

КРИПТО-1

Г. М. Бартоло

Восстановление аппаратуры радиостанций в поле
станции Станция наблюдения за арктикой с 1928 до
1931 гг.

В. Е. Каврицкий

Методы балансового контроля радиоэлектронных
аппаратов связи в полярных условиях.

Г. В. Васильев,
Ю. В. Кумаровский

Новоформа станция радиоуправления с автоматическим
сбором информации в полярных условиях.

11 июня
(с 10 до 16 часов)

Е. Л. Фельдман,
А. Д. Петровский

О применении гравитационных условий в теории
распространения радиоволн в полярных условиях.

С. М. Давыдов (Челябинск)

Изучение эффекта Доплера в теории радиолокации
в полярных условиях.

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В. А. Заруцкий

Исследования радиоэлектронных аппаратов в полярных
условиях.

В. Е. Каврицкий

Специальный доклад В. Е. Каврицкого на станциях
Совместного Совета за период Международного
геофизического года.

В. С. Зинченко,
А. И. Ушаков

Открытие радиоволн миллиметрового диапазона
от слоя ионосферы.

11 июня
(с 18 до 22 часов)

В. С. Зинченко (СНМ)

Применение радиотехники в радиолокации УКВ
для целей радиолокационной разведки в полярных
условиях.

В. М. Троицкий

Исследования дальности приема радиосигналов в
полярных условиях.

В. Ф. Гурьев

Дальность приема радиосигналов в полярных
условиях.

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

41010

S/058/62/000/009/045/069
A006/A101

79810

AUTHOR: Trifonov, P. M.

TITLE: On the ultra-distant ionospheric propagation of meter waves

PERIODICAL: Referativnyy zhurnal, Fizika, no. 9, 1962, 28, abstract 5Zh169
(In collection: "Ionosfern. issledovaniya, no. 9", Moscow, AN SSSR, 1961, 92 - 96; summary in English).

TEXT: Results are given which have been obtained in 1957 - 1958 from investigations at the Voronezh State University on the ultra-distant ionospheric propagation of meter radiowaves. The following radiotracks were used for ultra-distant reception: Voronezh-Prague (2,000 km), Voronezh-Budapest (about 1,300 km); Voronezh-London (3,600 km) and Voronezh-Paris (about 2,800 km). It was found that the ultra-distant propagation of meter band radiowaves proceeds in the winter during the day through the F₂ layer, and in the evening only in the presence of the E_{spor} layer. Reflection from layer E_{spor} in the summer vanish or attenuate 1 - 2 hours before midnight. Maximum ultradistant radio reception of meter waves for the F₂ layer is possible in January - February, and for the E_{spor} layer in

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On the ultra-distant ionospheric...

S/058/62/000/009/045/069
A006/A101

July - August. Distortions of the wide band of modulating frequencies are higher in reflection from layer F_2 than from layer E_{spor} . These distortions occur both in the frequency with changes in the modulation depth, and in the phase during reflection from several ionized layers. In reflection of meter waves from layer E_{spor} repeated contours of the image received occurred frequently. They are caused by signals which arrive with 1 - 3 μ sec delay. This corresponds obviously to the presence of sharp stratification even at about 300 - 900 m distance between the layers.

[Abstracter's note: Complete translation]

Card 2/2

10711

S/169/62/000/008/086/090
E032/E114

9.9300

AUTHOR: Trifonov, P.M.
TITLE: On ultra long range ionospheric propagation of meter waves

PERIODICAL: Referativnyy zhurnal, Geofizika, no.8, 1962, 28, abstract 8 G 215. (In the Symposium: 'Ionosfern. issledovaniya no.9' ('Ionosphere studies no.9'), M., AN SSSR, 1961, 92-96). (abstract in English).

TEXT: Reports results of studies of the conditions necessary of ultra long range ionospheric propagation of television signals along the routes Voronezh-Prague, Budapest, London and Paris, which were carried out in the Kafedra radiofiziki (Department of Radio Physics) of the Voronezhskiy universitet (Voronezh University) during the period of 1954-1958. Television signals from centres at shorter distances (Leningrad, Riga, Tashkent) were recorded in a number of cases. The observations were carried out on the signal field-strength in the frequency range 49-56 Mc/sec (audio and video channels). Use was made of antennas of the wave-duct type, namely, single-stage five-element, four-stage three-element, Card 1/2

On ultra long range ionospheric ...

S/169/62/000/008/086/090
E032/E114

and a single half-wave vibrator. The results of the experiments are illustrated with graphs showing the field-strength of signals received from Prague, London and Budapest at 25 m above ground level (averaging time of 1 min) as a function of the time of day and year. Ultra long range winter propagation of signals in the ultra short wave range during the day is associated with the scattering of radio waves by ionospheric F2-layer irregularities, and in the evening hours with the presence of the E_s layer in the ionosphere. During the propagation of radio waves through the F2-layer a larger distortion in the signal characteristics was observed (frequency and phase) than in the propagation through the E_s layer. In the case of reflection of radio waves from the E_s-layer, repeated image contours appeared and corresponded to a signal delay of 1-3 μsec relative to the arrival of the main signal. This is explained by a clearly defined stratification of the E_s-layer with the separate layers at a distance of 300-900 m from each other.

4x

Card 2/2

Abstractor's note: Complete translation.

9.9810

41953

S/194/62/000/009/068/100
D295/D308

AUTHOR: Trifonov, P. M.

TITLE: On ultra-distant ionospheric propagation of meter waves

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 9, 1962, 28, abstract 9Zh169 (In collection: Ionosfer. issledovaniya, no. 9, M., AN SSSR, 1961, 92-96 (summary in Eng.))

TEXT: The results of an investigation carried out in 1957 - 1958 at the Voronezh State University on ultra-distant ionospheric propagation of meter waves are reported. The Voronezh-Prague (2000 km), Voronezh-Budapest (~1300 km), Voronezh-London (3600 km), Voronezh-Paris (~2800 km) radio routes have been used for ultra-distant reception. It has been found that in winter the ultra-distant propagation of meter-wavelength radio waves occurs via the F₂ layer during day time, and only in the presence of sporadic E

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On ultra-distant ...

layer in the evening. Reflections from the E_{spor} layer in summer either vanish or weaken 1 to 2 hours before midnight. The maximum possible ultra-distant radio reception of meter waves occurred for the F_2 layer in January-February, and for the E_{spor} layer in July-August. Distortions of a wide band of modulating frequencies are more significant for reflection from the F_2 layer than from the E_{spor} layer. There are both frequency distortions with variation of the modulation percent and phase distortions for reflection from several ionized layers. In the presence of reflection of meter waves from the E_{spor} layer the reception picture often shows repeated loops caused by signals arriving with 1 - 3 μ sec delay, which apparently corresponds to the presence of marked stratifications even with distances of $\sim 300 - 900$ m between the layers. [Abstracter's note: Complete translation.]

Card 2/2

ACCESSION NR: AP4015256

S/0106/64/000/002/0031/0035

AUTHOR: Trifonov, P. M.; Budko, V. N.; Zotov, V. S.

TITLE: Structure of space fluctuations of vhf field strength in a city

SOURCE: Elektrosvyaz', no. 2, 1964, 31-35

TOPIC TAGS: vhf waves, vhf field strength, radio field strength in city, radio wave city distribution, Rice-Norton distribution, Rayleigh distribution, log normal distribution

ABSTRACT: An experimental study is reported of the radio field strength distribution in the streets of a city which had 5-story buildings in its center. A 50-w transmitter was operated at 50, 150, and 300 mc with a vertical polarization, while reception was continuously and automatically recorded on a vehicle moving in the streets. Statistically processed records permitted arriving at these conclusions: (1) Space fluctuations of the field are regular with a period of over $\lambda/2$; (2) The period is independent of the wavelength and is but little dependent upon the type of built-up area; (3) At close range to the transmitter,

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ACCESSION NR: AP4015256

the fluctuation distribution is normal, at longer range it obeys the Rayleigh law; apparently, the close-range normal distribution is determined by the prevalence of the mean-field-component amplitude over the sum of reflected rays, which are distributed according to the Rayleigh law; at longer ranges or near high buildings in narrow streets, the Rayleigh distribution is expected to prevail; (4) In the general case, the space field distribution can apparently be expressed by the Rice-Norton function. Orig. art. has: 4 figures, 4 formulas, and 1 table.

ASSOCIATION: none

SUBMITTED: 26Jul63

DATE ACQ: 12Mar64

ENCL: 00

SUB CODE: CO

NO REF SOV: 002

OTHER: 002

Card 2/2

TRIFONOV, P.M.; BUDKO, V.N.; ZOTOV, V.S.

Structure of the spatial fluctuations of the field intensity
of microwaves in a city. Elektrosviaz' 18 no.2:31-35 F '64.
(MIRA 17:3)

L 9783-00 EWT(1)/FCC/EWA(h) RB/GW

ACC NR: AP5025485

SOURCE CODE: UR/0203/65/005/005/0939/0941

AUTHOR: Trifonov, F.M.; Budko, V.N.; Zotoz, V.S.

ORG: Voronezh State University, Department of Radiophysics (Voronezhskiy gosudarstvennyy universitet, Kafedra radiofiziki)

TITLE: Some results on the observation of distribution of meter wavelength radio signals from the layer E_s

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 5, 1965, 939-941

TOPIC TAGS: electronic signal, radio wave propagation, signal distortion, E layer, magnetic field intensity

ABSTRACT: The occasional anomalously far propagation of radio and TV signals is a common phenomenon. The observations of public and private stations, made during 1954-58, were summarized and the time of the beginning and the end of signals, their amplitude, and the coordinates of the signal sources were determined. The results, represented graphically, showed that the anomalously far

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UDC: 550.388.2

L 9783-66

ACC NR: AF5025485

propagation of ultra-short waves had a seasonal character. No effect was observed of the 11-year cycle of solar activity on this propagation. The highest probability for receiving the anomalously distant signals was during evening hours. The spatial field intensity increased about proportionally with the increased number of reception days. During August and especially September, the field intensity of received signals sharply decreased and its value approached 400 - 500 $\mu\text{v/m}$. The probability of anomalous reception was inversely proportional to the signal frequency. The maximum duration of anomalous receptions was 1.5 - 2 hours, during which signals with constant field intensity and fluctuating signals were received. The TV images on the screen often had "repetitions" indicating the arrival of the repeated signals which lagged behind. Geometrical calculations and some assumptions suggested that the anomalously distant radio receptions of the meter-long waves were caused by the presence in the ionosphere of the sporadic layer E_s . The data on the number of days of anomalous radio receptions and the values of the spatial field intensity suggested that (1) the reflection of signals from the E_s layer occurred at the high values of field intensity (June - July), or (2) the signals were scattered from the E_s layer when the field intensity was low (April, August, and especially September). The E_s layer had a cloud-like structure in addition to its seasonal

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L 9783-66

ACC NR: AP5025485

character. Orig. art. has: 1 figure.

SUB CODE: 04,17/SUBM DATE: 10Apr64/

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3/3

P. N. TRIFONOV

16(1)

AUTHORS:

Storov, I.A., University Lecturer, and Koplov, V.D., Scientific Assistant
Lomonosov - Lectures 1957 at the Mechanical-Mathematical Faculty of Moscow State University (Izomorskiye obsheniya 1957 goda na mekhaniko-matematicheskoy fakul'tete MSU)

TITLE:

PERIODICAL:

ABSTRACT:

Vestnik Moskovskogo Universiteta. Seriya matematiki, mekhaniki, elektroniki, fiziki, khimii, 1958, No. 4, pp. 241-246 (USSR)
The Lomonosov lectures 1957 took place from October 17 - October 31, 1957 and were dedicated to the 40-th anniversary of the October revolution.
In the general meeting A.N. Kolmogorov, Academician spoke on Approximate Representation of Functions of Several Variables by Superposition of Functions with Local Extremities and C-Symmetry of Classes of Functions. The lecture generalizes the results of Kolmogorov, A.G. Vitushkin, V.F. Aron, and V.M. Tikhonov. The contents have been already published in Doklady Akademi nauk SSSR, 1945. Professor Ikh.I. Sakharulin, Member of the Academy of Sciences of the USSR, spoke on "Investigation of the Boundary Layer of the Motion of a Two-Component Liquid".

- 8. A.L. Pavlenko, Lecturer. The following lectures were given of the Transverse Shear - Generalization of the Theory of Conducting Liquid Flow Around Magnetized Bodies
- 9. A.G. Kulikovskiy, Aspirant - Flow Around Magnetized Bodies
- 10. E.V. Ibragimov, Lecturer - Instruments for the Analysis and Synthesis of Mechanisms
- 11. V.S. Lenatik, Lecturer - Some General Laws in the Behavior of Multiply Loaded Metals
- 12. G.B. Klyushnikov, Aspirant - A Variant of the Theory of the Increase of Deformation and Elastic Plastic Stability
- 13. Professor M.I. Leshchik and Professor I.A. Puzarink - Asymptotic Behavior of the Solutions of Stochastic Differential Equations with Small Parameter in the Derivatives
- 14. Professor G.A. Glaynik - Some Non-linear Partial Differential Equations (Survey of the Results of P.D. Vititskiy, Ch. 3, pp. 104-110, M.S. Fedotkin, A.S. Malashnikov, Ye.S. Serezhkin, S.L. Kaznecovskiy, A.S. Malashnikov, Professor M.B. Shub-Pura, and P.S. Trifonov, Senior Scientific Assistant - Automation and Programming.

Card 3/3

TRIFONOV, S.

Effective use of new equipment in commerce. Sov. torg. 33
no.8:8-12 Ag '59. (MIRA 12:11)
(Stores, Retail--Equipment and supplies)

BULGARIA/Diseases of Farm Animals - Diseases Caused by Viruses
and Rickettsiae.

R-3

Abs Jour : Ref Zhur - Biol., No 14, 1958, 64655

Author : Ivanov, Ks., Zhelev, Vl., Trifonov, St.

Inst : Institute of Experimental Veterinary Medicine of the
Bulgarian Academy of Sciences, Igarian Sciences.

Title : The Study of the Morphological Changes in Swine Plague
in Relation to the Diagnostic Criteria of this Disease.
7. Changes in the Genito-Urinary Organs.

Orig Pub : Izv. I_n-ta eksperim. vet. med. B"lgar. AN, 1956, 4, 197-
212.

Abstract : The investigation of the genitourinary organs of a consi-
derable number of pigs sacrificed on the 4th-6th day fol-
lowing experimental infection with plague disclosed the
presence of microscopic hemorrhages in the uterus and

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BULGARIA/Diseases of Farm Animals - Diseases Caused by Viruses
and Rickettsiae.

R-3

Abs Jour : Ref Zhur - Biol., No 14, 1958, 64655

ovaries in 11.1%, in the ureters in 8.9%, in the urethra in 26.8%, and in the bladder in 66% of cases. In 57% of cases, macroscopic hemorrhages were detected in the bladder. Histological investigations showed the presence of diffuse or focal lymphoidocytic infiltrates (sometimes also containing lymphocytes, neutrophils, eosinophils and erythrocytes) in the ovaries in 5.5%, in the uterus in 22.2%, in the ureters in 28.5%, in the urethra in 44.7% and in the bladder in 50% of cases. In the mucous membrane of the bladder, ureters and urethra, a desquamation and hyperplasia of the surface epithelium was observed. The authors consider that the above named changes may serve as diagnostic symptoms of the acute plague in swine. The predominant affectibility of the bladder is attributed by the authors to the prolonged presence of urine with a high content of the plague virus in it.

Card 2/2

TRIFONOV, S.M.
BRYKIN, S.V., inzhener; TRIFONOV, S.M., inzhener

Vibration forms for making reinforced concrete culvert sections.
Transp. stroi. 5 no.5:16-18 J1 '55. (MIRA 8:12)
(Culverts)

BAKAREV, P.I., inzh., Geroy Sotsialisticheskogo Truda; TRIFONOV, S.M., inzh.

Construction of the footings of a bridge over the Ugra River on
columnar foundations. Transp. stroi. 12 no.6:17-19 Je '62. (MIRA 15:6)
(Ugra River---Bridges--Foundations and piers)

1. Kuznetsov, S. I.

AUTHORS: Tatarinov, B.P. and Trifonov, S.M., Ingenieurs. 177

TITLE: The effects of reinforcing sets on the technology of manufacturing prestressed reinforced bridge constructions. (Vliyaniye konstruksii armaturnykh puchkov na tekhnologiyu izgotovleniya predbaritel'no napryazhennykh zhelezobetonnykh proletnykh stroyenii).

PERIODICAL: "Beton i Zhelezobeton" (Concrete and Reinforced Concrete), 1957, No.3, pp.106-107 (U.S.S.R.)

ABSTRACT: The TSNII MPS designed the above construction under the leadership of A.P. Korovkin, Cand.Tech.Sciences in 1946. The drawback of this construction was in the manufacture of sets of reinforcement and in their effect on the construction as many executed adaptations and modifications showed. The first reinforced bridge construction was erected on the line Kursk-Kharkov. Anchoring blocks were formed externally on both sides of the sets of reinforcement but no protective pipes or mortar injection was used. Bitumen was injected into the channels. In later constructions, up to 1951 anchoring blocks were used but, on the advice of the TSNII, protective pipes were incorporated as well as the injection of cement grout after tensioning. Difficulties arose because of the friction between these and the reinforcement. After 1951 E. A. Troitskii (TSNIIS Mintransstroi) invented a new method of anchoring the

The effects of reinforcing sets on the technology of 178 manufacturing prestressed reinforced bridge constructions. (Cont.)

sets of steel reinforcement internally. The majority of structures after 1951 showed a reduced tendency of crack formation. An analysis of data of 24 prestressed reinforced constructions (each 23 m long) in 1953 showed losses in pretensioning between 58 to 82%. The improved design partly eliminated crack formation. The losses are to some extent due to the different coefficient of elongation. Vibration methods for the consolidation must be used. Strict control of tensioning of the reinforcement and of injecting the cement grout are recommended.

L 4368-66

ACC NR. AP5028423

SOURCE CODE: BU/0011/65/018/001/0047/0050

10
B

AUTHOR: Trifonov, T.

ORG: Station for Veterinary Medicine, Burgas (Veterinarmedizinische Station)

TITLE: Biological properties of *Simondsia paradoxa* Cobold, 1864

SOURCE: Bulgarska akademiya na naukite. Doklady, v. 18, no. 1, 1965, 47-50

TOPIC TAGS: animal parasite, entomology, morphology

ABSTRACT: German article The author reported earlier (see, Tsent. veterin. in-t za zarazni i parazitni bolesti, 1962, Book 5; Ibid., 1964, Book 9) that dung beetles *Caccobius schreberi*, *Oniticellus fulvus*, and *Copris hispanus* are intermediate biological hosts of the *Simondsia paradoxa*. Further investigations reported in this paper show that *Gymnopleurus mopsus* and *Outhophagus furcatus* should be added to the above-mentioned intermediate hosts. After 34 days the author was able to isolate from these hosts larvae capable of further infestation. This should be the first such experimental production of larvae of *Simondsia paradoxa* Cobold 1864, and the article presents their pictures together with a brief description of their morphological properties. The work was presented by K. Matoff, Corresponding Member, 28 Aug 64. Orig. art. has: 1 figure, 1 table.

SUB CODE: LS / SUBM DATE: 28Aug64 / ORIG REF: 002 / SOV REF: 001

Card 1/1 *ml*

TRIFONOV, T.

Intermediate hosts of *Physocephalus sexalatus* and *Ascarops stronglylina* in the Burgas District. Izv Vet inst zaraz parazit 7 181-185 '63.

Intermediate hosts of *Macracanthorhynchus hirudinaceus* (Pallas, 1781). Ibid.:187-189.

A new intermediate host of *Gongylonema pulchrum*. Ibid.:191-193.

TRIFONOV, Tr.

Onticellus fulvus Goetz and *Copris hispanus* L. as intermediate hosts to certain helminths in swine. Izv Vet inst zaraz parazit 9:185-190 '63.

TRIFONOV, Trifon, inzh.

Water supply of Varna and trends of its development. 1957. Stekh.
3. melior 9 no. 52136-138 '64

STOIMENOV, Kr.; TRIFONOV, Tr.

Studies on the helminthofauna of gray partridges (Perdix perdix L.) in the eastern districts of Bulgaria.
Izv khelmit lab BAN 9:125-128 '64.

TRIFONOV, Tr. MESHKOV, St.

Distribution of *Taenia pisiformis* in dogs and *Cysticercus pisiformis*
in hares in the Burgas District. Izv khelmit lab BAN 9:135-139
'64.

TRIFONOV, Trifon

Drawing up normative graphs. Trud taeni 4 no.4:32-45 '62.

TRIFONOV, V.; LIBERMAN, G.

Outstanding drivers share experience. Zhil.-kom. khoz. 13 no.1:18 '63.
(MIRA 16:3)

1. Rabotniki Upravleniya gorodskogo elektrotransporta Ministerstva
kommunal'nogo khozyaystva RSFSR.
(Rapid transit—Congresses)

SHARENKOV, Stefan Stoyanov, kand.ekonom.nauk; TRIFONOV, V., red.;
DANILINA, A., tekhn.red.

[The building of the socialist economy in the People's
Republic of Bulgaria] Stroitel'stvo sotsialisticheskoi
ekonomiki v Narodnoi Respublike Bolgarii. Moskva, Gos.
izd-vo polit.lit-ry, 1960. 156 p. (MIRA 14:4)
(Bulgaria--Economic conditions)

TSZEN VEN'-TSZIN [Tsêng Wên-ching]; PEKSHEV, Yu.A., kand.ekonom.nauk
[translator]; TRIFONOV, V., red.; TROYANOVSKAYA, N., tekhn.red.

[Socialist industrialization of China] Sotsialisticheskaiia industri-
alizatsiia Kĭtaia. Moskva, Gos.izd-vo polit.lit-ry, 1959. 380 p.
Translated from the Chinese. (MIRA 12:12)
(China--Industrialization)

VINOGRADOV, V.; TRIFONOV, V.; YEL'KIN, I.

More on the stage system. Prof.-tekh. obr. 22 no.6:56-57

Je '65.

(MIRA 18:7)

1. Nachal'nik upravleniya organizatsii truda i tekhniki bezopasnosti
Soveta narodnogo khozyaystva RSFSR (for Vinogradov).

TRIFONOV, V.; LERMAN, R.

Large-panel construction in France. Stroitel' no.10:28 0 '61.
(MIRA 14:11)

(France--Precast concrete construction)

ZHAMIN, Vitaliy Alekseyevich, prof., doktor ekonom. nauk; TRIFONOV, V.,
red.; TYAGAY, Ye., red.; TROYANOVSKAYA, N., tekhn. red.

[Equalizing the level of the economic development of socialist
countries] O vyravnivanii urovnei ekonomicheskogo razvitiia
sotsialisticheskikh stran. Moskva, Gospolitizdat, 1962. 85 p.
(MIRA 15:5)

(Communist countries--Economic policy)
(Communist countries--Foreign economic relations)

VOVKOV, May Yakovlevich; TRIFONOV, V., red.; KLIMOVA, T., tekhn. red.

[What is a financial oligarchy] Chto takoe finansovaia oligarkhiia.
Moskva, Gos. izd-vo polit. lit-ry, 1961. 79 p. (MIRA 14:8)
(Big business)

TRIFONOV, V.

Those in the front ranks. Pozh.delo 6 no.12:6-7 D '60.
(MIRA 13:12)

1. Nachal'nik otдела Upravleniya pozharной okhrany Udmurtskoy
ASSR.
(Fire departments)

KOCHINYAN, Anton Yervandovich; TRIFONOV, V., red.; DANILINA, A., tekhn.red.

[Armenia in the seven-year plan] Armenia v semiletke. Moskva, Gos.
izd-vo polit.lit-ry, 1960. 77 p. (MIRA 13:6)

1. Predsedatel' Soveta ministrov Armyanskoy SSR (for Kochinyan).
(Armenia--Economic policy)

BELOUSOV, Rem Aleksandrovich; TRIFONOV, V., red.; TROYANOVSKAYA, N.,
tekh.red.

[For a better life] Vo imia luchshoi zhizni. Moskva, Gos.
izd-vo polit.lit-ry, 1959. 68 p. (MIRA 13:3)
(Russia--Economic policy)

BIKHTLER, K. (Germanskaya Demokraticheskaya Respublika); GERTSOVICH,
G. (Sovetskiy Soyuz); TRIFONOV, V., red.; POPOVA, T., tekhn.red.

[A socialist bridgehead in the West] Forpost sotsializma na Zapade.
Moskva, Gos.izd-vo polit.lit-ry, 1959. 334 p. (MIRA 13:4)
(Germany, East--Economic conditions)

KHVAN DO YEN [Hwana, Do-yong]; TRIFONOV, V., red.; TROYANOVSKAYA, N.,
tekhn.red.

[Postwar reconstruction and development of the national economy
of the Korean People's Democratic Republic] Poslevoennoe vossta-
rovlenie i razvitie narodnogo khoziaistva KNDR. Moskva, Gos.
izd-vo polit.lit-ry, 1958. 109 p. (MIRA 12:9)

1. Zamestitel' predsedatelya Gosplana i nachal'nik Tsentral'nogo
statisticheskogo upravleniya Koreyskoy Narodnoy Demokraticheskoy
Respubliki (for Hwana).
(Korea, North--Economic conditions)

SIDIKHMENOV, Vasilii Yakovlevich; TRIFONOV, V., red.; MUKHIN, Yu.,
tekhn.red.

[Great victory] Velikaia pobeda. Moskva, Gos.izd-vo polit.
lit-ry, 1959. 110 p. (MIRA 12:12)
(China--Economic conditions)

TRIFONOV, V.

Industrialization of the Chinese People's Republic during the
first five-year plan. Vop. ekon. no.7:82-93 J1 '58. (MIRA 11:8)
(China--Economic conditions)

MIKHEYEV, Vladimir Ivanovich; TRIFONOV, V., red.; MUKHIN, Yu., tekhn.red.

[A leap into the future; an account of the building of socialism
in the people's China] Skachok v budushchee; rasskaz o stroi-
tel'stve sotsializma v narodnom Kitae. Moskva, Gos.izd-vo polit.
lit-ry, 1959. 78 p. (MIRA 12:4)

(China--Economic policy)

D'YACHENKO, Vitaliy Vasil'yevich; TRIFONOV, V., red.; KLIMOVA, T.,
tekhn.red.

[Learn the principles of management] Uchis' khoziaistvovat'.
Moskva, Gos.izd-vo polit.lit-ry, 1960. 29 p.

(MIRA 13:12)

(Industrial management)

SUKHOSHCHAVIN, A.M.; PETUKHOV, N.P.; MOSKOVSKIY, N.M.; TRIFONOV, V.F.

Technology and procedure of replacing the traction wheel unit of
N60 electric locomotives. Elek. i tepl. tiaga 4 no. 9:41-43
S '60. (MIRA 13:12)

1. Rabotniki naladcheskoy brigady Proyektno-konstruktorskogo
byuro Glavnogo upravleniya lokomotivnogo khozyaystva
Ministerstva putey soobshcheniya.
(Electric locomotives--Maintenance and repair)

MARKOV, Valentin Vasil'yevich; SUSLOV, Nikolay Nikolayevich; TRIFONOV, Vadim Georgiyevich; ANDREYEV, V.V., retsenzent; ARIFKHANOV, U.Kh., retsenzent; ARNO, A.A., retsenzent; DERBENEV, S.I., retsenzent; SHUSHKIN, A.A., retsenzent; MAKYEV, V.S., nauchnyy red.; DUKHOVNIY, F.N., red.; SHAPENKOVA, T.A., tekhn. red.

[Primary processing of bast fibers] Pervichnaia obrabotka ~~le~~ biarykh volokon. Moskva, Gos. izd-vo "Rostekhzdat," 1961.
463 p. (MIRA 15:4)

(Textile fibers)

(Textile machinery)

TRIFONOV, V.G.

Swabenlike structures and their origin in the northern
part of the East Balkan region. Izdy. GIN no. 80-218-774
'63. (MIRA 1-16)

MAKARICHEV, V.V.; TRIFONOV, V.G.

Panels made of foamed ash concrete for walls of industrial
buildings. Prom. stroi. 39 no.5:19-22 '61. (MIRA 14:7)
(Donets Basin--Precast concrete construction)
(Lightweight concrete)

KOPP, M.L.; RASTSVETAYEV, L.M.; TRIFONOV, V.G.

Tectonic joints formed by Holocene earthquakes in the central
Kopetdag. Izv. AN SSSR Ser. geol. 29 no.7:59-69 JI '64
(MIRA 18:1)

1. Geologicheskii institut AN SSSR i Moskovskiy gosudarstvennyy
universitet im. M.V. Lomonosova, Moskva.

TRIFONOV, V. G.

Remains of the Upper Paleozoic volcanoes in the Kalmakemel'
syncline (central Kazakhstan). Izv. AN SSSR. Ser. geol. 29 no.
1:95-109 Ja '64. (MIRA 17:5)

1. Geologicheskii institut AN SSSR, Moskva.

TRIFONOV, V.G.

Quantitative and qualitative characteristics of scutching tow.
Izv. vys. ucheb. zav.; tekhn. tekst. prom. no.5:47-53 '59 (MIRA 13:3)

1. Kostromskoy tekstil'nyy institut.
(Cotton waste)

TRIFONOV, V.G.

Appraisal of retted flax straw. Izv.vys.ucheb.zav.; tekhn.tekst.
prom. no.6:3-10 '58. (MIRA 12:4)

1. Kostromskoy tekstil'nyy institut.
(Flax)

TRIFONOV, V.G.

Morphology of the Sayak trough in Kazakhstan (interrelationship of shifts with fold structure). *Izv. vya. usheb. zav.; geol. i razv.* 6 no.9:3-16 S '63. (MIRA 17:10)

1. Geologicheskiy institut AN SSSR.

BESSONOV, S.A.; VASIL'KOV, N.P., kand. ekon. nauk; VLASOV, V.A., kand. ekon. nauk; GLUKHAREV, L.I., kand. ekon. nauk; DANILEVICH, M.V., doktor ekon. nauk; ZHAMIN, V.A., doktor ekon. nauk, prof.; ZAKHMATOV, M.I., kand. ekon. nauk; KURAKIN, N.A., kand. ekon. nauk; PANOV, V.P.; SMIRNOV, G.V., kand. ekon. nauk, dots.; TRIFONOV, V.I., kand. ekon. nauk; TYAGAY, Ye. Ya.; FAMINSKIY, I.P.; KHODOV, L.G.; SHMIDT, G.A., kand. ekon. nauk, dots.; SHMIGOL', N.N., kand. ekon. nauk, dots.; MATSUK, R.V., red.; GARINA, T.D., tekhn. red.

[The economy of foreign countries; the capitalistic system of the world economy after the Second World War] Ekonomika zaru-bezhnykh stran; kapitalisticheskaya sistema mirovogo khozai-stva posle Vtoroi Mirovoi voyny. Pod red. V.A. Zhamina. Mo-skva, Vysshaya shkola, 1962. 632 p. (MIRA 16:1)
(Economic history)

TRIFONOV, V.I.

Characteristics of Stutzer-Schmitz hydrogen sulfide forming
dysenterial bacteria isolated during an outbreak of dysentery
of food origin. Zhur.mikrobiol., epid. i immun. 32 no.11:131-
132 N '61.

(MIRA 14:11)

(SHIGELLA AMBIGUA)

PODGORODETSKIY, I.A.; VISHNEVSKIY, A.A., otv.red.; TRIFONOV, V.I., red.;
KARABILOVA, S.F., tekhn.red.

[Economic and other features of socialist telecommunication]
Sotsialisticheskaya svyaz', ee ekonomicheskie cherty i osobennosti.
Moskva, Gos.izd-vo lit-ry po voprosam svyazi i radio, 1960. 61 p.
(MIRA 14:1)

(Telecommunication)

VISHNEVSKIY, A.A., doktor ekonom. nauk, prof.; PODGORDETSKIY, I.A., prof.;
SERGEYCHUK, K.Ya., kand. tekhn. nauk; SOLOVEYCHIK, L.M., kand.
ekonom.nauk; TOCHIL'NIKOV, G.M., kand. ekonom. nauk; SHEYN, P.A.,
prepodavatel'; TRIFONOV, V.I., red.; ROMANOVA, S.F., tekhn. red.

[Economics of the communication system] Ekonomika svyazi. Moskva,
Gos. izd-vo lit-ry po voprosam svyazi i radio, 1961. 279 p.
(MIRA 14:8)

(Communication and traffic)

BOGDANOVA, V.I.; DOVGYALLO, V.P.; KUL'ZHONKOV, Ye.O.; POPOV, Ye.I.;
RUTKOVSKIY, O.O.; SPEVACHEVSKIY, G.Yu.; NAZAREVSKIY, O.R.,
retsenzent; TRIFONOV, V.I., retsenzent; LEVITAS, I.G., red.;
USENKO, L.A., tekhn. red.

[Moscow - Central Asia; railroad guide] Moskva - Sredniala
Aziia; zheleznodorozhnyi putevoditel'. Moskva, Transzheldor-
izdat, 1962. 205 p. (MIRA 16:3)
(Railroads--Guides)

TRIFONOV, Vladimir Il'ich; MURATOV, Kh., red.; PAVLOVA, S., tekhn.red.

[Creating seas, putting mountains asunder] Sozdavaia moria,
razdvigaia gory. Moskva, Mosk.rabochii, 1959. 69 p.

(MIRA 12:12)

(China--Economic conditions)

L 25554-66A) EWT(1)/EWA(h)

ACC NR: AM6004739

Monograph

UR/

43

E11

Vasil'yev, V. N.; Slobodenyuk, G. I.; Trifonov, V. I.; ~~Hotuntsev~~, YU. L.

Regenerative semiconductor parametric amplifiers; ⁷⁵some problems of theory and design (Regenerativnyye poluprovodnikovyye parametricheskiye usiliteli; nekotoryye voprosy teorii i rascheta) Moscow, Izd-vo "Sovetskoye radio", 1965. 447 p. illus., biblio. Errata slip inserted. 10,500 copies printed.

TOPIC TAGS: parametric amplifier, solid state amplifier, millimeter wave amplifier, amplifier design

PURPOSE AND COVERAGE: The book contains the theory of regenerative semiconductor parametric amplifiers, developed on the basis of the theory of linear networks, and is intended for scientific and engineering-technical workers engaged in the investigation and development of parametric systems, and also for students in higher institutions of learning as a text for the course on "Theoretical Principles of Radio Engineering." The subjects covered are the various amplifier parameters, different methods of tuning parametric amplifiers, stability of the phase and frequency characteristics of a parametric amplifier, the operating features of multifrequency parametric amplifiers, and questions involved in the electrodynamic calculations and the choice of the amplifier parameters. The book contains in the form of appendices some additional data and calculations dealing with particular problems touched upon in the main text. Chs. I, VI, and VII and Secs. 1 and 2 of Ch. II, Secs. 1, 3, and 4 of Ch. III, and Appendices I, IV, and V were written by G. I. Slobodenyuk; Ch. IV, Secs. 2 and 5 of Ch. III, Secs. 1, 2, and 3 of Ch. V, and Appendices II, III, and VI were

Card 1/2

UDC: 621.375.93

L 05554-66

ACC NR: AM6004739

written by YU. L. Khotuntsev; Sec. 3 of Ch. II and Sec. 4 of Ch. V were written jointly by G. I. Ilobodenyuk and YU. L. Khotuntsev; Ch. VIII was written by V. I. Trifonov; and Chs. IX, X, and XI were written by V. N. Vasil'yev.

TABLE OF CONTENTS [abridged]:

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SUB CODE: 09/ SUPP DATE: 24Jun65/ ORIG REF: 041/ OTH REF: 032

L 25554-66A) EWT(1)/EWA(h)

ACC NR: AM6004739

Monograph

UR/

Vasil'yev, V. N.; Slobodenyuk, G. I.; Trifonov, V. I.; Khotuntsev, YU. L. 13
E11

Regenerative semiconductor parametric amplifiers; some problems of theory and design (Regenerativnyye poluprovodnikovyye parametricheskiye usiliteli; nekotoryye voprosy teorii i rascheta) Moscow, Izd-vo "Sovetskoye radio", 1965. 447 p. illus., biblio. Errata slip inserted. 10,500 copies printed.

TOPIC TAGS: parametric amplifier, solid state amplifier, millimeter wave amplifier, amplifier design

PURPOSE AND COVERAGE: The book contains the theory of regenerative semiconductor parametric amplifiers, developed on the basis of the theory of linear networks, and is intended for scientific and engineering-technical workers engaged in the investigation and development of parametric systems, and also for students in higher institutions of learning as a text for the course on "Theoretical Principles of Radio Engineering." The subjects covered are the various amplifier parameters, different methods of tuning parametric amplifiers, stability of the phase and frequency characteristics of a parametric amplifier, the operating features of multifrequency parametric amplifiers, and questions involved in the electrodynamic calculations and the choice of the amplifier parameters. The book contains in the form of appendices some additional data and calculations dealing with particular problems touched upon in the main text. Chs. I, VI, and VII and Secs. 1 and 2 of Ch. II, Secs. 1, 3, and 4 of Ch. III, and Appendices I, IV, and V were written by G. I. Slobodenyuk; Ch. IV, Secs. 2 and 5 of Ch. III, Secs. 1, 2, and 3 of Ch. V, and Appendices II, III, and VI were

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UDC: 621.375.93

L 25554-66

ACC NR: AM6004739

written by YU. L. Khotuntsev; Sec. 3 of Ch. II and Sec. 4 of Ch. V were written jointly by G. I. Slobodenyuk and YU. L. Khotuntsev; Ch. VIII was written by V. I. Trifonov; and Chs. IX, X, and XI were written by V. N. Vasil'yev.

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SUB CODE: 09/ SUEM DATE: 24 Jun 65/ ORIG REF: 041/ OTH REF: 032

ACCESSION NO. 1418-1427

AUTHOR: Trifonov, V. I.

TITLE: Multifrequency parametric amplifiers ¹⁵

SOURCE: Radiotekhnika i elektronika, v. 8, no. 8, 1963, 1418-1427

TOPIC TAGS: parametric amplifier, amplifier, multifrequency amplifier

ABSTRACT: Multifrequency parametric amplifiers whose capacitance varies periodically are theoretically investigated. The theory also permits considering general problems of such systems. A set of equations developed to describe a variable-capacitance circuit has been used for deriving formulas for amplification factor (gain) and noise factor. An extensive table supplies formulas for gain and noise factors for 2- and 3-frequency amplifiers in 11 versions described by matrices. The following recommendation is offered: When several frequencies are to be stepped up by the amplifier, 3-or-more-frequency nonreciprocal devices

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L 17281-65

ACCESSION NR: AP3004376

converters should be used as they permit using the pumping frequency 2 or more times lower than that of a conventional 2-frequency nonregenerative converter; this feature may prove of particular value in conversions into the millimeter band. "In conclusion, the author is very thankful to V. A. Kotel'nikov and A. N. Vy*stavkin for their attention to his work and a number of valuable hints." Orig. art. has: 4 figures, 25 formulas, and 1 table.

ASSOCIATION: none

SUBMITTED: 06Jul62

DATE ACQ: 20Aug63

ENCL: 00

SUB CODE: GE

NO REF SOV: 002

OTHER: 008

Card 2/2

TRIFONOV, V.I.

Multiple-frequency parametric amplifiers. Radiotekh. i elektron.
8 no.8:1418-1427 Ag '63. (MIRA 16:8)
(Parametric amplifiers)

TRIFONOV, V.I.

Multiple-frequency parametric amplifiers. Radiotekh. i elektron.
8 no.8:1418-1427 Ag '63. (MIRA 16:8)
(Parametric amplifiers)

TRIFONOV, V.I.

Effect of periodically varying resistance on a nonregenerative
parametric system. Radiotekh. i elektron. 8 no.9:1637-1639
S '63. (MIRA 16:9)

(Electric networks) (Parametric amplifiers)

ACC NR: AP7001338

SOURCE CODE: UR/0386/66/004/011/0445/0449

AUTHOR: Afinogenov, V. M.; Migulin, V. V.; Trifonov, V. I.

ORG: Institute of Radio Engineering and Electronics, AN SSSR (Institut radiotekhniki i elektroniki AN SSSR)

TITLE: Singularities of the Faraday effect in n-InSb in the millimeter band

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 4, no. 11, 1966, 445-449

TOPIC TAGS: indium compound, antimonide, Faraday effect, microwave technology

ABSTRACT: The authors investigated the Faraday effect in n-type InSb at 77.8K as a function of the magnetic field and of the sample thickness. The experimental setup included a klystron oscillator operating at 4 mm, attenuators, a measuring pickup, and an indicator showing the power passing through the sample. The position of the polarization plane was indicated by the minimum of the indicator reading. The measurements revealed the expected oscillations of the angle of rotation of the polarization plane vs. the magnetic field, as well as deviations brought about by reflections from the boundary planes. At sample thicknesses that were multiples of the electromagnetic wave, geometric resonance took place in the sample and the Faraday angle was maximal in this case. The peaks of the oscillations became sharper with increasing magnetic field, owing to the decreased losses in the semiconductor. Plots of the Faraday angle vs. the magnetic field show that the rotation angle becomes negative in

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ACC NR: AP7001338

weak fields. The experimental and calculated curves agree well, the quantitative differences being due to the approximate nature of the theory, which is valid strictly only in free space. It is concluded that the large Faraday angles and the relatively small damping in strong magnetic fields make this phenomenon useful with nonreciprocal microwave devices such as ferrites. The authors thank V. S. Ivleva and D. A. Dolgikh for supplying the InSb samples. Orig. art. has: 2 figures and 3 formulas.

SUB CODE: 20/ SUBM DATE: 19Sep66/ ORIG REF: 001/ OTH REF: 003

Card 2/2

VASIL'YEV, V.N.; SLOBODENYUK, G.I.; TRIFONOV, V.I.; KHOTUNTSEV,
Yu.L.; MIGULIN, V.V., red.; MASHAROVA, V.G., red.

[Regenerative transistorized parametric amplifiers;
problems of theory and design] Regenerativnye poluprovod-
nikovye parametricheskie usiliteli; nekotorye voprosy
teorii i rascheta. Moskva, Sovetskoe radio, 1965. 447 p.
(MIRA 18:8)

S/137/62/000/007/029/072
A052/A101

AUTHORS: Bruk, M. V., Trifonov, V. N.

TITLE: Calculation of power consumed in the contact zone at ultrasonic welding

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 7, 1962, 3, abstract 7E16 ("Tr. Leningr. in-ta vodn. transp.", no. 22, 1961, 54 - 61)

TEXT: The relationship is investigated between the consumed power and the displacement of the working tool of the oscillating system of the installation. At the first moment of the input of ultrasonic oscillations a dry friction takes place between the supporting surfaces of waveguides and samples, and thereafter in the contact spot of samples, too. The transfer of oscillations (displacements) to the welding zone is possible both on account of the friction between the tool and the upper sample and on account of a seizing between them, since the temperature maximum in this contact is reached earlier than in the contact between the samples. At a high temperature, σ_3 of the metal in the contact surface zone of samples drops by several times. Owing to tangential forces the destruction of brittle oxide films and their removal to the periphery of the point take place.

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Calculation of power consumed in the...

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A052/A101

The friction goes over into an internal friction of the plastic layer. Plastic deformation contributes to the contact of pure metal surfaces over a large area of the actual contact, thus securing the strength of the joint. It is necessary to know the value of the tangential force developing in the process of welding. The relevant formulas are derived.

V. Fomenko

[Abstracter's note: Complete translation]



Card 2/2

TRIFONOV, V.P.

I.S. Rozhkov's article "Principal factors in the formation of alluvial deposits and their typical characteristics." Article reviewed by V.P. Trifonov. Razved.i okh.nedr 22 no.1:60-61 Ja '56.

(Alluvium)

(MLRA 9:5)

TRISHKO, V. P.,

The Structure of the Strata, the meso-Cenozoic Continental
Formations on the Eastern Slope of the Central Urals, Materials
on the Geomorphology of the Urals, State Geology Press, 1948.

TRIFONOV, V. P., dotsent

Geological surveying major. Izv. vys. ucheb. zav.; gor. zhur.
no.10:169-170 '61. (MIRA 15:10)

1. Sverdlovskiy gornyy institut imeni V. V. Vakhrusheva.

(Geological surveys)

TRIFONOV, V.P.; ASINKRITOV, F.A.

Reviews and bibliography. *Izv.vys.ucheb.zav.; geol. i razv.* 6
no.5:91-94 My '63. (MIRA 18:4)

TRITONOV, V. T.

"Pathomorphological Changes in the Vegetative Nervous System During Inflammation of the Lungs of Lambs." *Sov. Vet Sci, Saratov State Zooveterinary Inst, Min Higher Education, Saratov, 1954. (KL, No 8, Feb 55)*

SO: Sum. No. 631, 26 Aug 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14)

ACCESSION NR: AR4014747

S/0058/63/000/012/A021/A021

SOURCE: RZh. Fizika, Abs. 12A204

AUTHORS: Vyazemskiy, V. O.; Pegoycv, A. N.; Trifonov, V. V.

TITLE: AMA-5 semiconductor small-size multichannel pulse height analyzer

CITED SOURCE: Tr. 5-y Nauchno-tekhn. konferentsii po yadern. radioelektronike. T. 2, Ch. 2, Gosatomizdat, 1963, 144-162

TOPIC TAGS: analyzer, pulse height analyzer, miniature analyzer, dynamic memory, magnetostriction delay line, nuclear instrumentation

TRANSLATION: A description of the multichannel pulse-height semiconductor AMA-5 analyzer is presented. The analyzer is intended for use under difficult plant and field conditions. It employs a miniature part and printed wiring. The total number of elements has been

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ACCESSION NR: AR4014747

reduced in AMA-5 to ~1200. Such a reduction has been made possible by maximum utilization of each element. The analyzer employs a dynamic memory with a magnetostriction delay line. The memory (2048 μ sec) is broken up into 128 16-digit memory cells (channels) without pauses between them. The information readout is by a read-out block in three forms: a table of binary numbers, a linear-scale histogram on a cathode-ray tube screen, and a histogram on a paper chart. The maximum counting rate of the analyzer is 8000 pulses per second. L. S.

DATE ACQ: 24Jan64

SUB CODE: PH, SD

ENCL: 00

Card 2/2

SOV/120-58-5-10/32

AUTHORS: Vyazemskiy, V. O., Drapchinskiy, L. V., Pisarevskiy, A. N.,
Trifonov, V. V. and Firsov, Ye. I.

TITLE: A Non-Overloading Amplifier with a Wide-Channel Discriminator
(Neperegruzhayushchiysya usilitel' s shirokokanal'nym
diskriminatorom)

PERIODICAL: Priory i tekhnika eksperimenta, 1958, Nr 5, pp 40-44
(USSR)

ABSTRACT: The device described consists of the following principal parts: 1) a non-overloading linear amplifier comprising a pre-amplifier, a phase inverter, pulse-forming networks, an output amplifier and a power amplifier; 2) an integrating wide channel pulse discriminator consisting of a lower and upper gate, a charging diode, a resetting triode, an anti-coincidence circuit, the output univibrators of the integrating and differentiating channels followed by power amplifying stages; 3) supply sources. The non-loading amplifier is based on the circuit described by Fairstein (Ref.3) and its circuit diagram is shown in Fig.1. The pre-amplifier of

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1 Non-Overloading Amplifier with a Wide-Channel Discriminator

this unit is based on a cathode coupled circuit, while the phase inverter consists of one tube with anode and cathode resistances. The pulses are formed after the inverter by means of RC networks or by a short circuited delay line (.5 μ sec duration). The final amplifier consists of 5 tubes; the first 3 form a "triple" and are provided with a negative feedback; the 4th tube operates as a cathode follower. The output signal of the amplifier is applied to an external pulse analyser and to the discriminator of the device. The discrimination level can be varied from 5 to 105 V in steps of 1 V; the voltage divider circuit is shown in Fig.2. The instrument is designed for the operation with a scintillation counter. The maximum gain of the amplifier is 2×10^6 and the effective noise amplitude at the output of the amplifier is less than .04 V. The pulse rise time is .15 μ s and the pulse duration is: a) 2, 5, 10 or 20 μ s if RC networks are used, and b) 1 μ s if a delay line is used. The overloading coefficient of the amplifier is over 100. The amplifier is asymmetrical in that it does not amplify negative pulses. The amplitude characteristic of the

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SOV/120-58-5-10/32

A Non-Overloading Amplifier with a Wide-Channel Discriminator

amplifier is shown in Fig.3, from which it is seen that its output is linear from 2 to 120 V. The instrument is supplied with +300 V at 130 mA and with -250 V at 20 mA. The paper contains 3 figures and 3 English references.

ASSOCIATION: Radiyevyy institut AN SSSR (Radium Institute of the USSR Academy of Sciences)

SUBMITTED: November 16, 1957.

Card 3/3

SOV/120-58-6-15/32

AUTHORS: Vyazemskiy, V. O., Drapchinskiy, L. V., Pisarevskiy, A. N.,
Trifonov, V. V. and Firsov, Ye. I.

TITLE: A Counting Instrument Employing Dekatrons (Pereschetnyy
pribor s ispol'zovaniyem dekatronov)

PERIODICAL: Pribory i tekhnika eksperimenta, 1958, Nr 6, pp 78-81
(USSR)

ABSTRACT: Since a dekatron is a comparatively new device and since its parameters depend to a large extent on the trigger circuit employed to effect the transfer from one cathode to the next, a detailed investigation of the triggering methods was carried out. The authors tried a number of triggering circuits and found that the most successful one was that employing a double triode in which one of the anodes was provided with a delay capacitance; the circuit is shown in Fig.12. The dekatron employed was of the type 10/SG1S and had 2 systems of guide electrodes. The actual counter (see the diagram of Fig.5) consisted of the following elements: 1) a binary counting decade based on vacuum tubes, 2) 4 counting decades based on dekatrons, 3) a timer, 4) a circuit for controlling the timer and the input gate circuit, 5) a gating circuit, 6) an intensity meter, 7) a quartz crystal calibrator, 8) a power supply source, and 9) a mechanical register.

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SOV/120-58-6-15/32

A Counting Instrument Employing Dekatrons

The operation of the equipment is as follows. An input pulse is applied to the gating circuit which is in the form of a univibrator; the circuit can be blocked by the bi-stable device which also controls the timer. The pulses from the anode of the gating univibrator are applied to the binary decade. The output from the decade is used to trigger the first dekatron, which in turn drives the following dekatrons. The counting can be stopped automatically after a pre-set time interval which is determined by the timer. The basic time intervals are 3, 6 and 15 sec; by employing 2 dekatrons it is also possible to obtain counting intervals of 60, 150, 300, 600 and 1500 sec. The average counting rate is recorded by the intensity meter which is capable of measuring the rates ranging from 200 to 5×10^4 pulses per minute. The instrument can be checked by employing the quartz

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A Counting Instrument Employing Dekatrons

crystal oscillator which operates at 75 kc/s. The device has a resolving time of 12 μ s. The authors express their gratitude to Yu. A. Nemilov for making this work possible and for his interest in it. The paper contains 8 figures and 4 references; 2 of the references are English and 2 are Soviet.

ASSOCIATION: Radiyevyy institut AN SSSR (Radium Institute of the Soviet Academy of Sciences)

SUBMITTED: November 18, 1957.

Card 3/3

TRIFONOV, V.V.; PEGOYEV, A.N.

Introducing the AMA-6 miniature gamma-ray spectrometer. Biul.
tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh.
inform. 18 no.10:31-32 0 '65. (MIRA 18:12)

82853

S/112/60/000/008/002/012

24.6810

Translation from: Referativnyy zhurnal. Elektrotehnika, 1960, No. 8, p. 249,
4.7039

AUTHORS: Vyazemskiy, V.O., Kazarinov, Yu.M., Trifonov, V.V.

TITLE: Amplitude Analyzer of Nuclear Radiation Spectra

PERIODICAL: Izv. Leningr. elektrotekhn. in-ta, 1959, No. 38, pp. 237-248

TEXT: The authors investigate the limitations and advantages of using various memory devices in amplitude analyzers. A description is given of the "AMA-3c" (AMA-3s) type automated multi-channel amplitude analyzer with an electrostatic storage tube as memory device. This model was exhibited at the Geneva Exhibition in 1958. It possesses the following technical data: number of channels - 128; capacity of each channel - 2^{16} , resolving time $0.5 + 22 \mu\text{sec}$ (n = channel number). The results are read on the monitor screen in the form of binary numbers or as histogram. The analyzer can operate with external control pulses (under coincidence or anticoincidence conditions). The number of tubes is 130, power consumption is 850 w.

A.A.N.

Translator's note: This is the full translation of the original Russian abstract.

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TRIFONOV, Ye.

AID - P-129

Subject : USSR/Aeronautics
Card : 1/1
Author : Trifonov, Ye., Guards Major, Engineer
Title : Regulation Work on Instrument Equipment
Periodical : Air Force Herald, 4, 67 - 69, Ap 1954
Abstract : The instruments in question serve for the control of the plane, the engine and the electrical, oxygen, and other apparatus. The purpose and the procedure of maintenance are mentioned. The instruments are divided in groups, and special features of maintenance of each group are discussed. Examples of well organized maintenance in USSR Air Force sections are given.
Institution : None
Submitted : No date

TRIFONOV, YE. A.

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18.6200 also 2108, 2308

S/136/60/000/009/002/004
E193/E483

AUTHORS: Borok, B.A., Gavrilova, V.K., Karpman, G.M.
Trifonov, Ye.A. and Zavod, Ye.B.

TITLE: Manufacture of Titanium Tubes from Sintered Material
by Extrusion and Rolling

PERIODICAL: Tsyetnyye metally, 1960, No.9, pp.66-68

TEXT: Shells (85 and 100 mm in diameter, 150 to 200 mm high), prepared by powder metallurgy technique from technical grade titanium IMPL, were extruded on a 600 t vertical extrusion press, equipped with die and mandrel made of steel 3KhV8. The shells were pre-heated to 860 to 1050°C by induction heating (5 to 10 min), the temperature of the container being 200 to 250°C. A mixture of graphite and machine oil was used as a lubricant. The extrusion pressure did not exceed 180 atm when the extrusion temperature was 800°C and decreased to below 150 atm for shells pre-heated to 950°C. The extrusion speed of 8 m/sec was used, the tubes obtained being 32 to 50 mm in diameter with the wall thickness varying between 2.5 and 7.5 mm. Irrespective of the extrusion temperature employed, the extruded tubes had longitudinal scratches on both outside and inside surfaces.

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Manufacture of Titanium Tubes from Sintered Material by
Extrusion and Rolling

The surface finish of tubes extruded at temperatures above 950°C was extremely bad. The condition of the container and particularly of the mandrel, after one operation only, was also very bad, owing to titanium adhering to their surfaces, which was also the cause of the longitudinal scratches on the extruded tubes. Somewhat better results were obtained when steel R18 was used as the material of the container lining and mandrel, but even then these parts had to be scrapped after each operation. Several attempts were made to improve the surface finish of the tubes by applying different lubricants; the best results were obtained with a mixture containing 4 parts of sodium chloride and 1 part of fluorspar which, however, failed to prevent the formation of the longitudinal scratches. The extruded tubes (measuring 32 x 3, 39 x 2.5, 41 x 3 and 50 x 7.5 mm) had the following properties: U.T.S. = 70 kg/mm²; elongation, δ , = 21%; reduction of area, Ψ , = 29%; Rockwell hardness, R_C = 26. The material of the extruded tubes was markedly anisotropic in respect of its mechanical properties; micro-specimens, cut from the tubes and
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E193/E483

**Manufacture of Titanium Tubes from Sintered Material by
Extrusion and Rolling**

tested in the direction parallel to the tube axis, had U.T.S. = 104.6 kg/mm², δ = 26.2%, and ψ = 38.7%; the corresponding figures for specimens tested in the transverse direction were 120.8 kg/mm², 2.5% and 6.3%. Owing to the lack of suitable equipment, the surfaces of the extruded tubes were not improved before rolling. The slight curvature of the tubes was removed by hammering with wooden mallets at 800°C. Both ends of each tube with bad extrusion defects were cut off and the outside and inside surfaces were lubricated with a mixture of 60% emulsol and 40% graphite, no lubricant having been fed to the mandrel. The rolling operation was carried out on a tube rolling mill of the Rockwright type. To avoid cracking during rolling, the ends of each tube were machined to produce a taper at least 60 to 80 mm long. After the first rolling operation, during which the temperature of the tubes rose to 100°C, the tubes were annealed at 700°C by resistance heating, the heating time varying between 20 and 40 sec. The ends of the tubes were then cut off again and tapered, after which the second rolling

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operation was carried out. The degree of deformation attained in the first rolling operation, without causing fracture of the tube, was 34.2%. After the intermediate annealing operation, 56.7% reduction per pass could be attained. The tubes of the following dimensions (mm) were produced by this method: 22 x 1, 22 x 1.25, 22 x 1.5, 26 x 1.75, 26 x 2, 26.5 x 1.4, 29.8 x 1.6, 29.8 x 1.65, 34.5 x 2.4; the lengths of the tubes varied between 1500 and 6000 mm. While the results obtained showed that the technique studied had some possibilities, means of preventing adhesion of titanium on the extrusion tools will have to be found before it can become a manufacturing process. There is 1 table.

ASSOCIATIONS: TsNIIchermet
Kol'chuginskiy zavod im. Ordzhonikidze
(Kol'chygin Works im. Ordzhonikidze)

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TETERIN, P.K.; KLYAMKIN, N.L.; TRIFONOV, Ye.A.; ABRAMOV, A.A.

Mastering the rolling of seamless pipe made of heat-resistant alloys. Stal' 24 no.8:721-724 Ag '64. (MIRA 17:9)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii imeni I.P. Bardina.

BOROK, B.A.; GAVRILOVA, V.K.; KARPMAN, G.M.; TRIFONOV, Ye.A.; ZADOV, Ye.B.

Pressing and rolling ceramic metal titanium pipes. TSvet. met. 33
no.9:66-68 S '60, (MIRA 13:10)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii
(for all except ZadoV). 2. Kol'chuginskiy zavod im.Ordzhonikidze
(for ZadoV).

(Ceramic metals)

(Metal powder products)

TETERIN, P.K.; MAJEGIN, Yu.V.; MUSORINA, I.Ye.; TRIFONOV, Ye.A.

Designing rolls for rolling-off and grooving mills used in
diagonal rolling. Sp. tr. TSNICHM no. 16:215-226 '59.

(Rolling (Metalwork))

(MIRA 12:5)