

NEFEDOV, Aleksand- Fedorovich; CHERNYAYKIN, V.A., otv. za vypusk; SEDOVA, A.P., red.; GALAKTIONOVA, Ye.N., tekhn. red.

[Selectring the efficient total weight of an automobile train]
Vybor ratsional'nogo obshchego vesa avtopoesda. Moskva, Avto-
transizdat, 1961. 35 p. (MIRA 15:1)
(Automobile trains)

NEFEDOV, A.F., dotsent

Selecting means for the mechanisation of loading and unloading
operations in automotive transportation. Trudy MIEI no.17:48-
60 '61. (MIRA 14:11)

(Transportation, Automotive)
(Loading and unloading)

NEFEDOV, Aleksandr Fedorovich; DOLGOPOL'SKIY, N.A., inzh., red.
vypuska; KOMAROV, M.S., otvetstvennyy redaktor;
BESPALOV, K.I., red.; RABINOVICH, A.N., red.; SHATS, Ya.Yu.,
red.; FURER, P.Ya., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn.
red.

[Mechanization of loading and unloading operations in
automotive transportation] Mekhanizatsiia pogruzochno-
rasgruzochnykh rabot pri avtomobil'nykh perevoskakh. Moskva,
Mashgis, 1963. 106 p. (MIRA 16:7)

(Transportation, Automotive--Freight)
(Loading and unloading--Equipment and supplies)

BEFLOV, A.F.

Results of the experimental determination of the stability of
of a tractor train. Trudy MIEI no.20:91-114. 1971. M 22:17:4

RABUKHIN, A.Ye.; KLYUCHAREVA, Ye.A.; LAMBINA, A.G.; MEDVEDEVA, A.S.;
NEPEDOV, A.F.; RODIONOVA, T.V.; SEMICHA, A.M.;
YAKOVLEVA, T.A. (Moskva)

Tuberculosis of the lungs in old age. Klin. med. 40 no.12:
18-23 D '62. (MIRA 17.2)

1. Is Tsentral'nogo instituta usovershenstvovaniya vrachey.

RABUKHIN, A.Ye.; KLYUCHAREVA, Ye.A.; KULAKOVA, A.A.; LAMBINA, A.G.;
MEDVEDEVA, A.S.; NEFEDOV, A.F.; RODIONOVA, T.V.; SAFAROV, R.S.;
SEMINA, A.M.; YAKOVLEVA, Y.A.

Clinical and epidemiological characteristics of tuberculosis
in elderly persons. Trudy TSIU 63:14-19 '63.

(MIRA 17:9)

1. Kafedra tuberkuleza Tsentral'nogo instituta usovershenst-
vovaniya vrachev.

L 45611-66

ACC NR: AF6016318

(A)

SOURCE CODE: UR/0113/66/000/001/0010/0014

AUTHOR: Mefedov, A. F. (Candidate of technical sciences)

ORG: L'vov Polytechnical Institute (L'vovskiy politekhnicheskiy institut)

34
B

TITLE: Calculating the traction of automotive vehicles under variable motion conditions

SOURCE: Avtomobil'naya promyshlennost', no. 1, 1966, 10-14

TOPIC TAGS: motion equation, motor vehicle, differential equation solution, vehicle engineering, linear acceleration, fuel consumption

ABSTRACT: The author presents a differential motion equation and its solution describing an automobile during acceleration. This solution may be used for a practical evaluation of the effect which the acceleration characteristics of the engine such as maximum power increase and the deviation from normal operation during rpm increase have on the dynamic characteristics of automobiles in the first phase of acceleration. The Chaplygin method is used for solving the system of differential equations. This method simplifies manual calculation and makes it possible to analyze the effects of various factors on motion characteristics. The solution of these equations is used as the basis for computations of motion and to account for travel time, average velocity, working conditions of the various assemblies, fuel consumption, transmission motion time etc. These indices may be used in applying the results of traction calculations to rational selection of transmission and engine parameters. Orig. art. has: 3 figures, 15 formulas.

SUB CODE: 13/ SUBM DATE: None/ ORIG REF: 007

Card 1/1

UDC:629.113.001.1

NEFEDOV, A.F., kand. tekhn. nauk

Using characteristic curves in determining starting indices of motor vehicles. Avt. prom. 31 no.6:17-23 Je '65.

(MIRA 18:10)

1. L'vovskiy politekhnicheskiy institut.

NEFEDOV, A.I.

Unforgettable years. Avtom., telem. i svyaz' no.10:41-42 0 '57.

(MIRA 10:11)

1. Deshurayy po obespecheniyu signalizatsii i svyazi Kuybyshevskoy dorogi.

(Railroads--Employees)

NE FEDOV, A.K.
CA

3

Apparatus for vacuum evaporation in electron microscopy
(VPE). A. I. Polmer and A. K. ... *Izv. Akad. Nauk S.S.S.R., Ser. Fiz. Khim.* (1961).—A ball for metal or SiO₂ evap., in vacuum system, and W or Ta evaporators are described.

NEFEDOV, A.

PA 1/50796

Radio/Radio - Radio, Equipment Ray 49
Radio, Reception

"O-V-1 Using Miniature Tubes," A. Nefedov, Lab
of Com Radio Club, 3 pp

"Radio" No 9

Give schematic diagram and construction features
of a receiver using the 11CP and 2P1P miniature
tubes, and an indefinite number of tuned LC
elements for receiving local radio stations in
the 200-2,000 meter band. In the variation des-
cribed, the condenser pairs (one fixed and one
variable in parallel) are chosen so that the

1/50796

Radio/Radio - Radio, Equipment (Contd) Ray 49

Receiver is tuned to three Moscow radio stations
(1,724, 1,295, and 360.6 meters).

1/50796

PA 157T94

NEFEDOV, A.

**USSR/Radio - Radiophonograph
Radio Receivers**

Feb 50

"Simplified Radiophonograph (Laboratory of the Central DOSARM Radio Club)," A. Nefedov, 5 pp

"Radio" No 2

Describes radiophonograph adapted to needs of clubs, village halls, and schools for receiving powerful radio stations and for playing records. Simplified radio with five fix-tuned channels on long and intermediate-wave bands is sufficient for large auditorium or wired radio center with 50-60 loud-speaker points. Includes four photographs, and three schematic diagrams.

157T94

NEFEDOV, A.

EA 159T103

USSR/Radio - Receivers, TRF
Radiophonographs

May '50

"Tuned Radio Frequency Receiver for Radiophonographs," A. Nefedov, 2 pp

"Radio" No 5

Considers TRF receiver better than superhet system for receiver part of set previously described in "Radio" No 2, 1950, due to latter's greater sensitivity and susceptibility to noise. Satisfactory reception is given by former for three Moscow stations and Minsk and Kiev stations.

159R103

NEFEDOV, A?

PA 171793

**Radio - Radios, Auto
Receivers**

Sep 50

"Radio for the Moskvich Automobile," A. Nefedov

"Radio" No 9, pp 25-29 and 32

**Describes auto receiver with 6 push-button
stations covering broadcast band. Superhet
circuit uses one 6A8, two 6BK7, one 6G7 and one
6V6 tubes. Schematic and layout diagrams.**

171793

NEFEDOV A.

PA 149T110

USSR/Radio - Receivers
Tubes, Miniature

Aug 51

"A 1-V-1 Battery Receiver," A. Nefedov

"Radio" No 8, pp 32-35

**Describes 1-V-1 battery receiver having 170-
990 m and 650-2,100 m bands. The set employs 3
Miniature pentodes, 2 1K1P's and one 2P1P. The
output power is 0.2 w with harmonic content of
12%.**

149T110

NEFEDOV, A.

PA 236T27

USSR/Electronics - Radio Receivers Jun 52

**"A Portable AC-DC Receiver (From Exhibits Shown
at the 10th All-Union Radio Exhibition),"
A. Nefedov**

"Radio" No 6, pp 25-30

**This receiver, designed by the Design Section of
the Central Radio Club, is a portable three-band
(long, medium, and short waves) superheterodyne
using four miniature tubes. With a type GB-60 B
battery and a "Saturn" or 1-KS-U3 A battery,
the receiver will operate for 30-35 hrs.**

236227

NEFEDOV, A.
USSR/Electronics - Receivers

Jan 53

"A Radio Receiver for Local Reception," A. Nefedov

e "Radio," No 1, pp 25-29

The receiver has an output power of μw . Sensitivity is at least 500-700 μv on the long-wave band and 500-800 μv on the medium wave band. Article describes construction of parts and tuning of receiver.

14

USSR/Electronics - Instruments

Feb 53

NEFEDOV, A.

"Measuring Direct-Current Voltages with a VKS-7B Vacuum-Tube Voltmeter"

e g
"Radio," No 2, pp 49-51

Describes ^Ltwo circuits developed by A. Nefedov of the Moscow Central Dosaaf Radio Club and Yu. Birvalks of Central Communications Service, Latvenergo, which adapt the VKS-7B voltmeter for measuring dc voltages up to 1500 v with an input resistance of 50 megohms. With both circuits, the instrument can still be used for ac measurements. *of*

NEFEDOV, A. (Moscow).

Volume and tone control. Radio no.6:50-51 Je '53. (MLRA 5:6)
(Radio--Receivers and reception)

NEFEDOV, A.

The 1-V-1 radio receiver. Radio no. 8:27-28 Ag '57. (MLR 5:8)
(Radio--Receivers and reception)

MEYDOV, A.; SHAKSHUB, V., redaktor; ZHIRAVLEV, A., tekhnicheskiiy redaktor

[A make-it-yourself combination radio and record player] Samodel'naya
radiola. Moskva, Izd-vo Dogaaf, 1954. 62 p. (MLRA 8:3)
(Radio—Receivers and reception) (Phonograph)

USSR/ Electronics - Combination radios

Card 1/1 No. 99-10/77

Author: [Illegible] and [Illegible], V.
[Illegible]

Reference: [Illegible] No. 2, 1975, Feb 1975

A combination receiver, a radio receiver-cassette player combination, is described. It easily picks-up all three local stations operating on the 1730, 544.4 and 344 meters wave length (173Kc, 544Kc, 872Kc). It also features a push-button dialing device. Diagrams; drawings; circuit diagram.

Classification: [Illegible]

Abstract: [Illegible]

NEFEDOV, A.

Category/Description - Receiver

Item : 1/1

Author : Nekrasov, A., and Smolyanov, V.

Title : A "7-2-1" Battery-Type Set

Published : Radio, No. 1, 12 - 21, April 1954

Abstract : The article gives a description of a battery-type receiving set described on the principle of a "7-2-1" circuit, i.e. a radio set with a single-stage radio-frequency amplifier, a vacuum-tube type detector, and a single-stage audio-frequency amplifier. The general design of the set and its wiring diagram are given; the mounting of the set, the component parts, the sources of power supply, and the method of tuning are described in detail. The circuit diagram, and 7 other diagrams, illustrating certain details and the general view of some of the component parts, are also shown.

Keywords :

Abstract :

Topic: Electronics - Radio receivers

Date: 10 Oct 55 - 1/40

Author: [illegible]

Title: A universal-feed "1-7-1" type radio receiver

Reference: Radio 30, 2-77, Oct 1955

Abstract: The layout of a radio receiving set with universal feed (i.e., operating on both 60 and 50 currents) and 2-7 amplification, incorporating miniature tubes, is presented. The set is designed for use in rural regions where electric power stations are not always in operation. During periods of power interruption from the AC line, the "1-7-1" set is fed from batteries. The set operates on long waves (715-3000m) and medium waves (300-360m). The description of the set covers the following details: the feedback loop, feedback with its selenium rectifiers, band selector, transformers, and tuning circuits. An illustration of the chassis is shown and the method of assembly of the component parts explained. Illustration; diagrams (including circuit diagram).

Classification:
Submitted:

USSR/ Electronics - Oscillators

USSR 100 No. 11, 1954

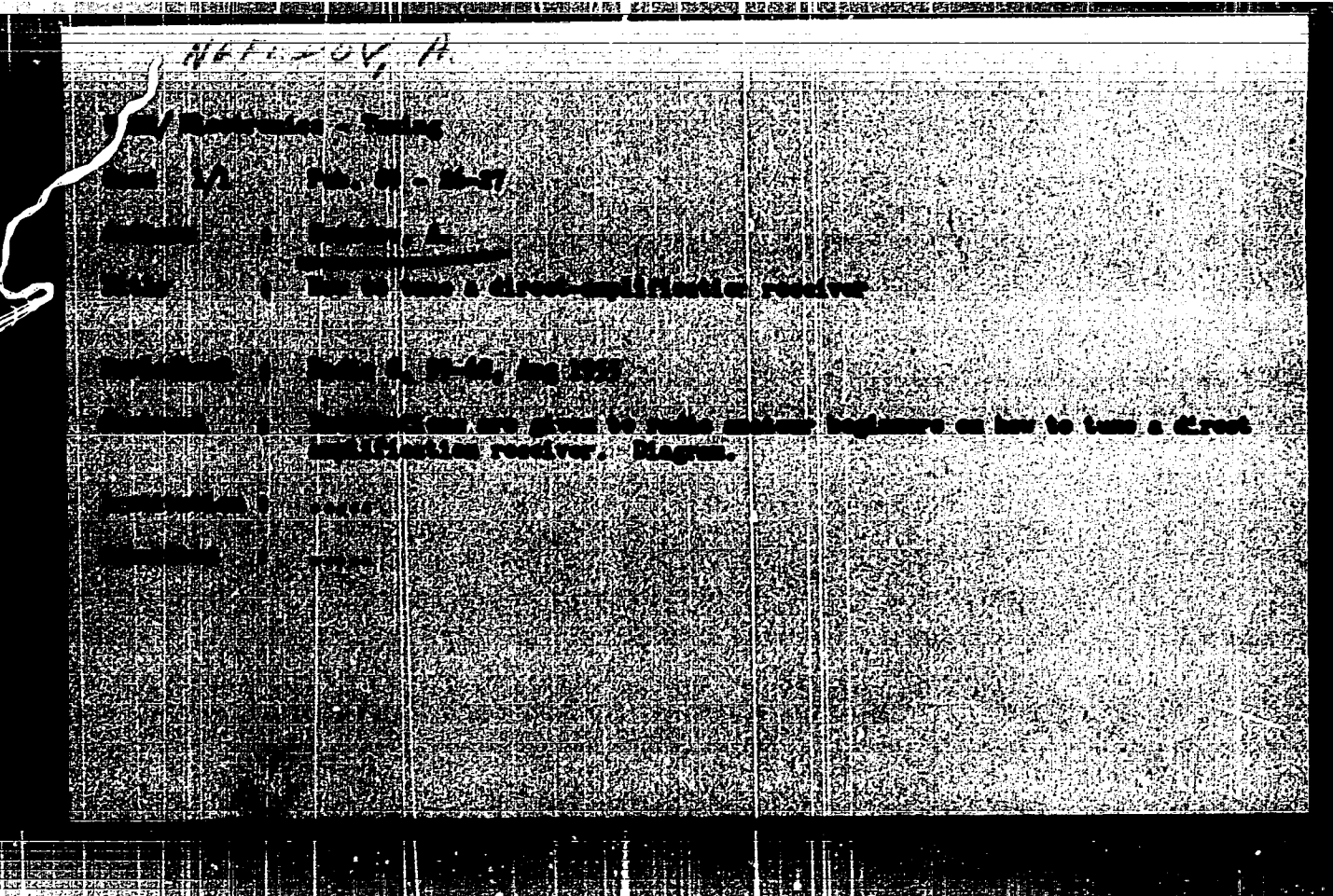
Author: M. M. Kuznetsov, N. S. Kuznetsov, N. S. Kuznetsov, N. S. Kuznetsov

Title: A wide-frequency oscillator

Reference: No. 11, 54-54, Nov 1954

Abstract: A wide-frequency oscillator, having vacuum-tube circuits that can be set for working various A-F amplifiers, A-F receiver-stages, transmitter-modulators, etc., is described. The oscillator's overall frequency range is 30 - 30,000 cps. For the range between 30 and 30,000 cps, the maximum high-ohm output voltage is no less than 30v and the maximum low-ohm output voltage is not less than 2v. A general circuit diagram schematically indicating the tube stages, resistances, filters, capacitances, the transformer and impedance coils, is presented. Both a negative and a positive feedback are used in the oscillator circuit. A detailed description of the transformer, its core, and windings is included. The assembly of the oscillator on the chassis and its adjustment, method of tuning the circuits and reading the output voltage are also given. Illustrations; diagrams.

Classification:
...
...



NEFEROV, Anatoliy Mikhailovich; VASIL'YEV, A.A., redaktor; KARYAKINA, M.S.,
tekhnicheskiy redaktor

[How to adjust receivers with straight amplification] Kak naladit'
priemnik priamogo usilenia. Moskva, Izd-vo DOSAAF, 1956. 15 p.
(MIRA 10:2)

(Radio--Receivers and reception)

MEFEDOV, A.; VASIL'YEV, A.A., redaktor; TSIGEL'MAN, L.T., tekhnicheskij
redaktor

[Simple electron-tube receiver] Prostoi lampovyi priemnik. Moskva,
Izd-vo DOSAAF, 1956. 19 p. (MIRA 10:9)
(Radio--Apparatus and supplies)

~~REF ID: A66666~~

The 1-W-1 battery receiver. V pom. radiolub. no. 1:3-15 '56.
(Radio--Receivers and reception) (MIRA 10:8)

NEFEDOV, N.

USSR/ Electronics - Radio

Card 1/1 Pub. 01 - 16/50

Author : NeFedov, N.

Title : Electronic relay with teleprinter

Periodical : Radio 1, 30 - 32, Jan 56

Abstract : A description is given of a set designed for use during the time of training and for competitions among radio operators. It contains an electronic relay, sound generator, low-frequency amplifier, indicator of speed of manipulation and a ribbon-moving mechanism. The technical principles are explained, and construction and parts are described and directions are given for tuning and adjustment. Illustrations; diagrams.

Institution :

Submitted :

Message 10

AID P - 4411

Subject : USSR/Radio
Card 1/1 Pub. 89 - 9/18
Authors : Nefedov, A. and V. Korobovkin
Title : Assembling oscillator induction coils
Periodical : Radio, 4, 33-34, Ap 1956
Abstract : The article describes the oscillator induction coils assembly of a VHF receiving set designed by the Central Radio Club and described fully in the No. 3 issue of this magazine. Data on coils are summarized in a table.
Institution : None
Submitted : No date

AID P - 5023

Subject : USSR/Electronics
Card 1/1 Pub. 89 - 8/14
Authors : Nefedov, A. and V. Korobovkin
Title : Ultra Short-Wave attachment
Periodical : Radio, 9, 38-41, 3 1956
Abstract : The authors describe an attachment applicable for network fed radio receivers for standard broadcast band. The attachment enables the reception of Ultra Short-Wave transmissions within a range of 65.0 to 72.0 Mc. Two connection diagrams, 5 drawings of details and assembly.
Institution : None
Submitted : No date

NEFEDOV, ANATOLIY MIKHAYLOVICH
PHASE I BOOK EXPLOITATION

526

Korobovkin, Viktor Vladimirovich and Nefedov, Anatoliy Mikhaylovich

Vsevolnovyy lyubitel'skiy radiopriyemnik (All-Wave Amateur Radio Receiver) Moscow, Gosenergoizdat, 1957. 31 p. (Massovaya radiobiblioteka, vyp. 280) 60,000 copies printed.

Ed.: Ginzburg, Z.B.; Tech. Ed.: Chernov, V.S.

PURPOSE: This brochure is addressed to radio amateurs who have already had some experience in building and adjusting superheterodyne receivers, and who know how to use measuring instruments.

COVERAGE: The brochure describes the circuit diagram and design of an eight-tube, all-band, superheterodyne radio amateur receiver with an uhf band. Detailed descriptions of the homemade receiver parts, as well as assembly and tuning instructions, are

Card 1/2

All-Wave Amateur Radio Receiver

526

given. Special attention is given to the design of the uhf channel and to methods of tuning it.

TABLE OF CONTENTS:

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Circuit Diagram	4
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Design and Assembly	18
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Tuning	22
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AVAILABLE: Library of Congress

Card 2/2

JP/ad
9-10-58

NEFEDOV, A.

6(4)

PHASE I BOOK EXPLOITATION

SOV/1903

Vsesoyuznoye dobrovol'noye obshchestvo sodeystviya armii, aviatsii
i flotu

V pomoshch radiolyubitelyu, vyp. 3 (Manual for Radio Amateurs Nr 3)
Moscow, Izd-vo DO SAAF, 1957. 64 p. Errata slip inserted.
100,000 copies printed.

Ed.: A. A. Vasil'yev; Tech. Ed.: L. T. Tsigel'man.

PURPOSE: The booklet belongs to a series published by the DOSAAF
organization (All-Union Voluntary Society for the Promotion of
the Army, Air Force, and Navy) for radio amateurs.

COVERAGE: The booklet consists of several articles written by
different authors on subjects that include descriptions of a
standard superheterodyne 6-tube receiver, an UKV (ultrashortwave)
battery radio receiver, an UKV ChM (ultrashortwave FM) unit,
a simplified calculation of power transformers and autotrans-
formers, and band switches of radio broadcasting receivers.
There are no references.

Card 1/2

BERKDOV

Homemade coils for amateur receivers. Radiotek. no. 2:20-4
157.

(Electric coils)

(MLRA 10)

KOROBOKIN, V.; ~~HEFEDQY~~

Ultrashortwave frequency-modulation adapter. V pom. radiolub. no.):
23-38 '57. (MIRA 10:12)

(Radio, Short wave--Receivers and reception)

107-57-3-28/64

AUTHOR: Nefedov, A.

TITLE: AF Oscillators for Training Radio CW Operators
(Generatory dlya trenirovki radiotelegrafistov)

PERIODICAL: Radio, 1957, Nr 3, pp 26-27 (USSR)

ABSTRACT: An AF training oscillator must work in a 200-1,000 cps band or at one of the frequencies within that band. Its output voltage must be between 5-15 volts, although sometimes it can be much lower. A frequency around 800 or 1,000 cps is preferable for training purposes as our ear is particularly sensitive to those frequencies. Only about 0,5 w is required for twenty headgears, and only a few hundredths or even thousandths of one watt is necessary for training one or two operators. The simplest AF oscillator can be designed with a neon lamp of 60-80 volts breakdown potential, using 80-120 volt DC source. Another AF oscillator can be designed with a vacuum tube using a transformer feedback circuit. An appropriate circuit using a 2P1P tube is discussed in the article, and its parts data and construction aids are given. A modification of this circuit, using AC power supply, is described. Another modification, whose details are given, uses a transistor instead of the tube.

Card 1/2

107-57-3-28/64

AF Oscillators for Training Radio CW Operators

RC oscillators, self-excited by a phase-shifting circuit, can also be used for training purposes. Two modifications, using DC and AC supply, and 1B1P and 6N9S tubes respectively, are described. Multivibrators, which generate oscillations rich in harmonics, can also be used as AF training oscillators. One circuit, discussed in the article, is designed with a 6N8S double-triode tube. Another circuit uses two P1A transistors. Radio amateurs can develop other modifications on the basis of the circuits discussed. There are eight figures in the article.

Card 2/2

Nefedov, A.

107-57-6-30/57

AUTHOR: Nefedov, A., and Dem'yanovskiy, B

TITLE: An 80-Meter Superhetrodyne (Supergeterodin na 80 m)

PERIODICAL: Radio, 1957, Nr 6, p 27-29 (USSR)

ABSTRACT: A description of a do-it-yourself type 80-meter superhetrodyne radio receiver is offered, including the circuit diagram, construction, wiring, adjusting, and antenna system. The six-tube receiver uses only two types of tubes: 06P2B and 1P3B. The first stage is tuned to 3.5 MC; the intermediate frequency is 465 KC. All parts data are given and methods of making them are described. A rod antenna and a battery set from a Soviet hearing aid are used. To secure directional characteristics, a second ferrite antenna is used. The combination results in a cardioid-shaped antenna directional pattern.

There are six figures in the article and two additional figures in the centerfold.

AVAILABLE: Library of Congress

Card 1/1

NEFODOV, A.; KOROPOVKIN, V.

Attached device for ultrashort waves. p. 14.

(RADIO I TELEVIZIJA, Vol. 6, no. 2, 1957, Sofia, Bulgaria.)

SD: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 12, December 1957 Uncl.

NEFRDOV, 4

~~NEFRDOV~~

A simple socket-powered receiver. Radio no.9: Supplement: 3-11

S '57.

(PIRA 10:10)

(Radio--Receivers and reception)

EDOV

NEFEDOV, A.

Radio phonograph with a tape recorder. Radio no.11:42-48 E '57.

(MIRA 10:10)

(Phonograph) (Magnetic recorders and recording)

NE (Moscow, USSR.

AUTHOR: Medvedev, A.M., a engineer

TITLE: A visit and engineering of the Brussels Fair. Sovetskaya radiotekhnika na brusselskoy p'lyazhe.

ISSUE INFO: Vestnik Svyazi, No. 1, 1958, pp. 11-14 (3 pp.).

ABSTRACT: This is a description of exhibits presented and demonstrated at the Brussels Fair. Receivers and radio record players have an ultra-short wave band. In rectifiers, small-sized flat selenium columns or germanium diodes are utilized instead of kenotrons. The portable radio record players of "Almaz", "Kristall", "T'paz", "Safir" and "Intin" types were designed by the "VSE" plant. There is a 2-channel i.f. amplifier with motor-tuning and remote control. The "Festival" type receiver, designed by the same plant, has i.f. amp. v. has tuning and volume remote control. There are also mass production receivers, such as "V'bra" type. A portable receiver of "Optik" type contains 7 vacuum tubes and a standard 60-volt power supply battery. It has a resp. a miniature storage battery built into the receiver. Inhibited, console and table TV-sets are exhibited. The numbered "Temp-5" set has a 10-program video and stereo picture, stereo aural reception, a tape recorder and an a. i. f. c.

Card 1/1

Viet Radio Engineering at the 1958 Paris Fair

2-speed player with automatic record changer. The "Kont-
sert" type console TV-set has a "14133" type kinescope, a
1-line gram reception, a special video carrier control and
it can be automatically switched on and off at any prede-
termined time. It has also remote control. The console TV-
sets of "Kobin 21" and "Kobin 22" types have the
"14133" type kinescope. There are also the projection TV-
set of "M skva" type, the simple TV-set of "Darya" type
and many others. The most interesting exhibit of the TV-
section is a semi-conductor TV-set, which does not contain
any radiotubes except the kinescope. It has a power supply
storage battery of 1.5 v, can be installed in a motor car
for reception during trips and can be used as a portable
set. Its power consumption does not exceed 1.5 w. Apart
from radio and TV-equipment, various communications equip-
ment is exhibited, such as high speed telegraph and photo-
telegraph sets, new automatic telegraph stations, repeater
stations and radio stations. The transmitter set of "PDA-
M" type is designed for phototelegraphic transmission of
graphic images. The wire communication section exhibits the
automatic telegraph station of "MVA-12" type for institu-
tions without any connection with a city telegraph ex-

Card 22

Soviet Radio Engineering at the Leningrad Fair

111-10-517-20

channels, curves of receiver telegraph stations. The signal-calling device contains transistors and crystal diodes. The transceiving radio station of "117-25" type is for operation on rays and oblique communication lines for telegraph and telephone at a range of 100 km. The longwave transmitter of 600 km and the shortwave transmitter of 1,000 km. The transceiving emergency radio station of "201-10" type is for operation on ships in case of a shipwreck. It provides a two-way telegraph communication service and automatically transmits emergency signals. There is also a radio station of "117-10" type with storage-battery power supply and semiconductor diodes. Furthermore, there are radio TV-devices for remote observation of various objects including those carried out under water at a depth of 100 m, and a diver is using biological processes. It can be installed at a distance of 1 km from the TV-camera. The first models of artificial earth satellites are also exhibited, as well as measuring and test instruments. There is also an electronic microscope magnifying the image up to 10,000 times. Radio parts, vacuum tubes of all sizes and semiconductor diodes are exhibited, as well as rectangular kinescopes, X-ray tubes and photo-electronic multipliers. There are 200 items.

AVAILABLE:
Card 117

Library of Congress
1. Radio engineering-Exhibition

MEFEDOV, A., kand.tekhn.nauk

Improve operating and technical properties of motor loaders made
by the Lvov Plant. Avt.transp. 37 no.3:37-38 Nr '59.

(MIRA 12:4)

(Lvov--Mototrucks)

BURLYAND, V.A.; YENYUTIN, Ye.A.; ZHEREBTSOV, I.P.; LEVITIN, Ye.A.;
LOMANOVICH, V.A.; NEFEDOV, A.M.; SOBOLEVSKIY, A.G.; SONIN,
Ye.K.; GRIGOR'YEVA, A.I., red.; KAR'AKINA, M.S., tekhn. red.

[A book for rural radio amateurs] Kniga sel'skogo radioliubi-
telia. Pod obshchei red. V.A.Berlianda. Moskva, Izd-vo
DOSAAF, 1961. 511 p. (MIRA 15:3)

(Radio)

NEFEDOV, A.N.

Automatic devices for the thermal treatment of ...
Mekh. stroi. 21 no.3:24-27 M: '6... (MIRA 17:3)

NEFEDOV, A.P.

Floating shears on drawing dies. **Kuz.-shtam.** proizv 4 no.6:45 10.12.
(MIRA 15-6)
(Drawing (Metalwork)) (Shears (Machine tools))

NEFEDOV, A.P.

Making bolster block and punch plate sections for large dies. Kuz.-
shtam. proizv 4 no.6:46 Je '62. (MIRA 15:6)
(Dies (Metalworking))

NEFEDOV, A.P.

New developments in the design of sheet-metal working dies
at the Gorkiy Automobile Plant. Kuz.-shtam. proizv. 4 no.7:41
Jl '62. (MIRA 15:7)

(Dies (Metalworking))

1-24484-65 EWT(a)/JPC(n)-2/T/ENP(t)/EWP(b) Pu-4 IJP(c)/SSD/AFWL/...
 ASD(f)-2/ABD(a)-5/ABD(m)-3/AFTR/ RAEM(o) J:JG

ACCESSION NR: AP4029188

S/0078/64/009/004/0883/0889

AUTHOR: Nefedov, A. F.; Sokolovskaya, Ye. M.; Grigor'jev, A. T.; Sokolova, I. G.;
 Nedunov, N. A.

TITLE: Solid-state phase transformations in vanadium tantalum alloys B

SOURCE: Zhurnal neorganicheskoy khimii, v. 9, no. 4, 1964, 883-889

TOPIC TAGS: vanadium tantalum system, system phase diagram, vanadium tantalum alloy, solid solution, crystal structure, alloy property, alloy phase, vanadium, vanadium base alloy, vanadium containing alloy, tantalum, tantalum base alloy, tantalum containing alloy

ABSTRACT: The V-Ta system was studied in view of incomplete and contradictory state of the literature. Some 39 alloys containing 0-100% tantalum were subjected to microscopic, thermal and x-ray diffraction analyses, and determinations of hardness, microhardness, specific electric resistance and of the temperature coefficient of electric resistance were made. The phase diagram (Fig. 1) shows that at temperatures above 13000 the alloys of the V-Ta system form a

Card

L 24484-65

ACCESSION NO: AP4029186

continuous series of solid solutions. At 1300 + 10% V₂Ta intermetallic compound is formed; at 900; its area of homogeneity extends from 32-39 at% Ta. At 900 the two-phase area (alpha + V₂Ta, V₂Ta + beta) extends from 9-52 at%; at 12500 this area is reduced to 15-45 at% Ta. The curves of the composition dependence of hardness and specific electric resistance and its temperature coefficient show a smooth change within the regions of solid solutions and breaks at 34 at% Ta corresponding to the region of V₂Ta. X-ray diffraction patterns show the alloy with 34 at% Ta to consist of one crystalline phase having a tetragonal lattice, with parameters a = 5.041 A, c = 6.702, and z = 4. Orig. art. has: 5 figures.

ASSOCIATION: none

SUBMITTED: 18Jul65

ENCL: 01

SUB CODE: MM, SS

NO REF SOV: 004

OTHER: 006

Card 2/3

NEFEDOV, A.P.; SOKOLOVSKAYA, Ye.M.; GRIGOR'YEV, A.T.; SOKOLOVA, I.G.;
NEDUMOV, N.A.

Phase transitions in the solid state in vanadium-tantalum alloys.
Zhur.neorg.khim. 9 no.4:883-887 Ap '64. (MIRA 17:4)

L 7332-55 ENT(a)/I/ENP(a)/ENP(b)/ENR(c) IJP(c) JD/JG

ACC NR: AP6027907

SOURCE CODE: UR/0189/65/000/005/0042/0047

AUTHOR: Nefedov, A. P.; Sokolovskaya, Ye. M.; Grigor'yev, A. T.; Chesernikov, V. I.; Sokolova, I. G.; Gusev, L. S.

ORG: Moscow State University (Moskovskiy gosudarstvennyy universitet)

TITLE: Solid-state phase transformations in vanadium-tantalum alloys

SOURCE: Moscow, Universitet. Vestnik. Seriya II. Khimiya, no. 5, 1965, 42-47

TOPIC TAGS: phase transition, vanadium alloy, tantalum alloy, vanadium compound, tantalum compound

ABSTRACT: The paper is devoted to the determination of the nature of the intermediate phase of TaV₂ and boundaries of its existence in V-Ta system. The magnetic susceptibility was measured as a function of composition and temperature. The temperatures of the start of fusion (solidus temperatures) were determined. Data were obtained on the differential thermal analysis of alloys of the V-Ta system, and on the microstructure, hardness, and crystal structure. The results were used to plot a phase diagram of the system (see Fig. 1).

Card 1/2

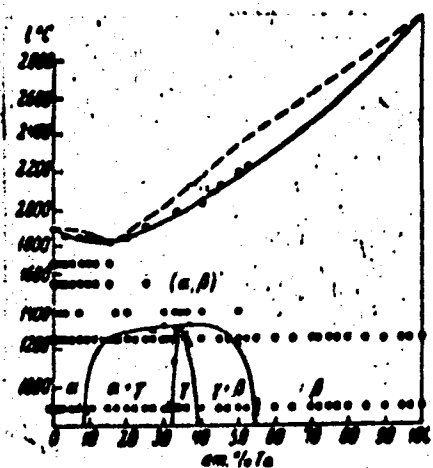
UDC: 536.7

44.55
44.55
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44.55
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23

2

L 7932-66

ACC NR: AP5027907



It is found that in the region of the stoichiometric composition where the ratio of the components (at. %) V : Ta = 2 : 1, prolonged stepwise annealing (lasting over 1600 hr) induces transformations which may be regarded as a process of ordering with the formation of the intermetallic compound TaV₂. X-ray analysis showed that TaV₂ has a hexagonal structure similar to that of an MgZn₂-type Laves phase, and lattice parameters $a = 3.058 \pm 0.005 \text{ \AA}$; $c = 8.250 \pm 0.005 \text{ \AA}$; $c/a = 1.631$, with four formula units per unit cell. Orig. art. has: 7 figures and 3 tables.

Fig. 1. Phase diagram of the V-Ta system based on data of this study

SUB CODE: MM,SS / SUBM DATE: 07Jan65 / ORIG REF: 005 / OTH REF: 002

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Card 2/2

546.881 + 546.882 + 546.881 + 546.883 +
546.77.541.123.3

AUTHOR: Nesedov, A. P.; Sokolovskaya, Ye. M.; Grigor'yev, A. T.; Bikolova, I. O.

TITLE: Phase diagram of the ternary systems V - Ta - Nb and V - Ta - Mo

35
34
B

SOURCE: AN SSSR, Izvestiya. Neorganicheskiye materialy, v. 1, no. 5, 1965, 715-520

TOPIC TAGS: ²⁷ tantalum alloy, ²⁷ vanadium alloy, ²⁷ niobium alloy, ²⁷ molybdenum alloy,
tantalum compound, vanadium compound, phase diagram

ABSTRACT: This study was carried out by means of microscopic analysis, high-temperature noncontact thermal analysis, hardness and microhardness measurements, x-ray analysis, and determination of the temperatures of the start of fusion. In each ternary system, alloys were prepared in two sections: in a section with a constant content of 10 at. % Nb (or Mo) and in a radial section with a constant ratio (at. %) V:Ta = 2:1. A total of 68 alloys was prepared by fusion in an arc furnace in argon. Data obtained for the alloys in the cast, homogenized, and quenched state were used to plot phase diagrams for the two ternary systems. The components were found to form a continuous series of solid solutions which, as the temperature was lowered toward compositions adjoining the

Card 1/2

L 58702-65

ACCESSION NR: AP5016587

binary system V - Ta, underwent transformations due to the formation of an ordered phase based on the binary compound TaV_2 . X-ray analysis showed that in the V - Ta - Nb system the crystal lattice and cell constants of the ternary ordered phase are the same as those of the binary Laves phase TaV_2 : $a \approx 5.058 \text{ \AA}$, $c = 8.250 \text{ \AA}$, $c/a \approx 1.631$, $z = 4$. In the V - Ta - Mo system, the ordered phase, while retaining the crystal structure of TaV_2 , has slightly larger c and a constants. Thus, for the alloy with the radial section at 5 at. % Mo, $a = 5.090 \text{ \AA}$, $c = 8.322 \text{ \AA}$, $c/a \approx 1.635$. Orig. art. has: 7 figures.

ASSOCIATION: Khimicheskiy fakul'tet, Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova (Chemistry Department, Moscow State University)

SUBMITTED: 28Jan65

ENCL: 00

SUB CODE: IC, MM

NO REF SOV: 003

OTHER: 002

Card

2/2

L 1718-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/IG

ACCESSION NR: AP3021943

UR/0126/65/020/002/0302/0303
539.292; 538

48
45
B

AUTHOR: Chechernikov, V. I.; Mafedov, A. P.; Sokolovskaya, Ye. M.

44.55 41.55 44.55

TITLE: Magnetic properties of V-Ta alloys

SOURCE: Fizika metallov i metallovedeniye, v. 20, no. 2, 1965, 302-303

TOPIC TAGS: magnetic susceptibility, vanadium containing alloy, tantalum containing alloy, homogenized alloy, electron system, sigma phase

ABSTRACT: The authors present the results of an investigation of the temperature dependence of the magnetic susceptibility of V-Ta alloys made of 99.63% pure vanadium and 99.7% pure tantalum along with small percentages of Fe, Al, Si, S, N₂, C, O₂, Ni, Ti, W, and Mo. Physicochemical investigations of the annealed specimens (microstructural examination, determination of electrical resistivity, X-ray structural analysis) revealed that the homogenized alloys form monophasic systems, while alloys subjected to additional annealing are two-phase. The magnetic susceptibility of the alloys was measured at temperatures of from 77 to 1100°K with the aid of a pendulum balance. It was found that at room temperature

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L 1718-66

ACCESSION NR: AF5021943

the susceptibility of the homogenized alloys varies smoothly throughout the range of concentrations. For pure vanadium it is maximal ($4 \cdot 10^{-6} \text{ g} \cdot \text{cm}^{-3}$), and it decreases with increasing Ta content until, in the case of pure Ta, it drops to $0.95 \cdot 10^{-6} \text{ g} \cdot \text{cm}^{-3}$. At different temperatures, throughout the entire temperature range investigated, for homogenized alloys, the temperature dependence of specific susceptibility $1/\chi$ is linear (Fig. 2). The slope of the curves, which is nearly independent of alloy composition, indicates a certain localization of d-electrons in the alloys investigated. The most interesting results were obtained for alloys containing 34 at.% Ta (curves 6, 7). Thus while the susceptibility of a specimen subjected to a single heat treatment operation varies markedly with temperature, the susceptibility of the compound TaV_2 is nearly independent of T (curve 7). This indicates that, in this compound, the principal part of the d-electrons undergoes a considerable collectivization, forming together with s-electrons a common electron system. It is this electron system that largely determines the magnetic properties of the compound TaV_2 . It may be assumed that this compound is an G-phase, which, as is known, exists in many vanadium alloys and is by nature an electron compound. Furthermore, these findings confirm the phase diagram obtained by Nefedov et al. (Zhurnal neorg. khimii, 1964, 9, 4, 883). Orig. art. has: 2 figures.

Card 2/4

L 1718-66

ACCESSION NO: AF3021943

3

ASSOCIATION: Moskovskiy gosuniversitet im. N. V. Lomonosova (Moscow State University)

44.5 J

SUBMITTED: 03Aug64

ENCL: 01

SUB CODE: NI, NI

NO REF SOV: 001

OTHER: 000

Card 3/4

L 1718-66

ACCESSION NR: AF3021943

ENCLOSURE: 01

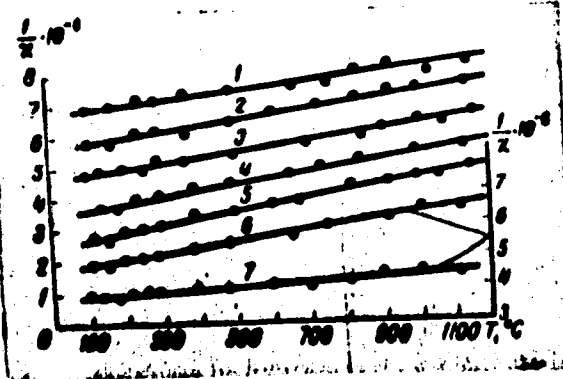


Fig. 2. $1/\chi$ as a function of T for V-Ta alloy containing the following at.% of Ta:

1 - 70; 2 - 50; 3 - 36; 4 - 20;
5 - 11 at.% and TaV₂ alloy (34 at.% Ta) after homogenization (6) and additional annealing (7)

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GRIGOR'YEV, A.T.; SOKOLOVSKAYA, Ye.M.; NEFEDOV, A.P.; SOKOLOVA, I.G.

Effect of molybdenum on transformations in the solid state
in alloys of the V - Ta system. Vest. Mosk. un. Ser. 2:Khim.
20 no.4:44-49 J1-Ag '65. (MIRA 18:10)

1. Kafedra obshchey khimii Moskovskogo gosudarstvennogo uni-
versiteta.

NEFEDOV, A.P.; SOKOLOVSKAYA, Ye.M.; GRIGOR'YEV, A.T.; CHECHERNIKOV, V.I.;
SOKOLOVA, I.G.; GUZEY, L.S.

Phase transitions in the solid state in alloys of vanadium
with tantalum. Vest. Mosk. un. Ser. 2:Khim. 20 no. 5:42-47
S-0 '65. (MIRA 18:12)

1. Kafedra obsnchey khimii Moskovskogo gosudarstvennogo
universiteta. Submitted Jan. 7, 1965.

NEFEDOV, A.P.; SOKOLOVSKAYA, Ye.M.; GRIGOR'YEV, A.T.; SOKOLOVA, I.G.

Phase diagrams of the ternary systems V - Ta - Nb and V - Ta - Mo.
Izv. AN SSSR. Neorg. mat. 1 no.5:715-720 My '65. (MIRA 18:10)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova,
khimicheskiy fakul'tet.

L 26/09-66 EWT(m) JB/JG

ACC NO. AP6017370

SOURCE CODE: UR/0363/66/002/003/0464/0466

AUTHOR: Semenkov, V. A.; Petrunin, V. F.; Sokolovskaya, Ye. N.; Mafedov, A. P. 40ORG: Institute of Atomic Energy im. I. V. Kurchatov (Institut atomnoy energii) BTITLE: Structure of the $TaV_{sub 2}$ phaseSOURCE: AN SSSR. ^{21 21} Izvestiya. Neorganicheskiye materialy, v. 2, no. 3, 1966, 464-466

TOPIC TAGS: neutron beam, neutron diffraction, tantalum alloy, vanadium alloy, iron compound, silicide

ABSTRACT: The alloy TaV_2 was studied on a neutron diffractometer using a monochromatic neutron beam ($\lambda = 1.12\text{\AA}$) obtained from a focusing iron silicide monochromator crystal. At 900°C the TaV_2 phase is of the Laves phase of the M_2Ca_2 type with a $a = 7.16\text{\AA}$. On comparing neutrographic data with earlier conducted x-ray investigations the conclusion can be made that TaV_2 has two polymorphic modifications: low-temperature M_2Ca_2 type and high-temperature $MgZn_2$ type. Orig. art. has: 1 figure and 1 table. [JPRS] 27

SUB CODE: 11, 20 / SUBM DATE: 08Jul65 / ORIG REF: 006 / OTH REF: 003

Card 1/1 PB

UDC: 546.033.001

L 16328-66 EAF(m)/T/EAF(t)/ETI 131(2) JD/JG

ACC NR: AP6019776

SOURCE CODE: UR/0370/66/000/003/0183/0192

AUTHOR: Grigor'yev, A. T. (Moscow); Sokolovskaya, Ye. M. (Moscow); Nefedov, A. P. (Moscow); Sokolova, I. G. (Moscow)

ORG: none

TITLE: Effect of niobium on solid-state transformations in alloys of the vanadium-tantalum system

SOURCE: AN SSSR. Izvestiya. Metally, no. 3, 1966, 183-192

TOPIC TAGS: vanadium alloy, tantalum alloy, niobium containing alloy, alloy phase diagram

ABSTRACT: In this paper, which continues their study of the V-Ta system, the authors attempted to determine the nature of the influence of niobium (which, like vanadium and tantalum, is an element of group V) on solid state transformations in alloys of this system, in the region of the metallic compound TaV₂. Both annealed (ordered) and quenched (from 1000, 1150, 1250, and 1400°C) alloys were investigated by physico-chemical techniques (microscopic and high-temperature contactless thermal analyses, hardness and microhardness measurements, determination of temperatures of starting fusion). On the basis of the data obtained, phase diagrams of the V-Ta-Nb system in a radial section with a constant ratio (at. %) V:Ta = 2:1 and in two polythermal sections (with 10 and 5 at. % Nb) were plotted, and the distribution of the phase regions was established in the ternary system at various temperatures. According to

Card 1/2

UDC: 669.017.13

L 46328-66

ACC NR: AP6019776

x-ray data, the crystal structure and lattice constants of the ternary ordered phase do not differ from those of the metallic compound TaV_2 . Authors express their appreciation to L. S. Gusev for assistance in carrying out the thermal analysis. Orig. art. has: 5 figures and 3 tables.

SUB CODE: 11/ SUM DATE: 16Sep64/ ORIG REF: 005/ OTH REF: 003

Card 2/2 fv

L. 24357-66 FSS-2/ET(1)

ACC NR: AP6005958

SOURCE CODE: UR/0127/66/000/002/0057/0060

AUTHOR: Sofronov, A. V.; Abramov, A. V.; Minoyev, Yu. K.; Mafedov, A. P.;
Vitseni, Ye. N.

27
25
B

ORG: none

TITLE: The development and application of "dynamo-reactive" ⁵grenade launchers in the mining industry

SOURCE: Gerayy zhurnal, no. 2, 1966, 57-60

TOPIC TAGS: mining engineering, grenade, ground weapon, weapon launcher

ABSTRACT: In 1960, the Ramenskoye Branch of VNIIGeofiziki (Ramenskoye otdeleniye VNIIGeofiziki) began research on the design of a firing system to eliminate overhangs in mining operations. One of the most acceptable versions of the design is a system operating on the recoilless weapon principle: the "dynamo-reactive" cannon

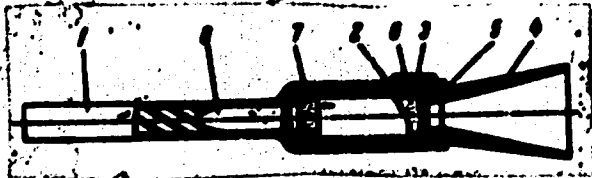


Fig. 1. Diagram of a recoilless cannon.

- 1 - Barrel; 2 - cap bushing; 3 - firing mechanism; 4 - nozzle; 5 - bottom plate;
- 6 - cartridge; 7 - cartridge case; 8 - shell

2

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UDC: 621.926.1

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ACC NR: AP6005958

(see Fig. 1). The advantages of the proposed device are: small caliber, low weight, no recoil with high power, high maneuverability, and the opportunity of firing dummies or high-explosive projectiles. Further research resulted in the design of the DRS-130 dynamo-reactive grenade launcher (see Fig. 2). The results obtained in

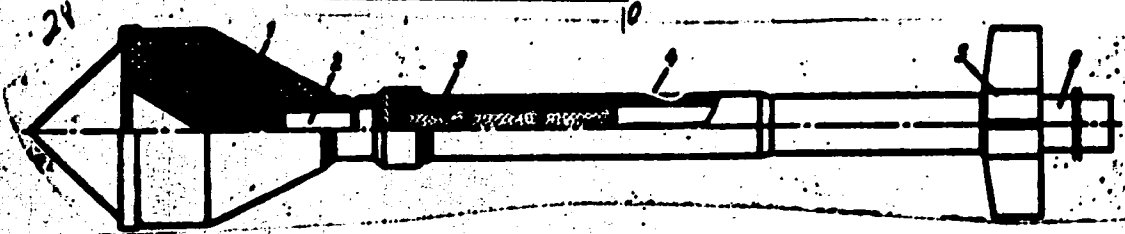


Fig. 2. The DRS-130 dynamo-reactive grenade launcher.

1 - Shell; 2 - igniter; 3 - powder charge; 4 - charge chamber; 5 - fins; 6 - barrel.

ballistic tests were excellent and tests were conducted under field conditions. In addition to its main function, the grenade launcher may also be used to string cable, to eliminate the danger of avalanches, and to break up ice formations in rivers. Orig. art. has: 4 figures and 1 table. (06)

SUB CODE: 19/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 002/ AID PRG: Card 212

KRASIKOV, P.N.; NEFEDOV, A.S.

Results of laboratory experiments in investigating the ice-forming activity of certain substances in supercooled clouds. Trudy GGO no.104:79-84 '60. (MIRA 13:10)
(Weather control)

NEFEIOV, A.S.

The "Quality day." Mashinostroitel' no.9:10 5 '64.

(MIRA 17:10)

1. Nachal'nik Tsentral'nogo byuro tekhnicheskoy informatsii
Privolzhskogo soveta narodnogo khozyaystva.

NEFEDOV, A.S., gornyy inzh.

Efficient use of new excavators in open pits. Nauch. trudy MGU
no. 36:35-41 '61. (MIRA 17:3)

NEFEDOV, A.S.

Introducing the system of flawless output of industrial production. *Biul. tekhn.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekhn. inform.* 18 no.2:10-12 F '65.

(MIRA 18:5)

NEFEDOV, A.V. [Nefedov, O.V.]; FIALKOVSKAYA, O.V. [Fialkovs'ka, O.V.]

Vibration spectrum of pyrene and its interpretation. Ukr. fiz. zhur.
10 no.4:416-419 Ap '65. (MIRA 18:5)

1. Institut fiziki AN UkrSSR, Kiyev.

NEFEDOV, A.V. [Nefodov, O.V.]; FIALKOVSKAYA, O.V. [Fialkovskaya, O.V.];

Interpretation of the vibrational spectrum of thiourea. Ukr.
fiz. zhur. 10 no.7:778-780 J1 '65. (UkrA 18:8)

1. Institut fiziki AN UkrSR, Kiyev.

NEFEDOV, A.V. [Nefedov, A.V.] - FIALKOVA'KA, O.V. [Fialkova'ka, O.V.]

Vibrational spectrum of an a-crystalline polymer. Comparison with spectrum of amorphous polymer.
Ukr. fiz. zhur. 10 no. 8:285-293 (1965).

1. Institut Fiz. Khim., Kiev, Ukr. S.S.R.

Nefedov, A.V. [Nefedov, O.V.]

Determination of the frequencies of valence oscillations
of urea molecules. Ukr.fiz.zhur. 10 no.12:1377-1379
D '65.

(MIRA 19:1)

1. Institut fizik: AN UkrSSR, Kiyev. Submitted September 21,
1965.

BELOV, N.S.; BIRYUKOV, I.V.; VERBLYUDOV, N.N.; GORBUNOVA, M.N.; YESIPOVA, M.M.;
IL'ICHEV, A.I.; IGNAT'YEVA, N.Ya.; KOVACHEVICH, P.M.; LYTKIN, A.M.;
LOSKUTOV, V.G.; MAZYUKOV, A.S.; MIROSHNICHENKO, N.Ya.; NEFEDOV, A.Ya.;
OSIPOV, K.V.; OSIPOV, P.M.; PETROV, M.G.; PETRACHKOV, M.I.;
PINEVICH, K.M.; POPOV, B.B.; POTAPOV, P.V.; PREDEIN, F.Ye.; PUKHOV, A.F.;
CHUSOVITINA, Ye.I.; ANGEL'SKIY, N., tekhn.red.

[The Kuznetsk Basin in the sixth five-year plan] Kuzbass v shestoi
piatiletke. [Kemerovo] Kemerovskoe knizhnoe izd-vo, 1956. 125 p.
(MIRA 10:12)

(Kuznetsk Basin)

NEFEDOV, A.Ye.; ZHAVORONOK, V.Ye.; KON'KOV, N.O.

Conference of telecommunication workers by mail. Vest. svyazi
22 no.5:20-23 My '62. (MIRA 15:5)

1. Nachal'nik Ivanovskogo oblastnogo upravleniya svyazi (for Nefedov).
2. Nachal'nik Kiyevskogo pochtanta (for Zhavoronok).
3. Nachal'nik Ryazanskoy rayonnoy kontory svyazi (for Kon'kov).
(Telecommunication—Employees)

NEFEDOV, A.Ya.

Economic councils should be provided with outstanding tele-
communication service. Vest. svyazi 23 no.8:25-26 Ag '63.
(MIRA 16:11)

1. Nachal'mik Ivanovskogo oblastnogo upravleniya svyazi.

NEFEDOV, Aleksandr YUKOLEVICH, KARASEV, Vladimir Aleksandrovich;
NIKOLAYEV, R.N., etv. red.; KARASEV, V.A., Yelov., red.

[Mechanization of postal enterprises in Ivanovo Province
Mekhanizatsiya predpriyatiy pochnoy svyazi Ivanovskoy
oblasti. Moskva, Svyaz izdat, 1971. 5 p.

МКА 119,
1. Mashinik oblastnogo upravleniya svyazi Ivanovskoy
oblasti (for Nefedov . . . Danestitel' . . .) i Karasev
nogo upravleniya svyazi Ivanovskoy oblasti (for Karasev

NEFEDOV, A.Ya.

Our experience in improving postal service West article 25
no 1:17-19 Ja '65 (MIFA 18-4)

1. Nachal'nik Ivanovskogo oblastnogo upravleniya svyazi.

DUMPE, V.E., kand. tekhn. nauk; NEFEDOV, B.A.; ROMANOVSKIY, V.I.;
USOL'TSEV, A.N.

Semiautomatic device for checking the position of hole axes.
Mashinostroitel' no.6:12-13 Je '63. (MIRA 16:7)

(Electric instruments)

SRAPENYANTS, R.A., inzh.; NEFEDOV, B.B./, inzh.

Investigating scale formation in the area of piston rings. Trakt.
i sel'khozmasb. 30 no.6:16-17 Je '60. (MIRA 13:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mekhanizatsii
sel'skogo khozyaystva.
(Piston rings)

GAL'PERIN, A.S., inzh.; MEPEDOV, B.B., inzh.

Effect of variable loads on the wear of tractor engine parts. Vest.
mash. 41 no.4:38-41 Ap '61. (MIRA 14:3)
(Tractors--Engines)

NEFEDOV, B. B., inzh.

Errors resulting from the use of a radioactive isotope technique
in studying the wear of engines. Mekh. i elek. sots. sel'khoz.
20 no.6:17-20 '62. (MIRA 16:1)

1. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy
tekhnologicheskii institut remonta i ekspluatatsii mashinno-
traktornogo parka.

(Gas and oil engines)

(Radioactive isotopes—Industrial applications)

ARTEM'YEV, Yu.N.; VOLGIN, I.V.; GAL'PERIN, A.S.; DYALYUSHKO, V.F.;
KAPLUN, I.B.; LAVKINICHEV, V.H.; NEPELOV, B.D.; TEL'POV, A.S.;
CHICHEV, Yu.I., red.

[Control of technical conditions of tractor parts in repair-
ing; a handbook. Traktors DT-54, DT-54A, T-75, "Belarus',"
T-40, T-28, DT-14, DT-14A, DT-14B, DT-20, self-propelled
chassis DVSSh-16 and T-16] Kontrol' tekhnicheskogo sosto'aniia
traktornykh detalei pri remonte; spravochnik. Traktory
DT-54, DT-54A, T-75, "Belarus'," T-40, T-28, DT-14, DT-14A,
DT-14B, DT-20, samokhodnye shassi DVSSh-16 i T-16. Moskva,
Kolos, 1965. 471 p. (MIRA 18:4)

5(3)

SOV/80-32-5-32/52

AUTHORS: Rapoport, I.B., Mefedov, B.K., Grakhova, S.G.

TITLE: On the Reaction of Dehydrogenation of Higher Paraffin Hydrocarbons Over Coal Catalysts

PERIODICAL: Zhurnal prikladnoy khimii. 1959, Vol 32, Nr 5, pp 1112-1121 (USSR)

ABSTRACT: The production of olefines from lower paraffin hydrocarbons is possible by means of dehydrogenation. The dehydrogenation of paraffin hydrocarbons with five and more carbon atoms is investigated here. At 450 - 510°C the dissociation of paraffin hydrocarbons takes place over activated coal with promotor. This reaction is accompanied also by dehydrogenation. The yield of liquid catalysate is 82 - 95%, the yield of gas 3 - 15%. The liquid products contained 20 - 30% unsaturated compounds. The raw material for the reaction was sintin, a product obtained from CO and H₂ over a Co-ThO₂-MgO catalyst. Promotors for the activated coal were salts of Na, Li, Rb, Cs and other metals. The promotors cause the increase of the H₂ : C_nH_{2n+2} ratio from 0.362 to 1.35. The best promotor is caustic soda followed by Na₂CO₃. Among the other metals a positive effect show only Li salts. The best carrier for the catalyst in the fraction 180 - 200°C is activ-

Card 1/2

SCV/86-32-5-32/52

On the Reaction of Dehydrogenation of Higher Paraffin Hydrocarbons Over Coal Catalysts

ated coal of type KAD. With the increase of the boiling point of the raw material the reaction of dissociation plays an important role. The yield of liquid products decreases and coke and gas formation increases. Since at 500 - 510°C the dissociation reaction prevails, the temperature should be kept at 470 - 480°C. At a volume rate of 3 vol/vol · catalyst · hour the dehydrogenation reaction prevails. The catalyst KAD + 1% NaOH decreases its activity after 10 - 12 hours and must be regenerated by superheated steam for 10 hours. Experiments with the single hydrocarbon n-heptane have shown that a partial dehydrogenation takes place without dissociation and dehydrocyclization. There are 6 tables, 4 graphs and 4 references, 2 of which are Soviet and 2 American.

SUBMITTED: October 9, 1957

Card 2/2

5(3)

SOV/80-32-5-33/52

AUTHORS: Rapoport, I.B., ~~Mefedov, B.K.~~

TITLE: On the Reaction of Dehydrogenation of Paraffin Hydrocarbons Over Chromium-Aluminum Catalysts

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 5, pp 1121-1125 (USSR)

ABSTRACT: The article is a continuation of [Ref 1] using a chromium-aluminum catalyst. Such a catalyst had been used by A.I. Vozzhinskaya. Shuykin had converted n-pentane to pentene with a yield of 31% using a catalyst with the ratio $Al_2O_3 : Cr_2O_3 : K_2O = 90.7 : 5.6 : 3.7$ in mole %. The sintin fractions 180 - 200°C and 300 - 380°C were used as raw material. The principal reaction of the first fraction is dehydrogenation. The hydrogen content in the gas reaches 65%. In the second fraction dissociation is also observed. The best catalyst for the dehydrogenation of this fraction contains 8% Cr_2O_3 , whereas for the 180 - 200°C fraction the content should be 15%. The catalysts

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are active for 28 hours and are regenerated in a stream of hot air at 600 - 650°C.

There are 5 tables and 3 references. 2 of which are Soviet and 1 German.

SUBMITTED: October 9, 1957

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5(3)

AUTHORS:

Eydus, Ya. T., Nefedov, B. K.

SOV/20-124-1-31/69

TITLE:

Influence of Hydrogen Upon the Progress of Reaction of Iso-butylene Polymerization Over a Catalyst of Hydrocondensation of Carbon Monoxide With Olefins (O vliyani vodoroda na protokaniye reaktsii polimerizatsii izobutilena nad katalizatorom gidro-kondensatsii okisi ugleroda s olefinami)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 1, pp 111 - 114 (USSR)

ABSTRACT:

If α -olefins of normal structure, mixed with hydrogen, are conducted over the catalyst mentioned in the title (Co-loam), at 190° and atmospheric pressure, a small amount of liquid hydropolymerizate is formed in addition to the hydrogenation products of the olefin. Its yield increases with increasing molecular weight of the initial olefin (Ref 1). It was supposed that alkyl radicals form on the surface of the catalyst (semi-hydrogenated olefins) which are capable of initiating the hydropolymerization (Ref 5). Apparatus and experimental method are similar to those described in reference 6. Table 1 and figures 1 and 2 present the results. As can

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As seen from them, isobutylene could be polymerized up to 5% at the initial activity of the catalyst and up to 2% only at stabilized activity. The addition of 0.2% H_2 increased the yield by the 2 - 2.5-fold. Between 0.2 and 10% H_2 the yield remained unchanged, but with an increase in the H_2 -concentration up to 50% increased again up to 18 and 12% at the initial and stabilized activity, respectively. At H_2 -concentration above 50% the yield rapidly decreased. Together with the hydrogenation also hydro-cracking occurred. It was proved that n-butylenes could not be polymerized on the said catalyst. The sudden increase in the yield of the polymerize on the addition of 0.2-0.5% H_2 can only be explained by the formation of isobutyl radicals on the surface of the catalyst. The effect of hydrogen was observed only in the case of the Co-catalyst. The carrier of this catalyst (loam) which proved to be a much more active catalyst of isobutylene than Co-loam revealed that in this case hydrogen exerts no influence in the above sense. It rather acts as a diluent. This may point

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to the fact that no surface radicals are formed on loam, so that polymerization takes place according to the ionic mechanism only, predominantly forming a dimer and a trimer. On the catalyst Co-loam the process apparently possesses a mixed character, i.e. it partly proceeds according to the ionic and partly to the radical mechanism. There are 4 figures, 1 table and 10 Soviet references.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

PRESENTED: September 22, 1958, by B. A. Kazanskiy, Academician

SUBMITTED: September 18, 1958

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5(3)

AUTHORS:

Eydus, Ya. T., Nefedov, B. K.

SOV/20-127-5-27/58

TITLE:

On the Catalytic Destructive Hydropolymerization of Isobutylene Hydrogen Mixtures

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 127, Nr 5, pp 1029-1032 (USSR)

ABSTRACT:

The authors proved already earlier (Ref 1) that isobutylene, in contrast to the n-butylenes, may be polymerized at 190° and under atmospheric pressure in the presence of Co-clay (cobalt clay, catalyst of the hydrocondensation of carbon oxide with olefins), however, only to a small degree: 2 - 5 % yield in liquid polymerizate computed with respect to the olefin passed. An addition of hydrogen, however, brings about a rapid increase in the yield: by the double at 0.2 % H₂, at the maximum up to 12 - 18 % in the case of an equimolar isobutylene hydrogen mixture. In the presence of clay this effect of hydrogen was not observed. In this reaction clay showed to be more active than the Co-clay catalyst. In the present paper the action of the hydrogen concentration on the polymerization and the hydropolymerization of isobutylene was to be investigated quantitatively and qualitatively. The authors

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wanted to find whether the reaction direction changes under the formation of products which do not only differ by the degree of saturation but also by the structure of the carbon skeleton. For this purpose the reaction products of isobutylene hydrogen mixtures were compared at different ratios of components. Tables 1 and 2 show the fractions obtained from the hydropolymerizate. The fractionation curves of these polymerizates are shown by figure 1. It may be seen from the results that under the given experimental conditions the direction of the reaction mentioned in the title depends on the hydrogen concentration in the initial mixture. In this connection two extreme directions may be distinguished: (1) Predominant formation of di- and triisobutylenes and their hydrogenated derivatives if no hydrogen or only small concentrations are present. (2) Formation of methyl alkanes and alkenes. Their methyl group is mainly in the 2nd carbon atom. This reaction takes place at a content of 50 % hydrogen in the initial mixture. In the case of intermediate concentrations both polymerization reactions take place. The first reaction has ionic character whereas the latter, strictly speaking, is

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no polymerization or hydropolymerization since its various stages are considerably influenced by processes of destructive hydrogenation. It must therefore be regarded as a destructive hydropolymerization of isobutylene under the action of hydrogen. Its mechanism will be further investigated. There are 1 figure, 2 tables, and 5 Soviet references.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

PRESENTED: April 22, 1959, by B. A. Kazanskiy, Academician

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