BERENDEROVA, I.

Estimation of residual amounts of penicillin in dried penicillin mycelia. Cesk. hyg. 10 no.3:245-246 My '65

1. Vyskumny ustav hygieny, Bratislava.

BERENDEY, A.Ye.

Specific variety in the plantations of the Krasnokutsk Park. Biul. Glav. bot. sada no.28:3-11 '57. (MIRA 11:1)

1. Krasnokutskiy opornyy punkt sadovodstva s dendroparkom.
(Krasnokutsk District--Arboretums)
(Trees) (Shrubs)

HERENDEY, A.Ye.

Characteristics of the stem and root scions grafted on an apple tree. Biul.Glav.bot.sad no.52:101-102 '64. (MIRA 17:4)

1. Krasnokutskiy opornyy punkt sadovodstva g. Krasnokutsk Khar'kovskoy oblasti.

BERENDEYEV, A.V., doktor tekhn. nauk, prof. [deceased]

Application of the calculus of tensors and the geometry of Riemann spaces to linear bound systems. Izv. LETI no.47: 143-156 '62. (MIRA 16:12)

BERENDS, T. K. (IAT AN SSSR)

"Apparatus for the Automatic Adaption of the An Pressurized air Regulator to the Regulated Object on an Change of Load"

report presented at the Scientific Seminar on Pnsumo-Hydraulic Automation, 28-29 May 1957, at the Inst. for Automation and Remote Control (IAT), Acad. Sci. USSR

Avtomika i Telemekhanika, 1957, Vol. 18, No. 12, pp. 1148-1150 , (author SEMIKOVA, A. I.)

BERENDS, I. K.

28(1) PHASE I BOOK EXPLOITATION SOV/2702

Akademiya nauk SSSR. Institut avtomatiki i telemekhaniki.
Seminar po pnevmogidravlicheskoy avtomatike. 1st, Moscow, 1957

Sistemy, ustroystva i elementy pnevmo- i gidroavtomatiki; (Abormir)
(Pneumatic and Hydraulic Devices, and Elements in
Automation; Collection of Papers) Moscow, Izd-vo AN SSSR,
1959. 233 p. Errata slip inserted. 2,700 copies printed.

Resp. Ed.: M. A. Ayzerman, Doctor of Technical Sciences, Professor;
Ed. of Publishing House: A. A. Tal'; Tech. Ed.: T. P. Polyakova.

PURPOSE: This collection of papers is intended for scientific research workers and engineers in the field of design and construction of pneumatic and hydraulic equipment and accessories for automation.

COVERAGE: This collection contains papers read at the Seminar on Pneumatic and Hydraulic Devices for Automation, May 28, 1957. The collection is divided into the following three groups: 1) newly developed pneumatic and hydraulic circuits 2) pneumatic and hydraulic devices, including regulating units, transmitters and transducers, actuating mechanisms, special-purpose devices, fluidic devices for automation, elements of pneumatic and hydronozzles and diaphragms. No personalities are mentioned. References follow several of the papers.

Berezovets, G. T. (Moscow). Pneumatic Ratio Controllers 122
Without Mechanical Dividers
Types RS-1 and RS-2 ratio controllers are described. The change of ratio in relation to the throttle opening and the primary pressure is discussed.

Zalmanzon, L.A., and A.I. Senikova (Moscow). Designing a Non-linear Transformation in Pneumatic Systems by Means of "Nozzle-flow" Type Elements 128
This paper discusses the first stage of an investigation made at the Laboratory for Pneumatic and Hydraulic Automation, IAT AN SSSR. The characteristics of a pneumatic nozzle-tube-type relay consisting of a nozzle and pitot tube are described. The functioning and possible uses of this device are dealt with. Schematic diagrams of the relay and photographs of the experimental installation are shown.

Berends, I. K., and A. A. Tal' (Moscow). Possibility of Computing a Pneumatic Regulator With Automatic Response to Load Changes 148

Gerzhikh, Yu. I. (Moscow). External Pneumatic Regulator, IAT AN SSSR 155
The basic principles of an external regulator for maintaining certain maximum values in an automated system are discussed. A schematic diagram is presented, and the construction is described. Results of laboratory testing are given.

Auxiliary Equipment

Prusenko, V. S. (Moscow). Automatic Installation for Compressed Air Supply 165
A description is given of an installation with units of simple construction (rotary liquid piston compressor and two-stage dehydrator) for securing a continuous supply of clean and dry compressed air.

BERENDS, T.K.

report to be presented at the 1st Intl Congress of the Intl Federation of Automatic Control, 25 Jun-5 Jul 1960, Moscow, USSR.

AGEYKIN, D. I. - "Compensating thermo-magnetic gas analysers"
ANDREYEV, N. I. - "Method of determining the optimum dynamic system according to the criterion of the functional extra, which is a given function of several other functions"
AYZERMAN, M. A., and GANTMAKHER, F. R. - "Some problems of the theory of nonlinear systems of automatic regulation with discontinuous characteristics"
BARBASHIN, Ye. A. - "Concerning the organization of the LYAPUNOV function for nonlinear systems"
BASHARIN, A. V. - "Graphic methods of synthesis of nonlinear systems of automatic regulation"
BASHTA, T. M. - "Problems of the application of high liquid pressures for automatic systems"
BEDEL'BAYEV, A. K. - "The theory of stability of regulation systems"
BELIKOV, Yu. N. - "Multicoordinate nonlinear interpolator for program control of machines"
BERENDS, T. K., and TAL', A. A. - "Pneumatic alloy systems"
BERNSHTEYN, V. L., KALASHNIKOV, V. I., KNYAZHEVSKIY, V. V., MAZIN, L. V., POPOV, G. A. - "Automated electric drive of the propeller installation of the atomic icebreaker 'Lenin'"
BESEKERSKIY, V.A., and FEDOROV, S. M. - "Application of the equivalent transmission function in the calculation of follower systems by the logarithmic frequency curve method"
BILIK, R. V., MIKHILASHVILI, V. A., and PRANGISHVILI, I. V. - "Contactless telemechanical systems with temporary separation of channels"
BOLTYANSKIY, V.G., GAMKRELIDZE, R. V., MISHCHENKO, Ye. F., and PONTRYAGIN, L. S. - "The maximum principle in the theory of optimum control processes"
BROZGOL', M. M. - "Automated electric drives of a metallurgical plant"
BUROVOY, I. A. - "Automatic regulation of froth-layer processes in nonferrous metallurgy"

PHASE I BOOK EXPLOITATION SOV/4671

Akademiya nauk SSSR. Institut avtomatiki i telemekhaniki. Seminar po pnevmogidravlicheskoy avtomatike. 2d and 3d session

Voprosy pnevmo- i gidro- avtomatiki (Problems in Pneumatic and Hydraulic Automation) Moscow, 1960. 211 p. Errata slip inserted. 4,500 copies printed.

Resp. Ed.: M.A. Ayzerman, Doctor of Technical Sciences, Professor; Ed. of Publishing House: A.A. Tal'; Tech. Ed.: S.G. Tikhomirova.

PURPOSE: This collection of articles is intended for scientific workers, industrial designers and engineers interested in automation and telemechanics.

COVERAGE: The collection of 23 articles is a continuation of an earlier work of the Academy of Sciences USSR, on pneumatic and hydraulic automation systems, published in 1959. A wide range of problems connected with the design and operation of pneumatic and hydraulic automation equipment is described. In addition to problems based on experiments, the collection also contains discussions of new trends in the field, such as the possibility of using very low pressure for the operation of pneumatic devices. Some articles of this collection were written in the German Democratic Republic and in Czechoslovakia and reflect a somewhat different approach to automation problems. No personalities are mentioned. References accompany most of the articles.

PNEUMATIC AND HYDRAULIC DEVICES AND SYSTEMS OF AUTOMATIC REGULATION

PNEUMATIC COMPUTING-SOLVING AND SCANNING DEVICES

PNEUMATIC AND HYDRAULIC AUTOMATION DEVICES
IN
THE GERMAN DEMOCRATIC REPUBLIC AND CZECHOSLOVAKIA

AVAILABLE: Library of Congress (TJ840.S42)

Card 5/5

AC/sec/gmp
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27

S/194/61/000/008/031/092
D201/D304

AUTHORS: Anders, V.R., Berends, T.K. and Kharas, N.L.

TITLE: A pneumatic output control chromatograph ХПР-1П (KhPR-1P)

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 8, 1961, 37, abstract 8 V286 (V sb. Vopr. pnevmo i gidroavtomatiki, M., AN SSSR, 1960, 162-166)

TEXT: A note on the design of a regulator controlling the composition of gaseous media and based on a recording chromatograph. The instrument operates as follows: The analyzed gas, mixed with the carrier, is passed through a chromatographic column filled by a special sorbent. The constituents of the analyzed gas pass through the column with velocities depending on their adsorption properties and appear consecutively at the output of the column as a binary mixture with the carrier gas. Every mixture proceeds then to the measuring element of the detector, in which its thermal conductivity

Card 1/2

is compared with that of the pure carrier-gas. The semi-conductor thermo-resistors of the detector from part of a bridge, whose unbalance is recorded in one form of a chromatogram. Chromatograms consist of separate voltage peaks corresponding to the components of the analyzed gas. The operation of the measuring section of the instrument is periodic and controlled by stabilized pulses. The magnitude of the peaks of the output voltage of the measuring section is proportional to the instantaneous concentration of the respective component of the gas in the binary mixture. In order to determine this concentration, the voltage peak is integrated in time. Addition of the integrator and of the control unit made it possible to use indirectly the chromatograph indications for controlling the gas composition. The integrator and relay elements of the control unit are based on the instruments of the pneumatic automatic control system and on those of a sampled-data pneumatic system of the Institute of Automation and Telemechanics of the AS USSR. The electrical measuring section is coupled to the pneumatic integrator by means of a compensating electro-pneumatic transducer. 3 references. [Abstracter's note: Complete translation]
Card 2/2

BEREZOVETS, G.T.; BERENDS, T.K.; DMITRIYEV, V.N., kand.tekhn.nauk

Carrying out calculating and logical operations by means of pneumatic control. Zhur.VKHO 6 no.5:499-508 '61. (MIRA 14:10)

(Pneumatic control)

BERENDS, T.K.; YEFREMOVA, T.K.; TAGAYEVSKAYA, A.A.; TAL', A.A.

Principle of universal elements in pneumatic control systems.
Priborostronenie no.11:3-8 N '63. (MIRA 16:12)

ACCESSION NR: AT4042433 S/0000/64/000/000/0005/0020

AUTHOR: Berends, T. K.; Tagayevskaya, A. A.; Tal', A. A.

TITLE: Structural elements of pneumoautomatic devices and systems

SOURCE: Vsesoyuznoye soveshchaniye po pnevmo-gidravlicheskoy avtomatike. 5th, Leningrad, 1962. Pnevmo- i gidroavtomatika (Pneumatic and hydraulic control); materialy* soveshchaniya. Moscow. Izd-vo Nauka. 1964, 5-20

TOPIC TAGS: automation, automatic control system, pneumatic control system, pneumatic relay, pneumatic amplifier, pneumatic resistance, pneumatic capacitance, pneumatic repeater, pneumatic switch

ABSTRACT: Pneumatic devices have become fundamental tools in the automation of many sections of industry, such as the chemical, petroleum refining, gas, metallurgical, and lumber industries. This paper is essentially a survey of the components and assemblies of pneumatic devices which can be used in automatic control systems. The authors point out that the logical functions required in modern control systems cannot be accomplished by the devices of the AUS (Aggregate Unified System), each of which is a self-contained block, but require the flexibility of the USEPPA (Universal System of Elements for Production Pneumo-Automation) in which each new device is created by combining various universal pneumatic elements

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ACCESSION NR: AT4042433

(amplifiers, relays, resistances, capacitances, repeaters, switches, etc.) onto special plug-in boards. Credit for this new approach is given to Ferner (V. Ferner. Anschauliche Regelungstechniek. Berlin, Verlag Technik, 1960). They show how pneumatic elements can perform the various tasks usually associated with mechanical and electrical elements, and describe some of these elements in detail, with schematic diagrams of various systems for analog and digital control systems and relay systems. Special attention is given to generators, impulsors, and memory and delay units. Orig. art. has: 27 figures and 17 formulas.

ASSOCIATION: none

SUBMITTED: 29Jan64 ENCL: 00

SUB CODE: IE NO REF SOV: 007. OTHER: 001

Card 2/2

ACCESSION NR: AP4024689 S/0103/64/025/002/0275/0278

AUTHOR: Berends, T. K.

TITLE: Scientific and technical conference on pneumatic-hydraulic automation

SOURCE: Avtomatika i telemekhanika, v. 25, no. 2, 1964, 275-278

TOPIC TAGS: pneumatic automaton, pneumatic automation, hydraulic automaton, hydraulic automation, automation conference

ABSTRACT: The Sixth All-Union Conference organized by the Institute of Automation and Telemechanics (Moscow) and the NIPI Neftekhimavtomat (Sumgait, AzSSR) took place on 14-17 October, 1963 in Baku; 450 representatives of 43 cities and 202 organizations attended. There were 70 reports delivered. Of them, three were presented at the plenary session: "Jet techniques of supervision and control" by L. A. Zalmanzon (Moscow), "Experience with universal elements of industrial automation" by A. A. Tal' (Moscow), and "Modern hydro-automation" by V. M.Dvoretskiy (Moscow). A group of reports about the "Means of pneumatic control" was delivered by P. M. Atlas (Moscow), A. I. Makarov (Ust' -Kamenogorsk), S. G. Agadzhanyan (Moscow), A. I. Birman (Moscow), B. S. Darkhovskoy (Moscow), O. S. Sobolev (Moscow),

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ACCESSION NR: AP4024689

L. O. Khvilevitskiy (Moscow), A. A. Tagayevskaya (Moscow), V. N. Dmitriyev (Moscow), B. I. Kaplinskiy (Moscow), A. A. Abdullayev (Sumgait), Yu. S. Leytman (Sumgait), I. M. Burdenshteyn (Sumgait), G. P. Stepanov (Moscow), and Yu. I. Derenyuk (Kiev). Another group of reports about the "Pneumatic discrete (relay) techniques" was delivered by N. P. Zhivov (Moscow), Yu. V. Greydenberg (Moscow), S. A. Nikolayev (Moscow), M. D. Lemberg (Moscow), Yu. P. Zolkin (Moscow), V. A. Potyayev (Leningrad), Yu. G. Stegalichev (Leningrad), I. A. Sarkisova (Moscow), Ye. V. Gerts (Moscow), G. V. Kreynin (Moscow), M. A. Polyakova (Moscow), and V. I. Shcherbakov (Moscow). A number of reports on "Pneumatic control systems" were delivered by Sh. I. Israilov (Sumgait), A. A. Mamedov (Sumgait), K. A. Oganov (Sumgait), G. S. Podlisker (Sumgait), Ye. D. Garbor (Leningrad), M. A. Gol'dinov (Moscow), N. V. Grishko (Moscow), N. G. Gorelik (Voronezh), A. A. Koloydenko (Voronezh), T. S. Podol'skiy (Voronezh), G. V. Anufriyev (Voronezh), A. I. Guzevataya (Voronezh), V. N. Sokolov (Voronezh), G. N. Yegorov (Moscow), and Ye. S. Zhuchkovskiy (Moscow). Several reports on "Hydraulic regulating equipment" were delivered by G. G. Molchanov (Moscow), V. P. Temny*y (Moscow), S. M. Titov (Moscow), V. V. Voytetskiy (Leningrad), G. A. Kirokosyants (Moscow), V. A. Martsinkovskiy (Sumy*), I. I. Tartakovskiy (Sumy*), M. B. Tumarkin (Khar'kov), and O. F. Nikitin (Moscow). Eleven reports on "Hydro actuators" were delivered by V. A.Khokhlov

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ACCESSION NR: AP4024689

(Moscow), G. N. Knyazev (Khar'kov), Yu. Ye. Zakharov (Kaluga), V. M. Churkin (Moscow), A. M. Potapov (Leningrad), V. M. Gol'drin (Moscow), M. A. Yastrebenetskiy (Moscow), I. A. Doroshenko (Khar'kov), V. N. Baranov (Moscow), V. N. Prokof'yev (Moscow), I. L. Kirillovskiy (Moscow), G. N. Zolotova (Moscow), V. N. Savel'yev (Moscow), V. N. Zlakov (Podol'sk), andV. V. Solov'yev (Podol'sk). Orig. art. has: no figure, formula, or table.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 15Apr64 ENCL: 00

SUB CODE: IE NR REF SOV: 000 OTHER: 000

Card: 3/3

BERENDT, V.V., inzh.; GERCHIKOV, B.A., inzh.; DMITRENKO, V.Ye., kand. tekhn. nauk

Distribution of current in the electrodes of a silver-zinc storage battery. Elektrotekhnika. 36 no.9:41-43 S '65. (MIRA 18:9)

BERENDT, V.V., inzh.; DMITRENKO, V.Ye., kand.tekhn.nauk

General laws governing the distribution of current in the electrodes of electrochemical power sources. Elektrotekhnika 36 no.2:59-60 F '65. (MIRA 18:4)

BEKENDYAYEV, S.A.

Structure of marmot burrows in Kirghizia. Trudy Inst.zool.i paraz. AN Kir.SSR no.5:51-59 '56. (MLRA 10:5)
(Kirghizistan--Marmots)

BERENDYAYEV, S.A.; KUL'KOVA, N.A.

Intraspecific relationships of gray marmots Marmota baibacina Kastsch. Zool. zhur. 44 no.1:110-116 '65. (MIRA 18:4)

1. Kirgizskaya protivochumnaya stantsiya, Frunze.

BEREZIDYAYEV, V.M.

Modified method of analyzing feces for helminth ova suitable for mass examination. Med. paraz. i paraz. bol. 32 no.6: 687-688 N-D '63 (MIRA 18:1)

1. Iz laboratorii 71-go politekhnicheskogo ob"yedineniya Leningradskogo rayona Moskvy (glavnyy vrach A.I.Sinuikova).

KLASSOVSKIY, L.N.; BEREZDYAYEVA, E.L.

Study offleas of rodents in the eastern Pamirs. Izv.Otd.est. nauk AN Tadzh.SSR no.10:185-192 '55. (MLRA 9:10)

1. Frunzenskaya protivoepidemicheskaya stantsiya Ministerstva zdravookhraneniya SSSR.
(Pamirs--Fleas) (Parasites--Rodentia)

GREBENYUK, R.V.; BEREND'YAYEVA, E.L.

Distribution and numbers of ixodid ticks parasitic on marmots in Kirghizia. Trudy Inst.zool.i paraz.AN Kir.SSR no.4:107-115 '55. (MLRA 10:5)

(Kirghizistan--Ticks)
(Parasites--Marmots)
(Gorno-Badakhshan Autonomous Province--Ticks)

BERENDYAYEVA, F.L.

GREBENYK, R.V.; BERENDYAYEVA, E.L.

Ectoparasites of the squirrel, acclimatized in Kirghizia. Trudy Inst. zool.i paras.AN Kir.SSR no.4:117-119 '55. (MLRA 10:5)
(Kirghizistan--Fleas)
(Kirghizistan--Ticks)
(Parasites--Squirrels)

SHVARTS, Ye.A.; GREBENYUK, R.V.; BERENDYAYEVA, E.L.

Material on the Aphaniptera of Dzhalal-Abad Province. Trudy Inst. zool.i paraz.AN Kir.SSR no.7:211-218 '59. (MIRA 13:4)
(Dzhalal-abad Province--Fleas)

BERENDYAYEVA, E. L. and KUL'KOVA, N. A.

"The Fauna of Gamasidae Ticks in Rats in Tyan'-Shan' Oblast."

Tenth Conference on Parsitological Problems and Diseases with Natural Reservoirs, 22-29 October 1959, Vol. II, Publishing House of Academy of Sciences, USSR, Moscow-Leningrad, 1959.

Kirghiz Republic Anti-Plague Station, Frunze

BGYTOVA, S.I.; BIBIKOVA, V.A.; BEKENDYAYEVA, E.L.

A new species of gamasid mites Haemogamasus bifurcatus sp.n. from the Tien Shan. Zool. zhur. 43 no.1:136-138 '64
(MIRA 17:7)

1. Central Asiatic Research Anti-Plague Institute, Alma-Ata.

ACC NR: AP7001082 (A,N) SOURCE CODE: UR/0439/66/045/003/0430/0435

AUTHOR: Berendyayeva, E. L.; Bibikov, D. I.; Rapoport, L. P.; Popov, V. K.; Varivodina, T. A.

ORG: Kirghiz Antiplague Station, Frunze (Kirgizskaya protivochumnaya stantsiya); Central Asian Antiplague Station, Alma-Ata (Sredneaziatskiy protivochumniy institut)

TITLE: Experience of studying contacts within a population of Altai marmots by means of radioactive tagging

SOURCE: Zoologicheskiy zhurnal, v. 45, no. 3, 1966, 430-435

TOPIC TAGS: parasitology, animal parasite, marmot, flea, BIOLOGIC ECOLOGY

ABSTRACT: Marmots (*Marmota marmota baibacina*) collected in Central Tyan'-Shan' in the summer of 1962 and 1963 were tagged with subcutaneous injections of S^{35} or P^{32} (in doses of 1 μcu or 0.5 μcu, respectively, per kg of weight). Contacts among marmots were traced by counting tagged fleas from untagged animals after 30—42 days. In one collection, 118 our of 140 fleas collected had bitten tagged marmots. Fleas tagged with a surface application of the isotopes were also used. Some were found 109 m from their release points after 23 days, and a maximum of 500 m away after 42 days. The study showed that the degree

Card 1/2 UDC: 599.322.2:578.084.2:611-018-0.88.91

ACC NR: AP7001082

of contact within a given marmot population (and the number of fleas exchanged) depends numerically on the distribution of marmots, their population structure (number and location of occupied burrows), and the number of fleas. Under the following field conditions — sparse marmot population, large number of fleas, many empty burrows — fleas were more widely dispersed (360 m in 30 days) and more frequently exchanged among animals. With a dense population of marmots and relatively few fleas, fleas were found only 120—180 m away from the release point in 30 days. The most frequent contacts were observed among marmots living on the boundary of landscape areas; their movements into areas with more favorable food conditions were traced visually and using the tags. It was shown that in summer, when the animals successively inhabit empty burrows in a neutral zone, fleas are transferred among different marmot groups. It was concluded that the tagging of marmots and fleas is a most promising method of modeling plague epizootics in these animals. Orig. art. has: 3 tables and 3 figures. [WA-50; CBE No. 14] [JS]

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 013

Card 2/2

BERENEK, R.

Denervation atrophy and reinnervation in various skeletal muscles in rats. p.166. (Ceskoslovenska Fysiologie, Vol. 6, No. 2, 1957, Praha, Czechoslovakia)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 9, Sept. 1957. Uncl.

BERENFEL'D, V.M.; YAKHONTOV, L.N.; YANBUKHTIN, N.A.; KRASNOKUTSKAYA, D.M.; YATSENKO, S.V.; RUBTSOV, M.V.

Synthesis of substituted 4-(δ-diethylamino-α-methylbutylamino) 2-styrylquinolines. Zhur.ob.khim. 32 no.7:2169-2177 Jl '62. (MIRA 15:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze.
(Quinoline)

BERENFELDS, Valdis; VULFSONE, E., red.

[Form grinding] Profilslipesana. Riga, Liesma, 1965. 91 p.
[In Latvian] (MIRA 18:6)

BERENFEL'D, V.M.; KRONGAUZ, V.A.

Effect of the substitutents separated by an aliphatic chain from the benzene ring on the optical properties of substituted benzene. Dokl. AN SSSR 162 no.6:1300-1303 Je '65. (MIRA 18:7)

1. Fiziko-khimicheskiy institut im. L.Ya. Karpova. Submitted December 9, 1964.

BERENGARD, A.S.; KOZHEMYAKIN, V.A.

Controlling the functioning of condensation units in the chlorination process. Zav.lab. 26 no.3:316-317 '60. (MIRA 13:6)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proektnyy institut redkometallicheskoy promyshlennosti.
(Metals) (Chlorination)

BERENGARD, A.S.; KOZHEVNIKOV, V.A.

Determining the coefficient of heat transfer in chloride residue linings. TSvet. met. 33 no.7:87-88 Jl '60. (MIRA 13:7)
(Chlorination) (Heat--Transmission)

S/598/61/000/005/008/010
D040/D113

AUTHORS: Berengard, A.S., Kozhemyakin, V.A., and Filatova, N.A.

TITLE: Obtaining titanium and zirconium totrachloride when processing titanium-zirconium concentrate

SOURCE: Akademiya nauk SSSR. Institut metallurgii. Titan i yego splavy, no. 5, Moscow, 1961. Metallurgiya i khimiya titana, 181-187

TEXT: The results of described experiments proved that $TiCl_4$ and $ZrCl_4$ can be obtained separately in chlorination of Ti-Zr ore concentrates, which means that the finishing stages of the Ti-Zr ore concentration process can be cut considerably. Details of the experimental techniques and technological recommendations are included. Concentrated ore used contained 8-11% leucoxenized ilmenite, 11-31% rutile, and 76-47% Zr. It was produced by gravity concentration of sands and separation of magnetic ilmenite fraction. Cakes of it were prepared with petroleum coke and sulfite-cellulose liquor (standard foundry mold binder), and chlorinated in standard laboratory

Card 1/3

Obtaining titanium and zirconium ...

chlorinator units of transparent quartz by standard chlorine preliminarily purified from humidity by blowing through sulfuric acid. The effect of temperature, quantity of reducing agent, and mesh of coke was studied. A filter of NaCl was employed in the system and proved effective, i.e. it retained up to 93.5% zirconium chlorides. The obtained $TiCl_4$ was sufficiently pure for obtaining metallic titanium after separation of vanadium and rectification. Low Cr content permitted using $TiCl_4$ for producing pigment TiO_2. The Zr content in $TiCl_4$ did not exceed 0.01%, and $ZrCl_4$ contained only 1-2% iron and aluminum, and hundredth fractions of 1% Ti. After separation of Fe and Al, the obtained $ZrCl_4$ was suitable for obtaining metal or oxide. The following process conditions were stated as being the best: 95% ore concentrate has to be of 200 mesh and 95% petroleum coke of 100 mesh; carbon content in cakes must be 21-23%; the chlorination temperature 900°C; 100% Ti and 94% Zr can be extracted under optimum conditions. The temperature of the salt filter has to be 500-550°C if the processed concentrates contain mainly Zr and 2-3% Fe and Al, and 400-450°C if Fe and

Al content is 3-6%. The salt filter temperature can be lowered by 100°C by using an equimolecular mixture of sodium and potassium chlorides for the filter packing. The article includes an illustration of the suggested apparatus. There are 5 figures.

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27404

S/089/61/011/003/005/013
B102/B138

21.2100
21.4000

AUTHORS: Vil'komirskiy, I. Ye., Silina, G. F., Berengard, A. S., Semakin, V. N.

TITLE: Production of high-purity beryllium by the chloride method

PERIODICAL: Atomnaya energiya, v. 11, no. 3, 1961, 233-239

TEXT: Chlorination of beryllium oxide with carbon tetrachloride followed by the electrolysis of the resulting beryllium chloride with NaCl is a well-known method of producing high-purity beryllium. The industrial applicability of this procedure, however, has long been questioned, and only in recent years have prospects appeared to improve. The report describes a successfully tested possibility of producing this reaction on an industrial scale. The starting material was BeO with base-metal impurities not exceeding 0.006%. Briquettes were prepared from roasted oxides with a beryllium content not below 28%. Starch paste or dextrin were used as binding agents. Filtered commercial grade carbon tetrachloride was used for chlorination. Laboratory tests showed that the chlorination rate increases with the rise in temperature 500-700°C, while

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Production of high-purity ...

further rise in temperature had no effect. Thermal dissociation of CCl_4 begins at 600°C, and contamination by carbon is observed at 800°C. The optimum temperature range was found to be between 650 and 700°C. The optimum flow rate of CCl_4 was found to be 2.4 kg/min per m^2 of furnace cross section. Nickel and alloys on nickel base in Cl, $BeCl_2$, or CCl_4 atmospheres at temperatures up to 300°C were found to be the most convenient condenser materials. Condensers were therefore prepared from nickel. Fig. 3 gives a diagram of a chlorination furnace that has stood its test in industrial operation (25-30 days run). Both furnaces and condensers are heated in a nitrogen flow. In a pilot run (production of beryllium chloride from pure and commercial beryllium oxide) 25 tons of $BeCl_2$ were produced, and the following averages were obtained: CCl_4 consumption per kg of $BeCl_2$: 1.6 kg; degree of condensation of $BeCl_2$: 97.8%; direct beryllium yield: 85.7%, and extraction up to 96% if the residues are recycled. The mean $BeCl_2$ yield ranged between 86.6 and 88%, and the degree of chlorination was about 94%. Like chlorination, the electrolytic

Production of high-purity ...

production of pure beryllium was first studied in laboratory tests, and optimum conditions were established. Chemically pure NaCl was used in beryllium-coated nickel crucibles. The cathode also consisted of beryllium-coated nickel. Electrolysis took place at 330-350°C. The purity of the resulting beryllium, depending on the size of the crystals obtained, was 99.966% (>3mm) and 99.937% (<3mm). Pilot-plant tests were conducted in quartz crucibles holding 35 kg of electrolyte. The resulting metal was remelted in vacuum to remove impurities. The chemical analysis showed a relatively high Ni impurity (maximum $4 \cdot 10^{-2}$%), due to cathode corrosion. Experiments with graphic cathodes produced satisfactory results. A diagram of the electrolytic vessel used for producing Be on an industrial scale is shown in Fig. 5. Here, the temperature ranged between 320 and 340°C, and the initial cathode current density was 6.5-7.5 a/dm^2 (optimum). The NaCl and $BeCl_2$ concentrations were adjusted by additions every 24 hours, and the beryllium content in the electrolyte range from 6 at the beginning to 5.5% at the end of cycle. The metal yield was 2.0-2.2 kg of metal per vessel per day. The crystals depositing on the cathode walls were up to 60 mm

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Production of high-purity ...

long. The operating parameters of the vessel did not change appreciably over working periods of up to three months. Ye. A. Kamenskaya is mentioned. There are 5 figures, 3 tables, and 17 references: 9 Soviet and 8 non-Soviet. The four references to English-language publications read as follows: The Metal Beryllium. ASFM, Cleveland, Ohio, 1955; P. Dereham, D. Temple. Extraction and Refining of the Rarer Metals. Lond. Inst. of Mining and Metallurgy, 1957; M. Kells et al. Second Geneva Conference on Peaceful Uses of Atomic Energy, 1958, Paper No. 717; Z. Williams, P. Eyre. Nucl. Energy, 3, no. 22 (1958).

SUBMITTED: December 15, 1960

Fig. 3. Industrial furnace for chlorination.

Legend: (1) Bunker; (2) throttle valve; (3) graphite lining; (4) thermocouples; (5) graphite heater; (6) furnace jacket; (7) diabase plate; (8) foam firebrick; (9) diabase cement; (10) Dinas brick; (11) quartz brick; (12) thermocouple; (13) contact; (14) clamp device; (15) quartz face; (16) briquette mass; (17) bar; (18) top heating; (19) cap with adopter

Card 4/7

KOZHEMYAKIN, V.A.; BERENGARD, A.S.; FILATOVA, N.A., Prinimali uchastiye: KHAZANOVA, T.I.; KARASEV, Yu.V.

Purification of titanium tetrachloride from zirconium iron and aluminum chlorides in the chlorination process of titanium-zirconium concentrates. TSvet.met. 34 no.9:70-74 S '61. (MIRA 14:10)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut redkikh metallov.
(Nonferrous metals--Metallurgy) (Chlorination)

S/136/62/000/004/001/004
E021/E435

AUTHORS: Berengard, A.S., Vil'komirskiy, I.Ye., Kozhemyakin, V.A., Sedykh, T.S., Yerokhina, O.I.

TITLE: Study of the chlorination of loparite concentrate

PERIODICAL: Tsvetnyye metally, no.4, 1962, 56-61

TEXT: Results are given of investigations carried out to improve the process of chlorination of a loparite concentrate by using the apparatus for "dry" fractional condensation of the volatizable chlorides. The loparite ore used contained 36.2 to 36.5% TiO_2, 8.45 to 8.55% Nb_2O_5, 0.55 to 0.57% Ta_2O_5, 28.64 to 31.18% total rare earths, 1.5 to 3.04% Fe_2O_3, 0.87 to 4.76 % Al_2O_3, 2.5 to 5.87% SiO_2, 9.86% $Na_2O + K_2O$, 5.94 to 7.92% CaO, 0.15% P. A dry method is superior to a wet method because, for separation of the pulp, there is no need to use complex apparatus which has to operate inside aggressive media. The ore is crushed, briquetted with coke and chlorinated. It is shown that for chlorination it is possible to use a chlorine-air mixture containing up to 35% air. This corresponds to the composition of anode chlorine gas. It is

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possible to lower the carbon content of the coke briquettes from 18 - 20 to 12 - 13% (using concentrated chlorine) which permits reducing the quantity of furnace ash by a factor of about five, increasing the production of the furnace, decreasing the consumption of coke by 30% and increasing the coefficient of utilization of the working space by 6%.
There are 1 figure and 3 tables.

COUNTRY Rumania M
CATEGORY
CULTIVATED PLANTS. Fodder Grasses and Roots.

ABS. JOUR. REF ZHUR - BIOLOGIYA, NO. 4, 1959, No. 15683

AUTHOR Apostol, Th.; Balan, C.; Balasoiu, A.;
INST. Berenghi, I.; Buda, L.; Popa, Th.
TITLE Methods of Growing Perennial Grasses for Seeds.

ORIG. PUB. : An. Inst. cercetari agron., 1957, 24, No.5, 179-194

ABSTRACT In the agricultural research institute of Rumania during 1950 to 1954 at six experimental stations, the highest seed crops of dew grass (DG), meadow fescue (MF), timothy grass (TG), pasture ryegrass (PR) and tall oatgrass (TO) were obtained in broad-row sowing (45 to 60 cm between rows) with seeding quota of 15 to 20 kg/h for DG, MF and PR, 7 to 8 kg/h for TG and 7.5 to 9.5 kg/h for TO. In a number of regions

CARD: 1/2

COUNTRY :
CATEGORY : CULTIVATED PLANTS.

ABS. JOUR. : REF ZHUR - BIOLOGIYA, NO. 4, 1959, No. 15683

AUTHOR :
INST :
TITLE :

ORIG. PUB. :

ABSTRACT :it is expedient to sow MF,TG and PR under a cover of two-row barley. The duration of the period of use for seed is not above 3 years. The wetting of DG and MF seeds before sowing hastens the appearance of sprouts by 3 to 5 days, but does not yield a gain to the harvest. Nest sowing with 60 x 60 cm spacing gave a crop practically close to the row sowing, 60 cm spacing between rows and cannot be recommended because of the higher net cost of seed production. -- M.V. Dranishnikov

CARD: 2/2

BERENGHI, St., ing.; GROZA, L., ing.; CONSTANTINESCU, E., ing.

Problems discussed by the Working Groups during the Sessions of the International Conference on Large Electric Systems. Energetica Rum 11 no.3:102-112 Mr '63.

BERENGILOVA, V.V.; BERENGILOV, V.I.

Using screw separators in the sampling of placer rare-metal deposits. Razved. i okh. nedr 29 no.6:18-25 Je '63.
(MIRA 18:11)

1. TSentralizovannaya poiskovo-revizionnaya ekspeditsiya Geologo-geokhimicheskogo tresta.

MITROFANOV, B.Ya.; SERENGILOVA, V.V.

Kyakhta rutile-bearing sillimanite shale deposit. Trudy Vost.-Sib. fil. AN SSSR no.13:39-46 '58. (MIRA 12:12)

1.Selenginskaya poiskovo-razvedochnaya partiya tsentralizovannoy ekspeditsii tresta No.1 Ministerstva tsvetnoy metallurgii SSSR.

(Kyakhta District--Sillimanite)
(Kyakhta District--Rutile)

AUTHORS: Berengilova, V.V. and Fedorov, Ye.Ye. SOV/132-58-12-2/14

TITLE: A New Type of Aluminum Deposits (Novyy tip mestorozhdeniy aluminiya)

PERIODICAL: Razvedka i okhrana nedr, 1958, Nr 12, pp 10-17 (USSR)

ABSTRACT: The authors describe a new type of aluminum deposit discovered near the town of Kyakhta, in the Southern part of the Transbaykal region. The deposits are composed of rutile-bearing sillimanite schists from which silumin and aluminum can be extracted by the electrothermal melting process. The Kyakhta ore field is composed of a series of separate deposits, but on the whole the reserves of sillimanite-containing schists are practically unlimited. These schists also contain large reserves of ores from which, in the concentration process, rutile and pyrite can be extracted. Moreover, the sillimanite schists of the Kyakhta region are an excellent refractory, acid proof and electroceramic raw material. There are 2 sketches, 1 map, 1 table and 3 Soviet references.

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A New Type of Aluminum Deposit SOV/132-58-12-2/14

ASSOCIATION: Glavgeologiya pri Sovete Ministrov RSFSR (Main Geological - Prospecting Administration, Ministers of the RSFSR)
There are 3 references, of which 2 are English and 1 is Soviet.

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BERENGILOVA, V.V.; BERENGILOV, V.I.

Using screw separators in the sampling of placer rare-metal deposits. Razved. i okh. nedr 29 no.6:18-25 Je '63.
(MIRA 18:11)

1. TSentralizovannaya poiskovo-revizionnaya ekspeditsiya Geologo-geokhimicheskogo tresta.

BERENI, Laszlo

Oil production of Angola has increased. Bany lap 98 no.1: 4 Ja '65.

Oil prospecting concessions in the Gulf of Suez. Ibid.:4

A bypass oil pipeline is constructed on the shore of the Lake of Constance. Ibid.:4

An oil pipeline is planned between Strasbourg-Metz-Nancy. Ibid.:4

Natural gas prospecting continued in Northern Holland.

L 44749-66

ACC NR: AP6032887 SOURCE CODE: HU/0012/65/013/008/0248/0249

AUTHOR: Berenyi, L.--Bereni, L.

ORG: none

TITLE: Automation of titration

SOURCE: Meres es automatika, v. 13, no. 8, 1965, 248-249

TOPIC TAGS: titrimetry, automation

ABSTRACT: The new line of automatic titration instruments made by the Bran & Lubbe instrument works in Hamburg, Germany, was described briefly on the basis of the information provided by Kahmann, [initial(s) not given], Engineer, of that company. The items described were the Titrometer (modular titration unit), the Chronodos (sample metering device), and the Titrodos (titrating solution dispensing unit). All three instruments were illustrated by photographs. Orig. art. has: 3 figures. [JPRS]

SUB CODE: 13, 07 / SUBM DATE: 03Jul64

Card 1/1 mjs

0920 0409

BATIN, I.V.; GEVRIK, Ye.A.; BERENIS, A.A.

Mechanisms of feeeding polishing machines. Bum. i der. prom. no.4:3-6 O-D '63. (MIRA 17:3)

1. L'vovskiy lesotekhnicheskiy institut.

MIKHEYEV, I.I.; BERENIS, A.A.; GEVRIK, Ye.A.; OGUROK, I.A.

Centerless grinding machine for polishing the front legs of bent chairs. Bum. i der. prom. no.3:46-48 Jl-S '63. (MIRA 17:2)

1. L'vovskiy lesotekhnicheskiy institut (for Mikheyev, Berenis, Gevrik). 2. L'vovskaya fabrika gnutoy mebeli (for Ogurok).

BERENIS, A.A.; GEVRIK, Ye.A.; OGUROK, I.A.; STEPUSHIN, I.Ye.

Semiautomatic line for polishing front legs of bent chairs. Bum. i der. prom. no.3:17-19 Jl-S '64. (MIRA 17:11)

SHUL'MAN, S.S.; BERENIUS, Yu.N.; ZAKHAROVA, E.A.

Parasites of local schools of some fishes in Lake Syamozero.
Trudy Kar.fil.AN SSSR no.14:47-71 '59. (MIRA 15:12)
(Syamozero, Lake—Parasites—Fishes)

BERENKEY, K.; BUKOVINSZKY, L. A.

Radium therapy of benign metrorrhagia. Magy. noorv. lap., 13 no.8:277-284 Aug. 1950. (CLML 20:1)

1. Obstetric and Gynecologic Clinic (Director — Dr. Janos Batizfalvy). Szeged University.

BERENKEY, K.; KIBEDI, T.; BOGDAN, J.

Pharmacological and clinical experiences with myanesin. Orv. hetil. 92 no.19:596-598 13 May 1951. (CLML 24:2)

1. Doctor for Berenkey and Kibedi. 2. Obstetric and Gynecologic Clinic (Director -- Prof. Dr. Janos Batizfalvy) and Institute of Pharmacology (Director -- Prof. Dr. Miklos Jancso), Szeged University.

BERENKEY, Kornel dr.

Implantation of follicle hormone crystals. Magy.noorv.lap. 18 no.1:53-62 Jan 55

1. A tatabanyai megyei korhaz kozlemenye (Igazgato: Kabdebo, Jozsef dr.)
(ESTROGENS, therapeutic use
implantation of crystals in various dis. (Hun)

BERENKEY, Kornei, dr.; SZABO, Zsolt, dr.

Holocardius. Magy. noorv. lap. 18 no.6:377-378 Nov 55.

1. A Tatabanyai Megyei Korhaz szulesszeti es korbonctani osztalyainak kozlemenye (Igazgato: Kabdebo, Jozsef dr.).
(MONSTERS
holocardius acephalus with premature normal twin.)

BERENKEY, Kornel, dr.,; KISBAN, Jeno, dr.

Intestinal obstruction in pregnancy with recovery. Orv. hetil. 96 no.48:1341-1343 27 Nov 55.

1. A Tatabanyai Megyekorhaz Szuleszeti es Seveszeti Osztalyanak (igazgato: Kabdebo Jozsef dr.) kozlemenye.

(INTESTINAL OBSTRUCTION, in pregnancy, recovery)
(PREGNANCY, complications, intestinal obstruct., recovery)

BERENOV, A.I.

PERETTS, Vladimir Borisovich,; BERENOV, A.I., red.; LUCHKO, Yu.V., red. izd-va,; ZEF, Ye.M., tekhn. red.

[Methods for improving the electric lighting of industrial enterprises] Puti uluchsheniia elektricheskogo osveshcheniia promyshlennykh predpriiatii. Sverdlovsk, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe otd-nie, 1958. 128 p. (MIRA 11:12)

(Electric lighting)

BERENOV, D.I.; PETUKHOV, P.Z., doktor tekhnicheskikh nauk, retsenzent; ZHEZHKO, V.S., inzhener, retsenzent; PISKUNOV, A.I., inzhener, redaktor.

[Calculating the endurance of machines; method of calculating length of service] Raschet mashin na prochnost'; metod rascheta na dolgovechnost'. Sverdlovsk, Gos. nauchno-tekhn. izd-vo mashinostroit. i sudostroit. lit-ry [Uralo-Sibirskoe otd-nie] 1953. 108 p. (MLRA 7:6)
(Metals--Testing) (Machinery--Design)

USSR/Miscellaneous - Book review

Card 1/1 : Pub. 128 - 35/38

Authors : Groman, M. B., and Shneyderovich, R. M.

Title : Book review

Periodical : Vest. mash. 9, 103-106, Sep 1954

Abstract : A critical review is presented of D. I. Berenov's book, "The Stress Analysis of Machines," published by "Mashgiz" in 1953.

Institution : .....

Submitted : .....

SOV/137-57-11-20773

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 11, p 20 (USSR)

AUTHOR: Berenov, D.I.

TITLE: New Machines at the Uralmashzavod for the Mining and Metallurgical Industries (Novyye mashiny Uralmashzavoda dlya gornorudnoy i metallurgicheskoy promyshlennosti)

PERIODICAL: V sb.: Novoye v konstruirovanii tyazh. mashin. Moscow, Mashgiz, 1956, pp 85-94

ABSTRACT: A communication is presented on the engineering parameters and data on the design of excavators with 3 to 8-m^3 shovels, and of walking draglines (excavators) with 14 to 20-m^3 shovels. Excavators with 25-m^3 shovels and 100-m booms are envisaged. Drilling pumps of 600 and 1100 hp and drilling winches of 1200 hp are being manufactured. Large bottom-dumping cone crushers and medium crushers with hydraulic aperture control, and diameters of 2.2 and 3 m, are scheduled for production. The production of 3.6x3.6-m ball mills and 200-220-m^2 sintering machines is being developed.

I. M.

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BERENOV, D.I

PHASE I BOOK EXPLOITATION 882

Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Sverdlovskoye otdeleniye

Povysheniye kachestva i ekonomichnosti mashin (Increasing the Quality and Efficiency of Machinery) Moscow, Mashgiz, 1957. 626 p. 5,000 copies printed.

Additional Sponsoring Agency: Ural'skiy dom tekhniki.

Eds.: Pal'mov, Ye. V., Doctor of Technical Sciences, Sokolovskiy, V. I., Candidate of Technical Sciences; Reviewers: Bogachev, I. N., Doctor of Technical Sciences, Gorshkov, A. A., Doctor of Technical Sciences, Zhukov, P. A., Candidate of Economic Sciences; Tech. Ed.: Sarafannikova, G. A.; Managing Ed. (Ural-Siberian Division of Mashgiz): Sustavov, M. I., Engineer.

PURPOSE: The book is intended for engineering and technical personnel.

COVERAGE: The book generalizes and synthesizes experience accumulated by the Ural plants and to some extent that of the Siberian plants in improving the technical and economic features of manufactured machines and in improving their quality. Data are also presented on attempts to lower the cost and to increase the quality of machines during the designing and production stages. The author

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Increasing the Quality (Cont.) 882

describes the shortening of the production cycle, reducing weight and dimensions along with improvement of operational qualities, increase in durability, and finally improvements in the external appearance of machines. There are 98 references of which 95 are Soviet, 2 German, and 1 English.

TABLE OF CONTENTS:

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BERENOV, Dmitriy Ivanovich; YASNEV, D.A. [deceased], red.; TSYMBALIST, N.N., red. izd-va; ZEF, Ye.M., tekhn red.

[Crushing equipment in concentration and crushing plants] Drobil'noe oborudovanie obogatitel'nykh i drobil'nykh fabrik. Sverdlovsk, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, Sverdlovskoe otd-nie, 1958. 295 p. (MIRA 11:7)
(Crushing machinery)

25(0) PHASE I BOOK EXPLOITATION SOV/2006

Berenov, Dmitriy Ivanovich (Deceased)

Raschety detaley na prochnost'; opredeleniye dolgovechnosti i dinamicheskikh usiliy (Strength Rating of Machine Elements; Determination of Durability and Dynamic Stresses) Moscow, Mashgiz, 1959. 214 p. 15,000 copies printed.

Reviewer: N.V. Molochnikov, Candidate of Technical Sciences; Ed.: V.I. Sokolovskiy, Candidate of Technical Sciences; Exceutive Ed. (Ural-Siberian Division, Mashgiz): T.M. Somova, Engineer; Tech. Ed.: N.A. Dugina.

PURPOSE: The book is intended for engineering and technical personnel.

COVERAGE: The book consists of two parts, first a revision of the author's Raschet mashin na prochnost (Analysis of Machines for Strength) published in 1953 in which a new method of analysis of

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machine parts for fatigue life was considered. This method consists basically of a differentiated approach to the choice of admissible stresses (depending on the number of load cycles) which make possible determination of the estimated fatigue life of parts allowing a sufficient safety coefficient. In the second part machine parts are analyzed for strength allowing for transformation of the kinetic energy of moving parts into potential energy of deformation. The inapplicability of the Castigliano theorem for determination of the deformation of elements of a dynamic system is shown, the principle of minimum work is formulated, and theorems permitting the calculation of dynamically indeterminate problems are demonstrated. Practical experiments verify the theoretical deductions presented, some of which, however, need further verification. The author of this book was a leading designer in heavy industry. The following personalities are mentioned: N.N. Afanas'yev (statical theory of fatigue strength), D.N.Reshetov, S.V. Serensen, L.A. Kozlov (restricted fatigue life in small cycle-values), Professor V.N. Treyyer (necessity of a new approach to the fatigue strength calculation of machine parts). There are 64 references: 63 Soviet, and 1 German.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress

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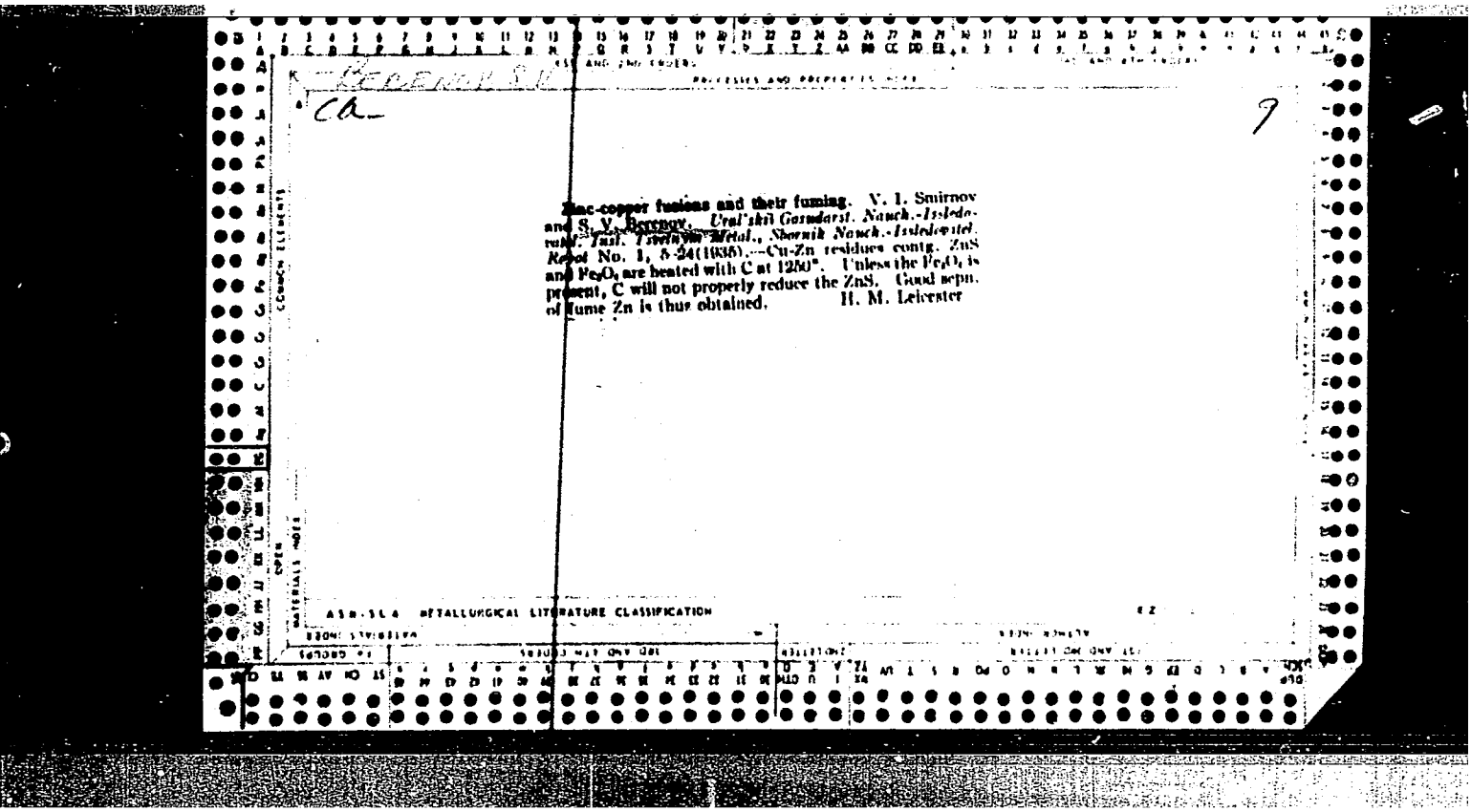
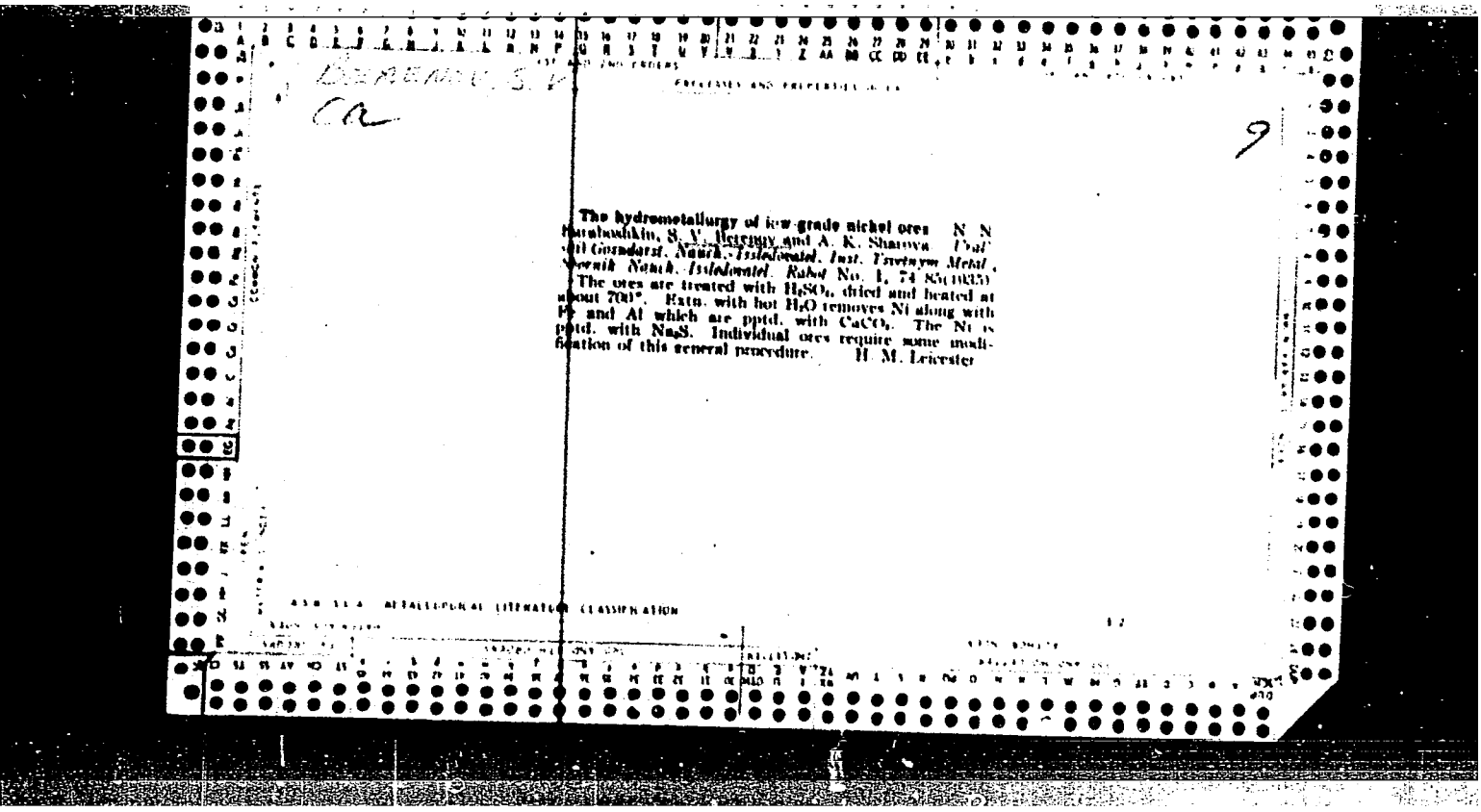
8-5-59



Zinc-copper fusions and their fuming. V. I. Smirnov and S. V. Borzunov. *Ural'skii Gosudarst. Nauch.-Issledovatel. Inst. Tsvetnykh Metal., Sbornik Nauch.-Issledovatel. Rabot* No. 1, 5-24(1936).—Cu-Zn residues contg. ZnS and Fe_2O_3 are heated with C at 1250°. Unless the Fe_2O_3 is present, C will not properly reduce the ZnS. Good sepn. of fume Zn is thus obtained. H. M. Leicester



The hydrometallurgy of low-grade nickel ores N. N. Barabashkin, S. V. Berezny and A. K. Sharova. *Dal'nevost. Gosudarst. Nauch.-Issledovatel. Inst. Tsvetnyw Metal., Sverdlovsk Nauch.-Issledovatel. Rabot* No. 1, 74–85(1935). The ores are treated with H_2SO_4, dried and heated at about 700°. Extn. with hot H_2O removes Ni along with Fe and Al which are ppted. with $CaCO_3$. The Ni is ppted. with Na_2S. Individual ores require some modification of this general procedure. H. M. Leicester

137-58-6-11953

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 110 (USSR)

AUTHOR: Berenov, S.V.

TITLE: On the Process Procedure at the Middle Urals Copper Smelter Considered in Terms of Conversion to Treatment of the Copper-and-zinc Ores of the Degtyar Deposit (O tekhnologicheskoy skheme sredneural'skogo medeplavil'nogo zavoda v svyazi s perekhodom na pererabotku medno-tsinkovykh rud Degtyarskogo mestorozhdeniya)

PERIODICAL: Tr. i materialy. Ural'skiy n.-i. proyektn. in-t medn. promsti, 1957, Nr 2, pp 397-410

ABSTRACT: Two combined treatment procedures are compared: 1. Dressing of the ore by selective copper-and-zinc flotation with treatment of the Cu-Zn intermediates by whatever procedure appears optimal, and of the Cu concentrates by the procedure: roasting - smelting - Bessemer blow of the mattes. 2. Dressing of the ore by combined copper-and-zinc flotation with treatment of the combined concentrate on the pattern: deep roast - reverberatory smelting - Bessemer treatment of mattes and fuming of the Zn slags to extract the Zn from them. The 2nd procedure enjoys considerable advantages over the 1st. G.S.

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1. Copper--ores--Processing 2. Zinc ores--Processing 3. Ores--Flotation

GALIMOV, M.D.; BABADZHAN, A.A.; BEREZNOV, S.V.; TIMOSHIN, D.Ya.; SAVIK, A.Ya.

Converter dust screen with water cooling. Biul. TSIIN tsvet. met. no.4:31-32 '58. (MIRA 11:5)
(Converters) (Dust collectors--Cooling)

BERENOVA, I. P.

AUTHORS: Arkharov, V. I., Berenova, I. P. and Magat, L. M. 126-5-3-17/31

TITLE: On Accelerating the Ageing of Alloys of Aluminium with Magnesium Under the Influence of Small Admixtures of Silver and Zinc (Ob uskorenii protsessa stareniya splavov alyuminiya s magniyem pod vliyaniyem malykh primesey serebra i tsinka)
(On the causes of the Influences of Small Admixtures on the Kinetics of Ageing of Alloys III) (K voprosu o prichinakh vliyaniy malykh primesey na kinetiku stareniya splavov. III)

PERIODICAL: Fizika Metallov i Metallovedeniye, 1957, Vol 5, Nr 3, pp 516-526 (USSR)

ABSTRACT: Ageing of the alloys is subjected to the influence of admixtures. The selection of admixtures is generally based on empirical data. For a scientifically justified approach to this problem it is necessary to study the mechanism of the influence of the admixtures on the decomposition of saturated solid solutions. There is reason to assume that this mechanism is complicated. In absence of a sufficiently strong change in the solubility, the influence of admixtures on ageing may be

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On Accelerating the Ageing of Alloys of Aluminium with Magnesium Under the Influence of Small Admixtures of Silver and Zinc. (On the Causes of the Influences of Small Admixtures on the Kinetics of Ageing of Alloys III)

due to internal adsorption. In earlier work (Refs.1-3), this problem was investigated on alloys of the solid solution type of copper in aluminium with admixtures of zinc or silver and conclusions were derived on the horophilic nature of these admixtures relative to aluminium base solid solutions and on the adsorptional nature of the influence on the decomposition of saturated solid solutions of copper in aluminium. Conclusions on the horophilic nature of admixtures of zinc and Ag relative to Al were also derived in later work of the authors (Ref.4). For investigating further this problem, alloys of the binary system Al-Mg were chosen. This system is the basis of numerous important ageing engineering alloys. As admixtures Zn and Ag were taken for which it is possible to assume that they are horophilic relative to the aluminium solvent. In earlier work (Ref.5) it was found that small admixtures of zinc have an accelerating influence on the ageing of

On Accelerating the Ageing of Alloys of Aluminium with Magnesium Under the Influence of Small Admixtures of Silver and Zinc. (On the Causes of the Influences of Small Admixtures on the Kinetics of Ageing of Alloys III)

Al-Mg alloys. The chemical compositions of the alloys used in the experiments are entered in tables, p.517. In Fig.1 the changes are graphed of the parameter of the crystal lattice of a solid solution as a function of time for an ageing temperature of 250°C; Fig.2 gives similar graphs for an ageing temperature of 300°C. In Fig.3 the dependence is graphed of the parameter of the crystal lattice of a solid solution on the concentration of the alloys. Table 5 gives the values of the lattice parameter of the phase T and of the solid solution at 300°C. The graphs Figs.6-9 contain the results of additional investigations of ageing in the systems Al-Mg-Ag and Al-Mg-Zn-Ag. By means of the method of measuring the changes in the lattice parameter of a decomposing solid solution with ageing time, it was established that admixtures of 0.2 to 1.0% zinc and silver accelerate the ageing of Al-Mg alloys. Analysis of experimental data on the solubility of Mg in Al in presence of zinc

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admixtures and also analysis of literary data on the diagram of state of the ternary system Al-Mg-Zn indicates that the observed acceleration in ageing cannot be attributed to the intensification of the total saturation of the solid solution with Mg in presence of a small admixture of zinc (it increases altogether only by 0.2 to 0.3% Mg). Apparently, this acceleration is due to a large extent to internal adsorption of zinc on the periphery of transient formations in the decomposing solid solution and also on the periphery of separating out crystallites of the excess phase. The influence of silver admixtures is similar. In judging the mechanism of the influence of small admixtures of a third component on the kinetics of decomposition of a saturated binary solid solution, it is necessary to take into consideration the character of the isotherms and of the conodes on the diagram of state of the respective ternary system. Thereby, the solubility value is important which corresponds

On Accelerating the Ageing of Alloys of Aluminium with Magnesium Under the Influence of Small Admixtures of Silver and Zinc. (On the Causes of the Influences of Small Admixtures on the Kinetics of Ageing of Alloys III)

to the intersection of the conode passing through the point of the composition of the alloy with the isotherm delimiting the phase region which encloses the composition of the alloy, and not the solubility which corresponds to the intersection of the straight line passing through the point of the composition of the ternary alloy parallel to the side of the concentration triangle. If this isotherm is intersected from the side of the concentration triangle at an acute angle and has a large length, then even a small admixture may bring about appreciable change of the saturation of the solid solution. If the angle of the intersection of the isotherm from the side of the triangle is large and the length of the isotherm is small, even a large admixture will have little influence on the saturation of an ageing alloy. In this second case a change of the kinetics of ageing under the influence of admixtures can be due to the effect of internal adsorption.

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On Accelerating the Ageing of Alloys of Aluminium Under the Influence of Small Admixtures of Silver and Zinc. (On the Causes of the Influences of Small Admixtures on the Kinetics of Ageing of Alloys III)

126-5-3-17/31

There are 9 figures, 5 tables and 13 references, 7 of which are Soviet, 3 English, 3 German.

ASSOCIATIONS: Ural'skiy gosudarstvennyy universitet imeni A. M. Gor'kogo (Ural State University imeni A.M. Gor'kiy) Sverdlovskiy filial VNIIM (Sverlovsk Branch of VNIIM)

SUBMITTED: July 17, 1957

: 1. Aluminum-magnesium alloys--Aging 2. Silver--Metallurgical effects 3. Zinc--Metallurgical effects

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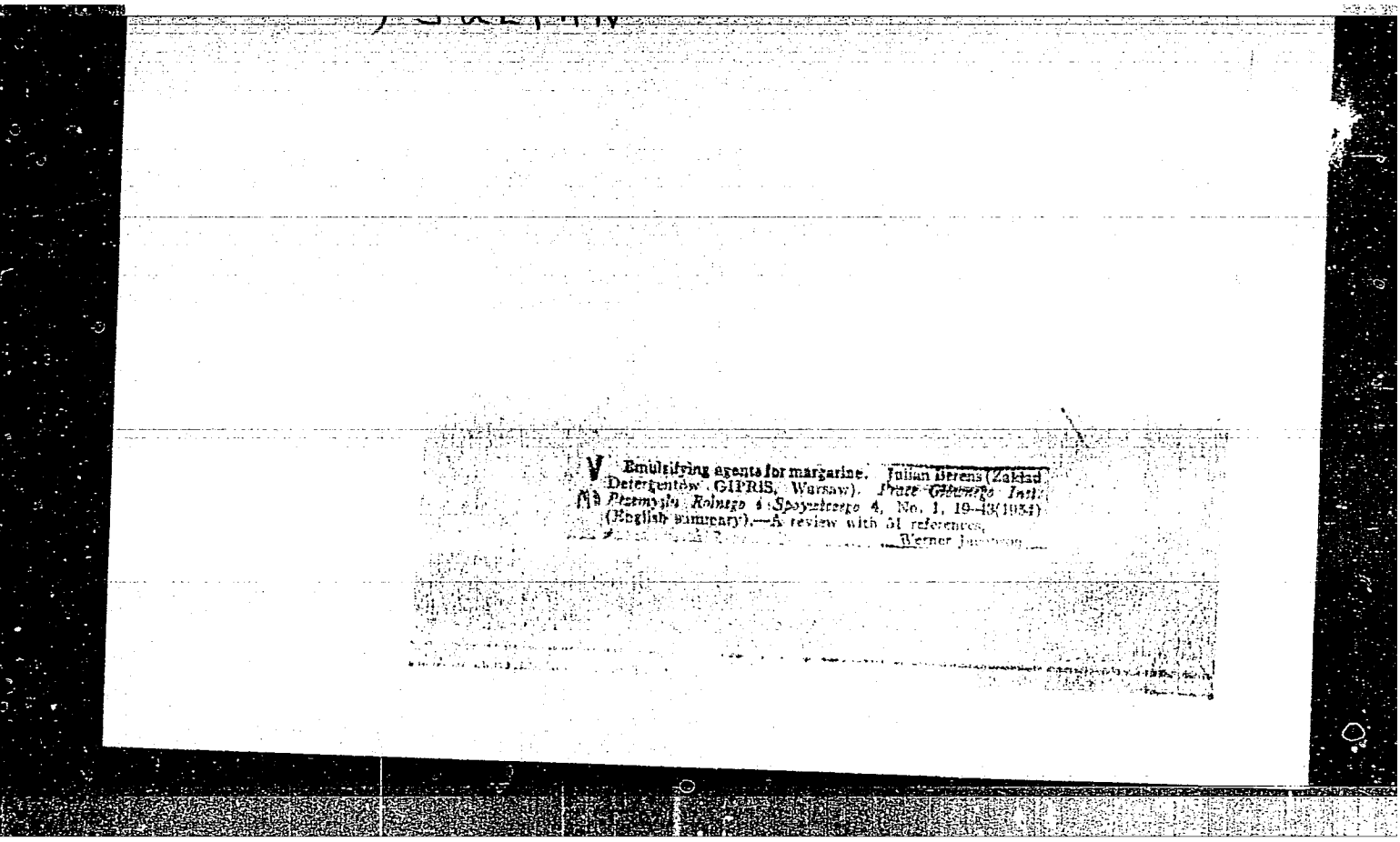
3608

Berens J. Margarine Emulsifying Agent. 664.3.032.4

„Emulgator dla margaryny". (Prace Gł. Inst. Przem. Roln. i Spoż. No. 1) Warszawa, 1954, WPL, 24 pp., 10 figs., 15 tabs.

The production of five types of margarine emulsifying agents was examined and worked out, a part of them possessing the combined properties of stabilizing the margarine emulsion of the W/O type and of giving the margarine its anti-spattering properties. It was confirmed that in the production of margarine emulsions the best results are obtained with an emulsifying agent, consisting either of a solution of a technical glycerolmonostearate in an autooxidised and polymerised semi-drying oil (soya-bean oil), or of a mixture of uncomplete polyglyceroesters of stearin. A new explanation is advanced and justified of the action of factors which cause in margarine the formation of a W/O type emulsion and lack of spattering properties during frying in this emulsion. It was observed that the lack of spattering properties in butter or margarine is caused by the presence of emulsifying agents which condition the formation of an O/W emulsion under the influence of high temperature at the moment of decomposition of the basic W/O emulsion. The O/W emulsion evolved binds the water and a small quantity of fat; falling to the bottom of the vessel it foams and prevents the spattering of fat. The surface of the incomplete glycerol stearin esters and polyglycerols is represented diagramatically in relation to the chemical structure of the particular compounds. The positions of the products obtained are shown on the diagram together with other emulsifying agents, examined only theoretically. The relation between the surface-activity of these products and their chemical composition are demonstrated.



V Emulsifying agents for margarine. Julian Brens (Zakład Detergentów GIPRIS, Warsaw). *Prace Głównego Inst. Przemysłu Rolnego i Spożywczego* 4, No. 1, 19–43(1954) (English summary).—A review with 51 references.

Werner Jansen

BERENS, J.

Soft soap. P. 257. (PRZEMYSL ROLNY I SPOZYWCZY, Vol. 8, No. 7, July 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 3, No. 12, Dec. 1954, Uncl.

BERENS, J.

"An Agent for Washing Woolen Textures." P. 337, (PRZEMYSL ROLNY I SPOZYWCZY, Vol. 8, No. 9, Sept. 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions,(EEAL), LC, Vol, 4, No. 1, Jan. 1955 Uncl.

BERENS, K.; SHUGAR, D.

Ultraviolet absorption spectra and structure of halogenated uracils and their glycosides. Acta biochim. pol. 10 no.1:25 '63.

1. Institute of Biochemistry and Biophysics, Polish Academy of Sciences, Warszawa.

(NO SUBJECT HEADINGS)

Berens, K. R.

14-57-6-12586

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 6, p 121 (USSR)

AUTHORS: Berens, K. R., Yanushevich, A. I.

TITLE: Developments of Raccoon Dogs (Nyctereutes procionoides Gray) Since Their Release /Rezul'taty vypuska yenotovidnoy sobaki (Nyctereutes procionoides Gray)/

PERIODICAL: V sb: Akklimatiz. pushnykh zverey v Kirgizii, Frunze, 1956, pp 75-82

ABSTRACT: Six female and nine male raccoon dogs were released in 1944 in the northern Semenovka region near Issyk-Kul' Lake. In 1952 these animals were found along the east and northeast shores of the lake and on the lower slopes of valleys running into it. Altogether 200 were found in an area 80 to 100 sq km. An attempt to introduce them into regions where the snow cover exceeded 50 cm was not successful. The authors

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Developments of Raccoon Dogs (Cont.) 14-57-6-12586

recommend that commercial licenses be granted to trap these animals along the banks of the Issyk-Kul'. A map showing their distribution around Lake Issyk-Kul' is included.
Card 2/2

L. D.

BERENS, K. P.

Translation from: Referativnyy zhurnal, Geografiya, 1957, Nr 6, p 121 (USSR) 14-57-6-12589

AUTHORS: Berens, K. P., Yanushevich, A. I.

TITLE: Acclimatization of the Siberian Red Ferret in Kirghizia (Materialy po akklimatizatsii kolonka v Kirgizii)

PERIODICAL: Akklimatiz. pushnykh zverey v Kirgizii. Frunze, 1956, pp 113-114

ABSTRACT: In January 1941, 26 Siberian red ferrets were released on the northern slope of the Terskey-Alatau near Uch-Bulak. In 1942 and 1943, three young ferrets were caught some 40 to 50 km away. Tracks belonging to the Siberian red ferret were discovered at 5 km away on a trail in the bottom of a spruce forest valley. The number of tracks decreased sharply in the valley near the places where the animals had been released, and four tracks were counted in two valleys in the winter

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Acclimatization of the Siberian Red Ferret (Cont.) 14-57-6-12589

of 1953. The Siberian red ferret has no commercial value, but it is hunted quite extensively.
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L. Dinesman

BERENS, T.

Clamps. P. 63 MECHANIK Warszawa (Stowarzyszenie Inzierow i techikowPolskich) Vol. 28, no. 2, February 1955

SOURCE: EEAL LC Vol. 5, no. 7, July 1956

P/035/60/000/017/001/001
A076/A026

AUTHOR: Berens, Tadeusz, Master of Engineering

TITLE: Experimental Nuclear Reactor "Eva"

PERIODICAL: Przegląd Mechaniczny, 1960, No. 17, pp. 510 - 517

TEXT: The author describes the experimental nuclear reactor "Eva" built in Poland two years ago at Świerk near Warsaw. The main reactor building contains also primary pumps, burnt-out fuel dumps, a special sewage system, ventilators, remote-controlled equipment, a dosimeter shelter with central dosing panel, air sampling pumps, distilling equipment, machine shop, offices, library, lecture room, laboratory, stores, dressing room, desinfection chamber and social equipment. Ventilating equipment, secondary pumps, cooling basin and tanks for radioactive waste are located outside the main building. Basic characteristics of the "Eva" nuclear reactor: thermal power 2,000 kw; max. electron flux 2 x 10^{13} neutr/cm^2 sec; uranium fuel enriched to a value of 10%U^{235}; quantity of fuel at the beginning of operation increased due to water temperature and origination of Xenon-135 to 4 kg; ordinary water is used as coolant, shield and reflector; minimum critical mass of U^{235} with fuel rods is about 3 kg. The reactor is destined for research into

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