The use of Dimensionless Criteria to Generalise the Results of Drop-size Measurements When Atomising Liquids in Centrifugal Nozzles

between film thickness and nozzle radius is given by expression (3). Various authors have published data about the liquids used and the methods of measuring drop sizes employed in tests with centrifugal nozzles. These data are tabulated and used for working out in dimensionless criteria. It will be seen that most of the work has been done on kerosene or molten paraffin wax. Construction of the empirical data for the ratio of drop size to film thickness as a function of the Weber criterion, with the other three criteria constant, shows that the data for kerosene and water do not lie on the same curves; the reasons for this are discussed. It is also shown that for kerosene, vapourisation of the drops before they are trapped has little influence on their dimensions. Graphs of the data of various authors for kerosene and molten paraffin wax are plotted. The results for water obtained by Consiglio and Sliepcevich in the USA are not of the same slope as the others, which indicates that their work is

The use of Dimensionless Criteria to Generalise the Results of Drop-size Measurements When Atomising Liquids in Centrifugal Nozzles

unreliable. Otherwise the experimental data for water and aqueous solutions of glycerine can be approximately represented by Eq (4) and those for kerosene and molten paraffin wax by Eq (5). The values of the constants used in these equations are given. These empirical formulae may be used to evaluate the median diameters of kerosene and water drops produced during atomisation in air of atmospheric density if the geometrical dimensions of the centrifugal nozzle and its operating conditions are known. There are 1 figure, 1 table and 15 references, 4 of which are Soviet, 9 English, 1 Czech, and 1 German.

ASSOCIATION: TsIAM

Card 4/4

Dityakin, Yu.F.

S/179/60/000/02/008/032
E191/E281

AUTHORS: Borodin, V. A., and Dityakin, Yu. F.
(Moscow)

TITLE: On the Shape of the Liquid Film Produced by a Centrifugal Atomiser

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1960, Nr 2, pp 60-64 (USSR)

ABSTRACT: Reference is made to the investigation by Euteneuer, G.A., (Ref 5) on the effect of surface tension in the formation of hollow liquid jets. In his analysis, Euteneuer considered the dynamic equilibrium of a film element which led to the clarification of the wavy nature of the shape of the film as a function of the Weber number. Using the equation of equilibrium of a liquid film as derived by Euteneuer, an analysis of the equilibrium form of such a film is carried out. Starting from the expression for the radial component of velocity of liquid particles in the film, and assuming that the axial

Card 1/3

V B

S/179/60/000/02/008/032
E191/E281

On the Shape of the Liquid Film Produced by a Centrifugal Atomiser

velocity component is approximately constant, an equation is derived for the surface of such a film (Eq (1.5)). Using the theory of the centrifugal atomiser and introducing the Weber number and non-dimensional co-ordinates referred to the radius at which the radial acceleration vanishes under equilibrium conditions, the equation for the surface of the film is obtained in non-dimensional form This equation is mathematically analysed to single out physically significant regions in terms of the two non-dimensional parameters of which one is the ratio of the mean radius of the annular jet to the radius of zero acceleration and the other is the reciprocal of this ratio multiplied by the reciprocal of the third root of the Weber number. This analysis makes it possible to evaluate the effect of the Weber number on the shape of the film. The film contours for different Weber numbers are shown on Fig 2. The larger the Weber number, the larger the apex angle, the maximum radius and the wavelength of the film

Card 2/3

S/179/60/000/02/008/032
E191/E281

On the Shape of the Liquid Film Produced by a Centrifugal Atomiser

surface. With increasing Weber number, the point of bursting of the film shifts nearer to the atomiser nozzle. Finally, after a short distance, the liquid forms a mist of droplets. Fig 3 shows the thickness of the film along the axis for different Weber numbers and Fig 4, the relation between the wavelength of the film surface and the Weber number. There are 4 figures and 5 references, 3 of which are Soviet, 1 German and 1 English.

SUBMITTED: November 20, 1959

Card 3/3

V/B

S/179/60/000/03/019/039
E081/E441

AUTHORS: Dityakin, Yu.F. and Yagodkin, V.I. (Moscow)

TITLE: Potential Flow of a Liquid Entering a Plane Channel Through Permeable Walls

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdelenaye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye, 1960, Nr 3, pp 126-131 (USSR)

ABSTRACT: Fig 1 shows the scheme of flow of liquid in the channel. In many cases the supply velocity through the permeable walls AC, BD is constant or changes only slightly along the length of the wall. It is therefore assumed constant and equal to v_0. The problem is analysed by conformal transformation (Fig 2), complex variable methods and elliptic integrals. The final equation found for flow v_η along the permeable walls is Eq (2.10) with λ given by Eq (2.11). Fig 4 shows the relationship between $v_\eta/v_0\Lambda$ and λ/Λ for various values of Λ, calculated from Eq (2.10) and (2.11); Λ is given by Eq (1.2). For the larger values of Λ, the relationship is linear over the greater part of its

Card 1/2

S/179/60/000/03/019/039
E081/E441

Potential Flow of a Liquid Entering a Plane Channel Through Permeable Walls

length. There are 4 figures and 5 references, 3 of which are Soviet and 2 English.

SUBMITTED: February 10, 1960

Card 2/2

34372

S/207/62/000/001/013/018
B108/B104

11.7420

AUTHORS: Borodin, V. A., Dityakin, Yu. F., Yagodkin, V. I. (Moscow)

TITLE: Disintegration of a spherical drop in a gas blast

PERIODICAL: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 1, 1962, 85 - 92

TEXT: The authors calculate the axially symmetrical perturbations of a drop of an ideal liquid moving in (or flowed around by) another ideal liquid. The coordinate origin is to be in the center of the spherical drop. Starting from the Laplace equation in spherical coordinates, the Weber's number and the shape of the perturbations are calculated (Table 2). Similar results have been obtained for the motion of a gas bubble in a liquid (Ref. 4, see below). The results show that the pressure distribution over the surface of the drop has only a slight effect on the splitting of the drop. This is due, however, to the assumption of a potential flow embedding the drop. The authors thank L. N. Britnev for assistance in the calculations. There are 1 figure, 2 tables, and 8 references: 3 Soviet and 5 non-Soviet. The references to the English-

Card 1/2

language publications read as follows: Hinze J. O. Amer. Inst. Chem. Eng. Journ., 1955, I, pp. 200 - 209; Isshiki N. Rept. Transp. Techn. Research Inst., 1959, no. 35; Ref. 4: Hartunian R. A., Sears W. R. Journ. Fluid Mech., 1957, v. 3, Part I, pp 27 - 47.

SUBMITTED: September 28, 1961

Table 2. Weber's number W and shape of perturbation.
Legend: (A) Shape of perturbation (either - or). (1) Motion in direction of stream, (2) splitting in the stream direction or formation of tore, (3) formation of two drops and a tore or of one tore, (4) formation of two drops and two tores or of one tore.

ACCESSION NR: AP4041198 S/0207/64/000/003/0100/0104

AUTHORS: Borodin, V. A. (Moscow); Dityakin, Yu. F. (Moscow); Yagodkin, V. I. (Moscow)

TITLE: Mechanisms of shattering of drops moving in gas flow

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 3, 1964, 100-104

TOPIC TAGS: drop shattering, gas flow, ideal fluid, spherical drop, Weber number

ABSTRACT: In a previous paper (O droblenii sfericheskoy kapli v gazovom potoke. PMTF, 1962, No. 1) the authors made a theoretical study of unstable axisymmetric forms of perturbations of a spherical drop of ideal liquid flowed around by another ideal liquid, leading to its shattering. There they used the method of small perturbations to solve the problem. They found the critical value of the Weber number and determined the forms of neutral perturbations. In the present paper they consider the case of intensifying perturbations and also their forms for various values of the Weber number. On the basis of equations from the previous work, they conclude that for values of the Weber number $1.63 < W < 1000$ there are three possible forms of intensifying perturbations. From their deductions on the

Card 1/2

ACCESSION NR: AP4041198

various forms of perturbations arising with motion of a liquid spherical drop in the medium of another liquid, they find that the essential role in the shattering process is played by the effect of oscillation and discontinuity on part of the liquid torus. They investigate the fact that the number of crests arising on the torus can be two, three, or more, decreasing as the diameter of the torus decreases. Comparison of their results with experiments can be made for very slowly moving toruses. Orig. art. has: 4 figures and 13 formulas.

ASSOCIATION: none

SUBMITTED: 16Dec63 ENCL: 00

SUB CODE: ME NO REF SOV: 003 OTHER: 002

Card 2/2

L 22633-65 EWP(m)/EPF(n)-2/EWT(1)/EWA(d) Pd-1/Pu-4 WW
ACCESSION NR: AP5002865 S/0207/64/000/005/0059/0065

AUTHOR: Borodin, V. A. (Moscow); Britneva, L. N. (Moscow); Dityakin, Yu. F. (Moscow); Yagodkin, V. I. (Moscow)

B

TITLE: Breakup of liquid jet overflown by a gas stream

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 5, 1964, 59-65

TOPIC TAGS: liquid jet, liquid drop, transverse flow, fuel injection, jet breakup

ABSTRACT: The breakup of a cylindrical ideal liquid jet (radius a, density ρ_1) by the transverse flow of another ideal fluid (density ρ_2, velocity U_0) was studied analytically. Two types of waves propagating along the jet surface were considered: 1) tangential waves deforming the jet in the plane of its cross section; 2) longitudinal waves. Time-dependent potential functions are introduced for the jet and the fluid in cylindrical coordinates, and the following solution is assumed

$$\Phi(r, \varphi, z) = \varphi(r, \varphi)e^{-|z|}.$$

Card 1/3

The continuity of the normal component of the velocity at the interface is used as a boundary condition. From Laplace's equation a generalized solution is obtained in the form

$$u_1 = \sum_{m=0}^{\infty} A_m R^m e^{im\varphi}, \qquad u_2 = \sum_{m=0}^{\infty} B_m R^{-m} e^{im\varphi}.$$

For m = 0 and R = 1 the velocity of surface rise of the jet is given by

$$v_{r_1} = \frac{1}{a} \sum_{m=0}^{\infty} m A_m R^{m-1} \cos m\varphi e^{-i\omega t}$$

and the equations of nodal lines on the perturbed jet take the form of

$$\sum_{k=1}^{\infty} m A_m \cos m\varphi = 0$$

$$(m = 2k \text{ или } m = 2k+1)$$

L 22633-65
ACCESSION NR: AP5002865

Numerical calculations show that at $2 < W < 27.6$ (W = Weber number), four nodal lines appear on the jet surface and two nodal lines at $0.656 < W < 1.24$. To determine the wave propagation along the jet, the stream function is assumed to have the form

$$\Phi(r, \varphi, z, t) = u(r, \varphi)e^{-i\beta t + imz}.$$

Substituting in the cylindrical Laplace equation, the solution is obtained in a Bessel function of imaginary arguments. Numerical results are obtained for W = 5 and 10. Orig. art. has: 4 figures and 46 formulas. [04]

ASSOCIATION: none

SUBMITTED: 22May64 ENCL: 00 SUB CODE: ME

NO REF SOV: 007 OTHER: 004 ATD PRESS: 3170

Card 3/3

L 18881-66 EWP(m)/EWP(k)/EWI(1)/EWT(m)/ETC(m)-6/T/EWA(d)/EWA(1)/EWP(w)/EWP(v) EM/
ACC NR: AP6009049 WW/JW/WE SOURCE CODE: UR/0207/66/000/001/0058/0066

AUTHOR: Borodin, V. A. (Moscow); Dityakin, Yu. F. (Moscow); Yagodkin, V. I. (Moscow)

ORG: none

TITLE: Stability and disintegration of a cylindrical liquid film in a gaseous medium

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 1, 1966, 58-66

TOPIC TAGS: swirl atomizer, fuel injection, fuel injector, combustion, propulsion

ABSTRACT: To study the problem of liquid injection by swirl atomizers, an analysis was made of the break-up of a cylindrical liquid sheet issuing from a nozzle into a stagnant medium. Solutions were plotted in terms of the fluctuation increment vs. the wave number at various Weber numbers ranging from 2 to 15. Based on the results, the following conclusions were drawn: at small Weber numbers at the nozzle exit, waves, which are in the same phase, are generated on the outer and inner surface of the cylindrical sheet. Since the fluctuation amplitude increases rapidly, the annular liquid sheet is transformed into a continuous jet which disintegrates according to previously outlined mechanisms. At Weber numbers from 3—10, the fluctuations have the same wavelength as the thickness of the sheet so that the sheet expands considerably and thus can disintegrate. At We >10, the wavelengths of the fluctuations are much shorter than the film thickness and the fluctuations on the inner

Card 1/2

L 18881-66

ACC NR: AP6009049

and outer surfaces are either in the same or in a different phase. In this case, droplets detach from the cylindrical sheet without causing disintegration. Orig. art. has: 9 figures and 50 formulas. [PV]

SUB CODE: 21/ SUBM DATE: 28Oct65/ ORIG REF: 002/ OTH REF: 002/ ATD PRESS: 4217

Card 2/2

MORGUL', Ye.; YANGOLENKO, A.; DITYASHEVA, T.

Use of phosphates in sausage manufacture. Mias. ind. SSSR 30 no.3:44-45 '59. (MIRA 12:9)

1. Stalinskiy myasokombinat.
(Sausages)

DITYATKIN, G.

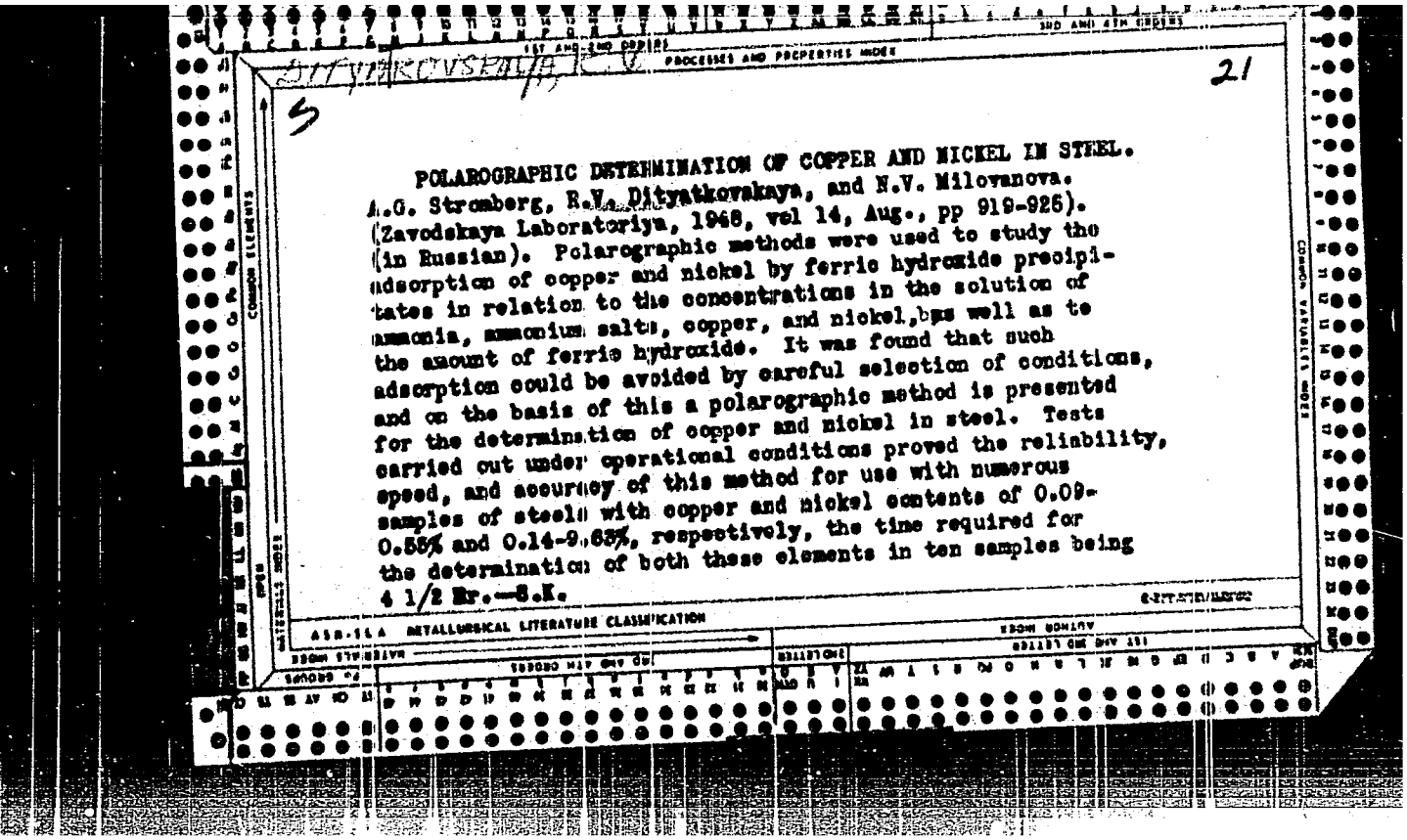
Results of organizing a fire guard brigade. Pozh.delo 3 no.5:8 My '57. (MLRA 10:7)

1. Starshiy Ryl'skiy rayonnyy pozharnyy inspektor.
(Kursk Province--Fire prevention)

IL'YASHENKO, B.N.; TIKHONENKO, A.S.; DITYATKIN, S.Ya.; RUDCHENKO, O.N.

Biological properties of small enteric phages containing DNA. Mikrobiologiia 34 no.5:814-819 S-O '65. (MIRA 18:10)

1. Institut epidemiologii i mikrobiologii imeni N.F. Gamaleia AMN SSSR i Institut radiatsionnoy i fiziko-khimicheskoy biologii AN SSSR.



21

S

POLAROGRAPHIC DETERMINATION OF COPPER AND NICKEL IN STEEL.
A.G. Stromberg, R.V. Dityatkovskaya, and N.V. Milovanova.
(Zavodskaya Laboratoriya, 1948, vol 14, Aug., pp 919-926).
(in Russian). Polarographic methods were used to study the adsorption of copper and nickel by ferric hydroxide precipitates in relation to the concentrations in the solution of ammonia, ammonium salts, copper, and nickel, as well as to the amount of ferric hydroxide. It was found that such adsorption could be avoided by careful selection of conditions, and on the basis of this a polarographic method is presented for the determination of copper and nickel in steel. Tests carried out under operational conditions proved the reliability, speed, and accuracy of this method for use with numerous samples of steels with copper and nickel contents of 0.09-0.55% and 0.14-9.63%, respectively, the time required for the determination of both these elements in ten samples being 4 1/2 Hr.—S.K.

DITYATKOVSKAYA, R. V.

USSR/Metals - Foundry, Equipment Sep 51

"Corrosion Resistant Coating of Chaplets," A. V. Bobrov, R. V. Dityatkovskaya, Engineers, Ural Mach Bldg Plant

"Litey Proiz" No 9, p 24

Conducted expts to establish most efficient and economical method for protection of chaplets against corrosion. Investigated following methods: treatment with solutions of phosphoric acid, caustic soda, sodium nitrite or copper sulfate, and tinning and nickel plating. Latter proved best method. Equally efficient is treatment with soln of phosphoric acid. This method is only 1/12 as expensive as tinning.

PA 197T90

DITYATKOVSKIY, M.M.

28347

I zamyen ye chucunnykh ryebristykh vozdukho - podogryevatyelyey si stya my "Kaplits" trubchaty mi. Enyergyet. Byullyetye nb, 1949, No 8, S. 23-24.

So: Letopis No. 34

DITYATKOVKSKIY, M. M.

FA 150T43

USSR/Fuel - Petroleum Industry Oct 49
Refinery Plants

"Increasing the Productivity of Petroleum Refinery Plants by Screening the Furnaces," M. M. Dityatkovkskiy, 1½ pp

"Energet Byul" No 10

Most refinery furnaces built from 1930 to 1940 had radiation surfaces only in the form of front and crown shields. Today furnaces of high-power steam boilers are screened (water walls) all over, and boilers produced from 1930 to 1940 are having screens installed. Suggests screens should likewise

USSR/Fuel - Petroleum Industry (Contd) 150T43 Oct 49

be fitted to refinery furnaces. Maintains that increased efficiency would outweigh disadvantage (difficulty in cleaning bent tubes).

150T43

DITYATKOVSKIY, M.M.

Subject : USSR/Electricity AID P - 1156

Card 1/1 Pub. 29 - 9/31

Author : Dityatkovskiy, M. M., Eng.

Title : Return feedwater heating

Periodical : Energetik, 11, 18-19, N 1954

Abstract : The author briefly describes an arrangement for mixing and better heating of the return feedwater, consisting of diffusers placed on top the boiler of 100 sq. meters of total heating surface. One drawing.

Institution : None

Submitted : No date

DITYATKOVSKIY, Ya. M., and SAUKOV, M. K.

"Centrifugal Casting of Large Cylindrical Parts From High-Alloy Steel," p. 61. in book Mechanization and Automatic Control of Founding Processes, Leningrad, 1957, 224pp.

SOV/137-59-1-1651

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 219 (USSR)

AUTHORS: Bezruchko, I. I., Dityatkovskiy, Ya. M., Ayzikovich, M. S.

TITLE: Advanced Stamping Technology Employs Induction Heating (Peredovaya tekhnologiya shtampovki s primeneniyem induktsionnogo nagreva)

PERIODICAL: V sb.: Novoye v kuznechno-shtampovochn. tsekhakh Leningrada. Leningrad, 1958, pp 78-88

ABSTRACT: The employment of the method of induction heating of blanks in the forging shop made it possible to change over to a more rational technology involving simultaneous stamping of two forgings of the locking crown of a drum in a 1000-ton press with an insert die having two finishing impressions. The high economic efficiency of combining operations of stamping in a press with induction heating of blanks is pointed out. A computation of the economic indices of the new technology is presented and the layout of the working area is described; two induction-heating devices employed in the heating of blanks and hardening of the forging of the locking crown of a drum are also described.

Ye. L.

Card 1/1

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 1, p 221 (USSR) SOV/137-59-1-1668

AUTHORS: Dityatkovskiy, Ya. M., Kuleshov, M. Ya., Shcherbinin, K. P.

TITLE: Precision Die Stamping of Compressor Impeller Blades (Tochnaya shtampovka rabochikh lopatok kompressora)

PERIODICAL: V sb.: Novoye v kuznechno-shtampovochn. tsekhakh Leningrada. Leningrad, 1958, pp 89-107

ABSTRACT: The authors describe the technology of precision stamping of forgings (F) for compressor impeller blades made of steel Kh17N2; no machining allowances are made for the blade; the tolerance of the profile of the blade amounts to $^{+0.08}_{-0.12}$ mm per side, and the deformation to ± 0.2 mm; the employment of this method results in a reduction of the over-all amount of labor required for the manufacture of the blades and increases the coefficient of utilization of the metal. Stamping is carried out in mechanical 1500-ton presses, the blanks for the blades being upset in a friction-driven press. The F's are calibrated three times. Results of mechanical testing of F's are presented together with general recommendations and data on the manufacture and heat treatment of the dies.

Ye. L.

Card 1/1

18-7100 1416

S/180/60/000/005/010/033
E111/E135

AUTHORS: Dityatkovskiy, Ya.M., Mayevskiy, I.L., Stroyev, S.S. and Shcherbakov, P.M. (Leningrad)

TITLE: Induction Heat Treatment of Heat Resisting Nickel Alloys

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1960, No.5, pp. 110-121

TEXT: In a previous research (Ref.1) the authors (without Mayevskiy) showed that alloys of the ХН 80Т (KhN80T) and nimonic types can have their high-temperature holding time greatly reduced without deterioration of mechanical properties. For that work they used a 2500 cps rotary generator. They now extend this approach to a larger range of nickel alloys, studying the heating of parts of complex shapes and examining a wide range of problems connected with the heat-treatment theory of deformed alloys. As current sources rotary generators of 2500 and 8000 cps and a tube oscillator of 500 kc/sec were used. Alloys studied were types ЭИ-617 (EI-617) and ЭИ-437Б (EI-437B) with the following respective percentage composition: 0.11-0.12, 0.03-0.06 C; 0.36-0.50,

Card 1/3

86069

S/180/60/000/005/010/033
E111/E135

Induction Heat Treatment of Heat Resisting Nickel Alloys

0.26-0.35 Mn; 0.31-0.60, 0.42-0.65 Si; 13-16, 19-22 Cr; 1.8-2.3, 2.3-2.7 Ti; 1.7-2.3, 0.55-0.95 Al; 2-4, 0, Mo; 5-7, 0, W; 0.1-0.5, 0, V; remainders Ni. The short-time and long-time mechanical properties of the original alloys are shown in Tables 2 and 3 respectively. Different variants of induction heat treatment and inductor design were tried, the properties obtained with each being studied. Microstructures of the EI-437B alloy are shown in Fig.1 and hardness of EI-617 as functions of hardening temperatures in Fig.2. Tables 4 and 5 give results of long-time hardness tests for specimens of EI-437B treated under various conditions; those for specimens prepared from special wedge-shaped blanks being given in Table 6. Electron micrographs for this alloy after various treatments are given in Fig.3, and the degree of dispersion of the hardening α'-phase as a function of induction heating temperature in Fig.4. Fig.5 shows the influence of the heating rate on recrystallization of EI-437B and Fig.6 the microstructures obtained with 63% deformation and 1150 °C induction heating without holding. The work showed that both the alloys can be hardened even in relatively complex shapes, by h.f. heating

Card 2/3

86069

S/180/60/000/005/010/033
E111/E135

Induction Heat Treatment of Heat Resisting Nickel Alloys

followed by air cooling. Both rotary generators and tube oscillators can be used for supplying the h.f. current. Heating times are reduced from hours to minutes and better short-time strength and plasticity are often obtained. Long-time strength of EI-437B is 70-95% of that obtained by standard heat treatment and is well above specification; that of EI-617 is almost equal to or sometimes better than that obtainable by standard treatment. The deposition of carbide phase on grain boundaries has been shown to depend on heat treatment conditions.
There are 6 figures, 6 tables and 11 references: 10 Soviet and 1 English.

SUBMITTED: July 6, 1960

Card 3/3

DITYATKOVSKIY, Yakov Mironovich; FIRGER, Iosif Vladimirovich; SLITSKAYA, I.M., inzh., red.; SHILLING, V.A., red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Cleaning parts with metal grit] Ochistka detalei metallicheskim peskom. Leningrad, 1961. 13 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Liteinoe proizvodstvo, no.5) (Metals—Finishing) (MIRA 14:7)

1.1710

25733
S/123/61/000/012/018/042
A004/A101

AUTHORS: Dityatkovskiy, Ya. M.; Mayevskiy, I. L.; Stroyev, S. S.; Shcherbakov, P. M.

TITLE: Induction heat treatment of heat-resistant nickel alloys

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 12, 1961, 82, abstract 12B588 ("Izv. AN SSSR, Otd. tekhn. n. Metallurgiya i toplivo", 1960, no. 5, 110-121)

TEXT: Type ХН80Т (KhN80T) [ЭИ 437Б](EI437B) alloys and those of type ЭИ 617 (EI617) refined with W, Mo, V and other elements can be hardened by short hf-current heating and subsequent air-hardening. Machine generators (2,500 - 8,000 cps) and tube generators (500,000 cps) are used as induction current sources. The short-term strength and ductility characteristics of alloys treated by induction heating are higher than those treated according to the standard multi-hour procedure. The endurance strength of type KhN8T (EI437B) alloys amounts to 70-95% of the endurance strength of alloys treated according to the standard method. The endurance strength of alloys refined with W, Mo, and V

Card 1/2

25733

S/123/61/000/012/018/048
A004/A101

Induction heat treatment of heat-resistant ...

(EI617 alloy) approaches that of alloys treated in the standard manner (88-97%). There are 6 figures and 11 references.

N. Il'ina

[Abstracter's note: Complete translation]

Card 2/2

DITYATKOVSKIY, Ya. M.

14

PHASE I BOOK EXPLOITATION SOV/5648

Sokolov, Aleksey Nikolayevich, ed.

Mekhanizatsiya i peredovaya tekhnologiya liteynogo proizvodstva (Mechanization and Advanced Processing in Foundries) [Leningrad] Lenizdat, 1961. 236 p. 2,000 copies printed.

Ed.: Ye. V. Yemel'yanova; Tech. Ed.: I. M. Tikhonova.

PURPOSE: This collection of articles is intended for technical personnel, foremen, and skilled workmen of foundries. It may also be of use to staff members engaged in the mechanization of production operations.

COVERAGE: The collection contains articles discussing the experience of a number of Leningrad plants and engineering and design organizations in mechanizing foundry processes and in applying advanced techniques to the manufacture of castings. No personalities are mentioned. Some

Card 1/5

articles are accompanied by references. References are all Soviet.

TABLE OF CONTENTS:

Mechanization and Advanced (Cont.)

Mechanization and Advanced (Cont.) SOV/5648

Kononov, M. N. Patterns With an Epoxy-Resin Base 229

AVAILABLE: Library of Congress (TS233. S55)

Card 5/5

VK/wrc/bc
11-15-61

PUL'TSIN, Nikolay Mikhaylovich; DITYATKOVSKIY, Ya.M., inzh., retsenzent; VARKOVETSKAYA, A.I., red. izd-va; SHCHETININA, L.V., tekhn. red.

[Titanium alloys and their use in the machinery industry] Titanovye splavy i ikh primenenie v mashinostroenii. Moskva, Mashgiz, 1962. 166 p. (MIRA 15:4)
(Titanium alloys) (Metalwork)

S/126/63/015/003/015/025
E193/E383

AUTHORS: Dityatkovskiy, Ya.M., Andreyev, I.V. and Gorshkov, V.F.

TITLE: The effect of low melting-point metal coatings on the mechanical properties of constructional and stainless steels

PERIODICAL: Fizika metallov i metallovedeniye, v. 15, no. 3, 1963, 435 - 438

TEXT: The effect of Cd, Sn and Zn coatings on the mechanical properties of the following steels was studied: armco iron; steel 20, steel 45, 40ХНМА (40KhNMA); 30ХГСА (30KhGSA); 1Х18Н9Т (1Kh18N9T) and ЭИ878 (EI878). The coatings, 15 μ thick, were deposited electrolytically. Their effect on strength and ductility of the steels at 20 to 900 °C was determined by tensile tests carried out at a strain rate of 16%/min. Typical results are reproduced graphically in Fig. 1. The UTS (s_k, kg/mm^2), reduction in area (ψ) and elongation (δ, %) of armco iron are plotted against the test temperature (°C), curves 1 and 2 relating, respectively, to uncoated specimens and specimens coated

Card 1/5

The effect of ....

with Cd. In Fig. 2 ψ and δ of steel 45 are plotted against the test temperature for specimens with and without Sn coatings (curves 2 and 1, respectively). The temperature-dependence of ψ of steel 40KhNMA is reproduced in Fig. 3 for uncoated (curve 1) and Zn-coated (curve 2) specimens. Finally, in Fig. 4 the yield point (σ_b, kg/mm^2) and ψ of steels EI878 and 1Kh18N9T are plotted against the test temperature for uncoated (curve 1) and Zn-coated (curve 2) specimens. It will be seen that the harmful effect of the Cd, Zn and Sn coatings is confined to the temperature interval between the melting point of each of these metals and a certain critical temperature t_k, depending on the type of steel and its heat-treatment. The existence of t_k is explained in the following manner. Two parallel processes take place during deformation: 1) increase of the stresses associated with the formation of various defects acting as stress-concentrators; 2) stress relaxation, the importance of which increases with temperature. Failure of coated test pieces below t_k takes place by brittle fracture because the stresses associated with stress-risers reach a critical value determined by the magnitude of the

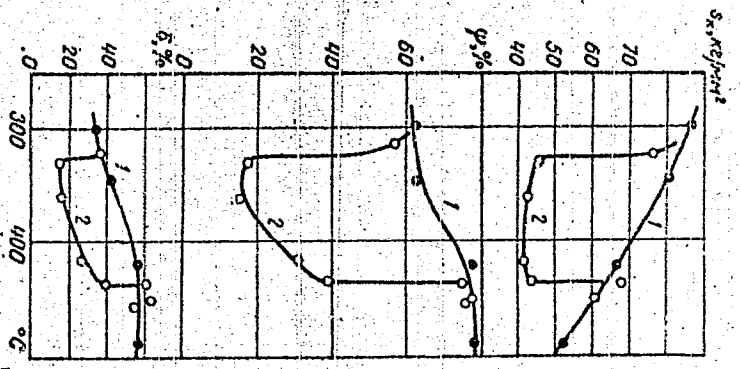
Card 2/5

The effect of ....

surface tension at the steel/coating interface. At temperatures higher than t_k this critical level of stress is not reached owing to stress relaxation and the specimen fails in a ductile manner. There are 4 figures and 1 table..

SUBMITTED: July 12, 1962

Fig. 1:



Card 3/5

ACCESSION NR: AP4029538 S/0149/64/000/002/0152/0154

AUTHOR: Pul'tsin, N. M.; Dityatkovskiy, Ya. M.; Pokrovskaya, V. B.; Vinogradov, V. A.

TITLE: On the character of the surface layer structure of VT5-1 titanium alloy during high-temperature heating

SOURCE: IVUZ. Tsvetnaya metallurigya, no. 2, 1964, 152-154

TOPIC TAGS: VT5-1 titanium alloy, surface layer, titanium structure, high temperature heating, hardness, titanium, nitrogen, oxygen, solid solution

ABSTRACT: As is well known, titanium alloys undergo substantial changes in the structure and hardness of the surface layer under heating. These changes are caused by the effect of oxygen from the air diffused in the metal at a high temperature. Nitrogen has some effect, although it has less capacity to diffuse in the titanium. As has been previously shown (N. M. Pul'tsin. Izv. VUZ, Tsvetnaya metallurgiya, no. 5, p. 137 (1962)), substantial changes in the structure of the surface layer of α alloys during their saturation with oxygen does not occur; only an increase in hardness is observed due to the effect of oxygen in these alloys. The authors present some results of investigating the structure of the changed layer of monophase titanium alloy VT5-1 during high-temperature heating. It is established that as a

Card 1/2

ACCESSION NR: AP4029538

result of oxygen saturation from the air at a high temperature, the surface layer undergoes a visible microscopic structural change of the α-solid solution. An illustration containing 9 microphotographs is presented to show the various changes of the surface under various conditions. The change in the structure of the surface layer without a change of the phase composition of the alloy is established. The structure of the changed surface layer and the transitional zone is distinguished in appearance from the structure of the core, although in all three regions it consists of one phase, i.e., the solid α solution. A solid solution of the surface zone has an equiaxial construction of the grains; however, the cores have a basket or fine-grained, nonequiaxial construction. This distinction in the surface is explained by the fact that the surface layer, strongly saturated with oxygen, does not undergo phase conversion in cooling after annealing, which cannot be said of the core and only partially of the transitional layer. Orig. art. has: 4 figures.

ASSOCIATION: Voyennaya inzhenernaya akademiya (Military Engineering Academy)

SUBMITTED: 03Jun63 DATE ACQ: 30Apr64 ENCL: 00

SUB CODE: ML NO REF SOV: 001 OTHER: 000

Card 2/2

ACCESSION NR: AP4037068 S/0129/64/000/005/0052/0054

AUTHOR: Andreyev, I. V.; Gorshkov, V. F.; Dityatkovskiy, Ya. M.

TITLE: The effect of a hot-metal medium on the mechanical properties of steel

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 5, 1964, 52-54

TOPIC TAGS: hot metal, none austenitic steel, deformation, Cd, Zn, Pb, Sn, intermetallic compound, brittle failure, stress relaxation, supercritical temperature, diffusion, hot dipping.

ABSTRACT: The authors investigated the effects of low-melting metal on the mechanical properties of non-austenitic steels at different temperatures and rates of deformation. The specimens were standard threaded and had a 5 mm diameter. A 15 mu thick cadmium and zinc layer was deposited by sherardizing, lead and tin by hot dipping. At supercritical test temperatures the properties of plated and unplated steel were found to be almost identical. The critical temperature depends on the steel, the coating and the rate of deformation. As the latter increases, the temperature range of the brittle failure is extended while the relative value of the decrease of plastic properties is somewhat lowered. At a low deformation

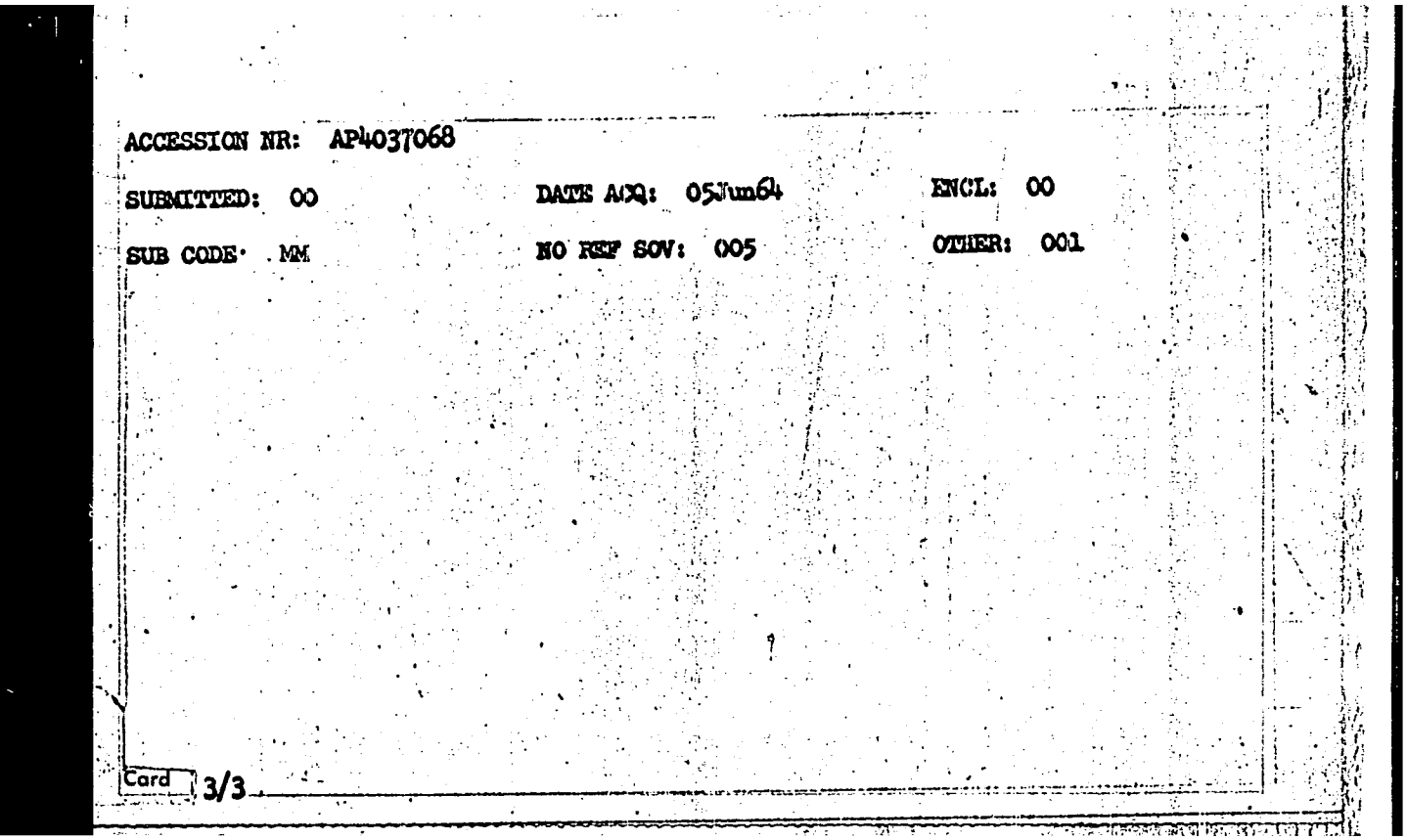
Card 1/3

ACCESSION NR: AP4037068

rate, the coating has an adverse effect on the steel giving rise to crack formation. Sherardizing conspicuously reduced plastic properties of "45", "40KhNMA" and "30KhGSA" steel within a narrow temperature range. As a result of the formation of intermetallic Fe-Zn compounds, the transformation of the brittle state into the plastic state is irreversible in zinc-plated specimens and reversible in Sn-, Pb-and Cd-plated steels. Stressrupture tests with Cd- and Zn-plated "30KhGSA" steel showed that during the application of low stresses, the time before failure coincides in Cd-plated and unplated specimens. At increased stress application, the time before failure decreases appreciably and deformation is greatly accelerated directly before rupture. Zinc-plating has a greater effect at lowered stress application and prolonged testing periods. A hot metal medium was found to lower the surface energy, inhibit formation of new surfaces and favor crack formation. Elevated temperatures or decreased deformation rates enhance the effects of stress relaxation. In applying supercritical temperatures for a predetermined deformation rate, stresses are inhibited and prevent brittle failure. The authors assume that diffusion processes are significant in the process of stress relaxation. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: None

Card 2/3



ACCESSION NR: AP4037068

SUBMITTED: 00 DATE ACQ: 05Jun64 ENCL: 00

SUB CODE: MM NO REF SOV: 005 OTHER: 001

Card 3/3

L 34517-65 EWP(k)/EWA(c)/EWT(m)/EWP(b)/EWP(t)/T Pf-4 IJP MJW/JD/HW/GS

ACCESSION NR: AT4048083 S/0000/64/000/000/0263/0267 25

AUTHOR: Dityatkovskiy, Ya. M., Pul'tsin, N. M., Pokrovskaya, V. B., Vinogradov, V. A. 24

TITLE: Some investigations of the properties and structure of alloy VT5-1 during hot stamping

SOURCE: Soveshchaniye po metallurgii metallovedeniyu i primeneniyu titana i yego splavov. 5th, Moscow, 1963. Metallovedeniye titana (Metallography of titanium; trudy* soveshchaniya. Moscow, Izd-vo Nauka, 1964, 263-267

TOPIC TAGS: titanium alloy, titanium alloy heating, titanium alloy structure, hot pressing, titanium oxidation, titanium alloy hardness/alloy VT5-1

ABSTRACT: Hot working of titanium alloys is hampered by their chemical activity at high temperatures. Titanium reacts with the oxygen of the air and the other air components are dissolved in the metal, forming scale and increasing the hardness and brittleness at the surface. The defects must be eliminated by turning on lathes. The problem of loss of metal during stamping requires special investigations to determine the optimal heating temperature which will insure the needed plasticity and minimum waste. The waste may be measured by the increase in billet weight during heating. The present paper investigated the added weight, The depth and properties of the changed layer of the

Card 1/3

L 34517-65

ACCESSION NR: AT4048083

VT5-1 alloy surface, and the alloy structure. Wedge-shaped samples were used for testing. The results showed that the VT5-1 alloy should not be heated above 1100C for forging and stamping as the metal waste increases tremendously at these temperatures. Prolongation of the heating process leads to decreased weight gain. This is explained by retardation of the saturation process. The diffusion of admixtures through the surface layer is lowered. When the temperature is increased during prolonged heat treatment, however, the decrease in the weight gain becomes less significant. Thus, at 900C, when the heating duration changes from 1/2 to 2 hours, the weight gain drops by about 66%, while at 1100C, the drop is only about 29%. This is caused by the higher diffusion at higher temperatures. Metallographic investigations confirmed previously published reports on the increase in hardness and depth of the titanium surface layer. The paper concludes that heating at temperatures above 800C, and especially above 1100C, leads to increases in weight of the alloys. Heating of the VT5-1 alloy in air at different temperatures leads to the formation of a variable surface layer, the depth, microhardness and structure of which depend on the heating duration. The highest microhardness is observed at the highest temperatures. The visible structure of the surface layer differs from the structure at the core, even though there are no actual differences in structure,

Card 2/3

L 34517-65

ACCESSION NR: AT4048083

as the titanium consists of α-solid solutions throughout the entire depth. The solid solution at the surface has an equiaxial structure, while the core has a fine-grain non-equiaxial structure. This difference is caused by oxygen saturation of the surface layer, which prevents phase transforma tions. The formation of the surface layer, even though it is thin, causes cracks to form in the material while working, and possibly during operation. Orig. art. has: 2 figures and 2 tables. "Ye. A. Bodrova took part in the metallographic investigations."

ASSOCIATION: none

SUBMITTED: 15Jul64 ENCL: 00 SUB CODE: MM

NO REF SOV: 002 OTHER: 000

Card 3/3

DITYATKOVSKIY, Yefim Moiseyevich; KUTSENOVA, A.A., red.izd-va; TEMKINA, Ye.L., tekhn.red.

[Analysis of the fulfillment of the plan concerning construction costs] Analiz vypolneniia plana po sebestoimosti stroitel'nykh rabot. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1960. 71 p. (MIRA 13:9)
(Construction industry--Costs) (Wages)

DITYATKOVSKIY, Yefim Moiseyevich; SMEKHUNOV, V.G., nauchnyy red.; BOGINA, S.L., red.izd-va; NAUMOVA, G.D., tekhn. red.

[Accounting in designing and planning organizations] Bukhgalterskii uchet v proektnykh organizatsiiakh. Moskva, Gosstroiizdat, 1963. 287 p. (MIRA 16:5)
(Construction industry--Accounting)
(Architecture--Designs and plans)

DITYATKOVSKIY, Yefim Moiseyevich; LUNDEN, Ye.P., red.

[Analysis of the cost of construction and assembly work in construction organizations] Analiz sebestoimosti stroitel'no-montazhnykh rabot v stroitel'nykh organizatsiiakh. Izd.2. dop. i perer. Moskva, Stroiizdat, 1965. 103 p. (MIRA 18:4)

DITYAT'YEV, B.V., inzh.

Using the new technology for compiling topographic maps according to Prof. V.F. Deineko's method in industrial conditions. Trudy Giprovodkhoza no.25:24-28 '63. (MIRA 18:6)

MARKARYAN, I.; DITYUK, A.

Practice in preparing and carrying out of the payment and receiving plan. Den.i kred. 18 no.6:48-50 Je '60.
(MIRA 13:6)

1. Upravlyayushchiy Idzhevanskim otdeleniyem Gosbanka ArmSSR (for Markaryan). 2. Benderskoye otdeleniye Gosbanka Moldavskoy SSR (for Dityuk).
(Idzhevan--Banks and banking)
(Bendery--Banks and banking)

DITYUK, A.

Payment and receiving plan under the new conditions. Den. i kred. 21 no.11:29 N '63. (MIRA 17:2)

1. Upravlyayushchiy Kalarashskim otdeleniyem Gosbanka Moldavskoy SSR.

VIDA, Miklos; KORANYI, Gyorgy, dr.; SZILAGYI, Antal; DESTEK, Endre; FERENCZ, Mihaly; DITZ, Erno; DIOSZEGHY, Daniel, dr.; SCHUNK, Rudolf; SIKLOSI, Jozsef; RETEZAR, Arpad

Research, planning, and education in the gas industry. Energia es atom 13 no.3:112-116 Mr '60.

L 31757-66 EWP(t)/ETI IJP(c) WW/JW/JD
ACC NR: AP6021638 SOURCE CODE: CZ/0008/65/000/008/0972/0978

AUTHOR: Marecek, Josef; Ditz, Jiri

ORG: Research Institute for Inorganic Chemistry, Usti n. L. (Vyzkumny ustav anorganicke chemie)

TITLE: Preparation of high purity hydrochloric, hydrofluoric, and nitric acids

SOURCE: Chemicke listy, no. 8, 1965, 972-978

TOPIC TAGS: distillation, chemical purity, hydrochloric acid, hydrofluoric acid, nitric acid

ABSTRACT: Methods proposed by the authors are described, and the analytical control of the product acids is discussed. For HCl the authors propose three methods: azeotropic distillation, giving concentrations of the product up to 7N; isothermal distillation; and the preparation of the acid by absorbing anhydrous HCl in pure water. For HF a method of isothermal distillation using polyethylene equipment is suggested. For nitric acid, redistillation from pure quartz equipment is proposed; concentrations up to 14 N may be obtained. The amount of impurities was lowered by 1 to 2 magnitude orders. The authors thank Z. Rezac and Dr. J. Dvorak for valuable advice and comments. Orig. art. has: 7 figures and 1 table. [JPRS]

SUB CODE: 07 / SUBM DATE: 18Jul64 / ORIG REF: 003 / SOV REF: 008
OTH REF: 014
Card 1/1 PB

L 31476-66 EWP(t)/ETI IJP(c) JD/JH

ACC NR: AP6023168 SOURCE CODE: CZ/0008/65/000/011/1357/1361

AUTHOR: Ditz, Jiri; Marecek, Josef; Dvorak, Josef; Rezac, Zdenek

36
B

ORG: Research Institute for Organic Chemistry, Usti (Vyzkumny ustav anorganicke chemie)

TITLE: Determination of calcium and magnesium in high purity acids

SOURCE: Chemicke listy, no. 11, 1965, 1357-1361

TOPIC TAGS: chelate compound, quantitative analysis, calcium compound, magnesium compound

ABSTRACT: The method proposed by the authors is based on a chelatometric microdetermination of Ca in hydrochloric and nitric acids and on a semimicro-determination of Ca and Mg in hydrofluoric acid. Ca in HCl and in HNO_3 may be determined in concentration on the order of 10^{-5} with a relative inaccuracy of 4.25%; Ca and Mg in HF in concentrations of 10^{-3} and with an inaccuracy of 3.65% for Ca, and 2.26% for Ca. The described methods are more accurate and reliable than those used up to now. Orig. art. has: 2 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 27Oct64 / ORIG REF: 003 / SOV REF: 001
OTH REF: 003

Card 1/1 mc

0915 1379

DITZ, Jiri

Contribution to the systematic classification of complexometric indicators. Chem listy 58 no.8:946-949 Ag '64

1. Research Institute of Inorganic Chemistry, Usti nad Labem.

RZHEZACH, Z. [Rezac, Z.]; DITZ, Yu. [Ditz, J.]

Determination of small amounts of arsenic and antimony in germanium dioxide. Zav. lab. 29 no.10:1176-1178 '63. (MIRA 16:12)

1. Nauchno-issledovatel'skiy institut neorganicheskoy khimii, Chekhoslovatskoy Sotsialisticheskoy Respubliki.

MARKOV, N., inzh.; DIUGMEDZHIEV, K., inzh.; STAMBOLIISKI, S., inzh.

Floating flooring from Stiropor and artificial wood sheets. Ratsionalizatsiia 13 no.1:18-22 '63.

DIUGOKECKA, H.: KULESZA, J.

Destruction of breeding nests of rats by using cutaneous poisons. P 307

ROCZNIKI (Panstwowy Zaklad Higieny) Warsaw/POLAND Vol. 9, no. 3, 1958

Monthly List of East European Accessions (EEAI) LC. Vol. 8, no. 7, July 1959

Uncl.

DIULEGEROV, STEFAN

Sustaviane i redakirane na selskostopanski karti. Sofiia, Nauka i izkostvo, 1956. 308 p. BULGARIA

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 11, Nov. 1959 Uncl.

DIULGEROV, D.

DIULGEROV, D. Centralized freight automobile transportation and its importance for the national economy. p. 52. Vol. 8, no. 6, 1956. TRANSPORTNO DELO. Sofiia, Bulgaria

SOURCE: East European Accessions List (EEAL) Vol. 6, No. 4--April 1957

DIULGEROV, D.

"Landscape gardening around railroad construction."

p.30 (Transportno Delo, Vol. 10, no. 3, 1958, Sofiia, Bulgaria)

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

Diulgerov, D.

Mechanically killing the grass on railroad tracks with chemicals. p. 31.

TRANSPORTNO DELO, Sofiia, Bulgaria, Vol. 11, no. 6, 1959.

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

DYULGEROV G.M.

BULGARIA / Chemical Technology. Chemical Products. H
Fermentation Industry.

Abs Jour: Ref Zhur-Khimiya, 1958, No 20, 68956.

Author : Dyul'gerov G.
Inst : Not given.
Title : Investigation of the Dimyat Vine Grown in the Preslava Rayon for the Production Cognac Alcohol.

Orig Pub: Lozarstro i vinarstvo, 1958, 7, No 1, 28-33.

Abstract: No abstract.

Card 1/1

Djulgerov, G. M.

H-27

Country : BULGARIA
Category : Chemical Technology. Fermentation Industry

Abs. Jour : Ref Zhur-Khimiya, No 14, 1959, No 51415

Author : Djulgerov, G. M.; Popova, P. D.
Institute : -
Title : Effect of Grape Pressing in a Continuous Press on the Quality of Cognac Distillate

Orig Pub. : Lozarstvo i vinarstvo, 1958, 7, No 5, 38-41

Abstract : The effect of grape pressing in a continuous press (C.P.) on the quality of cognac alcohol has been investigated. With increased pressure, the content of methanol in the distillate increased. Thus, the first outlet connection it was 36% greater than it was in the normal squeezings, from the second outlet-by 61%. Although no significant difference in the chemical composition was discovered, distillate derived from the must of the first, and

Card: 1/2

H-27

Category : Chemical Technology.

Abs. Jour : Ref Zhur-Khimiya, No 14, 1959, No 51415

Author :
Institute :
Title :

Orig Pub. :

Abstract : particularly of the second outlet, of the CP. was considerably rougher with a sharp bitter taste, However, after 4-5 yers of aging in barrels, quality of all the alcohols equalized. It is concluded that the use of musts derived from the first and second outlets of the CP are suitable in the preparation of raw materials for cognac manufacture. -- I. Skurikhin

Con'd

Card: 2/2

H-156

DIULGEROV, Iv.

BURILKOV, T.; ZLATEV, I.; DIULGEROV, Iv.

Considerations on roentgenokymographic functional investigation of the lungs in artificial pneumothorax. Suvrem. med., Sofia 5 no.8: 38-41 1954.

1. Iz Okruzhniia protivotuberkulozen dispanser, Burgas. Gl. lekar: M.Karapalev Okruznata bolnitsa, Burgas. Gl. lekar: Zh.Siakolov.

(PNEUMOTHORAX, ARTIFICIAL
kymography of lungs in)
(LUNGS, radiography,
kymography in artif. pneumothorax)

DIULGEROV, Iv.

DZHENDOV, L.; DIULGEROV, Iv.

Cases of generalized Hand-Schueller-Christian syndrome. Suvrem.med., Sofia 5 no.11:105-107 1954.

1. Iz Burgaskata kurzhavna bolnitsa (gl. lekar: Zh. Siakolov)
(LIPOIDOSIS,
Hand-Schueller-Christian synd., generalized case)

DIULGEROV, I.

DZHENDOV, L.; DIULGEROV, Iv.

Case of Albers-Schoenberg disease preceding rickets. Suvrem.med., Sofia 5 no.11:113-117 1954.

1. Iz burgaskata okruzhna bolnitsa (gl. lekar: Zh. Siakolov)

(OSTEOSCLEROSIS,
osteopetrosis preceding rickets)
(RICKETS, complications,
osteopetrosis preceding rickets)

DIULGEROV, I.; KUNCHEV, K.

Roentgenokymographic investigation of the heart as a clinical aid.
Suvrem.med., Sofia 6 no.3:40-47 1955.

1. Iz Okruzhnata bolnitsa - Burgas. (gl.lekar: Il.Stanchev)
(KYMOGRAPHY,
roentgenokymography of heart)
(HEART, radiography
roentgenokymography)

DZHENDOV, L.; DIULGEROV, Iv.; ZLATEV, N.; POPOV, A.

Application of certain rentgenologic methods in pulmonary function tests in artificial pneumothorax. Suvrem. med., Sofia 6 no.12:68-71 1955.

1. Is Okruzhnata bolnitsa-Burgas (gl. lekar: Zh. Siakolov) i Okruzhniia protivotuberkulozen dispanser-Burgas (gl. lekar: M. Karapalev).

(PNEUMOTHORAX, ARTIFICIAL,
lung x-ray. (Bul))

ZLATEV, N.; EKIMIZHIEV, M.; DZHENDOV, L.; DIULGEROV, Iv.

Case of anterior right paramediastinal suppurative pleurisy following artificial pneumothorax. Suvrem. med., Sofia 6 no. 12:90-92 1955.

1. Iz Okruzhniia protivotuberkulozen dispanser-burgas (gl. lekar: M. Karapalev), i Okruzhnata bolnitsa-Burgas (gl. lekar: Zh. Siakolov).

(PNEUMOTHORAX, ARTIFICIAL, complications, pleurisy, suppurative. (Bul))
(PLEURISY, etiology and pathogenesis, pneumothorax, artif. (Bul))

DZHENDOV, M.; DIULGEROV, Iv.

Case of hiatus hernia consecutive to high gastric ulcer.
Khirurgiia, Sofia 9 no.3:267-268 1956

(PEPTIC ULCER, complications,
diaphragmatic hernia (Bul))
(HERNIA, DIAPHRAGMATIC, etiology and pathogenesis,
peptic ulcer (Bul))

DZHENDOV, L.; DIULGEROV, I.; CHILINGINOV, I.; ZLATEV, N.

Observations on incidence and development pulmonary and specific infiltrations with special reference to the concept of pulmonary segments. Suvrem. med., Sofia 8 no.5:35-45 1957.

1. Iz Burgaskata okruzhna bolnitsa (Gl. lekar: Zh. Sokolov) i Okruzhniia protivotuberkulozen dispanser-Burgas (Gl. lekar: M. Karapalev).

(LUNG DISEASES, pathology,
segmental aspects of infiltrations (Bul))

[redacted]

EKIMDZHIEV, M.; DIULGEROV, [redacted]; DZHENDOV, L.; RAICHEV, Zh.

Courvisar's syndrome. Khirurgiia, Sofia 10 no.4:360-362 1957.
(TETRALOGY OF FALLOT, compl.
arcus aortae dexter, case report (Bul))
(AORTA, abnorm.
dextroposition of aortic arch with tetralogy of Fallot, case report (Bul))

DIULGEROV, L., inzh.

Economy of electric power in town electric transportation.
Tekh delo 13 no.431:3 16 Je '62.

DIULGEROV, L., inzh.

Economy of electric power used for lighting. Tekh delo no.440:3 25 Ag '62.

DIULGEROV, M., arkh.

Basic principles in the projecting of industrial enterprises.
Kozhi Sofia 3 no.6:3-5 '62.

DIULGEROV, M., arkh.

Color matching in the exterior and interior painting of industrial buildings. Kozhi Sofia 4 no.5/6:2-8 '63.

DIMITROV, M., arkh.

A new factory of leather processing at Jilava, Rumania.
Kozhi Sofia 4 no. 4:14-16 '64.

DIULGEROV, STEFAN

Aerfototopografiia. Sofiya, Zemizdat, 1954. 488 p. (Universitetska literatura)
(Aerophotographic topography. illus., bibl., diagrs.)

So: Eastern European Accession Vol. 5 No. L Jan. 1956

DIULGEROV, S.

Large-scale cartography of Bulgaria. P. 39

TEKHNIKA. Vol. 5, No. 3 May/June 1956

Sofiya, Bulgaria

So. East European Accessions List Vol. 5, No. 9 September, 1956

DIULIUMDZHIEV, D.

DIULIUMDZHIEV, D. Natural quartz silicate schist as a substitute for fireproof materials. p.37.

Vol. 4, no. 9, 1955
TEZHKA PROMISHLENOST
TECHNOLOGY
Sofiya, Bulgaria

So: East European Accessions, Vol. 5, no. 5, May 1956

DIULIUNDZHIEV, Damian R., inzh.; TONCHEV, Loziu, inzh.; BURNEV, Dimitur Iv., tekhn.; TSEKOV, Kiril Kh., tekhn.

Some critical notes on the Bulgarian State Standard 626-62 concerning the clay brick holes. Ratsionalizatsiia no.8:28-31 '62.

DIUNIN, A.K.

The theory of blizzards. Khidro i meteorolog no.4:3-10 '60. (EEAI 10:2)
(Blizzards)

KORCHAGIN, V.N., agronom po zashchite rasteniy; VORONOV, F.P., ispolnyayushchiy obyazannosti starshego nauchnogo sotrudnika; DIUNOV, V.I.; MYAKEMYAYNEN, S.

For an amateur fruitgrower. Zashch. rast. ot vred. i bol. 9 no.10:37-39 '64 (MIRA 18:1)

1. Institut sadovodstva nechernozemnoy polosy (for Voronov). 2. Upravlyayushchiy Yaroslavskoy oblastnoy kontoroy "Sortsemovoshch" (for Diunov). 3. Leningradskaya stantsiya zashchity zelenykh nasazhdeniy (for Myakemyaynen).

DYURKO ISHTVAN [DIURCO ISTVAN]

Range and factors determining the distribution of Chondrostoma. Vop. ikht. 1 no.3:399-402 '61. (MIRA 14:11)

1. Universitet imeni Bateshi-Boyyai, Kluzh, Rumynskaya Narodnaya Respublika.
(Carp)

YUGOSLAVIA/Cultivated Plants - Fruits. Berries. II-6

Abs Jour : Ref Zhur - Biol., No 7, 1958, 30029

Author : Djurdjevic, Branislav, Misic, Petar

Inst : The Institute for Fruit Raising in Chachek

Title : A Study of the Possible Simultaneous Double Pear Graft on the East Malling Type A Quince in the Hot-House of Yugoslavia.

Orig Pub : Arhiv pojopr. nauke, 1956, 9, No 26, 113-122, (Serbo-Croatian; res. Eng.).

Abstract : Investigations made at the Institute for Fruit Raising in the city of Chachek in 1954-1955 have shown that the inoculation of the pear on the quince had only 31% viability. Grafting by means of a graft had 70.7% taking, and with an internediary stock only 20%, although the sapling output from the hothouse was then speeded up by 1 year.

Card 1/1

DIVAC, O.

The new fair of Belgrade. p. 1249.

(TEHNIKA. Vol. 12, No. 8, 1957, Beograd, Yugoslavia)

SO: Monthly List of East European Accessions (EEAL) Lc. Vol. 6, No. 10, October 1957. Uncl.

DIVAK, E.

Losses are reduced, p. 2. (Technicke Noviny, Praha, Vol 2, No. 20, Oct 1954)

SO: Monthly list of East European Accessions (EEAL), LC Vol. 4, No. 6, June 1955, Uncl

Divak, E.

Problems of the maintenance of electric equipment in metallurgic palnts. p. 282. HUTNIK. (Ministerstvo hutniho prumyslu a rudnych dolu) Praha. Vol. 4, no. 9, Sept. 1954.

Source: EEAL LC Vol. 5, No. 10 Oct. 1956

DIVAK, E.

Compensation of the power factor of electric motors in metallurgic plants. p. 62. ENERGETIKA. (Ministerstvo paliv a energetiky. Hlavni sprava elektraren) Praha. Vol. 5, no. 2, Feb. 1955.

SOURCE: East European Accessions List, Vol. 5, no. 9, September 1956

DIVAK, Evzen, inz.

Cooperation between producer and user of electric motors is a guarantee of success. El tech obzor 52 no.3:142 Mr '62.

1. Vitkovicke zelezarny Klementa Gottwalda, Ostrava.

DIVAK, Evzen, inz.

Electrical engineering, a condition of technical development of mining, mechanical and power operations of the Vitkovicke zelezarny Klementa Gottwalda. Elektrotechnik 18 no.8: 2 of cover Ag '63.

L 35490-65 EWT(l)/EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(b)/EWA(h) Pz-6/Peb
ACCESSION NR: AP5007839 IJP(c) JD/AT S/0288/64/000/003/0091/0095

AUTHOR: Kravchenko, A.F.; Kot, K.N.; Divak, M.I.

TITLE: Microhardness of gallium arsenide

SOURCE: AN SSSR. Sibirskoye otdeleniye. Izvestiya. Seriya tekhnicheskikh nauk, no. 3, 1964, 91-95

TOPIC TAGS: gallium arsenide, gallium arsenide hardness, single crystal hardness, microscope hardness, semiconductor hardness, semiconductor crystal structure

ABSTRACT: Only a few papers deal with the microstructure of GaAs (see e.g., G.A. Wolff, L. Toman, F.I. Field, J.C. Clavk, Semiconductors and Phosphors, New Jersey, 1958 for polycrystalline samples). The present paper reports on measurements of the microhardness of oriented monocrystals having a free electron concentration of $n \sim 10^{17}$ cm^{-3}, and a dislocation density in the {111} plane between $2 \cdot 10^4$ and $5 \cdot 10^5$ cm^{-2}. Samples were polished by etching (1 part HF, 3 parts HNO_3, and 2 parts H_2). The microhardness in the {111} plane is H = 650 kg/mm^2; in {110} - 510 kg/mm^2. Annealing at temperatures not higher than 400C increases the microhardness, which also depends on the orientation of the indenter with respect to the crystallographic direc i ns

Card 1/2

L 35490-65
ACCESSION NR: AP5007839

and is determined by the distribution and mobility of dislocations. There is a proportionality between the microhardness and the heat of formation of $A^{III}B^{V}$. The viscosity of the samples with in the {111} plane is equal to $3.4 \cdot 10^{-3}$ g·cm. Orig. art. has: 2 formulas, 5 figures, and 1 table.

ASSOCIATION: Institut fiziki tverdogo tela i poluprovodnikovoy elektroniki, (Institute for Solid State Physics and Semiconductor Electronics)

SUBMITTED: 10Jan64 ENCL: 00 SUB CODE: SS, EC

NO REF SOV: 004 OTHER: 003

Card 2/2