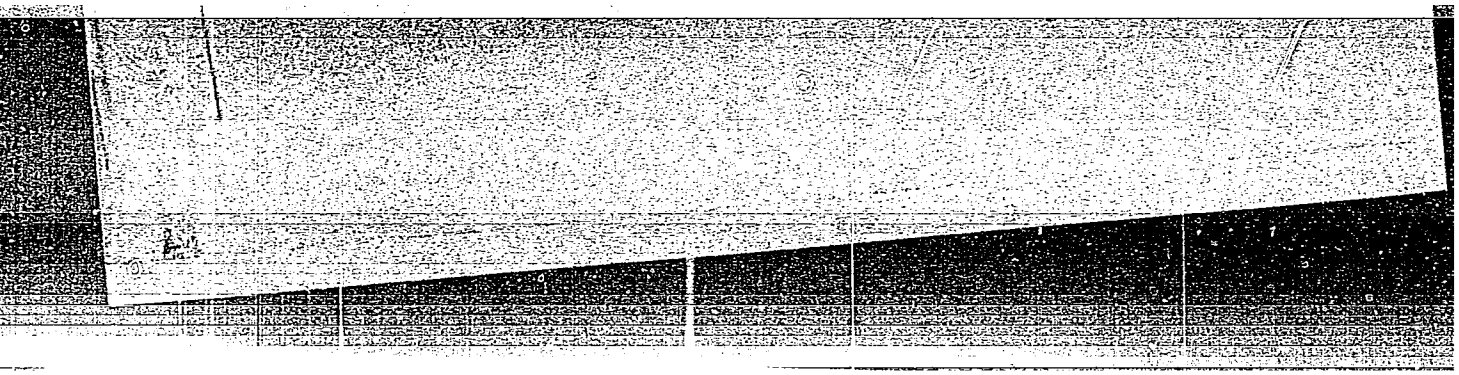
The Thickness of Thin Layers of "Fixed" Water

results of the investigations show that, depending on the combination of the adjacent phases, the thin layer can produce either a positive or a negative wedging effect In the first instance it is positive and retains an equilibrium thickness over an indefinite time, whereas in the second case it is gradually displaced by the liquid contained in the drop introduced into the capillary. The realization of the one or the other effect depends on the ratio of surface tensions along the two boundaries of the thin layer. The influence of the composition of the electrolytes and the temperature on the thickness of the layer was investigated. Bibliography: 26 references

S. V. Nerpin



APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R001033320009-0"

KUSAKOV, M.M., MEKENITSKAYA, L.I.

3

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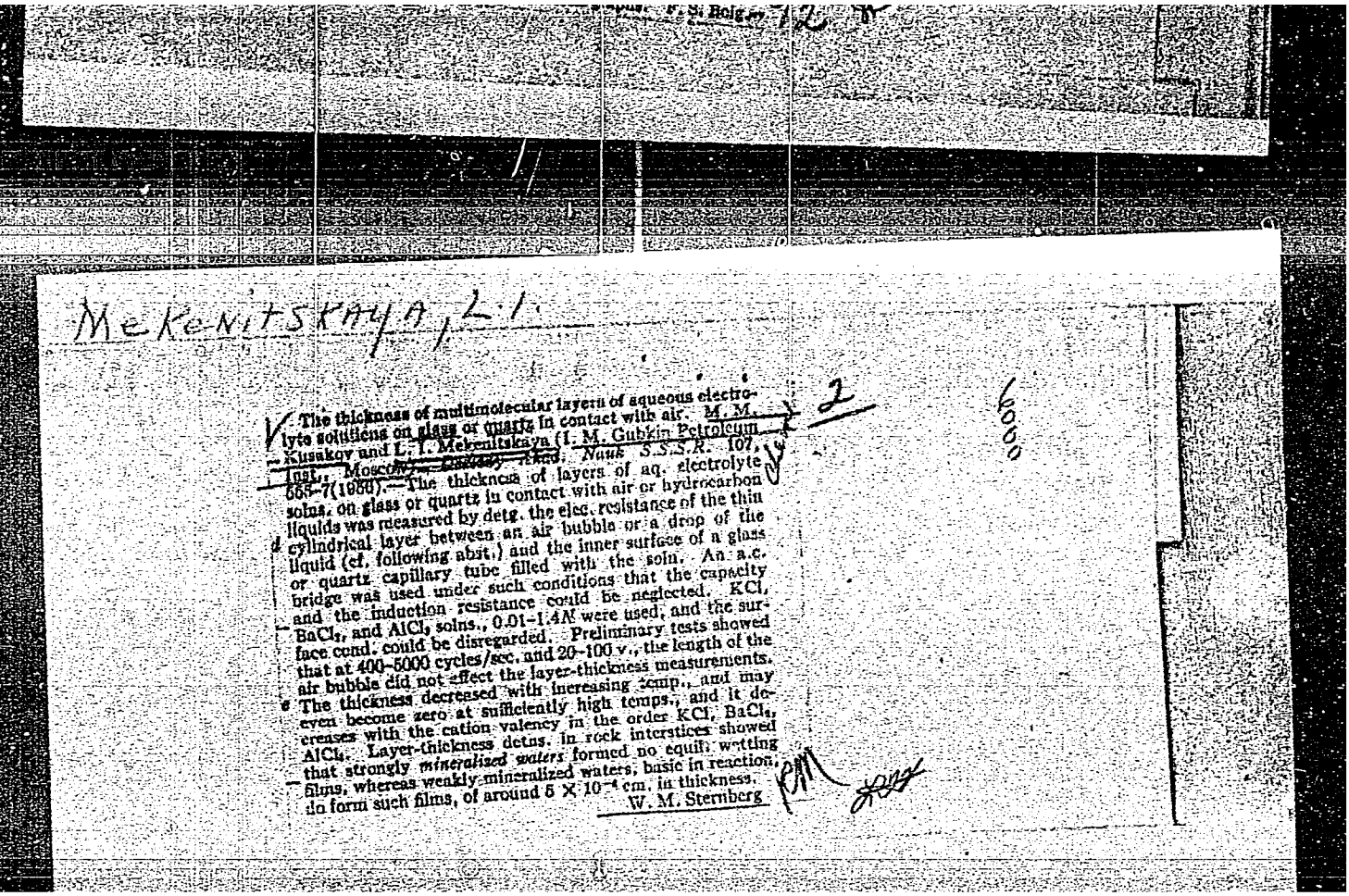
layer with concn. of electrolyte shows that thickness of the
layer sharply decreases with increasing concn. in the range
of small concns. and is considerably smaller in the range of
high concns. of electrolyte. In the formation of the thin
layer of aq. solns. between liquid hydrocarbon surface
(C_7H_{16}) and glass, the thickness of this layer decreases with
time, is less at higher than at lower temps., and the displace-
ment of the layer does not depend on temp., and increases
somewhat with increased valence of cation. Concn. of
electrolyte influences [illegible]



MEKENITSKAYA, L. I.

The thickness of multimolecular layers of aqueous electrolyte solutions on glass or quartz in contact with air. M. M. Kusakov and L. I. Mekenitskaya (I. M. Gubkin Petroleum Inst., Moscow). *Doklady Akad. Nauk S.S.S.R.* 107, 565–7(1956).—The thickness of layers of aq. electrolyte solns. on glass or quartz in contact with air or hydrocarbon liquids was measured by detg. the elec. resistance of the thin cylindrical layer between an air bubble or a drop of the liquid (cf. following abst.) and the inner surface of a glass or quartz capillary tube filled with the soln. An a.c. bridge was used under such conditions that the capacity and the induction resistance could be neglected. KCl, $BaCl_2$, and $AlCl_3$ solns., 0.01–1.4*N* were used, and the surface cond. could be disregarded. Preliminary tests showed that at 400–5000 cycles/sec. and 20–100 v., the length of the air bubble did not affect the layer-thickness measurements. The thickness decreased with increasing temp., and it decreases with the cation valency in the order KCl, $BaCl_2$, $AlCl_3$. Layer-thickness detns. in rock interstices showed that strongly *mineralized waters* formed no equil. wetting films, whereas weakly mineralized waters, basic in reaction, do form such films, of around 5×10^{-4} cm. in thickness.

W. M. Sternberg

KUSAKOV, M.M.; MEKENITSKAYA, L.I.

Experimental investigation of the thickness of polymolecular layers of water solutions of electrolytes on glass and quartz at the interface with air. Dokl.AN SSSR 107 no.4:555-557 Ap '56. (MLRA 9:7)

1.Moskovskiy neftyanoy institut imeni I.M.Gubkina. Predstavleno akademikom A.V.Topchiyevym.
(Electrolytes)

KUSAKOV, M.M.; MEKENITSKAYA, L.I.

Experimental investigation of the thickness of polymolecular layers of water solutions of electrolytes on glass and quartz at the interface with a hydrocarbon liquid. Dokl.AN SSSR 107 no.5:715-716 Ap '56. (MLRA 9:8)

1. Moskovskiy neftyanoy institut imeni I.M. Gubkina. Predstavleno akademikom A.V. Topchiyevym.
(Electrolytes)

MEKENITSKAYA, L.I.

MEKENITSKAYA, L.I.; KUSAKOV, M.M.

The state of bound water in an oil collecting stratum. Neft. khoz. 35 no.9:41-44 S '57. (MIRA 11:1)

(Water, Underground)

Mekenitskaya, L. I.

20-5-25/54

AUTHOR: Kusakov, M. M. and Mekenitskaya, L. I.

TITLE: The Film and Capillary-Held Water in a Porous Medium (Plenochnaya i kapillyarno - uderzhannaya voda v poristoy srede)

PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol. 115, Nr 5, pp. 942-945 (USSR)

ABSTRACT: In 4 previous works by the same authors the thickness of the polymolecular layers of electrolytic water solutions on the inner surface of a single capillary at various dividing boundaries was studied. These properties were studied in mineral gas- and mineral oil containing layers on samples of quartz sandstone of the Tuymaz oilfield in order to find out to what extent the conclusion concerning thin layers in single capillaries hold for porous milieus and/ or can serve for the characterization of the state of bound water in mineral gas and mineral oil containing zones of a mineral oil collector. It was proved on this occasion that the method of water displacement from the cores though a little permeable dividing wall can be used for this characterization. If distilled water is used as rest water, it is in the

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The Film and Capillary-Held Water in a Porous Medium 20-5-25/54

cores not only in a capillarily-held, but in a film state, for distilled water can exist on glass and on quartz on the boundary with gas in form of balanced, moistening, thin layers. Fig. 1 shows the results of investigations of NaCl concentration with respect to the remaining water saturation (expressed in % of the pore volume), for 3 cores of different permeability. From the diagram (fig. 1) it may be seen that with the increase of NaCl concentration the quantity of the liquid remaining in the core decreases. Figure 2 shows curves which express the dependence of the remaining water saturation for distilled water and for 5 N-NaCl solution on the permeability of the core. Herefrom it may be seen that with a permeability of a porous milieu of 800 - 100 mda and more the quantity of the remaining liquid is independent of the permeability. From table 1 it may be seen that the quantity of capillarily held liquid in the porous medium is practically independent of the nature of the electrolyte. The average film thickness of the distilled water "h" can be estimated from the difference between the total quantity in the cores of the capillarily held liquids and the size of the specific core surface. Figure 3 shows the dependence of the average water film thickness (distilled) in the porous medium on the value σ/r, which is

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The Film and Capillary-Held Water in a Porous Medium

proportional to the expansive pressure of a cylindrical fine layer. This shows that also in this milieu the average layer thickness, conditions otherwise being equal, is determined by their expansive pressure. The remaining saturation is, in the case of trivalent salt solutions ($AlCl_3$) and relatively low concentrations for their same values, lower than in the case of univalent ones (NaCl). Apparently the thickness of the layers in $AlCl_3$ solutions is less than that in NaCl solutions. At high concentrations practically no difference was observed in this respect, which might be explained by a complete destruction of the layers of moisturing at high concentrations. The above results mention the fact that the properties of fine layers such as were studied at the single capillaries on the boundary air / aqueous electrolyte solution / glass or / quartz, are fully conserved also in porous media. Consequently, the previously drawn conclusion is correct, i.e. that the state of bound water, particularly is gas, containing collectors, which represents electrolyte solutions, is determined by the physical-chemical properties of the liquid. There are 3 figures, 1 table, and 11 Slavic references.

The Film and Capillary-Held Water in a Porous Medium 20-5-25/54

ASSOCIATION: Moscow Petroleum Institute imeni I.M. Gubkin (Moskovskiy neftyanoy institut im. I.M. Gubkina)

PRESENTED BY: A.V. Topchiyev, Academician, February 13, 1957

SUBMITTED: February 11, 1957

AVAILABLE: Library of Congress

Card 4/4

MEKENITSKAYA, L.I.; KUSAKOV, M.M.

Molecular characteristics of oil-sand surfaces. Izv.vys.ucheb.zav.; neft' i gaz 1 no.9:53-60 '58. (MIRA 11:12)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika I.M. Gubkina.
(Oil sands)

AUTHORS: Kusakov, M. M., Mekenitskaya, L. I. SOV/156-58-4-11/49

TITLE: Method of Determining the Ratio Between Hydrophobic and Hydrophilic Surface on Uncemented Porous Mass (Metod opredeleniya soctnosheniya gidrofobnoy i gidrofil'noy poverkhnostey nestsementirovannykh poristykh sred)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 4, pp 656-659 (USSR)

ABSTRACT: A method of characterizing the ratio between the hydrophilic and hydrophobic surface of the porous mass was suggested for determining oil-containing sand. The ratio between hydrophobic surface $S_{hydrophobic}$ and $S_{hydrophilic}$ is determined by the magnitude γ, which is the characteristic feature of the molecular surface of oil-containing sand:

$$\gamma = \frac{S_{hydrophobic}}{S_{hydrophilic}} = \frac{S_{hydrophobic}}{S - S_{hydrophobic}}$$

$S = S_{hydrophobic} + S_{hydrophilic}$ is the total surface of the solid phase. The ratio γ of oil-containing sand was determined

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Method of Determining the Ratio Between Hydrophobic and Hydrophilic Surface on Uncemented Porous Mass

SOV/156-58-4-11/49

by the adsorption method. The method of determining the magnitude γ is described in detail. Mersolate was used as an adsorbing agent. Experiments with synthetic sand mixtures containing different hydrophobic and hydrophilic quantities were carried out to check this method experimentally. A calibration curve was plotted. The determination of the ratio $S_{hydrophobic} : S_{hydrophilic}$ was compared to the determinations of synthetically produced sand. Satisfactory results were obtained.
There are 3 figures and 7 references, 5 of which are Soviet.

ASSOCIATION: Kafedra fiziki Moskovskogo neftyanogo instituta im. akad. I. M. Gubkina (Chair of Physics at the Moscow Institute of Petroleum imeni Academician I. M. Gubkin)

SUBMITTED: March 26, 1958

Card 2/2

KUSAKOV, M.M.; MEKENITSKAYA, L.I.

Study of the state of bound water on models of oil and gas reservoirs. Trudy MINKHiGP no.25:302-313 '59. (MIRA 15:5)
(Oil field brines)

KUSAKOV, M.M.; LUBMAN, N.M.; KOSHEVNIK, A.Yu.; KOSHELEVA, I.M.; MEKENITSKAYA, L.I.

Studies of the physical chemistry of oil layers. Trudy Inst. geol. i razrab. gor. iskop. 2:71-80 '60. (MIRA 14:5)
(Oil reservoir engineering)

MEKENITSKAYA, L I.

PHASE I BOOK EXPLOITATION SOV/5590

Konferentsiya po poverkhnostnym silam. Moscow, 1960.

Issledovaniya v oblasti poverkhnostnykh sil; sbornik dokladov na konferentsii po poverkhnostnym silam, aprel' 1960 g. (Studies in the Field of Surface Forces; Collection of Reports of the Conference on Surface Forces, Held in April 1960) Moscow, Izd-vo AN SSSR, 1961. 231 p. Errata printed on the inside of back cover. 2500 copies printed.

Sponsoring Agency: Institut fizicheskoy khimii Akademii nauk SSSR.

Resp. Ed.: B. V. Deryagin, Corresponding Member, Academy of Sciences USSR; Editorial Board: N. N. Zakhavayeva, N. A. Krotova, M. M. Kusakov, S. V. Nerpin, P. S. Prokhorov, M. V. Talayev and G. I. Fuks; Ed. of Publishing House: A. L. Bankvitser; Tech. Ed.: Yu. V. Rylina.

PURPOSE: This book is intended for physical chemists.

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COVERAGE: This is a collection of 25 articles in physical chemistry on problems of surface phenomena investigated at or in association with the Laboratory of Surface Phenomena of the Institute of Physical Chemistry of the Academy of Sciences USSR. The first article provides a detailed chronological account of the Laboratory's work from the day of its establishment in 1935 to the present time. The remaining articles discuss general surface force problems, polymer adhesion, surface forces in thin liquid layers, surface phenomena in dispersed systems, and surface forces in aerosols. Names of scientists who have been or are now associated with the Laboratory of Surface Phenomena are listed with references to their past and present associations. Each article is accompanied by references.

TABLE OF CONTENTS:

III. SURFACE FORCES IN THIN LAYERS OF LIQUIDS

Studies in the Field of Surface Forces (Cont.) SOV/5590

AVAILABLE: Library of Congress

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JA/rsm/os
10/28/61

MEKENITSKIY, S. Y.

Nitotchenkin, A. E. and Mekenitskiy, S. Y. (Ministry of Construction of the RSFSR, Moscow): "Rotative Semi-automatic Plate-Freezer for the Quick Freezing of Foodstuffs in Blocks" /French - 7 pages/

report presented at the International Inst. of Refrigeration (IIR), Annual Meeting of Commissions 3,4, and 5, Moscow, 3-6 Sep 1956.

GURAL'NIK, M.I., kandidat tekhnicheskikh nauk; MEKENITSKIY, S.Ya., inzhener; LAVROVA, V.V., spets. redaktor; GLAZUNOVA, V.V., redaktor; ROSLOV, G.I., tekhnicheskiy redaktor

[Roller conveyers; a report] Rolikovye dorozhki; informatsionnoe soobshchenie. Moskva, Gos. izd-vo torgovoi lit-ry, 1956. 14 p. (Conveying machinery) (MLRA 9:10)

MEKHAMKIN, I.

There is a profit! Sov. shakh. 11 no.10:17 O '62.
(MIRA 15:9)

1. Nachal'nik shakhty No.43 Tul'skogo kombinata ugol'noy promyshlennosti Podmoskovnogo basseyna Ministerstva ugol'noy promyshlennosti SSSR.
(Moscow Basin--Coal mines and mining--Costs)

MEKHANDZHIEV, Dimitur R.

Magnetic methods in chemistry. Priroda Bulg 12 no. 6: 20-22 N-D '63.

MEKHANDZHIEV, M.

Endogenous fires in Eleshnitsa Mine. p.45. MINING DELO. (Ministerstvo na tezhkata promishlenost) Sofiia. Vol. 11, no. 1, Jan./Feb. 1956

SOURCE: East European Accessions List, (EEAL), Library of Congress, Vol. 5., no. 12, December 1956

MEKHANDZHIEV, M.; BOIADZHIEV, M.

"Analyzing ores to be sent by railroad cars at the forwarding station; a mixture of different qualities."

p.56 (Minno Delo, Vol. 12, no. 2, Mar./Apr. 1957, Sofiia, Bulgaria)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 8, August 1958

MEKHANDZHIEV, M.

"Obtaining the cementation copper concentrate from the mine water in the mines of the Panagiurski State Mining Enterprise."

p.54 (Minno Delo, Vol. 12, no. 5, Sept./Oct. 1957, Sofiia, Bulgaria)

Monthly Index of East European Accessions (EEAI) LC, Vol. 7, No. 8, August 1958

MEKHANDZHIEV, M.

TECHNOLOGY

Periodical: MINNO DELO. Vol. 13, no. 4, July/Aug. 1958.

MEKHANDZHIEV, M. The struggle against corrosion in the Elshitsa Mine, of the Panagiurski mini State Mines Enterprise. p. 48.

Monthly List of East European Accession (EEAI), LC., Vol. 8, no. 2, February 1959, Unclass.

MEKHANDZHIEV, M.; KLISURSKI, D.

"Possibilities of utilizing the cinders from pyrite ores and flotation-pyrite concentrate in the Stalin Chemical Plant in Dimitrovgrad"

Tezhka Promishlenost. Sofiia, Bulgaria. Vol. 8, no. 1, Jan. 1959

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 6, Jun 59, Unclas

MEKHANDZHIEV, M., KARABOICHEV, N, TATARSKI, A.

Poor pyrite ores form the Panagyurishte mining region and prospects for the production of sulfuric acid in Bulgaria. p. 9

TEZHKA PROMISHLENOST, SOFIIA, BULGARIA, Vol. 8, No. 4, Apr. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, No. 10, Oct. 1959.
Uncl.

BLIZNAKOV, G.; MEKHANDZHIEV, D.; BAKURDZHIEV, Iv.

Determining surfaces of the adsorbents and catalysts following the BET method. Khim i industriia 23 no.6:186-190 '61.

PEIKOV, St., inzh.; BOICHEV, At., inzh.; MEKHANDZHIEV, M., inzh.

The froth method in dust elimination, and its application at the State Metal Works "G. Dimitrov.". Min delo 17 no.4:36-39 Ap '62.

1. Upravlenie "Tsvetna metalurgiia i rudodobiv" kum Komiteta po promishlennostta (for Peikov). 2. Otdel "Promishlen" pri Okruzheniia komitet ba Bulgarskata komunisticheska partiia, Vratsa (for Boichev). 3. DMMP "G. Dimitrov" (for Mekhandzhiev).

BAKYRDZHIYEV, I. [Bakurdzhiev, I.]; MEKHANDZHIYEV, D. [Mekhandzhiev, D.]

Adsorption properties of thermal dehydrated samples of powdered silica gel. Doklady BAN 17 no.3:271-274 '64.

1. Predstavleno akad. S. Kaishevym.

BLIZNAKOV, G.; MEKHANDZHIYEV, D. [Mekhandzhiev, D.]; BAKYRDZHIYEV, I. [Bakurdzhiev, I.]

Adsorption properties of methoxylated surfaces of powdered silica gel. Doklady BAN 17 no.8:745-748 '64.

1. Predstavleno akad. R.Kaishevym.

MEKHANIK4F8YA8

600

1. MEKHANIK, F. YA.

2a. USSR (600)

4. Botany - Physiology; Ascorbic Acid

7. Factors influencing the contents of ascorbic acid in leaves. Bot. zhur., 37 No. 1, 1952. Belorusskiy Gosudarstvennyy Universitet Kafedra Fiziologii Rasteniy Minsk Received 10 May 1949

9a. Monthly List of Russian Accessions, Library of Congress, April 1952. UNCLASSIFIED.

USSR/Biology - Plant Diseases Dec 50

"Storage of Fruit in Acetylene," F. Ya. Mekhanik

"Priroda" No 12, p 56

Investigated the keeping quality of citrus fruit stored in carbon dioxide, nitrogen, hydrogen, ether vapor, and acetylene. As distinguished from the other gases, acetylene preserved the fruit in a perfectly unspoiled and fresh condition for over a year. It also prevented exptl infection with Penicillium italicum and Penicillium digitatum and eliminated diseases which affect the fruit during the period of ripening (caused by Colletotrichum gloesporioides and Alternaria citri). The fruit treated with acetylene cannot be used for consumption, because it acquires a disagreeable taste. The method is suitable for preservation of museum specimens and other purposes.

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MEKHANIK, F. YA.

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Factors that affect the content of ascorbic acid in leaves F. Ya. Mekhanik (White Russia State Univ., Minsk). *Botan. Zhur.* **37**, No. 1, 71–4(1952).—Examn. of specimens of *Rosa rugosa* showed that chlorotic leaves containing less than 60% of normal chlorophyll show progressively subnormal levels of sol. sugars and ascorbic acid. Leaves with 60–85% of normal chlorophyll contain 76–85% of normal ascorbic acid level and 100% sol.-sugar level. Content of ascorbic acid, activity of ascorbinase, and rate of respiration parallel the rise of chlorophyll up to 85% of normal. Expts. with *Solanum nigrum* which had been kept in the dark temporarily showed that a rise of ascorbic acid parallels the rise of carbohydrates and the rate of respiration at temps. up to 25°. At higher temps. the ascorbic acid level tends to lag owing to enhanced oxidative processes. Such characteristics depend on the plant species studied. In early spring *Rosa rugosa* shows a rising characteristic of ascorbic acid and chlorophyll; in the fall a declining characteristic is observed, with leaves of various tiers showing somewhat different times of onset of max. contents; this may explain the earlier contradictions on the content of ascorbic acid in this plant. In *Pisum sativum* retardation of fruit growth by removal of flower buds causes continuation of growth of the chlorophyll content as well as that of ascorbic acid for a week or more beyond the normal time for max. content. In *Rosa rugosa* the max ascorbic acid appears in early afternoon in spring, shows 2 max. at early morning and evening hours in midsummer, and a max. in early afternoon in the fall. All results are given graphically.

G. M. Kosolapoff

MEKHANIK, F.Ye.

U.S.S.R.

The buffer action of juice as an index of the stability of citrus in storage. F. Ya. Mekhanik. *Botan. Zhur.*, 39, 581-8(1954).—In the process of ripening (from semi-yellow to yellow color) the total acidity decreases, the pH rises, and the buffer capacity increases in the zone of pH 3.4–4.8 and decreases with increase in pH. Similar trends are noted in the juice after storing the fruit at 10–18° for 1.5 months. After that the total acidity drops sharply with a rise in pH and a lowering of the buffer capacity. J. S. Joffe

MEKHANIK,F.Ya., kandidat biologicheskikh nauk, Leningrad

Significance of vitamins to fishes. Priroda 44 no.10:102-104 O'55. (MIRA 8:12)

(Vitamins) (Fishes)

MEKHANIK, F.Ya.

Growth and metabolism in fry of Ladoga salmon and rainbow trout at different temperatures [English summary in insert]. Zool.zhur.35 no.2:290-299 F '56. (MLRA 9:7)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut ozernogo i rechnogo rybnogo khozyaystva.
(Fishes)

MEKHANIK, F.Ya.

The problem of fish starvation [with summary in English]. Zool. zhur. 36 no.12:1897-1890 D '57. (MIRA 11:1)

1.Vsesoyuznyy nauchno-issledovael'skiy institut ozernogo i rechnogo rybnogo khozyaystva.
(Fishes--Food)

MEKHANIK, F.Ya.

Treatment of young cucumber plants with acetylene as means of promoting the development of fertile female flowers. Dokl.Akad. sel'khoz. 23 no.11:20-23 '58. (MIRA 11:12)

1. Belorusskaya ordena Trudovogo Krasnogo Znameni sel'skokhozyaystvennaya akademiya. Predstavlena akademikom A.A.Avakyanom.
(Cucumbers) (Acetylene)

MEKHANIK, F.Ya.

Effect of acetylene on potatoes. Sbor.nauch.rab.Bel.otd.VBO no.1: 42-51 '59. (MIRA 14:4)
(Potatoes) (Plants, Effect of acetylene on)

MEKHANIK, F.Ya.

Acetylene-induced sex ratio shifts in generative shoots of monoecious plants. Bot.zhur. 44 no.9:1231-1237 S '59.
(MIRA 13:2)

1. Belorusskaya sel'skokhozyaystvennaya akademiya, g.Gorki.
(Plants, Sex in)
(Plants, Effect of acetylene on)

MEKHANIK, F.Ya.

Effect of mineral and organic fertilizers on the vernalization stage of plants. Agrobiologiia no. 3:440-442 My-Je '60.
(MIRA 13:12)

1. Belorusskaya sel'skokhozyaystvennaya akademiya, g.Gorki, Mogilevskoy oblasti.
(Fertilizers and manures) (Vernalization)

MEKHANIK, F.Ya.

Effect of mineral and organic substances on the vernalization speed of seeds. Sbor. nauch. rab. Bel. otd. VBO no.3:205-209 '61. (MIRA 14:12)

(Vernalization)

MEKHANIK, F.Ya.

Effect of the oxidation-reduction properties of solution absorbed by seeds on the vernalization rate and branching of ears. Fiziol.rast. 8 no.3:330-337 '61. (MIRA 14:5)

1. Belorusskaya sel'skokhozyaystvennaya akademiya, Gorki.
(Vernalization) (Oxidation-reduction reaction) (Rye)

MEKHANIK, F.Ya.

Oxidation-reduction characteristics of plants during the vernalization and light stages. Zhur.ob.biol. 23 no.4:265-275 Jl-Ag '62. (MIRA 15:9)

1. Belorusskaya sel'skokhozyaystvennaya akademiya, Gorki, Mogilevskaya oblast'.

(PLANTS, EFFECT OF LIGHT ON) (VERNALIZATION)
(OXIDATION—REDUCTION REACTION)

ACC NR: AP6033277 SOURCE CODE: UR/0020/66/170/004/0974/0977

AUTHOR: Yermokhina, T. M.; Mekhanik, M. L.; Zaytseva, G. N.; Belozerskiy, A. N. (Academician)

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Investigation of phenylalanyl-RNA-synthetase and phenylalanine sRNA in yeasts and insects

SOURCE: AN SSSR. Doklady, v. 170, no. 4, 1966, 974-977

TOPIC TAGS: enzymology, RNA, RNA synthesis, ~~[illegible]~~, cell physiology, ~~medical research~~, biochemistry, insect, enzyme, yeast

ABSTRACT: The possible heterogeneity of phenylalanyl-RNA synthetases and their corresponding sRNA's was investigated using insect and microbial materials as sources of biochemicals. Cellular extracts of very high purity were obtained using standard methods. The enzymes from insect larvae and yeasts were separated into two components on a DEAE cellulose column and their physical properties and enzyme action determined using radioactive tracer methods. Two corresponding sRNA fractions were also separated, enzyme E_I aminoacylates phenylalanine with RNA_{II} and enzyme E_2—RNA_I. In the protein fraction a third enzyme E_3

Card 1/2 UDC: 547.963.3

ACC NR: AP6033277

appeared, but two corresponding C^{14}-phenylalanyl RNA's were discovered, a case of one enzyme governing the formation of two slightly different sRNA's. E_I was species specific being found only in extracts from flies. The existence of other sets of general heterogeneous and species specific enzymes are postulated for other organisms. Orig. art. has: 3 figures.

[W.A. 50]

SUB CODE: 06/ SUBM DATE: 29Jun66/ ORIG REF: 004/ OTH REF: 015

Card 2/2

MEKANIK, N.S.

Mekanik, N.S. "Data on the growth anatomy of the clavicle", Trudy Voyen.-mor. med. akad., Vol. XI, 1948, p. 242-62,- Bibliog: 27 items.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 9, 1949)

MEKHANIK, N.S.

Mekhanik, N.S. "Torsio femoris in the light of new data on the architecture of solid bone matter", Trudy Voyen.-mor. med. akad., Vol. XI, 1948, p. 263-79, -Bibliog: 31 items.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 9, 1949)

MEKHANIK, N.S.

Mekhanik, N.S. "On a method of studying the rib structure of man", Trudy voyen.-mor. med. akad., Vol. XI, 1948, p. 280-83.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 9, 1949)

MEKHANIK, N.S.

Structures of the compact bone and their significance in surgery. Khirurgiia, Moskva no. 9:35-39 Sept 1952. (CLML 23:3)

1. Professor. 2. Of Naval Academy.

1. MEKHANIK, N. S.

2. USSR (600)

4. Scapula

7. Torsion of the shoulder bone in man in ontoge genesis., Arkhiv.anat. gist. i embr., 29, No.4, 1952.

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

MEKHANIK, N.S. (Leningrad, 22, Petrop.vlovskaya ul., d.8, kv.57)

Torsion and age peculiarities of the human radius. Arkh.anat.gist. i embr. 33 no.4:18-23 O-D '56. (MLRA 10:4)

1. Iz kafedry normal'noy anatomii (nachal'nik - professor V.M.Godinov) Voyenno-morskoy meditsinskoy akademii.
(RADIUS, anat. and histol.
dimensions & torsion in relation to age)

MEKHANIK, Naum Solomonovich; ALEKSEYEVA, Ye.S., red.; SHEBALINA, G.Ya., tekhn.red.

[Principles of plastic anatomy] Osnovy plasticheskoi anatomii. Moskva, Gos.izd-vo "Iskusstvo." 1958. 349 p. (MIRA 12:3)
(Anatomy, Artistic)

MEKHANIK, N.S. (Leningrad, 22, Petropavlovskaya ul., d.8, kv.57)

Age characteristics of hand proportions in man. Arkh.anat. gist. i embr. 37 no.7:83-87 Jl '59. (MIRA 12:10)

1. Kafedra plasticheskoy anatomii (zav. - prof.N.S.Mekhanik) Instituta Akademii khudozhestv SSSR im. I.Ye.Repina.
(HAND, anatomy & histology)
(AGING, effects)

MEKHANIK, S. 17G77

USSR/Finance 4901.0300 Oct 1947

"Financial Relationships Between Main Administrations and Industrial Enterprises," S. Mekhanik, 5 pp

"Sov Finansy" Vol VIII, No 10

Discussion of subject based on violations of decrees and improper relations between the main administrations and their subordinate enterprises in financial matters. Remedies suggested.

IC 17G77

MEKHANIK, S.

25264 MEKHANIK, S. Preimushchestva organizatsii oborotnykh sredstv sotsialisticheskikh predpriyatiy. Denbgi i Kredit, 1948, No. 6, s. 7-16

SO: Letopis'Zhurnal Statey, No. 30, Moscow, 1948

MEKHANIK, S.

"Soviet finance and credit." Reviewed by S. Mekhanik. Den. i kred. 15 no.5:56-63 My '57. (MLRA 10:6)

(Finance)

MEKHANIK. S,

Role of credit and banks in the production and distribution of the national income. Deni kred. 18 no.11:10-20 N'60.
(MIRA 13:11)

(Finance)

MEKHANIK, S., doktor ekonomicheskikh nauk

State Bank tasks in the seven-year plan ("Credit system in the seven-year plan" by A.K.Korovushkin. Reviewed by S.Mekhanik). Den.i kred. 19 no.5:87-91 My '61. (MIRA 14:5)
(Credit) (Korovushkin, A.K.)

MEKHANIK, S., prof.

How the Bolsheviks took posession of the credit system. Den. i kred. 21 no.8:89-92 Ag '63. (MIRA 16:9)
(Banks and banking--Government ownership)

MEKHANIK, V.P.

AUTHOR: Mekhanik, V.P., Engineer. 122-2-11/33

TITLE: The Selection of Flywheels for Press-forming Machines (Vybor makhovika kuznechno-pressovykh mashin)

PERIODICAL: Vestnik Mashinostroyeniya, 1958, No.2, pp. 37-40 (USSR)

ABSTRACT: An analytical method is given to compute the required moment of inertia of the flywheel for forging presses and the like. The analysis dispenses with the assumption that the mechanical characteristic of the driving induction motor can be approximated by a straight line. The torque referred to the crankshaft is not assumed to be a two-step curve, but is introduced as a Fourier series. Formulae are given for the required motor power and flywheel moment of inertia.
There are 3 figures and 1 Russian reference.

AVAILABLE: Library of Congress

Card 1/1

MEKHANIK, V.P.

Designing flywheel drives for forging and pressing machinery. Kuz.-shtam. proizv. 1 no.2:22-23 F '59. (MIRA 12:10)

(Power presses)

MEKHANIK, V.P.

Calculating flywheels for forging machinery. Kuz-shtam.proizv. 1 no.5:30-32 My '59. (MIRA 12:10)
(Forging machinery)

MEKHANIK, V.P.

Selecting basic electric drive parameters for mechanical press-forging machinery. Kuz.-shtam. proizv. 1 no.8:24-28 Ag '59. (MIRA 12:12)

(Forging machinery--Electric driving)

MEKHANIK, V. P., CAND TECH SCI, "METHODS OF ~~COUNTING~~ designing THE ELECTRIC ~~CRANK~~ DRIVE OF ~~SHEET~~ sheet crank -STAMPING PRESSES." MOSCOW, 1961. (MIN OF HIGHER AND SEC SPEC ED RSFSR. MOSCOW MACHINE TOOL (INST). (KL-DV, 11-61, 221). and instrument

MEKHANIK, V.P.

Methods of calculating the electric drive of crankshaft presses. Kuz.-shtam. proizv. 3 no. 2:29-33 F '61. (MIRA 14:1)
(Power presses—Electric driving)

MEKHANIK, V.P.

Calculating the electric driving of single stroke automatic machines. Kuz.-shtam. proizv. 3 no.11:38-41 N '61. (MIRA 14:11)
(Sheet metal working machinery--Electric driving)

MEKHANIK, V.P., kand. tekhn. nauk

Electric motor operating with artificial mechanical characteristic.
Elektrotekhnika 35 no.9:28-29 S '64. (MIRA 17:11)

ACC NR: AP6001944 (A) SOURCE CODE: UR/0330/65/000/010/0015/0019

AUTHOR: Pugachev, V. A. (Engineer); Mekhanikov, A. M. (Engineer)

ORG: Moldavian Scientific Research Institute of Food Industry (Moldavskiy nauchno-issledovatel'skiy institut pishchevoy promyshlennosti)

TITLE: Infrared lamp continuous drier NSL-2

SOURCE: Konservnaya i ovoshchesushil'naya promyshlennost', no. 10, 1965, 15-19

TOPIC TAGS: IR lamp, industrial drier, food technology

ABSTRACT: A new infrared lamp continuous drier for drying grape seeds, racemic acids and other materials used in wine making is described. The advantages of this drier compared to steam and flame drier types include high efficiency (60 to 65%), light weight (300 kg), small overall dimensions, wide range of temporature conditions, and easy installation in any building. Orig. art. has: 2 figures.

Card 1/2 UDC: 664.8.036.539

ACC NR: AP6001944

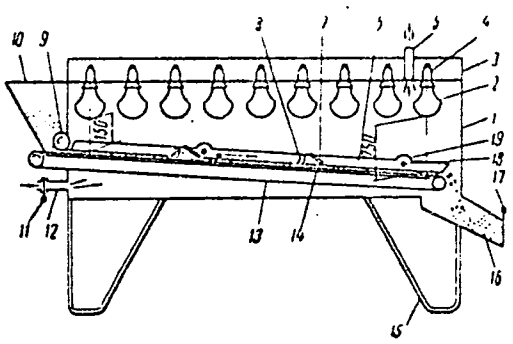

Figure 2. Basic diagram of an NSL-2 drier.

1--frame, 2--infrared lamps, 3--sockets, 4--mesh cover, 5--connecting pipes, 6--side boards, 7--equalizer, 8--forked agitator, 9--straightening roller, 10--hopper, 11--gate, 12--connecting pipe, 13--conveyor belt, 14--guides, 15--legs, 16--output hopper, 17--closing fastener, 18--heat sensors, 19--reflectors.

SUB CODE: 06, 13/ SUBM DATE: none

Card 2/2

PLAKHOVA, N.B.; MEKHANIKOVA, V.G.; DEYEVA, A.I.

Obtaining gamma globulin for tick-borne encephalitis under industrial conditions. Trudy Tom NIIVS 12 :254-257'60 (MIRA 16:11)

1. Tomskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.

MEKHANIKOVA, V.G.; CHERKASHIN, V.I.; FEDOROV, Yu.V.

New beaker as a hemogenizer for pulverizing tissues under sterile conditions. Lab. delo 8 no.4:51-52 Ap '62. (MIRA 15:5)

1. Tomskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.
(TISSUE EXTRACTS--EQUIPMENT AND SUPPLIES)

MEKHANIKOVA, V.G.; FEDOROV, Yu.V.; VASIL'YEVA, O.A.; ZEL'TINA, N.F.

Effect of the duration of storage on the virus-neutralizing activity of gamma globulin in tick-borne encephalitis. Trudy TomNIIVS 14:245-246 '63. (MIRA 17:7)

1. Tomskiy nauchno-issledovatel'skiy institut vaktsin i syvorotok.

MEKHANNIKOVA, T.T.; BRAKENGEYM, I., red.

[Use of keramzit in rural construction]Primenenie keramzita v sel'skom stroitel'stve. Krasnoiarsk, Krasnoiarskii sovet nauchno-tekhn. obshchestv NTO Stroindustrii, 1962. 31 p. (MIRA 16:4)

1. Glavnyy inzhener laboratorii stroitel'nykh materialov Krasnoyarskogo Nauchno-issledovatel'skogo instituta po stroitel'stvu (for Mekhannikova). 2. Rukovoditel' laboratorii stroitel'nykh materialov Krasnoyarskogo Nauchno-issledovatel'skogo instituta po stroitel'stvu (for Brakengeym).
(Keramzit)

.22(3) SOV/178-58-7-9/24

AUTHOR: Mekhanoshin, I., Guards Lieutenant Colonel

TITLE: Saving Training Time (Ekonomim uchebnoye vremya)

PERIODICAL: Voyennyy svyazist, 1958, Nr 7, p 27 (USSR)

ABSTRACT: The author reports on the training of radio operators in his unit. Based on the experience of the past years, the trainees begin to learn the most difficult signs first, whereby letters and numbers must be learned simultaneously. About 60-65% of the work at the radio stations is used for transmitting. The maintenance of weapons and radio equipment is combined with instructions, whereby the officers and NCO's check the knowledge of the trainees, while the latter may also ask questions. The officers perform detailed time-studies of the trainees' work, whereby inadequate skill in one operation or the other

Card 1/2

Saving Training Time

is detected immediately. The instructors acquired better methods of teaching, thus more time became available for practical training. The author concludes his article with the statement that with more careful planning of the training time the radio operators will acquire more skill during the training.

Card 2/2

SHVETSOV, Ye.S.; MEKHANOSHIN, S.P.

Distribution of phlogopite deposits in the Aldan mica-bearing province. Zakonom. razm. polezn. iskop. 6:373-384 '62.
(MIRA 16:6)

1. Yakutskoye geologicheskoye upravleniye.
(Yakutia—Phlogopite)

ACCESSION NR: AP4029206 S/0226/64/000/002/0046/0050

AUTHOR: Nazarchuk, T. N.; Mekhanoshina, L. N.

TITLE: The problem of oxidizability of boron carbide

SOURCE: Poroshkovaya metallurgiya, no. 2, 1964, 46-50

TOPIC TAGS: boron carbide, oxidation, boron carbide oxidation, high temperature oxidation, boron carbide purity, boron carbide refining

ABSTRACT: Free carbon has a detrimental effect on properties of boron carbide. Several strong oxidizers were tested for ability to eliminate free carbon from boron carbide. The best results were obtained with a mixture of concentrated nitric, sulfuric, and perchloric acids with potassium bichromate. Treatment of raw boron carbide with this mixture for 15-25 min reduced carbon and iron contents from 26.14—26.30% and 0.23—1.1% to 21.4—23.7% and 0.07—0.24% respectively, and increased boron content from 69.8—70.0% to 75.0—77.5%. The oxidation behavior of boron carbide powder (particle size 0.062—0.074 mm) at 500—1300C in a stream of oxygen

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ACCESSION NR: AP4029206

varies according to the total content of boron and carbon and the content of free boron. Generally, boron carbide begins to react with oxygen at 600C; at 700C the oxidation rate increases sharply, at 900—1000C it drops somewhat, and at 1200—1300C another sharp increase occurs. At all temperatures tested, the oxidation rate decreases with time, owing to the formation of a layer of boron trioxide on powder particles. However, at 1200—1300C boron carbide is oxidized completely. Generally, as the total carbon content rises, boron carbide becomes more oxidizable. The ratio of combined boron to total carbon, $B_C:C_T$, is suggested as a criterion for estimating the oxidizability of boron carbide. The higher the ratio, the better boron carbide resists oxidation. Orig. art. has: 3 figures, 1 formula, and 3 tables.

ASSOCIATION: none

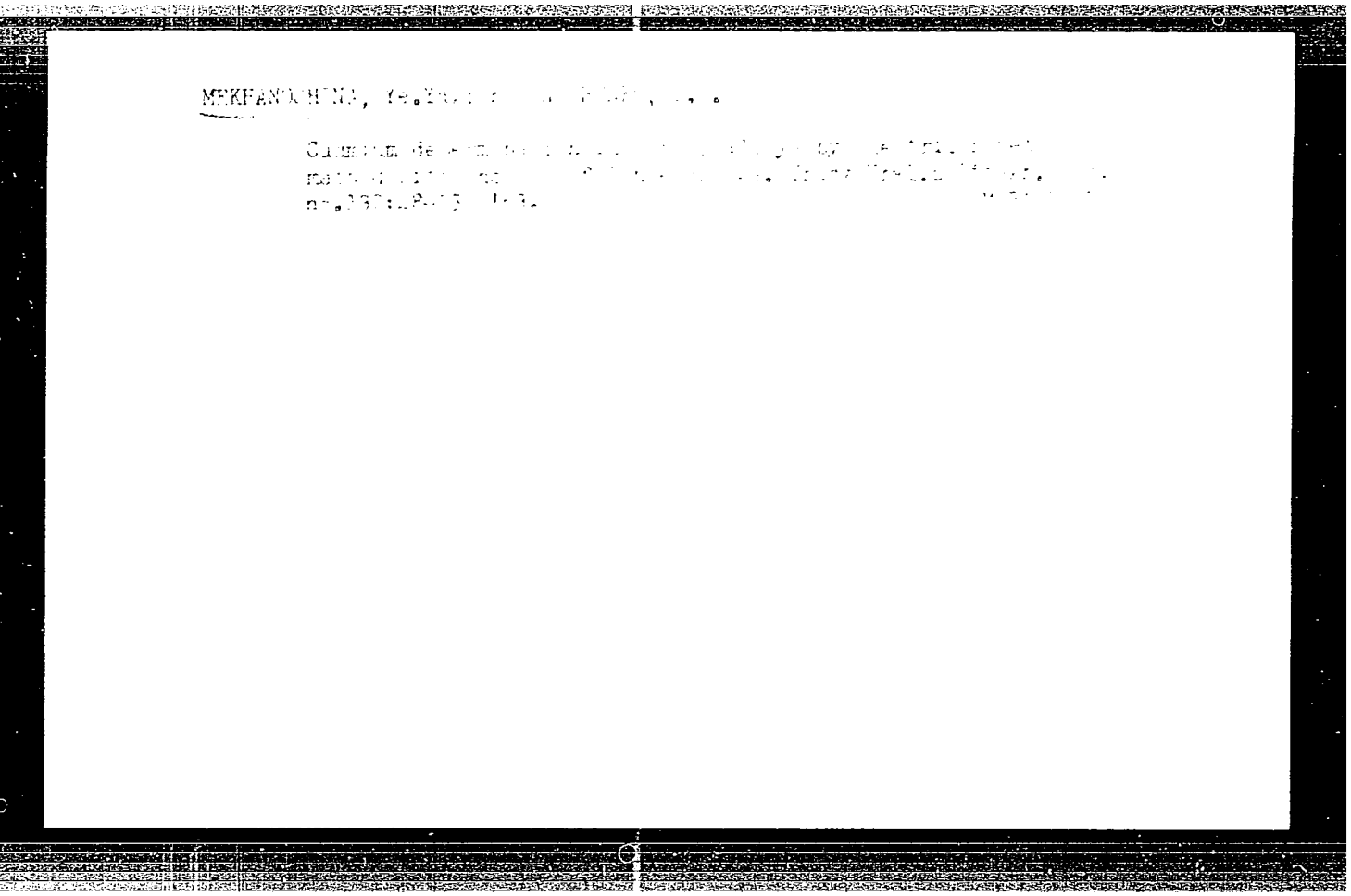
SUBMITTED: 20Jan63 DATE ACQ: 28Apr64 ENCL: 00

SUB CODE: CH,MA NO REF SOV: 006 OTHER: 003

Card 2/2

KALINICHENKO, I.I.; STYUNKEL', T.B.; MIKHALEVA, Z.A.; MEKHANOSHINA, Ye.Ya.

Complexometric determination of zinc and nickel in nickel-aluminum type alloys, in one batch. Trudy Ural.politekh.inst. no.[illegible]:54-57 '63. (MIRA 17:10)



L 13787-65 AFWL/ASD(a)-5
ACCESSION NR: AP4047246 S/0142/64/007/004/0497/0503

AUTHOR: Mekhantsev, Ye. B. B

TITLE: Calculation of direct conductance (capacitance) in some two-dimensional systems

SOURCE: IVUZ. Radiotekhnika, v. 7, no. 4, 1964, 497-503

TOPIC TAGS: conducting film, film conductance, film capacitance

ABSTRACT: A method is offered for the calculation of direct conductances in symmetrical 3-conductor and asymmetrical 2-conductor systems in which the flat conductors lie at the base of a rectangular or strip-shaped backing. By the conformal mapping method and some additional operations, the 2-conductor asymmetrical system is turned into a symmetrical coplanar set of conductors. Formulas for direct conductance published elsewhere are applicable to this set. The 3-conductor symmetrical system problem is treated as two subproblems:

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ACCESSION NR: AP4047246

a) determination of conductance between the central electrode and two outer electrodes and b) determination of conductance between two outer electrodes. This approach reduces the system to the 2-conductor case already resolved. The same method and design formulas are applicable to the calculation of inter-electrode capacitance provided the conductivity σ is replaced with the dielectric constant ε in appropriate formulas. The method can be used for evaluating the mutual effects of electrodes and shield. Orig. art. has: 5 figures and 25 formulas.

ASSOCIATION: none

SUBMITTED: 27Jul63 ENCL: 00

SUB CODE: EC NO REF SOV: 009 OTHER: 000

Card 2/2

ACC NR: AP6027235 SOURCE CODE: UR/0109/66/011/008/1436/1440

AUTHOR: Kolesov, L. N.; Mekhantsev, Ye. B.; Kil'metov, R. S.; Shapovalov, V. I.; Zhuravskiy, V. L.

ORG: none

TITLE: Calculation of characteristics of distributed R-C-NR-structures having p-n-junction-type nonuniform capacitance

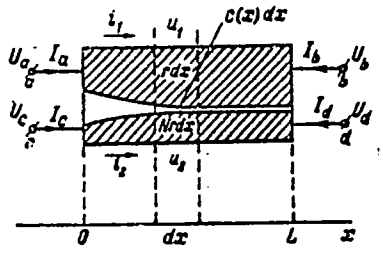
SOURCE: Radiotekhnika i elektronika, v. 11, no. 8, 1966, 1436-1440

TOPIC TAGS: pn junction, circuit microminiaturization

ABSTRACT: A complete approximate matrix is set up of admittances of a non-uniform structure (see figure) consisting of two resistances separated by a reverse-biased p-n junction. In practice, such a structure has been used in component microminiaturization, and one of the resistances has been represented

Card 1/2 UDC: 539.293.011.41

ACC NR: AP6027235



by a semiconductor supporting base. Although several nonuniform structures have been analyzed by other researchers (e.g., P. S. Castro, Proc. Nat. El. Conf., v. 19, 1963), they cannot represent the p-n junction. The transient response of such a p-n-junction-containing structure is investigated using differential and integral circuits as examples. The transient-response theoretical curves are corroborated by experimental curves obtained from a p-Ge specimen acted upon by 30-nsec pulses. Orig. art. has: 4 figures and 17 formulas.

SUB CODE: 09 / SUBM DATE: 30Mar65 / ORIG REF: 000 / OTH REF: 003

Card 2/2

NEVSTRUYEVA, Ye.I.; MEKHDI, A.S.

Precipitation of salts on heating surfaces at high thermal loads. Teplofiz. vys. temp. 2 no.5:809-816 S-O '64. (MIRA 17:11)

1. Nauchno-issledovatel'skiy institut vysokikh temperatur.

MEKHDI AL' SHEYKH ALI, inzh.

[Examination of cracking resistance and rigidity of bent precast prestressed concrete units. Author's abstract of a dissertation presented for the academic degree of Candidate of Technical Sciences] Issledovaniia treshchinostoikosti i zhestkosti izgibaemykh sbornomonolitnykh predvaritel'no napriazhennykh zhelezobetonnykh elementov. Avtoreferat dissertatsii, predstavlennyi na soiskanie kandidata tekhnicheskikh nauk. Moskva, Nauchno-issl. in-t betona i zhelezobetona, 1964. 15 p. (MIRA 18:7)

L 40385-66 EWT(1) WW/JT/GD

ACC NR: AT6021834 (A) SOURCE CODE: UR/0000/65/000/000/0042/0051

AUTHOR: Styrikovich, M. A.; Nevstruyeva, Ye. I.; Mekhdi, A. S.

ORG: High Temperature Research Institute, Moscow Power Institute (Nauchno-issledovatel'skiy institut vysokikh temperatur pri Moskovskom energeticheskom institute)

TITLE: New investigations of mass transfer at high heat fluxes

SOURCE: Teplo- i massoperenos. t. III: Teplo- i massoperenos pri fazovykh prevrashcheniyakh (Heat and mass transfer. v. 3: Heat and mass transfer in phase transformations). Minsk, Nauka i tekhnika, 1965, 42-51

TOPIC TAGS: mass transfer, heat flux, thermodynamic analysis

ABSTRACT: The experimental work described in the article was based on the fact that, for a solution of a salt which has a negative temperature solubility coefficient, precipitation of the solid phase takes place on the heating surface near which the formation of a supersaturated solution is possible. The experiments were carried out in a cylindrical glass tube placed between two Textolite headers. The heating surface was mounted in the bottom header. In one variation it consisted of a

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ACC NR: AT6021834

Nichrome plate heated by alternating current, and in a second variation it consisted of a massive block of copper whose side walls were heated with an electric heater; in the latter case, the heat was transmitted by thermal conductivity. Experiments were carried out with forced motion of the liquid in the channel at a velocity of 0.5 meters/sec and at two pressures (atmospheric and of the order of 9 bars). Tests were made first with distilled water and then with solutions of calcium sulfate of determined concentrations. Experimental results are exhibited in graphic form. The results show that the concentration at the start of unlimited growth of the amount of salt deposited depends only slightly on underheating of the liquid up to the saturation temperature, but that it depends to a large degree on the magnitude of the heat flux, particularly with forced motion of the liquid. Orig. art. has: 4 figures.

SUB CODE: 20/ SUBM DATE: 09Dec65/ ORIG REF: 005

Card 2/2

MERKED, I. M.

"Investigation of the Deformation of Commercial Iron." Cand Tech Sci, Inst of Metallurgy imeni A. A. Baykov, Acad Sci USSR, Moscow, 1955. (KL, No 13, Mar 55)

SO: Sum. No 670, 29 Sep 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

MEKHED, G. N.

137-1957-12-25095

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 12, p 310 (USSR)

AUTHOR: Mekhed, G. N.

TITLE: The Effect of Chemical Composition on the Plasticity of [illegible] steel (Vliyaniye khimicheskogo sostava na plastichnost' tekhnicheskogo zheleza)

PERIODICAL: V sb.: Prochnost' metallov. Moscow, AN SSSR, 1956, pp 183-189

ABSTRACT: An investigation of the influence of S and O_2 content on the properties of low-carbon (structural) steel namely: ψ in dynamic tension tests, and a_k at temperatures between 20° and 1200°. Specimens were cut from killed and low-carbon rimmed steel and from ingots of electrolytic Fe, both in cast and deformed states. Chemical composition and mechanical properties of heats investigated are presented, as well as curves showing ψ and a_k for cast and deformed low-carbon [illegible] as a function of temperature. The Author points out that the presence of S and O_2 in amounts exceeding 0.01 percent and 0.04 percent, respectively, is to be regarded as the cause of brittleness of low-carbon steel in the temperature range between 850°

Card 1/2

137-1957-12-25095

The Effect of Chemical Composition on the Plasticity (cont.)

and 1050°. Preliminary deformation improves the plastic properties of low-carbon steel.

F N

1. Steel-Deformation-Test results 2. Steel-Plasticity-Chemical factors 3. Steel-Properties-Effects of sulfur 4. Steel-Properties-Effects of dioxide

Card 2/2