L 27221-66 EWP(j)/EWT(m)/T/EWP(t) IJP(c) RM/JD/HW/WB

ACC NR: AM6002129

Monograph

UR/

40

B+1

Samsonov, Vladimir Georgiyevich; Kharakhash, Viktor Georgiyevich; Mironenko, Nikolay Ivanovich; Safonov, Aleksandr Ivanovich; Pesikov, Ruvim Semenovich; Alekseyev, Nikolay Nikolayevich

Anticorrosion 15 plastic coatings 16,18 (Protivokorrozionnyye plastmassovyye pokrytiya) Kiev, Izd-vo "Tekhnika," 1965. 89 p. illus., biblio. 5000 copies printed.

TOPIC TAGS: material control, plastic coating, corrosion inhibition

PURPOSE AND COVERAGE: The booklet deals with the problems of using polymeric materials for anticorrosion protection 18 of the inner surfaces of tubes, pipelines, and valves. The use of these materials makes it possible to economize on nonferrous metals and stainless steel, 18 as well as to increase the useful life of ferrous metals. Technological methods are described, and economic data on the protection of equipment with polymeric materials are presented. The booklet is intended for specialists in the chemical and food industries who deal with the problems of anticorrosion protection of plant apparatus. There are 47 references, of which 43 are Soviet.

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UDC: 678.026

L 27221-66

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Physical and mechanical properties of some plastics -- 7

Lining of cavities -- 19

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Lining of metal pipes with powder-type plastics -- 48

Lining of valves -- 74

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SUB CODE: 11/ SUBM DATE: 23Sep65/ ORIG REF: 038/ OTH REF: 009

Card 2/2 CC

BORODIN, K., inzhener; PESIKOV, S., inzhener.

Main body of the thermal electric power station built of precast reinforced concrete. Stroitel' no.2:2-3 F '57. (MIRA 10:3)
(Kirov--Electric power plants)
(Precast concrete construction)

27-6-12/29

AUTHOR: Pesikov, Sh., Senior Inspector, Mogilev District Administration of Labor Reserves

TITLE: We Improve the Preparation of Mechanizers. (Uluchshaem podgotovku mekhanizatorov)

PERIODICAL: Professional'no - Tekhnicheskoye Obrazovaniye, 1957, Nr. 6(145) p 18 (USSR)

ABSTRACT: The author states that the Bobruysk School of Agricultural Mechanization Nr. 8 is continuously improving theoretical and productive teaching, and enumerates the various sections, training rooms and equipment of the school. The school owns dozens of different types of tractors, grain- and special combines and other agricultural machinery. Ten training rooms contain cut-sections and models of tractor engines and component parts, agricultural machinery and equipment for the mechanization of labor-consuming processes at cattle farms as well as pictorial material for instructions in agronomy and politics. There are also circles to promote interest in technical matter.

ASSOCIATION: Mogilev District Administration of Labor Reserves (Mogilevskoye Oblastnoye Upravleniye Trudovykh Rezervov).

AVAILABLE: Library of Congress

Card 1/1

Pesikov S.N.

3428. CONSTRUCTION OF THE MAIN BUILDING OF A HEAT-AND-POWER STATION IN PREFABRICATED REINFORCED CONCRETE. Borodin, K.Ya. and Peshkov, S.N. (Elekt. Sta. (Pwr Sta., Moscow), Nov. 1956, 18-21). An illustrated description is given of the first experiment in this type of construction for a power station containing three turbo-alternators and four boilers giving 170 tons/h of steam each. The area of the building is 6,700 sq.m. and the cube is 206,000 cu.m. (L).

PESIKOV, Ye.S.

Water discharge of soils in hydraulic filling. Trudy TIIIMSKH no.8:113-121 '57. (MIRA 15:5)

(Dams)

SOV/124-57-5-6002

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 5, p 143 (USSR)

AUTHORS: Kurbanov, B. P., Pesikov, Ye. S.

TITLE: On the Shear Resistance of Alluvial Loess-type Soil (O soprotivlenii sdvigu namytogo lessovidnogo grunta)

PERIODICAL: Tr. Tashkentsk. in-ta inzh. irrigatsii i mekhaniz. s.-kh., 1956, Nr 2, pp 187-195

ABSTRACT: Bibliographic entry

Card 1/1

PESIKOV, Ye.S.

Loess of the Golodnaya Steppe used in rammed earth construction.
Trudy SANIIRI no. 98:63-82 '59. (MIRA 14:1)
(Golodnaya Steppe--Building, Adobe)
(Golodnaya Steppe--Loess)

PESIKOVA, L. N.

Pesikova, L. N. - "A test diet for sugar diabetes", Vracheb. delo, 1949, No. 5, paragraphs 429-32

SO: U-4630, 16 Sept. 53, (Letopis 'Zhurnal 'nykh Statey, No. 2[illegible], 1949).

PESIKOVA, L.N.

Diet therapy of certain forms of diabetes mellitus. Nov. med., Moskva No. 22:62-66 1951. (CLML 21:5)

1. Candidate Medical Sciences.

LEYTES, S.M.; PESIKOVA, L.N.

Role of kidneys in the pathogenesis of diabetes mellitus.
Ter. arkh. 23 no.3:73-80 May-June 1951. (CLML 20:11)

1. Prof. Leytes; Candidate Medical Sciences Pesikova.
2. Of the Clinic for Therapeutic Nutrition (Director Honored Worker in Science Prof. M.I. Pevzner), Institute of Nutrition of the Academy of Medical Sciences USSR.

PESIKOVA, L.N.

LEYTES, S.M., professor (Moscow); PESIKOVA, L.N., kandidat meditsinskikh nauk (Moscow); MIRER, M.L. (Moscow).

Ketonenia in diabetes mellitus and effect of diets. Klin.med. 31 no.12:74 D '53. (MLRA 7:1)

1. Iz kliniko-eksperimental'noy laboratorii (zaveduyushchiy - professor S.M.Leytes) Kliniki lechebnogo pitaniya (direktor - zasluzhennyy deyatel' nauki professor M.I.Pevzner) Instituta pitaniya Akademii meditsinskikh nauk.
(Acetonemia) (Diabetes) (Diet in disease)

PESIKOVA, L.N.

Treatment of patients with diabetes mellitus with sulfanilamide preparations in the polyclinic. Klin.med. 38 no.7:51-56 '60. (MIRA 13:12)

(DIABETES) (SULFONAMIDES)

MINSKER, S.S.; PESKOVA, L.N., red.; KHITROV, P.A., tekhn.red.

[Expansion of railroad transportation during the seven-year period] Razvitie zheleznodorozhnogo transporta v semiletii; sbornik statei. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1960. 373 p. (MIRA 13:7)
(Railroads)

PESIN, B.Ya., kand. tekhn. nauk

Increasing the reliability and durability of mining equipment.
Ugol' 40 no.11:31-36 '65. (MIRA 18:11)

PESIN, B.Ya.

Shortcomings in the design of new machinery. Ugol' 33 no.10:9-13 O '58. (MIRA 11:11)

1. Karagandinskiy sovnarkhoz.
(Coal mining and machinery)

PESIN, B.Ya.

Measures for the conservation and maintenance of equipment in coal mining. Ugol' 36 no.6:25-30 Je '61. (MIRA 14:7)
(Coal mines and mining—Equipment and supplies)

IN

AL'TSHULER, Z.Ye., inzh.; BASTUNSKIY, M.A., inzh.; BERSTEL', V.N., inzh.; BIRENBERG, I.E., inzh.; BOGOPOLSKIY, B.Kh., inzh.; BUKHARIN, S.I., inzh.; GERSHTEYN, B.G., inzh.; GRINSHPUN, L.V., inzh.; DREYYER, G.I., inzh.; DINERSHTEYN, A.G., inzh.; ZLATOPOL'SKIY, D.S., iznh.; KLANYUK, A.V., inzh.; KOZIN, Yu.V., inzh.; LEVITIN, I.P., inzh.; MEL'NIKOV, L.F., inzh.; MEL'KUMOV, L.G., inzh.; NADEL', M.B., inzh.; PAVLOV, N.A., inzh.; PASLEN, D.A., inzh.; PESIN, B.Ya., inzh.; PYATKOVSKIY, P.I., inzh.; RAZNOSCHIKOV, D.V., inzh.; ROZENOYER, G.Ya., inzh.; ROZENBERG, R.L., inzh.; ROYTENBERG, N.L., inzh.; RYABINSKIY, Ya.I., inzh.; SYPCHENKO, I.I., inzh.; TABACHNIKOV, L.D., inzh.; FEL'DMAN, E.S., inzh.; SHTRAKHMAN, G.Ya., inzh.; SHTERENGAS, N.S., inzh.; LEVITIN, I.P., otvetstvennyy red.; STEL'MAKH, A.N., red.izd-va; BEKKER, O.G., tekhn.red.

[Overall mechanization and automatization of production processes in the coal industry] Komplekenaia mekhanizatsiia i avtomatizatsiia proizvodstvennykh protsessov v ugol'noi promyshlennosti. Pod red. IU.V.Kozina i dr. Moskva, Ugletekhizdat, 1957. 82 p. (MIRA 11:3)

1. Gosudarstvennyy proyektno-konstruktorskiy institut. 2. Institut Giprougleavtomatizatsiya i Tekhnicheskogo Upravleniya Ministerstva ugol'noy promyshlennosti (for all except: Levitin, Stel'makh, Bekker)

(Automatic control) (Coal mining machinery)

PESIKOVA, M. I. FA [illegible]

USSR/Medicine - Scarlet Fever, Therapy Mar/Apr 49
Medicine - Penicillin

"Annotated List of Articles" 5 pp

"Pediatriya" No 2

Includes following articles: M. I. Pesikova's "Experimental Penicillotherapy for Severe Infections in Children," A. L. Strutsovskaya's "Treating Scarlet Fever in Children With Dry Serum," Ye. Ya. Belyayeva's "Skin Tests With a Complete Antigen in Children With Dysentery," and N. V. Dmitriyeva's "Paratyphoid in Children."

IC 41/49T80

PESIKOVA, M.I.

NOSOV, S.D.; BUDKEVICH, V.B.; LEVINA, S.S.; METEL'KOVA, Ye.N.; PESIKOVA, M.I.; FILICHEVA, Z.V.

Reducing hospitalization time in scarlet fever. Zhur.mikrobiol.epid. i immun. no.3:19-23 Mr '54. (MLRA 7:4)

1. Iz kafedry detskikh infektsionnykh bolezney (zaveduyushchiy - professor S.D.Nosov) Ivanovskogo meditsinskogo instituta. (Scarlet fever)

Pesin, G.

2,2'-Dialkylphosphono-5,5'-dichlorodiphenyl sulfides? V. G. Pesin and A. M. Khaletskii. U.S.S.R. 107,008, Aug. 25, 1957. 2,2'-Dihydroxy-5,5'-dichlorodiphenyl sulfide? is esterified with a dialkylphosphorous acid in a mixt. of Et_2O, NEt_3, and CCl_4. M. Hosch

5

4E3d

4E4j

NS

NB

CA

Preparation of flotation oils from a residue of the camphor industry. Pyin, Sheremet'ev, Fal'kbant and Lyubomilov. *Novosti Tekhniki* 1938, No. 40-41, 41.—From the dipentene fraction of a residue of the camphor industry was obtained a yield of 91.5% of oil by use of the following modifications of the Wallach method for prepn. of terpineol: Dipentene was treated with dry HCl without CS_2; milk of lime and soda were used instead of 2% KOH for the sapon.-hydrolysis of chlorodipentene; the hydrolyzed product was not rectified, since the presence of dipentene increased the foaming properties of the oil. The oil was dark yellow, d 0.91-0.93, [illegible] 0.8-0.9, Cl content 2.5% and alc. content 55-60%.

METALLURGICAL LITERATURE CLASSIFICATION

PESIN, A. G.

[illegible] m.p. [illegible] semicarbazone, $C_{21}H_{23}O_2N_3$, m.p. 251—252° (decomp.), or 245—246° (decomp.) in a sealed capillary). COPhMe and MgBr·C:C·MgBr afford two 2 : 5-diphenylhex-3-yne-2 : 5-diols, m.p. 123—125° and 163—164·5°, respectively, the former of which is the more readily oxidised. 2 : 5-Dimethylhex-3-yne-2 : 5-diol is oxidised to $COMe_2$ and $OH·CMe_2·CO_2H$; $H_2C_2O_4$ is not detected. H. Wren.

Manganese tetra-acetate as oxidising agent for organic compounds. I. Oxidation of α-glycols. [illegible] V. Zonis and A. G. Pesin (*J. gen. Chem. USSR*, 1950, 20, 1180—1185 (U.S. Transl., 1223—1230)). The rate of oxidation of α-glycols by $Mn(OAc)_4$ depends on the temp., the solvent, and the structure of the compound to be oxidised. Of the four *tert.* glycols investigated, pinacone is oxidised with the greatest difficulty. The substitution of Me in a glycol by Ph radicals increases the tendency towards oxidation (with benzopinacone a possible exception). In indifferent solvents oxidation occurs more slowly than in AcOH. There is no great difference in the rate of oxidation of *cis*- and *trans*-cyclohexanediol in AcOH or in $C_2H_2Cl_4$.

$Mn(OAc)_4$ is obtained by electrolytic oxidation of $Mn(OAc)_2$ in AcOH. All experiments are performed in a 3-necked flask provided with a mechanical stirrer in a current of CO_2. The substrate (0·0001 mol.) and the calc. amount of $Mn(OAc)_4$ in the chosen solvent (30 ml.) are heated to the required temp. and aliquots are taken, after every 15 or 30 min., in one series, and after every 1—2 hr. in the others, for determination of active O. At the conclusion of the experiments the reaction mixture is poured into H_2O and made slightly alkaline to litmus by 10% NaOH, after which the products are extracted with Et_2O. Under these conditions benzopinacone gives $COPh_2$ (oxime, m.p. 134—136°); pinacone affords $COMe_2$ (determined with Na nitroprusside). $(CPhMe·OH)_2$ furnishes COPhMe (oxime, m.p. 58—59°), phenyltrimethylethylene glycol affords $COMe_2$ (detected by Na nitroprusside) and COPhMe (oxime, m.p. 58—59°), and hydrobenzoin is oxidised to PhCHO (detected qualitatively with Nessler's reagent). H. Wren.

ZYUN'ZYA, Oleg Andreyevich; SINITSA, Ivan Vasil'yevich; PESIN, B.Ya., otv. red.; ABRAMOV, V.I., red. izd-va; GALANOVA, V.V., tekhn. red.

[Repairing underground transportation equipment] Remont oborudovaniia podzemnogo transporta. Moskva, Gosgortekhizdat, 1961. 144 p. (MIRA 15:7)

(Mine haulage—Equipment and supplies)

PESIN, B. YA.

Planned preventive repairs of mining electric machinery. Moskva, Ugletekhizdat, 19[illegible]. [illegible] p.
(51-20147)

TN343.P45

1. PESIN, I.

2. USSR (600)

4. Radio

7. Amplifier for school radio unit, Radio No. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, May 1953. Unclassified.

PESIN, I. N.

PESIN, I. N.: "The metric properties of quasi-conformal reflections". L'vov, 1955. Min Higher Education Ukrainian SSR, L'vov State U imeni Iv. Franko. (Dissertation for the Degree of Candidate of Science of Physicomathematical Sciences)

SO: Knizhnaya Letopis', No. 41, 8 Oct 55

PESIN, I.N.

The length of an always discontinuous set of points. Dop.
ta pov. L'viv. un. no.5 pt.2:97 '55. (MLRA 9:10)

(Aggregates)

PESIN, I.N.

Pesin, I. N. On the length of an everywhere discontinuous perfect set. Uspeh Mat Nauk (N.S.) 10, no 3(65) (1955), 155. (Russian)

A brief geometric proof that a certain Cantor set in the plane has infinite length.

E. E. Floyd

Pesin, I. N.

USSR/Mathematics - Mapping

Card 1/1 Pub. 22 - 8/59

Authors : Pesin, I. N.

Title : Regarding the theory of common Q-quasi-conformal mappings

Periodical : Dok. AN SSSR 102/2, 223-224, May 11, 1955

Abstract : A series of theorems are presented dealing with Q-quasi-conformal mappings $w = f(z)$ of a circle $|z| \angle 1$ upon a circle $|w| < 1$. The mapping $W = f(z)$ is called a general Q-quasi-conformal mapping, if it is regular at any point z of the circle $|z| < 1$ and vari max $q(z) \leqslant Q$. Four references: 1 Fr. and 3 USSR (1923-1949).

Institution : L'vov State University imeni Ivana Franko

Presented by : Academician M. A. Lavrent'ev, February 14, 1955

PESIN, I.N.

USSR/Mathematics - Mappings

Card 1/1 Pub. 22 - 2/54

Authors : Belinskiy, P. P., and Pesin, I. N.

Title : On the closing of the class of continuously differentiable quasi-conformal mappings

Periodical : Dok. AN SSSR 102/5, 865-866, June 11, 1955

Abstract : A proof is presented, that the general Q-quasi-conformal mappings of the $W=f(Z)$ are nothing but the closing of a class of quasi-conformal mappings with continuous characteristics, or, otherwise, the closing of a class of continuously differentiable mappings. The given proof is based on the Banach theory which considers such mappings as absolutely continuous and, according to Lavrent'ev, have the characteristics $p(Z)$ and $\Theta(z)$ everywhere, which are measurable and $p(Z) \leqslant Q$. Six references: 2 Germ. and 4 USSR (1925-1955).

Institution : L'vov State University imeni Ivan Franko

Presented by : Academician M. A. Lavrent'ev, February 22, 1955

PESIN, I. N.

SUBJECT	USSR/MATHEMATICS/Theory of functions	CARD 1/1	PG - 763
AUTHOR	PESIN I.N.		
TITLE	Metrical properties of Q-quasiconformal mappings.		
PERIODICAL	Mat.Sbornik,n.Ser. 40, 281-294 (1956) reviewed 5/1957		

The author proves the absolute continuity of the general Q-quasiconformal mappings, the closure of the class of such mappings and some conclusions herefrom. Since the postulate that an infinitely small ellipse is transferred to an infinitely small circle seems the author to be unessential for the metrical properties of a Q-quasiconformal mapping, he gives a more general definition of the (general) Q-quasiconformal mapping: a certain regular mapping with the characteristic $q(z)$ is denoted as such one if in the circle $|z| < 1$ the relation $\text{vrai max}\ q(z) \leq Q$ is satisfied.

INSTITUTION: Ljvov.

PESIN, I V

SUBJECT USSR/MATHEMATICS/Theory of functions CARD 1/2 PG - 50
AUTHOR BELINSKIJ P.P., PESIN I.W.
TITLE On the closure of the class of the continuously differentiable quasi-conformal mappings.
PERIODICAL Doklady Akad. Nauk 102, 865-866 (1955)
reviewed 5/1956

The authors consider the general Q-quasi-conformal mappings $w = f(z)$ (Pesin, Doklady Akad. Nauk 102, No.2 (1955)). In the Banach sense they are absolutely continuous and therefore they have everywhere the Lavrentjev's (Mat.Sbornik 42, 707 (1935)) characteristics $p(z)$ and $\Theta(z)$, both are measurable and $p(z) \leq Q$. The existence theorem is given: For arbitrary measurable in $|z|<1$ almost everywhere defined characteristics $p(z), \Theta(z)$, $p(z) \leq Q =$ const there exists one and only one function $w = f(z)$, $f(0) = 0$, $f(1) = 1$ which implies a general Q-quasi-conformal mapping of the circle $|z| \leq 1$ onto the circle $|w| \leq 1$ and which there almost everywhere has the given characteristics. For the proof of the theorem at first a lemma is proved: Let the function $w = f(z)$, $f(0) = 0$ quasi-conformally map the circle $|z| \leq \varrho$, $z = re^{i\varphi}$, $\iint (p(z)-1)\, d\sigma_z < \varepsilon_1 \varrho^2$ ($d\sigma_z$ - surface element). Then

$$\frac{\max\limits_{\varphi} |f(r\varrho e^{i\varphi})|}{\min\limits_{\varphi} |f(r\varrho e^{i\varphi})|} \leq \eta(\varepsilon_1, r),$$

PHASE I BOOK EXPLOITATION SOV/3921

Issledovaniya po sovremennym problemam teorii funktsiy [illegible]; sbornik statey (Investigation of Modern Problems in the [illegible] Variables; Collection of Articles) Moscow, Fizmatgiz, 19[illegible]. [illegible] 3,000 copies printed.

Ed. (Title page): A. I. Markushevich; Ed. (Inside book): [illegible] & Ya. [illegible]; Tech. Ed.: N. Ya. [illegible]

PURPOSE: This book is intended for specialists in [illegible] complex variable. It may also be used by [illegible] scientific workers, and specialists in other fields of [illegible]

COVERAGE: The book contains 43 papers originally [illegible] Conference on the Theory of Functions of a Complex [illegible] University from May 28 to June [illegible] 1957. [illegible] in the modern theory of functions and its [illegible] into 7 parts. The first part discusses the [illegible] series, boundary and extremal properties. [illegible] functions and interpolation and approximation [illegible] discusses functions of many complex variables. [illegible] conformal mappings and boundary-value problems. [illegible] [illegible] the theory of distribution of values [illegible]

Volkovyskiy, L. I. (Perm'). Certain [illegible] of Analytic and Quasianalytic Functions on [illegible]

Gol'dberg, A. A. (Uzhgorod). [illegible] of the Distribution of Values of Finite [illegible]

Stoilov, S. (Bucharest). On Single-Valued Analytic Functions Continuous on a Set of Their Singularities 410

[illegible] (L'vov). The Set of Removable Singularities of Analytic Functions and Quasiconformal Mappings 419

Mikhal'chuk, V. O. (Perm') Cauchy-Type Integral and the [illegible]-Roch Theorem for Quasianalytic Functions on Riemann Surfaces 425

Rodin, Yu. L. (Perm'). Boundary Value Problems of the Theory of Analytic Functions on Finite Riemann Surfaces 436

Domkin, V. V., and M. N. Markov (Perm'). Riemann Surfaces R_n Corresponding to Functions of the Class

$$w = z^n + \frac{1}{z^n} \quad (n = 1, 2, 3, \dots)$$ 445

PART VI

Shabat, B. V. (Moscow). On Mappings Which Are Realized by the Solutions of Nonlinear Systems of Partial Differential Equations 451

Boyarskiy, B. (Poland). Common Properties of the Solutions of Elliptic Systems on a Plane 451

Polozhiy, G. N. (Kiyev). On (p, q)-Analytic Functions of a Complex Variable and Some of Their Applications 463

Chibrikova, L. I. (Kazan'). Application of Automorphic Functions in the Solution of Certain Boundary-Value Problems for Mixed-Type Equations 515

[illegible], B. A. (Perm'). Approximate Construction of Certain Quasiconformal Mappings 519

PART VII

[illegible], B. I. (Kiyev). Methods of the Theory of Functions of a Complex Variable in Generalized Harmonic Analysis on a Straight Line 526

Zukhovitskiy, S. I. (Lutsk). On Minimum Extensions of Linear Functionals in Complex Space C(Q) 531

Bogolyubov, N. N., and V. S. Vladimirov (Moscow). On the Analytic Continuation of Generalized Functions 533

Dzhafarov, A.S. (Baku). On Certain Properties of Functions of Many Variables 537

AVAILABLE: Library of Congress

AC/dwm/fal
7-18-60

Card 9/9

PESIN, I.N. (L'vov)

Using certain symbols of mathematical logic in teaching.
Mat. pros. no.3:195-200 '58. (MIRA 11:9)
(Mathematical analysis--Study and teaching)

PESIN, I.N.

A definition of quasi-conformal mapping. Dop. ta pov. L'viv. un. no.7 pt.3:257-259 '57. (MIRA 11:2)
(Conformal mapping)

PESIN, I. N

Pesin, I. N. Metric properties of Q-quasiconformal mappings. Mat. Sb. N.S. 40(82) (1956), 281–294. (Russian) 76

2

1-F\W

Generalized Q-quasiconformal mappings (Q-qm's) were introduced in Dokl. Akad. Nauk SSSR (N.S.) **102** (1955), 223–224, 865–866 [MR **17**, 26]. The first section of the present paper centers about the theorem that every Q-qm is absolutely continuous. It includes, among others, the proposition that the Q-qm's form a group; that the image of a measurable set, under a Q-qm, is again measurable; that the characteristic function $q(u)$ of a Q-qm is measurable. The paper also deals with nullsets, removable sets, and sets of uniqueness. Examples: If Ω is a domain and E is a set of class N_{sn} (notation of analytic function theory) contained in Ω, then every Q-qm of Ω carries E onto a set of class N_{sn}; if a set E lies on the Q-q image of a line segment, it belongs either to both or to neither of the two classes N_D and N_{SD}.

G. Piranian.

1/1

LEVIN, M.I.; GUSHCHA, L.A.; AL'TMAN, K.Z., starshiy inzh.; PESIN, I.Ya.; AKSENOVA, A.F.

New reagents for feltwork. Tekst.prom. 21 no.12:48-50 D '61. (MIRA 15:2)

1. Nachal'nik otdela valyal'no voylochnykh izdeliy Rosglavlegsnabsbytsyr'ye pri Vserossiyskom sovete narodnogo khozyaystva (for Levin). 2. Glavnyy inzh. TSentral'noy nauchno-issledovatel'skoy laboratorii khlopka i shersti Mosgorsovnarkhoza (for Gushcha). 3. TSentral'naya nauchno-issledovatel'skaya laboratoriya khlopka i shersti Mosgorsovnarkhoza (for Al'tman). 4. Glavnyy inzh. fabriki "Tekhvoylok" (for Pesin). 5. Zaveduyushchiy laboratoriyey fabriki "Tekhvoylok" (for Aksenova).

(Feltwork)
(Ammonium sulfate)

PESIN, J. M.,
BOGOLEPOV, N. I., (Trans. State Inst. Appl. Chem., 1936, No. 29, 5-270)

PESIN, L.

Hand tool for roofing work. Stroitel' 9 no.5:19 My '63.
(MIRA 16:9)

(No subject headings)

KLISHIN, I.; FRANTSEVA, G.; PESIN, L.; RUKAVCHUK, A., plotnik

The experience of innovators and the creative genius of efficiency promoters. Stroitel' 8 no.1:24 Ja '62. (MIRA 16:2)

1. Instruktor peredovykh metodov truda Novosibirskoy normativno-issledovatel'skoy stantsii (For Klishin).
(Building--Technological innovations)

SARKISOV, G.B.; PESIN, L.M.; OBETSKIY, V.F.; RABINOVICH, S.S., nauchn. red.; SHABALIN, Yu.P., red.

[Mechanisms, devices and power tools for assembly work; a handbook] Mekhanizmy, prisposobleniia i mekhanizirovannyi instrument dlia montazhnykh rabot; spravochnoe posobie. Moskva, Stroiizdat, 1965. 212 p. (MIRA 18:12)

L 01151-66 EWT(m)/EPF(c)/EWP(j)/T RM

ACCESSION NR: AP5022002

UR/0286/65/000/014/0076/0077
678.644

44,55 44,55 44,55 43B 44,55

AUTHOR: Gosteva, O. K. (deceased); Utyanskiy, Z. S.; Pesin, L. M.; Runova, S. N.; Rivkina, Ye. G.; Chefranova, E. K.; Zotkovskaya, L. A.; Tsinman, F. Ye.

44,55 44,55 44,55 44,55

TITLE: A method for producing epoxy resins. Class 39, No. 172987 15

15,44,55

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 76-77

TOPIC TAGS: synthetic material, epoxy plastic, phenol

ABSTRACT: This Author's Certificate introduces a method for producing epoxy resins hardened by anhydrides of unsaturated dicarboxylic acids. Epichlorohydrin is interacted with a phenol in an alkaline medium. Resins with high thermal stability are produced by using dimethylvinylenthynylphenol or cresols or xylenols as the phenol.

ASSOCIATION: Moskovskiy nauchno-issledovatel'skiy institut plastmass (Moscow Scientific Research Institute of Plastics) 44,55

SUBMITTED: 19Feb64 ENCL: 00 SUB CODE: MT

NO REF SOV: 000 OTHER: 000

Card1/1 DP

BELYANKIN, F.P., otv. red.; BEZUGLYY, V.D., red.; GROZIN, B.D., red.; DRAYGOR, D.A., red.; GURARIY, M.G., red.; LOGAK, N.S., red.; MITSKEVICH, Z.A., red.; PESIN, L.M., red.; RYBCHEVSKIY, Yu.S., red.; CHERNENKO, L.D., red.; YATSENKO, V.F., red.; KUDRYAVTSEV, G., red.; LUPANDIN, I., red.; SHAFETA, S., tekhn. red.

[Use of plastics in the manufacture of machinery and instruments] Plastmassy v mashinostroenii i priborostroenii. Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1961. 573 p. (MIRA 14:12)
(Plastics) (Machinery industry) (Instrument manufacture)

PESIN, L.M.; KOTRELEV, V.N.; ZARUBITSKIY, A.Ye.; SEGALEVICH, F.Ye.

The influence of some melamine impurities on its condensation
with formaldehyde. Zhur. prikl. khim. 31 no.1:146-148 Ja '58.
(MIRA 11:4)

(Melamine) (Condensation (Chemistry))
(Formaldehyde)

S/191/60/000/003/003/013
B016/B054

AUTHORS: Derkovskaya, I. L., Krylovskaya, R. S., Levshuk, M. Ya., Pesin, L. M., Tsfasman, A. B.

TITLE: Urea Formaldehyde Concentrate as a Semifinished Product for the Production of Carbamide Resins for Various Purposes

PERIODICAL: Plasticheskiye massy, 1960, No. 3, pp. 13 - 16

TEXT: The authors report on A. B. Tsfasman's experiments concerning the production of urea formaldehyde concentrate (UF) as a semifinished product for carbamide resins. The studies have been continued since 1958 at the Nauchno-issledovatel'skiy institut plastmass (Scientific Research Institute of Plastics) in collaboration with the Kuskovskiy khimicheskiy zavod (Kuskovo Chemical Plant). The UF concentrate was produced: 1) from solid paraform and aqueous urea solution; 2) in the gaseous phase: by bubbling of the formaldehyde produced from paraform and urea solution; 3) from contact gases of the formalin production at the plant mentioned. Further, the authors discuss the production of glue resins

Card 1/3

Urea Formaldehyde Concentrate as a Semi-finished Product for the Production of Carbamide Resins for Various Purposes

S/191/60/000/003/003/013
B016/B054

and aminoplasts from UF concentrate. For the production according to 1), the following data are given: Paraform (59-61 parts by weight), urea (24-26 parts), and 15 parts of water were heated in the presence of alkali. The steadily decreasing pH had to be adjusted continuously to prevent the formation of unstable, highly viscous products. The resulting product is a formaldehyde solution in a concentrated aqueous solution of methylol derivatives of urea. The UF samples remained transparent and stable for one year. Similar products may be obtained from α-poly-oxymethylene. For the production according to 2), the following is stated: In the authors' opinion, bubbling is the most efficient and convenient method. From the physical and chemical characteristics of the resulting product, the authors conclude that at pH = 7 and a low content of formaldehyde, a mixture of mono- and dimethyl urea forms, which is precipitated. By adjusting the pH by addition of buffer solutions (pH 6.5 - 7.5), the authors obtained viscous, stable solutions, UF concentrates, with a total content of 42-46% of formaldehyde and 26-31% of free formaldehyde. The concentrates remained clear and stable for 1.5 years. 3) Hot contact gases were blown through urea

~~Card 2/3~~

Urea Formaldehyde Concentrate as a Semi-finished Product for the Production of Carbamide Resins for Various Purposes

S/191/60/000/003/003/013
B016/B054

solution in a column with a checker of Raschig rings. Every cubic meter of gas left about 390 g of CH_2O in the column. The yield in UF concentrate was 280-350% referred to dry urea. The concentrates were transparent and stable. The high content of CH_2O inhibits reactions of the polymethyl ureas with each other. The authors will give their results obtained with a continuous apparatus in another publication. The resulting UF concentrate was used to produce the glue resins МФ-17 (MF-17), ММФ (MMF), and МФФ (MFF) by condensation with calculated urea amounts and other components without additional vacuum treatment. The resins were successfully used for gluing oak and red-beech wood. The authors enumerate the operational advantages of their method, and recommend it for cases where gaseous CH_2O and industrial urea, or its non-evaporated sirups, are available. They mention L. Ye. Lipkina who assisted in the investigation. There are 1 figure, 2 tables, and 6 references: 3 Soviet and 2 US.

~~Card 3/3~~

PESIN, L.M.; DERKOVSKAYA, I.L.; GOLODNAYA, S.L.; MUKHOVITSKAYA, A.M.;
AKOPDZHANYAN, I.A.

Removal of formaldehyde from the waste waters of the production
of carbamide resins. Plast. massy no.[illegible]:58-60 '64.
(MIRA 17:1

LUKINA, K.V.; PESIN, L.M.

New molding material melavoloknit. Biul.tekh.-ekon.inform.Gos.
nauch.-issl.inst.nauch.i tekh.inform. no.9:21-22 '63. (MIRA 16:10)

GURARIY, Moisey Grigor'yevich, kand. tekhn. nauk; IOFE, Stella Simonovna; PESIN, L.M., kand. tekhn. nauk, red.; KIRICHENKO, L.V., red.; SUVOROV, V.A., red.-leksikograf; PLAKSHE, L.Yu., tekhn. red.

[English-Russian dictionary on plastics]Anglo-russkii slovar' po plastmassam. Pod red. L.M.Pesina. Moskva, Glav.red.inostr. nauchno-tekhn.slovarei Fizmatgiza, 1963. 144 p. (MIRA 16:3)
(English language--Dictionaries--Russian)
(Plastics--Dictionaries)

L 10422-67 EWT(m)/EWP(j) IJP(c) RM

ACC NR: AP6029914 (A) SOURCE CODE: UR/0413/66/000/015/0087/0087

AUTHORS: Dorkovskaya, I. L.; Yolin, I. O.; Posin, L. M.; [illegible], L. [illegible]

ORG: none

TITLE: A method for obtaining a modified carbamide resin. Class 39, No. [illegible] /announced by Scientific Research Institute of Plastics (Nauchno-issledovatel'skiy institut plasticheskikh mass)/

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 87

TOPIC TAGS: urea, resin, carbamide, formaldehyde, furfural

ABSTRACT: This Author Certificate presents a method for obtaining a modified carbamide resin based on urea, formaldehyde, and furfural. To increase the resistance of the resin to water, diatomic phenolresorcinol is added to the resin in the amount of 5--10% by weight of urea.

SUB CODE: 07, 11/ SUBM DATE: 26Nov64

Card 1/1

UDC: 678.652'41'21'375-9:547.565.2

PETROV, G.S., doktor tekhnicheskikh nauk; DERKOVSKAYA, I.L., kandidat tekhnicheskikh nauk; PESIN, L.M.

Carbamide glues for wood gluing. Der. prom. 6 no.3:14-16 Mr '57. (MLRA 10:5)

1. Nauchno-issledovatel'skiy i proyektnyy institut plastmass.
(Urea)

DERKOVSKAYA, I.L.; KRYLOVSKAYA, N.S.; LEVSHUK, N.Ya.; PESIN, L.M.;
TSFASMAN, A.B.

Urea-formaldehyde concentrate as an intermediate in the preparation of carbamide resins for various purposes. Plast.massy no.3: 13-16 '60. (MIRA 13:6)
(Urea) (Resins, Synthetic) (Formaldehyde)

PESIN, L. M.

Synthetic adhesives. G. S. Petrov, L. M. Pesin, A. A. Derkovskaya, M. I. Gorbar, E. M. Adaskin, and A. G. Ignatyuk. U.S.S.R. 105,729, May 25, 1957. Synthetic adhesives are made from urea-HCHO condensation products to which are added polyhydroxy alcs. The stability in storage, mech. strength, and water-resistance of the adhesives are improved by addn. of xylitol during the condensation reaction. M. Hosch

7E2d

3 May

PM

aug

[illegible], L. [illegible]
[illegible] [illegible], [illegible] 5[illegible],004, [illegible] [illegible]41

PESIN, L.M., kandidat tekhnicheskikh nauk.

Organic high polymers as bases for plastics. Khim.v shkole no.6:3-15 N-D '53. (MLRA 6:11)

(Polymers and polymerization) (Plastics)

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

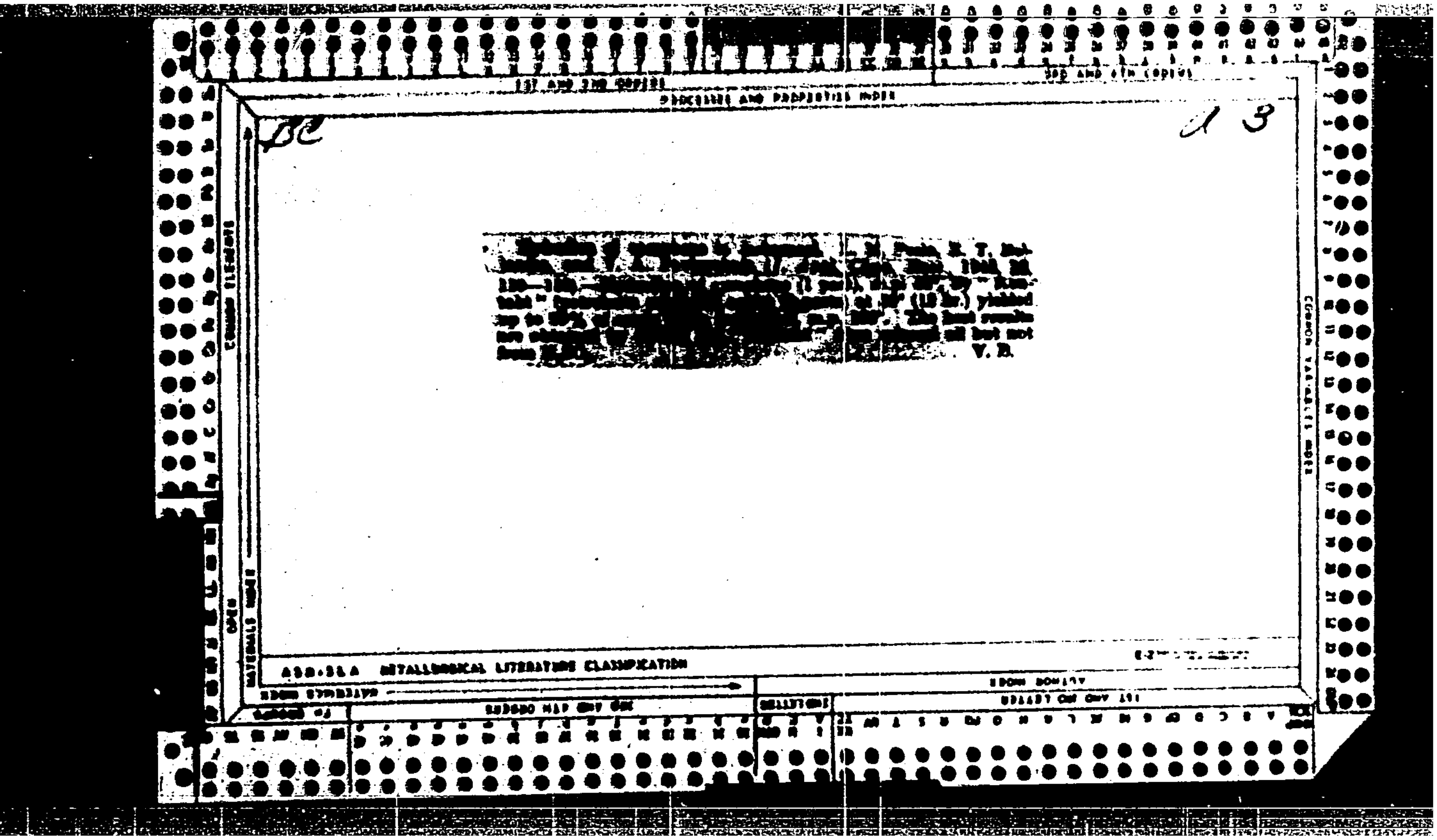
3RD AND 4TH ORDERS

BC

B-II-8

Heat effect of phenol-formaldehyde condensation. L. M. [illegible] and T. G. CHABANOV (Prom. Org. Chim., [illegible], 7, 314—317).—The heat of condensation is 300 cal. per g. of PhOH with HCl catalyst, and 80 cal./g. with NH_3 catalyst. R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



1ST AND 2ND ORDERS

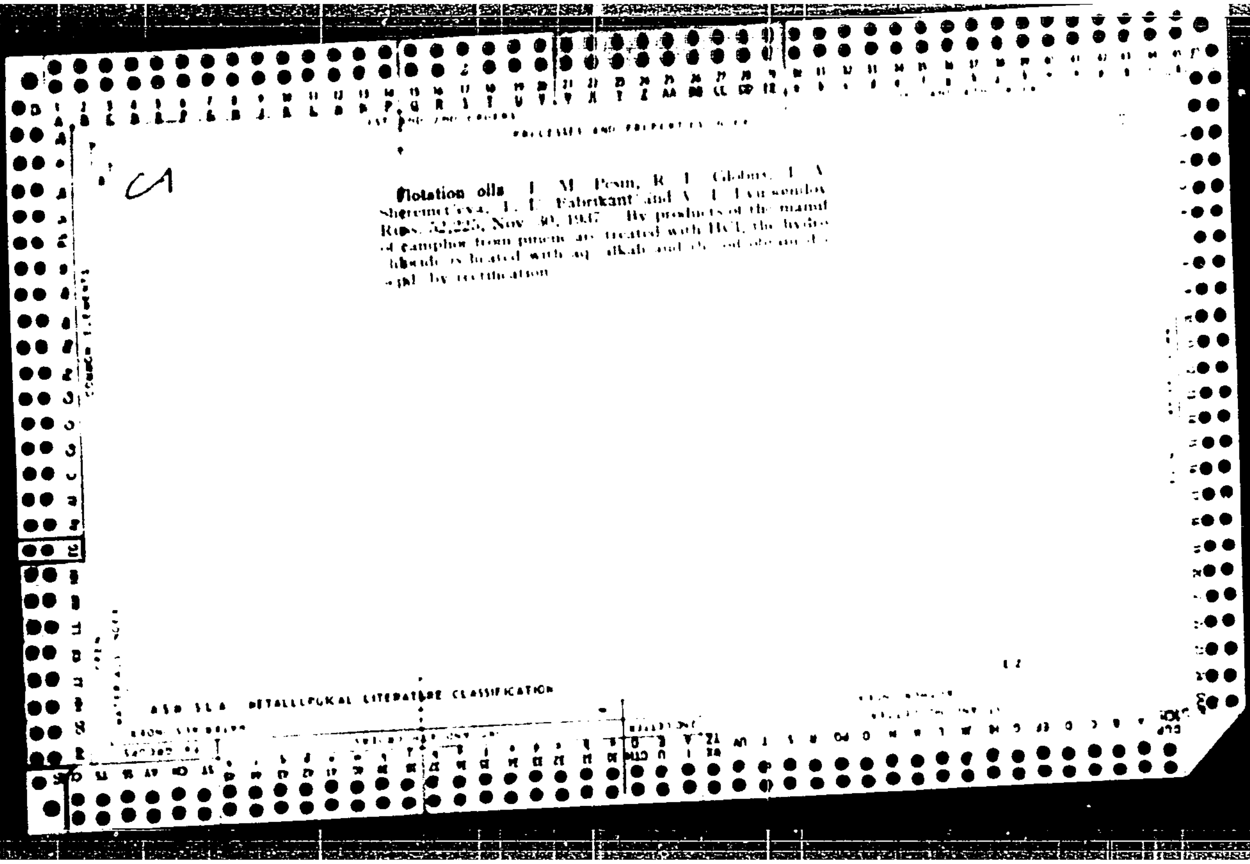
PROCESSES AND PROPERTIES INDEX

BC

13

[illegible] R. T. [illegible] 1948, [illegible] yielded up to [illegible] results [illegible] all but not from [illegible] V. B.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

CA

Flotation oils. I. M. Pesin, R. I. Globus, I. A. Sheremet'eva, L. E. Fabrikant and V. I. [illegible]. Russ. 52,225, Nov. 30, 1937. By-products of the manuf. of camphor from pinene are treated with HCl, the hydrochloride is heated with aq. alkali and the [illegible] by rectification.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

CA

2

Heats of reaction of the phenol-formaldehyde condensation. L. M. Puris and Ch. O. Khasanov. *Org. Chem. Ind.* (U.S.S.R.) 7, 314-17(1940).—An investigation was made of the dynamics of heat liberation and to det. its value in the PhOH-formaldehyde condensation of novolak and resol mixts. with an accuracy sufficient for technological purposes (of the order of 10%). The results are given in curves showing total heat liberated from the start to any moment in the reaction. The curves are also planned for unit wt. of PhOH in the charge. The av. value of Q was 180 cal./g. for the condensation of the novolak resin with HCl catalyst and about 80 cal./g. for the resol resin with an NH_3 catalyst. The results obtained can be used to det. the heat effect at any time during the process of condensation without using the data on the kinetics of the reaction. B. Z. Kamich

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

L 52127-65 EPF(c)/EWP(j)/EWT(m)/T Pc-4/Pr-4 RM

ACCESSION NR: AP5015282 UR/0286/65/000/009/0065/0065

AUTHORS: Moldavskiy, B. L.; Batalin, O. Ye.; Zheleznyak, E. N.; Pesin, L. M.; Potekhina, Ye. S.; Rabkina, A. E.; Bychkova, V. A.

26

B

TITLE: A method for obtaining epoxy compositions. Class 39, No. 170654 15

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 65

15

TOPIC TAGS: epoxy, succinic acid, cumylsuccinic acid

ABSTRACT: This Author Certificate presents a method for obtaining epoxy compositions by applying the anhydride of substituted succinic acid as a hardener. To simplify the technique of hardening, the anhydride of cumylsuccinic acid is used as a hardener.

ASSOCIATION: Gosudarstvennyy nauchno-issledovatel'skiy institut plastmass (State Scientific Research Institute of Plastics)

SUBMITTED: 18May64 ENCL: 00 SUB CODE: OC, MT

NO REF SOV: 000 OTHER: 000

Card 1/1

L 56675-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM
ACCESSION NR: AP5017850 UR/0286/65/000/011/0081/0081
678.028.294 28 29
B

AUTHOR: Pesin, L. M.; Potekhina, Ye. S.; Gurman, I. M.; Rabkina, A. E.; Runova, S. M.; Tsinman, F. Ye.; Malysheva, Ye. V.

TITLE: A method for producing epoxy materials 5 Class 39, No. 171582 15

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 11, 1965, 81

TOPIC TAGS: epoxy resin, epoxy plastic

ABSTRACT: This Author's Certificate introduces: 1. A method for producing epoxy materials using a hardener based on anilinoformaldehyde condensate. A wider selection of epoxy materials is produced by using the product of the interaction between anhydroformaldehyde aniline and monoethynolamine as the hardener 15 2. A modification of this method in which the hardener is the product of the interaction between anhydroformaldehyde aniline and monoethynolamine in a mixture with other epoxy resin hardeners of the amine type.

ASSOCIATION: Nauchno-issledovatel'skiy institut plasticheskikh mass (Scientific

Card 1/2

L 56675-65
ACCESSION NR: AP5017850

Research Institute of Plastics)

SUBMITTED: 19Mar64 ENCL: 00 SUB CODE: MT, GC

NO REF SOV: 000 OTHER: 000

JSL
Card 2/2

~~24(1)~~ 24.1200

66732

AUTHORS: Pesin, M. S., Fabelinskiy, I. L. SOV/20-129-2-17/66

TITLE: The Fine Structure of the Rayleigh Line and the Propagation of Supersonics in Highly Viscous Liquids

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 129, Nr 2, pp 299-302 (USSR)

ABSTRACT: At the beginning a report is given on previous work dealing with this subject. The fine structure of the Rayleigh line may be observed only in the case of $\alpha\Lambda \ll 1$, where α denotes the absorption coefficient and Λ the wave length of supersonics. In the present paper the authors try to determine the fine structure of the Rayleigh line at high static viscosities and to draw a conclusion on the change in velocity in the transition from low to high viscosities from the position of the components of this fine structure. Dried glycerin distilled for several times in vacuum served as experimental object. The method of investigating the fine structure was described already in a previous paper by the authors (Refs 4, 18). The spectral line 4358 Å of a low-pressure mercury lamp with liquid electrodes served as exciting light. The fine structure was investigated at the temperatures

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66732

The Fine Structure of the Rayleigh Line and the Propagation of Supersonics in Highly Viscous Liquids
SOV/20-129-2-17/66

+150; +50; +22; -27; -45°. Between +150° and -45° the viscosity of glycerin changed from 5.10^{-2} to 2.10^{5} poise. At all 5 temperatures a marked fine structure of the Rayleigh line was observed. At 150° and 50° intensive and wide fine-structure lines were observed, at the other temperatures the lines were sharper, although much less intense. The measuring error of the supersonic velocity varies at different temperatures by 5 to 8%. A table and 2 diagrams illustrate the results of the measurement of the supersonic velocity in glycerin. At 150° and 50° the supersonic velocity is somewhat lower than the corresponding values of the ultrasonic velocity. According to the authors this difference is due to the errors in measuring the supersonic velocity. Two diagrams illustrate the supersonic velocities determined by the authors from the fine structure of the scattering line. The velocity changes the most in the case of a temperature change from 50 to 22° and in the case of a change in viscosity from 1 to 9 poise respectively. The supersonic velocity attains values of

4

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66732

The Fine Structure of the Rayleigh Line and the Propagation of Supersonics in Highly Viscous Liquids SOV/20-129-2-17/66

3520 m/sec. Glycerin therefore behaves like a solid at temperatures of less than 22° at hypersonic frequencies. All the phenomena observed are qualitatively in agreement with the concepts of the relaxation theory. There are 2 figures, 1 table, and 21 references, 9 of which are Soviet.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva Akademii nauk SSSR (Physics Institute imeni P. N. Lebedev of the Academy of Sciences, USSR) Voronezhskiy sel'skokhozyaystvennyy institut (Voronezh Agricultural Institute)

4

PRESENTED: July 6, 1959, by M. A. Leontovich, Academician

SUBMITTED: June 1, 1959

Card 3/3

86832

6.8000 (3201, 1099, 1162)

S/020/60/135/005/021/043
B019/B067

AUTHORS: **Pesin, M. S.** and Fabelinskiy, I. L.

TITLE: Spectroscopic Study of the Propagation of Hypersonic Vibrations in Viscous Fluids

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol. 135, No. 5, pp. 1114-1116

TEXT: The authors present results of a spectroscopic study of the ation velocity of hypersonics in triacetin on transition from fluid s, and some new data on glycerin at -70°C and at temperatures corrnding to the range of greatest changes of the propagation velocity. A Fabry-Pérot standard and the 4358 A Hg line were used in the interference device described earlier (Ref. 4). Besides the values marked by asterisks which are given in Table 2, the authors give data obtained by other authors, e.g. T. S. Velichkina (Ref. 4). A comparison of theoretical and experimental data shows that in the case of hypersonics the agreement between the relations obtained by the relaxation theory and the experimental results is better than in the case of ultrasonics. There are 2 figures.

[redacted] Physics Inst. im Lebedev, AS USSR

S/056/60/039/003/043/045
B004/B060

AUTHORS: Ablekov, V. K., Pesin, M. S., Fabelinskiy, I. L.

TITLE: Realization of a Medium With Negative Absorption Coefficient

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1960, Vol. 39, No. 3 (9), pp. 892-893

TEXT: The authors report on the medium with negative absorption coefficient in the visible spectral range obtained by them by means of a gas discharge in a mercury- and zinc vapor mixture. The liquid electrodes of the tube had a temperature of 6 or 15°C, and the discharge current was varied between 8 and 15 a. The transparency of the mercury-zinc discharge was larger than unity for the 6362 A zinc line ($4^1P^o_1 - 4^1D_2$), and changed between 1.5 and 10 under different experimental conditions. The transparency for the 4722 A zinc line remained smaller than unity (about 0.9). The absolute value of the

Card 1/2

Realization of a Medium With Negative
Absorption Coefficient

S/056/60/039/003/043/045
B004/B060

absorption coefficient k fluctuated between 0.2 and 1.15. The authors made use of equation $N_1 = 8\pi k \Delta\nu / \lambda^2 A_{ik}$ to estimate the concentration N_i of the excited atoms situated on level 4^1D_2 ($\Delta\nu$ = half-width of the line, λ = 6362 A, A = probability of spontaneous transition). The value $9 \cdot 10^9$ was obtained for N_1 in the case of $\Delta\nu = 10^{-2}$ cm^{-1}, k = 0.2, and the value $5 \cdot 10^{10}$ at k = 1.15, which fits experimental data as to the order of magnitude. The authors explain this effect by the 7^3S_1 excited level of mercury which is only 133 cm^{-1} below the 4^1D_2 excited level of zinc. Since this difference is in the range of thermal atomic motions at room temperature, the action of resonance impacts of the second type between excited Hg atoms and nonexcited Zn atoms is particularly intensive here. Reference is made of the possibility of a similar medium with Hg, Zn, and Cd atoms. The authors mention papers by N. G. Basov and A. M. Prokhorov (Ref. 3), and R. A. Butayeva and V. A. Fabrikant (Ref. 5). They thank the latter for his advice and discussions. There are 8 references: 5 Soviet, 4 US, 1 British, and 1 German.

Inst. physics im. P. N. Lebedeva AS USSR
[illegible]

Card 2/2

ABLEKOV, V.K.; ZAYTSEV, V.P.; PESIN, M.S.

High-intensity mercury-zinc and mercury-cadmium lamps. Prib. i tekh. eksp. 6 no.2:140-142 Mr-Ap '61. (MIRA 14:9)

1. Fizicheskiy institut AN SSSR.
(Electric discharge lighting)

PESIN, M.S.

[illegible]

24(1) PHASE I BOOK EXPLOITATION SOV/1627

Vsesoyuznaya akusticheskaya konferentsiya. 4th, Moscow, 1958

Referaty dokladov (Abstracts of Reports at the Fourth All-Union Acoustical Conference) Pt. 2. Moscow, Akad. nauk SSSR, 1958. 44 p. Number of copies printed not given.

Sponsoring Agency: Akademiya nauk SSSR.

Resp. Ed.: L.M. Brekhovskikh, Corresponding Member, USSR Academy of Sciences.

PURPOSE: These abstracts are intended for scientists and engineers interested in acoustics.

COVERAGE: This is a mimeographed collection of brief abstracts of papers presented at the Fourth All-Union Acoustical Conference. The subjects covered are propagation of sound in nonhomogeneous media, nonlinear acoustics, ultrasonics, acoustic measurements, electroacoustics and architectural and structural acoustics.

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Mikhaylov, I.G. On the Problem of Absorption of Ultrasonic Waves in Ethyl Acetate 20

Nozdrev, V.F., and B. I. Kal'yanov. Investigation of the Speed and Absorption of Ultrasound in a Fluid of Constant Density By the Impulse Method 20

Pavlovski, Z. Poland. Ultrasonic Methods of Measuring the Elastic Constants of Polycrystal Bodies 21

Pesin, M.S., and I.L. Fabelinskiy. Investigation of the Propagation of Hypersound in Fluids 21

SOV/20-122-4-[illegible]/57

5(4), 10(4)

AUTHORS: Pesin, M. S., Fabelinskiy, I. L.

TITLE: The Dispersion of the Velocity of Sound and the Propagation of Ultrasound in Liquids (Dispersiya skorosti zvuka i rasprostraneniye ul'trazvuka v zhidkost'yakh)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 4, pp 575-577 (USSR)

ABSTRACT: It is interesting to determine the velocity of hypersound (frequency 10^{10} cycles) by investigation of the fine structure of the Raleigh (Reley) line and to compare it with the ultrasound velocity in the same liquids under the same conditions. In this manner, quantitative conclusions on the dispersion of the sound velocity can be drawn. The exactness of the determination of the ultrasound velocity by measuring the distance between the components of the fine structure of the line of the scattered light in liquids is hitherto not higher than 2 - [illegible] %, which is by far lower than the accuracy attained by the modern methods for the determination of sound velocity. These experiments, therefore, permit only the measurement of rather high values of the dispersion of the

Card 1/3

SOV/[illegible]-122-1-[illegible]

The Dispersion of the Velocity of Sound and the Propagation of Ultrasound in Liquids

velocity of sound. The authors discuss the considerations which may facilitate selecting the substances in which a noticeable dispersion of the sound velocity can be detected. A formula for the dispersion of the sound velocity is given. This paper deals with the investigation of methylene bromide, ethylene chloride, and chloroform. The absorption of ultrasound in chloroform and methylene bromide was carried out for the frequencies of ~ 30 megacycles. A noticeable dispersion of the sound velocity may be expected also in benzene and carbon tetrachloride. The apparatus used for the measurements was discussed in a previous paper (Ref 14). A Fabry (Fabri)-Perot (Pero) spectrometer (in connection with a spectrograph ISP -51) was used. The formula for the calculation of ultrasound is given and calculated. The results of the measurement of the ultrasonic velocity are given in 2 tables. The Mandel'shtam-Brillouin (Brillyuen) components in chloroform are not so sharp as in the 2 other investigated liquids. The experimental values of $\Delta v/v$ (v denotes the velocity of the ultrasound) permit the determination of all the parameters of ultrasonic propagation. The results of this determination are given in a table. There are 3 tables and 14 references, 7 of which are Soviet.

Card 2/2

PESIN, M. S.

[redacted]

STRUCTURE AND PHYSICAL PROPERTIES OF MATTER IN A LIQUID STATE
reports read at the 4th Conference convened in KIYEV from 1 to 5 June 1959, published by the Publishing House of KIYEV University, KIYEV, USSR, 1962

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M.S. PESIN and I.L. FABELINSKIY, Fine Structure of the Molecular Light Scatter Line and the Propagation of Ultrasound in Liquids 15
A.V. RAKOV, Effect of Intermolecular Interaction on the Line Width of the Combination-Scatter Spectra in Liquids 20
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A.F. SKRYSHEVSKIY, V.F. KLOCHKOV and YU.V. [illegible], Roentgenographic Investigation of the Structure of Some Liquid Silicon-organic Compounds 50

PESIN, M. S.

Dissertation defended for the degree of Candidate of Physicomathematical Sciences at the Acoustic Institute in 1962:

"Investigation of Ultrasonic Vibrations in Liquids."

Vest. Akad. Nauk SSR. No. 4, Moscow, 1963, pages 119-145

L 48098-65 EWT(1)/EWP(m)/EWA(d)/FCS(k)/EWA(1) Pd-1

ACCESSION NR: AT5009878 UR/2504/64/030/000/0158/0220

20
11
8+1

AUTHOR: Pesin, M. S.

TITLE: Investigation of hypersonic oscillations in liquids

SOURCE: AN SSSR. Fizicheskiy institut. Trudy, v. 30, 1964. Fizicheskaya optika, 158-220

TOPIC TAGS: hypersound, hypersonic oscillation, liquid viscosity, bulk viscosity, shear viscosity, sound speed dispersion, molecular acoustics

ABSTRACT: This is an abbreviated text of a dissertation devoted to a detailed study of the behavior of the scattering spectrum in liquids as they go over from the ordinary viscous to the vitreous state. One of the purposes was to assess the agreement between experimental data and the various molecular theories, principally those of Kneser and Herzfeld, which occupy at present an important place in molecular acoustics. The author has undertaken essentially a new investigation of the dispersion of sound speed by determining the Mendel'shtam-Brillouin components, using a new improved technique developed by him. This has led to observation of dispersion of sound speed in three new low-viscosity liquids--methylene chloride,

Card 1/3

L 48098-65

ACCESSION NR: AT5009878

methylene bromide, and chloroform. The speed of hypersound in water was also determined. These new data, together with those already existing, have made possible a detailed discussion of the results on the basis of the existing theory. The section headings are as follows: Introduction. I. Fine structure of Rayleigh light scattering line and relaxation processes in liquids. 1. Intensity and spectral composition of the scattered light. 2. Relaxation character of the processes affecting the speed and absorption of ultrasonic oscillations. 3. The general Mendel'shtam-Leontovich theory of relaxation processes. 4. Relaxation processes connected with exchange of energy between internal and external degrees of freedom of molecules. II. Procedure for measuring the velocity of hypersonic oscillations by determining the fine structure of the Rayleigh line. 1. Estimate of the required accuracy of optical measurements; brief review of previously employed experimental methods. 2. Choice of high resolution spectroscope. 3. Experimental set-up for the investigation of the fine structure of the Rayleigh line. 4. Light source, method of interpretation of the spectrograms. III. Dispersion of the speed of sound in liquids with large bulk viscosity. 1. Study of the dispersion of the speed of sound in the ultrasonic frequency range. 2. Choice of research objects at hypersonic frequency. 3. Results of measurements of dispersion of the speed of sound in low-viscosity liquids. 4. Discussion of results of measurements of the

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dispersion of the speed of sound in low-viscosity liquids. 5. Measurements of the speed of hypersound in water. IV. Dispersion of the speed of sound in liquids with large shear viscosity. 1. Fine structure of the Rayleigh line and propagation of sound in liquids with large viscosity. 2. Results of measurements of the speed of hypersound in viscous liquids. 3. Discussion of results of measurements of the speed of hypersound in liquids with large viscosity. "In conclusion I thank I. L. Fabelinskiy for suggesting the topic and for guidance of the performance of the work, P. A. Bazhulin who contributed much to the performance of this work, G. P. Motulevich, V. L. Ginzburg, and I. I. Sobel'man for a discussion of the results, and V. P. Zaytsev and V. K. Ablekov for help with the experiment." Orig. art. has: 17 figures, 52 formulas, and 22 tables.

ASSOCIATION: Fizicheskiy institut im. P. N. Lebedeva AN SSSR (Physics Institute, AN SSSR)

SUBMITTED: 00 ENCL: 00 SUB CODE: GP

NR REF SOV: 039 OTHER: 050

Card 3/3

IVANCHENKO, G.Ye.; PESIN, N.Ya.; REVZIK, Yu.Ya. (deceased); [illegible], K.G.;
MASTER, A.A.; POLOVNEV, G.I.

Technology of wide benching and its economic efficiency. Nauch. trudy
KNIUI no.14:372-383 '64. (MIRA 18:4)

[illegible]

[illegible] ations in
[illegible] 452 '64.
(MIRA 18:4)

IMAKOV, I.T.; BULEKOV, N.S.; PESIN, N.Ya.

Relation of the load on the stope to the length and rate of its advancement. Nauch. trudy KNIUI no.14:413-426 '64. (MIRA 18:4)

PBSIN, N.Ya.; MASTER, A.A.; SELYUKOV, V.P.; EYDEL'SHTEYN, I.A.; GERT, A.

Analysis of the degree of difficulty in development operations in Karaganda Basin mines. Nauch. trudy KNIUI no.14:464-480 '64.
(MIRA [illegible])

PESIN, N.Ya.; BRALIN, Zh.B.; ALOTIN, L.M.; **ZAITOV**, M.A.; GERT, A.P.

Analysis of the degree of difficulty in underground haulage operations in Karaganda Basin mines. Nauch. trudy KNIUI no.14: 480-496 '64. (MIRA 18:4)

KICHIGIN, A.F.; MASTER, A.A.; PESIN, N. Ya.; POLOVNEV, G.P.

Economic efficiency of introducing the "Karagandinets-P" rock cutter-loader. Nauch. trudy KNIUI no.13:369-374 '64
(MIRA 18:1)

PESIN, N.Ya., inzh.; PAVLOV, A.N., inzh.; ATROSHCHENKO, F.A., inzh.

Ways of lowering the cost of coal in mines of the Karaganda Basin. Izv. vys. ucheb. zav.; gor. zhur. no.12:48-54 '61. (MIRA 16:7)

1. Karagandinskiy politekhnicheskiy institut (for Pesin).
2. Karagandinskiy nauchno-issledovatel'skiy ugol'nyy institut (for Pavlov, Atroshchenko). Rekomendovana kafedroy ekonomiki organizatsii i planirovaniya Karagandinskogo politekhnicheskogo instituta.

(Karaganda Basin—Coal mines and mining—Costs)

VAS'KIN, N.I.; ATROSHCHENKO, F.A.; PAVLOV, A.N.; PESIN, N.Ya.;
MIROSHNICHENKO, V.D., red. izd-va; MINSKER, L.I., tekhn.
red.; BOLDYREVA, Z.A., tekhn. red.

[Potentialities for reducing coal production costs in mines]
Rezervy snizheniia sebestoimosti uglia na shakhtakh. Moskva,
Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1962. 141 p.
(MIRA 15:4)
(Coal mines and mining--Costs)

IVANCHENKO, Georgiy Yevtikhiyevich, prof., doktor tekhn. nauk;
MARKUS, Georgiy Oskarovich; SAVCHENKO, Vladimir Leont'yevich;
LEVIDOV, Yuriy Samuilovich; LANGE, Mark Vasil'yevich; PESIN,
Naum Yakovlevich; BOZHANOV, S.M.; MIRSKAYA, V.V., red.izd-va;
LAVRENT'YEVA, L.G., tekhn. red.

[Automatic control of hoists] Avtomatizirovannoe upravlenie
mashinoi. Pod red. G.E.Ivanchenko. Moskva, Gosgortekhizdat,
1963. 116 p. (MIRA 16:5)
(Karaganda Basin--Mine hoisting)
(Automatic control)

SAGINOV, Abylkas Saginovich; PESIN, Naum Yakovlevich; LEBEDEV, Aleksey
Nikolayevich, KAZAK, Yuriy Nikolayevich; MIROSHNICHENKO, V.D.,
red. izd-va; SHKLYAR, S.Ya., tekhn. red.

[Calculating technological processes in coal mining] Raschety tekhnologicheskikh protsessov dobychi uglia. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po gornomu delu, 1961. 141 p. (MIRA 14:11)
(Coal mines and mining)

S/856/62/000/000/008/011
E194/E135

AUTHORS: Pechuro, N.S., Grodzinskiy, E.Ya., and Pesin, O.Yu.

TITLE: The influence of the character of the feedstock on the composition and yield of decomposition products in electro-cracking of liquid hydrocarbons in an arc discharge

SOURCE: Problemy elektricheskoy obrabotki materialov. Tsentr. nauchnoissl. labor. elek. obrab. mat. AN SSSR. Ed. by B.R. Lazarenko. Moscow, Izd-vo AN SSSR, 1962. 192-198.

TEXT: The influence of the experimental conditions and of the feedstock on the products formed by electro-cracking have been inadequately studied. Contradictory results have been published. Tests were accordingly made with pure normal paraffinic hydrocarbons, with cycloparaffins and with aromatic compounds and, for comparison, with petroleum fractions with boiling ranges of 130-230 °C and 230-280 °C. The test cell, holding 70 mlitre of liquid, was made of transparent plastic except that benzene and O-xylol were tested in a quartz glass cell. The gap between the

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point-sphere steel electrodes was 1 mm. The open circuit voltage of the supply was 15 kV, with the current limited to 60 mA by a ballast resistance of 250 kilohms. Analyses of the gases obtained are tabulated and it is found that for normal paraffinic hydrocarbons the proportion of acetylene in the resulting gas increases somewhat with the chain length of the feed whilst the olefin yield remains practically constant. On cracking cyclohexane, the gas produced yields more acetylene (31%) than when the feed is paraffinic hydrocarbon of the same chain length, n-hexane (27%). Gas obtained from the decomposition of aromatic compounds is mainly acetylene and hydrogen; in the case of benzene the acetylene yield was 37%. The composition of gas produced by electro-cracking of petroleum distillate was very similar to that of paraffinic hydrocarbons. It made little difference whether d.c. or a.c. was used. From the carbon/hydrogen ratio in the initial and finished products, calculations are made of the yields of gas and carbon, and of the amounts of power and feed consumed. Theoretical and experimental values agreed, and for subsequent work the amount of feed used and of carbon produced were

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calculated from the measured amount of gas evolved. The total yield of gas differed little from one hydrocarbon to another, though the amount of carbon produced varied. Calculated values of the specific mean power consumption are 4.4 kWh/m3 C_2H_2 from paraffinic hydrocarbons, and 4 kWh/m3 C_2H_2 when cracking cyclohexanes. It is best to use aromatic compounds for cracking because they need only about half the power of the other compounds. The results are valid only for the particular experimental conditions; later work showed that the yield and composition of the gas depend not only on the electrical conditions but also on the spark gap, the shape and arrangement of the electrodes and their surface condition. There are 1 figure and 4 tables.

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L 23396-66 EWP(j)/EWP(k)/EWT(m)/T/EWP(t) IJP(c) RM/DJ/JD

ACC NR: AP6000635 SOURCE CODE: UR/0407/65/000/001/0020/0036

33
32

AUTHOR: Merkur'yev, A. N. (Moscow); Pechuro, N. S. (Moscow); Royter, L. A. (Moscow); Gol'din, V. I. (Moscow); Pesin, O. Yu. (Moscow)

B

ORG: none

TITLE: Media for precision electroerosion machining of metals 14

SOURCE: Elektronnaya obrabotka materialov, no. 1, 1965, 20-36

TOPIC TAGS: electroerosion machining, metal machining

ABSTRACT: An experimental investigation of the effect of various interelectrode media on the process of electroerosion machining (EEM) of steels is described. Paraffin, naphthene, and aromatic hydrocarbons, mono-, di-, and tri-atomic alcohols, polyethyl-siloxanes (No. 3 and No. 5 silicones) 15 kerosine, Estonian shale resin, and green soap were tested. It was found that the electrode erosion 14 and wear 11 depend on the medium and the power-supply source used. The best results were obtained with No. 3 silicone and tetralin used with longer pulses; the specific erosion increased with the discharge energy which enhanced the power efficiency of the

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ACC NR: AP6000635

process. Structural and stainless steel cutting was tested with these inorganic liquids as interelectrode media: oil-water emulsion, kaolin suspension in water, same with NaCl and $FeCl_3 \cdot 6H_2O$, solution of NaCl, solution of NaCl and $FeCl_3 \cdot 6H_2O$, solution of NaCl and KOH, soluble glass, and water. The best results were obtained with the NaCl-and-$FeCl_3$ solution: the electroerosion process combined with the electrochemical ensured a very clean cut surface and high efficiency. Detailed laboratory data is tabulated. Orig. art. has: 7 figures, 4 formulas, and 11 tables.

SUB CODE: 13 / SUBM DATE: none

Card 2/2

ACC NR: AT7006846

SOURCE CODE: UR/0000/66/000/000/0101/0110

AUTHOR: Pechuro, N. S. (Professor, Doctor of technical sciences); Pesin, O. Yu.; Filimonov, V. A.

ORG: none

TITLE: Effect of electrode diameter and stock circulation on the decomposition of liquid hydrocarbons in electric discharges

SOURCE: Moscow. Eksperimental'nyy nauchno-issledovatel'skiy institut metallorezhushchikh stankov. Khimicheskiye reaktsii organicheskikh produktov v elektricheskikh razryadakh (Chemical reactions of organic products in electric discharges). Moscow, Izd-vo Nauka, 1966, 101-110

TOPIC TAGS: electrocracking, arc discharge, petroleum product, hydrocarbon

ABSTRACT: The effect of outer and inner electrode diameter and stock circulation on the electrocracking of a petroleum product was studied under both stationary and dynamic conditions in a low-voltage alternating-current arc. The quantity of stock was varied from 0 to 17.0 liters/min, and the power of the arc discharge from ~ 0.4 to 4.0 kW. It was found that an increase in the amount of circulating stock and inner electrode diameter and a decrease in the outer diameter permit an increase in the yield of gas per unit time and the acetylene content of the gas. It is shown that the influence of D, d and Q manifests itself in a change of the volume velocity

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ACC NR: AT7006846

of the stock in the interelectrode gap; this velocity determines the power of the arc and the yield and composition of the gas. An increase in the volume velocity decreases the specific consumption of electric energy per nm^3 of C_2H_2; under optimum conditions, this value amounts to ~7.6 kW hr at an acetylene concentration of ~36-37%. Orig. art. has: 4 figures, 7 tables and 1 formula.

SUB CODE: 11, 07 SUBM DATE: none/ ORIG REF: 003

Card 2/2

ACC NR: AT7006848

SOURCE CODE: UR/0000/66/000/000/0173/0180

AUTHOR: Merkur'yev, A. N.; Pesin, O. Yu.; Pechuro, N. S. (Professor, Doctor of technical sciences)

ORG: none

TITLE: Study of the decomposition in condensed discharges of liquid organic products used as interelectrode media in electroerosive machining of metals

SOURCE: Moscow. Eksperimental'nyy nauchno-issledovatel'skiy institut metallorezhushchikh stankov. Khimicheskiye reaktsii organicheskikh produktov v elektricheskikh razryadakh (Chemical reactions of organic products in electric discharges). Moscow, Izd-vo Nauka, 1966, 173-180

TOPIC TAGS: electroerosion, aromatic hydrocarbon, alkane, cyclohexane

ABSTRACT: Experiments were carried out in order to determine the nature of the decomposition of pure organic compounds used as interelectrode media in electroerosive machining when they are acted upon by condensed discharges. The compounds studied were representatives of paraffins, naphthenes, and aromatic hydrocarbons (n-heptane, n-octane, n-decane, n-tetradecane, benzene, o-xylene, tetralin, and cyclohexane). The yield of gaseous decomposition products was found to depend substantially on the type of medium. The maximum amount of gas was formed by the decomposition of paraffin hydrocarbons, and the minimum by the decomposition of aromatic compounds. Relation-

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PECHURO, I.S.; GRODZINSKIY, E.Ya.; PESIN, O.Yu.

Obtaining acetylene by the electric cracking of liquid hydrocarbon stock. Gaz. prom. 8 no.2:47-49 '63. (MIRA 17:8)

PECHURO, N.S.; PESIN, O.Yu.; [illegible], A.I.; [illegible]

Obtaining acetylene from liquid hydrocarbons. Gaz. [illegible] 43 '64.

([illegible] 17:10)

S/856/62/000/000/010/011
E194/E135

AUTHORS: Pechuro, N.S., Grodzinskiy, E.Ya., and Pesin, O.Yu.

TITLE: The decomposition of organic liquids in high-voltage impulse discharges

SOURCE: Problemy elektricheskoy obrabotki materialov. Tsentr. nauchnoissl. labor. elek. obrab. mat. AN SSSR. Ed. by B.R. Lazarenko. Moscow, Izd-vo AN SSSR, 1962. 209-213.

TEXT: It was desired to find whether the relationships observed during the electrocracking of organic liquids (present collection of articles, 192-198) also hold for other kinds of discharges, and in particular with high-voltage impulses. Pulse durations of 10^{-6} and 10^{-3} seconds were used, derived from a capacitor discharge circuit with a charging voltage of 13.5 kV. The liquids were the same as before, namely normal paraffins, certain aromatics and two petroleum distillates, and the same test cells were used. Individual hydrocarbons yielded products in somewhat different proportions in the two cases but the general

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