

33496

S/195/61/002/005/023/027
E040/E185

On the mechanism of chain growth...

radicals. The study was made with the help of radioisotope tracer technique using carbon monoxide labelled with C^{14} carbon (9000 pulse/min per ml). In the tests, a mixture of $C^{14}O + H_2$ (in the 1:1 by volume ratio) was passed over freshly prepared iron catalyst heated to 295 °C, the reaction was allowed to proceed for various periods and the products were then separated. The radioactivity of the separated hydrocarbons was then plotted against the reaction time and the number of carbon atoms in the synthesised hydrocarbons. The results obtained indicated that both the condensation and polymerisation mechanisms are involved in the synthesis of the products. The actual mechanism prevailing at any stage of the reaction was found to depend on the experimental conditions. A general scheme was formulated for the various reactions that can occur when a stream of carbon monoxide/hydrogen mixture is passed over iron catalyst heated to about 300 °C: ✓

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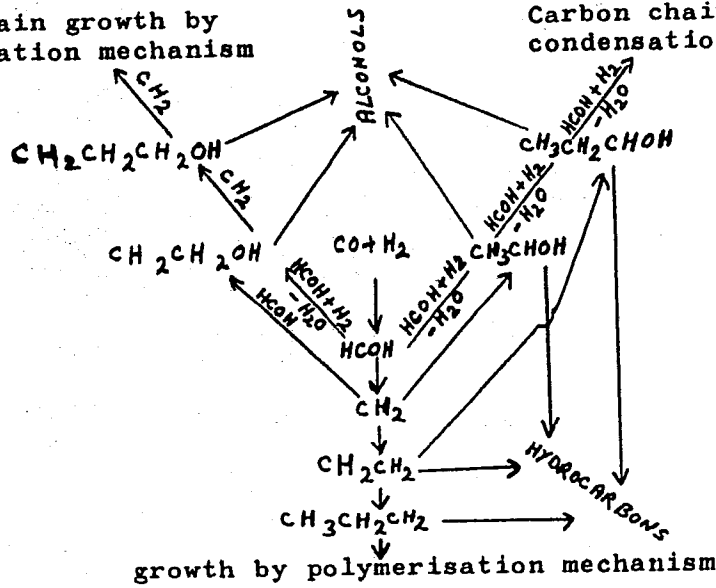
33496

S/195/61/002/005/023/027
EO40/E185

On the mechanism of chain growth ...

Carbon chain growth by
polymerisation mechanism

Carbon chain growth by
condensation mechanism



Scheme 2

X

Card 3/4

KHYUKOV, Yu.B.; BASHKIROV, A.N.; LIBEROV, L.G.; BUTYUGIN, V.K.;
STEPANOVA, N.D.

Mechanism of chain propagation in the synthesis of organic
compounds from CO and H₂ on iron catalysts. Kin.i kat. 2 no.5:
780-787 S-0 '61. (MIRA 14:10)

1. Institut neftekhimicheskogo sinteza AN SSSR.
(Chemistry, Organic-Synthesis) (Catalysts)

ROZOVSKIY, A.Ya.; BIRYUKOVICH, M.M.; IVANOV, A.A.; LIBEROV, L.G.;
BUTYUGIN, V.K.; KAGAN, Yu.B.; KRYUKOV, Yu.B.; BASHKIROV, A.N.

Mechanism of the carbide-forming reaction of fused iron
catalysts for synthesis from CO and H₂. Neftekhimii
3 no.1:97-103 Ja-F '63. (MIRA 16:2)
(Iron catalysts) (Iron carbides)
(Chemistry, Organic--Synthesis)

ACCESSION NR: AP5006078

... were analyzed ... geometry and ...
... which had been observed ...
... involve the intermediate oxygen compound ...
... ber rate than the growth of the ... The results indicated that both

ORIGINATOR: Institut neftekhimicheskogo sinteza im. A. V. Topchiyeva, AN SSSR
(petrochemical synthesis institute, AN SSSR)

SUBMITTED: 03Aug64

ENCL: 00

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NO REF SOV: 006

OTHER: 002

Card 2/2

LIBEROV, N. A.

5(2) 11(4) ТУМАС I KOK EXPLORATION 8/27/2021

Академия наук СССР, Институт нефти
 и газа, т. 12 (Труды Института Нефтегазоведения, СССР, Академия наук СССР, Москва, 1958, 395 стр. Фотоаппарат
 Science, Vol 12) Moscow, Izdatel' NIS, 1958, 395 p. Фотоаппарат
 inserted, 1,700 copies printed.

M. I. S. B. Bergyubov, Professor, Ed. of Publishing House: K. G.
 Myasovskiy, Tech. Ed.: V. V. Golobov.

PURPOSE: The book is intended for scientists, engineers, and technicians
 in the petroleum industry.

CONTENTS: This collection of articles describes the results of studies on
 the chemistry and technology of petroleum and gas conducted in the
 laboratories of the Petroleum Institute, Academy of Sciences, USSR, in
 1956 and 1957. A new section "Petroleum Chemistry and Technology
 of Petroleum" has been included in the collection of articles. A list
 of investigations published by the scientists of the Institute in 1956
 and 1957 and a list of dissertations for the Doctor's and Candidate's
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 Council of the Petroleum Institute, Academy of Sciences, USSR, are given.

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LIDEROV, G. F.

18(7) p. 2 PHASE I BOOK EXPLOITATION

SOV/3355

Akademiya nauk SSSR. Institut metallurgii. Nauchnyy sovet po probleme zharoprochnykh splavov

Issledovaniya po zharoprochnym splavam, t. IV (Studies on Heat-resistant Alloys, vol. 4), Moscow, Izd-vo AN SSSR, 1959. 400 p. Errata slip inserted. 2,200 copies printed.

Ed. of Publishing House: V. A. Klimov; Tech. Ed.: A. P. Guseva; Editorial Board: I. P. Bardin, Academician; G. V. Kurdyumov, Academician; N. V. Ageyev; Corresponding Member, USSR Academy of Sciences; I. A. Odina, I. M. Pavlov, and I. F. Zudin, Candidate of Technical Sciences.

PURPOSE: This book is intended for metallurgists concerned with the structural metallurgy of alloys.

COVERAGE: This is a collection of specialized studies of various problems in the structural metallurgy of heat-resistant alloys. Some are concerned with theoretical principles, some with descriptions of new equipment and methods, others with properties

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Studies (Cont.)

of specific materials. Various phenomena occurring under specified conditions are studied and reported on. For details, see Table of Contents. The articles are accompanied by a number of references, both Soviet and non-Soviet.

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APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R00092

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AVAILABLE: Library of Congress

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VK/os
4/12/60

S/180/62/000/006/011/022
EO40/E451

AUTHORS: Oding, I.A., Liberov, Yu.P. (Moscow)

TITLE: Susceptibility to cracking of nickel under static tensile loading

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, no.6, 1962, 125-130

TEXT: An investigation was made of the irreversible damage produced in 99.7% pure nickel specimens under static tensile loading at room temperature. The test specimens, 63 mm long, 8 mm gauge diameter, were annealed at 900°C for 2 hours under a vacuum of 5×10^{-5} mm Hg and then tested in ИМ-4Р (IM-4R) test machine. The cracking of test specimens was studied 1) by measurement and subsequent analysis of changes in the density after tensile loading and after recrystallization annealing; 2) by examining the stress vs. elongation curves; 3) by metallographic analysis of unetched surfaces by optical and electron microscopy. The results showed that the damage started long before the moment of failure. The nuclei of cracking are in the form of submicroscopic cracks 400 to Card 1/2

S/180/62/000/006/011/022
E040/E451

Susceptibility to cracking ...

500 Å wide. These submicroscopic cracks developed on reaching a 7 to 9% residual elongation while at failure the residual elongation was 40 to 45%. The true stress corresponding to the deformation at which the incipient submicroscopic cracks developed was of the order of 23 ± 0.5 kg/mm². A method was developed for determining the critical value of true stress and of the residual deformation corresponding to the appearance of the first irreversible micro-cracks: this point is indicated by a break in the curve obtained by plotting the specimen cross-section area against its elongation under varying stress. There are 6 figures.

SUBMITTED: May 11, 1962

Card 2/2

LIBEROV, Yu.P.

Apparatus for determining small changes in density of metals.
Zav. lab. 29 no.10:1261-1262 '63. (MIRA 16:12)

1. Institut metallurgii imeni A.A. Baykova.

L 12624-63

BDS/EWP(q)/EWT(m) AFFTC/ASD JD/HW-2

ACCESSION NR: AP3003511

S/0020/63/151/001/0092/0095

59
57

AUTHORS: Oding, I. A. (Corr. mem. AS SSSR); Ivanova, V. S.; Liberov, Yu. P.

TITLE: Basic assumptions for a correlation between the criteria for static and cyclic strength of metals

SOURCE: AN SSR. Doklady, v. 151, no. 1, 1963, 92-95

TOPIC TAGS: metal fatigue strength, static strength, static-fatigue strength, correlation metallurgy, elasticity theory, nickel, armco iron

ABSTRACT: In their attempt at establishing a correlation between the static and cyclic strength, the authors use parameters which are indicative of equivalence of the energy state of metals subjected to mechanical stress under different loading conditions. They determine the conditions for cyclic rupture, which are equivalent to the static increase of stress, by using the diagram of fatigue rupture together with the damage curve, introduced earlier by Ivanova (DAN, 119, no. 1, 1958, 71), which gives the formation of the first submicroscopic cracks. Thus it becomes possible to predict the fatigue rupture on the basis of static data. There is good agreement between the theoretical and experimental values

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ACCESSION NR: AP3003511 2

obtained by the authors with nickel and armco iron. Orig. art. has: 2 formulas
and 3 figures. 27

ASSOCIATION: Institut metallurgii im. A. A. Baykova (Institute of Metallurgy).

SUBMITTED: 23Feb63

DATE ACQ: 30Jul63

ENCL: 00

SUB CODE: PH, ML

NO REF SOV: 009

OTHER: 001

Card 2/2

ACCESSION NR: AP4019812

S/0279/64/000/001/0113/0119

AUTHORS: Oding, I. A. (Moscow); Liberov, Yu. P. (Moscow)

TITLE: Defect accumulation and the formation of submicrocracks during static elongation of Armco iron

SOURCE: AN SSSR. Izv. Metallurgiya i gornoye delo, no. 1, 1964, 113-119, and insert facing p. 47

TOPIC TAGS: Armco iron, iron, iron defect, submicroscopic defect, static tension, submicroscopic fracturing of iron, iron plasticity, IM4-P testing machine, tensile test, MIM-8 microscope, Tesla BS-242 electron microscope

ABSTRACT: A series of experiments was conducted on Armco iron samples 63 mm long and 8 mm in diameter. The samples were annealed at 850C for 2 hrs and were stretched in the IM4-P testing machine at room temperature and at the deformation velocity of 2%/minute. The electrical resistivity of the samples was measured for the first time after this treatment, and then was measured again after the samples were annealed at 450C for 4 hours. The metal structure was studied with the MIM-8 microscope and with the Tesla BS-242 electron microscope. The results showed that

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ACCESSION NR: AP4019812

the deformation of Armco iron led to the accumulation of crystalline lattice defects and to the formation of submicrocracks 400-900 Å long. The process of cracking started at the residual elongation of 7-9% under the force of 32-33 kg/mm². The accumulation of dislocations, and the development of cracks produced a variation in specific electrical resistivity and in the length of the curved section corresponding to the plastic region of the metal. At certain critical values of the residual elongation and of the stress applied, the metal plasticity was lowered due to the appearance of submicrocenters of metal failure. These critical values have to be accounted for during the selection of mechanical and thermomechanical methods of working the material. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 08Jun63

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: ML

NO REF SOV: 005

OTHER: 006

Card 2/2

ACCESSION NR: AP4029833

S/0279/64/000/002/0085/0091

AUTHOR: Oding, I.A. (Moscow); Liberov, Yu. P. (Moscow)

TITLE: The appearance of submicroscopic cracks in statically deformed plastic metals

SOURCE: AN SSSR Izv. Metallurgiya i gornoye delo, no.2, 1964, 85-91

TOPIC TAGS: strength, plastic metal, deformed metal, density, electrical resistance, mechanical characteristic, aluminum, copper, nickel, Armco iron, stress

ABSTRACT: The authors investigated the density variations, specific electrical resistance, and mechanical characteristics of technically-pure metals such as aluminum, copper, nickel, and Armco iron for the purpose of determining the kinetics of the building up of crystal and lattice defects in the process of static tension at room temperature. This led to their hypothesis that the appearance of the first continuity of the breakdowns of the material in the form of submicroscopic cracks became established in advance of the final breakdown. The results were presented in a table. It was found that during static tension of technically-pure aluminum, copper, nickel, and iron, the first submicroscopic cracks arose long before the final disruption of the samples with residual expansions equal to 0.15-0.30 from the expansion value attained at the moment of breaking down. The critical values were estab-

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ACCESSION NR: AP4029833

lished for the applied tensile stress and the elongation in which the first sub-microcracks arose in slip bands at the places of dislocation build-up near obstacles. The experimental by determined values of the tensile stress and the length of the submicroscopic cracks agreed with the theoretically calculated values. During deformation in the supercritical region, the recrystallization annealing of the deformed samples did not lead to a complete return of the density of aluminum, copper, nickel, and Armco iron. The value of the tensile stress must be considered in the development of deformation treatment methods directed to the renewal of structure and the hardening of metals. Orig. art. has: 2 formulas, 7 figures, and 1 table. .

ASSOCIATION: none

SUBMITTED: 10Jul63

DATE ACQ: 30Apr64

ENCL: 00

SUB CODE: ML

NO REF SOV: 004

OTHER: 010

Card 2/2

IVANOVA, V.S.; GORODIYENKO, L.K.; GEMINOV, V.N.; ZUBAREV, P.V.;
FRIDMAN, Z.G.; LIBEROV, Yu.P.; TEREVT'YEV, V.F.; VOROB'YEV,
N.A.; KUDRYASHOV, V.G.; BERLIN, Ye.N., red.

[Role of dislocations in the hardening and the failure of
metals] Rol' dislokatsii v uprochnenii i razrushenii metal-
lov. Moskva, Nauka, 1965. 179 p. (MIRA 18:10)

1. Moscow. Institut metallurgii. 2. Laboratoriya prochnosti
Instituta metallurgii im. A.A.Baykova, Moskva (for all except
Berlin).

L 27233-66 (EWT(m)/T/EWP(w)/EWP(t) IJP(c) JD
ACC NR: AM6003228 Monograph

40 UR/
37
B+1

Ivanova, V. S.; Gorodiyenko, L. K.; Geminov, V. N.; Zubarev, P. V.; Fridman, Z. G.;
Liberov, Yu. P.; Terent'yev, V. F.; Vorob'yev, N. A.; Kudryashov, V. G.

Role of dislocation in the strengthening and failure of metals (Rol'dislokatsii v uprochnenii i razrushenii metallov) Moscow, Izd-vo "Nauka", 1965. 179 p. illus., biblio. Errata slip inserted. 4500 copies printed.

TOPIC TAGS: metal, alloy, metal strength, alloy strength, dislocation, dislocation theory, thermomechanical treatment, metal failure

PURPOSE AND COVERAGE: The book is a continuation and development of the ideas of the late Professor I. A. Odintsov on the theory of dislocations. This theory served as the basis for the elaboration of new methods of strengthening metals and alloys. In the first part (Chap. I-IV) of this monograph the role of dislocations in the development of plastic deformation and the generation of flaws is discussed. In the second part (Chap. V-VII), the theoretical premises for metal and alloy strengthening with thermomechanical treatment and the effect of this treatment on the mechanical properties of metals and alloys under static and cyclic loads are reviewed.

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SUB CODE: 11/ SUBM DATE: 06Aug65/ ORIG REF: 180/ OTH REF: 238/

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LIBEROVA, R.A.

USSR .

13444* Organic Dyes for Polyvinyl Chloride. *Organicheskie krasiteli dlia polivinilkhlorida.* (Russian.) A. P. Pisarenko, R. A. Librova, and R. D. Gordonova. *Legkoe Promyshlennost'*, v. 15, no. 7, July 1953, p. 25-29. Problems of creating attractive and fast dyes; tests and structures of azo dyes; phthalocyanine and anthraquinone pigments. Tables. 2 ref.

CH
 (2) 2 may
 [Handwritten initials]

[Handwritten initials]

~~LIBEROVA, R.A.~~
KHOROSHAYA, Ye.S.; LYKOVA, A.N.; LIBEROVA, R.A.

Rapid chemical analysis methods of artificial astrakhan made of
viscose fiber. Leg. prom. 17 no.10:47-48 O '57. (MIRA 10:12)
(Fur, Artificial--Testing)

TSVETKOVA, N.A., nauchnyy sotrudnik; LIBEROVA, R.A., kand.tekhn.nauk;
PLOTNIKOV, I.V., kand.tekhn.nauk

Manufacture of artificial patent leather. Nauch.-issl.trudy
VNIIPK no. 2:3-11 '60. (MIRA 16:2)
(Leather, Artificial) (Urethanes)

39771

Z/011/62/019/007/003/005
E112/E453

15.8140

AUTHORS: Daskevich, L.A., Liberova, R.A., Losev, I.P.

TITLE: Effect of polyfunctional alcohols on the properties of polyurethane resins

PERIODICAL: Chemie a chemická technologie. Přehled technické a hospodářské literatury, v.19, no.7, 1962, 322, abstract Ch 62-4397. (Lakokras, materialy, v.2, no.2, 1962, 22-26)

TEXT: Polyester-urethane films with excellent elastic properties are obtained from polyester-urethane resins if synthesized from 1,4-butylene glycol or diethylene glycol. Part of the glycols was replaced during synthesis by about 10 to 15% glycerol. It was shown that the excess of toluylene diisocyanate, required for the synthesis of the polyester-urethane resins, was affected by the chemical nature of the alcohol and by the number of free hydroxyl-groups of the polyester. When 1,4-butylene glycol was used, an excess of 40% of the diisocyanate gave best results, while in the case of diethylene glycol and 1,3-butylene glycol, optimum
Card 1/2

ENT(M)/FPF(C)/ENT(C)

AR4040354

S/0081/64/000/006/S048/S049

29

Ref. zh. Khimiya, Abs. 6S299

Liberova, R. A.; Dubasova, L. M.; Shneyderova, V. V.

... and water-resistant film material for the insulation of ferro-concrete storage tanks

Nauchno-issled. tr. Vses. n.-t. in-t. plenochn. materialov i ...
... 1963, ...

... film ... water-resistant ... gasoline ...
...
... stabilizer ...

For the internal insulation and sealing of ferroconcrete storage ...

LIBEROVA, R.A., kand. tekhn. nauk; DUBASOVA, L.M., nauchnyy sotrudnik

Manufacture of film materials based on vinyl chloride
copolymers. Nauch.-issl. trudy VNIPIK no.14:126-134 '63.
(MIRA 18:12)

L 11416-63

EPR/EWP(j)/EPF(c)/EWT(m)/BDS

AFFTC/ASD Ps-4/Pc-4/Pr-4
8/032/63/029/005/008/022

EM/WM

73

AUTHOR: Khoroshaya, Ye.S., Lykova, A.N., Liberova, R.A. and Polinskiy, S.L.

TITLE: Quick analysis of free hydroxyl groups in polyesters

PERIODICAL: Zavodskaya laboratoriya, v. 29, no. 5, 1963, 549

TEXT: The proposed quick method is applicable to solutions of polyesters based on dicarboxylic acids and glycols, used to make polyurethane foams, glues and varnishes. The method consists of acetylation of the polyester and titration of the excess acetic anhydride.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut plenochnykh materialov i iskusstvennoy kozhi (All-Union Scientific Research Institute of Film Materials and Artificial Leather)

ja/ch
Card 1/1

L 2677-66 EWT(m)/EPF(c)/EWP(j) RM

ACCESSION NR: AP5022230

UR/0191/65/000/009/0064/0065
678.743.22.019.36

AUTHOR: Liberova, R. A.; Dubasova, L. M.

56
33
B
15,44,55

TITLE: Increasing the light resistance of plasticized polyvinyl chloride resins

SOURCE: Plasticheskiye massy, no. 9, 1965, 64-65

TOPIC TAGS: polyvinyl chloride, light aging, stabilizer additive, resin

ABSTRACT: Several organic compounds containing keto and hydroxy groups were studied as stabilizers for plasticized polyvinyl chloride resins. Film samples of the latter were tested for tensile strength and elongation as a function of the amount and nature of the light stabilizers added. While the tensile strength was not appreciably affected by the additives, the elongation was, indicating that structural changes took place in the polymers. Based on the change in elongation, one can select the most effective light stabilizer and establish its optimum amount which insures a constant elongation. As a result of the tests, the light stabilizers can be arranged in the following order of decreasing stabilizing effectiveness: 2-hydroxy-4-methoxybenzophenone; tetrahydroxysebacophenone; 2,4-dihydroxysebacophenone; diphenylolpropane; 2,4-dihydroxyacetophenone; ethylresorcinol; dihydroxyphenylcyclohexane. "All the compounds tested were

Card 1/2

L 2677-66

ACCESSION NR: AP5022230

synthesized and recommended by Z. V. Popova. ^{44,55} Orig. art. has: 2 figures. 3.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MT, OP

NO REF SOV: 002

OTHER: 001

Card 2/2 *OP*

USSR/Soil Science. General Problems

J

Abs Jour : Ref Zhur-Biol., No 13, 1958, 58255, G. V Morin

Author : Liberovskiy Yu. A.

Inst : Not given

Title : Utilization of Aeromethods in Soil Science

Orig Pub : Pochvovedeniye, 1957, No 6, 1-10

Abstract : The contents of a report given at the All-Union Interdepartmental Conference on Aerial Surveys are briefly presented (25.XI-1.XII, 1956). It was shown that on the basis of the physical properties of the upper horizons of soils it is possible to determine the properties of soils as a whole. The position of the given soil contour in relation to the relief, form, and dimensions of the contour are the basic indices in the surveying of the soils. Preliminarily it is neces-

Card 1/2

S/194/61/000/009/009/053
D209/D302

AUTHOR: Libers, A.

TITLE: Balanced instrument based on Lindek-Rote's circuit

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 9, 1961, 19, abstract 9 A130 (Nemetskiy eksport, 1960, Tochn. mekhan. i optika, 19-20)

TEXT: Two instruments made by Karl Marx Works making measuring instruments and accessories in Magdeburg (GDR) are described. 1) An electronic indicating instrument with a photo-balanced amplifier for measuring the thermocouple e.m.f. The amplified current is measured by a magneto-electric measuring mechanism with a 5 mA working current. The scale of the instrument is calibrated in millivolts or directly in °C. The maximum input resistance of the instrument is equivalent to 10 Ω/mV. The error does not exceed ± 0.5%, speed of response is 2 sec. The front panel dimensions of the instrument: 192 x 96 mm; weight - 2.5 kg. 2) 2-, 3- or 6-point

Card 1/2

S/194/61/000/009/009/053
D209/D302

Balanced instrument...

electronic recorder. The lowest range is 0 - 5 mV, permissible error of indication $\pm 0.5\%$; permissible error of recording $\pm 1\%$. Speed of response is 2 sec; the period of arm drop: 2.5, 5, 10 and 20 sec. The chart width is 120 mm, chart speed is adjusted from 20 to 1200 mm/h. The front panel dimensions of the instrument are 288 x 192 mm; weight ~ 17 kg. [Abstracter's note: Complete trans-
lation]

Card 2/2

COUNTRY: USSR
CATEGORY: CULTIVATED PLANTS. Fodder Grasses and Roots.
ABST. JOURN. REF ZHUR - BIOLOGIYA, NO. 4, 1959, No. 15689
AUTHOR: Libershteyn, I.I.
INST.: Moldavian Sci.Res.Inst. of Agric.
TITLE: Postmowing Stubble-field Sowings of Fodder Crops in the Northern Part of the Moldavian SSR.
ORIG. PUB.: Byul. nauchno-tekhn. inform. Mold. n.-i. in-ta s. kh. Kishinev, 1957, 17-24.
ABSTRACT: In years with abundant precipitation, large green mass yields of preceding crops were obtained: 248.9 centners/hectare of corn for green forage, up to 220 c/h of vetch-rye and vetch-oats mixtures; after them corn, as a postmowing crop, produced the highest crop (reaching 336 c/h), the crop-yield of sudan grass with vetch being in second place. In dry years the crops were considerably lower, especially of corn; sudan grass and

CARD: 1/2

LIBERSHTEYN, I. I. Cand Agr Sci -- (diss) "Post-mowing and post-harvest sowings
of annual fodder crops under conditions of the northern ^(part of the) Moldavian SSR."
Mos, 1959. 20 pp (All-Union Acad Agr Sci im V. I. Lenin. All-Union Sci Res
Inst for Fodders im V. R. Vil'yams), 150 copies (KL, 43-59, 126)

GORDIYENKO, V.A.; LIBERSHTEYN, I.I.

Growing sunflowers in the Moldavian S.S.R. Zemledelie 7 no.3:68-70
Mr '59. (MIRA 12:4)

1. Moldavskiy nauchno-issledovatel'skiy institut sel'skogo kho-
zyaystva.

(Moldavia--Sunflowers)

LIBERSHTEYN, I.I.

Stubble crops in Moldavia. Zemledelie 7 no.6:44-47 Je '59.
(MIRA 12:8)

1. Moldavskiy nauchno-issledovatel'skiy institut sel'skogo
khozyaystva.

(Moldavia--Field crops)

GORDIYENKO, V.A.; LIBERSHTEYN, I.I.

Soybean growing in Moldavia. Zemledelie 7 no.12:38-41
D '59. (MIRA 13:3)

1. Moldavskiy nauchno-issledovatel'skiy institut sel'skogo
khozaystva. Zemledelie 7 no.12:38-41 D '59.
(MIRA 13:3)

(Moldavia--Soybean)

GORDIYENKO, V.A.; LIBERSHTEYN, I.I.

Means for increasing vegetable oil production in the Moldavian
S.S.R. Masl.-zhir.prom. 25 no.1:9-10 '59. (MIRA 12:1)
(Moldavia--Sunflowers)

LIBERSHTEYN, I., kand, sel'skokhoz.nauk; SININA, V., red.; KAPITSA, V.,
tekh.red.

[How to get two-crop yields in a year] Kak poluchit' dva urozhaia
v god. Kishinev, Gos.izd-vo "Kartia moldoveniaske," 1960. 86 p.
(Field crops) (MIRA 14:6)

GORDIYENKO, V.A., kand.sel'skokhozyaystvennykh nauk; LIBERSETEYN, I.I.,
kand.sel'skokhozyaystvennykh nauk

"Soybean" by V.B.Enken. Reviewed by V.A.Gordienko, I.I.Liber-
shtein. Zemledelie 8 no.9 93-94 S '60. (MIRA 13:8)
(Soybean)
(Enken, V.B.)

GORDIYENKO, V.A., kand.sel'skokhozyaystvennykh nauk; LIBERSHTEYN, I.I.,
kand.sel'skokhozyaystvennykh nauk

"Cultivation of sunflowers" by P.G.Semikhenko and others. Reviewed
by V. A. Gordienko and I. I. Libershtein. Zemledelie 23 no.10:
91-92 0 '61. (MIRA 14:9)
(Sunflowers) (Semikhenko, P. G.)

GORDIYENKO, V.A., kand.sel'skokhozyaystvennykh nauk; LIBERSHTEYN, I.I.,
6350074 kand.sel'skokhozyaystvennykh nauk

More oil from each hectar of sunflower plantations. Masl.-
zhir.prom. 28 no.4:15-16 Ap '62. (MIRA 15:5)

1. Moldavskiy nauchno-issledovatel'skiy institut selektsii,
semenovodstva i agrotekhniki polevykh kul'tur.
(Sunflower seed oil)

LIBERSHTEYN, I.I., kand.sel'skokhoz.nauk

Applying herbicides to soybean fields. Zashch. rast. ot vred. i bol.
7 no.8:27-28 Ag '62. (MIRA 15:12)

1. Moldavskiy institut selektsii, semenovodstav i agrotekhniki
polevykh kul'tur. (Moldavia--Soybean) (Moldavia--Weed control)

LIBERSHTEYN, I.I., kand.sel'skokhoz.nauk

Corn as a stubble crop in Moldavia. Zhivotnovodstvo 24 no.5:18-20
My '62. (MIRA 16:10)

1. Moldavskiy nauchno-issledovatel'skiy institut selektsii,
semenovodstva i agrotekhniki polevykh kul'tur.

GORDIYENKO, V.A., red.; KALASHNIK, H.S., red.; KIBASOV, P.T., kand.
sel'khoz. nauk, red.; KOROVKO, P., red.; LATCHENKO, V.N.,
red.; LIBERSHIEYN, I.I., kand. sel'khoz. nauk, red.;
LISUNOV, I.K., red.; LUPASHKU, M.F., kand. sel'khoz. nauk,
red.; PISKUNENKO, I.I., kand. ekon. nauk, red.

[Brief work results for 1962] Kratkie itogi rabot za 1962
god. Kishinev, "Kartia moldoveniaska," 1963. 72 p.

(MIRA 17:10)

1. Moldavskiy nauchno-issledovatel'sk'v institut selektsii,
semenovodstva i agrotekhniki polevykh kul'tur.

HIRSZFELD, I.; KRZYSZTOPORSKI, S.; KLAWE, H.; TURCZYNSKI, T.; OSINSKA, M.;
STOCHOWA, K.; LIBERSKA, H.

Further studies on the action of antiallergic drugs on
pathological manifestations in pregnancy, with special
reference to habitual abortions. Polski, tygod. lek. 6
no.25-26:786-795 25 June 51. (CML 21:1)

1. Of the Research Center for the Pathology of Pregnancy
of the Obstetric-Gynecological Clinic in Wroclaw and of
the Institute of Medical Microbiology.

LIBERSKA, H.
HIRSZFELD, L.; LIBERSKA, H.; MARESZ, J.; OSINSKA, M.; STOCHOWA, K.

Application of the new group characteristics to establishing of
paternity. Polski tygod. lek. 7 no. 16:457-461 21 Apr 1952.
(GLML 22:4)

1. Of the Institute of Medical Microbiology of Wroclaw Medical
Academy.

LIBERSKA, Halina

LUSZCZYNSKI, Tadeusz; LIBERSKA, Halina

The behaviour of Coombs test and other serological reactions in different diseases. Arch. immun. ter. dosw. 4:81-92 1956.

1. Instytut Immunologii i Terapii Doswiadczałnej PAN we Wrocławiu
(Dyrektor: prof. dr St. Slopek) Zakład Grup Krwi (Kierownik: prof.
dr. B. Popielski)

(HEMAGGLUTINATION, in various dis.
Coomb' test)

LIBERSKA, Halina; LIMANSKI, Marian; MARZEC, Zofia

Effect of blood transfusion on the appearance of leuko-agglutinins.
Pol. med. wewnet. 32 no.7:803-805 '62.

1. Z Wojewodzkiej Stacji Krwiodawstwa w Katowicach Dyrektor: dr med.
Jerzy Rusecki.
(BLOOD TRANSFUSION) (ANTIBODIES) (LEUKOCYTES)

GABRYS, Antoni; LIBERSKI, Maciej

Serologic studies in cats for toxoplasmosis. Wiad. parazyt. 10
no.4:389 '64

1. Wojewodzki Zaklad Higieny Weterynaryjnej, Katowice.

LIBERT, A.L., inzh.

Unsoldered and unwelded pipe sleeve connections. Sudostroenie
28 no.3:56-57 Mr '62. (MIRA 15:4)
(Marine pipe fitting)

FERTIK, I.M.; LIBERTAL', R.Sh.; PLEMYANNIKOVA, M.Ye.

Tuberculin-trypan test; increase of sensitivity in the method of
detection of allergy. Probl. tuberk., Moskva no.1:46-51 Jan-Feb 52.
(CIML 21:5)

1. Docent for Fertik. 2. Of the Children's Division (Head--Docent
I.M. Fertik) and of the Department of Microbiology (Consultant--
Prof. V.M. Berman), Leningrad Scientific-Research Tuberculosis
Institute (Director--A.D. Semenov).

LIBERTINY, Gabor, aklevelos kohomernok

Comparison of the production and quality of tube materials cast in closed and open molds. Koh lap 93 no.9:395-399 S '60.

1. Dunai Vasmu, Acelmu.

H/014/60/000/010/004/004
E190/E580

AUTHOR: Libertiny, Gábor, Dipl.met. eng.

TITLE: A Comparison of the Production and Quality of Tube
Ingots Cast in Open and Closed Moulds

PERIODICAL: Kohászati lapok, 1960,⁹³ No.10, pp.456-459

TEXT: The production of tube ingots of 332.5 mm diameter and 1400 mm length in A35-29CSB quality rimmed steel presents many difficulties. The introduction of closed-end moulds led to improvements in quality and recovery and the purpose of the present study is to compare advantages and disadvantages of closed versus open end moulds. The first criterion of a good tube ingot is the formation of a minimum 15 mm thick sound skin. The depth of the skin is - in otherwise identical steel cast into a given mould - a fraction of the pressure acting at the zone of solidification. The pressure is the sum of atmospheric and ferrostatic pressures and, in the case of closed moulds, it is increased by the pressure of CO that is liberated in the zone of blowhole formation during solidification and partially trapped under the lid. This reduces the thickness of skin especially near the top

Card 1/3

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A Comparison of the Production ...

H/014/60/000/010/004/004
E190/E580

if the gap between lid and mould is partially blocked by frozen steel. For this reason, the O_2 concentration of the melt should be increased; from experience it was found that the slag of open-hearth charges should contain 15% FeO against the 13% maintained when making steels for open-ended moulds. Sulphur segregation reaches 300-400% under the head of ingots cast in open moulds and may cause internal cracks in the rolling of steels with 0.05% S (i.e. the permissible maximum). By restricting the time of solidification (i.e. from the end teeming to the end of rimming) to 1.5-2 min in closed moulds, sulphur segregation can be limited to 120%. The distribution and composition of non-metallic inclusions is discussed with reference to H. Hoff, H. Lessing and G. Masing. Experience showed that the surface of ingots cast in closed moulds is more likely to show defects and inclusions which lead to fine surface-cracks in the piercing process. This, and the larger number of inclusions, the iron loss in slags of higher FeO content and higher mould maintenance costs are more than offset by the 25% increase in recovery of tube. Further improvements were obtained by after-desoxydation with aluminium powder.

Card 2/3

A Comparison of the Production ... H/014/60/000/010/004/004
E190/E580

Too small (less than 0.15-0.18 kg/ton) aluminium addition increases the viscosity of the steel and results in an ingot with heavy segregations, too high (more than 0.24-0.30 kg/ton) addition desoxydizes instantly, the steel behaves like killed steel and a deep pipe is formed. By adding the optimum 0.18-0.24 kg Al/ton steel, the depth of pipe is negligible, sulphur segregation is less than 70% and, since open ended moulds are used, surface quality improves. The method has been used in this form for casting sheet material and recovery increased from 67.6% to 77.5%. At present, 0.1 kg Al/ton steel is used in tube ingot production primarily as a control over time of solidification in closed-end moulds and, as a result, recovery improved. There are 12 figures, 1 table and 2 German references.

ASSOCIATION: Dunai Vasmú (Danube Iron Works, Steel Plant)

Abstractor's Note: [This is the second part of the paper, the first part of which appeared in No.9, pp. 395-399; this is an abstract of the complete paper.]

Card 3/3

ACC NR: AM6030478

(A,N)

Monograph

UR/

Libetorf, Garol'd Borisovich

Mechanical units for high-speed cutters (Mekhanicheskkiye ustanovki bystrokhodnykh katerov) Leningrad. Izd-vo "Sudostroyeniye", 1966. 293 p. illus., biblio. 2600 copies printed.

TOPIC TAGS: marine engine, marine engineering, marine equipment, inland vessel data.

PURPOSE AND COVERAGE: The book has been prepared for engineers specializing in power units for cutters; it will also prove useful to students in higher educational institutions. Problems are presented in the design and testing of power plants for cutters. The types of power plants now used in high-speed cutters are high-speed diesels, carburetor engines, and gas turbines. A brief description of the basic designs of cutter engines, reversing and reducing gear, and flexible couplings is given. Design considerations of the shafting, with specifics on high-speed and water-jet-propelled cutters, are presented. Other problems discussed include: depreciation of machinery on plastic cutters; noise and vibration damping; maintenance of individual mechanical units such as lubricating, cooling, and heating systems; remote control systems; and the synchronization of separate support systems. The author expresses appreciation to A. A. Rikhter, G. S. Rozhanskiy, and A. M. Radov for their review and comments. There are 24 references, 20 of which are Soviet.

Card 1/2

UDC: 629.124.82-8

ACC NR: AM6030478

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Ch. III. Basic peculiarity of cutter engines - 36

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SUB CODE: 13/

SUBM DATE: 19Mar66/

ORIG REF: 021/

OTH REF: 003/

Card 2/2

KRASUCKI, Florian; LIBERUS, Zygfryd

Comparison as to economy and mobility of locomotives used
in underground mines. Gornictwo Gliwice no.12:217-234 '64.

REYKHEL', V.I.; LIBERZON, D.M.

Hamman-Rich syndrome (diffuse interstitial pulmonary fibrosis).
Pediatrlia 4 no.7:73-76 J1'63 (MIRA 16:12)

1. Iz kliniki khirurgii detskogo vozrasta (zav. - prof. N.V.
Zakharov) Saratovskogo meditsinskogo instituta.

REYKHEL', V.I.; LIBERZON, D.M.

Suppurative peritonitis as a complication of spleen infarction in septic endocarditis. *Pediatrics* 4 no.7:71-72 J1'63
(MIRA 16:12)

1. Iz kliniki khirurgii detskogo vozrasta (zav. - prof. N.V. Zakharov) Saratovskogo meditsinskogo instituta.

LIBERSON, VE.

"Photochemical Reaction in the Region of Electron

Affinity Spectrum of Chromous Ions in Solution,"

Dok. AN, 28, No. 3, 1940. Pissarjevsky Inst. Physical

Chem.; Acad. Sci. Ukrainian SSR; Dnepropetrovsk,

c1940-.

DAIN, B. Ya.; KUTSAYA, B. F.; LIBERZON, E.A.

Inst of Physical Chemistry imeni L. V. Pisarzhevskiy, Acad. of Sci. (-1941-)

"Reactions in the Spectrums of Electron Affinity of Ions of Bivalent Chromium and Iron." Zhur. Fiz. Khim., Vol. 17, No. 4, 1943

BR-52059019

LIBERSON, E.

"Electron Affinity Spectrum of Chromous Ions," Acta Phys.,
Vol. XIX. No. 5. 1944. Acad. of Sci. of the Ukr. SSR,
Pissarjevsky Inst. of Phys. Chem., Lab. of Photochem.

AUTHORS: Baranov, A. V., Liberzon, E. A., SOV/156-58-4-46/49
Starobinskaya, R. Kh.

TITLE: Partial Pressure of the Nitrogen Oxides in the System
 $\text{HNO}_3\text{-H}_2\text{SO}_4\text{-HNOSO}_4\text{-H}_2\text{O}$ (Partsiial'noye davleniye okislov azota
nad sistemoy $\text{HNO}_3\text{-H}_2\text{SO}_4\text{-HNOSO}_4\text{-H}_2\text{O}$)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Khimiya i khimicheskaya
tekhnologiya, 1958, Nr 4, pp 789-793 (USSR)

ABSTRACT: The partial pressure of nitrogen oxides in the system
 $\text{HNO}_3\text{-H}_2\text{SO}_4\text{-HNOSO}_4\text{-H}_2\text{O}$ in dependence on the composition of
the liquid phase and temperature was investigated. The
investigations were carried out according to the dynamic and
static methods. With rising temperature the partial pressure
of the nitrogen oxides increases. The dependence of the
partial pressure of nitrogen oxides on the content of nitric
acid in the mixture is expressed by the following equation:

$$P_{\text{total}} = A_3 C_{\text{HNO}_3}^{\alpha} . \text{ The dependence of the partial pressure on}$$

Card 1/3

Partial Pressure of the Nitrogen Oxides
in the System $\text{HNO}_3\text{-H}_2\text{SO}_4\text{-HNO}_2\text{-H}_2\text{O}$

SOV/156-58-4-46/49

the concentration of sulfuric acid is calculated according to the following equation:

$P_{\text{total}} = A_4 C^{-12}$. The concentration of sulfuric acid exerts considerable influence upon the partial pressure of nitrogen oxides; it was investigated at 20, 30, 40, 50, 60 and 70° C. The family of curves is given as follows:

$P_{\text{total}} = A_5 C^{-9}$. The results prove that the absorption of nitrogen oxides from nitrous gases is complete at a temperature of 30-40° C and a sulfuric acid concentration of 70 %. A possibility of obtaining concentrated nitric acid from nitrous gases was described. There are 4 figures and 1 Soviet reference.

ASSOCIATION: Kafedra tekhnologii neorganicheskikh veshchestv
Dnepropetrovskogo khimiko-tekhnologicheskogo instituta
Card 2 / 3 (Chair of Technology of Inorganic Substances at the

Partial Pressure of the Nitrogen Oxides
in the System $\text{HNO}_3\text{-H}_2\text{SO}_4\text{-HNO}_2\text{-H}_2\text{O}$

SOV/156-58-4-46/49

(Dnepropetrovsk Institute of Chemical Technology)

SUBMITTED: May 23, 1958

Card 3/3

REF ID: A74448179

REF: Ref. zh. Khimiya. Abs. 9L48

AUTHOR: Baranov, A. V., Liberzon, E. A., Timosheiko, N. Ye., Khmelinia, T. P.

TITLE: The concentration of dilute nitric acid in the presence of calcium nitrate

CITED SOURCE: Tr. Sibirsk. tekhnol. in-ta, sb. 36, 1963, 45-49

TOPIC TAGS: nitric acid production, nitric acid concentration, calcium nitrate, azeotropic mixture

TRANSLATION: The authors studied the concentration of HNO_3 in the vapors above mixtures of $\text{HNO}_3 + \text{H}_2\text{O} + \text{Ca}(\text{NO}_3)_2$ and found that concentrated HNO_3 is obtained in the presence of $\text{Ca}(\text{NO}_3)_2$. Diagrams for determining the concentration of HNO_3 in the vapors and boiling point of mixtures of $\text{HNO}_3 + \text{H}_2\text{O} + \text{Ca}(\text{NO}_3)_2$ in relation to their composition were constructed. These showed that this system has an azeotropic composition at 11% $\text{Ca}(\text{NO}_3)_2$ and addition will contain approximately 10% $\text{Ca}(\text{NO}_3)_2$.

Cord 1/2

L 19420-65

ACCESSION NR: AR4049179

SUB CODE: IC

ENCL: 00

Card 2/2

LIBERZON, G.Ya., professor (Fergana)

Hemorrhages of the brain stem in hypertension. Sov. med. 18 no.11:
17-20 N '54. (MLRA 7:12)

(HYPERTENSION, complication
cerebral hemorrh.)

(CEREBRAL HEMORRHAGE, complications
hypertension)

LIBERZON, G.Ya. (Fergana)

Cerebrovascular changes in hypertensive cerebral hemorrhages.
Ark.pat. 18 no.2:36-43 '56 (MIRA 11:10)

1. Iz Ferganskoy oblastnoy bol'nitsy.
(CEREBRAL HEMORRHAGE, pathology,
vasc. changes in hypertensive hemorrh. (Rus))
(HYPERTENSION, complications,
cerebral hemorrh., vasc. pathol.changes (Rus))

LIBERZON, G.Ya. (Fergana)

Pathogenesis of hypertonic cerebral hemorrhage. Zhur.nevr. i psikh.
56 no.6:446-453 '56. (MIRA 9:8)

(CEREBRAL HEMORRHAGE, etiol. and pathogen.
hypertension, pathol. & mechanism of pathogen.)

(HYPERTENSION, compl.
cerebral hemorrh., mechanism of pathogen. & pathol.)

LIBES, Girsha Yankelovich; SUSHKOV, Boris Borisovich; SEMKO, G.S., red.
izd-va; LAVRENOVA, N.B., tekhn. red.

[Present-day methods of cleaning tanks of oil tankers] Sovremennye
metody ochistki tankov neftenalivnykh sudov. Moskva, Izd-vo "Mor-
skoi transport," 1958. 101 p. (MIRA 11:10)
(Tank vessels--Cleaning)

LIBERZON, G.Ya., prof.

Errors in the diagnosis of neuralgias. Sov.med. 22 no.6:31-38 Je '58
(MIRA 11:9)

1. Iz kafedry nervnykh bolezney (zav. - prof. G.Ya. Liberson)
Blagoveshchenskogo meditsinskogo instituta (dir. - dots. S.G. Ptitsin).
(NEURALGIA, diag.
diag. errors (Rus))

LIBERZON, G.Ya., prof. (Blagoveshchensk)

Clinical picture and pathogenesis of microfocal loss of cerebral function in hypertension. Klin.med. 36 no.9:82-86 S'58 (MIRA 11:10)

1. Iz kafedry nervnykh bolezney (zav. - prof. G.Ya. Liberzon)
Blagoveshchenskogo meditsinskogo instituta (dir. - dots. S.G. Ptitsyn.)

(HYPERTENSION, pathol.

microfocal cerebral funct., clin. pictures & pathogen.
(Rus))

(BRAIN, pathol.

microfocal funct. loss in hypertension, clin.picture
and pathogen.(Rus))

LIBERZON, G.Ya., prof.

Pathogenesis of cerebral hemorrhages of varying etiology.
Trudy Gos.nauch-issl.inst.psikh. 25:631-642 '61. (MIRA 15:12)

1. Kafedra nervnykh bolezney Blagoveshchenskogo gosudarstven-
nogo meditsinskogo instituta (zav. kafedroy - prof. G.Ya.
Liberzon direktor instituta M.K.Nadgeriyev).
(HYPERTENSION) (BRAIN--HEMORRHAGE)

SUPRON, L.F., dots., otv. red.; ARINCHIN, N.I., prof., red.;
GEL'BERG, S.I., prof., red.; KLEPATSKIY, B.I., prof., red.;
LIBERZON, G.Ye., prof., red.; NOVIKOV, I.I., kand. med.nauk
red.; RAZUMOVICH, A.N., assistant, red.

[Abstracts of the reports of the Fourth Scientific Session
on the Problem: Physiology, Morphology and Pathology of the
Cardiovascular System] Tezisy dokladov Nauchnoi sessii po
probleme: Fiziologiya, morfologiya i patologiya serdechno-
sosudistoi sistemy. Grodno, Grodnenskiy med. in-t, 1962. 207 p.

(MIRA 17:10)

1. Nauchnaya sessiya po probleme: Fiziologiya, morfologiya i patologiya serdechno-sosudistoy sistemy, 4th, 1962. 2. Zaveduyushchiy kafedroy patologicheskoy fiziologii Grodenskogo meditsinskogo instituta (for Supron). 3. Zaveduyushchiy kafedroy normal'noy fiziologii Grodenskogo meditsinskogo instituta (for Arinchin). 4. Kafedra normal'noy anatomii Grodenskogo meditsinskogo instituta (for Novikov). 5. Zaveduyushchiy kafedroy mikrobiologii Grodenskogo meditsinskogo instituta (for Gel'berg). 6. Zaveduyushchiy kafedroy obshchey khirurgii Grodenskogo meditsinskogo instituta (for Klepatskiy). 7. Zaveduyushchiy kafedroy nervnykh bolezney Grodenskogo meditsinskogo instituta (for Liberzon). 8. Kafedra biokhimii Grodenskogo meditsinskogo instituta (for Razumovich).

LIBERZON, I.M.

Some characteristics of folded structures in the Dashkesan ore region. Dokl. AN Azerb. SSR 14 no.5:375-378 '58. (MIRA 11:5)

1. Institut geologii AN AzerSSR. Predstavleno akademikom AN Azerb. SSR
M. A. Kashkayem. (Dashkesan District--Folds (Geology))

KASHKAY, M.-A.; LIBERZON, I.M.

Materials on faults and ore deposits in the Dashkesan ore-bearing province. Izv. AN Azerb. SSR. Ser. geol.-geog. nauk no.2:3-20 '59.

(Dashkesan region--Ore despoits)

(MIRA 12:8)

(Dashkesan region--Faults (Geology))

LIBERZON, I. M., Cand Geol-Min Sci -- (diss) "Structure of the intrusive complex and ore field of Dashkesan." Baku, Publishing House of the Acad Sci, AzSSR, 1960, 24 pp, (Acad Sci, AzSSR. Inst Geology im Academician I. M. Gubkin), 150 copies, (KL, 30-60, 137)

LIBERZON, I.M.

Prototectonics of the Zurnabad-Dashkesan intrusive complex. Izv.
AN Azerb. SSR. Ser. geol.-geog. nauk no.3:77-82 '60.

(MIRA 13:10)

(Azerbaijan--Geology, Structural)

(Azerbaijan--Rocks, Igneous)

MUSTAFABEYLI, M.A.; LIBERZON, I.M.; AKSEL'ROD, M.A.

Structure of the southern margin of the Kusary-Divichi
synclinerium in the Khanagya section. Uch.zap.AGU.Geol.-geog.ser.
no.5:21-26 '59. (MIRA 14:6)
(Kuba District--Geology, Structural)

MUSTAFABEYLI, M.A.; LIBERZON, I.M.; AKHMEDEV, D.M.

Basic characteristics of the distribution of endogenetic deposits
in the Dashkasan-ore zone. Zakonom.razm.polezn.iskop. 7:261-265
'64. (MIRA 17:6)

1. Upravleniye geologii i okhrany nedr pri Sovete Ministrov
Azerbaydzhanskoy SSR.

L 5167-66 EWT(1)/EWA(h)

ACC NR: AP5025700

SOURCE CODE: UR/0286/65/000/018/0048/0048

INVENTOR: Liberzon, K. Sh.

ORG: none

3/
B

TITLE: Transistorized converter of d-c into three-phase a-c. Class 21, No. 174702

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 48

TOPIC TAGS: inverter, transistorized circuit

ABSTRACT: The proposed inverter takes the form of three single-phase inverters (see figure) utilizing feedback transformers synchronized by means of a master oscillator and connected in a half-wave coincidence circuit. To improve reliability and achieve separate frequency and voltage control over a wide range, one winding of the feedback transformer is connected through two separating diodes to the collectors, and the other winding is connected to the bases of the transistors. The central points

Card 1/2

UDC: 621.314.57:621.382.3

0701131

L 5167-66

ACC NR: AP5025700

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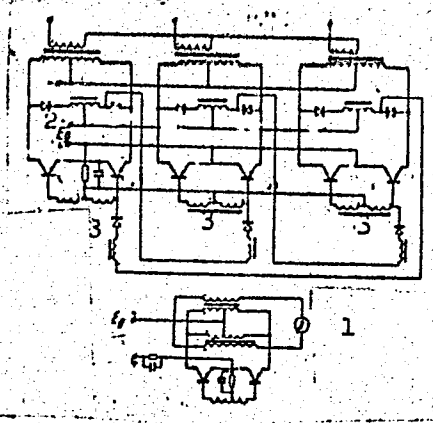


Fig. 1a. Three phase inverter

1 - Master oscillator; 2 - additional d-c voltage source; 3 - feedback transformers.

of the windings are connected to an additional low d-c voltage source. Orig. art. has: 1 figure.

[DW]

SUB CODE: EE, EC/SUBM DATE: 08Apr64/ ORIG REF: 000/ OTH REF: 000/ ATD PRESS:

Card 2/2

4132

L 11328-67 EWT(1)/
ACC NR: AP6035740 (A,N) SOURCE CODE: UR/0413/66/000/019/0102/0103

INVENTOR: Liberzon, K. Sh. 20

ORG: none

TITLE: Transistorized inverter with a relay characteristic. Class 42, No. 186768

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 102-103

TOPIC TAGS: inverter, transistorized inverters, *TRANSISTORIZED CIRCUIT, TRANSFORMER*

ABSTRACT: A sensitive transistorized inverter with a relay characteristic is described. The inverter is based on a multivibrator with a transformer coupling. Feedback windings and a rectifier have been added to provide a rectified negative feedback between the main power transformer and the intermediate transformers. Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 15Aug64/

Card 1/1 bab

UDC: 621,314,572

ACC NR: AR6035209

SOURCE CODE: UR/0274/66/000/008/A016/A016

AUTHOR: Liberzon, K. Sh.

TITLE: Frequency stability of a transistorized two-transformer oscillator

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 8A101

REF SOURCE: Nauchn. tr. vuzov Povolzh'ya, vyp. 2, 1965, 299-319

TOPIC TAGS: transistorized oscillator, frequency stability

ABSTRACT: The dependence of a transistorized-oscillator's frequency on the various circuit parameters is established and analyzed, and conditions under which frequency depends only slightly on load current are determined. It is assumed that the oscillator is designed on the basis of an extended two-transformer oscillator circuit. The equivalent circuit and input equations describing the operation of such an oscillator are developed. The magnetization curve of the switching transformer core in the oscillator is approximated by a linearly broken curve, and the input characteristics by a set of parallel straight lines, which is accurate enough for the majority of power transistors. It is shown that the dependence of frequency on load is minimal when the following relationship is satisfied

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UDC: 621.373.42:538.56

ACC NR: AR6035209

$$E \approx r_k \left[I + I_m \left(1 - \frac{I_m}{2I} \right) \right]$$

interconnecting the load current I_m , the power supply voltage E , the collector resistance r_k , and the characteristics of the core material (through coefficient f , which characterizes the inclination of the hysteresis-loop branches of the switching transformer). One of the methods of satisfying this equality is to connect an additional resistance into the collector circuit. In oscillators whose oscillation period increases with an increase in load, the frequency stability can be improved by increasing the primary-winding resistance. Experimental results are given showing that with variation in load current from zero to the rated current it is possible to produce power-oscillators with a frequency stability of not less than 1—2%. There are six illustrations. The bibliography contains 15 titles. [Translation of abstract] [DW]

SUB CODE: 09/

Card 2/2