Method of purifying low-pressure ...

less benzene top layer. The bottom layer is drained off, while the top layer is washed four times with distilled water at 50°C, stirring each time for 30 min. After drying and molding sheets are obtained of PE containing 0.09% by weight sol. [Abstracter's note: Complete translation.]

Card 2/2

KARKOSZKA, Wladyslaw, mgr

The Oswiecim Works are systematically perfecting their raw material management. Chemik 16 no.3:69-71 Mr '63.

1. Zaklady Chemiczne, Oswiecim.

COUNTRY : POLAND
CATEGORY : Chemical Technology. Chemical Products and Their Applications. Chemical Processing of Solid Fossil*
ABS. JOUR. : RZhKhim., No 19, 1959, No. 69064

AUTHOR : Karkosz, R.
INST. : -
TITLE : Effect of Quantity and of Nature of Mineral Substances Present in Coal on the Plastometrical**
ORIG. PUB. : Przegl. gorniczy, 1958, 14, No 9, Biul. Plzwn. inst. gornictwa, 9, No?, 21-24

ABSTRACT : Presented are data that characterize the effect of ash content (A^a) of coal (C) and also the effect of addition to C of caoline, sand, clay, pyrites and other inorganic substances on the plastometrical indexes determined by the L.A. Sapozhnikov's method. Five samples of different grade C were studied. It was revealed that the maximum thickness of plastic layer "y" and shrinkage "x" for all the investigated fused C changed

*Fuels.
**Values, Determined by the Sapozhnikov's Method.

Card: 1/2

KARKOSZ, Rajmund, mgr inz.

High-grade coking coal in the Sosnica mine. Wiadom gorn 16 no.1: 26-27 Ja '65.

KARKOSZKA, W.

"Project of a Transportable Pen for Sheep", P. 84. (NOWE ROLNICTWO, Vol. 3, No. 6, June 1954, Warszawa, Poland).

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, No. 5, May 1955, Uncl.

POLAND / Meadow Cultivation. L

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24764

Author : Kielpinski, J.; Karkoszka, W.; Wisniewska, S.
Inst : Not given
Title : Effectiveness of Magnesium Thermophosphates on Mountainous Meadows

Orig Pub : Roczn. nauk rolniczych, 1956, F71, No 4, 1045-1050

Abstract : On a background of 100 kg/ha of K_2O, there was compared (Yavorki, Poland) the action of 80 kg/ha of P_2O_5 in the form of Thomas slag (I) and magnesium thermophosphates - unground (II), of coarse grind, 80% of which had passed through a sieve with 900 meshes per 1 cm^2 (III), and of fine grind, 80% of which had passed through a sieve with 4900

Card 1/2

POLAND / Meadow Cultivation. L

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 24764

meshes per 1 cm^2 (IV). The pH magnitude of the salt extraction from the soil was 5.8; P_2O_5, according to Egner, was 1 mg per 100 g. In the first year of the fertilizers' application, I produced a hay increment of 7.6 c/ha; III, 6.9, and IV, 7.3 - with 37.9 c/ha under control. Potassium and II did not increase the harvest. In the second year, the following increments were obtained: from I, 9.7; from II, 5.6; from III, 7.8, and from IV, 5.6 c/ha - with 66.5 c/ha under control. -- Zh. I. Zhurbitskiy

Card 2/2

KARKOSZKA, W.

"Analysis of three years of competition by the Pasturing Groupos of Jaworki."

p. 541 (Gospodarka Wodna) Vol. 17, no. 11, Nov. 1957
Warsaw, Poland

SO: Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 4, April 1958

KNOTHE, Aleksandra; KARKOSZKA, Wlodzimierz

Attempts to determine the milk efficiency of sheep of the Cakiel race while pasturing in the mountains based on one single test. Postepy nauk roln 9 no.3:15-21 My-Je '62.

1. Zaklad Hodowli Owiec, Wyzsza Szkola Rolnicza, Krakow, oraz Pracownia Gospodarki Gorskiej, Instytut Melioracji i Uzytkow Zielonych, Krakow.

KARKOV, K. A.

"Do We Need a Crystal Receiver?"

SO: Central Bureau of Technical Information, Ministry of the Communications Equipment Industry, Radio Engineering Symposium, Gosenergoizdat, 1947.

KOVALEVA, Lidiya Dmitriyevna; KARKOVSKIY, I.V., redaktor; MAKRUSHIN, B.A., tekhnicheskiy redaktor

[Heat engines in the physics course for class 9: a manual for teachers] Teplovye dvigateli v kurse fiziki IX klassa; posobie dlia uchitelei. Leningrad, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, Leningradskoe otd-nie, 1956. 105 p. (MLRA 9:11)
(Heat engines)

5650 545.4 : 542.3

Houszka J., Kankowski Z. **Automatic Fraction Collector Type AKF-1.** „Automatyczny kolektor frakcji AKF-1". Pomiary-Automatyka-Kontrola. No. 4, 1958, pp. 145—146, 3 figs.

Automatic fraction collectors are used for research and technical purposes in chemistry, biochemistry and related sciences. This article describes a collector designed at the Wroclaw Polytechnic and explains its electrical system and mechanical construction. The AKF-1 collector has a conduction feeler which enables drop dosing of the fraction within the limits of from 1 to 99 drops. The collector's disc is provided with 64 test-tubes. The disc is driven by an electric motor through a worm-disc gear. Attachments to the AKF-1 collector which will enable the use of time and volumetric feelers are in the process of being designed.

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S/194/62/000/012/097/101
D413/D308

9,6000

AUTHOR: Karkowski, Zdzislaw

TITLE: The automation of measurements on a resonant circuit

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 12, 1962, 131-132, abstract 12-7-262 sh (Zesz. nauk. Politechn. wrocławsk., no. 44, 1961, 77-78 (Pol.))

TEXT: A method is proposed for automatic measurements of capacitance and inductance on a resonant circuit both directly and by the substitution technique with the use of a digital readout for the results. An electromechanical device tunes the capacitance (or inductance) of the circuit to resonance, the circuit being excited from an RF oscillator. During this a counter counts up the pulses from a standard pulse generator passing through the electronic rectifier controlling the tuning device. The counter can give a direct readout of the quantity being measured within 1 - 2 sec. The results of measurement in digital coded form may be re-

Card 1/2

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D413/D308

The automation of ...

corded or transferred for processing by an electronic computer.
1 figure. 1 reference. [Abstracter's note: Complete translation.]

Card 2/2

KARKOWSKI, Zdislaw, dr. inz.

Current problems of numerical and impulse measurements.
Lacznosc Wroclaw 5:10-22 '62.

Digital voltmeters, IMN-3. 116-117

Digital methods of measuring circuit components. 126-129

Karkuczanski, A.

Derivatives of sulfonamides as antirheumatic medicines. p. 162.

PRZEMYSL CHEMICZNY. (Ministerstwo Przemyslu Chemicznego i Stowarzyszenie Naukowo-Techniczne Inzynierow i Techników Przemyslu Chemicznego) Warszawa, Poland.
Vol. 37, no. 3, Mar. 1958.

Monthly list of East European Accessions (EEAI) LC, Vol. 9, No. 2, Feb. 1969.

Uncl.

KARKUS, P.

"Flood flows of various probabilities of occurence in some Hungarian rivers" p. 158, (VIZUGYI KOZLEMENYEK. HYDRAULIC PROCEEDINGS, No. 1, 1953, Budapest, Hungary)

SO: Monthly List of East European Accessions, L.C., Vol. 2, No. 11, Nov. 1953, Uncl.

KARTUS P.

HUNG.

70. Establishing economical dimensions for large canals — J. Juliás, P. Karkó. (*Hidrológiai Közlöny.* — Vol. 34, 1954, No. 7—8, pp. 319—325, 11 figs.)

In the building of hydraulic projects where the construction of a canal accounts for a substantial part of the total costs, the most economical execution of the work is of decisive importance. Of all the factors affecting the cross section of the canal, not one of them completely determines its dimensions. The first step is to establish the dimensions of the cross section from the viewpoint of hydraulics. With a chosen water depth the cross section should be computed for different velocities, that is, for different cross-sectional areas and widths, and it is advisable to plot a diagram of the obtained values. A further step is the calculation of profitableness at different velocities. The profitableness of a head race at different slopes or velocities is characterized by the produceable energy or power. Power ratings and the amount of produceable energy are given for sections of different depths. The costs of construction are calculated as functions of t difference between water surface and ground level. Subsequently, the specific costs of the head race are established at different values of the specific profitableness, as functions of the energy produceable at different heads, where the difference in level between water surface and ground level or the velocity serve as parameters. The relation between specific costs and water velocity may be determined from the cost curves. The most economical velocities and the corresponding canal dimensions are obtained by the optimal values of the family of curves at different values of the difference between water and ground level.

KARKUS, P.

Ground water along the Vah River before and after the construction of dams. p. 620
VIZUGYI KOZLEMENYEK. HYDROLOGIC PROCEEDINGS, Budapest, Vol. (36) no. 4, 1954
(published 1955).

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955, Uncl.

KARKUS, P.

Statistical method for determination of uniform discharge ascertainable through storage, p. 253. Vol. 38, no. 2, 1956. VIZUGYI KOZLEMENYEK, HYDRAULIC ENGINEERING, Budapest.

SOURCE: East European List, (EEAL) Library of Congress. Vol. 6, no. 1, January, 1956.

MARKUS, P.

Data on the ground-water conditions in the Schutt; a review of an article.

p. 282. (Vizugyi Kozlemenyek. Hydraulic Engineering. Vol. (38) no. 3, 1957, Budapest, Hungary)

Monthly Index of EastEuropean Accessions (EEAI) LC. Vol. 7, no. 2, February 1958

KARKUS, I. Pal

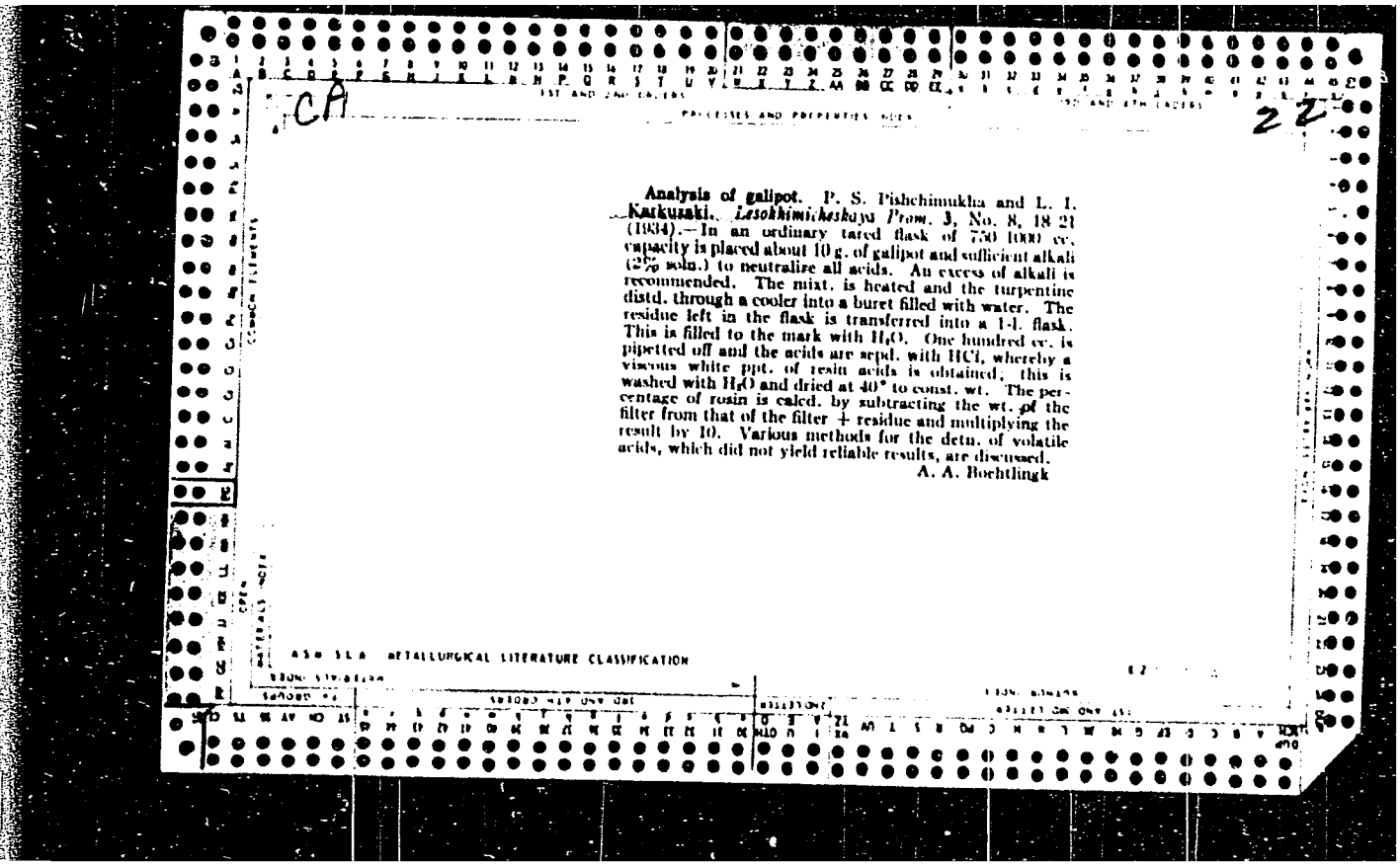
Data on underground water conditions of the Csallokoz.
Vizugyi kozl no. 3:262-284.

KARKUS, Pal

Economical aspects of establishing reservoirs for irrigation farming. Hidrologiai Kozlony 37 no.3:231-238 '57.

KARKUS, PAL

Economical comparison of pumping and barrage systems. Hidrologiai kozlony 38 no.2:94-101 Ap'58.



CA

22

Analysis of galipot. P. S. Pishchimukha and L. I. Karkuzaki. *Lesokhimicheskaya Prom.* 3, No. 8, 18-21 (1934).—In an ordinary tared flask of 750-1000 cc. capacity is placed about 10 g. of galipot and sufficient alkali (2% soln.) to neutralize all acids. An excess of alkali is recommended. The mixt. is heated and the turpentine distd. through a cooler into a buret filled with water. The residue left in the flask is transferred into a 1-l. flask. This is filled to the mark with H_2O. One hundred cc. is pipetted off and the acids are sepd. with HCl, whereby a viscous white ppt. of resin acids is obtained; this is washed with H_2O and dried at 40° to const. wt. The percentage of rosin is calcd. by subtracting the wt. of the filter from that of the filter + residue and multiplying the result by 10. Various methods for the detn. of volatile acids, which did not yield reliable results, are discussed.

A. A. Boehtlingk

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

KARKUZAKI, L. I.

Properties of acids and bases in acidic solvents. XII. Constant of the exchange of protons between acetic acid and water. A. M. Shkodin and L. I. Karkuzaki (A. M. Gor'kii State Univ., Kharkov). *Ukrain. Khim. Zhur.* 22, 720-5 (1956) (in Russian); cf. C.A. 49, 10301d.—When detd. by the change in color of crystal violet on the addn. of as much as 0.8 mole/l. H_2O to 0.0005-0.001 *M* H_2SO_4 solns. in HOAc or by the change in potential of a Pt(H_2)|HCl in HOAc|AgCl|Ag cell on addn. of up to 0.1 mole/l. H_2O, log {[H_3O^+][HOAc]/[H_2OAc^+][H_2O]} = 1.0 and 2.0, resp. The dielec. const. of HOAc rather than its reduced basicity is the main cause of its differentiating character. J. I. S.

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KARKUZAKI, L.I.

SHKODIN, A.M.; KARKUZAKI, L.I.; DYBSKAYA, Z.S.

Properties of acids and bases in acid solvents. Part 8: Acid-base titration in acid solvents in the presence of different additives. Uch.zap. KHGU 71:33-39 '56. (MLRA 10:8)
(Volumetric analysis) (Solvents)

KARKUZAKI, L. I.

444

AUTHORS: Shkodin, A. M.; Karkuzaki, L. I. and Khimenko, M. T.

TITLE: Properties of Acids and Bases in Acid Solutions. Part 10. Acid-Base Titration in Mixtures of Acetic and Formic Acids. Effect of Dielectric Permeability of the Solvent on the Strength of the Acids (Svoystva kislot i osnovaniy v kislykh rastvoritelyakh. X. O kislotno-osnovnom titrovanii v smesyakh uksusnoy i murav'inoy kislot. Vliyaniye dielektricheskoy pronitsayemosti rastvoritelya na silu kislot).

PERIODICAL: Zhurnal Obshchey Khimii, 1957, Vol. 27, No. 1, pp. 29-34 (U.S.S.R.)

ABSTRACT: It was found that the application of acid solvents in the role of a medium considerably broadens the possibility for acid-base titration, titration of salts after displacement, and differential determination of acids and bases. A great number of natural and synthetic substances which are very weak bases in water can be determined quantitatively by direct acid titration using acid solvents as media. Acetic and formic acid mixtures were investigated to determine their effect on the strength of mineral acids. It was established (in contrast to the statement by O. Tomicek and P. Vidner [5]) that a mixture of these two acids is perfectly

Card 1/2

AVAILABLE:

Card 2/2

5(4) SOV/156-59-1-8/54

AUTHORS: Shkodin, A. M., Karbuzaki, L. I.

TITLE: The Dissociation Constants of Mineral Acids in Anhydrous Acetic Acid (Konstanty dissotsiatsii mineral'nykh kislot v bezvodnoy uksusnoy kislote)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya tekhnologiya, 1959, Nr 1, pp 32 - 35 (USSR)

ABSTRACT: Chloric acid, hydrobromic acid, sulfuric acid, and hydrochloric acid were investigated. The conductivity values found by other authors bring about negative dissociation constants. Therefore the buffered solutions were checked by means of a quinhydrone electrode. The neutralization was carried out by pyridine dissolved in acetic acid. The curve determined was extrapolated to zero. The values of the dissociation constants (HCl - 5.2, H_2SO_4 - 4.8, $HClO_4$ - 2.7) confirm the sequence $HClO_4 > HBr > H_2SO_4 > HCl$, first found by Hantzsch and Langbein. Thus, acids strong in aqueous solution become weak or moderately strong in

Card 1/2

The Dissociation Constants of Mineral Acids in Anhydrous Acetic Acid S/[illegible]

anhydrous acetid acid. Acetic acid is a differentiating solvent for these acids. There are 2 figures, 1 table, and 11 references 4 of which are Soviet.

ASSOCIATION: Kafedra fizicheskoy khimii Khar'kovskogo universiteta im. A. M. Gor'kogo (Chair of Physical Chemistry of Khar'kov State University imeni A. M. Gor'kiy)

SUBMITTED: July 9, 1958

Card 2/2

KARKUZAKI, L. I.

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

[illegible] potential of the silver chloride electrode in anhydrous [illegible] acid. Zhur. Fiz. Khim. 27 no. 1:48-50 '[illegible]1.

(MIRA 14:2)

1. [illegible] gosudarstvennyy universitet im. A.M. Gor'kogo.

(Electrodes) (Electromotive force) (Acetic acid)

SHKODIN, A.M.; IZMAYLOV, N.A.; KARKUZAKI, L.I.

Dissociation constants of bases in anhydrous acetic acid. Ukr. khim. zhur. 27 no.2:155-160 '61. (MIRA 14:3)

1. Khar'kovskiy gosudarstvennyy universitet im. A. M. Gor'kogo.
(Acetic acid) (Bases(Chemistry))

SHKODIN, A.M.; SOGOYAN, T.P.; KARKUZAKI, L.I.; KOZYNYUK, L.I.

Standard electrode potentials in mixed nonaqueous solvents. Part 1: Electromotive forces, coefficients of the activity and solvation energy of hydrogen chloride in mixtures of methyl alcohol and dioxane. Ukr. khim. zhur. 30 no.3: 237-241 '64. (MIRA 17:10)

1. Khar'kovskiy gosudarstvennyy universitet.

KARKUZASHVILI, N.N.

Extension beyond the elastic limit of an infinite plate with an elliptic hole and cracks coinciding with the real axis. Trudy Sem. po prikl. mat. 1 no.1:66-71 '63.

(MIRA 18:2)

1. Institut matematiki AN UkrSSR, Kiyev.

L 43953-66 EWT(m)/EWP(j)/EWP(k)/EWP(t)/ETI IJP(c) JD/WW/JW/RM
ACC NR: AP6015025 (N) SOURCE CODE: UR/0041/66/018/003/0119/0124

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B

AUTHOR: Karkuzashvili, N. N. (Kiev); Kozubovskaya, I. G. (Kiev)

ORG: none

TITLE: Determination of temperature stresses of an infinite strip for a given temperature at one of the edges 18

SOURCE: Ukrainskiy matematicheskiy zhurnal, v. 18, no. 3, 1966, 119-124

TOPIC TAGS: temperature stress, thermal conductivity, solid physical property

ABSTRACT: The authors investigate an infinite thin strip with a time-variable temperature which has one edge soldered while the other is thermally insulated. The width of the strip is given, the initial temperature is specified for all points of the strip, and there are no heat sources nor is there any heat exchange within the strip. The time dependence of the temperature is described by the heat conduction equation. The thermal stresses for a given temperature field and given boundary conditions are determined. The solution is specialized for the case when no external stresses are present. Orig. art. has: 27 formulas.

SUB CODE: 20/ SUBM DATE: 14Apr65/ ORIG REF: 003/ OTH REF: 001

Card 1/1 Blg

EOLLOS, Zoltanne, dr.; HASKO, Ferenc; JENEY, Ivan; BOGDAN, Laszlone; BORSI, Miklos; ERDOS, Elemer; HALMOS, Laszlone; KARL, Imre; KONTA, Laszlo; SAGI, Lajos; SIPOS, Lajos; STENGER, Vilmos; TIHANYI, Kalman.

Summary of galvanization technologies. Gepgyartastechn 2 no. 9: 360 S '62.

EOLLOS, Zoltanne, dr.; HASKO, Ferenc; JENEY, Zoltan; BOGDAN, Laszlone; BORSI, Miklos; ERDOS, Elemer; HAJTOS, Laszlone; JENEY, Ivan; KARL, Imre; KOTAI, Laszlo; SAGI, Lajos; SIPOS, Lajos; STENGER, Vilmos; TIHANYI, Kalman

Removal of galvanic copper, nickel and chromium coatings.
Gepgyartastechn 2 no.8:319 Ag '62.

SAGI, Lajos; HASKO, Ferenc; JENEY, Ivan; BOGDAN, Laszlone; BORSI, Miklos; ERDOS, Elemer; HAIMOS, Laszlone; KARL, Imre; KONTA, Laszlo; SAGI, Lajos; SIPOS, Lajos; STENGER, Vilmos; TIHANYI, Kalman.

Galvanic decorative chromium plating. Gepgyartastechn 2 no.7:275-280 Jl '62.

BOLLOS, Zoltanne, dr.; SIPOS, Lajos; HASKO, Ferenc; JENEY, Ivan; BOGDAN, Laszlone; BORSI, Miklos; ERDOS, Elemer; HALMOS, Laszlone; KARL, Imre; KONTA, Laszlo; SAGI, Lajos; STENGER, Vilmos; TIHANYI, Kalman

Traditional and modern galvanic copper plating; traditional and modern galvanic nickel plating. Gepgyartastech 2 no.6:227-240 Je '62.

HASKO, Ferenc; JENEY, Istvan; BOGDAN, Laszlone; BORSI, Miklos; ERDOS, Elemer; HALMOS, Laszlone; JENEY, Ivan; KARL, Imre; KOMTA, Laszlo; SAGI, Lajos; SIPOS, Lajos; STENGER, Vilmos; TIHANYI, Kalman

Traditional and modern galvanic zinc plating. Gepgyartastechn 2 no.7:269-274 Jl '62.

ERDOS, Elemer; HASKO, Ferenc; JENEY, Ivan; BOGDAN, Laszlone; BORSI, Miklos; EOLLOS, Zoltanne, dr.; HALMOS, Laszlone; KARL, Imre; KONTA, Laszlo; SAGI, Lajos; SIPOS, Lajos; STENGER, Vilmos; TIHANYI, Kalman;

Preparatory operations for galvanizing metal surfaces.
Gepgyartastechn 2 no.5:191-199 My '62.

KARL, Richard

Some new agents in electrography. Sbor chem tech no.3, part 2: 393-401 '59.

1. Laborator anorganicke chemie Ceskoslovenske akademie ved a Kated a mineralogie, Vysoka skola chemicko-technologicka, Praha.

KARL, Zdenek

KARL, Zdenek
SURNAME, Given Names

Country: Czechoslovakia

Academic Degrees: Doctor of Veterinary Medicine

Affiliation: Ivanovice na Hane

Source: Prague, Veterinarstvi, Vol XI, No 5, 1961, pages 189-192.

Data: "African Swine Plague. Report on the Meeting of the International Epizootic Office in Paris, 17-20 January 1961."

Co-author:

POLAK, Ladislav, Doctor of Veterinary Medicine, Prague

KARL, Zd...

KARLACH ZDENEK

CZECHOSLOVAKIA/Chemical Technology - Chemical Products and Their Application. Carbohydrates and Refinement. I-11

Abs Jour : Ref Zhur - Khimiya, No 1, 1958, 2789

Author : Karlach Zdenek
Inst : -
Title : Utilization of Condensate at Sugar Refineries

Orig Pub : Listy cukrovarn., 1957, 73, No 6, Inform. sluzba, 17-19

Abstract : Examples are given of calculation of units designed for an efficient boiler-feed utilization of condensate, without dilution with cold water; several types of such units are recommended.

Card 1/1

KARLACH, Z.

CZECHOSLOVAKIA / Chemical Technology. Chemical Products and Their Application. Part 3 - Carbohydrates and Their Treatment.

Abs Jour : Ref. Zhur. Khimiya, No 4, 1958, 12744.

Author : Zdenek Karlach.

Inst : Not given

Title : Assistance to Heat Engineers at Sugar Factories.

Orig Pub : Listy cukrovarn., 1957, 73, No 8, Inform. sluzba, 32.

Abstract : Graphs for the determination of the boiling point rise of sugar solutions by 100 and 70 to 100 unit quality are plotted. Examples how to use the table data and the adjustment factors for the value of the sugar solution quality are presented.

Card 1/1

KARLAGIN, F.

Tourists, on the march! Sov. profsoiuzy 18 no.9:29-30 My '62. (MIRA 15:4)

1. Zaveduyushchiy oblastnym turistsko-ekskursionnym upravleniyem, g. Sverdlovsk.

(Sverdlovsk Province--Tourism)

KUL'NEVICH, V.G.; ABRAMYANTS, S.V.; [illegible]; [illegible]; [illegible]

Furfurole losses in the cooling of its vapors [illegible] hexose cooking of raw materials. Gidroliz. i lesokhim. prom. 17 no. 5:21-23 '64.

1. Problemnaya laboratoriya Krasnodarskogo [illegible] instituta (for Kul'nevich, Abramyants, [illegible]). [illegible] zavod (for Lukashenko, Glazman).

KARLASH, K. V.

(Biolohiia i vyhodivlia) (The Chinese oak silkworm) Kyiv, Vyd-vo Akademii nauk URSR, 1946. 38 p.

Cyr. 4 SF106

KARLASH, K.V.

Nutritious qualities of food and its role in the development and vital capacity of Antheraea pernyi. Trudy Inst. zool AN URSR no.7:93-104 '52.

(Silkworms) (MLRA 8:12)

KARLASH, K.V.

Wintering characteristics and state of the diapause of Chinese tussah moth feeding as larvae on the leaves of gray willow (Salix cinerea). Trudy Inst.zool.AN URSR 13:35-44 '56. (MLRA 9:11)
(Silkworms) (Willows)

KARLASH, K.V.

Temperature conditions for prolonged storage of the eggs of the white coccon variety of silkworm [with summary in English]. Dop.AN URSR no.12:1367-1371 '58. (MIRA 12:1)

1. Institut zoologii AN USSR. Predstavil akademik AN USSR V.G.Kas'yanenko [V.H.Kas'ianenko].
(Silkworms)

KARLASH, Ye.V.[Karlash, K.V.]; KUZ'MENKO, N.V.

Development of wintering pupae of the pernyi moth under different temperature and light conditions. Pratsi Inst. zool. AN URSR 16:74-80 '60. (MIRA 13:7)
(Silkworms)

KARLASH, Ye.V. [Karlash, K.V.]

Hygrothermal conditions and duration of the wintering of eggs of white cocoon varieties of pernyi moths in the Ukrainian S.S.R. Pratsi Inst.zool.AN URSR 16:96-111 '60. (MIRA 13:7)

(Silkworms)

KARLASH, Ye.V.

Effect of light at various temperatures on the development of the mulberry silkworm (Bombyx mori L.). Vop. ekol. 7:74-75 '62. (MIRA 16:5)

1. Institut zoologii AN UkrSSR, Kiyev.
(Silkworms) (Photoperiodism)

CHAYKOVSKAYA, M.Ya.; YELIAZAROVA, M.P.; ZAYRAT'YANI, V.; KARLASHENKO, N I.

Effect of cortisone on the organism under the influence of ionizing radiations. Probl. endok. i gorm. 7 no.1:20-29 '61.(MIRA 14:3)
(RADIATION SICKNESS) (CORTISONE)

CHAYKOVSKAYA, M.Ya.; YELEAZAROVA, M.P.; ZAYRAT'YANTS, V.B.; KARLASHENKO, N.I.; PARFENOVA, Ye.G.

Use of ACTH under clinic and experimental conditions following the action of ionizing radiation on the body. Med.rad. no.11: 20-26 '61. (MIRA 14:11)

1. Iz radiologicheskogo otdela (zav. - prof. A.V. Kozlova) Gosudarstvennogo nauchno-issledovatel'skogo rentgeno-radiologicheskogo instituta Ministerstva zdravookhraneniya RSFSR.
(RADIATION PROTECTION) (ACTH)

KARLASHENKO, N.I.

Acute radiation burns. Khirurgiia 38 no.10:22-25 O '62.
(MIRA 15:12)

1. Iz kafedry klinicheskoy radiologii (zav. - prof. A.V. Kozlova) TSentral'nogo instituta usovershenstvovaniya vrachey, Moskva.
(RADIATION SICKNESS) (SURGEONS--DISEASES AND HYGIENE)

KARLASHOV, A.V.

Influence of the absolute dimensions of samples on the adsorptive and corrosion fatigue of steel. G. V. Karpenko and A. V. Karlashov. *Doklady Akad. Nauk S.S.S.R.* 97, 603-[redacted] limit (I) of a pearlitic-ferritic steel (C 0.15, Si 0.3, Mn 0.65, Cr 0.88, P 0.018, S 0.037) in air decreased with an increase in the test specimen dimensions, e.g. by 10% with increase in diam. from 16 to 40 mm. The limit in a mineral oil which contained oleic acid was slightly less than in air, and decreased more slowly with the specimen size. In river water, I was markedly lower than in air, and increased with the specimen size, e.g. from 12.5 kg. per sq. mm. with the 16-mm. specimen to 15.7 at 40 mm. diam., at 2×10^7 cycles.

Andrew Dravnieks

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KARLASHOV, A. V., (Sen Instructor, Kiev Inst of the Civil Air Fleet imeni K. Ye. Voroshilov.)

Dissertation: -- "Scale Effect in Adsorption and Corrosion Fatigue of Steel." Cand Tech Sci, Inst of Construction Mechanics, Acad Sci Ukrainian SSR, 3 Jul 54. (Pravda Ukrainy, Kiev, 23 Jun 54)

SO: Sum 318, 23 Dec. 1954

KARLASHOV, A.V.

KARLASHOV, A.V.

Scale effect in corrosion and "adsorption" fatigue. Nauch.zap. IMA L'viv.fil. AN URSR 2 no.1:84-93'55. (MLRA 8:11)
(Steel--Fatigue)

KARLASHOV, A. V.

137-58-1-2006

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 270 (USSR)

AUTHOR: Karlashov, A. V.

TITLE: On the Effect of the Absolute Dimensions of Specimens on the Endurance of Steel in Liquid Media (K voprosu o vliyanii absolyutnykh razmerov obraztsov na vynoslivost' stali v zhidkikh sredakh)

PERIODICAL: Tr. 1-y nauchno-tekhn. konferentsii. Kiyevsk. in-t grazhd. vozdushn. flota. Moscow, 1956, pp 402-414

ABSTRACT: A description is offered of a method and the results of an investigation of the effect of the scale factor during the operation of parts of machines subjected to cyclic stresses in liquid media. The following criterion was employed for the effect of the medium upon fatigue (F): $\beta = \sigma_w$ medium/ $\sigma_{w\,air}$) 100, in percent. The following criterion was used for the scale factor: $\varepsilon_\sigma = (\sigma_w^i / \sigma_w^{16})$ 100, in percent, where σ_w^i is the F strength of a specimen (S) of i mm diameter and σ_w^{16} is the F strength of a standard S 16 mm in diameter in the same medium. S of 20Kh steel of pearlitic-ferritic structure 16, 32, and 40 mm in diameter were machined and polished. The tests were

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On the Effect of the Absolute Dimensions of Specimens (cont.)

conducted for a circuiting cantilever flexure at a frequency of 2000 cycles per minute in air (base $N=5\times10^6$ cycles), in MS oil activated by oleic acid ($N=10^7$ cycles), and in tap water ($N=2\times10^7$ cycles), the liquid media being delivered drop by drop at the point where the S was apt to break. It was established that β increases with an increase in the diameter of S both in oil (surface-tension reducing medium), and in water (corrosive medium). As the dimensions of the S increase, the values of σ_w and ε_1 in air diminish. In oil, this diminution is only half as great, and in water σ_w increases with increase in the dimensions of the S. An investigation of specimens indicated the absence of changes in the metal as a result of F testing in air and in a surface-tension reducing medium. On testing in a corrosive medium, a large number of corrosion F cracks appeared, oriented perpendicular to the tensile stresses. The absolute dimensions of the cross section of the S do not affect the distribution of these cracks. Tensile loading of the S after corrosion F testing revealed a large number of F cracks that opened on tension. F fractures in a corrosive medium are multi-planar in nature. F curves for surface-tension reducing media are analogous to those in air, but they show a larger zone of limited strength. Bibliography: 13 references

V. G.

Card 2/2

1. Steel--Life expectancy 2. Steel--Stresses--Applications 3. Liquids --Applications

L 62536-65 EWP(e)/EWP(k)/EWP(z)/EWT(d)/EWT(m)/EWP(h)/EWP(b)/T/EWA(d)/EWP(l)/EWP(w)/EWP(v)/EWP(t) Pf-4 MJW/JD/WB

ACCESSION NR: AP5012653 UR/0369/65/001/002/0188/0192 37 B

AUTHOR: Karlashov, A. V.; Tomnikov, Yu. V.

TITLE: Effect of stress concentrators on the corrosion fatigue strength of Duralumin

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 1, no. 2, 1965, 188-192

TOPIC TAGS: corrosion resistance, stress concentrator, fatigue strength, Duralumin, metal mechanical property

ABSTRACT: The fatigue strength of D16T alloy specimens made from 9.48 mm bar stock was studied. Annular V-shaped notches and hollow chamfers were used as stress concentrators. After aging, the samples were tested for tensile strength with the following results: endurance limit--45.8 dkN/mm^2, yield stress--31.4 dkN/mm^2, δ = 14.3%. The corrosion media were water and a 3% solution of NaCl. The tests were done on MUI-6000 bending machines with a frequency of 6000 rpm. The base of the tests was $20 \cdot 10^7$ cycles. It was found that stress concentrators cause a sharp reduction in the nominal endurance limit when compared with smooth specimens. The notch lowers the endurance limit by a factor of 2.5, while the hollow chamfer lowers

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L 62536-65
ACCESSION NR: AP5012653

the limit by a factor of 1.25. The nominal corrosion endurance limit is a function of the geometric parameters of the stress concentrators, the aggressiveness of the medium and the number of bending cycles. The combined action of stress concentrators and corrosion media is not the simple total of their individual effects on the fatigue strength of D16T alloy. The effect of the concentrator is reduced by the effect of the medium. This weakening effect is increased as the number of bending cycles becomes greater. The nominal corrosion endurance limit when stress concentrators are present is reduced as the probability of fracture decreases. Orig. art. has: 3 figures, 2 tables.

ASSOCIATION: KICA, Kiev

SUBMITTED: 12Dec64 ENCL: 00 SUB CODE: MM

NO REF SOV: 011 OTHER: 000

Card 2/2

(N) L 13019-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) IJP(c)
ACC NR: AP5028369 SOURCE CODE: UR/0369/65/001/005/0542/0547
MJW/JD/WB

AUTHOR: Karlashov, A.V.; Gnatyuk, A.D.; Tokarev, V.P.

ORG: Kiev Institute of Civil Aviation Engineers (Kiyevskiy institut inzhenerov grazhdanskoy aviatsii)

TITLE: Fatigue strength and durability of aluminum alloys in corrosive media

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 1, no. 5, 1965, 542-547

TOPIC TAGS: aluminum alloy, corrosion resistant alloy, fatigue strength, fatigue test, corrosion resistance, aircraft material, corrosion, durability, water, sodium chloride

ABSTRACT: This work presents some of the results of an investigation into the effect of corrosion media on the durability of the aluminum alloys D16ATV, D16AT, and V92, which are used in the aircraft building industry. The corrosive agents used were water and a 3% aqueous solution of NaCl. It is found that the NaCl solution at $N = 5 \times 10^6$ cycles reduces the resistance of the alloys studied by 36 — 40% at a failure probability of 50% and 0.5%, respectively. The decrease in alloy resistance to the effect of water amounts to 16 — 20% at a failure probability of 0.5%. The increase in the effect of the corrosive media on the endurance limit of V92 and D16ATV alloys occurs only on the sector of relatively high load ($N = 10^5 - 10^6$ cycles). A further

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L 13019-66

ACC NR: AP5028369

decrease in loads discontinues the increase in the effect of the corrosive media and remains almost constant. The ultimate strength of V92 alloy differs only slightly from that of D16ATV and D16AT; the endurance limit of V92, however, in air and in a corrosive medium is substantially higher than that of D16ATV and D16AT. Orig. art. has:5 figures and 2 tables.

SUB CODE: 11 / SUBM DATE: 27Feb65 / ORIG REF: 003

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(N) L 12164-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) MJW/JD/WB

ACC NR: AP5028370 SOURCE CODE: UR/0369/65/001/005/0548/0551

AUTHOR: Karlashov, A.V.; Tokarev, V.P.

58 B

ORG: Kiev Institute of Civil Aviation Engineers (Kiyevskiy institut inzhenerov grazhdanskoy aviatsii)

TITLE: The effect of load frequency on the fatigue and corrosion-fatigue strength of V95 alloy with a concentrator

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 1, no. 5, 1965, 548-551

TOPIC TAGS: corrosion resistance, V95 alloy, stress concentration, fatigue strength, fatigue test / V95 ALLOY

ABSTRACT: This article presents the results of studies on the effect of load frequency (200 and 6000 cycle/min) on the fatigue strength of notched specimens (with stress concentrators) of V95 alloy in air, as well as the results of investigations of the corrosion-fatigue strength of the alloy in a 3-% aqueous solution of NaCl at a frequency of 200 cycle/min. The fatigue and the corrosion-fatigue strength of the specimens was also studied at load frequencies of 5000 and 10000 cycle/min. The test specimens were subjected to secondary heat treatment to relieve local stresses, and, after being heated to

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ACC NR: AP5028370

470±5C and cooling in water, to aging at 140±5C for 16 hr. The authors subjected to experimental analysis the theory that the increased resistance of notched specimens on stress sections below 9 dan/mm^2 when the frequency is reduced from 6000 to 200 cycle/min results from the decrease in the effect of stress concentration at the notch due to the corrosive effect of the surrounding air. The data obtained show that the durability of cleaned notched specimens on the stress sector examined is 35% below that of non-cleaned specimens. Thus, the results confirm the opinions expressed by some investigators that fatigue tests in air are actually corrosion-fatigue tests in a weak medium. Orig. art. has: 2 figures and 1 table.

SUB CODE: 11 / SUBM DATE: 05Jun63 / ORIG REF: 007 / OTH REF: 004

HW

Card 2/2

L 14563-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) IJP(c) MJW/JD
ACC NR: AP6002121 (N) SOURCE CODE: UR/0369/65/001/006/0707/0711

AUTHOR: Karlashov, A. V.; Tokarev, V. P.; Batov, A. P.

ORG: Kiev Institute of Civil Aviation Engineers (Kiyevskiy institut inzhenerov grazhdanskiy aviatsii)

TITLE: Effect of cladding on the fatigue strength of Duralumin-type alloy

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 1, no. 6, 1965, 707-711

TOPIC TAGS: aluminum alloy, alloy corrosion, corrosion fatigue, aluminum clad alloy/D16 alloy

ABSTRACT: The effect of aluminum cladding on the fatigue and corrosion-fatigue behavior of D16AT (4.2%Cu, 1.6% Mg, 1.5% Mn, 0.3% Fe, 0.2% Si, 0.15% Zn) has been studied and the residual stresses in cladding have been determined. The specimens cut from sheet 2 mm thick were subjected to bend fatigue tests in air and in a 3% solution of NaCl at a frequency of 200 cycles per minute. The respective tensile strength, yield strength, and elongation of clad D16AT sheet were 45.5 dan/mm^2, 33 dan/mm^2, and 17% and those of unclad sheet 49 dan/mm^2, 36 dan/mm^2, and 16%. The investigation showed that in air, clad D16AT has a lower fatigue strength (8.6 dan/mm^2) than that of unclad (11.4 dan/mm^2). However, in a 3% solution of NaCl the fatigue strength of clad specimens was 6 dan/mm^2 and that of unclad, 3.8 dan/mm^2. Thus, the cladding improves the resistance of D16AT to corrosion fatigue in a 3% solution of NaCl. The

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ACC NR: AP6002121

cladding suppresses corrosion processes in base material because the former is anodic toward the latter. There is also another factor which contributes to improving the resistance of clad D16AT to corrosion fatigue: compression stresses in the cladding brought about by pressure working and heat treatment. The investigation showed the residual stresses in the surface of the cladding layer amount to 6 dan/mm^2 and at the boundary with the base material, 4.5 dan/mm^2. Orig. art. has: 4 figures. [WW]

SUB CODE: 11/ SUBM DATE: 10Jun65/ ORIG REF: 006/ ATD PRESS: 4169

OC

Card 2/2

KANLASHOV, A.F.; CHATYLOK, A.P.; TOKAREV, V.P.

Effect of corrosive and surface-acti[illegible] of aluminum alloys. Fiz.-khim. mekh. mat. [illegible] '65. (MIRA 19:1)

1. Kiyevskiy institut grazhdanskoy aviatsii. Submitted August 12, 1964.

L 2323-66 EWT(d)/EWT(m)/EWP(w)/EPF(c)/EWP(c)/EWA(d)/EWP(v)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWP(l)/ETC(m) IJP(c) MJW/JD/WW/WB/EM

ACCESSION NR: AP5022408 UR/0369/65/000/004/0494/0498

AUTHOR: Karlashov, A. V.; Gnatyuk, A. D.; Tokarev, V. P. 51/48 B

TITLE: Effect of corrosive medium and stress concentrator on the endurance characteristics of V95 aluminum alloy

SOURCE: Fiziko-khimicheskaya mekhanika materialov, no. 4, 1965, 494-498

TOPIC TAGS: aluminum alloy, aircraft alloy, alloy fatigue strength, alloy fatigue life, alloy corrosion, sea water corrosion, alloy notch sensitivity, V95 aluminum alloy

ABSTRACT: To determine the effect of combined action of stress concentrators and aggressive media on the endurance characteristics of V95 aluminum-base alloy (1.5% Cu, 2.1% Mg, 0.3% Mn, 0.2% Fe, 0.07% Si, 5.8% Zn, and 0.2% Cr), smooth and notched (sharp notch 0.5 mm deep) specimens 10 mm in diameter, solution heat treated at 470 ± 5C and aged at 140 ± 5C for 16 hr, were subjected to rotating beam fatigue tests in air or in a 3% NaCl aqueous solution. The tests for $2 \cdot 10^7$ cycles showed that notched specimens have an endurance limit (4 dan/mm^2)

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67% lower than that of smooth specimens (12.3 dan/mm^2) (see Fig. 1 of the Enclosure). The corrosive medium decreased the endurance limit of notched specimens by 16% over practically the entire investigated stress range. The effect of corrosive medium on the endurance limit of smooth specimens increased continuously with increased cycle number. At $N = 2 \cdot 10^7$ the endurance limit in corrosive medium was 72% lower than in air. It is noted that the effects of the stress concentrators and corrosive medium are not cumulative, so that the combined effect was only 5% greater than that of the stress concentrator. The fatigue life of V95 alloy was strongly affected by 3% NaCl solution in the entire investigated stress range. For example, the fatigue life decreased 70% at a stress of 24 dan/mm^2, and 50—60 times at a stress of 12.3 dan/mm^2. A V-notch decreased the fatigue life 10 times, compared with an unnotched specimen, and the decrease became more pronounced as the stress amplitude decreased. The combined action of stress concentrator and aggressive medium decreased the fatigue life of V95 alloy still more, but the total effect is not cumulative. In general, the action of a corrosive medium decreases the fatigue life appreciably more than the endurance limit.

APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000720720015-7"

L 2323-66
ACCESSION NR: AP5022408

2

This is an important factor, which should be considered in calculating the service life of aircraft parts with stress concentrators working in aggressive media. Orig. art. has: 3 figures and 3 formulas. [MS]

ASSOCIATION: Kiyevskiy institut grazhdanskoy aviatsii (Kiev Institute of Civil Aviation)

SUBMITTED: 27Feb65 ENCL: 01 SUB CODE: MM

NO REF SOV: 008 OTHER: 000 ATD PRESS: 4107

Card 3/4

L 2323-66

ACCESSION NR: AP5022408

ENCLOSURE: 01

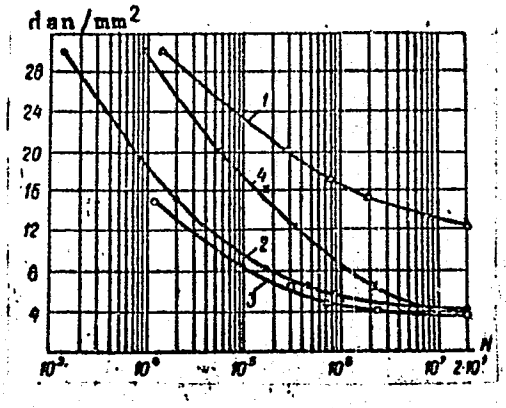

Fig. 1. Fatigue curves for V95 alloy

1 - Smooth specimens in air;
2 - notched specimens in air;
3 - notched specimens in 3% NaCL solution; 4 - smooth specimens in 3% NaCl solution.

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L 32938-66 EWT(m)/T/EWP(w)/EWP(t)/ETI IJP(c) JH/JD/WB

ACC NR: AP6020913 (N) SOURCE CODE: UR/0369/66/002/002/0170/0172

AUTHOR: Karlashov, A. V.; Gnatyuk, A. D.

ORG: Kiev Institute of Civil Aviation Engineers (Kiyevskiy institut inzhenerov grazhdanskoy aviatsii)

TITLE: The effect of the method of supplying liquid aggressive media on corrosion resistance of aluminum alloy

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 2, 1966, 170-172

TOPIC TAGS: aluminum alloy, copper containing alloy, magnesium containing alloy, alloy fatigue strength, corrosion fatigue strength/D16 alloy

ABSTRACT: Specimens of D16T aluminum alloy (4% Cu, 1.29% Mg, 0.76% Mn, 0.3% Fe, 0.19% Si) were tested for corrosion fatigue in a 3% NaCl solution and in potable water. The test specimens were submerged in corrosive media in a watertight vessel, or wetted in air by a continuous jet, drops, or intermittent spray of the corrosive media. The fatigue test basis was $20 \cdot 10^6$ cycles; the frequency of cycles of stress was 6000 per min. The results of the tests in a 3% NaCl solution (see Fig. 1) show that complete submersion, i.e., restriction of oxygen, resulted in the highest decrease in the endurance limit of the alloy (curve 5). With increasing access of oxygen, the effect of a given corrosive medium on the endurance limit decreased

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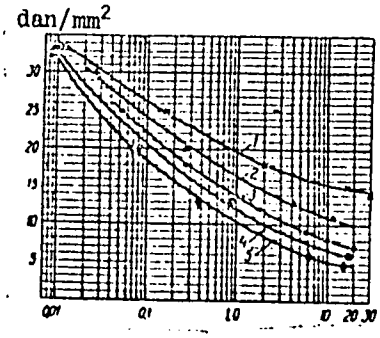

Fig. 1. Corrosion fatigue of D16T in air and in NaCl solution

(curves 3 and 4), and the smallest effect was observed with wetting with drops (curve 2). Analogous results were obtained in fatigue corrosion tests in water. Under a stress of 15 dan/mm², D16T alloy failed after 16,665,500 load cycles in air; 4,593,500 cycles with wetting by drops; 1,622,000 cycles with spray wetting; and 830,000 cycles with complete submersion. The data show that a freer access of oxygen of the air weakened the effect of water on the corrosion fatigue strength of the alloy. Orig. art. has: 3 figures and 1 table. [MS]

SUB CODE: 11/ SUMB DATE: 14Dec65/ ORIG REF: 004/ ATD PRESS: 5028

Card 2/2

L [illegible] EWT(m)/EWP(t)/ETI IJP(c) JD/JG/JH

ACC NR: AP6018609 SOURCE CODE: UR/0420/65/000/004/0098/0103

AUTHOR: Karlashov, A. V.; Gnatyuk, A. D.; Tokarev, V. P.

ORG: Kiev Institute of Civil Aviation Engineers (Kiyevskiy institut inzhenerov grazhdanskoy aviatsii)

TITLE: Corrosion endurance of D16ATV sheet duralumin

SOURCE: Samoletostroyeniye i tekhnika vozdushnogo flota, no. 4, 1965, 98-103

TOPIC TAGS: sheet metal, fatigue strength, sea water corrosion, aluminum alloy/ D16ATV aluminum alloy

ABSTRACT: Data are given from experimental studies of the corrosion resistance of D16ATV duralumin alloy which is widely used in aircraft construction. The corrosion media were fresh water and a 3% NaCl solution simulating sea water. The tests were done on a machine with a loading frequency of 200 cycles per minute on a test base of $5 \cdot 10^6$ cycles. The specimens were tested for fatigue under pure bending conditions to a given deformation. The specimens were made from 2.0 mm sheet duralumin. The chemical composition of the material is as follows (in %): 4.2 Cu, 1.6 Mg, 0.5 Mn, 0.3 Fe, 0.2 Si and 0.5 Zn. Analysis of the experimental results shows that the effect of the corrosive media depends on aggressiveness and the number of test cycles. The maximum reduction in the fatigue limit on a test base of $5 \cdot 10^6$ cycles was 15 and 42.5% in H_2O —

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L 40793-66
ACC NR: AP6018609

and a 3% solution of NaCl respectively. The corresponding values for a test base of $2 \cdot 10^5$ cycles were 7 and 20% respectively. This increase in the effect of the medium on the fatigue limit of the alloy with an increase in the number of test cycles takes place in the range of maximum amplitude stresses. There is no further increase in this effect when these stresses are reduced. Agressive media have a greater effect on the durability of the material than on its fatigue strength. A probabilistic evaluation of the fatigue limits for aluminum alloys gives a more exact figure for the effect of corrosive media on the fatigue strength of the material for establishing the service life of structural elements subjected to the action of these media. Orig. art. has: 3 figures, 2 tables.

SUB CODE: 11, 20/ SUBM DATE: none/ ORIG REF: 006

Card 2/2

L 00903-67 EWT(d)/EWT(m)/EWP(w)/T/EWP(t)/ETI IJP(c) JD/WB/EM

ACC NR: AP6020912 SOURCE CODE: UR/0369/66/002/002/0162/0166

54
53
B

AUTHORS: Kostetskiy, B. I.; Karlashov, A. V.; Shevelya, V. V.

ORG: Kiev Institute of Civil Aviation Engineers (Kievskiy institut inzhenerov grazhdanskoy aviatsii)

TITLE: A radiographic study of the fatigue of D16AT alloy in connection with the action of media

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 2, 1966, 162-166

TOPIC TAGS: fatigue strength, fatigue test, aluminum alloy, x ray diffraction camera, radiography, metal stress, metal deformation / D16AT aluminum alloy, URS-50IM x ray diffraction camera

ABSTRACT: The results of a radiographic study of the fatigue of D16AT alloy are given. The alloy was studied in the annealed state (350C, 1 hr) and in the hardened state with subsequent aging. A URS-50IM diffractometer with copper K_α radiation was used. The hardened samples were tested under a load of 10 dyne/mm^2; the annealed, 7 dyne/mm^2. In all cases, there was no change in the line (200) width with cyclic loading (see Fig. 1). A certain increase in microstresses was observed in testing D16AT alloy above the fatigue limit. Third-order distortions (more clearly expressed for the hardened state) were observed in the fatigue tests. Fatigue was

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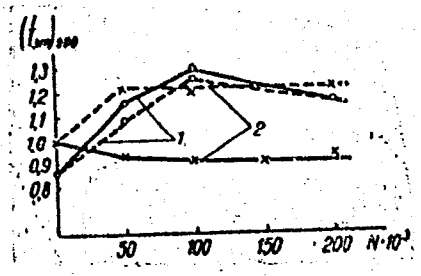
L 00903-67
ACC NR: AP6020912

Fig. 1. Relative strength of line (200) versus number of cycles: 1 - hardened and aged; 2 - annealed. Continuous line—tests in air; dotted line—tests in 3% NaCl solution.



accompanied by crushing and block disorientation, which were more intensive in the hardened state. The adsorption-corrosion action of media is shown more clearly radiographically in the annealed alloy. Orig. art. has: 4 graphs and 2 photographs.

SUB CODE: 11/ SUBM DATE: 25Nov65/ ORIG REF: 017/ OTH REF: 001

awm
Card 2/2

L 04782-67 EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) JD/WB/JH

ACC NR: AP6023442 SOURCE CODE: UR/0369/66/002/003/0285/0290

AUTHOR: Karlashov, A. V., Gnatyuk, A. D.

ORG: Kiev Institute of Engineers of Civil Aviation (Kiyevskiy institut inzhenerov grazhdanskoy aviatsii)

TITLE: Effect of certain factors of programmed loading on the service life of an aluminum alloy exposed to an aggressive medium

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 3, 1966, 285-290

TOPIC TAGS: aluminum copper alloy, durability, corrosion resistance, cyclic load / D16T aluminum alloy

ABSTRACT: The article describes the experimental findings on the effect of certain factors of dynamic loading on the service life of the D16T aluminum alloy (4.0% Cu, 1.29% Mg, 0.76% Mn, 0.3% Fe, 0.19% Si) exposed to the air as well as to a corrosive medium (3% NaCl) simulating the action of sea water, and subjected to various load cycles in accordance with various loading programs (loads of 20-15 kg/mm^2 in air and 13.5-7.5 kg/mm^2 in 3% NaCl solution, i.e. overloads). These programs are of the "sawtooth" kind, representing a sequence

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of alternately increasing and decreasing loading levels. Findings: for the specimens tested in the 3% NaCl solution the number of loading cycles until fracture was only about one-half as high as that for the specimens tested in air. In the presence of a corrosive medium the accumulation of fatigue with exposure to transient loading regimes occurs more intensely. This apparently accounts for the much earlier appearance of cracks in the specimens exposed to 3% NaCl solution, even when the loading-stress levels are still much below the corrosion endurance limit of such specimens. Orig. art. has: 5 figures, 1 table.

SUB CODE: 13, 11/ SUBM DATE: 27Dec65/ ORIG REF: 006/ OTH REF: 001

L 08046-67 EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) JD/WB

ACC NR: AP7001662 SOURCE CODE: UR/0369/66/002/003/0279/0284

KARLASHOV, A. V., GNATYUK, A. D., Kiev Institute of Civil Aviation Engineers (Kiyevskiy institut inzhenerov grazhdanskoy aviatsii)

40

B

"Corrosion Fatigue Strength of D16AT Sheet Metal Under Asymmetrical Loading"

Kiev, Fiziko-Khimicheskaya Mekhanika Materialov, Vol 2, No 3, 1966, pp 279-284

Abstract: The article presents the results of an investigation into the effect of asymmetrical loadings of D16AT clad sheet metal (4.2% Cu, 1.6% Mg, 0.3% Fe, 0.2% Si), 2 mm thick. Tests were performed with the aid of an MPI-2P dynamic loading machine (loading frequency 70 cycles/minute) as well as of a 3% aqueous solution of NaCl simulating the corrosive effect of sea water. It was found that the increase in the mean asymmetric loading level enhances the adverse effect of 3% NaCl on the endurance of this material, while a decrease in this level (application of a lower tensile stress) reduces the adverse effect of NaCl and prolongs the life of specimens. These findings have a bearing on the development of the most suitable airframe materials in aircraft design, considering that, under natural operating conditions, airframe components sustain varying asymmetric loads and are exposed to various aggressive media: atmospheric moisture, sea water, condensate of airtight cabin, etc., and hence symmetrical loading tests cannot serve as a suitable criterion for determining the corrosion-fatigue strength of airframe materials. Orig. art. has: 4 figures and 4 formulas. [JPRS: 37,603]

TOPIC TAGS: fatigue strength, sheet metal

SUB CODE: 11, 20 / SUBM DATE: 07Dec65 / ORIG REF: 005

Card 1/1 mc

0924 1426

ACC NR: AP6029684 (N) SOURCE CODE: UR/0369/66/002/004/0437/0440

AUTHOR: Karlashov, A. V.; Shevelya, V. V.

ORG: Kiev Institute of Civil Aviation Engineers (Kiyevskiy institut inzhenerov grazhdanskoy aviatsii)

TITLE: Some problems of surface phenomena and corrosion fatigue

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 2, no. 4, 1966, 437-440

TOPIC TAGS: metal surface, surface property, corrosion rate, corrosion resistant metal

ABSTRACT: A brief review is given of the relationship between surface phenomena and corrosion fatigue of metals. Results are presented on a study of the influence of cyclic loading in media of various activity on the criteria of static strength of D16 AT alloy and on its electrical conductivity, which is a structurally sensitive characteristic. Factors are analyzed which may have an effect in inforcing electrochemical heteorogeneity of the metal surface when it is placed under a repeated strain with changes of sign. Flat specimens of D16 AT Duraluminum were tested for fatigue in air and in a 3% aqueous NaCl solution. The influence of the corrosive medium which was discovered in the case of cyclical loading on the strength and plasticity properties, plus the absence of any corrosive medium effect in the case of static extension, show that specific surface processes take place in the case of fatigue, allowing

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ACC NR: AP6029684

the corrosive medium to interact with considerable columes of the metal through the structural defects which are formed by the fatigue loading. The surface localization of the defect structure provides a location for contact of the active external medium with large volumes of metal, which is the cause of the influence of this medium on the strength, plasticity, and wear resistance of the metal. Orig. art. has: 5 figures.

SUB CODE: 11,13/ SUBM DATE: 10Feb66/ ORIG REF: 016/ OTH REF: 003

Card 2/2

L 41833-65 EWT(d)/EWT(m)/EWP(w)/EPF(c)/EWP(c)/EWA(d)/EWP(v)/EPR/T/EWP(t)/
EWP(k)/EWP(z)/EWP(b)/EWP(l) Pf-4/Ps-4 IJP(c) MJW/JD/WB

ACCESSION NR: AP5009277 S/0369/65/001/001/0007/0011

AUTHOR: Karlashov, A. V.; Gnatyuk, A. D.; Tokarev, V. P.

TITLE: Effect of corrosive and surface-active media on the endurance life of aluminum alloys

SOURCE: Fiziko-khimicheskaya mekhanika materialov, v. 1, no. 1, 1965, 7-11

TOPIC TAGS: aluminum alloy, alloy corrosion, alloy endurance limit, corrosive medium effect, surface active medium effect, endurance life, D16 aluminum alloy, V95 aluminum alloy

ABSTRACT: To determine the effect of corrosive and surface-active media on the endurance of D16 [U.S. 2024] and V95 [U.S. 7075] aluminum alloys, smooth cylindrical specimens of the alloys were subjected to fatigue tests for $20 \cdot 10^6$ cycles at a frequency of 6000 cps. The tests were made in water, 3% NaCl solution (imitating sea water), or an AMG-10 fluid, often used in aircraft hydraulic systems, activated by 2% oleic acid ($C_{17}H_{33}COOH$). A conditional failure probability P = 0.5% was used in the statistical processing of the obtained data. It was

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found that all the media tested, particularly the corrosive media, significantly decrease the endurance limit of the tested alloys, and that the decrease depends on the aggressiveness of the medium and the test duration. For example, with P = 0.5%, the endurance limit of D16 alloy was 10.0, 7.0, and 2.0 dan/mm^2 in air, water, and 3% NaCl solution, respectively. The corresponding figures for V95 alloy were 13.0, 7.0, 3.5 dan/mm^2, and 11.0 dan/mm^2 in AMG-1D fluid. Thus, in plain water the endurance limit of V95 alloy decreases more than that of D16 alloy, whereas the opposite is observed in 3% NaCl solution. The harmful effect of corrosive and surface-active media is much more pronounced on the service life of the alloys. In 3% NaCl solution at stresses close to the fatigue strength, the service life of V95 alloy was 70—80 times shorter, and that of D16 alloy was 50—60 times shorter, than in air. This drop in the service life is a very important factor in determining aircraft service life. Orig. art. has: 4 figures and 3 tables. [MS]

L 11833-65

ACCESSION NR: AP5009277

ASSOCIATION: KIGA, Kiev

SUBMITTED: 12Aug64 ENCL: 00 SUB CODE: MM

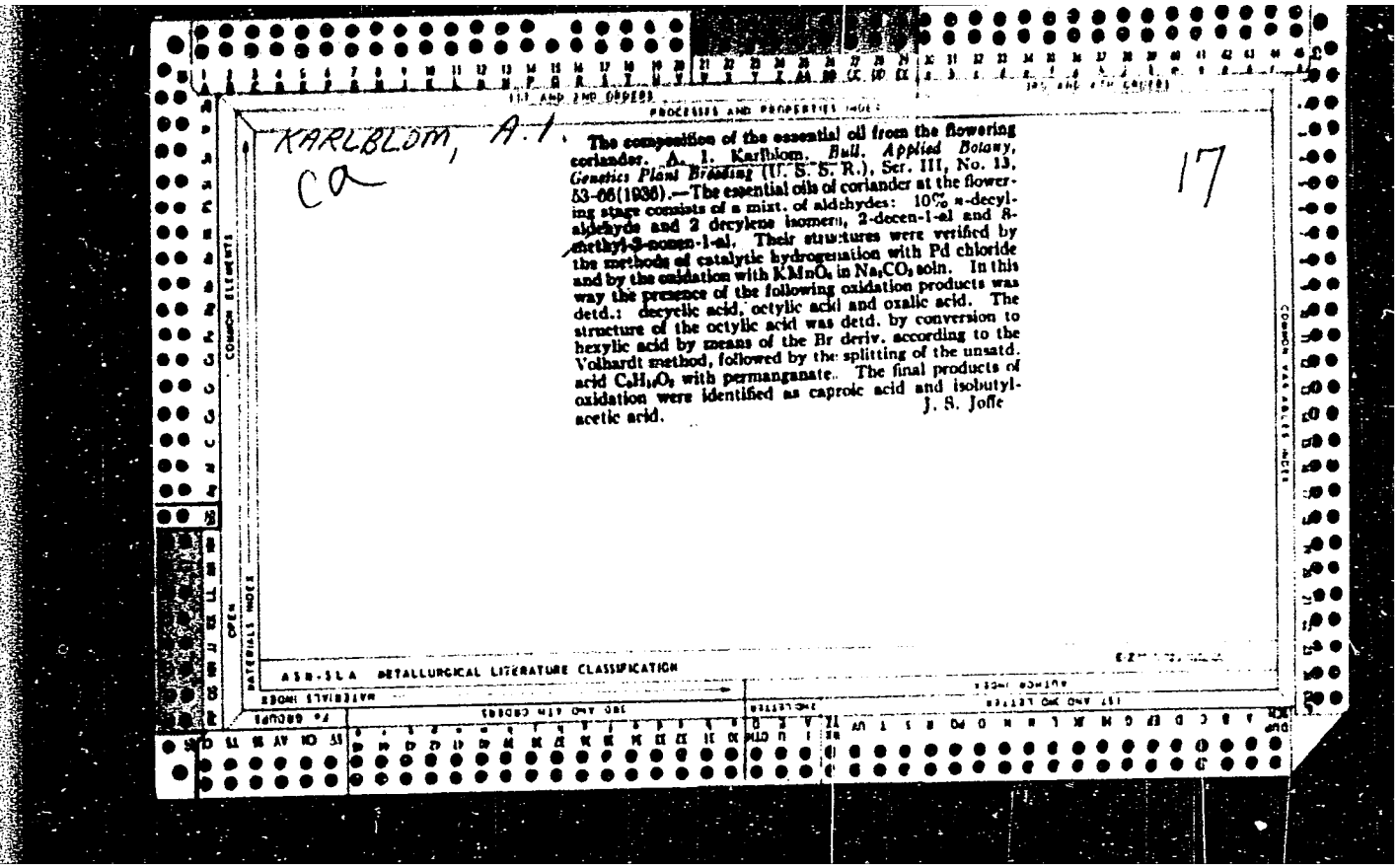
NO REF SOV: 005 OTHER: 000 ATD PRESS: 3235

Card 3/3

MATUKONIS, A.V.; Prinimali uchastiye: KARLAVICHUS, V. [Karlavicius, V.], inzh.; TAPARAUSKAYTE, I. [Taparauskaite, I.], inzh.

Characteristics of the structure of two-component mixed yarn made of heterogeneous fibers. Izv.vys.ucheb.zav.; tekh.tekst.prom. no.1: 15-22 '63. (MIRA 16:4)

1. Kaunasskiy politekhnicheskiy institut.
(Yarn—Testing)



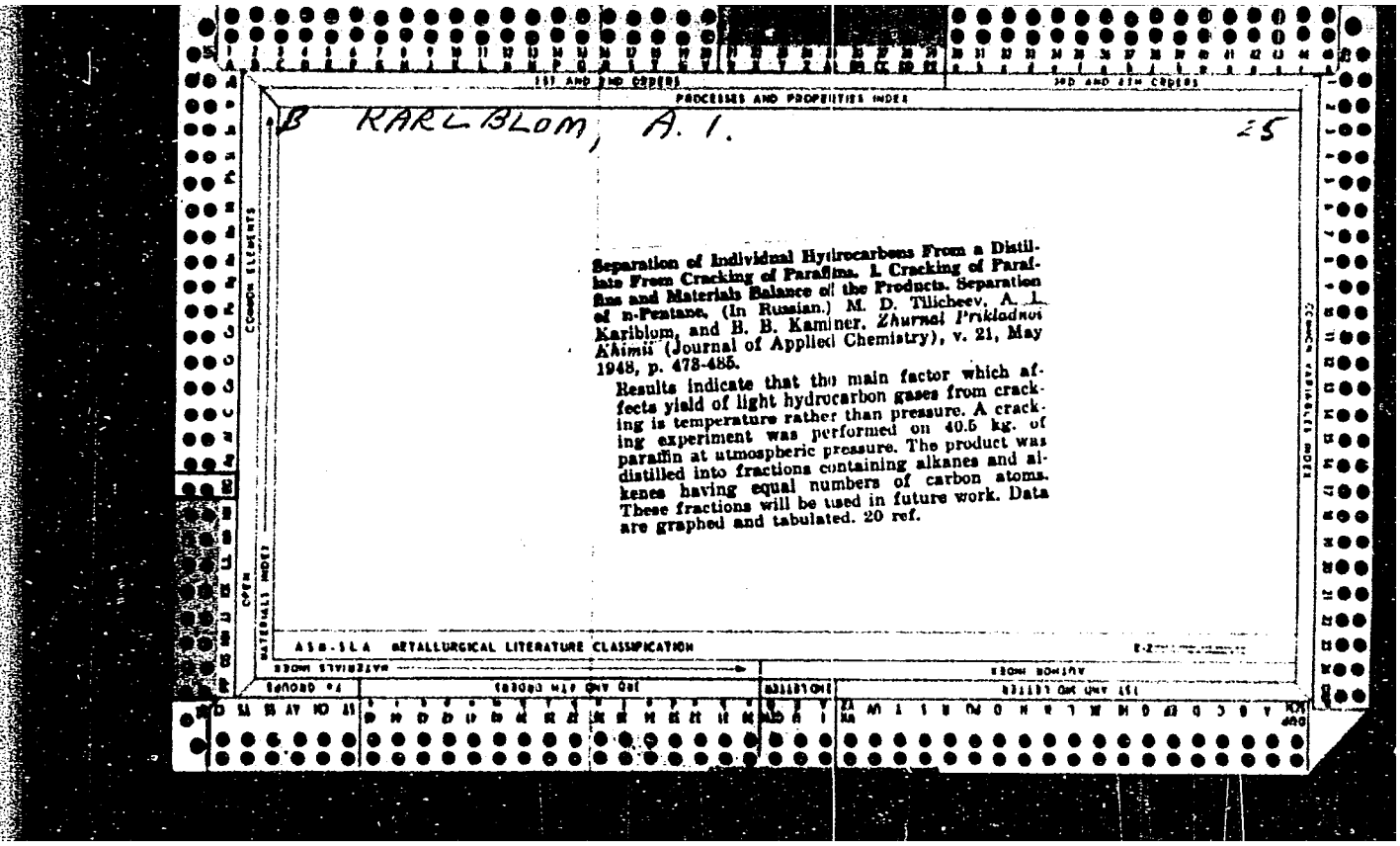
KARLBLOM, A. I.
CA

17

The composition of the essential oil from the flowering coriander. A. I. Karlblom. *Bull. Applied Botany, Genetics Plant Breeding* (U. S. S. R.), Ser. III, No. 13, 53-66(1936).—The essential oils of coriander at the flowering stage consists of a mixt. of aldehydes: 10% *n*-decylaldehyde and 2 decylene isomers, 2-decen-1-al and 8-methyl-2-nonen-1-al. Their structures were verified by the methods of catalytic hydrogenation with Pd chloride and by the oxidation with $KMnO_4$ in Na_2CO_3 soln. In this way the presence of the following oxidation products was detd.: decylic acid, octylic acid and oxalic acid. The structure of the octylic acid was detd. by conversion to hexylic acid by means of the Br deriv. according to the Volhardt method, followed by the splitting of the unsatd. acid $C_8H_{14}O_2$ with permanganate. The final products of oxidation were identified as caproic acid and isobutylacetic acid.

J. S. Joffe

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



PROCESSES AND PROPERTIES INDEX

B KARL BLOM, A. I. 25

Separation of Individual Hydrocarbons From a Distillate From Cracking of Paraffins. I. Cracking of Paraffins and Materials Balance of the Products. Separation of n-Pentane. (In Russian.) M. D. Tilicheev, A. I. Kariblom, and B. B. Kaminer. *Zhurnal Prikladnoi Khimii* (Journal of Applied Chemistry), v. 21, May 1948, p. 473-485.

Results indicate that the main factor which affects yield of light hydrocarbon gases from cracking is temperature rather than pressure. A cracking experiment was performed on 40.5 kg. of paraffin at atmospheric pressure. The product was distilled into fractions containing alkanes and alkenes having equal numbers of carbon atoms. These fractions will be used in future work. Data are graphed and tabulated. 20 ref.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

KARLEBA B. S.

BCS

Manufacturing Processes
General

21. Automatic maintenance of water level.—B. S. KARLEBA (*Stek. Kraft.*, 8, No. 6, 11, 1931). An electrical pump is made to start and stop automatically. (3 figs.)

PAVLENKO, I.I., inzh.; SKOBKIN, M.F., inzh.; KARLEBA, L.S., inzh.

Casting killed steel testing rams. Met. i gornorud. prom. no.5:76-77 S-O '63. (MIRA 16:11)

1. Krivorozhskiy metallurgicheskiy zavod imeni Lenina.

KARLENKO, P.N., prof.; ASRIYAN, N.G., ordinator; BEREZOVSKAYA, V.A., ordinator

Oscillography and its importance in the clinical diagnosis of goiter. Med. zhur. Uzb. no.6:25-26 Je '60. (MIRA 15:2)

1. Iz kliniki obshchey khirurgii Samarkandskogo gosudarstvennogo meditsinskogo instituta imeni I.P.Pavlova.
(GOITER) (OSCILLOGRAPHY)

KARLENKO, P.N. (Samarkand, ul. Traktornaya, d.20); ALEKSANDROV, G.N.; BORUKHOV, S.A.

Comparative data on the histological structure of the aorta, the pulmonary artery and Botallo's duct in fetuses. Grud. khir. 3 no.1:38-43 Ja-F '61. (MIRA 16:5)

1. Iz kliniki obshchey khirurgii (zav. - prof. P.N.Karlenko) i kafedry topograficheskoy anatomii s operativnoy khirurgiyey (zav. prof. G.N.Aleksandrov) Samarkandskogo meditsinskogo instituta imeni akademika I.P.Pavlova (dir. - dotsent M.A.Mirzamukhamedov).
(FETAL MEMBRANES) (DUCTUS ARTERIOSUS)

KARLENKO, P.N., prof.; DRANNIKOVA, TS.I., ordinator

Combined treatment of complicated echinococcus of long bones.
Med. zhur. Uzb. no.1:43-45 Ja '61. (MIRA 14:6)

1. Iz kliniki obshchey khirurgii Samarkandskogo gosudarstvennogo meditsinskogo instituta imeni I.P.Pavlova i rentgenologicheskogo otdeleniya Bukharskoy oblastnoy bol'nitsy (glavnyy vrach - N.S. Nugmanov).

(LEG--HYDATIDS)

KARLENKO, P.N., prof.; GUSEV, L.K., kand.med.nauk; YENIKEYEVA, M.A., kand. med.nauk; OMIROV, R.Yu., aspirant; YUSUPOV, N.A.; ordinator; AZAMATOV, N.A., ordinator; TAYTS, N.Yu.; ASRIYANTS, N.G., ordinator; BORUKHOV, S.A., ordinator.

Some results of a study of goiter in Samarkand Province of the Uzbek S.S.R. Med. zhur. Uzb. no.5:17-20 My '61. (MIRA 14:6)

1. Iz kliniki obshchey khirurgii Samarkandskogo gosudarstvennogo meditsinskogo instituta imeni I.P.Pavlova.
(SAMARKAND PROVINCE—GOITER)

KARLENKO, P.N., prof.; OMIROV, R.Yu., aspirant

Development of the thyroid gland in fetuses and the newborn.
Med. zhur. Uzb. no.5:25-28 My '61. (MIRA 14:6)

1. Iz kafedry obshchey khirurgii Samarkandskogo gosudarstvennogo meditsinskogo instituta imeni I.P.Pavlova.
(THYROID GLAND)

KARLENKO, P.N., prof.

Complications in urolithiasis. Nauch. trudy SamMI 22:23-29 '63.
(MIRA 17:9)

1. Iz kliniki obshchey khirurgii Samarkandskogo meditsinskogo instituta.

KARLENKO, P.N., prof.; SEMENOVA, Ye.N., dotsent; OMIROV, R.Yo.

Histomorphology of the thyroid gland of fetuses and newborn infants in Samarkand Province, Uzbek S.S.R. Nauch. trudy SamMI 22:30-38 '63. (MIRA 17:9)

1. Iz kafedry obshchey khirurgii i kafedry patologicheskoy anatomii Samarkandskogo meditsinskogo instituta.

BAYTMAN, A.I.; KARLENKO, S.N.

Diagnosis and treatment of tuberculosis of the tongue.
Vest. oto-rin. 17 no.5:82-83 S-O '55. (MLRA 9:2)

1. Iz Tuberkuleznogo dispansera no.1 i Tuberkhleznogo Sanatoriya imeni Myasnikova, Baku.
(TONGUE--TUBERCULOSIS)