LAUER, N.V.; SEREDENKO, M.M.; KOGANOVSKAYA, M.M.; TURANOV, V.V.; KOLCHINSKAYA, A.Z.

Changes in hemodynamics in old age in hypoxia. Vop. geron. i geriat. 4:54-59 '65. (MIRA 18:5)

1. Institut fiziologii imeni Bogomol'tsa AN UkrSSR, Kiyev.

SOV/75-13-4-3/29

AUTHORS: Poluektov, N. S., Kononenko, L. I., Lauer, R. S.

TITLE: Photometric Determination of Tantalum, Boron, Indium, and Rhenium in Extracts (Ekstraktsionno-fotometricheskoye opredeleniye tantala, bora, indiya i reniya)

PERIODICAL: Zhurnal analiticheskoy khimii, 1958, Vol.13, Nr 4, pp.396-401 (USSR)

ABSTRACT: Recently suggested methods for the determination of a series of metals are based on the photometric determination of colored extracts $A_n.Me.X_m$ (A- organic dye; Me - metal to be determined; X - halogen). These extracts contain the metal to be determined as salt of a complex halogen acid with a basic dye. The same dye is a suitable reagent for a number of metals, the necessary selectivity is obtained by selection of the halogen, the acidity of the solution and other reaction conditions. When elaborating new extraction-photometric methods, the existing parallels between the extractability of simple or complex halogen acids according to the oxonium-mechanism (Ref 8) and that of salts of organic bases have to be considered. Thus the complex chlorides of metals which can be extracted as salts of organic bases are extracted by diethyl ether or other oxy-

Card 1/4

gen containing solvents, whereas simple or complex acids of elements which can be extracted according to the oxonium-mechanism are also extracted by solvents that do not contain an organically bound oxygen (arsonium-compounds). For elements, the acids of which can be extracted according to the oxonium-mechanism or as salts of arsonium-compounds, conditions can be found under which the same acids can also be extracted as salts of organic dye bases. Acids which are difficult to extract according to the oxonium-mechanism can, however, not be extracted by dyes. Thus As(III), Sb(III), Ge(IV), Te(IV), and other substances which can be extracted by diethyl ether from a hydrochloric solution (Ref 14) cannot be extracted by benzene as salts of rhodamine under similar conditions. This is due to the fact that the concentration of the rhodamine base is much lower than the concentration which can be attained with the solvent in the extraction according to the oxonium-mechanism. In order to demonstrate their line of thought, the authors elaborated new extraction-photometric methods for determining tantalum, boron, indium, and rhenium. Tantalum and boron are extracted by benzene in the presence of hydrofluoric acid as salts of the methyl violet; the determination of the colored solutions

SOV/75-13-4-3/29

Photometric Determination of Tantalum, Boron, Indium, and Rhenium in Extracts

after the extraction was carried out on photoelectric colorimeters of the type ФЭК-М. Indium can be extracted in the presence of hydrobromic acid as salt of the rhodamine C by benzene; and rhenium can be extracted by ethyl acetate from a neutral solution as a per-rhenate of methyl violet. The determination of the colored solutions of both of these elements was carried out on "Pulfrich"-photometers. The procedure used in these four determinations is described in detail and a list of interfering foreign ions and errors of determination is given. There are 3 figures, 6 tables, and 21 references, 5 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN USSR, laboratorii v g. Odesse (Institute of General and Inorganic Chemistry, AS Ukr SSR, Odessa Laboratories)

SUBMITTED: March 4, 1957

Card 3/4

SOV/75-13-4-3/29

Photometric Determination of Tantalum, Boron, Indium, and Rhenium in Extracts

1. Boron--Determination 2. Indium--Determination 3. Rhenium--Determination
4. Tantalum--Determination 5. Dyes--Applications 6. Halogens--Applications
7. Photometry--Applications

Card 4/4

5(2)

AUTHORS: Lauer, R. S.; Poluektov, N. S.

SOV/32-25-4-2/71

TITLE: Microvolumetric Chromatographic Method for the Determination of Individual Elements of Rare Earths in Their Mixtures (Mikroob"yemnyy khromatograficheskiy metod opredeleniya individual'nykh redkozemel'nykh elementov v ikh smesi)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 4, pp 391-396 (USSR)

ABSTRACT: Subsequent to preliminary investigations a method was worked out which is based on a paper chromatography of a rhodanide-containing acetone-ether mixture. The chromatogram (Figure) shows that the elements are arranged by ascending atomic indices, the Rf-value being slightly dependent on the working time, temperature, and other factors (Table 1 shows the Rf-values of some rare earths). The position of individual elements is fixed by wetting with a urotropin-containing alcoholic alizarin solution. The volumetric microdetermination of individual elements is done complexometrically with the indicator arsenazo (Refs 5,30). By the described method, a determination of lanthanum (Table 2), of some preparations with 2-3 elements of rare earths (Table 4), and of artificial mixtures of oxides of the elements of rare

Card 1/2

SOV/32-25-4-2/71

Microvolumetric Chromatographic Method for the Determination of Individual Elements of Rare Earths in Their Mixtures

earths (Table 5) was carried out, and the sensitivity of the method was established with 1-2% R_2O_3 in the mixture. A list of the necessary reagents and devices is given as well as a description of the course of analysis, and a table of the conversion factors from La_2O_3 to oxides of other rare earths (Table 3). There are 1 figure, 5 tables, and 31 references, 12 of which are Soviet.

ASSOCIATION: Laboratoriya Instituta obshchey i neorganicheskoy khimii Akademii nauk USSR (Laboratory of the Institute of General and Inorganic Chemistry of the Academy of Sciences, UkrSSR)

Card 2/2

5 (2)

AUTHORS: Lauer, R. S., Poluektov, N. S.

SOV/32-25-8-3/44

TITLE: Determination of Tantalum Impurities in Zirconium, Hafnium, and Niobium

PERIODICAL: Zavodskaya laboratoriya, 1959, Vol 25, Nr 8, pp 903 - 905 (USSR)

ABSTRACT: The authors and L. I. Kononenko (Ref 1) applied a method for the determination of tantalum (I) in the metals zirconium (II), hafnium (III), and niobium (IV) which is based on the fact that (I) can be determined photometrically-quantitatively by the coloring of the benzene extract of fluortantalate of methyl violet (M). This determination is not disturbed by (II), (III), and small quantities of (I). It was established that the most complete extraction of (I) is achieved at a 0.3 n concentration of hydrofluoric acid with benzene, with the addition of 0.04% of (M) and at pH 2.3. (II) is not extracted and the small quantities of simultaneously extracted (IV) can be re-extracted with 0.3 n hydrofluoric acid which contains (M). At the re-extraction a small quantity of (I) is also extracted (Table 1) and this fact has to be taken into consideration when plotting the calculation diagram. The article contains two processes of

Card 1/2

Determination of Tantalum Impurities in Zirconium, Hafnium, and Niobium SOV/32-25-8-3/44

analysis - for (II) and (III) and for (IV). Three samples of metallic (II), one of (III) and two of (IV) were analyzed according to the described method (Table 2); at these processes (I) was added to the solved samples (Table 3). The sensitivity of the (I)-determination is stated to be $2.5 \cdot 10^{-4}$% for (II) and (III), and $5 \cdot 10^{-2}$% for (IV). There are 3 tables and 1 Soviet reference.

ASSOCIATION: Laboratoriya Instituta obshchey i neorganicheskoy khimii Akademii nauk USSR (Laboratory of the Institute of General and Inorganic Chemistry of the Academy of Sciences, UkrSSR)

Card 2/2

LAUER, R. S.

5(2) PHASE I BOOK EXPLOITATION SOV/1727

Akademiya nauk SSSR. Institut geokhimii i analiticheskoy khimii

Redkozemel'nye elementy; polucheniye, analiz, primeneniye (Rare Earth Elements; Extraction, Analysis and Application) Moscow, Izd-vo AN SSSR, 1958. 331 p. 2,200 copies printed.

Resp. Ed.: B. I. Ryabchikov, Professor; Editorial Board: I. P. Alimarin, Corresponding Member, USSR Academy of Sciences, I. N. Zaozerskiy, Doctor of Chemical Sciences, R. V. Koglyarov, Candidate of Technical Sciences, V. I. Kuznetsov, Doctor of Chemical Sciences, M. M. Senyavin, Candidate of Chemical Sciences, and Yu. S. Sklyarenko, Candidate of Chemical Sciences; Eds. of Publishing House: D. N. Trifonov and T. G. Levi; Tech. Ed.: S. G. Markovich.

PURPOSE: This book is intended for scientists, chemists, teachers and students of higher educational institutions, chemical and industrial engineers, and other persons concerned with the extraction, preparation, use, or study of rare earth elements.

COVERAGE: This collection contains reports presented at the June 1956 Conference on Rare Earth Elements at the Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy of the Academy of Sciences USSR. The articles treat chemical methods of separating rare earth mixtures, methods of processing rare earth ores, ion exchange chromatography, chemical analysis, and some industrial applications of rare earths. Aside from contributing authors, the editors mention the following Soviet scientists, who are studying rare earth elements, rare earth deposits, extraction methods, and the preparation of oxides and salts: Martynov, Mal'nikov, Khrushchev, Melikov, Pisarzhevskiy, Cheruyak, Tanatar, Belousov, Zhukov and especially, N. A. Orlov, who first obtained the majority of rare earth elements in the pure state, separated many complex molecular compounds of these elements, and determined their specific properties. References are given at the end of each article.

TABLE OF CONTENTS:

Card 8/11

(10)

LAUER, R. S.

Cand Chem Sci - (diss) "Determination of individual rare-earth elements by the method of distributed paper chromatography." Odessa, 1961. 14 pp; (Ministry of Higher and Secondary Specialist Education Ukrainian SSR, Odessa State Univ imeni I. I. Mechnikov); 260 copies; price not given; list of author's works on pp 13-14 (10 entries); (KL, 10-61 sup, 207)

LAUER, R. S.; POLUEKTOV, N. S., doktor khim. nauk

Determination of the hafnium oxide content of a mixture of zirconium and hafnium oxides based on the measurement of the intensity of beta rays. Khim. prom.[Ukr.] no.1:76-79 Ja-Mr '62. (MIRA 15:10)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR (laboratorii v Odesse).

(Hafnium oxide) (Zirconium oxide) (Beta rays)

KONONENKO, L.I.; LAUER, R.S.; POLUEKTOV, N.S.

Extraction-fluorimetric determination of europium and terbium.
Zhur. anal.khim. 18 no.12:1468-1474 D '63. (MIRA 17:4)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR, Laboratorii v Odesse.

ACCESSION NR: AP4014222 S/0075/64/019/002/0199/0201

AUTHOR: Lauer, R. S.; Poluektov, N. S.

TITLE: Zone location of certain individual rare earth elements on a paper chromatogram

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 2, 1964, 199-201

TOPIC TAGS: chromatography, rare earth complex fluorescence, chromatogram zone location, samarium, europium, terbium, lanthanium, lutecium, yttrium, detection, 8 hydroxyquinoline complex, phenthroline complex

ABSTRACT: The fluorescence of organic reagent-rare earth complex compounds has been shown to be suitable for selectively determining the zone location of certain individual rare earths (La, Sm, Eu, Tb, Lu, Y) on a chromatogram after chromatographic separation of their mixtures. Selective detection of Sm, Eu and Tb has been effected for Sm with phenthroline and phenoyltrifluoracetone or dibenzoylmethane, Eu with phenthroline and dibenzoylmethane, and Tb with acetylacetone. La, Lu and Y can be detected as a group with 8-hydroxyquinoline or

Card 1/2

ACCESSION NR: AP4014222

5,7-dibromo-8-hydroxyquinoline, and individually, since their zones are located separately with La at the beginning, Y in the middle and Lu at the end of the chromatogram. The methods are highly sensitive, e.g., 0.005 microgram of Eu or 0.01 micrograms of Tb can be detected. Orig. art. has: 1 table.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN UkrSSR, Laboratorii v Odesse (Institute of General and Inorganic Chemistry, Odessa Laboratory, AN UkrSSR)

SUBMITTED: 04May63 DATE ACQ: 12Mar64 ENCL: 00

SUB CODE: CH NO REF SOV: 010 OTHER: 003

Card 2/2

ACCESSION NR: AP4033702 S/0073/64/030/004/0390/0395

AUTHOR: Tishchenko, M. A.; Lauer, R. S.; Poluektov, N. S.

TITLE: Separation of rare earth elements into subgroups with the aid of cupferron.

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 30, no. 4, 1964, 390-395

TOPIC TAGS: rare earth element, separation, rare earth subgroup, cerium subgroup, yttrium subgroup, polar organic solvent, nonpolar solvent, cupferron, rare earth cupferronate, solubility

ABSTRACT: Experiments were run to determine to what extent the solubility properties of the rare earth cupferronates may be used in separating them into the cerium and yttrium subgroups. The yttrium subgroup cupferronates are readily soluble in polar organic solvents (alcohols, esters, ketones) while the cerium subgroup cupferronates precipitate in these solvents soon after their extraction. Little separation is effected in nonpolar solvents. The cupferronates are most soluble in cyclohexanone, only slightly less soluble in cyclohexanol, ethylacetate and isoamyl alcohol. The solubility of the yttrium subgroup elements (Y, Dy, Ho, Er, Yb) is approximately the same. In the cerium subgroup solubility increases

Card 1/2

ACCESSION NR: AP4033702

with increase in atomic number: Sm is more soluble than Nd, Ce, or La. The solubility of La cupferronate is 50-275 times less than that of the yttrium cupferronates, of Sm, only 5.7-21 times less. Heating the cupferron-containing solvent causes some of the Y subgroup elements to precipitate; best separation results are obtained at room temperature. The relative solubilities of the Y and Ce cupferronates in these solvents provide a rapid method for the approximate separation of the rare earth elements into subgroups. Orig. art. has: 5 tables.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN UkrSSR Laboratorii v Odesse (Institute of General and Inorganic Chemistry AN UkrSSR, Odessa Laboratory)

SUBMITTED: 27Jul62 DATE ACQ: 06May64 ENCL: 00

SUB CODE: GC NO REF SOV: 003 OTHER: 005

Card 2/2

TISHCHENKO, M.A.; LAUER, R.S.; POLUEKTOV, N.S.

Extraction of mandelic acid salts of rare-earth elements by butanol. Zhur.nerog.khim. 10 no.8:1925-1928 Ag '65. (MIRA 19:1)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR, laboratorii v Odesse. Submitted April 12, 1963.

L 14687-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG
ACC NR: AP6005880 (N) SOURCE CODE: UR/0075/65/020/010/1073/1081

AUTHOR: Nishchenko, V. T.; Lauer, R. S.; Yefryushina, N. P.; Poluektov, N. S. 50 B

ORG: Institute of General and Inorganic Chemistry, AN UkrSSR, Odessa Laboratories (Institut obshchey i neorganicheskoy khimii AN UkrSSR, Laboratorii v Odesse)

TITLE: Extractive-photometric determination of certain rare earth elements with thenoyltrifluoroacetone 27,55

SOURCE: Zhurnal analiticheskoy khimii, v. 20, no. 10, 1965, 1073-1081

TOPIC TAGS: rare earth element, photometric analysis, benzene, complex molecule, praseodymium, neodymium, samarium, dysprosium, holmium, erbium, thulium, ytterbium, absorption spectrum

ABSTRACT: A method of determining rare earth elements from their absorption spectra in solutions of complex compounds in organic solvents is described. It was found that complexes with thenoylfluoroacetone were suitable for extractive-photometric determination of rare earths in benzene solutions. Analysis of the absorption spectra of thenoyltrifluoroacetone complexes of praseodymium, neodymium, sama-

Card 1/2

L 14687-66
ACC NR: AP6005880

rium, dysprosium, holmium, erbium, thulium, and ytterbium in benzene showed that the peak heights of many absorption bands of the rare earths increase by a factor of 1.1-4 as compared to the peak heights of solutions of chlorides. In the case of Ho, Er, and Nd, this factor is 21.1, 9.9, and 8.0 respectively. Optimum conditions for determining Pr, Nd, Sm, Ho, and Er in mixtures of rare earth elements were determined. The calculated sensitivity of the method is (in micrograms per milliliter, based on the oxide) 2.5 for Ho, 3.5 for Nd, 5.5 for Er, 13.0 for Pr, and 90 for Sm. Orig. art. has: 10 figures, 4 tables, 3 formulas.

SUB CODE: 07,10 SUBM DATE: 05Aug64/ ORIG REF: 012/ OTH REF: 013

Card 2/2

L 30244-66 EWT(m)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6013883 SOURCE CODE: UR/0073/65/031/011/1189/1197

50
B

AUTHOR: Mishchenko, V. T.; Lauer, R. S.; Yefryushina, N. P.; Poluektov, N. S.

ORG: Odessa Laboratories, Institute of General and Inorganic Chemistry, AN UkrSSR (Institut obshchey i neorganicheskoy khimii AN UKrSSR, Laboratorii v Odesse)

TITLE: Absorption-spectrophotometric determination of rare earth elements in tributyl phosphate extracts

27

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 31, no. 11, 1965, 1189-1197

TOPIC TAGS: rare earth element, spectrophotometric analysis, phosphate, solvent extraction, organometallic compound, absorption spectrum

ABSTRACT: The object of the study was to work out a rapid and convenient method of determining rare earth elements directly in tributyl phosphate and its solutions, following the separation of mixtures of rare earth elements by this extracting agent. To this end, the absorption spectra of tributyl phosphate complexes of Pr, Nd, Sm, Eu, Gd, Dy, Ho, Er, and Yb were investigated. It was found that during complexing in tributyl phosphate solutions, most of the absorption band maxima are displaced toward longer wavelengths by 1 to 10 mμ. A shift of certain absorption peaks toward shorter wavelengths, e. g., that of Eu, is also observed. At the same time, the peak height of many absorption bands frequently increases by a factor of 1.1-3.5 and more. The con-

UDC: 546.65:535.243:541.49

Card 1/2

L 30244-66

ACC NR: AP6013883

ditions for the determination of Pr, Nd, Sm, Ho, and Er in a mixture of rare earth elements of the cerium and yttrium subgroups in tributyl phosphate were established: (a) in concentrated solutions of rare earth elements (up to 130 mg/ml based on the oxide) and (b) when the concentrated solutions were diluted both by tributyl phosphate itself and other solvents. The sensitivity of the method is (in mg/ml based on the oxide): for neodymium, 0.03; holmium and erbium, 0.04; praseodymium, 0.06, and samarium, 0.18 for a cell length of 2 cm. Orig. art. has: 10 figures, 4 tables.

SUB CODE: 07/ SUBM DATE: 11Jun64/ ORIG REF: 006/ OTH REF: 004

Card 2/2

L 47204-66 EWT(m)/EWP(j) RM (N) SOURCE CODE: UR/0078/66/011/008/1883/1886

ACC NR: AP6027191

AUTHOR: Lauer, R. S.; Yefryushchina, N. P.; Polucktov, N. S.

ORG: Odessa Laboratories, Institute of General and Inorganic Chemistry, Academy of Sciences, Ukrainian SSR (Laboratorii v Odesse, Institut obshchey i neorganicheskoy khimii Akademii nauk Ukrainskoy SSR)

TITLE: Complexes of rare earth elements with ascorbic acid

SOURCE: Zhurnal neorganicheskoy khimii, v. 11, no. 8, 1966, 1883-1886

TOPIC TAGS: ascorbic acid, rare earth compound, spectrophotometric analysis,

ABSTRACT: Complexes formed by rare earth elements with ascorbic acid in aqueous solutions were studied spectrophotometrically and potentiometrically and also by separating the complexes in solid form and analyzing them chemically. Complex formation begins at pH > 3, reaches a maximum around pH 6, and remains constant up to pH 6.5-6.7. The complexes have the composition Me:ascorbic acid = 1:1. The apparent constants of formation undergo little change from one rare earth element to the next and are small, indicating a low stability of the complexes. Data on isomolar series, potentiometric titration and analysis of the solid complexes lead to the formula $MeO(C_6H_7O_6)\cdot 2H_2O$ for their composition. Boiling of the rare earth salts in the presence of a large excess of ascorbic acid (5% solution) precipitates elements of the cerium subgroup (La, Ce, Pr, Nd) at pH 4-10 (most completely at pH 6-6.5), while elements of the yttrium sub-

UDC: 547.475.2'165-386

Card 1/2

L 47204-66

ACC NR: AP6027191

group remain in solution. Samarium and gadolinium form turbid solutions which filter poorly at pH 6-8. The completeness of precipitation of complexes with the cerium subgroup elements varies: it is greatest for La (97%) and diminshes toward Nd (87%). Orig. art. has: 3 figures and 2 tables.

SUB CODE: 07/ SUBM DATE: 27Nov64/ ORIG REF: 005

Card 2/2 fv

L 07924-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6033386 SOURCE CODE: UR/0075/66/021/008/1018/1020

35
B

AUTHOR: Kirillov, A. I.; Lauer, R. S.; Poluektov, N. S.

ORG: Odessa Laboratories, Institute of General and Inorganic Chemistry, AN UkrSSR (Laboratorii v Odesse, Instituta obshchey i neorganicheskoy khimii AN UkrSSR)

TITLE: Fluorimetric determination of yttrium in a mixture of rare earths after their separation by paper chromatography

SOURCE: Zhurnal analiticheskoy khimii, v. 21, no. 8, 1966, 1018-1020

TOPIC TAGS: rare earth, chromatography, paper chromatography, yttrium, yttrium determination, yttrium nitrate, fluorimetric method, fluorimetry

ABSTRACT: A rapid fluorimetric method has been developed for the semiquantitative determination of yttrium in chromatographic zones after separation of rare earths by means of partition paper chromatography. The yttrium content is evaluated by the direct fluorimetry of the part of the chromatogram where the yttrium zone is located after the chromatogram has been treated by a phenyl salicylate solution. The method has been checked on neodymium nitrate solutions (25 mg/ml) containing

UDC: 543.544

Card 1/2

L 07924-67

ACC NR: AP6033386

various amounts of yttrium nitrate. The fluorescence intensity is directly proportional to the yttrium content in the zone if the total amount is not more than 4—4.5 μg. The least determinable amount is 0.5 μg of yttrium. Orig. art. has: 1 figure and 1 table. [Authors' abstract]

SUB CODE: 07/ SUBM DATE: 16Jul65/ ORIG REF: 005/ OTH REF: 003/

Card 2/2 vmb

SHAPOVALENKO, A.G.; LAUER, V.V., KRASOVSKIY, Ye.P.

Possibility of using sampled data speed control for induction motors powered by an independent generator of commensurable power. Izv. KPI 26:283-290 '57. (MIRA 11:6)

1.Kafedra elektrifikatsii promyshlennykh predpriyatiy Kiyevskogo politekhnicheskogo instituta.
(Electric motors, Induction) (Automatic control)

KRASOVSKIY, Ye.P., kand. tekhn. nauk; LAUER, V.V., inzh.; SHAPOVALENKO, A.G.

[redacted]

Alternating-current time relay using a magnetic amplifier. Izv. vys. ucheb. zav.; energ. no. 1:59-64 Ja '58. (MIRA 11:7)

1. Kiyevskiy ordena Lenina politekhnicheskiy institut.
(Electric relays)
(Magnetic amplifiers)

102-58-1-8/12

AUTHORS: Krasovs'kyy, E.P., Lauer, V.V. and Shapovalenko, O.G.

TITLE: Use of Pulse Control to Produce Low Speeds in Induction Motor Drives (Zastosuvannya impul'snogo upravlinnya z metoyu oderzhannya niz'kykh shvydkostey v elektropryvodakh z asinkhronnymy dvygunamy)

PERIODICAL: Avtomatika (Kiyev), 1958, Nr 1, pp 75 - 84 (Ukrainian SSR)

ABSTRACT: The advantages of this system when the time spent at low speeds is short (cheapness, simplicity) are pointed out and two new circuits using polarised relays on three-phase circuits are given. The time for which it is permissible to operate the motor in this way increases with the moment of inertia of the system (referred to the motor shaft). The speed can be varied from 0.04 to 0.20 of the symchronous speed, the speed-load characteristic being very flat. A motor with a phase-fed rotor is, of course, required; in this case, derivative (velocity) feedback can be effected by using the back-e.m.f. of the rotor, no tachometer being needed. The motor is caused to accelerate and decelerate by closing and opening the rotor circuit. A 37-kW 1460 r.p.m. motor has been used to test the circuits; at a mean speed of 90 r.p.m., the fluctuations were ± 10 r.p.m., with a referred moment of inertia of 400 - 800 kgm^2.

Card 1/2

102-58-1-8/12

Use of Pulse Control to Produce Low Speeds in Induction Motor Drives

There are 6 figures and 2 Soviet references.

ASSOCIATION: Kyivs'kyy ordena Lenina politekhnichnyy instytut (Kiyev Order of Lenin Polytechnical Institute)

SUBMITTED: February 27, 1957

Card 2/2

8(2) SOV/107-58-12-40/55

AUTHORS: Krasovskiy, Ye., ~~Lauer, V.,~~ Shapovalenko, A.

TITLE: Voltage Indicators for Autotransformers (Indikatory napryazheniya dlya avtotransformatorov)

PERIODICAL: Radio, 1958, Nr 12, p 43 (USSR)

ABSTRACT: The authors describe two simple voltage indicator circuits for autotransformers for controlling the voltage supply of television sets and radios. The first one (Figure 1a) contains two filament lamps switched in to the input of the transformer, one (L_1) directly and the other (L_2) through the resistance R. This indicator works on the principle of the considerable dependance of the filament lamp luminous flux on the current flowing through it. Experiments have shown that this indicator can regulate a voltage with an accuracy of +3 to -5%. In

Card 1/2

SOV/107-58-12-40/55

Voltage Indicators for Autotransformers

the second indicator (Figure 16) a choke DR (with a steel core without an air gap), a capacitor C and a filament tube L, connected to part of the autotransformer winding, are used. At a nominal voltage, automatic oscillations are present in the indicator, which make the lamp flicker; if the voltage is higher than the nominal it burns without flickering and if it is lower than nominal it does not light up at all. The indicator has an accuracy of plus or minus 3%. There are 2 circuit diagrams.

Card 2/2

Vsesoyuznoye ob"yedinennoye soveshchaniye po avtomatizatsii proizvodstvennykh protsessov v mashinostroyenii i avtomatizirovannomu elektroprivodu v promyshlennosti. 3d, Moscow, 1959

Elektroprivod i avtomatizatsiya promyshlennykh ustanovok; trudy soveshchaniya (Electric Drive and Automation in Industrial Systems; Transactions of the Conference) Moscow, Gosenergoizdat, 1960. 470 p. 11,000 copies printed.

General Eds.: I.I. Petrov, A.A. Sirotin, and M.G. Chilikin; Eds.: I.I. Sud, and K.P. Silayev; Tech. Eds.: K.P. Voronin, and G.Ye. Larionov.

PURPOSE: The collection of reports is intended for the scientific and technical personnel of scientific research institutes, plants and schools of higher education.

COVERAGE: The book is a collection of reports submitted by scientific workers at plants, scientific institutes and schools of higher education at the third Joint All-Union Conference on the Automation of Industrial Processes in Machine Building and Automated Electric Drives in Industry held in Moscow on May 12-16, 1959. The Conference was called by the Academy of Sciences USSR, the Gosplan SSSR (State Planning Commission USSR), the GNTK SSSR, the Gosudarstvennyy Komitet po avtomatizatsii i mashinostroyeniyu (State Committee on Automation and Machine Building) and the Natsional'nyy komitet SSSR po avtomaticheskomu upravleniya (USSR National Committee on Automatic Controls) and prepared by the Nauchno-tekhnicheskiy komitet po avtomatizirovannomu elektroprivodu (Scientific and Technical Committee on Automated Electric Drives), the MEI (Moscow Institute of Energetics), the VNIIEM, the IAT (Institute of Automation and Telemechanics) of the Academy of Sciences USSR, and the Komissiya po tekhnologii mashinostroyeniya Instituta mashinovedeniya AN SSSR (Commission on the Technology of Machine Building of the Institute of Science of Machines of the Academy of Sciences USSR). It was the purpose of the Editorial Board to arrange the reports in a way which would ensure a relatively systematic presentation of theoretical and practical problems relating to electric drives and automatic controls of industrial mechanisms used in various branches of industry. Basic problems of automated electric drive and their solution are outlined. The book also contains articles on electric machinery and means of automation. Considerable attention is paid to non-contact automatic control systems, including systems with semiconductor devices and magnetic amplifiers, and to computers intended both for the analysis and the synthesis of linear and nonlinear automatic regulation and control systems. Reports already published in journals or official publications have been considerably abbreviated; those which have appeared in volume V of NIIT EP transactions or in the journal "Elektrichestvo" are marked with an asterisk. No personalities are mentioned. References accompany some of the papers.

PART I. GENERAL PROBLEMS CONCERNING THE THEORY AND PRACTICE OF ELECTRIC DRIVE AND AUTOMATION OF CONTROL

LAUER, Y.V.

LAUERMAN, J.

Fundamentals of cybernetics. p. 120.

ZELEZNICAR. (Ministerstvo dopravy) Praha, Czechoslovakia, No. 5, May 1959

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

LAUERMANN, Jaroslav

Technical motion pictures on water conservation problems. Sklar a keramik 14 no.12:344 D '64.

LAUERMANN, Lev, inz., arch.

The 1st International Congress on Prefabrication and Exhibition of Prefabricated Elements. Poz stavby 10 no.12:677-679 D '62.

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

11F

Ca LAUFBERGER, V.

Iron metabolism. V. Laufberger. *Biol. Listy* 19, 73-8(1934); *Ber. ges. Physiol. exptl. Pharmakol.* 84, 387.—*Ferritin* obtained from horse spleen contained 21% of trivalent Fe, combined with albumin. A similar product from the liver contained 18% of Fe. Ferriglobulin prepd. from the blood contained 8% of Fe, and is not combined with albumin.

James C. Munch

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

LAUFBERGER V. Vyznam fysiologickych antigenu The importance of physiological antigens Casopis Lekaru Ceskych, Prague (Czechosl vakia) 1947, 86/1 (10-11)

The possibilities of immunological analysis of the arrangement of antigens on the surface of human red blood corpuscles are discussed. If it were possible to liberate the antigen into solution, and if it were possible to analyse it chemically, one could calculate the number of molecules of antibody necessary for minimal or maximal agglutination. From this it should be possible to calculate how many molecules of antigen there are on the surface of a red cell. If this could be done for many different antigens present on the red cells, it might be possible to develop a theory of the mutual arrangement of different antigens on the surface of the red cell, and thus arrive at a more complete picture of human types of blood. Traub-Brooklyn

So: Medical Microbiology and Hygiene, Section IV, Vol. I, #1-6

Laufberger V.Z.Fysiologicheho Ustavu Lekarske Fakulty Karlovy University v Praze. O vyznamu zivotnich prvku v tele The importance of trace elements in the body Sbornik Lekarsky 1948, 50/1 (15-22) Tables 1

Ferritin, a crystallizable protein containing 20 per cent of iron, discovered by the author in the year 1937, is probably not the only molecule acting in the body as a storage molecule, for the author has succeeded in preparing protein nixture from horse liver, which contained more than a hundred times more copper than was found in original liver tissue. All the elements existing in living tissues have been arranged in a periodical chart of elements as proposed by W. Luder. All bioelements fall into remarkable regular rows. FFant Hora-Brno

So: Physiology, Biochemistry and Pharmac logy, Section II, Vol. I, #1-6

LAUFBERGER V.

845. LAUFBERGER V. Predstavové podmínené odpovedi Conditioned reflexes based on imagination Časopis Lékaru Českých, Prague 1949, 88/38 (1113-1117) Graphs 3

The author found that block of the alpha rhythm appears if the subject imagines a burning electric bulb. The visualization can be provoked by a command or by a meaningless syllable. This proves that the blocking of the alpha rhythm is not the result of an optic phenomenon, i.e. a reaction to the light, but is a psychic one. The author then developed in the subject a conditioned reflex in which a certain syllable, after being often repeated with the visualization of the bulb, evoked by itself the block of the alpha rhythm. This means that the conditioned response may be elicited by a visualized unconditioned stimulus.

Jiuout - Prague

So. NEUROLOGY & PSYCHIATRY Section VIII Vol. 3[1] Jan-Jun 1950 Excepta Medica

LAUFBERGER, V.

Preparation for organization of the Czechoslovakian Academy of Science. Chekh. fiziol. 1 no.3:175-177 Sept 52.
(SICENCE,
Czech. Acad. of Science)

LAUFBERGER, Vilem, Prof. dr.

Review of history of the Czech physiology. Cas.lek.cesk. 91 no.17: 501-505 25 Apr 52.
(PHYSIOLOGY, history,
in Czech.)

LAUFBERGER, Vilem, Prof., dr.

Vectomyographic method of investigation of palpebral reflex.
Cas. lek. cesk. 91 no.24-25:711-713 20 June 52.

1. Z fysiologickeho ustavu Karlovy university v Praze.
(EYELIDS, physiology,
palpebral reflex, vectomyographic investigation)
(REFLEX,
palpebral, vectomyographic investigation)

LAUFBERGER, V., akademik

Opening of the institute of physiology of the Czechoslovakian Academy of Science. Chekh. fiziol. 3 no.1:1-3 1954.
(PHYSIOLOGY,
in Czech., institute of physiol. of Czech. Acad. of Science)

LAUFBERGER, V.

Adaptation and reaction. Chekh. fiziol. 3 no.4:376-381 1954.
(ENVIRONMENT,
adaptation & reaction of organism)

LAUFBERGER, Vilem

Iron in nutrition. Vilém Laufberger (Českoslov. akad. věd, Prague). *Sborník* [illegible] *výživy* 8, 9–13 (1951).—Review on Fe-containing compds. in the body with special consideration of ferritin and siderophilin.

L. I. Urbánek

LAUFBERGER, Vilem

Spatiocardiography. Chekh. fiziol. 4 no.4:357-365 1955.

1. Laboratory of higher nervous activity; Czechoslovak Academy of Sciences, Prague.
(VECTOCARDIOGRAPHY,
spatial)

LAUFBERGER, Vilem

Action and synthesis of insulin; discussion. Cesk. fysiol. 5 no.4: 495-497 1956.

(INSULIN,
eff. of synthesis (Cz))

LAUFBERGER, Vil'gel'm, akademik.

Spatial cardiography. Nauka i zhizn' 23 no.2:50-52 F '56. (MLRA 9:5)

1. Vitse-prezident Chekhoslovatskoy Akademii nauk.
(Chechoslovakia--Vectorcardiography)

LAUFBERGER, V.

Polyrheograph. Cesk. fysiol. 6 no.2:213-217 1957.

1. Laborator grafickych vysetrovacich method Ceskoslovenske akademie ved.

(ELECTROPHYSIOLOGY, apparatus and instruments, poly-rheograph (Cz))

LAUFBERGER, V.

LAUFBERGER, V.

The Polyrheograph. Physiol. bohem. 6 no.2:246-250 1957.

1. Laboratory of Graphical Diagnostic Methods, Czechoslovak Academy of Science, Prague.
(PLETHYSMOGRAPHY
polyrheography, appar. & technic)

LAUFBERGER, V.

"Determination of the rate of excitability." p. 178.

CESKOSLOVENSKA FYSIOLOGIE. Praha, Czechoslovakia, Vol. 7, no. 3, May 1958.

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

LAUFBERGER, V

"Use of apparatus in physiology; a contribution to M. Petran's article."

CESKOSLOVENSKA FYSIOLOGIE, Praha, Czechoslovakia, Vol. 7, no. 4, July 1958

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

LAUWBERGER, Vilem, akademik

From the experiment to the code. Cesk.fysiol. 9 no.3:215-216 My '60.
(PHYSIOLOGY)

LAUFBERGER, Vilem

Determination of the electrical center of the heart. Cas. lek. cesk. 101 no.24/25:762-768 22 Je '62.

1. Laborator grafickych vysetiovacich metod CSAV, Praha, prednosta akademik V. Laufberger.

(HEART physiol)

LAUFBERGEROVA, D.

Biometrics of Lassius flavus Fabr. Biol.listy 30 no.4:233-239 15 Mr '49. (CIML 19:2)

LAUFBERGROVA, D.

Typoprobits. Biol.listy 31 no.3-4:197-206 Jan 51. (CLML 20:5)

C 9 LAUFER, A. L.

Action of ultraviolet radiation on hyaluronic acid. M. S. Mogilevskii and A. L. Laufer. *Doklady Akad. Nauk S.S.S.R.* 76, 239-42(1951).—Irradiation of solns. of hyaluronic acid (sp. viscosities 1.5-11.0) by means of a quartz lamp for 1-80 min. intervals at 2-8° leads to 20-80% decrease of viscosity depending on radiation dosage. Hyaluronate loses its ability to form mucinlike ppts. on treatment with proteins and acidification to pH 4.5. The products are still attacked by hyaluronidase, which, incidentally, is not activated by radiation, but is actually repressed in its activity. The loss of viscosity upon irradiation is caused by direct action of light on the hyaluronic acid. G. M. K.

Inst. Epidemiol & Microbiol im. Pasteur

LAUFER, A. L., KASAVINA, B. S., RIKHTER, A. I., and ZENKEVICH, G. D. (USSR)

"The Changes in Correlation of the Components of Enzyme-Substrate Systems with Different Phases of Bone Regeneration."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 Aug 1961

KASAVINA, B.S.; LAUFER, A.L.; POZHARIYSKAYA, L.S.; RYNDINA, V.P.

Occurrence of collagenase in animal tissues. Dokl. AN SSSR 142 no.3:706-708 Ja '62. (MIRA 15:1)

1. TSentral'nyy institut travmatologii i ortopedii i Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlennosti. Predstavleno akademikom A.I.Oparinym.
(COLLAGENASE)

POGOSOVA, A.V.; ROMANOVA, L.S.; KASAVINA, B.S.; LAUFER, A.L.

Change in protein fractions and intensity of the synthesis of muscle proteins when the muscle defect has been substituted with lyophilized minced muscle tissue and protein preparations. Eksper. khir. i anest. 8 no.3:74-76 My-Je'63 (MIRA 17:1)

1. Iz Instituta khirurgii imeni A.V. Vishnevskogo (dir. -deystvitel'nyy chlen AMN SSSR prof. A.A. Vishnevskiy) AMN SSSR i Institutatravmatologii i ortopedii Ministerstva zdravookhraneniya SSSR.

KASAVINA, B.S.; ZENKEVICH, G.D.; RIKHTER, A.I.; LAUFER, A.L.; LIRTSMAN, V.M.; MARKOVA, O.N.; Prinimali uchastiye: ARENBERG, A.A.; AGAPOVA, N.A.; SMIRNOVA, G.V.

Some enzyme-substrate systems in the process of regeneration of the bony tissue. Eksper. khir. i anest. 7 no.4:56-63 Jl-Ag '62. (MIRA 17:5)

1. Iz biokhimicheskoy laboratorii (zav. - doktor biolog. nauk B.S.Kasavina) TSentral'nogo instituta travmatologii i ortopedii (dir. - doktor med. nauk M.V.Volkov) Ministerstva zdravookhraneniya SSSR i kafedry gistologii (zav. - prof. L.I.Falin) Moskovskogo meditsinskogo stomatologicheskogo instituta.

SIBELEVA, K.F.; ZENKEVICH, G.D.; LAUFER, A.L.

Mucopolysaccharides and collagen in human keloids. Vop. med. khim. 11 no.4:55-60 Jl-Ag '65. (MIRA 18:8)

1. Kafedra chelyustno-litsevoy khirurgii TSentral'nogo instituta usovershenstvovaniya vrachey i TSentral'nyy nauchno-issledovatel'skiy institut travmatologii i ortopedii, Moskva.

LAUFER, A. P.

3506. LAUFER, A.P. Deloproizvodstvo v Kolkhozakh. Yerevan, 1954. 140s. 20sm (Glav. Upr. Podgotovki Kadrov M-Va Sel'skogo Khozyaystva SSSR. Vsesoyuz. Zaoch, Uchetnyye Kursy VZUK) 1,500 ekz. Bespl.--Na Arm. Yaz.-- (54-57460) 651:338.1 k

SO: Knizhnaya Letopis', Vol. 3, 1955

Laufer, A.P.

LAUFER, A.P.; TOKAREVA, M., red.; ANOPOL'SKIY, Ya., tekhn.red.

[Business correspondence for collective farms] Deloproizvodstvo v kolkhozakh. Moskva, Upravlenie podgotovki kadrov M-va sel'khoz. SSSR, 1957. 110 p. (MIRA 11:2)
(Commercial correspondence) (Collective farms)

LAUFER, M.

Primary acute and chronic osteomyelitis. Acta chir. orthop. traum. cech. 18 nos.3-4:94-114. 1951. (CLML 21:1)

1. Of the Second Clinic of Orthopedic and Pediatric Surgery of Charles University, Prague (Head -- Prof. O. Hnevkovsky).

LAUFER, M.

Preliminary report on the effect of local cooling on spastic conditions. Acta chir.orthop.traum.cech. 18 no.5-7:194-199 1951.
(CIML 21:1)

1. Of the Second Orthopedic and Children's Surgery Clinic of Charles University, Prague (Head--Prof.O.Hnevkovsky,M.D.).

LAUFER, H.

"A case of Dupuytrens contracture of all four limbs." p. 468. (CASOPIS LEKARU CESKYCH, Vol. 92, no. 17, Apr. 1953, Praha.)

SO: Monthly List of East European Accessions, Vol. 2, No. 10, Library of Congress October 1953, Incl.

PROCHAZKA, Josef, As.Dr; LAUFER, Maxim, Dr

Juvenile osteochondropathy of the epiphyses of the knee joint and so-called idiopathic genua valga of preschool children. Acta chir. orthop. traum. cech. 21 no.3:74-83 Je '54.

1. Z II. Kliniky pro detskou chirurgii a orthopedii v Praze. Prednosta: prof. dr. O.Hnevkovsky.
(KNEE, diseases,
*steochondropathy of epiphyses & genu valgum in child.)

LAUFER, M., MUDr

So-called amniotic defects. Acta chir. orthop. traum. cech. 21 no.4: 113-123 Aug. 54.

1. Z II. kliniky pro orthopedickou a detskou chirurgii KU v Praze. Prednosta: prof. MUDr O.Hnevkovsky.
(ABNORMALITIES, etiology and pathogenesis, amniotic factors)
(AMNION, amniotic factor in etiol. of abnorm.)

LAUFER, Maxim, MUDr.

Possibility of use of fibrin foam in bone surgery. Acta chir. orthop. traum. cech. 24 no.1:21-26 Jan 57.

1. I. Klinika pro detskou orthop. a detskou chirurgii univ. Karlovy, predn. prof. MUSr. O. Hnevkovsky.
(FIBRIN,
foam, use in bone surg., value (Cz))
(BONES, surg.
use of fibrin foam, value (Cz))

LAUFER, M. (Praha 2, Sokolska 66)

Shift of the spine in the sagittal plane and ostocchondropathy of the spine; review of symptomatology and therapy of 115 cases. Acta chir. orthop. traum. cech. 26 no.3:169-180 June 59.

1. Fakultni stredisko KUNZ - Praha, ortopedicke oddeleni, prednosta oddel. MUDr. Maxim Laufer.

(SPINE, dis.
osteochondritis, sympt. & ther. (Cz))
(OSTEOCHONDRITIS
spine, sympt. & ther. (Cz))

LAUFER, Maxim

Considerations on conservative therapy in coxo-arthrosis. Acta chir. orthop.traum.cech. 28 no.5:444-446 O '61.

1. Ortopedicke oddeleni fakultniho strediska KUNZ Praha; Stredocesky kraj, prednosta MUDr. Maxim Laufer.

(HIP dis)

TESKA, Vladimir; LAUFER, Maxim

Rupture of the plantar aponeurosis, Acta chir. orthop. trauma. Cech. 28 no.2:150-155 Ap '62.

1. Chirurg. odd. polikliniky OUNZ Melnik Ortoped. odd. KUNZ Praha.
(FOOT wds & inj)

LAUFER, I. V.

Laufer, I. V. "On the engineering calculation of saw tooth voltage transformers into saw tooth current", Sbornik trudov Kiyevsk. in-ta kino-inzhenerov, Issue 1, 1948, p. 7-37.

So: U-3261, 10 April 53, (Letopis 'Zhurnal 'nykh Statey, No. 12, 1949).

LAUFER, M. V.

"Investigation of Methods of Measuring Nonuniformities in the Movement of Sound Carriers".

Kiev Polytechnic Institute

A report delivered at a conference on Electro-acoustics held by the Acoustic Commission, the Acoustic Institute of the Academy of Sciences USSR, and the Kiev Order of Lenin Polytechnic Inst., from 1-5 July 1955 in Kiev.

SO: Sum 728, 28 Nov 1955

GERANIN, V.A.; LAUFER, M.V.

Calculating the output effect of varying-intensity magnetic signals
Nauch.dokl.vys.shkoly; radiotekh.i elektron. no.4:227-231 '58.
(MIRA 12:6)

1. Kafedra akustiki i zvukotekhniki Kiyevskogo politekhnicheskogo instituta.

(Magnetic recorders and recording)

LAUFER M. V.

11 июня
(с 18 до 22 часов)

Л. Н. Василевский,
Р. Р. Арвель

Методика испытания магнитофонов и магнитных головок.

А. А. Бреймовский,
Н. Н. Медвинова

О направлении намагниченности ленты при записи торцевальными головками.

А. А. Бреймовский

Об измерении уровня при магнитной записи звука

В. А. Герасим

К теории магнитных сигналограмм.

12 июня
(с 10 до 16 часов)

М. В. Лауфер,
С. Д. Кирицкий

Вопросы теории и применения полуширокополосных магнитных головок.

62

М. Г. Арутюнов

Фотографическое устройство для визуального наблюдения за несколькими одновременно происходящими процессами.

14. СЕКЦИЯ ЭЛЕКТРОННО-ВЫЧИСЛИТЕЛЬНОЙ ТЕХНИКИ

Руководитель Л. Н. Гутенмахер

19 июня
(с 10 до 16 часов)

Совместное заседание с секцией полупроводниковых приборов

В. И. Геворкян

Динамический триггер на полупроводниковых туннелях.

А. Ю. Гердевин,
Е. Б. Гольдштейн,
Е. М. Зорин,
З. А. Калитина,
Г. В. Катонинов

Специальные элементы цифровых вычислительных машин на полупроводниковых приборах.

Л. Н. Натрошвили,
Т. М. Атаджанян,
Н. С. Вашин,

63

report submitted for the Centennial Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications im. A. S. Popov (VNORIE), Moscow, 8-12 June. 1959

LAUFER, M. Ya.
Central Inst for the Advanced Training of Physicians

LAUFER, M. Ya.- "Axonometry (a new method of quantitative evaluation of an electrocardiogram)." Central Inst for the Advanced Training of Physicians. Moscow, 1956.
(Dissertation for the Degree of Candidate in Medical Sciences)

SO: Knizhnaya Letopis', No. 20, 1956

LAUFER, M.Ya., kand.med.nauk

Axonometry of the electrocardiogram in the diagnosis of mitral defects. Med.zhur.Uzb. no.12:63-64 D '58. (MIRA 13:7)
(MITRAL VALVE--ABNORMITIES AND DEFORMITIES)
(AXONOMETRIC PROJECTION)

LAUFER, M.Ya., kand.med.nauk

Some characteristics of the geographical distribution and clinical course of atherosclerosis of the coronary vessels in the hot climate of the Fergana Valley. Kardiologiia 2 no.3:64-70 My-Je '62. (MIRA 16:4)

1. Iz Andizhanskoy oblastnoy klinicheskoy bol'nitsy (glavnyy vrach I.A.Alimov).
(FERGANA--CORONARY VESSELS--DISEASES) (ARTERIOSCLEROSIS)

LAUFER, M.Ya., inzh.; KASPERSKAYA, V.K., inzh.

Heat transmission over a hollow cylinder applied to the calculation of radial bearings. Sudostroenie 25 no.1:49-52 N '59. (MIRA 13:4)

(Bearings (Machinery)) (Marine engineering)

LAUFER, M.Ya., inzh.

Calculating the limiting characteristics of the operation of sliding friction thrust bearings. Sudostroenie 26 no.3(209):25-29 Mr '60. (MIRA 14:11)

(Bearings(Machinery))

LAUFER, M. Ya. (Andizhan)

Characteristics of the distribution of atherosclerosis of the aorta in the hot climate conditions of the Fergana Valley of the Uzbek SSR. Arkh. pat. no.4:38-42 '62. (MIRA 15:4)

1. Iz Andizhanskoy oblastnoy klinicheskoy bol'nitsy (glavnyy vrach I. A. Alimov)

(FERGANA--ARTERIOSCLEROSIS) (AORTA--DISEASES)

DAVANKOV, A.B.; LAUFER, V.M.; CHERNOVA, M.A.

Synthesis and study of high molecular quaternary ammonium and pyridinium bases soluble in water and organic solvents. Izv. vys. ucheb. zav.; khim. i khim. tekh. 6 no.3:479-484 '63. (MIRA 16:8)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I. Mendelyeva.
(Ammonium compounds) (Pyridinium compounds)

L 09003-67 EWT(m) DJ (N) SOURCE CODE: UR/0413/66/000/007/0108/0109

ACC NR: AP6012176 12

AUTHOR: Laufer, M. Ya.

ORG: none

TITLE: A journal bearing for a ship shaft duct with lubrication by water. Class 65, No. 180495

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 108-109

TOPIC TAGS: ship component, lubrication technique, journal bearing

ABSTRACT: This Author Certificate presents a journal bearing for a ship shaft duct with lubrication by water. The bearing includes a finned casing with double walls forming a notched space filled with water. This design increases the load capacity with heat removal by natural convection, without increasing the dimensions and weight of the bearing. The reliability of the lubrication is also increased. A spherical bushing with interconnecting chambers and an eccentric set rigidly on the key of the shaft are mounted inside the bearing casing (see Fig. 1). The bushing and eccentric are separated by a spring-loaded baffle auto-

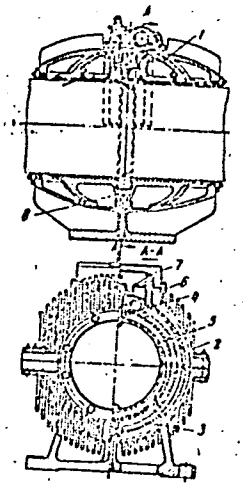
UDC: 629.1.037.5

Card 1/2

L 09003-67

ACC NR: AP6012176

Fig. 1. 1 - spherical bushing; 2 - finned casing; 3 and 4 - interconnecting chambers; 5 - eccentric; 6 - spring-loaded baffle; 7 - slide valve; 8 - check valve



matically pressed to the surface of the eccentric. These members together form the intake cavity and discharge cavities of the cooling pump. To regulate automatically the delivery of water for lubrication with a change of direction of the shaft rotation, a slide valve is mounted in the upper half of the bushing. To supply water to the pump cavity by gravity flow with a collapse of the vacuum in the intake cavity of the pump, an emergency check valve is mounted in the lower [illegible] the bushing. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 31May62 nst

L 09003-67 EWT(m) DJ

ACC NR: AP6012176 (N) SOURCE CODE: UR/0413/66/000/007/0108/0109

AUTHOR: Laufer, M. Ya.

12

ORG: none

TITLE: A journal bearing for a ship shaft duct with lubrication by water. Class 65, No. 180495

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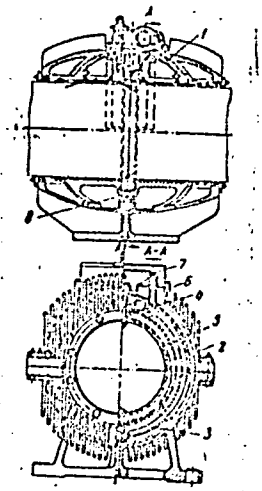
Fig. 1. 1 - spherical bushing; 2 - finned casing; 3 and 4 - interconnecting chambers; 5 - eccentric; 6 - spring-loaded baffle; 7 - slide valve; 8 - check valve



matically pressed to the surface of the eccentric. These members together form the intake cavity and discharge cavities of the cooling pump. To regulate automatically the delivery of water for lubrication with a change of direction of the shaft rotation, a slide valve is mounted in the upper half of the bushing. To supply water to the pump cavity by gravity flow with a collapse of the vacuum in the intake cavity of the pump, an emergency check valve is mounted in the lower [illegible] bushing. Orig. art. has: 1 figure.

[illegible] SUBM DATE: 31May62 nst

SAMSONOVA, V.S.; DAVANKOV, A.B.; LAUFER, V.M.

Purification and concentration of Clostridium perfringens anatoxin with the use of NO anion exchange resin. Zhur. mikrobiol., epid. i imm. 41 no. 2:98-102 F '64. (MIRA 17:9)

1. Institut epidemiologii i mikrobiologii imeni Gamalei AMN SSSR i Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva.

Laufer, V. M.

3478 Determination of precious metals in washing and sewage waters A. P. Pavanzov and V. M. Laufer (D. I. Mendeleev Moscow Chem.-Technol. Inst.) Zavod. Lab., 1956, 22 (3), 294-295.—N

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DAVANKOV, A.B.; LAUFER, V.M.

Determining precious metals with ionites. Zav.lab.22 no.7:788-789 '56. (MLRA 9:12)

1. Moskovskiy ordena Lenina khimiko-tekhnologicheskiy institut imeni D.I.Mendeleyeva.
(Metals--Analysis) (Ion exchange)

LAWER, V.M.

Extraction of metallic gold from industrial waste with synthetic resins. A. P. Devankov and V. M. Lawer. *Zhur. Priklad. Khim.* 29, 1052-3(1956).—It was shown that highly porous specimens of Soviet-made anion exchange resins were effective in extn. of Au from waste liquors. After combustion of the resin, from 81% to 100% Au was recovered. The basic liquors were made slightly acid with HCl and were stirred with the powd. resins 3-5 hrs., after which the residue was sepd., washed, and ignited.

G. M. Kosolapoff

AUFER, V.M.

Met Chem

Ion-exchange recovery of gold from solutions by means of synthetic resins. A. B. Davankov and V. M. Laufer (*Zh. prikl. Khim.*, 1956, 29, 1029—1035). — N-O anion-exchange resins, in hydroxyl (I), carbonate (II) and sulphate (III) forms with grain size 0·5—0·8 mm., were used. In the recovery of gold from pure aq. solutions of $KAu(CN)_2$ and from industrial waste (chiefly from plating baths). Amount of gold in solutions was 24 mg./l., pH 7 with filtration rate 10 ml./min. and resin layer depth 190 mm. 98·0% recovery of gold

$KAu[CN]_4$ and from industrial wastes (mainly [illegible]). Amount of gold in solutions was [illegible]; pH 7 with filtration rate 10 ml./min. and resin layer depth 190 mm., 98·0% recovery of gold was achieved by II; I and III yielded 91·6%. When resin depth was 180 mm., at pH 8, gold recovery was 97·22% (II) and 74·21% (III). By decrease of pH from 7 to 3·5, moisture content of resins in pure solutions of $KAu[CN]_4$ was more than doubled in some cases. In all cases the percentage recovery from industrial wastes was proportionately less.

A. L. B.

LAUFER, V. M.

DAVANKOV, A.B.; LAUFER, V.M.

Ion exchange and the distribtuion of gold ions in resinous absorbents. TSvet.met.29 no.11:1-6 N '56.. (MLRA 10:1)
(Ion exchange) (Gold)

Laufer, V. M.

7

Removal of chloride ions from amino acids. A. B. Davankov and V. M. Laufer. U.S.S.R. 107,254, Sept. 26, 1957. Chloride ions are completely removed from amino acids by treating the latter with amphoteric ion-exchanging synthetic resins charged with heavy metals, e.g. Ag or Pb, capable of forming insol. salts with chloride ions.

M. Hosch

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1-4E4j

LAUFER, V.M.

SOV/137-58-8-16648

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 8, p 58 (USSR)

AUTHORS: Davankov, A.B., Laufer, ~~V.M.~~

TITLE: Recovery of Precious Metals by Ion Exchange and Secondary Processes Occurring in Ion Exchangers (Izvlecheniye dragotsennykh metallov s pomoshch'yu ionnogo obmena i vtorichnykh protsessov, osushchestvlyayemykh na ionitakh)

PERIODICAL: V sb.: Materialy Soveshchaniya po primeneniyu ionnogo obmena v tsvetn. metallurgii. Moscow, 1957, pp 73-79

ABSTRACT: A device for saving Au from industrial caustic solutions by adsorption on anionite resins of low swelling capacity, porous structure, and fundamental properties favorable both to ion exchange and to adsorption, has been developed and tested successfully under industrial conditions. Dissociation of such anionites in aqueous solutions with formation of cations of low mobility facilitates coagulation of Au and ensures speed and completeness in precipitation thereof on the adsorbent. The resin is separated from the solution by means of a Nutsche filter. Joint ion exchange and reduction by hydroquinone was applied to Ag and Au solutions. This significantly increased

Card 1/2

SOV/137-58-8-16648

Recovery of Precious Metals by Ion Exchange (cont.)

the absorptive capacity of "H-O" anionite and made it possible to extract up to 112.8% Ag and 114.6% Au relative to the weight of dry resin (and this did not even exhaust its absorptive capacity). It proved possible to extract up to 72% of the Au in sea water when 50 g resin was used per 500 liter of solution, but the resin was contaminated by Fe salts. The "H-O" resin is suited to recovery of Au from highly-contaminated, exhausted caustic electrolytes, but regeneration of the resin by the usual means is not possible. "H-O" resin permitted the extraction of 80-90% Au from a solution of Au resinate in turpentine containing 3.5 g Au per liter.

Ye.Z.

1. Gold--Recovery 2. Silver--Recovery 3. Ion exchange resins--Performance

Card 2/2