSR, Leningrad.

PETROVA, L.S.

Quantitative composition of cholera vibrio antigens based on data of the specific reaction of precipitation in agar. Zhur. mikrobiol., epid. i immun. 41 no.12:6[illegible]-67 D '64. (MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy protivochumnyy institut "Mikrob".

SAVITSKIY, Ye.M.; TYLKINA, M.A.; ZHDANOVA, L.L.; ZUBKOVA, L.A.; STARKOV, V.N.; FOKIN, A.G.; PETROVA, L.S.; ARKUSHA, T.I.

Investigating the properties of rhenium and rhenium alloys with tungsten and molybdenum. Issl. po zharopr. splav. 9:194-203 '62. (MIRA 16:6)

(Rhenium--Testing)

PETROVA, L. S.

40990

(3)

18 1152

S/659/62/009/000/027/030
I003/I203

AUTHORS Savitskiy, Ye. M., Tylkina, M. A., Zhdanova, L. L., Zubkova, L. A., Starkov, V. N., Fokin, A. G., Petrova, L. S., and Arkusha, T. I.

TITLE The properties of rhenium, rhenium-tungsten and rhenium-molybdenum alloys

SOURCE Akademiya nauk SSSR. Institut metallurgii. Issledovaniya po zharoprochnym splavam v. 9. 1962. Materialy Nauchnoy sessii po zharoprochnym splavam (1961 g.), 194-203

TEXT Modern technology demands the most refractory metals such as W, Re, Ta and Mo. In the present work the microstructure and the mechanical properties of Re—W and Re—Mo were investigated at room and at 2600°-3400°C. Methods of casting and of plastic deformation of W—Re, Mo—Re and W—Mo—Re alloys were developed. It was shown that when tungsten and molybdenum are alloyed with rhenium there is an increase in plasticity in machinability in weldability and in strength, and the temperature of recrystallization increases by 400-500°C. There are 4 figures and 1 table.

Card 1/1

L 62561-65 EWT(d)/T Pg-4/Ph-4 IJP(c)

ACCESSION NR: AT5012387 UR/3134/64/000/011/0095/0100

AUTHOR: Petrova, L. T.; Karnaukhova, N. N.

TITLE: Concerning one algorithm of finding the critical path of a network graph

SOURCE: AN SSSR. Sibirskoye otdeleniye. Institut matematiki. Vychislitel'nyye sistemy, no. 11, 1964, 95-100

TOPIC TAGS: network graph, oriented graph, critical path, computer algorithm, operations research

ABSTRACT: The following critical-path problem is formulated: Given an oriented graph without contours, containing M vertices and N arcs. Each arc $u_{ij}$, leading from the vertex i to the vertex j, is set in unique correspondence with a number $t_{ij} \leq 0$, called the length of the arc. A path is defined as a sequence of arcs in which the end of each arc coincides with the start of the succeeding one. The path length is defined as the sum of the lengths of all the arcs belonging to a given path. A graph of this kind is called a network graph. It is required to find for a given network graph a path (or a set of paths) with maximum length (critical path) and to determine its length. Although this can be reduced to a linear programming problem and can be solved by other means, the authors propose special algorithms which take into account several specific features of this problem. Since

Card 1/2

L 62561-65

ACCESSION NR: AT5012387

such problems usually involve graphs with thousands of vertices, the algorithm is aimed at facilitating computations by means of a computer. The realization of the argument with the aid of a three-address computer is briefly described. Orig. art. has: 2 figures and 13 formulas.

ASSOCIATION: Institut matematiki SO AN SSSR (Institute of Mathematics SO AN SSSR)

SUBMITTED: 00 ENCL: 00 SUB CODE: DP

NR REF SOV: 002 OTHER: 000

Card 2/2

L 62560-65 EWT(d)/T Pg-4/Ph-4 IJP(c)

ACCESSION NR: AT5012388 UR/3134/64/000/011/0101/0113

AUTHOR: Leyfman, L. Ya.; Petrova, L. T.

17
16
B+1

TITLE: Some algorithms for the analysis of oriented graphs

16

SOURCE: AN SSSR, Sibirskoye otdeleniye. Institut matematiki. Vychislitel'nyye sistemy, no. 11, 1964, 101-113

TOPIC TAGS: oriented graph, computer algorithm, network graph

ABSTRACT: The authors consider four algorithms for the analysis and transformation of oriented graphs. These algorithms can be useful in problems involving the analysis of network graphs without closed loops. Two different algorithms are aimed at disclosing hidden loops in an oriented graph, which might have crept in as a result of a mistake. The third algorithm is intended for ordering the arcs of an oriented graph by classes. Such an ordering is useful when it is necessary to introduce new arcs and vertices into a graph, or to cross out some parts of the graph. The fourth algorithm deals with joining of paths without branching. This is useful in processing graphs of large dimensions by means of a computer with an insufficient memory capacity, and makes it possible to reduce the dimensions of the graph.

Card 1/2

L 62560-65

ACCESSION NR: AT5012388

Each algorithm is described in detail. Orig. art. has: 4 figures, 3 formulas, and 5 tables.

ASSOCIATION: Institut matematiki SO AN SSSR (Institute of Mathematics SO AN SSSR)

SUBMITTED: 00 ENCL: 00 SUB CODE: DP

NR REF SOV: 002 OTHER: 000

Card 2/2

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240520020-5"

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240520020-5"

ACCESSION NR: AR4039319 S/0044/64/000/003/V086/V086

SOURCE: Ref. zh. Matematika, Abs. 3V486

AUTHOR: Petrova, L. T.; Platunova, I. A.

TITLE: The realization, on a machine, of computations in the initial class of lists

CITED SOURCE: Tr. Matem. in-ta. AN SSSR, v. 66, 1962, 16-36

TOPIC TAGS: initial list class, symbolic scheme, algorithm, universal program, differentiation algorithm, series expansion solution, differential equation, analytic computation, Strela

TRANSLATION: The article is devoted to working out a scheme of symbolics, proposed by L. V. Kantorovich and intended to describe different mathematical tasks, for the case where the initial class of objects is the class of lists. The objects of this class are the lists (representing a finite sequence of lines of the form $a_{k1}$, $a_{k2}$, ..., $a_{kn}$, where k = 1, 2, ..., l, and $a_{ki}$ are elements of a certain

Card 1/2

ACCESSION NR: AR4039319

set) and admissible algorithms which revise the lists. The lists can be given as a factural entry or by means of certain operations on known lists. Admissible algorithms are also given either by a factual entry or by means of certain operations on known algorithms. For realizing computations on the machine in the initial class of lists, a system of representation and storage of objects of this class is worked out in the machine's memory, as well as a system of recording computational plans in the given class. Also, a universal program is constructed, which interprets each computational plan, written in the adopted symbolics. The authors cite examples of the representation of the series of expressions in the form of lists, as well as examples of writing down algorithms (for example, a differentiation algorithm). The authors examine in detail an example of analytic computation (the solution of a differential equation by series expansion) described in the list's symbolics and realized on the machine "Strela" by means of a universal program. E. Lukhovitskaya.

DATE ACQ: 22Apr64 SUB CODE: MA ENCL: 00

Card 2/2

16.6800

S/044/62/000/006/113/127
B162/B102

AUTHOR: Petrova, L. T.

TITLE: Some applications of schematic symbolics

PERIODICAL: Referativnyy zhurnal. Matematika, no. 6, 1962, 69, abstract 6V372 (Zh. vychisl. matem. i matem. fiz. v. 1, no. 3, 1961, 513 - 522)

TEXT: A description is given of the general approach proposed by L. V. Kantorovich to the examination of arbitrary classes of objects which can be computer-processed. Some ordered systems of objects from a given initial class are called consistent. An object from the same set corresponds to each consistent system. It is assumed that the algorithm identifying the consistent systems and the algorithm plotting the object related to any consistent system are defined. The computing plans have the form of a sequence of rows - indications of the structure of the next objects. The first stage in automation of programming, achieved in the LOMI, consists in establishing universal programs, carrying out calculations according to such plans in each of the initial classes introduced. The second stage involves the use of schematic symbolics. The abstract

Card 1/2

scheme consists of rows of the form $k_i = k_i^1, k_i^2, \ldots k_i^{l_i}$, each of which indicates that the number $k_i$ is defined by the set of numbers $k_i^1, \ldots k_i^{l_i}$. The numbers figuring only as arguments are called reference numbers. The scheme is called explicit if: (1) its resultant numbers are not repeated; (2) in the scheme there is no closed circuit of subjection of the arguments to its results. Calculation of a scheme S, defined in a certain class A, reduces to replacement of the numbers by elements of class A with given substitution of the reference elements. Here the arguments should form only consistent systems, and the equations of the system should be satisfied. The case of partial substitution of the soneme and the case of iterative calculation of the scheme are considered. A sequence of rows consisting of a series of numbers defining objects from a certain class is called a list. A study is made of an initial class consisting of lists and operations over lists. [Abstracter's note: Complete translation]

PETROVA, L.T.; PLATUNOVA, I.A.

Computations performed in the initial class of lists. Trudy Mat.inst. 66:16-36 '62.
(Electronic calculating machines) (MIRA 15:11)

AUTHOR: Petrova, L.T. SOV/140-[illegible]

TITLE: On the Performance of Analytic Transformations on Machines With Preset Course (O provedenii analiticheskikh vykladok na mashinakh s programmnym upravleniyem)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Matematika, [illegible], Nr [illegible], pp 95-104 (USSR)

ABSTRACT: By analytic transformations the author understands directed methods with the aid of which an initial mathematical expression is transformed into a final result. For the performance of such transformations the author commends the most general schematic symbolism proposed by Kantorovich [Ref [illegible]]. Some examples are given in the text.
There are 4 figures, and 3 Soviet references.

ASSOCIATION: LOMI imeni V.A.Steklova AN SSSR (LOMI imeni V.A.Steklova AS USSR)

SUBMITTED: November 27, [illegible] (Date of Lecture, Leningrad)

Card 1/1

PETROVA, L.T. (Leningrad)

Extended application of symbols in computer programming. Zhur. vych. mat. i mat. fiz. 1 no.3:513-522 My-Je '61. (MIRA 14:8)
(Electronic analog computers)

PETROVA, L.V.

Investigating hydroboracites from Inder deposits [with summary in English]. Vest.LGU 13 no.18:34-43 '58. (MIRA 12:1)
(Inder Mountains--Hydroboracites--Testing)

[illegible]

[illegible] Activation, Effect of [illegible] on Fe-

Cu-[illegible], [illegible]

[illegible], I. A. [illegible], [illegible]

2, [illegible] Institute [illegible], [illegible] Acad. Sci. [illegible]

Academy of USSR [illegible].

PETROVA, L. V.

Alkaline peat extracts as substitutes for rust preventives in steam boiler [illegible]. Moskva, Izd-vo Narkomsel'khoza SSSR, [illegible]

[illegible]

ACCESSION NR: AP4034947 S/0181/64/006/005/1552/1554

AUTHORS: Gulyayeva, A. S.; Iglitsy*n, M. I.; Petrova, L. V.

TITLE: The lifetime of charge carriers in disequilibrium in single crystals of indium antimonide

SOURCE: Fizika tverdogo tela, v. 6, no. 5, 1964, 1552-1554

TOPIC TAGS: charge lifetime, temperature dependence, photogalvanometric determination, photoconductive determination, charge carrier adhesion, Auger recombination

ABSTRACT: The temperature dependence of the lifetime of nonequilibrium charge carriers in InSb was investigated. Naturally alloyed (zone-melting) single crystals of both p and n types having a basic carrier concentration of $7 \times 10^{13} - 4.5 \times 10^{14}$ per $cm^3$ were studied in the 78-300K temperature range. Measurements were made by photogalvanometric (FM) and photoconductive (PC) methods. A 500-watt tungsten light source was modulated at 1100 cps. The magnetic field was 0.205 webers/$m^2$. The samples were $14 \times 4 \times 1.5$ $mm^3$ parallelograms polished and cleansed with CP-4A. Comparison was made with theoretical relationships presented by S. Kurnick and R. Zitter (J. Appl. Phys., 27, 278, 1956) and by R. Zitter, A. Strauss, and A. Attard (Phys. Rev., 115, 226, 1959). Typical results are shown in Figures 1 and 2 on the

ACCESSION NR: AP4034947

Enclosures. The character of the curves was the same for both measurement methods. For all samples (except a few n-type ones near the liquid nitrogen temperature) results differed ($\tau_{FC} > \tau_{FM}$) due to the adhesion of secondary carriers. At higher temperatures the difference disappeared, and the lifetime reached a maximum $\tau_{max}$ of $4 \times 10^{-7}$-$7 \times 10^{-7}$ sec between 170 and 200K. The results, when analyzed together with the general theory of recombination and the previous experimental data, showed that it was necessary to consider two separate temperature ranges. Below 250K, recombinations of local centers predominated. The defining parameters were charge concentration, energy state, and degeneracy multiple. In this study samples contained uninvestigated residual contaminants, so that the parameters remained unknown. By assuming that recombinations occurred at the centers with the same parameters as those given by R. Laff and H. Fam (Phys. Rev., 121, 53, 1961), calculations were made to give electron $\tau_n$ and hole $\tau_p$ lifetimes. Experimental values and theoretical calculations differed by a value greater than could be explained by normal error. At temperatures above 250K Auger recombinations are most important. Orig. art. has: 2 figures.

ASSOCIATION: Gosudarstvenny*y nauchno-issledovatel'skiy i proyektny*y institut redkometallicheskoy promy*shlennosti, Moscow (State Scientific Research and Design

Card 2/5

ACCESSION NR: AP4034947

Institute of the Rare Metal Industry)

SUBMITTED: 21Dec63 DATE ACQ: 20May64 ENCL: 02

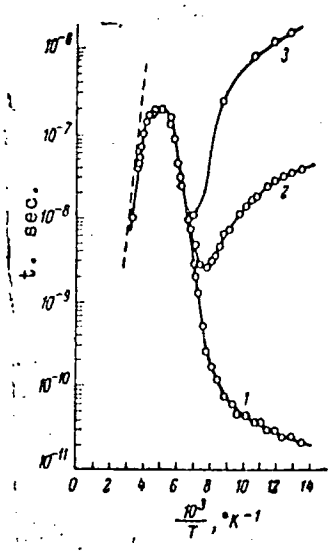
SUB CODE: SS NO REF SOV: 001 OTHER: 004

Card 3/5

ACCESSION NR: AP4034947

ENCLOSURE: 01

Fig. 1. Temperature characteristics of lifetime in p-type InSb.
(1) $\tau_{FM}$ and $\tau_n$; (2) $\tau_{FC}$; (3) $\tau_p$.
$N_A - N_D = 2.5 \times 10^{14}$ cm$^{-3}$; $\tau_{FM} = \tau_n$.




Card 4/5

ACCESSION NR: AP4034947

ENCLOSURE: 02

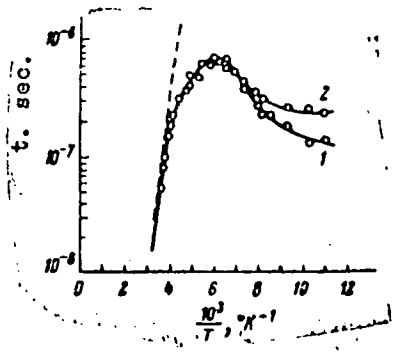



Fig. 2. Temperature characteristics of lifetime in n-type InSb.
(1) $\tau_{FM}$; (2) $\tau_{FC}$.
$N_D - N_A = 1.2 \times 10^{14}$ cm$^{-3}$.

Card 5/5

ACCESSION NR: AP4043909 S/0049/64/000/008/1247/1252

AUTHOR: Petrova, L. V.; Feygel'son, Ye. M.

TITLE: Role of radiation in cloud development

SOURCE: AN SSSR. Izvestiya. Seriya geofizicheskaya, no. 8, 1964, 1247-1252

TOPIC TAGS: cloud physics, atmospheric physics, atmospheric radiation, atmospheric longwave radiation, cloud formation, temperature inversion

ABSTRACT: In investigations of the origin and development of nonconvective clouds, it is customary to consider heat exchange and moisture exchange in the atmosphere brought about by vertical movements, turbulent mixing, and phase transformations of water. This paper differs in that, in addition to these factors, the authors also take into account the heat flux associated with the transfer of longwave radiation and the role of the latter in cloud formation. The method used in solving this problem was proposed by L. T. Matveyev and was described in an earlier paper by Ye.M. Feygel'son (Izv. AN SSSR, Ser. geofiz., no. 3, 1962). This article gives some numerical results showing the influence of a radiation heat flux on the variation in the liquid water content of a cloud. Computations, made with

Card 1/3

ACCESSION NR: AP4043909

a "Ural-1" electronic computer, revealed that a cloud develops upward under the influence of radiation cooling. It was also found that the contribution to water content from radiation decreases with an increase in the velocity of ascending movement. In this case the role of vertical movements as the principal factor in cloud formation is manifested. With an intensification of vertical movements the relative importance of the other factors is lessened. In the center of a cloud the effect of radiation is less than that of turbulence, but it is not negligible in comparison with the latter. In the upper part of a cloud, the role of radiation transfer is the dominant one. The generally-accepted mechanism of formation of stratus clouds, taking into account vertical movements and turbulent transport of heat and moisture, is thus shown to be incomplete. This result confirms the conclusion previously drawn by Feygel'son (Izv. AN SSSR, Ser. geofiz., no. 6, 1959 and no. 7, 1960) that radiation has a decisive effect on the formation of the upper layers of a cloud. The conditions imposed in these earlier studies (liquid water content does not decrease in the direction of the upper boundary) made it possible to investigate directly the thermal effect of radiation, i.e., the development of a temperature inversion. In this new study the formulation of the problem is such that the liquid water content of a developing

Card 2/3

ACCESSION NR: AP4043909

cloud decreases rapidly in the direction of the upper boundary. Under this condition no inversion of radiation origin will occur. Orig. art. has: 27 formulas and 5 tables.

ASSOCIATION: Institut fiziki atmosfery*, Akademiya nauk SSSR (Institute of Atmospheric Physics, Academy of Sciences, SSSR)

SUBMITTED: 14Sep63 ENCL: 00 SUB CODE: ES

NO REF SOV: 009 OTHER: 001

Card 3/3

USSR/Chemistry - Hydrocarbons Sep/Oct 51
Unsaturated Ketones

"Synthesis of Unsaturated Ketones From Di- and Triisobutenes by the Kondakov Reaction," A. P. Meshcheryakov, L. V. Petrova, Inst of Org Chem, Acad Sci USSR

"Iz Ak Nauk SSSR, Otdel Khim Nauk" No 5, pp 576-581

From carefully isolated α-form of triisobutene dineopentylethylene) synthesized 4-neopentyl-6,6-dimethylheptene-3-one-2 and 5-neopentyl-2,7,7-trimethyloctene-4-one-3. From diisobutene synthesized 2,5,7,7-tetramethyloctene-4-one-3.

195T17

USSR/Chemistry - Hydrocarbons Sep/Oct 51
(Contd)

Characterizes all 3 products. Discusses reaction mechanism and determines compn of initial triisobutene (mixt of α- and β-forms).

195T17

PETROVA, L. V.

PA 195T17

USSR/Chemistry - Hydrocarbons Jan/Feb 52

"Splitting Off of Elements of Hydrogen Halides From Monohalogen Derivatives of Hydrocarbons of the $C_nH_{2n+2}$ Series," A. P. Meshcheryakov, L. V. Petrova, Inst of Org Chem, Acad Sci USSR

"Iz Ak Nauk, Otdel Khim Nauk" No 1, pp 152-156

KOH in alc will split the hydrogen needed for formation of hydrogen halides from halogen hydrins of dimethyl neopentyl carbinol (2Cl(I) 2,4,4,-trimethylpentane). The hydrogen splits off from the most highly hydrogenated C-atom, of a methyl

208T12

USSR/Chemistry - Hydrocarbons (Contd) Jan/Feb 52

rather than a methlyzne group, contrary to Zaytsyev's rule. This exception to the rule can be explained by presence of the neopentyl radical, just as the addn of hydrogen bromide to neopentyl ethylene is the only exception to Markovnikov's rule. The quantity of the $\beta$-forms in di-isobutene depends on the conditions under which it is obtained. Di-isobutene obtained by Butlerov's method contained the highest quantity (approx 20%). A much smaller quantity (10%) was obtained in the splitting off of HCl with alcoholic alkali from 2 Cl (or I) 2,4,4-trimethylpentane.

208T12

PETROVA, L. V.

MESHCHERYAKOV, A.P.; PETROVA, L.V.

Cleavage of the elements of hydrogen halides from monohalides of hydrocarbons of the $C_nH_{2n+2}$ series. Bull. Acad. Sci. U.S.S.R., Div. Chem. Sci. '52, 165-9 [Engl. translation].
(CA 47 no.19:9896 '53)

KETRI/N, ...

Chem Abs v48
1-25-54
Organic Chemistry

Trimethylacetic acid. A. P. Meschcheryakov and L. V. Petrova. *Akad. Nauk S.S.S.R., Inst. Org. Khim., Sintezy Org. Soedinenii, Sbornik* 2, 132-3(1952); cf. *C.A.* **45**, 537i.—Heating with stirring a mixt. of 50 g. KOH, 2.5 l. $H_2O$, and 365 g. $KMnO_4$ at 50-5° while over 1 hr. 168 g. triisobutylene is added, followed by 4 hrs. at 85-90°, stirring without heating 6 hrs., cooling, steam distn., addn. of 150 ml. MeOH to the flask residue, filtration of $MnO_2$, and concn. of the aq. filtrate gave $Me_3CCO_2K$ in residual soln. This treated with 350 ml. 15% $H_2SO_4$ and extd. with $Et_2O$ gave on evapn. of the dried ext. and distn. of the residue 21.5% $Me_3CCO_2H$, b. 162-4°. G. M. Kosolapoff

7-19-54

PETROVA, L. V.

5

Transformations of 2,3,3-trimethyl-4-pentanol. A. P. Meshcheryakov and L. V. Petrova (N. D. Zelinskii Inst. Org. Chem., Acad. Sci. U.S.S.R., Moscow). Izvest. Akad. Nauk S.S.S.R., Otdel. Khim. Nauk 1955, 1057-62.—Hydrogenation of 2,3,3-trimethyl-1-penten-4-one at 200° over 25 g. $Al_2O_3$ and 30 g. Ni catalyst at 100-20 atm. gave mainly 2,3,3-trimethyl-4-pentanol (I), b. 104-6.5°, $n_D^{20}$ 1.4381, $d_4^{20}$ 0.8557. Hydrogenation of I similarly at 280-90° gave mixed 2,3,4-trimethylpentane and 2,3,3-trimethylpentane. If the hydrogenation is run over Ni on $SiO_2$ at 280-90° 2,3-dimethylbutane is formed. I (25 g.) and 6 g. Mg in $Et_2O$ treated with 27.3 g. AcCl gave 58.6% I acetate, b. 65-7°, $d_4^{20}$ 0.8821, $n_D^{20}$ 1.4259, which pyrolyzed at 430-50° over glass wool to mixed 2,3,3-trimethyl-4-pentene and 2,3,4-trimethyl-4-pentene, identified by oxidation and by phys. consts. 2,3,3-Trimethylpentane was prepd. by the Grignard route; pure product, b. 114-14.5°, $d_4^{20}$ 0.7275, $n_D^{20}$ 1.4073. Hydrogenation of 2,3-dimethyl-2-penten-4-one gave the sald. analog, b. 133-5°, $d_4^{20}$ 0.8273, $n_D^{20}$ 1.4087 (2,4-dinitrophenylhydrazone, m. 94-5°).

G. M. K.

PETROVA, L.V.

USSR/Chemistry - Organic chemistry

Card 1/1 Pub. 22 - 22/45

Authors : Meshcheryakov, A. P., and Petrova, L. V.

Title : Reaction of dichloroanhydrides of dibasic acids with alkenes in the presence of zinc chloride

Periodical : Dok. AN SSSR 103/2, 253-255, Jul 11, 1955

Abstract : The phenomena observed during the reaction of alkenes with dichloroanhydrides of dibasic acids are described. The existence of two functional groups in the anhydrides are explained as the cause for the two stages of the reaction. The chlorketo acid formed in the first stage reacts in the second stage with the second alkene molecule thus producing dichloroketone. The separation of HCl from the chloroketo acid and dichloroketone leads to the formation of keto acid and diketone. Eight references: 7 Russ. and USSR and 1 French (1869-1953).

Institution : Acad. of Sc., USSR, Inst. of Org. Chem. im. N. D. Zelinskiy

Presented by : Academician I. N. Nazarov, February 5, 1955

PETROVA, L. V. Cand Chem Sci -- (diss) "Synthesis of alpha-, beta-unsaturated ketones, beta-chloroketones, diketones, and ketoacids in the presence of halides of metals." Mos, 19[illegible]. 1[illegible] pp (Acad Sci USSR. Inst of Organic Chemistry im N. D. Zelinskiy), 1[illegible] copies (KL, 6-5[illegible], [illegible]9)

-[illegible]-

PETRILA, L.V.

AUTHORS: [illegible], A. [illegible], Petrila, L. V. [illegible]-1-21/2

TITLE: On the synthesis of the [illegible] Mono-chloroanhydride esters of [illegible] and [illegible] the ketokislot [illegible] and i olefinov.

PERIODICAL: Izvestiya A[illegible] Otdeleniye [illegible], 1 Nr 1, [illegible] - 1[illegible], 5 [illegible]

ABSTRACT: Of all methods for the production of keto-acids (references 1-4) the catalytic methods of synthesis deserve special attention, especially those based on the alkane basis and of the anhydrides and chloroanhydrides of the mono- or dibasic acids. In the present paper the authors report that for the first time from corresponding alkenes and chloroanhydrides according to the catalytic method were synthetized: 1) 6-keto-7-decene acid; 2) 8-methyl-6-keto-7-nonene acid; 3) [illegible]-ketodekanone acid; 4) [illegible]-ketodecane acid; 5) 7,7,8-trimethyl-6-keto-8-nonene-acid; 6) 7,7,8-trimethyl-6-ketononane acid; 7) 6-[illegible] trimethylnonane acid (obtained before by [illegible] of [illegible]-[illegible] synthesis). There are 6 references, [illegible] of which are Slavic.

Card 1/2

On the Synthesis of the Keto Acids. [illegible] Mono-
chloroanhydride Esters of Dicarboxylic Acids [illegible]

ASSOCIATION: Institute of [illegible] Chemistry [illegible] AS [illegible]
(Institut [illegible] Akademii Nauk SSSR)

SUBMITTED: July 1, 1957

AVAILABLE: Library of Congress

1. Keto acids-Synthesis

Card 2/2

[illegible] α-, β-, [illegible] β-

[illegible]

dissert[illegible]

Mos[illegible]

Metal[illegible]

MESHCHERYAKOV, A.P.; PETROVA, L.V.; YEGOROV, Yu.P.

Reactivity of $\alpha,\beta$-unsaturated ketones and $\beta$-halogen ketones in Kizhner reactions. Zhur.ob.khim. 28 no.9:2588-2595 S '58. (MIRA 11:11)

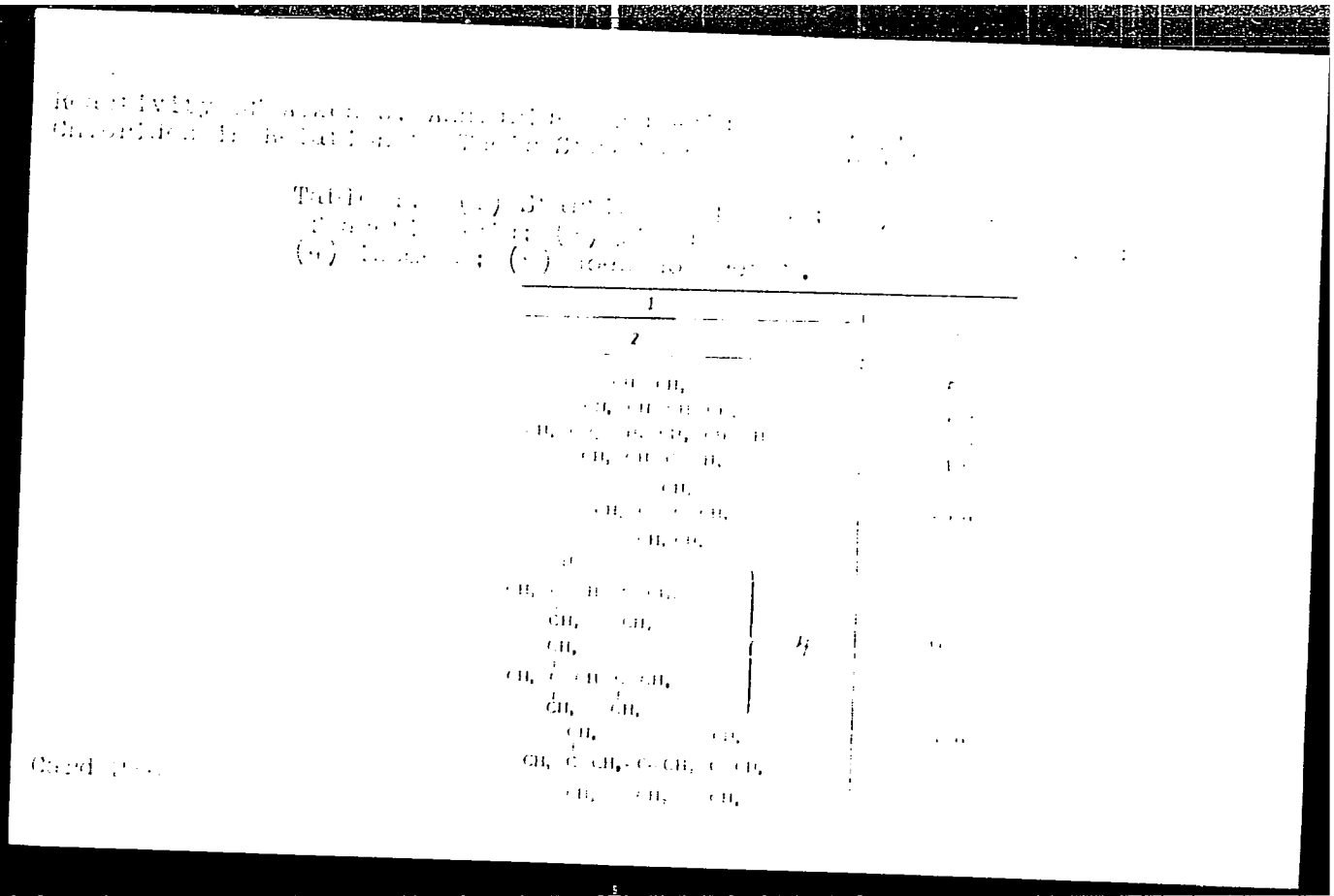
1. Institut organicheskoy khimii AN SSSR.
(Ketones)

AUTHORS:

TITLE:

PERIODICAL:

ABSTRACT:



| 1 | |
|---|---|
| 2 | 3 |
| [illegible] | 4 |
| [illegible] | [illegible] |
| [illegible] | [illegible] |
| [illegible] | [illegible] |
| [illegible] | [illegible] |
| [illegible] | [illegible] |

Reactivity [illegible]
Chlorides [illegible]

[illegible]

ASSOCIATION: [illegible] SSSR
[illegible] SSSR

SUBMITTED: May [illegible]

Card 5/[illegible]

L 20381-66 EWT(m)/EWP(j)/T/ETC(m)-6 WW/RM

ACC NR: AP6006547 (A) SOURCE CODE: UR/0191/65/000/011/0057/0061

AUTHORS: Bershteyn, V. A.; Petrova, L. V.

ORG: none

TITLE: Evaluation of various methods for the introduction of fillers into fiber-glass plastic in terms of their long-term strength properties

SOURCE: Plasticheskiye massy, no. 11, 1965, 57-61

TOPIC TAGS: filler, solid mechanical property, plastic strength, fiber glass, epoxy plastic, laminated plastic, phenolic plastic/ AGM-3 filler, AGM-9 filler, STER epoxy plastic

ABSTRACT: This investigation was conducted to evaluate three different methods for the introduction of fillers into fiber-glass plastics, in terms of their long-term properties, viz. time dependence of strength and creep. The methods of filler addition studied were: a) the cloth was treated with amine-containing fillers AGM-3 or AGM-9; b) the glass fibers were covered with a usual paraffin emulsion or special filler AGM-3 (No. 652); c) 1% of ES compound, containing an epoxy group, was added to the binder. The time dependence of strength and creep of the fiber-glass plastics prepared by the three different methods was tested in air and

Card 1/3 UDC: 678.06-419:677.521:677.86.01:539.4

L 20381-66

ACC NR: AP6006547

in water. The experimental procedure followed here is described by L. A. Glikman and V. A. Bershteyn (Zav. lab., No. 4, 474, 1962), and the results are presented in graphs and tables (see Fig. 1). The conclusion reached is that the most

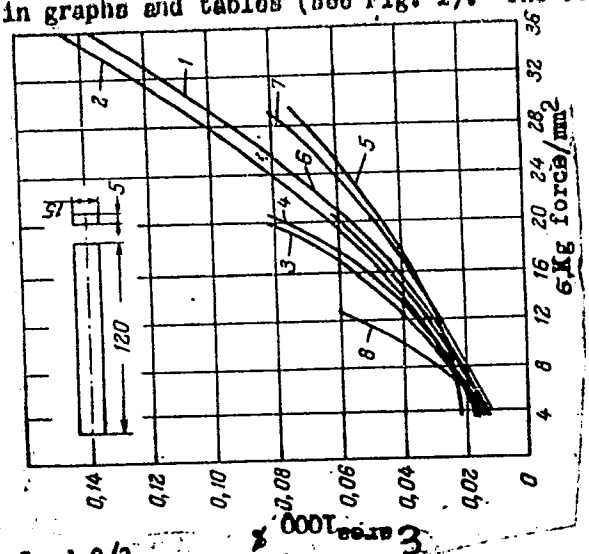



Fig. 1. Dependence of creep deformation after 1000 hours of epoxy-phenolic fiber-glass plastics of type STER on the applied stress. 1, 2 - glass cloth with lubricant 652; air and water respectively; 3, 4 - glass cloth treated with AGM-3; air and water respectively; 5, 6 - glass cloth thermo-treated, 1% ES added to binder; air and water respectively; 7, 8 - glass cloth paraffin emulsion lubricant; air and water respectively.

Card 2/3

L 20381-66
ACC NR: AP6006547

2

sensitive method for the evaluation of the technique of adding fillers to fiber-glass plastics is a test of their strength in water. The introduction of fillers into the epoxy-phenolic plastic of type STER by adding the latter to the lubricant was found to have definite advantages over other methods. It is suggested that the connection between the method of filler introduction and the long-term strength of plastics in water is to be found in the formation of bonds between the fiber-glass layers which are resistant to hydrolysis. The work was carried out under the supervision of N. Ya. Voytsekhovich. Orig. art. has: 1 table and 3 graphs.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 013/ OTH REF: 010

Card 3/3 vmb

3

L 5297-66 EWT(m)/EPF(c)/EWP(j)/T RM

ACC NR: AP5025033 SOURCE CODE: UR/0266/65/000/016/0083/0083

AUTHORS: Verkhorubov, B. A.; Fridman, A. N.; Olerinskiy, B. I.; Monakhova, Ye. V.; Chaplin, Yu. V.; Petrova, L. V.; Vavilova, I. I.

ORG: none

47
B

TITLE: A method for obtaining polyolefin. Class 39, No. 173945

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 83

TOPIC TAGS: polyolefin, monomer, organometal, catalyst

ABSTRACT: This Author Certificate presents a method for obtaining polyolefin by high-pressure circulation of gaseous monomer through a polymerizer filled with a solvent and an active complex, and containing an organometallic catalyst. To prevent polyolefin, formed in the early stage of the reaction, from sticking to the walls of the polymerizer, the latter is first filled with pure solvent. The active complex is then added to the solvent.

SUB CODE: MT, GC/ SUBM DATE: 23Jan63/ ORIG REF: 000/ OTH REF: 000

Card 1/1 UDC: 678.742

0901 0602

L 09181-67 EWT(1) GW
ACC NR: AP7002318

SOURCE CODE: UR/0362/66/002/004/0340/0356

AUTHOR: Petrova, L. V.; Feygel'son, Ye. M.
ORG: Institute of Physics of the Atmosphere (Institut fiziki atmosfery AN SSSR)
TITLE: Radiative heat exchange during developing cloud cover
SOURCE: AN SSSR. Izvestiya. Fizika atmosphery i okeana, v. 2, no. 4, 1966, 340-356
TOPIC TAGS: cloud cover, radiative heat exchanger

ABSTRACT: The authors demonstrate the important reciprocal role of long-wave radiation and cloud cover. The principal result, directly expressed in the dynamics of atmospheric processes, is a substantial change of the temperature regime of the cloud-filled atmosphere, caused by radiation. The second important conclusion from this study is that there is an increase of the thickness of the cloud layer as a result of radiation cooling. Allowance for this factor can be important when evaluating the quantity of solar radiation transmitted by the cloud layer. The authors use the "continuous" approach to allowance for cloud cover: the atmosphere is regarded as a medium containing two continuously distributed absorbing substances -- water vapor and droplet water. This approach contrasts with the generally used "discontinuous" approach in which a cloud layer is defined, radiating from the boundaries as a black body, and made it possible to detect the fine structure of the distribution of the radiation flux in the neighborhood of cloud boundaries. At the same time serious difficulties are removed in the formulation of the boundary conditions relating the cloud layer with the layers above and below the clouds. Orig. art. has: 16 figures, 15 formulas, and 6 tables. [JPRS: 36,285]

SUB CODE: 08 / SUBM DATE: 16Oct65 / ORIG REF: 009 / OTH REF: 001

UDC: 551.521.3:551.576.11

Card 1/1 nst

L 07143-67 EWP(j)/EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) RM/JD

ACC NR: AP7001031 SOURCE CODE: UR/0363/65/001/003/0447/0447

60

PETROVA, L. A.

"Conference on the Nature of Metallic Phases and the Character of the Chemical Bonding in Them"

Moscow, Izvestiya Akademii Nauk SSSR, Neorganicheskiye Materialy, Vol I, No 3, Mar 65, p 447

Translation: A conference will be held from 1 to 3 June 1965 at the Institute of Metallurgy imeni A. A. Baykov (Leninskiy prospekt, dom 49) on the nature of metallic phases and the character of the chemical bonding in them.

At the conference problems will be discussed on the theory of metal reactions and the formation of metallic phases, the structure of solid solutions, and compounds, chemical bonding in metallic phases, thermodynamic properties of metallic phases, the physical and chemical properties of metals, solid solutions, metallic and intermetallic compounds, and research on chemical bonding in metals and alloys.

The organizing committee consists of corresponding member Academy of Sciences USSR N.V. Ageyev (Chairman), corresponding member Academy of Sciences USSR S. T. Konobeyevskiy, Doctor of Technical Sciences S. Z. Bokhshteyn, Doctor of Physical and Mathematical Sciences, I.B. Borocskiy, Doctor of Technical Sciences M. Ye. Drits, Doctor of Technical Sciences V.S. Ivanova, Doctor of Chemical Sciences O. S. Ivanov (Assistant Chairman), Doctor of Chemical Sciences I. I. Kornikov, Doctor of Technical Sciences, B. G. Livshits,

Card 1/2

0921 0035

L 07143-67
ACC NR: AP7001031

Doctor of Physical and Mathematical Sciences B. Ya. Lyubov, Doctor of Chemical Sciences V.I. Mikheyeva, Doctor of Chemical Sciences Ye. M. Savitskiy, Cnadidate of Technical Sciences O. A. Bannykh, Candidate of Chemical L. N. Guseva, Candidate of Technical Sciences L. A. Petrova (Secretary), and Candidate of Technical Sciences L. I. Pryakhina. These people selected the reports and had them published.

The 29 reports selected will be printed and distributed to participants a month before the conference. These reports will not be given at the conference but only discussed. After the conference the reports and discussions about them will be published in Neorganicheskiye Materialy.

[JPRS]

ORG: none

TOPIC TAGS: metallurgic conference, phase composition, chemical bonding, solid solution

SUB CODE: 11,07 / SUBM DATE: none

Card 2/2 MLE

BERSHTEYN, V.A.; PETROVA, L.V.

Evaluation of various methods of sizing agent addition to plastics by their tensile strength properties. Plast. massy no.11:57-61 '65. (MIRA 18:12)

PETROVA, L.V., inzh.; YAKIMETS, Ye.M., kand.tekhn.nauk

Thermal stability of the chelate compounds of ethylenediaminetetraacetic acid with cations of some metals. Teploenergetika 12 no.[illegible] 3-5 [illegible] '65. (MIRA 18:10)

1. Ural'skiy politekhnicheskiy institut.

PETROVA, L.V., inzh.; SHKLYAR, R.S., kand. tekhn. nauk; YAKIMETS, Ye.M., kand. tekhn. nauk

X-ray study of the structure of the composition of boiler incrustations, sludges, and deposits. Teploenergetika 11 no.10:34-36 O '64. (MIRA 18:3)

1. Ural'skiy politekhnicheskiy institut im. Kirova.

PETROVA, L.V.; FEYGEL'SON, Ye.M.

Role of radiation in the buildup of clouds. Izv. AN SSSR Ser. geofiz. no.8:1247-1252 Ag '64 (MIRA 17:8)

1. Institut fiziki atmosfery AN SSSR.

MESHCHERYAKOV, A.P.; PETROVA, L.V.

Synthesis of 3,3,4-trimethyl-1-pentyne and 2,3,3,8,8,9-hexamethyl-4,6-decadiyne. Izv. AN SSSR Otd.khim.nauk no.12:2250-2252 D '61. (MIRA 14:11)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Pentyne) (Decadyine)

MESHCHERYAKOV, A.P.; PETROVA, L.V.; GLUKHOVTSEV, V.G.

Synthesis of di-, tri-, and tetrasubstituted cyclopropane hydrocarbons by the Kichner reaction. Izv. AN SSSR. Otd. khim. nauk no. 1:114-119 Ja '61. (MIRA 14:2)

1. Insitut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.
(Cyclopropane)

MEDEDEVYAKOV, A.P., SEMENOVA, L.V.

Synthesis of monoene and diacetylene hydrocarbons having quaternary carbon atoms. Izv. AN SSSR. Ser. khim. no.2 [illegible] Ag [illegible]. (MIRA [illegible])

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

SOLOV'YEV, S.N.; BELEN'KIY, B.G.; PETROVA, L.Ya.; MALYSHKINA, M.A.; BOL'SHAKOVA, L.O.; OVCHAROV, V.G.

Chemistry of the polyene antibiotics. Report No.2: Sorption properties of antibiotic 26/1 on anionites. Eksp. i klin. issl. po antibiot. 2: 258-262 '60. (MIRA 15:5)

(ANTIBIOTICS) (ANIONS) (SORPTION)