BANGE, Boris Ottovich; VASIL'YEV, Garviil Tarasovich; KAMNEV, Petr Vladimirovich, dotsent, kand.tekhn.nauk; KATS, Azariy Samoylovich, dotsent, kand.ekonom.nauk; DANILOV, S.P., inzh., retsenzent; LEYKINA, T.L., red.izd-va; VARKOVETSKAYA, A.I., red.izd-va; SPERANSKAYA, O.V., tekhn.red.

[General information for forging-machine and punch operators] Obshchie svedeniia dlia kuznetsov. Pod red. P.V.Kamneva. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1958. 114 p. (MIRA 12:3)
(Bibliotechka kuznetsa-novatora, no.1)
(Forging)

VASIL'YEV, Grigoriy Vasil'yevich; BENETOVA, Ye.M., redaktor; NEKRASOVA, O.I., tekhnicheskiy redaktor

[Water supply and sewage disposal for enterprises of light industry] Vodosnabzhenie i kanalizatsiia predpriiatii legkoi promyshlennosti. Izd. 2., perer. i dop. Moskva, Gos. nauchno-tekhn. izd-vo Ministerstva promyshlennykh tovarov shirokogo potrebleniia SSSR, 1954. 234 p. (MLRA 7:10)
(Water supply engineering)
(Sewerage)
(Factory and trade waste)

VASIL'YEV, Grigoriy Vasil'yevich; LUKINYKH, N.A., retsenzent; VERBITSKAYA, Ye.M., red.; MEDVEDEV, L.Ya., tekhn.red.

[Purification of waste waters from enterprises of the textile industry] Ochistka stochnykh vod predpriiatii tekstil'noi promyshlennosti. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po legkoi promyshl., 1959. 227 p. (MIRA 13:5)
(Sewage--Purification)

VASIL'YEV, G.V., inzh.; FREYDEL', R.V., inzh.

Automatic control, regulation, and signalization on the whaling and whale processing plant "Slava." Sudostroenie 25 no.7:15-18 Jl '59. (MIRA 12:12)
(Whalers) (Automatic control)

VASIL'YEV, Grigoriy Vasil'yevich; GINSBERG , S.Kh., retsenzent;
L'VOVA, I.A., red.

[Water supply for enterprises of the textile industry]
Vodosnabzhenie predpriiatii tekstil'noi promyshlennosti.
Moskva, Legkaia industriia, 1964. 273 p. (MIRA 17:11)

VASIL'YEV, G.V.

Using a single pouring lip in teeming cast iron into ladles. (MIRA 11:5)
Biul. TSNIICHM no.4:41-42 '58.

1. Magnitogorskiy metallurgicheskiy kombinat.
(Cast iron--Metallurgy)

VASIL'YEV, G.V.

Using curved bricks in lining tapping spouts. Biul. TSNIICHM no.6: 44 '58. (MIRA 11:5)

1. Magnitogorskiy metallurgicheskiy kombinat.
(Open-hearth furnaces)

VASIL'YEV, G.V.

Changing the method of placing ingots into the soaking pits.
Biul. TSNIICHM no.7:40 '58. (MIRA 11:6)

1.Magnitogorskiy metallurgicheskiy kombinat.
(Steel ingots) (Furnaces, Heating)

VASIL'YEV, G.V., inzh.; KOMETSKIY, B.A., inzh.; POLETAYEV, Ye.M., inzh.

Specialization has improved the operations of mine management. (MIRA 17:9)
Shakht. stroi. 8 no.8:4-5 Ag '64.

1.Yegozovskoye shakhtostroitel'noye upravleniye.

VASIL'YEV, G. V., Engr

USSR/Metals - Heat Treatment

Oct 50

"Arc Surface Hardening," K. K. Khrenov, Active Mem, Acad Sci Ukr ainian SSR, G. V. Vasil'yev, Engr, Kiev Ord of Lenin Polytech Inst

"Avtogen Delo" No 10, pp 1-5

EXperiments to heat a metal with a direct action DC carbon arc in process of surface hardening of rail ends. Possibility of melting a metal was eliminated by moving arc along surface to be heated with aid of transversal alternating magnetic field. Method is efficient, convenient in regulation, and less expensive than hf currents or oxyactylene flame. Dexcribes laboratory installation and arc heating technique.

PA167T82

VASIL'EV, G. V.

Conditions for Intermittent Spot Welding. (In Russian).
I. P. Trochun and G. V. Vasil'ev. Avtogennce Delo (Welding),
v. 21, Mar. 1950, p. 11-14.
Describes above method of welding characterized by interrupted application of the welding current, necessitated by a difference in the sheet and the rate of heat escape from the surface of the sheet and the rate of heat escape from the surface of the sheets through the electrodes. This method is recommended for low-carbon steel sheets of 3-10 mm. thickness. Special advantages are discussed. Optimum conditions of welding for different cases are indicated. (Immediate source clipping)

BORT, M.M., kandidat tekhnicheskikh nauk; BYALOTSKIY, L.A., assistant; VASIL'YEV, G.V., assistent; GAPCHENKO, M.N., kandidat tekhnicheskikh nauk; GREBEL'NIK, P.G., kandidat tekhnicheskikh nauk, otvetstvennyy redaktor; TROCHUN, I.P., kandidat tekhnicheskikh nauk; SERDYUK, V.K., vedushchiy redaktor; inzhener; RUDENSKIY, Ya.V., tekhnicheskiy redaktor.

[Electric welder's reference book] Spravochnik elektrosvarshchika. Izd. 2-e, perer. Kiev, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1954. 515 p. [Microfilm] (MLRA 8:1)
(Electric welding)

VASIL'YEV, GRIGORIY VASIL'YEVICH

BORT, Mikhail Mikhaylovich; VASIL'YEV, Grigoriy Vasil'yevich; GORPENYUK, Nikolay Antonovich; KOTVITSKIY, Anatoliy Dmitriyevich; ASNIS, A.Ye., kand.tekhn.nauk, retsenzent; KHRENOV, K.K., akademik, red.; SOROKA, M.S., red.izd-va; RUDENSKIY, Ya.V., tekhn.red.

[Gas welder's handbook] Spravochnik gazosvarshchika. Pod red. K.K.Khrenova. Kiev, Gos.nauchno-tekhn.izd-vo mashinostroit. lit-ry, 1957. 275 p. (MIRA 11:1)

1. AN USSR (for Khrenov).
(Gas welding and cutting)

Vasil'yev, G. V.

AUTHOR: Shnayder, B.I., Engineer, Learned Secretary 135-58-20/20

TITLE: Review of the "Manual for Gas-Welding Operators". Edited by K. K. Khrenov, Member of AS UkrSSR (Retsenziya na knigu "Spravochnik gazosvarshchika" pod redaktsiyey akademika AN USSR K. K. Khrenova)

PERIODICAL: Svarochnoye proizvodstvo, 1958, Nr 8, pp 47 - 48 (USSR)

ABSTRACT: This is the review of a manual for gas-welding operators composed by M. M. Bort, G. V. Vasil'yev, N. A. Gorpenyuk and A. D. Kotvitskiy. It was published in 1957.

ASSOCIATION: Sektsiya svarki Kiyevskogo obl. pravleniya NTO Mashprom (Welding Section, Kiyev oblast NTO Mashprom Administration)

1. Welders--Manual 2. Books--Review

Card 1/1

BORT, M.M., kand.tekhn.nauk; BYALOTSKIY, L.A., inzh.; VASIL'YEV, G.V., inzh.; VOSHCHANOV, K.P., inzh.; GAPCHENKO, M.N., kand.tekhn.nauk; GORPENYUK, N.A., kand.tekhn.nauk; GREBEL'NIK, P.G., kand.tekhn.nauk; DYATLOV, V.I., kand.tekhn.nauk; TROCHUN, I.P., kand.tekhn.nauk; KHRENOV, K.K., akademik; SOROKA, M.S., red.

[Electric welder's handbook] Spravochnik elektrosvarshchika. Izd.3., perer. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1961. 748 p. (MIRA 14:6)

1. AN USSR (for Khrenov).
(Electric welding)

VASIL'YEV, G. P A 4/49T72

USSR/Radio Receivers Apr 48
Circuits - Analysis

"Negative Feedback in 6H-25 and 7H-27 Receivers," G. Vasil'yev, ½ p

"Radio" No 4

Explains how use of a negative feedback circuit will improve the audio-frequency quality of subject receivers.

[redacted] 4/49T72

USSR/Electronics - Magnetic tape-recorders

Card 1/1 Pub. 89 - 21/29

Authors : Vasil'ev, G.

Title : The double-track recording of magnetic tapes of commercial and amateur magnetophones (magnetic tape-recorders)

Periodical : Radio 9, 48-49, Sep 1954

Abstract : Two-way recording of magnetic tape-recorders is described. Particulars and relative characteristics of double recording of various commercial and amateur type magnetic tape-recorders are cited. The operation of the following systems of double tape-recorders is explained: 1) "Dnepr" (Dnieper); 2) "Dnepr-3"; 3) "MAG-2"(МАГ -2); 4) "MAG-2A"; 5) "MAG-2P" (МАГ -2П); and 6) "MAG-5". Drawings.

Institution : ...

Submitted : ...

Vasil'yev, G.

AID P - 4417

Subject : USSR/Radio

Card 1/1 Pub. 89 - 15/18

Author : Vasil'yev, G. (Kishinev

Title : A steel needle manufacturing and sharpening machine

Periodical : Radio, 4, 47-49, Ap 1956

Abstract : The use of steel instead of sapphire or corund needles in tape recorders is reported. A special device to adapt phonograph needles for use in the tape recorder was designed and its structure is explained. Nine diagrams.

Institution : None

Submitted : No date

107-57-4-39/54

AUTHOR: Vasil'yev, G., Superintendent of Sound Recording and Demonstration Laboratory, Gor'kiy State Conservatorium (Gor'kiy)

TITLE: Stereomagnetic Sound Recording (Stereomagnitnaya zapis' zvuka)

PERIODICAL: Radio, 1957, Nr 4, p 48 (USSR)

ABSTRACT: Principles of stereo sound recording and playback are explained. A dual-track tape recorder with separate amplifier, oscillators, and loudspeakers replaces two tape recorders which would have been actually needed for stereo recording. The stereomagnetic system of recording and playback was first developed in the USSR in 1947 by Professor I. Ye. Goron. The "acoustic perspective," which we sense in a binaural recording, is a necessary condition for the preservation of the natural timbre of the sound.
There are two figures in the article.

Card 1/1

VASILEV, G.

The importance of the force factor in an electric-power system. p. 220.
(Elektroprivreda, Vol. 10, no. 4, Apr. 1957.)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, no. 7, July 1957. Uncl.

AUTHOR: Vasil yev, P. SOV/107-58-10-37/55

TITLE: A Reverberation Reproducing Unit for an MEZ-15 Magnetic Sound Recorder (Reverberatsionnyy vosproizvodyashchiy blok dlya magnitofona MEZ-15)

PERIODICAL: Radio, 1958, Nr 10, pp 46-47 (USSR)

ABSTRACT: The author has produced a reverberation reproducing unit for an MEZ-15 magnetic sound recorder, this apparatus introduces artificial reverberations into sound recordings, thus improving and enriching their quality. For example, the reproduction of various musical works becomes fuller, richer and more beautiful if the optimum reverberation is selected. The reverberation block consists of the ordinary reproducing head for the basic sound waves, and the reverberation multi-slotted head, which repeats these sound waves at short, ever-decreasing intervals of time; the intensity of the repeated signals also gradually decreases. The smooth regulation of the time of the artificial reverberation is achieved by a rheostat which bridges the primary head. The reverberation multi-slotted head consists of seven miniature self-contained magnetic heads with end-type (open) permalloy cores. A full description of the unit is given. According

Card 1/2

A Reverberation Reproducing Unit for an MEZ-15 Magnetic Sound Recorder

to a comment from the editors, one of its defects is that as the regulation of the time of reverberation is achieved by the bridging of the primary head, the latter's sensitivity is reduced as well as the general level of transmission. There is 1 circuit diagram, 2 diagrams, 1 table and 1 figure.

ASSOCIATION: Laboratoriya zvukozapisi Gor'kovskoy konservatorii (The Sound-Recording Laboratory of the Gor'kiy Conservatory)

Ionospheric stations

Г. М. Бартенев

Внезапное затухание коротких радиоволн в ионосфере. Статистика наблюдений за время с 1938 до 1957 гг.

В. Е. Кашпровский

Методы безымпульсного зондирования низкорасположенных слоев ионосферы.

Г. В. Богданов,
Ю. К. Кушнаревский

Ионосферная станция ручного управления с механически сопряженной настройкой передатчика и приемника.

11 июня
(с 10 до 16 часов)

Е. Л. Фейнберг,
А. Д. Петровский

О приближенном граничном условии в теории распространения радиоволн вдоль земли.

С. М. Дальнов (Чехословакия)

Измерение эффекта Доплера третьего советского искусственного спутника Земли.

В. А. Загуменнов

Исследование лунных приливных движений в ионосфере

Н. Н. Шетанов

Спорадический слой E по наблюдениям на станциях Советского Союза за период Международного геофизического года.

Н. С. Зинченко,
А. Я. Усиков

Отражение радиоволн миллиметрового диапазона от слоя снега.

11 июня
(с 18 до 22 часов)

В. С. Холстед (США)

Применение тропосферного распространения УКВ для целей многоканальной радиосвязи и телевидения

Н. М. Трифонов

Исследование дальнего приема телевизионных и других сигналов на УКВ.

Н. Ф. Громов

Дальний и сверхдальний прием телевизионных сигналов.

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

VASIL'YEV, G.

Long-playing and superlong-playing phonograph records with direct reproduction. Radio no.1:53-55 Ja '60. (MIRA 13:5)
(Phonorecords)

S/169/61/000/010/028/053
D228/D304

AUTHORS: Vasil'yev, G. V., Vasil'yev, K. N., and Goncharov, L. P.

TITLE: Automatic panoramic ionosphere station of the AMC (AIS) type

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 10, 1961, 2, abstract 10G15 (Geomagnetizm i aeronomiya, 1, no. 1, 1961, 120-127)

TEXT: The design and operating principle of a station of the AMC (AIS) type are described in general outline. A series of such stations were prepared in the USSR for equipping the network of observatories taking part in the I.G.Y. and I.G.U. The brief technical data for the station are: output power of 5 - 10 kW ; linear frequency-band of 1 - 10 or 1 - 18 Mc/s ; overlap time-range of 20 sec.; impulse duration of 50 - 70 μ-sec.; repetition frequency of 50 pulses/sec.; frequency marks through 1 Mc/s ; height marks through 50 km; linear frequency-band of 0 - 250, 0 - 750, and

Card 1/3

S/169/61/000/010/028/053
D228/D304

Automatic panoramic...

0 - 1500 km; general heterodyne tuning for the transmitter and receiver; receiver sensitivity of 10 μV ; passage band at the 0.7 - 20 kc/s level; program of automatic operation after 60, 30, and 15.5 min. or continuously; B-type indicator in a tube with a diameter of 25 cm; recording on 35-mm film; antennas with two vertical rhombs in the range of 1 - 6 and 5 - 18 Mc/s ; alternating single-phase charging voltage of 180 - 230 V and 50 c/s ; input of 1.7 kW. The photography, block-circuit, specimen ionograms and outline of the antenna layout are given. The described station's advantages are: the high output power, the presence of two frequency bands, the indicator with a large screen, the simplicity of the circuit, the small size and weight, the effective antenna system, and also the high operational reliability. In the constructional respect, the most original units developed by the authors include: the modulator, which guarantees the transmitter's reliable and qualitative working; the simple and reliable scheme of automation, based on the use of a standard КПЧ (KPCh) contact-actuating clock; and also the extremely effective antenna-system for the wide frequency-band. The station's outfit--which together with the spare

Card 2/3

Automatic panoramic...

S/169/61/000/010/028/053
D228/D304

parts and instrument includes a set of measuring devices, a fully equipped antenna-system, a power plant, appliances for developing the photographic film, etc.--enables it to be deployed at any site. [Abstracter's note: Complete translation.]

Card 3/3

S/904/61/000/000/007/011
D218/D308

AUTHORS: Bonchkovskaya, Yu. S., and Vasil'yev, G. V.

TITLE: Apparatus for the determination of absorption by the A2 method

SOURCE: Doklady Nauchnogo simpoziuma po ionosfere, Rostov-na-Donu, 21-22 aprelya 1960 g. V razdel programmy MGG (ionosfera). Rostov on the Don, Izd-vo Rostov. univ., 1961, 80-88

TEXT: The apparatus for the A2 method (recording of mean field strength due to extra-terrestrial radio sources) is described. The apparatus was developed at the Ionospheric Division of ИЗМИР (IZMIR) AS USSR. The specifications of the apparatus are quoted as follows: (1) The five-element Yagi antenna is tuned to a mean frequency of 30 Mc/sec, and the beamwidth at half-power points is 30°. (2) The axis of the antenna points toward the Pole Star. (3) The effective height of the antenna

Card 1/4

Apparatus for the...

above ground level is about 3 m. (4) There is a superheterodyne receiver with two HF and three IF amplification stations; the detector is linear, the working frequency is 28.5 Mc/sec, and the intermediate frequency is 455 kc/sec. (5) The receiver noise factor is about 3.5, and its half-power bandwidth is 7 kc/sec. (6) The power amplification coefficient of the receiver is about 3×10^{12}. The block diagram of the apparatus is given in Fig. 1. The apparatus has been used for short-range forecasting at the above institute. There are 3 figures and 1 table.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, Ionosphere, and Radiowave Propagation, AS USSR)

Apparatus for the...

S/904/61/000/000/007/011
D218/D308

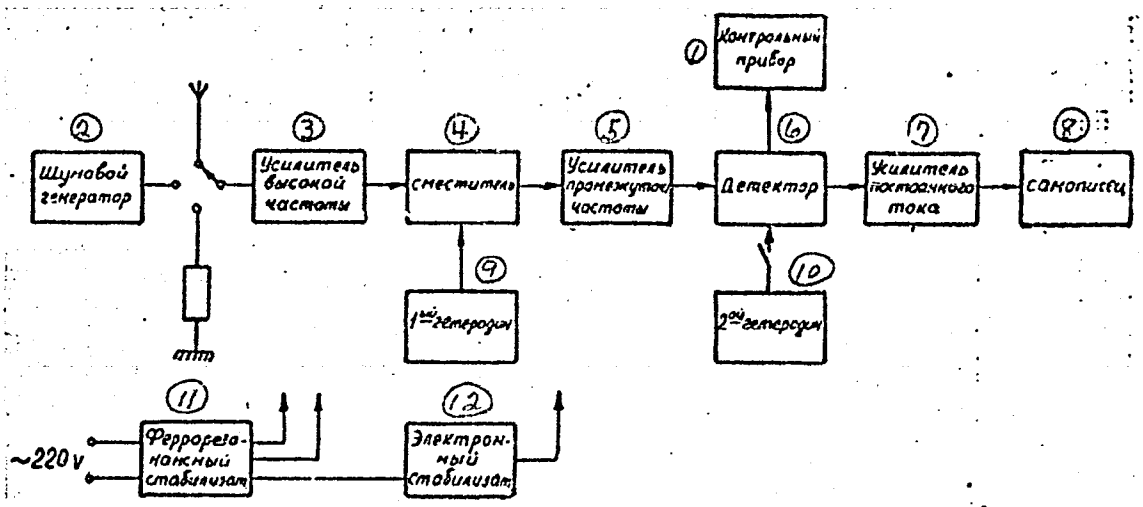

Рис. 1. Блок-схема устройства для измерения поглощения.

Fig. 1

Card 3/4

Apparatus for the...

Fig. 1. Legend: (1) control instrument, (2) noise generator, (3) HF amp, (4) mixed, (5) IF amp, (6) detector, (7) DC amp, (8) pen recorder, (9) 1st netrodyne, (10) 2nd hetrodyne, (11) ferro-resonance stabilizer, (12) electronic stabilizer.

S/904/61/000/000/008/011
D218/D308

AUTHORS: Vasil'yev, G. V., and Kushnerevskiy, Yu. V.

TITLE: Manually controlled ionospheric station with mechanical link between the transmitter and the receiver tuning

SOURCE: Doklady Nauchnogo simpoziuma po ionosfere, Rostov-na-Donu, 21-22 aprelya 1960 g. V razdel programmy MGG (ionosfera). Rostov on the Don, Izd-vo Rostov. univ., 1961, 89-100

TEXT: The station was designed for the study of absorption and winds in the ionosphere by vertical pulse sounding. Motions of small-scale irregularities were investigated using spatially separated receivers which recorded pulses reflected from the ionosphere. The three antennas were placed at the corners of a right-angle triangle with two equal sides of 110 m. The magnitude and direction of irregularity drifts were determined from

Card 1/2

the time shift between corresponding points on the amplitude curves. The apparatus was developed at ИЗМИР (IZMIR) AS USSR. Its principal characteristics were: (1) frequency range--0.5 ÷ 16.0 Mc/sec; (2) power per pulse--20 ÷ 50 kW; (3) pulse length--100 μsec; (4) pulse repetition frequency--50 cps; (5) receiver sensitivity--2 μV; (6) mechanical link ensuring that transmitter and receiver were tuned to the same frequency; (7) the same transmitter could be used to operate on two or more fixed frequencies because wide-band amplifiers were employed. The apparatus has been used since 1958 for IGY measurements. Typical results showing velocity and direction distributions are reproduced. There are 7 figures.

ASSOCIATION: Institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln AN SSSR (Institute of Terrestrial Magnetism, Ionosphere, and Radiowave Propagation, AS USSR)

L 40912-65 EEC-4/EWT(m)/EWP(t)/ETI/EPA(s)-2/EWP(b) Pc-4/Pr-4 RM

ACCESSION NR: AT5009252 UR/2831/64/000/013/0102/0105

AUTHOR: Ben'kova, N. P.; Vasil'yev, G. V.; Khundzhua, Yu. S. 44

TITLE: Some results of measurements of the absorption of galactic radio noises

SOURCE: AN SSSR. Mezhduvedomstvennyy geofizicheskiy komitet. V razdel programmy MGG: Ionosfera. Sbornik statey, no. 13, 1964, 102-105

TOPIC TAGS: radio wave propagation, radiation absorption, galactic radio noise, cosmic ray, ionospheric F layer, solar activity, magnetic activity

ABSTRACT: The article reports some brief conclusions concerning the diurnal and seasonal variations in the absorption (L) of cosmic radio-frequency radiation [illegible] (April 1959 - March 1960) antenna aimed at the North Star, the measurements were made at IZMIRAN. Graphs of the monthly median diurnal variation of L show that it is characterized by high [illegible] it was found that the [illegible]

Card 1/2

ACCESSION NR: AT5009252

[illegible] and magnetic characteristics C

L 18467-66 EWT(d)/T/EWP(1) IJP(c) BB/GG
ACC NR: AT6004641 SOURCE CODE: UR/3190/65/000/004/0038/0052

AUTHOR: Vasil'yev, G. V.

58
55
B+1

Org: none

16,44,55

TITLE: Experimental device for the coding and introduction of electrical signals into electronic computers 16,44

SOURCE: AN SSSR. Vychislitel'nyy tsentr. Soobshcheniya po vychislitel'noy tekhnike, no. 4, 1965. Vvod i obrabotka spetsial'noy informatsii v EVM (Input and processing of special information in the electronic computer), 38-52

TOPIC TAGS: computer input unit, coding, data processing, cathode ray tube, binary code

ABSTRACT: The use of general purpose memory-containing electronic computers permits the storage of information over the necessary periods of time and the processing of signals according to any required algorithms. Such computer use for the processing of electrical signals necessitates the design and construction of special devices for signal-to-code conversion and the introduction of such a code into the computer. The present article describes an experimental device which converts electrical signals into the binary code.

16C

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L 18467-66

ACC NR: AT6004641

3

It uses a special coding tube with a plane (two-dimensional) beam the scanning frequency of which may be promptly varied within the ~ 0 to 33 kc range. This is important because the scanning speed determines the spectral width of the processed signal. The tube, indicator-amplifier, scanning pulse generator, and forming and cyclic code units are described. A discussion is given on the cyclic-to-direct code converter, the output direct code pulse shaper, direct code indicator, decoder, and decoded signal indicator. The tubes were developed by Cand. of Techn. Sci. A. M. Kharchenko and Engineers S. P. Kinakh and B. S. Malkiyel'. Orig. art. has: 9 formulas and 13 figures.

SUB CODE: 09 / SUBM DATE: none / ORIG REF: 006

Card 2/2

ACC NR: AT6027217 SOURCE CODE: UR/0000/66/000/000/0094/0096

AUTHOR: Popov, N. P.; Vasil'yev, G. V.

ORG: none

TITLE: Description of a wideband antenna for vertical ionosphere sounding equipment

SOURCE: AN SSSR. Sibirskoye otdeleniye. Sibirskiy institut zemnogo magnetizma, ionosfery i rasprostraneniya radiovoln. Issledovaniya po geomagnetizmu i aeronomii (Studies in geomagnetism and aeronomy). Moscow, Izd-vo Nauka, 1966, 94-96

TOPIC TAGS: hf antenna, dipole antenna, ionospheric sounder

ABSTRACT: A folded dipole antenna in an inverted V-configuration (see Fig. 1) modeled on the French design was tested at the Siberian Institute of Terrestrial

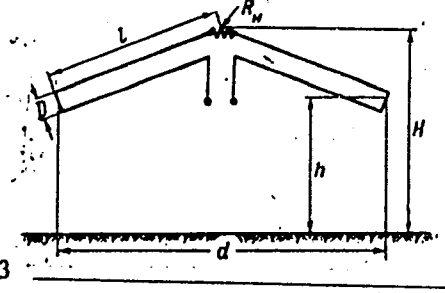

Fig. 1. The inverted V antenna

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Magnetism, Ionosphere and Radio Wave Propagation of the Siberian Department of the Academy of Sciences USSR. The antenna, intended for vertical ionosphere sounding,

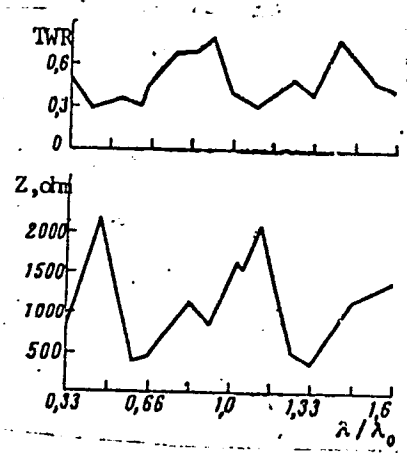

Fig. 2. Traveling wave ratio and input impedance as a function of wavelength for the inverted V antenna

has a wider frequency range than a rhombic antenna, i.e., from 0.37 to 1.67 λ_0 where λ_0 = 30 m. The relative field strength of the main lobe was not less than 0.5 for the frequency range from 3.7 to 16 Mc. The input impedance of this antenna is not constant with frequency, as can be seen from Fig. 2: however the traveling wave ratio

L 41145-66

ACC NR: AT6027217

(TWR) did not fall below 0.3 (see Fig. 2) when the antenna was loaded by a load resistor R_H = 650 ohm and fed from a feeder line whose characteristic impedance was 600 ohm. The antenna design formulas are as follows: $h = \lambda_o/4$, $H = 2h$, $l = 3h$, $D = 0.01\ \lambda_{max}$, and $d = \lambda_o\sqrt{2}$. The dummy load may be realized by using two series 330-ohm resistors whose mid-point is grounded. Orig. art. has: 5 figures. [BD]

SUB CODE: 09,04/SUBM DATE: 25Dec65/ ORIG REF: 004/ OTH REF: 001/ ATD PRESS: 5054

Card 3/3 LC

VASIL'YEV, G.V.

Role of sanitary propaganda in the prophylaxis of traumatism.
Vop. travm. i ortop. no.13:67-71 '63. (MIRA 18:2)

1. Irkutskiy gosudarstvennyy nauchno-issledovatel'skiy institut travmatologii i ortopedii.

VASIL'YEV, Georgiy Vasil'yevich; MIKHAYLOV, Vasiliy Nikitich; BOBYLEVA, L.V., red.

[Practice in operational production planning in the machinery industry] Opyt operativno-proizvodstvennogo planirovaniia v mashinostroenii. Moskva, Ekonomika, (MIRA 18:10)

VASIL'YEV, G.V.

Experimental system for coding and feeding electrical signals into a computer. Soob. po vych. tekh. no.4:32-5[illegible] 165. (MIRA 18:9)

LIKHACHEV L.Ya., inzh.; KHARITONOV, A.S., inzh.; VASIL'YEV, G.V.; STARIKOV, V.F.

Using overall dust suppression at the "Abashevskaia-2" mine. Ugol' 40 no.6:61-63 Je 65. (MIRA 18:7)

1. Vostochnyy nauchno-issledovatel'skiy institut po bezopasnosti rabot v gornoy promyshlennosti (for all except Kharitonov). 2. Shakhta "Abashevskaya-2" (for Kharitonov).

VASIL'YEV, G.V.

The EPG floating and crawler excavator. Biul.tekh.-ekon.inform. no.12:41-42 '61. (MIRA 14:12)
(Excavating machinery)

PHASE I BOOK EXPLOITATION SOV/5730

Bort, M. M., Candidate of Technical Sciences, L. A. Byalotskiy, Engineer, G. V. Vasil'yev, Engineer, K. P. Voshchanov, Engineer, M. N. Gapchenko, Candidate of Technical Sciences, N. A. Gorpenyuk, Candidate of Technical Sciences, P. G. Grebel'nik, Candidate of Technical Sciences, V. I. Dyatlov, Candidate of Technical Sciences, I. P. Trochun, Candidate of Technical Sciences, and K. K. Khrenov, Academician, Academy of Sciences UkrSSR.

Spravochnik elektrosvarshchika (Electric Weldor's Handbook) 3rd ed., rev. Moscow, Mashgiz, 1961. 748 p. 75,000 copies printed.

Resp. Ed.: P. G. Grebel'nik, Candidate of Technical Sciences; Ed.: M. S. Soroka; Chief Ed. (Southern Dept. Mashgiz): V. K. Serdyuk, Engineer.

PURPOSE : This handbook is intended for weldors. It may also be useful to foremen, designers, and process engineers.

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Electric Weldor's Handbook SOV/5730

COVERAGE: The book deals with processes and techniques of manual, semiautomatic, and automatic arc welding and with the surfacing of ferrous and nonferrous metals. Electroslag and gas-shielded electric welding are also discussed. Detailed characteristics of electrodes are given, and the compositions of fluxes are considered. Attention is given to the metals used in the industry, the weldability of these metals, and welding equipment, devices, and tools. Stresses and distortions occurring in welding and the possibilities of their elimination are analyzed. Weld-inspection methods are described. The appendixes contain conventional weld-specification symbols and the codes for qualification tests of electric and gas weldors. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

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Electric Weldor's Handbook SOV/5730

Card 12/13

VASIL'YEV, G.V., assistent

Students are mastering the profession of textile workers. Tekst. prom. 19 no.1:92-93 Ja '59. (MIRA 12:1)

1. Kafedra tkachestva Moskovskogo tekstil'nogo instituta.
(Textile industry--Study and teaching)

VASIL'YEV, G.V., inzh., assistent

Effect of weft tension on the forming of the fabric.
Tekst.prom. 20 no.5:30-34 My '60. (MIRA 13:8)

1. Kafedra tkachestva Moskovskogo tekstil'nogo instituta.
(Looms)

VASIL'YEV, G.V., assistent

Investigating the weaving process on a double width loom. Tekst. prom. 20 no.4:32-37 Ap '60. (MIRA 13:8)

1. Kafedra tkachestva Moskovskogo tekstil'nogo instituta.
(Looms)

Vasil'yev, G. Ya.

AUTHORS: Varshavskiy, Ya. M., Vasil'yev, G. Ya., Karpov, V. L., Lazurkin, Yu. S., Petrov, I. Ya., 20-2-31/60

TITLE: On Isotopic Exchange Between Gaseous Hydrogen and Solid Polymers Under the Action of Nuclear Radiation (Ob izotopnom obmene mezhdu gazoobraznym vodorodom i tverdymi polimerami pri deystvii yadernykh izlucheniy)

PERIODICAL: Doklady AN SSSR, 1958, Vol. 118, Nr 2, pp. 315-316 (USSR)

ABSTRACT: In the case of irradiation of polymeric hydrocarbons gaseous products, which mainly conatain hydrogen, are separated out. The explanation of the problem of the reversibility of the corresponding process, i.e. of the possibility of the penetration of hydrogen from the gaseous phase into the molecules of the polymer during the irradiation would be desirable. The authors tried to explain this problem by the method of the marked atoms, using deuterium; they studied the exchange of isotopes between the gaseous deuterium and various solid polymers in the radiation field of a nuclear rector. The following polymers of the vinyl-series were examined: Polyethylene, polypropylene, polystyrol, divinyl-caoutchouc, polymethyl-metacrylate. The performance of

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the measurements is described shortly. A table illustrates the effectively found percentage of deuterium in the above given polymerics after the irradiation. The results of various parallel measurements differ at the most for o,o2 per cent. On occasion of all these polymers it was shown in particular that the penetration of deuterium is not connected with the adsorption of gaseous deuterium. The control tests, which were made for this purpose, showed that, if there is no radiation, no dueterium was found in the polymer. The effects, observed here, obviously are cuased by a chemical interaction between the molecules of the polymer and the molecules of the deuterium on occasion of the action of deuterium. The highest quantity of deuterium penetrated into polyethylene and into polypropylene. In polybutadiene and polystyrol the exchange is some what slower, whereas in the case of polymethyl-metacrylate no signs were noticed of an exchange. At present a mechanism with the formation of free radicals, is assumed for polyethylene: $R\text{-}CH_2\text{-}R_1\text{-}\sim \rightarrow R\text{-}\dot{C}H\text{-}R_1 + H$. Probably the deuterium penetrates in the case examined here because of a reaction between a polymeric radical and a deuterium molecule into the polymer: $\dot{R} + D_2 \longrightarrow RD + D$, $RH + D \longrightarrow \dot{R} + HD$. The equili-

brium concentration of the solved deutrium in the polymer has the order of 10^{-6} mol/g.The penetration of deuterium into the molecules of the polymers may, to some degree, also be caused by exchange of isotopes between the gaseous dueterium and the free radicals. There are 1 table, and 5 references, 4 of which are Slavic.

PRESENTED: June 24, 1957, by V.A. Kargin, Academician

SUBMITTED: June 24, 1957

AVAILABLE: Library of Congress

VASIL'YEV, G.Ya.; KONOVALOV, Ye.A.; PANKOV, V.G.; YASHIN, D.A.

Tangential channels and reconstruction of the thermal column of a VVR-M reactor. Atom. energ. 19 no.5:465-467 N '65. (MIRA 18:12)

L 28364-66 EPF(n)-2/EWT(m)/ETC(f)/EWG(m)/EWP(e) WH/WW

ACC NR: AP6001699 (N) SOURCE CODE: UR/0089/65/019/005/0465/0467

43
39
3

AUTHOR: Vasil'yev, G. Ya.; Konovalov, Ye. A.; Pankov, V. G.; Yashin, D. A.

ORG: Physicotechnical Institute im. A. F. Ioffe, AN SSR, Leningrad (Fizikotekhnicheskiy institut AN SSR)

TITLE: Tangent channels and reconstruction of thermal column of the VVR-M reactor 19

SOURCE: Atomnaya energiya, v. 19, no. 5, 1965, 465-467

TOPIC TAGS: nuclear research reactor, nuclear reactor technology
nuclear reactor component/VVR-M nuclear reactor

ABSTRACT: In order to improve the operation of the VVR-M reactor installed at the Physicotechnical Institute im. A. F. Ioffe, some changes were made in the number and disposition of channels and in the rearrangement of thermal column. The reactor was originally provided with 9 horizontal channels located in concrete shielding. In 1961, a channel, No. 10, was added at a distance of 1390 mm from the core center. In 1963, two channels, Nos. 11 and 16, were bored as tangent to the beryllium reflector. Such a tangent position reduced the effect of gamma background on irradiated samples. The thermal column (3040 mm long), originally composed of six graphite disks, was then reconstructed.

UDC: 621.039.519

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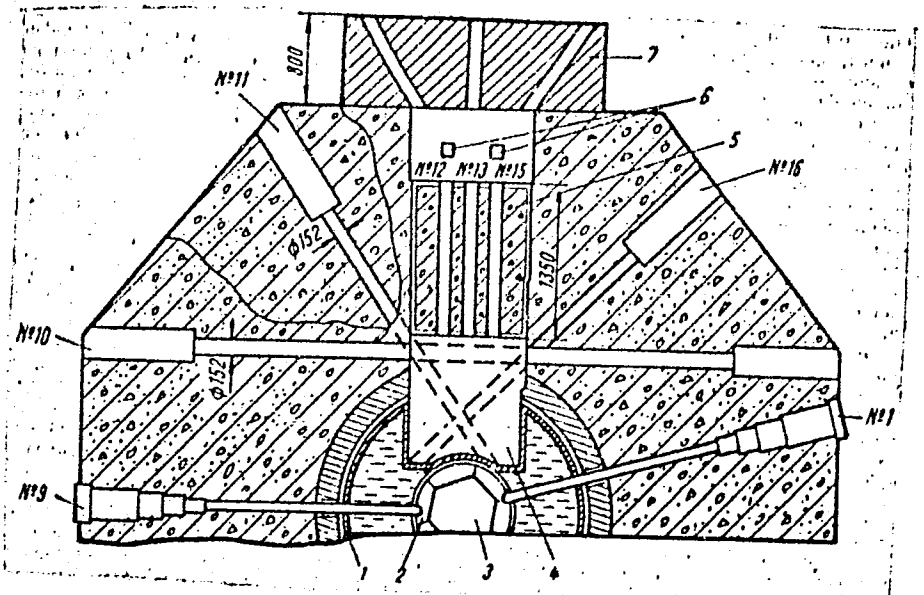
L 20304-00

ACC NR: AP6001699



1-Reactor tank; 2-Beryllium reflector; 3-Reactor core; 5-Carriage niche; 6-Data transmitters; 7-Movable cast-ion shield

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L 28364-66

ACC NR: AP6001699

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last five graphite disks were replaced by one concrete disk carrying four horizontal channels, No. 13 with d = 120 mm, Nos. 12 and 15 with d = 102 mm and No. 14 with d = 80 mm. Channel No. 14 was bored 10 cm lower than the three upper channels. The arrangement of channels is shown on Card 2/3. The physical parameters on chanels Nos. 1, 10, 11 and 16 were given in a table. The addition of channel No. 10 was suggested by Yu. V. Petrov, member of the Institute staff. I.A. Kondurov proposed the channels Nos. 11 and 16. V. S. Gvozdev showed a great activity in creating the tangent channels. A gratitude is expressed to D. M. Kaminker (Scientific Supervisor) for his interest and assistance. Orig. art. has: 2 diagrams and 1 table.

SUB CODE: 18 / SUBM DATE: 21Apr65 / ORIG REF: 002 / OTH REF: 001

Card 3/3 UC

VASIL'YEV, G.Ya., inzh.; LODZHEVSKIY, Ya.L., inzh.

Using toothed clutches in the transmission of the multimachine units of rollers. Khim. i neft. mashinostr. no.4:39-40 O '64. (MIRA 17:12)

USSR/Metals
Metallography
Microhardness Tests

Feb 48

"Effect of the Size of Grains and the Boundaries Between Grains on Microhardness and the Method of Its Determination," G. Ya. Vasil'yev, All-Union Inst of Aviation Materials, 4 pp

PA 4/49T66

"Zavod Lab" Vol XIV, No 2, p. 223-7

True microhardness of a structural component is determined by the mean value obtained in center of largest grains. High reading is obtained on grain boundaries, especially if impression is made on a junction between several grains. The latter takes

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USSR/Metals (Contd)

Feb 48

place more often than it is observed, since junction may be situated just below surface. Vasil'yev tabulates readings, and shows the influence of grain size and impression location on microhardness readings in graphs.

4/49T66

VASIL'YEV, G. YA.

VASIL'YEV, G.Ya.; YEMEL'YANOV, D.P.; LYSHTEVE, V.G.; POLYAK, N.A.; ZAKHARKIN, O.A.; ZAKUSOV, V.A.; GOLIKH, V.B.

Improving the quality of rubber compounds by using carbon black master batches. Kauch. i rez. 23 no.5:53-55 My '64. (MIRA 17:9)

1. Yaroslavskiy tekhnologicheskiy institut, Makinskiy shinnyy zavod i Yaroslavskiy shinnyy zavod.

VASIL'YEV, G.Ya.; SHVARTS, A.G.; SEROV, I.A.; MESROPOV, Yu.D.; Prinimali uchastiye: BARANOV, S.B.; BISEROVA, A.A.; GINZBURG, L.V.; GOROKHOV, N.D.; KARAPETYAN, D.A.; KEPERSHA, L.M.; MAMEDOVA, M.M.

Manufacture of diaphragms at the Baku tire factory. Kauch.i rez. 21 no.1:45-47 Ja '62. (MIRA 15:1)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti i Bakinskiy shinnyy zavod.
(Baku--Tires, Rubber)

L 46172-66 EWT(m)/EWP(j) IJP(c) DJ/RM

ACC NR: AP6021204 (A) SOURCE CODE: UR/0138/66/000/003/0016/0018

AUTHOR: Epshteyn, V. G.; Vasil'yev, G. Ya.; Serov, I. A.; Kurakin, K. A.; Lyapina, L. A.; Polyak, M. A.

ORG: Yaroslavl Technological Institute (Yaroslavskiy tekhnologicheskiy institut) 37 B

TITLE: New type of softener with an aromatic base

SOURCE: Kauchuk i rezina, no. 3, 1966, 16-18

TOPIC TAGS: rubber chemical, petroleum product, plasticizer

ABSTRACT: In order to broaden the source of raw materials for the rubber industry, an extract named "azaroplast" (Azerbaydzhan aromatic plasticizer), obtained from the furfural purification of lubricating oils of Baku crudes, was tested as a softener. Azaroplast was tested in comparison with other commonly used softeners in standard mixes based on NK natural rubber and butadiene-styrene SKS-30ARK rubber and in a tread mix consisting of 70% SKS-30ARK and 30% NK. The tests showed azaroplast to surpass the other softeners in plasticizing effect. The vulcanization rate of mixes containing azaroplast was practically the same as that of mixes with the other softeners. Vulcanizates of standard mixes based on NK and SKS-30ARK and containing azaroplast had increased strength characteristics. Replacement of mazut with azaroplast in tread mixes will permit a considerable increase in the extrusion rate and produce higher strength

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UDC: 678.049.37.004.12

ACCESSION NR: AP4038909 S/0138/64/000/005/0053/0055

AUTHORS: Vasil'yev, G. Ye.; Yemel'yanov, D. P.; Epshteyn, V. G.; Polyak, M. A.; Zakharkin, O. A.; Yartsev, V. A.; Golkin, V. B.

TITLE: Improving the quality of rubber compounds by means of carbon black master batches

SOURCE: Kauchuk i rezina, no. 5, 1964, 53-55

TOPIC TAGS: carbon black, SKS30ARKM rubber base, SKS30ARKM carbon black, gas furnace carbon black, furnace PM 70 carbon black, vulcanization index

ABSTRACT: This investigation involved three types of master batches: 1) a low-modular protector batch on SKS-30ARKM rubber base, containing (per 100 g rubber) 40 g channel carbon black and 20 g gas furnace carbon black; 2) a carcass batch on SKS-30ARK-15 and natural rubber base (in a 90:10 ratio), containing 40 g gas furnace carbon black; 3) a protector batch on SKS-30ARKM-15 rubber base, containing 50 g PM-70 carbon black. The batches were prepared in a laboratory mixer. Their discharge temperature was within the 160-175C range. They were rolled and stored for 24 hours before being incorporated into a base mix. The tests for the physico-mechanical properties of the vulcanizates of rubber compounds prepared with these carbon black-rubber mixtures proved their superiority to the controls of the same

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ACCESSION NR: AP4038909

composition but prepared under standard procedures. The laboratory data were checked at the Yaroslavl' Tire Plant under factory conditions. Orig. art. has: 2 tables.

ASSOCIATION: Yaroslavskiy tekhnologicheskiy institut (Yaroslavl' Technological Institute); Bakinskiy shinnyy zavod (Baku Tire Plant); Yaroslavskiy shinnyy zavod (Yaroslavl' Tire Plant)

SUBMITTED: 00

DATE ACQ: 05Jun64

ENCL: 00

SUB CODE: MT

NO REF SOV: 003

OTHER: 005

Card 2/2

TYURIN, Sergey Timofeyevich, kand. tekhn. nauk; BAZANOVA, Adelaida Ivanovna, nauchn. sotr.; IL'CHENKO, Boris Nikolayevich, nauchn. sotr.; AVDEYEVA, A.V., doktor tekhn. nauk, prof., retsenzent; SKURIKHIN, I.M., kand. tekhn. nauk, retsenzent; CHERNYAVSKIY, N.F., inzh.-konstruktor, retsenzent; SEBKO,G., red.; VASIL'YEV, I., red.

[Protective coatings of containers in wine making] Zashchitnye pokrytiia rezervuarov v vinodelii. Simferopol', Izd-vo "Krym," 1965. 103 p. (MIRA 18:5)

1. Zaveduyushchiy laboratoriyey Vsesoyuznogo nauchno-issledovatel'skogo instituta vinodeliya i vinogradarstva "Magarach" (for Tyurin). 2. Laboratoriya Vsesoyuznogo nauchno-issledovatel'skogo instituta vinodeliya i vinogradarstva "Magarach" (for Bazanova, Il'chenko).

PASHUTA, Nikolay Timofeyevich, inzh; VASIL'YEV, I., red.; MATURIN, I., red.

[Rivals of metals] Soperniki metallov. Simferopol', "Krym," 1965. 52 p. (MIRA 18:12)

VASIL'YEV, I.; TERIETSKIY, V.

Small transistorized transmitter-receiver set. Radio no.9: 21-23 S '65. (MIRA 19:1)

GORDIYENKO, I.; VASIL'YEV, I.

Sense of life. Mast.prom. i khud.promys. 4 no.4:2-3 Ap '63. (MIRA 16:10)

VASIL'YEV, I.

Intraregional commercial contacts among the countries of Southeastern Asia. Vnesh. torg. 42 no.10:22-27 '62. (MIRA 15:10)
(Asia, Southeastern—Commerce)

VASIL'YEV, I (Ryazhsk)

Neglected area. Mest.prom. i khud.promys. 4 no.3:22-23 Mr '63.
(MIRA 16:4)

1. Spetsial'nyy korrespondent zhurnala "Mestnaya promyshlennost' i khudozhestvennyye promysly".
(Ryazhsk—Service industries)

VASIL'YEV, I.

Naryn Meat Combine (standard project No.1839). Mias. ind. SSSR 34 no.4:35-36 '63. (MIRA 16:10)

1. Kazgipromyasomolprom.

VASIL'YEV, I., inzh.-polkovnik; FEDIN, S., inzh.-podpolkovnik

In two shifts; flight day. Av.i kosm. 45 no.4:71-76 Ap '63.
(MIRA 16:3)

(Aeronautics, Military--Flights)

VASIL'YEV, I.

Give more attention to innovators' suggestions. Fin. SSSR 21 no.8:76-77 Ag '60. (MIRA 13:8)

1. Nachal'nik operativnogo Upravleniya gostrudsberkass i goskredita Voronezhskoy oblasti.
(Voronezh Province--Savings banks--Accounting)
(Suggestion systems)

VASIL'YEV, I. (g.Kaluga)

Superficially and ignorantly. Prom.koop. 13 no.6:9 Je '59.
(MIRA 12:9)

(Kaluga Province--Cooperative societies)

VASIL'YEV, I., kand.tekhn.nauk

Device for determining the strength of concrete in construction elements. Stroitel' no.4:20 Ap '58. (MIRA 11:5)
(Concrete)

KAMINSKIY, L.; VASIL'YEV, I.; SHCHERBAKOVA, O., neshtatnyy korrespondent (Leningrad); NAGAYTSEVA, Z.

Quality, economy, culture. Mest.prom.i khud.promys. 4 no.2:2-6 F '63. (MIRA 16:2)

1. Starshiy inzhener upravleniya bytovogo obsluzhivaniya Gosudarstvennogo komiteta Soveta Ministrov RSFSR po delam mestnoy promyshlennosti i khoduzhestvennykh promyslov (for Nagaytseva).

VASILEV, I.

CA 13

Additional removal of gas from columns for liquid oxygen. I. Vasilev. *Khimstroi* 5, 2228-32(1933).—The efficiency of the production of liquid O can be increased 10-12% by addnl. withdrawal of the gases rich in O (in the 2nd distn. of the liquid air) from the space between the condenser and the lower baffle plate of the top column. C. B.

VASIL'YEV, I. (Krasnodar)

Mobilization of reserves by the Kuban people. Mest.prom.i khud.-promys. 3 no.4:1-2 Ap '62. (MIRA 15:5)

1. Spetsial'nyy korrespondent zhurnala "Mestnaya promyshlennost' i khudozhestvennye promysly".
(Kuban--Manufactures)

VASIL'YEV, I., inzh.-polkovnik; FEDIN, S., inzh.-podpolkovnik

In two shifts. Av.i kosm. 45 no.3:56-60 Mr '63. (MIRA 16:3)
(Airplanes, Military--Maintenance and repair)

VASIL'YEV, I., professor, doktor biologicheskikh nauk.

Revivification of trees in cities. Zhil.-kom. khoz. 3 no.5:13-20 My '53. (MLRA 6:7)

(Trees--Wounds and injuries) (Landscape gardening)

VASIL'YEV, I.

Enemies of workers' interests. Sov.profsoiuzy 2 no.5:89-90 My '54. (MLRA 7:6)

(Transport workers) (Trade unions)

VASIL'YEV, I., MARINOVA, Ye., BORISOV, M. D, and MARINOV, M.

Issledovaniya Vozmozhnosti Primeneniya Kristallicheskikh Schetchikov iz Sernistogo Kadmiya.

Report submitted for the Nuclear Electronics Conference, IAEA, Belgrade, Yugoslavia, May 1961.

SMIRNOV, S.; BOGOMAZ, N. (Chelyabinsk); RISKAREV, A.; VASIL'YEV, I. (Leningrad); KHARIN, V. (Saratov); VOLKOV, A. (Ivanovo)

Exchange of experience. Radio no.1:38 Ja '63. (MIRA 16:1)
(Radio--Equipment and supplies)

VASIL'YEV, Ivan (Sofiya, Bolgariya)

Treatment of symphathetic inflammation. Oft.zhur. 15 no.2:91-93 '60. (MIRA 13:5)

(EYE--INFLAMMATION)

VASIL'YEV, I.; TERLETSKIY, V.

Small transmitter-receiver set using transistors. Radio no.10:19-21 O '65. (MIRA 18:12)

21(7) SOV/56-35-5-11/56

AUTHORS: Vasil'yev, I. A., Petrzhak, K. A.

TITLE: Radiochemical Investigation of the Photofission of Th^{232} (Radiokhimicheskoye izucheniye fotodeleniya Th^{232})

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958, Vol 35, Nr 5, pp 1135-1140 (USSR)

ABSTRACT: The investigation of the photofission of heavy nuclei at low excitation energies is able to supply information concerning various nuclear properties (investigations were carried out of: photofission threshold, differential cross section, distribution of fission products according to mass, energy, and charge, angular anisotropy of fission products distribution, etc.). In the introduction several earlier papers dealing with this subject and concerning investigations of the distribution of fission products according to mass (Hiller (Khiller) and Martin (Ref 1), and Avdonin and Petrzhak, (Ref 2)) and investigations of the photofission of U^{238} (Refs 3-5) are discussed. The present paper deals with investigations of the fission fragments of Th^{232} at a maximum bremsstrahlung energy of 10 MeV. Work was carried out at the betatron of the Leningradskiy tekhnologicheskiy institut

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Radiochemical Investigation of the Photofission of Th^{232}

(Leningrad Technological Institute), which attains a maximum energy of 15 MeV. The samples (thorium oxide, mixed uranium oxide) had a weight of 0.5 - 1 g and were irradiated for 10 hours. Gauging of betatron radiation energy was carried out at the photonuclear threshold of the reaction $Cu^{63}(\gamma,n)Cu^{62}$ with an accuracy of $\pm$ 0.3 MeV (concerning maximum bremsstrahlung energy). The constancy of radiation energy was controlled by means of an ionization chamber. The irradiated sample was dissolved in acid and investigated as to fission products. This process is described in short. After one irradiation 2 - 5 fragments, and after 2 - 6 irradiations up to 12 fragments were found. The following yield of Th^{232} photofission was obtained:

Br^{83}(2,4), Sr^{91}(9,7), Zr^{97}(17,0), Mo^{99}(68,3), Ag^{113}(5,3), Cd^{115}(53), Cd^{117}(2,83), Sb^{129}(4,2), J^{133}(20,5), Ba^{139}(1,43), Ba^{140}(306), Ce^{143}(33,0). The numbers in brackets denote half-lives. Yield determination was carried out according to comparative measurements of Ce^{143}. The error committed in de-

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termining activity amounted to 6% within the range of the peaks and to 10-12% within the range of valleys. Greater errors occurred in the case of Sb^{129} and J^{133}. The results obtained by investigating the fission product yield in dependence on the mass number is shown by figure 1. The curve obtained (Th^{232}, 10 MeV) is compared with that obtained according to reference 1 (photofission of Th^{232} at 69 MeV and according to references 3, 4 (photofission of U^{238} at 10 MeV). In the present paper data concerning the dependence of the peak-to-valley ratio of Th^{232} and U^{238} photofission yield curves on the peak bremsstrahlung energy in the interval of from 8 to 14 MeV are published for the first time (cf. Fig 2). Results agree well with those of reference 2 as well as with those obtained by Fong(Ref 11). Fong developed a new method of calculating yield curves. There are 2 figures, 2 tables and 11 references, 1 of which is Soviet.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut
(Leningrad Technological Institute)

VASIL'YEV, I.A.

BARON, N.M.; KVYAT, E.I.; PODGORNAYA, Ye.A.; PONOMAREVA, A.M.; RAVDEL', A.A.; TIMOFEYEVA, Z.N. Prinimal uchastiye VASIL'YEV, I.A.. MISHCHENKO, K.P., red.; PETRZHAK, K.A., red.; LOBINA, N.K., red.; LEVIN, S.S., tekhn.red.; FOMKINA, T.A., tekhn.red.

[Short reference handbook of physicochemical constants] Kratkii spravochnik fiziko-khimicheskikh velichin. Pod red. K.P.Mishchenko i A.A.Ravdelia. Izd.3., dop. Leningrad, Gos.nauchno-tekhn. izd-vo khim.lit-ry, 1959. 122 p. (MIRA 13:2)
(Chemistry, Physical and theoretical--Charts, diagrams, etc.)

VASIL'YEV, I.A., Cand Chem Sci -- (diss) "Radiochemical study of the photofission of thorium 232." Len, 1959, 16 pp with graphs (Min of Higher Education USSR. Len Order of Labor Red Banner Tech Inst im Lensovet) 150 copies (KL, 26-59, 123)

SOV/120-59-1-13/50

AUTHORS: Vasil'yev, I. A. and Petrzhak, K. A.

TITLE: The Efficiency of an End-Window Counter as a Function of the Hardness of β-Spectrum (Effektivnost' tortsovogo schetchika v zavisimosti ot zhestkosti beta-spektrov)

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 1, pp 57-61 (USSR)

ABSTRACT: The absolute activity of a number of short lived disintegration products such as Br^{83} (2.33 hours), Sr^{91} (9.7 hours), Ag^{113} (5.3 hours), Cd^{117} (2.8 hours) and Ba^{139} (1.42 hours) was measured. It was not possible to obtain these isotopes with a sufficiently high specific activity and the necessary presence of an isotopic carrier in the purification of these isotopes and other disintegration products meant that it was not possible to carry out accurate measurements in a 4π counter. Furthermore, the low half-life of these isotopes makes it difficult to determine the efficiency of an end-window counter using a 4π counter since this is a long procedure. For this reason measurements of the efficiency of a counter for a series of isotopes with simple β-spectra and different maximum β-particle energies were undertaken. From such data it is possible to determine the dependence of the efficiency on the maximum energy of the β-spectrum. In this it is assumed that

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The Efficiency of an End-Window Counter as a Function of the Hardness of β-Spectrum

the efficiency does not strongly depend on the form of the β-spectra. The work was carried out in a 4π counter (Ref 2) which was of a cylindrical form and had two wires. The diameter of the counter was 60 mm and the length 80 mm. The counter was filled with pure methane at a pressure of 400 mm Hg. In each measurement the plateau was taken and from its position the absolute activity of the specimen was found. The radioactive specimen was deposited in solution on a thin colloidal film (10-15 micrograms/cm^2). It was then dried and transferred together with the film on to an aluminium foil, which had an aperture for the specimen, and was measured in the 4π counter. The counter was compared with another 4π counter whose efficiency is assumed to be 100%. Result of this comparison is shown in Fig 1, from which it follows that the efficiency is independent of the energy of the β-particles and is on the average equal to 0.965. The standard counter is shown in Fig 1 and incorporates a mica window 1.7 mg/cm^2 thick. Results obtained are summarized in Table 2 and Fig 2. In Fig 2

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the absolute counting efficiency is shown as a function of the surface density of the specimen for various energies. Experiments show that the absorption within the specimen strongly depends on the maximum energy in the β-spectrum. This effect reduces the efficiency by a factor of 3 for low energy radiation. For high energy radiation (of the order of 1.5 MeV) the efficiency is independent of surface density in the range 1-20 mg/cm^2. The counting efficiency at a given surface density may be represented as a function of the maximum energy of the β-emitter. This function is shown in Fig 3 for a layer 5 mg/cm^2 thick. The curve consists of two very different sections. The first section shows the very strong dependence of the efficiency on energy up to, say, 0.5 MeV and beyond this point the efficiency is independent of the maximum energy of the β-spectrum. It follows from Fig 3 that within experimental error the absolute efficiency is independent of the form of the β-spectrum since different emitters were used to plot this figure. The relative solid angle of the counter

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was 0.111. There are 3 figures, 1 table and 3 references; 2 of the references are Soviet and 1 is English.

ASSOCIATION: Leningradskiy tekhnologicheskiy institut (Leningrad Technological Institute)

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VASIL'YEV, I.A.; PETRZHAK, K.A.; SUSHCHKOVSKIY, V.D.

Determination of absolute activity by means of an end-window counter. Prib. i tekh.eksp. 6 no.4:39-42 Jl-Ag '61. (MIRA 14:9)

1. Leningradskiy tekhnologicheskiy institut.
(Nuclear counters) (Radiation--Measurement)

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AUTHORS: Vasil'yev, I. A., Petrzhak, K. A.

TITLE: Some regularities in mass spectra of heavy nuclei fission products

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1962, 41, abstract 4B268 (Tr. Leningr. tekhnol. in-ta im. Lensoveta, no. 55, 1961, 5 - 22)

TEXT: The locations of the maxima of distribution curve (DC) for fission fragments according to the mass number A, have been calculated on the Swiatecki empirical formula (RZhFiz., 1956, no. 9, 25009). Good agreement was obtained with the authors' experiment on photofission of Th^{232} and with literature data on photofission of U^{235}, U^{238} and on spontaneous decay of U^{238}, Cm^{242}, Cf^{252}. With the increase in excitation energy E of the intermediate nucleus a tendency toward more symmetrical fission is observed. The location of the peak among heavy fragments is nearly independent of the A_f for the nucleus undergoing fission, but among the light fragments it

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changes considerably. This fits Hill's theory (RZhFiz., 1956, no. 3, 6398) according to which the outer nuclear shells are subjected to symmetrical fission, and with increased E, deeper nuclear shells become involved. On the strength of the experimental data regarding the shape of the DC it is deduced that with the increase in A_f and E, the half-width of the peaks grows, and the yield maximum drops. The narrowest peaks are observed in the case of spontaneous decay and fission by low-energy photons. The "fine structure" of the DC is explained by the influence of closed nuclear shells consisting of 82 neutrons or 50 protons; this is confirmed by agreement of the experimental maxima of "fine structure" with the authors' calculations. The calculations for the DC have been made following Fong's method (RzhKhim., 1957, no. 7, 21916), as applied to photofission of Th^{232} and U^{238}. The calculations are in good agreement with experimental results as regards curve shape and location of maxima. On the basis of their calculations, authors believe that the narrowest and highest peaks of DC would be observed in Th^{230} photofission products. They show that the ratio between the yields of the most probable and the most symmetrical types of fission depends not only upon E, but also upon the nucleus undergoing

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fission. In the range of E > 15 Mev, the curve describing the above ratio as a function of E becomes tripartite. [Abstracter's note: Complete translation.]

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L 10585-66 EWT(m)/EPF(n)-2/EWP(t)/EWP(b) LJP(c) JD/JG/GG
ACC NR: AP5025397 SOURCE CODE: UR/0181/65/007/010/3110/3111

AUTHOR: Avdonin, V. P.; Vasil'yev, I. A.; Mikhal'chenko, G. A.; Plachenov, B. T.; Shibayev, V. A.

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TITLE: Generation of emf during annealing of NaCl(Ag) single crystals exposed to beta radiation

SOURCE: Fizika tverdogo tela, v. 7, no. 10, 1965, 3110-3111

TOPIC TAGS: sodium chloride, crystal phosphor, single crystal, beta radiation

ABSTRACT: When an alkali halide single crystal phosphor is bombarded by beta particles and heated at a constant rate, a potential difference which varies with thermoluminescence is generated between electrodes vaporized on the opposite faces of the crystal. The authors study this phenomenon in a sodium chloride crystal activated by 0.005% silver chloride. The methods used in growing the crystals and making the measurements are briefly described. Curves are given for the voltage developed

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