L 2524-66
ACCESSION NR: AP5020859   3

potential applied to the collector. The latter was located 200 mm from the ion-
production region. It is assumed on the basis of published data that at an arc
current of 1 amp the percentage of H_1^+ ions reaches 90. The ion current varies
linearly with the drawing voltage on the collector. Orig. art. has: 2 figures.
                                                                        [02]

ASSOCIATION: Institut yadernoy fiziki AN UzSSR (Institute of Nuclear Physics,
AN UzSSR)

SUBMITTED: 15Sep65   ENCL: 01   SUB CODE: NP

NO REF SOV: 001   OTHER: 004   ATD PRESS: 4//0

Card 2/3

L 2524-66
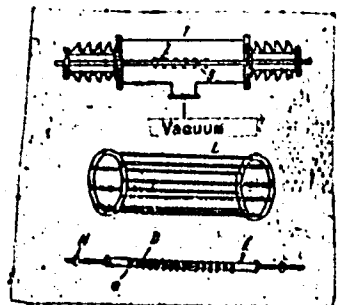ACCESSION NR: AP5020859   ENCLOSURE: 01

'Fig. 1. Ion source

T - Vacuum chamber; L - frame;
Z - electrode; E - quartz tube;
D - yoke; N - porcelain bead;
B - grid.

Card 3/3

USSR/Farm Animals. Sheep and Goats. Q

Abs Jour: Ref Zhur-Biol., No 17, 1958, 78765.

Author : Babalykhyan, G. A.
Inst : Armenian Scientific-Research Institute of Animal
Breeding and Veterinary Medicine.
Title : Results of Cross-Breeding of Ewes of the "Balbas"
Breed of Sheep with Rams of the "Alagez" Breed
Group.

Orig Pub: Tr. Arm. n.-i. in-ta zhivotnovodstva i veterinarii,
1957, 2, 67-81.

Abstract: For the improvement of wool of the sheep of the
Balbas breed on the sheep-breeding farms of the
Martuni Rayon Armenian SSR, cross-breeding of
the Balbas sheep was carried out with rams of the
Alagez breed group. More than 8000 head were

Card : 1/3

42

USSR/Farm Animals. Sheep and Goats.   Q

Abs Jour: Ref Zhur-Biol., No 17, 1958, 78765.

                    obtained of hybrids of the I generation. According
                    to their external form, they resemble the Dalbas
                    sheep and have preserved its white color (96.8%),
                    fat tail (90.5%), live weight, milkiness and fat-
                    ness, and are well-adapted to local conditions.
                    Their wool is noted for a great quantity of down,
                    absence of beard and significant contraction
                    of quantity of short beard (less than 3%), and
                    sometimes its full disappearance, great thickness,
                    longer intermediate fiber (17.6 cm), and fuzz
                    (12.4 cm), against 13.7 and 11.2 cm in Dalbas
                    sheep. Wool shearing in the hybrids of I genera-
                    tion was greater than in the "Dalbas", according
                    to a group of female yearlings by 26.4%, according
                    to a group of ewes by 3.4%. Hybrids of I genera-

Card   : 2/3

USSR/Farm Animals. Sheep and Goats.   Q

Abs Jour: Ref Zhur-Did., No 17, 1958, 78765.

tion must be cross-bred with Dalbas rams with
subsequent selection and inbreeding of the progeny
obtained. -- M. F. Denina.

Card   : 3/3

43

BAHALYKHYAN. G. A.   Cand Agr Sci -- (diss)   "Results of the cross-breeding
of Balbas ewes with rams of the Alagez breeding group."   Yerevan, 1958.
22 pp (Min of Agr USSR.   Yerevan Zoovet Inst), 150 copies   (KL, 52-58, 104)

-84-

L 22981-66   EWT(m)/T   IJF(c)

ACC NR: AP6008551   SOURCE CODE: UR/0166/66/000/001/0074/0076

AUTHOR: Muminov, V.A.; Babal'yants, V.F.; Abdurakhmanov, A. Kh.

ORG: Institute of Nuclear Physics, AN UzSSR (Institut yadernoy fiziki AN UzSSR)

TITLE: A fast neutron scintillation counter

SOURCE: AN UzSSR. Izvestiya. Seriya fiziko-matematicheskikh nauk, no. 1, 1966, 74-76

TOPIC TAGS: fast neutron, neutron counter, scintillation counter

ABSTRACT: Many neutron recording devices are based on the recording of recoil protons, extensively employing scintillation counters which are, as a rule, sensitive to a gamma background. It is often difficult to exclude the effects of the gamma rays. However, it has been found that the effective time of the fluorescence of scintillations for neutrons is approximately twice higher than that for gamma rays, and of a stilbene crystal it is about 26 nanosec for protons and about 13 nanosec for electrons. In view of this, there is an opportunity for a more convenient separation of the pulses of fast neutrons from gamma quanta. The present authors used a fast neutron sensor described by G. G. Doroshenko and Ye. L. Stolyarova (PTE, 1961, no. 3) in the design of a neutron counter. The fast neutron scintillation counter consists of a stilbene crystal, an FEU-33 photomultiplier, and a discriminator made of two D2E diodes and two White cathode followers. It is concluded on the basis of operation of the counter that practically a complete cut-off of the

Card 1/2

L 22981-66

ACC NR: AP6008551   0

gamma background is achieved. The counter is stable during an 8-hr continuous operation.
Orig. art. has: 1 figure.

SUB CODE: 18 /. SUBM DATE: 09Jul65 / ORIG REF: 005 / OTH REF: 002

Card 2/2 IC

BIDITETO, E.

The spread of brucellosis in bovines and goats in the Propull region.

p. 139 (Tin Per Shkencat Natyrore) No. 2, 1957.   Tirane, Albania

SO: Monthly Index of East European Accessions (EEAI) LC, - Vol. 7, No. 1, Jan. 1958

BABAMOV, LAZAR

Kaka ce dobieme pogolemi prinosi od pcenicata.

Skopje, Yugoslavia. "Narodna zadruga" 1954, 57 p.

Monthly List of East European Accession (EEAI) LC, Vol. 8, no. 6
June 1959
Uncl.

BALANOV, LAZAR

Kako ce go zgolemime prinosot od orizot.

Skopje, Yugoslavia. Narodna zadruga, 1956. 78 p.

Monthly List of East European Accession (EEAI) LC, Vol. 8, no. 6
June 1959
Uncl.

L 46085-66   EWT(d)/EWT(m)/EWT(w)/EWP(k)   IJP(c)   WW/EM/RM
ACC NR: AR6028085   SOURCE CODE: UR/0124/66/000/005/V029/V029

AUTHOR: Babamuradov, K. Sh.

3/
B

TITLE: Investigation of sandwich-panel vibrations

SOURCE: Ref. zh. Mekhanika, Abs. 5V211

REF SOURCE: Sb. Vopr. vychisl. matem. i tekh. Vyp. 5. Tashkent, 1965, 33-64

TOPIC TAGS: shell, sandwich shell, vibration analysis, sandwich panel

ABSTRACT: Vibrations of rigid-core sandwich shells placed in a supersonic gas flow are investigated. Variational equations (Grigolyuk, E. I. Izv. AN SSSR, Otd. tekhn. n., 1958, no. 1, 26-34 — RZhMekh, 1959, no. 1, 724) for the analysis of shallow sandwich shells are used for solving the problem. The calculation of a sandwich plate is used as a numerical example. A block diagram of the program of solving the problem is given in the original article. A. G. Gorshkov. [Translation of abstract]   [DW]
SUB CODE: 13/
Card 1/1

TOMA, Eugen A. acad.; TOMA, Virgil; MICLAN, Ion; BABAN, Lucia

Action of chlorine promazine on the fixation of P^{32} in the thymus, during the involution time provoked by hydrocortisone and ACTH. Studii cerc biol s. zool 16 no. 2:131-136 '64.

1. Chair of Animal Physiology, "Babes-Bolyai" University, Cluj.

BALAN, T.

TECHNOLOGY

PERIODICAL: UNDUSTRIA USOARA, Vol. 5, no. 11, Nov. 1958

BALAN, T. General meetings of the circles of the Association of
Engineers and Technicians of Rumania are a stimulating factor for the increase of
technoscientific activities. p. 440

Monthly List of EastEuropean Accessions (EEAI) LC Vol. 8, no. 4
                                        April 1959, Unclass

BELORUSOV, S.N.; BABANAKOVA, V.I.

Preventing the graphitization of carbon tool steel. Biul.
TSIICHM no.3:39-40 '61.   (MIRA 14:12)

1. Novosibirskiy metallurgicheskiy zavod.
                    (Tool steel—Heat treatment)

YAKUBOVSKIY, A.M., mashinist-instruktor; FROLENKO, M.P., mashinist-instruktor; YAROSHEVICH, V.S., mashinist; YERKIMBAYEV, Ye., mashinist; BABANAZAROV, A.M., mashinist; FEDOSOV, D. Ye.; SKORKIN, I.S.

Useful book "Reference bood for a diesel locomotive engineering by V.M.Terekhov, I.I.Murzhin. Reviewed by A.M.Lakubovskii and others. Elek.i tepl.tiaga 4 no.2:47-48 F '60.   (MIRA 13:6)

1. Master zagotovitel'nogo tsekha, depo Chu, Kazakhskaya doroga (for Fedosov). 2. Master tsekha bol'skogo periodicheskogo remonta, depo Chu, Kazakhskaya doroga (for Skorkin).
          (Diesel locomotives)
          (Terekhov, V.M.)
          (Murzhin, I.I.)

SERGIYENKO, A.I., inzh.; LIKHORADOV, A.P., inzh.; GUBINSKIY, V.I.,
inzh.; BABANIN, A.I., inzh.

Operation of recuperator soaking pits with liquid slag re-
moval. Stal' 20 no.8:763 Ag '60.   (MIRA 13:7)

1. Zavod"Krivorozhstal'."
                              (Furnaces, Heating)

KUDRIN, Ye.A.; LIKHORADOV, A.P.; KRUSKAL', M.S.; BABANIN, A.I.

Redesign of ceramic soaking pit recuperators. Metallurg 8
no.10:29-31 O '63.   (MIRA 16:12)

1. Krivorozhskiy metallurgicheskiy zavod.

ASHMARIN, Yu.Ya.; SHAPOSHNIKOV, P.K.; BABANIN, A.V.; AMITAN, B.Ya.

Treatment of urticaria with histamine and intestinal lavages.
Vest. derm. i ven. 38 no.12:45-49 D '64.   (MIRA 18:8)

1. Glavnyy voyennyy gospital' imeni akademika Burdenko
(nachal'nik general-mayor meditsinskoy sluzhby M.M. Gilenko),
Moskva.

ASHMARIN, Yu. Ya.; BUROV, G. P.; BABANIN, A. V.; YAKIMENKO, O. V.; MAKARENKO, V. N.

Local use of steroid hormones in treating some skin diseases. Vest. derm. i ven. no.2:71-73 '62.   (MIRA 15:2)

(SKIN—DISEASES)   (ADRENOCORTICAL HORMONES)

BELOKON', Anatoliy Prokof'yevich, dotsent, kand.voyennykh nauk, polkovnik
zapasa. Prinimali uchastiye: SUKHAREV, kand.voyennykh nauk,
polkovnik; RUSSKIKH, V.A., kand.tekhn.nauk, polkovnik; IVASHIN,
V.A., kand.tekhn.nauk, polkovnik; BABANIN, B.V., red.; SRIBNIS,
N.V., tekhn.red.

[Engineering facilities in the zone of defense of a rifle
company] Inzhenernoe oborudovanie raiona oborony strelkovoi roty.
Moskva, Voen.izd-vo M-va obor.SSSR, 1960. 250 p.

(MIRA 14:3)

(Fortification, Field)

BABANIN, I., podpolkovnik

Blast method of loosening frozen soil. Voen.-inzh. zhur. 101
no.1:28-31 Ja '58.   (MIRA 11:2)
    (Earthwork) (Winter warfare) (Blasting)

BABANIN, I.A., plavil'nyy master; KAPLANSKIY, Ya.Ye.

Smelter S. Bezdanezhnyi's brigade composed of Communist Youth
League members. Metallurg 7 no.10:13 O '62.   (MIRA 15:9)

1. Starshiy inzh. nauchno-issledovatel'skoy laboratorii zavoda
"Dneprospetsstal'" (for Kaplanskiy).
                    (Iron and steel workers)

L 12245-63   BDS   S/271/63/000/004/025/045

AUTHOR: Kurotchenko, V. I. and Babanin, N. I.

TITLE: Telemetering of angular displacement with high accuracy

PERIODICAL: Referativnyy zhurnal, Avtomatika, telemekhanika i vychislitel'naya
            tekhnika, no. 4, 1963, 63, abstract 4A388 (KyrgSSR Ilimder Akad.
            kabarlary. Tabiyat taanuu zhana tekhn. ser., Izv. AN Kirg SSR. Ser.
            yestestu. i tekhn. n.; 1961, 3, no. 6, 35-58; Kirgiz resume)

TEXT: The authors describe the BKU-60 telemetering device, which is construct-
ed on noncontact elements; it is intended for measuring water horizons in irrigation
systems. The angle of rotation of the drum axis of the float device for measuring
the water horizon is converted into a binary code with the help of an induction code
converter, which consists of drums with adjoining magnetic circuits and commuting
transformers. The latter are collected on disconnected ⊔⊔⊔ - shaped cores having
three windings. Depending upon the angle of rotation of the drum, the order of
closure of the magnetic circuits of the transformers is measured, and a definite
code combination is received from the output of the device. In addition, the trans-
mitting subassembly includes: a linear element, a pulse distributor, a pulse shaper,

Card 1/2

L 12245-63   S/271/63/000/004/025/045
Telemetering of angular ....
                                                                              /

and a power pack. In the receiving subassembly is a transistorized decipherer with
noncontact elements with rectangular hysteresis loop, and a digital indicator on
low-power incandescent lamps. To transmit the readings, any communication canals
may be used. The results of measurement are reflected in a 5-digit decimal number.
The error of the system does not exceed 0.1%. The BKU-60a model differs from the
BKU-60 in that the power supply for the transmitting subassembly is derived from a
dispatcher point by negative half-cycles of AC of industrial frequency; these acti-
vate the units of the device and recall of the results of measurement. Counting
and transmission are effected on negative half-cycles of the feed voltage. S. S.

/Abstracter's note: Complete translation7

bm/⨍ℛ
Card 2/2

AUTHORS: Kurotchenko, V.I., Babanin, N.I.

TITLE: Realization of the principle of stepwise synchronization in con-
            tactless telemechanical systems

PERIODICAL: Referativnyy zhurnal, Avtomatika, telemekhanika i vychislitel'naya
            tekhnika, no. 3, 1963, 70, abstract 3A401 (Izv. AN KirgSSR. Ser.
            yestestv. i tekhn. n., 1962, v. 4, no. 8, 51 - 67; summary in Kir-
            giz)

TEXT: It is indicated that in contemporary Soviet contactless systems for
concentrated objects of types БТЦ-58 ЦНИИКА, АН СССР, ТМЭ-1 ВНИИЭ (BTTs-
-58 TsNIIKA, AN SSSR, TME-1 VNIIE)-electric switchboard, and others one usually
uses time-sharing of channels and equal capacity of distributors on the dis-
patcher and slave points. It is asserted that for decentralized objects it is
more economic to use a combinatorial distributor method with synchro-synphase
switching of distributors on dispatcher and slave points. A grid, cyclic, and
stepwise synchronization is possible. Stepwise synchronization used for instru-

Card1/2

Relaization of the principle of stepwise ....

S/271/63/000/003/018/049
A060/A126

ments БКТ-61 (BKT-61) of the Institute of Automation, AN (KirgSSR) is analyzed in detail. Schematic diagrams are shown. There are 10 references.

S. V.

[Abstracter's note: Complete translation]

Card 2/2

L 48099-65

ACCESSION NR: AT5006205   S/0000/63/000/000/0003/0017

AUTHOR: Kurotchenko, V. I.; Babanin, N. I.

TITLE: Some problems of telemetering parameters in systems with dispersed elements

SOURCE: AN KIRgSSR. Institut avtomatiki. Primeneniye beskontaktnykh elementov v
elemakh avtomaticheskogo kontrolya (Use of contactless elements in automatic con-
trol systems). Frunze, Izd-vo AN KirgSSR, 1963, 3-17

TOPIC TAGS: telemetering, electronic data processing, cybernetics, irrig

ABSTRACT: Automatic control of irrigation systems is considered. Although tele-
metering systems are usually developed to meet concrete requirements of a specific
installation, unified systems for related elements are also possible. Examining
the various requirements of signal reproduction for a given
installation in terms of accuracy, bandwidth, and phase. The authors
conclude, on the basis of experimental data, that a discrete signal of
the system with dispersed elements. It is found that a discrete signal type of
system is best. Among the advantages of this type of system are ease of combination
with digital remote-control machines and contactless RC signal systems, economy of
manufacture, small dimensions, adaptability to use of semiconductors and magnetic

Card 1/2

L 48099-65

ACCESSION NR: AT5006205

elements eliminating moving parts and contacts, reliability and durability. Angle
of code shaft revolution is chosen over voltage or current for the parameter input
factor, as less subject to distortion and error. A system of this type develop-
ed by the authors (BaT rN) is described in article, and out by circuits with the
standard parameter is a repetition of a system that has shown good operational
qualities, and the system has been recommended as the standard for such systems
tems by the Ministry of Water Economy of the Kirgiz SSR and State Planning and
Research Institutes of the SSSR and the RSFSR for water economy. The corresponding
institute in the Kirgiz SSR has completed a plan for use of this telemetering system
in the Atbashinskiy irrigation district. Orig. art. has: 6 figures, 2 tables.

ASSOCIATION: none

SUBMITTED: 28Aug63   ENCL: 00   SUB CODE: DP, EC

NO REF SOV: 004   OTHER: 000

Card 2/2

ACCESSION NR: AT4035424   S/0000/63/000/000/0399/0405

AUTHOR: Kurotchenko, V. I.; Babanin, N. I.

TITLE: A noncontact code-pulse telemetering device

SOURCE: Vsesoyuznoye soveshchaniye po ferritam i po beskontaktny*m magnitny*m ele-
mentam avtomatiki. 3d, Minsk. Ferrity* i beskontaktny*ye elementy* (Ferrites and noncon-
tact elements); doklady* soveshchaniya. Minsk, Izd-vo AN BSSR, 1963, 399-405

TOPIC TAGS: automation, control system, automatic control, telemetering, noncontact
telemeter, code pulse telemeter

ABSTRACT: A noncontact telemetering system was developed at the Laboratoriya telemekhan-
iki Insituta avtomatiki AN Kirgizskoy SSR (Laboratory of Telemechanics, Institute of Auto-
mation, Academy of Sciences of the Kirghiz SSR). The device, BKU-60, intended for
telemetering the axial angular displacement in multirotating primary measuring instruments
consists of a receiving assembly (Fig. 1 in the Enclosure) and a transmitting semiassemoly
(Fig. 2). The former includes a feeder (F), a pulse-shaper (PS), a single-pulse-shaper
(SPS), a linear cell (LC), a pulse distributor (PD), a coincidence circuit(CC), a decoder (D),
a reading device (R), a distorted code execution arrester (A), a tube-failure distortion ar-
rester (TA), and an execution permitting unit (P). The latter includes the primary measuring

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ACCESSION NR: AT4035424

instrument (PI), an induction coding converter (IC), a pulse distributor (PD), a linear cell (LC), a feeder (F), and a pulse-shaper (PS). A call pulse, shaped by the single pulse shaper, is sent into the communication line by pressing the "telemeter call" button, and the receiving pulse distributor is simultaneously activated to convey pulses to the parallel coincidence circuit. At the controlled site the call pulse actuates the transmitting pulse distributor which picks up the code set by the induction coding converter. The linear cell sends the code over the communication line to the linear cell and the parallel coincidence circuit of the receiving end which actuates the corresponding decoder cores, and pulses from the decoder actuate the commuting triggers of the counter, producing the final figure on the table. Orig. art. has: 5 figures.

ASSOCIATION: none

SUBMITTED: 04Dec63

DATE ACQ: 07May64

ENCL: 02

SUB CODE: IE

NO REF SOV: 000

OTHER: 000

Card 2/4

L 3092-66   EWT(d)/FSS-2/EEC(k)-2/EED-2/EWA(c).   IJP(c)   BC
ACCESSION NR: AR5013613   UR/0271/65/000/004/A067/A068
                                                  621.398.5/6:621.398.9   25
                                                                            B

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychislitel'naya tekhnika. Svodnyy
tom, Abs. 4A435

AUTHOR: Kurotchenko, V. I.; Babanin, N. I.

TITLE: Principles of constructing contactless remote-control systems for
scattered plants

CITED SOURCE: Sb. Beskontaktn. sistemy telemekhan. i avtomat. kontrolya. Frunze,
Ilim, 1964, 3-14

TOPIC TAGS: remote control system

TRANSLATION: A review of contactless remote-control systems in the USSR since
1949 is presented. Most practical systems use the distribution method of selection
with an a-c supply-network synchronization. However, the application of this
method to the scattered plants results in a considerable structural redundancy as
the number of elements in the distributors at the dispatcher's and peripheral
stations becomes too large. With more than four local stations, a mixed

Card 1/2

L 3092-66

ACCESSION NR: AR5013613

coding-and-distributor method of selection, which cuts down the number of distributing elements, is recommended. In this case, selection of local station is effected by code, and selection of plant, by distributor. Such systems are widely used abroad. Principal specifications on a complex remote control system for irrigation purposes are formulated. Bibl. 19.

SUB CODE: IE   ENCL: 00

Card 2/2

L 10005-67   EWT(k)/EWT(d)/EWP(h)/EWP(l)/EWP(v)   IJP(c)   GG/BB/FDH/GD

ACC NR: AT6023388   (N)   SOURCE CODE: UR/0000/65/000/000/0167/0172

AUTHOR: Kurotchenko, V. I. (Frunze); Babanin, N. I. (Frunze)

ORG: none

TITLE: Multichannel discrete telemetric device with digital output

SOURCE: Vsesoyuznaya konferentsiya po avtomaticheskomu kontrolyu i metodam elektri-
cheskikh izmereniy. 5th, Novosibirsk, 1963. Avtomaticheskiy kontrol' i metody elektri-
cheskikh izmereniy; trudy konferentsii. t. I: Metody elektricheskikh izmereniy. Tsi-
frovyye izmeritel'nyye pribory. Elementy izmeritel'nykh sistem (Automatic control and
electrical measuring techniques; transactions of the conference. v. 1: Electrical mea-
suring techniques. Digital measuring instruments. Elements of measuring systems). .
Novosibirsk, Izd-vo Nauka, 1965, 167-172

TOPIC TAGS: analog digital encoder, error correcting code, analog digital conversion,
telemetry, telemetry equipment, telemetry system, telemetry technique

ABSTRACT: An angular magnetic shaft encoder, capable of directly generating BCD shaft
position information in five-digit words was designed for high reliability telemetry.
The shaft encoder is the heart of an error-correcting receiver-transmitter remote moni-
toring system designed for the oil industry, irrigation, power plants, etc. The multi-
turn shaft encoder consists of an indexing mechanism which allows the input shaft to

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L 10005-67

ACC NR: AT6023388

assume any one of ten discrete angular positions (a gear mounted on the shaft indexed by two electromagnets); a mechanical decade transfer mechanism; and several encoding drums. The input shaft rigidly connects the indexing gear to the first encoding drum, while the higher order drums are driven by the transfer gears. The encoder drums are made of nonmagnetic material with four magnetic conductors imbedded in them. Each drum rotates within a stator formed by five counting transformers with shaped cores, the open end of which faces the drum. Each transformer has a primary and a secondary winding. A signal is generated in the secondary whenever the position of a magnetic conductor in the drum coincides with the location of a particular transformer. A unique five-digit code is generated for each of the ten positions of the input shaft. Identical code is generated by all decade encoders. The overall telemetry system, developed for up to 200 km, is described in some detail and a block diagram is included. Orig. art. has: 4 figures.

SUB CODE: 09,17/   SUBM DATE: 20Sep65/   ORIG REF: 005

Card 2/2

BABANIN, N.M., sadovod-lyubitel' (Khar'kov)

Hemp trap belts. Zashch. rast. ot vred. i bol. 8 no.6:56 Je '63.

(MIRA 16:8)

(Insect traps)

BABANIN, V.I.

Significance of the Sirotinin-Kukoverov symptom in young
subjects. Klin.med. 38 no.6:145-147 Je '60.   (MIRA 13:12)
                    (HEART--SOUNDS)

MAKEYEV, A.Ye., inzh.; BABANIN, V.I., inzh.

Plotting a blocking contour for selecting the correction factor
for spur gears. Vest.mash. 40 no.7:26-30 Jl '60. (MIRA 13:7)
(Gearing, Spur)

L 54998-65   EWP(e)/EWT(m)/EPA(s)-2/EPF(c)/EPR/EWP(b)/EWP(1)   Pq-4/Pr-4/Ps-4/Pt-7
ACCESSION NR: AP5011942   WW/WH
                                                UR/0363/65/001/003/0422/0426
                                                677.52:539.4

AUTHOR: Babanin, V. I.; Blokh, K. I.

TITLE: Some factors determining strength of double glass fibers

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 3, 1965, 422-426

TOPIC TAGS: glass fiber, fiber strength, expansion coefficient

ABSTRACT: The object of the study was to determine the effect of strength proper-
ties and thermal expansion coefficients of the individual components of double
glass fibers (glass fiber core inside a shell made of different glass). The ten-
sile strength of double glass fibers is equal to the tensile strength of the shell
material. Strength of the double glass fibers is proportional to the modulus of
elasticity of the core and to the tensile strength of the shell. To obtain high
strength double glass fibers it is necessary to match the thermal expansion coef-
ficients of the starting glass components. The best double glass fibers result
when the difference in thermal expansion coefficients of the two glasses is slight-
ly on the positive side ($\alpha_{core} - \alpha_{shell} > 0$). Orig. art. has: 1 table, 4 figures,

Card 1/2

L 54998-65
ACCESSION NR: AP5011942

/

and 10 formulas.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut steklyannogo volokna
(All-Union Scientific Research Institute of Glass Fiber)

| SUBMITTED: 25Dec64 | ENCL: 00 | SUB CODE: MT |
| NO REF SOV: 001 | OTHER: 000 | |

Card 2/2

MIKHAYLOV, Yu.D.; B'IH... L.A.

Study of the relation between the atmospheric pressure field
and currents in the Gulf of Finland. Trudy GOIN no.67:5C-63
'65.   (MIRA 19:1)

BABANINA, T.I.; FILIPPENKO, L.I.

Effect of electrostatic forces on the collection of dust with
fibrous filter materials. Sbor.nauch.trud.Kriv.fil.IGD AN URSR
no.1:123-128 '62.   (MIRA 16:4)
                        (Dust collectors)

BABANINA, Ye.V., studentka V kursa

Results of determination of time and azimuthal corrections done by the Time Service of the Main Astronomical Observatory of the Academy of Sciences of the U.S.S.R. Trudy MIIGAIK no.45:117-123 '61.

(MIRA 14:7)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii, geodezicheskiy fakul'tet.

(Time) (Azimuth)

BABANINA, Yu.D.

Experimental study of the mechanism of the formation of a
chorioretinal commissure in connection with surgical treat-
men of retinal detachment. Uch.zap. UEIGB 5:162-171 '62
(MIRA 16:11)

BABANKIN, F. S.

USSR/ Geology

Card 1/1   Pub. 86 - 33/42

Authors   : Babankin, F. S.

Title   : A rare calcareous concretion

Periodical   : Priroda 45/1, 117-118, Jan 56

Abstract   : The finding of an odd-shaped calcareous concretion in the North Ural region
               is related. The formation of concretions, in general, is explained with
               some details as to the special circumstances under which the one in question
               was formed. Illustration.

Institution : .....

Submitted   : .....

BABANKIN, Fedor Sergeyevich; KRYZHANOVSKIY, V.A., red.izd-va; BYKOVA,
V.V., tekhn. red.

[Practical photography in geological surveys and mining
engineering]Prakticheskaia fotografiia v geologorazvedochnom
i gornom dele. Moskva, Gosgeoltekhizdat, 1962.   206 p.
(MIRA 16:2)

(Photography--Scientific applications)
(Geological surveys)   (Mining engineering)

ABASOV, M.T.; BABANLY, V.Yu.; DZHALILOV, K.N.; PIRVERDYAN, A.M.

Effect of waterproof cement barrier on the productivity of wells.
Azerb. neft. khoz. 37 no.2:29-32 F '58.   (MIRA 11:6)
                        (Oil field brines)

ABASOV, M.T.; DZHALILOV, K.N.; BABANLY, V.Yu.

Exploitation of oil wells in layers containing bottom water.
Izv. vys. ucheb. zav.; neft' i gaz no.6:61-66 '58. (MIRA 11:9)

1. Neftyanaya ekspeditsiya AN Azerbaydzhanskoy SSR.
               (Petroleum engineering)

ABASOV, Mitat Teymur ogly; DZHALILOV, Kurban Nizameddin ogly; AZIZOVA, F.M.;
ALIYEV, Z.S.; BABANLY, V.Yu.; GULAMOV, Kh.A.; IBRAGIMOV, M.R.; KAZI-
MOV, A.Sh.; KULIYEV, A.M.; SEMENOVA, I.I.; ROZENBERG, M.D., prof.,
doktor tekhn. nauk, red.; AL'TMAN, T.B., red. izd-va

[Problems of underground hydrodynamics and development of oil and
gas fields] Voprosy podzemnoi gidrodinamiki i razrabotki neftianykh
i gazovykh mestorozhdenii. Baku, Azerbaidzhanskoe gos. izd-vo neft.
i nauchno-tekhn. lit-ry, 1960. 254 p.   (MIRA 14:11)

1. Neftyanaya ekspeditsiya AN Azerbaydzhana (for Azizova, Aliyev,
Babanly, Gulamov, Ibragimov, Kazimov, Kuliyev, Semenova).
                    (Oil reservoir engineering)

FASOV, M.T.; BABANLY, V.Yu.

Interference of wells in the presence of impervious partitions.
Izv. AN Azerb. SSR. Ser. fiz.-tekh. i mat. nauk no.5:97-102
'64.
(MIRA 18:4)

BABANLY, V.Yu.

Effect of hydraulic fracturing and an impermeable septum on the productivity of wells in a nonuniform bed. Izv. AN Azerb. SSR. Ser. geol.-geog. nauk no.5:81-86 '64.

(MIRA 18:6)

BABANOV, A.

Prolonging the life of steel roofs. Zhil.-kom.khoz. 6 no.5: 11-13 '56.   (MLRA 9:11)
    (Roofing,Iron and steel)

AUTHOR   BARANOV A.A.
TITLE   Method of Heat Conductivity Coefficient Calculation for Porous   PA - 2544
            Materials. (Metody rascheta koeffitsienta teploprovodnosti
            kapillyarno-poristykh materialov.- Russian)
PERIODICAL Zhurnal Tekhn. Fiz. 1957, Vol 27, Nr 3, pp 532 - 542 (U.S.S.R.)
            Received: 4/1957   Reviewed: 5/1957

ABSTRACT   Systems with coarse dispersion and particles of from 0,1-1,0 μ
             are investigated. They are two-phase systems with a solid as
             disperse phase and a gas as dispersion phase. In order to
             determine the four thermal characteristics in this case it is
             sufficient to determine the heat conductivity coeffient Λ,
             computation of the remainder can then be carried out. However,
             the density Q, and the humidity w of the material must be
             known. Only the coarse-grained material was investigated as,
             in this case, the humidity transfer in the material can be
             neglected and the coefficient can be determined in a pure
             form. A survey of the methods for the determination of λ
             is given. None of the experimental methods is satisfactory.
             Among computing methods, all of which discussed here that
             by Odelevskiy is the most up-to date, and the formula by
             Nekrasov and that by Bogomolov are the most reliable theys
             are based on two principles: 1) Thermo-electric analogy and
             2) Granular structure compound . All three formulae are

CARD 1/2

Method of Heat Conductivity Coefficient, Calculation for Porous Materials.

PA — 2544

compared with one another and with the experimental results and it was found that the most real structure of the disperse system is the tetrahed on structure. The formula of Bogomolov which corresponds to this theory is closest to the experimental data. The difference between theoretical and experimental values are 20 - 50 %, which is satisfactory. Therefore λ can be computed with sufficient reliability by means of Bogomolov's formula: $\lambda = 3 \pi \lambda_2 \ln \frac{43 + 0.31 \, P}{P - 26}$ without any complicated experiments.

P ... Porosity of the material, λ_2 ... heat conduction coefficient for the enclosed material.

(With two tables and 9 illustrations)

ASSOCIATION: LPI. Leningrad.
PRESENTED BY: —
SUBMITTED: July 23rd, 1956.
AVAILABLE: Library of Congress.

CARD 2/2

ACCESSION NR: AT4037535

S/2563/63/000/224/0203/0216

AUTHOR: Chudnovskiy, A.F.; Babanov, A.A.; Kaganov, M.A.; Lazarev, A.I.; Chernyakova, M.A.

TITLE: Equipment for measuring the heat capacity and thermal conductivity of metals at high temperatures and data for some heat resistant alloys

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy*, no. 224, 1963. Lit-eyny*ye svoystva zharoprochny*kh splavov (Castability of heat-resistant alloys), 203-216

TOPIC TAGS: castability, heat resistant alloy, iron based alloy, nickel based alloy, Nichrome alloy, austenitic steel, cast steel, high alloy steel, alloy composition, cast alloy steel, alloy No.3, alloy Kh1, alloy Kh32, alloy No. 6, steel 10KhSND, steel 15KhSND, steel 65 G, steel 1Kh18N9, transformer steel, alloy heat capacity, alloy thermal conductivity, hollow sphere measuring procedure, alpha calorimeter measuring procedure, heat capacity measurement, heat conductivity measurement

ABSTRACT: Special equipment (see Fig. 1 in the Enclosure) was designed and con-structed to measure the heat capacity and thermal conductivity of metals at

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X

ACCESSION NR: AT4037535

temperatures up to 1000C and to obtain curves for the dependence of these para-
meters on temperature. The hollow sphere procedure was used to measure thermal
conductivity, while heat capacity was determined by means of a technique involv-
ing two samples, one of which acts as a calorimeter and the other as a so-called
"alpha calorimeter". Metals tested included a number of heat resistant alloys
(see Nekhendzi, Yu. A., p. 9-23, this same book, for compositions) and other cast
alloy steels. The results indicate that the specific heats coincide closely at
similar temperatures for alloys of widely varying composition. Sharp peaks in
the gamma to alpha conversion range were noted for 10KhSND, 15KhSND and 65 G.
Similar peaks, but at varying temperatures, were noted for ferritic steels with
5% Si, steel 1Kh18N9 and heat resistant alloys not subject to such conversions.
Thermal conductivity values ranged from about 55-65 cal/m·degrees at 100C to
about 25-35 at 800C, except for 65 G (about 42 at 200C to about 25 at 800C) and
alloy No. 3 (about 10 at 150C to about 5 at 850C). Orig. art. has: 12 graphs
and 6 formulas.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M.I. Kalinina
(Leningrad Polytechnical Institute)

Card 2/4

ACCESSION NR: AT4037535

SUBMITTED: 00

SUB CODE: MM

DATE ACQ: 04Jun64

NO REF SOV: 003

ENCL: 01

OTHER: 000

Card 3/4

ACCESSION NR: AT4037535

ENCLOSURE: 01
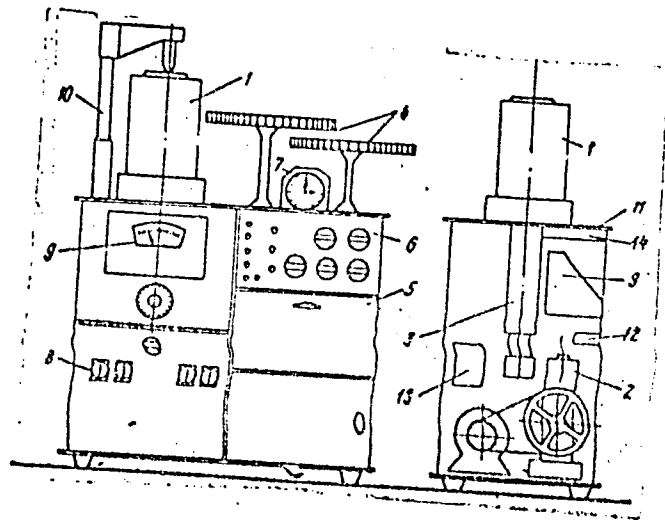
Fig. 1 Overall view of the measuring equipment.

1 - vacuum furnace 2 - fore-pump PVN-20 3 - diffusion oil pump MM4OA 4 - scales 5 - hinged leaf bench 6 - potentiometer PPTN1 7 - clock with timer 8 - pump, heater, transformer and other switches 9 - vacuum gage dial window 10 - rotating hoist 11 - upper frame plate 12 - adjustable cock 13 - transformer (127/12 v), two-parallel wired auto transformers LATR-1, thermocouple vacuum gage VT-2 14 - fuse box

Card 4/4

BABANOV, B. M.

AUTHORS: Babanov, B.M.; Kafarov, V.V.

TITLE: 69-20-1-18/20
                An Apparatus for Determining the Dispersity of Emulsions
                (Pribor dlya opredeleniya stepeni dispersnosti emul'siy)

ABSTRACT: The apparatus consists of a sonde-type vessel which is
                lowered into the emulsion to be investigated. Above the sonde,
                a hemispherical bowl floats in the investigated emulsion. The
                bowl is connected to a flexible rod, the movement of which,
                caused by the floating of the bowl, is a measurement for the
                degree of dispersity of the emulsion under investigation. The
                movement of the rod is observed by a microscope with scale.
                During investigation, the air is evacuated from the apparatus.
                A formula for calculating the dispersity is given. The appa-
                ratus is reliable for drop diameters of 20μ to 2μ.
                There are 2 figures, and 1 Soviet reference.

ASSOCIATION: Nauchno-issledovatel'skiy institut organicheskikh polupro-
                duktov i krasiteley, Moskva (Scientific Research Institute
                of Organic Intermediate Products and Dyestuffs, Moscow)
SUBMITTED: October 25, 1956
AVAILABLE: Library of Congress
Card 1/1

5(4)

SOV/80-32-4-14/47

AUTHORS: Kafarov, V.V.; Babanov, B.M.

TITLE: The Surface of the Phase Contact of Mutually Insoluble Liquids in the Process of Stirring by Mechanical Stirrers (Poverkhnost' fazovogo kontakta vzaimnonerastvorimykh zhidkostey v protsesse peremeshivaniya mekhanicheskimi meshalkami)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol 32, Nr 4, pp 789-796 (USSR)

ABSTRACT: Mutually insoluble liquids are stirred to obtain emulsions, which is a process widely used in industry [Ref 1]. The authors carried out an investigation to determine the surface of the phase contact, which is formed during the stirring by mechanical stirrers. A specially designed by the authors [Ref 2] sediment-meter was applied for measuring the degree of dispersion and the surface of contact. Experiments on stirring were carried out with four systems of liquids, four types of mechanical stirrers (turbine-type, with vertical vanes, with inclined vanes under 45°, and propeller-type) and in vessels of two different dimensions but geometrically similar shape. The effect of the following factors was determined: 1. The concentration of the dispersed phase; 2. The number of stirrer revolutions; 3. The stirrer diameter ; 4. The viscosity; 5. The value of surface tension; 6. The density. The results of measurements are presented in Graphs 2 to 6. They were compared with results obtained by Vermeulen et al. [Ref 3] by the op-tic-electrical method, and the average deviation of the ex-perimental points in the present study from the Vermeulen straight

Card 1/3

The Surface of the Phase Contact Mutually Insoluble Liquids in the Process of Stirring by Mechanical Stirrers

SOV/80-32-4-14/47

line was found not to exceed 12% as is shown in Graph 1. The present results are shown in Graph 8 by four straight lines (one for each type of the stirrers) the analytical expression of which has the shape:

$$A \cdot d_m = C \cdot We^{0.5} \cdot Re^{01} \cdot \alpha^{0.84}$$

where A is the specific surface of the phase contact in m^2/m^3; d_m is the diameter of the stirrer; C is a constant which characterizes the type of the stirrer (its values for the 4 types employed are cited in a table); We is Weber criterion; Re is Reynolds number, and α is a number characterizing the concentration of the dispersed phase. The relationship found

Card 2/3

SOV/80-32-4-14/47

The Surface of the Phase Contact Mutually Insoluble Liquids in the Process
of Stirring by Mechanical Stirrers

can be used for studying the processes of mass transfer.
There are 9 graphs, 1 table and 14 references, 5 of which
are Soviet, and 9 English.

SUBMITTED: December 31, 1957

Card 3/3

BABANOV, B. M., Cand Tech Sci -- (diss) "Surface of the phase con-
tact and the influence of mass exchange in the mechanical mixing
of mutually insoluble liquids." Moscow, 1960. 15 pp; (Ministry of
Higher and Secondary Specialist Education, Moscow Order of Lenin
Chemical Technology Institute im D. I. Mendeleyev); price not
given; (KL, 19-60, 133)

ACC NR: AP7002612   (A, N)   SOURCE CODE: UR/0413/66/000/023/C /C123

INVENTOR: Lyubavskiy, K. V.; Bad'yanov. B. N.; Babanov, B. P.; Kud'ga, V. . .;
Yarovinskiy, Yu. L.; Miroshin, D. D.

ORG: None

TITLE: A flux for electric arc welding. Class 49, No. 189296

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 123

TOPIC TAGS: arc welding, aluminum oxide, silicon dioxide, low alloy steel

ABSTRACT: This Author's Certificate introduces a flux for electric arc welding con-
taining SiO_2, CaO, Al_2O_3, CaF_2, NaF, TiO_2, MgO and Na_2O+K_2O. The material contains
the following percent composition for increased strength and ductility of welded joints
made from low-alloy steels: SiO_2 10-20; CaO 10-20; Al_2O_3 15-23.5; CaF_2 30-55;
NaF 1-10; TiO_2 0-10; MgO 0-5; Na_2O+K_2O 01-5.

SUB CODE: 11, 13/ SUBM DATE: 15 Jun65

Card 1/1   UDC: 621.791.75.048

BABANOV, G.K. [Babanov, H.K.]

> Automatically controlled two-chamber thermal system for the
> processing of cooked sausage. Khar.prom. no.3:6'-71 Jl-S '62.
>
> (MIRA 15:8)
>
> (Food industry—Equipment and supplies)
> (Automatic control)

BABAKOV, G.K. [Babanov, H.K.]; OKHOTOV, A.A. [Okhotov, G.C.]; PLYSKO,
A.G. [Plysko, A.H.]; TKACH, K.V. [Tkach, M.V.]

Unit for air heating. Khar. prom. no.3:49-50 Jl-S '65. (MIRA 18:9)

1794. (593) LOCAL MANIFESTATIONS OF THE ACTION OF NITRILE OF ACRYLIC ACID ON THE SKIN AND MUCOUS MEMBRANES (Russian text) - Babanov G. P. - VRACH. DELO 1957, 5 (511-514)

Observations were made of a number of cases of 3rd degree burns sustained as the result of failure to remove for 2-6 hr. clothing and shoes soiled by nitrile. The biologically active part of nitrile consists of a cyanide radicle which, entering the cells of the tissues, enters into a stable combination with iron haem-enzyme. Possibly tissue anoxia occurs. Subsequently the cyanide radicle combining with sulphur passes into a less toxic form.

(S)

BABANOV, G.P., kand.med.nauk; KLYUCHIKOV, V.N., dotsent; KARAYEVA, N.I.;
LILEYEVA, Z.V., dotsent

Clinical aspects of chronic intoxication with nitrile acrylic acid.
Vrach.delo no.8:833-835 Ag '59.   (MIRA 12:12)

1. Kafedra obshchey giginy, fakul'tativnoy terapii, nevropatologii,
oto-rino-laringologii Yaroslavskogo meditsinskogo instituta.
                    (ACRYLONITRILE--TOXICOLOGY)

BABANOV, G.P. (Yaroslavl')

Industrial hygiene problems in the manufacture of synthetic
divinyl-nitrile rubbers. Gig. truda i prof. zab. 4 no.12:7-12
D '60.   (MIRA 15:3)

1. Yaroslavskiy meditsinskiy institut.
                    (RUBBER, SYNTHETIC--TOXICOLOGY)
                    (RUBBER INDUSTRY--HYGIENIC ASPECTS)

BABANOV, G.P.; LAPISHNA, A.P., red.; KOGAN, V.V., tekhn. red.

[Safety measures and labor hygiene in the enamel shops of
of lacquer and paint factories] Tekhnika bezopasnosti i
gigiena truda v emalevykh tsekhakh lakokrasochnykh zavodov.
Moskva, Goskhimizdat, 1961. 21 p.   (MIRA 15:4)
                    (Paint industry--Safety measures)
                       (Industrial hygiene)

GOLIKOVA, T.M.; BOBINSKAYA, G.A.; BABANOV, G.P.

Activity of cholinesterase of the blood serum in rheumatic
fever in children. Pediatriia no.8:52-55 '61.   (MIRA 14:9)

1. Iz kafedry detskikh bolezney (zav. prof. A.I. Titova)
Yaroslavskogo meditsinskogo instituta.
          (CHOLINESTERASE)   (RHEUMATIC FEVER)

CHUMAKOV, N. N., prof.; BABANOV, G. P., dotsont; SMIRNOV, A. G., assistent

Vitiligo-like dermatoses in workers in a phenol-formaldehyde resin works. Vest. derm. i ven. no.4:3-8 '62.   (MIRA 15:4)

1. Iz kafedry kozhnykh i venericheskikh bolezney Yaroslavskogo meditsinskogo instituta (zav. - prof. N. N. Chumakov) i kafedry gigiyeny (zav. - prof. V. S. Chetverikov).

(SKIN—DISEASES)   (PHENOLS—TOXICOLOGY)
(FORMALDEHYDE—TOXICOLOGY)

S/144/62/000/006/003/009
D230/D308

AUTHORS: Shturman, G.I., Doctor of Technical Sciences, Profes-
sor and Babanov, I.A., Aspirant

TITLE: Out-of-phase fed indicator selsyns

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Elektro-
mekhanika, no. 6, 1962, 611-621

TEXT: Mean parameters for the transverse and longitudinal
axes were determined experimentally for the following selsyns:
CГC-1, CMC-1, CГCM-1, CMCM-1, A-3, ДC-1 (SGS-1, SMS-1, SGSM-1,
SMSM-1, A-3, DS-1). Each of the first four types has a short-cir-
cuited loop in the transverse axis, A-3 has no damping winding. Op-
timum parameter values obtain in the case of DS-1 selsyn. Gorev-
Park equations for the transient processes of the synchronous mach-
ines were used as fundamental equations describing the selsyn pro-
cesses. Practical expressions are obtained for the synchronizing
moments of the primary and phase currents for out-of-phase fed sel-
syns, illustrating the characteristics of the working regimes of the

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Out-of-phase fed indicator selsyns   S/144/62/000/006/003/009
                                          D230/D308

selsyns under investigation. The permissible operating regions of
the selsyns can be found from an expression in terms of the phase
shift angle between the primary potentials of the transmitter and
receiver, for which there is no e.m. moment on the transmitter axis
at arbitrary error angles, and when the specific moment on the re-
ceiver has maximum value. The effect on a linear load of the phase
shift between the primary potentials of the transmitter and receiver,
and the system's angle of error is identical. Optimum construction
of the contact selsyns in specified regions is given. There are
1 table and 5 figures.

ASSOCIATION: Rizhskiy institut inzhenerov grazhdanskogo vozush-
                nogo flota (Riga Institute of the Civil Air Fleet)

SUBMITTED: September 28, 1961

Card 2/2

BUGAYEV, Aleksey Alekseyevich, tokar'; IZVEKOV, Arkadiy Ivanovich, master
elektrikov; TRET'YAKOV, Eduard Aleksandrovich, inzh.-tekhnolog;
ORZHEKHOVSKIY, Pavel Iosifovich, slesar'; LITUS, Il'ya Sil'vestrovich;
BABANOV, Nikolay Fedorovich, starshiy master; SYRODOYEV, Aleksandr
Konstantinovich, mekhanik; TERENIK, Mikhail Semenovich; LADYGIN,
Aleksandr Iosifovich

From the rostrum of a plant meeting. Izobr.i rats. no.12:24-28
D '58.   (MIRA 11:12)
1. Novo-Kramatorskiy mashinostroitel'nyy zavod (for all). 2. Mekhaniche-
skiy tsekh No.5 (for Bugayev). 3. Mekhanicheskiy tsekh No. 7, predsedatel'
tsekhovogo soveta Vsesoyuznogo obshchestva izobretateley i ratsionali-
zatorov (for Izvekov). 4. Upolnomochennyy Byuro ratsionalizatorov
i izobretateley v 1-m mekhanicheskom tsekhe (for Tret'yakov). 5.
Mekhanicheskiy tsekh No.7 (for Orzhekhovskiy). 6. Rukovoditel' sektsii
sodeystviya izobretatel'stvu i ratsionalizatsii Soveta veteranov truda
(for Litus). 7. Fasonnoliteynyy tsekh No.1 (for Babanov, Syroyedov).
8. Nachal'nik otdela tekhnicheskoy informatsii i izobretatel'stva
(for Terenik). 9. Predsedatel' zavodskogo soveta Vsesoyuznogo
obshchestva izobretateley i ratsionalizatorov (for Ladygin).
                (Kramatorsk--Machinery industry)

DABANOV, Ya. N.

Я. Н. Ванюк

Некоторые нелинейные свойства полупроводникового триода, обуславливающие эффекты выпрямления по третьей гармонике

4 СЕКЦИЯ ПРИЕМНЫХ УСТРОЙСТВ

Руководитель М. М. Чистяков

12 июня
(с 10 до 16 часов)

М. Г. Голубин,
Л. Т. Рысаков,
А. С. Тифонов

Приемное устройство для измерения статистических характеристик сигналов при транспортировке расширения тракта радиосвязи

Ю. Н. Бабанов

Использование фазовых рассогласований сигналов для повышения помехоустойчивости систем связи

В. В. Рогозин

Метод определения параметров кристаллического детектора в сантиметровом диапазоне

12 июня
(с 18 до 22 часов)

18

В. П. Шапиро

О применении конструирования параметрических полупроводниковых реактивностей

Н. А. Сухов,
Д. Н. Смирнов

Влияние параметров импульсного динамического способа на характеристики усилителя с вырожденным реактивностью в его начале и с параллельной индуктивной коррекцией в анодной цепи

Н. Н. Путимцев

Коррекция вершины фронта импульса в видеоусилителях емкостных триодов

В. Н. Соколовский

Об избирательности измерительных приемников в диапазоне УКВ

Г. Н. Левитов,
О. Н. Вострова

Методы электронной регулировки полосы пропускания широкополосных полосовых фильтров

5 СЕКЦИЯ ПРОВОДНОЙ СВЯЗИ

Руководитель Н. Н. Грачев

9 июня
(с 10 до 16 часов)

19

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

06538

24(1)   SOV/142-2-2-14/25
AUTHOR: Babanov, Yu.N.

TITLE: Increasing the Noiseproof Features of Reception by
              Stretching Pulse Noises   in Time

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika,
              1959, Vol 2, Nr 2, pp 234-238 (USSR)

ABSTRACT: The author presents the results of an experimental in-
              vestigation of suppressing pulse noise having an ampli-
              tude below the signal level. He shows the possibility
              for a considerable improvement of the noiseproof feat-
              ures of broadcasting and telephone systems by stretch-
              ing the noise pulses within time according to the me-
              thod suggested by Professor D.V. Ageyev. Figure 1
              shows the block diagram of the pulse stretching device.
              It consists of a low frequency channel of the receiver
              unit with a pass band Δf which is divided by a filter
              system, connected in parallel, into small-magnitude
              frequency sections Δf_i. thus $\sum_{i=1} \Delta f_i = \Delta F_n$, where n is

Card 1/3   the number of filters. A four-pole is connected to

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SOV/142-2-2-14/25

Increasing the Noiseproof Features of Reception by Stretching Pulse
Noises   in Time

each filter performing the time delay. The time con-
stant magnitudes of the four-poles are selected in
such a way, thus $\tau_n > \tau_{n-1} \dots \tau_1 \dots \tau_1$. Since
each filter passes only a section of the noise spec-
trum (and also only a fraction of the noise energy),
and since the time delays are different, the pulse
noise is stretched within time. The energy of the
noise pulses remains the same, but their amplitude is
reduced. The signal is also distorted when passing
thru the filter. However, using the so-called "phase
predistortion" at the transmitter will compensate the
aforementioned distortion. The method suggested by
the author was investigated experimentally using a
device installed between the detector and the LF am-
plifier of a receiver. The experiments were conduct-
ed with receivers "Baltika" and "Oktava". Atmospheric
noise was reduced several times by this method. The
Card 2/3   author recorded noise and signal on tape and connected

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SOV/142-2-2-14/25

Increasing the Noiseproof Features of Reception by Stretching Pulse
Noises   in Time

different reproduction heads to different filters. The
author arrives at the conclusion that the application
of a linear stretching device increases the noise-
proof features of receivers by several times and ex-
presses his gratitude to Professor D.V. Ageyev for a
number of valuable suggestions during the performance
of this work.   There are 3 block diagrams, 3 graphs
and 4 Soviet references.   This article was recom-
mended by the
Kafedra radiopriyemnykh ustroystv Gor'kovskogo poli-
tekhnicheskogo instituta imeni A.A. Zhdanova (Chair
of Radio Reception Equipment of the Gor'kiy Polytech-
nic Institute imeni A.A. Zhdanov)

SUBMITTED: September 24, 1958

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6(7) 6.7200

SOV/142-2-5-7/19

AUTHOR: Babanov, Yu.N.

TITLE: Using the Signal Phase Predistortion for Increasing
              the Noiseproofness of Radio Telegraph Communication
              Systems

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Radiotekhnika,
              1959, Vol 2, Nr 5, pp 600-606 (USSR)

ABSTRACT: The author examines the possibility of using the phase
              predistortion method in radio telegraph communication
              systems for decreasing the influence of single pulse
              noises. He used the idea of group transmission of sig-
              nals, suggested by Professor D.V. Ageyev in 1938. This
              method consists in stretching in time the telegraph
              signals which are to be sent thru a communications
              channel by creating a phase predistortion. The feature
              of the method of group transmission of elementary sig-
              nals is that at any time several converted stretched
              telegraph signals are fed into the line. In the re-
Card 1/4   ceiver, the signals are passed thru a device whose

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ness of Radio Telegraph Communication Systems

parameters are selected to compensate the phase dis-
tortions of the actual signal. Pulse noises are
stretched in time when passing thru the compensating
device, since they have different phase predistortions
than the signal. The author explains briefly a device
for performing the phase predistortions and shows its
block diagram (Figure 1). He analyzes distortions and
discusses residual phase distortions and frequency and
phase distortions induced by filters. Experiments are
described briefly for which the block diagram (Figure 1)
was used. The time delay in the stretching and compen-
sating devices was achieved by a tape recorder equipped
with seven heads each. Each head was connected to its
phase filter. Provisions were made to connect an
amplitude limiter before to the compensating device.
Card 2/4   Each experimental signal was stretched by about 70 times.

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proofness of Radio Telegraph Communication Systems

Oscillograms of the signals are shown (Figure 6).
The author concludes that the idea of group trans-
mission of elementary signals may be performed by the
method of phase predistortion with simultaneous limit-
ing of strong pulse noise. Properly designed receiv-
ers and transmitters will improve the noiseproofness
of radio telegraphy in the presence of strong pulse
noise. In this paper, the author presented only pre-
liminary information on the noiseproofness of such a
system. A detailed study of this problem would go
beyond the scope of this paper and deserves a sepa-
rate study. The author expresses his gratitude to
Professor D.V. Ageyev for valuable advice. The pub-
lication of this paper was recommended by the Kafedra
radiopriyemnykh ustroystv (Radio Receiver Department)
of the Gor'kovskiy politekhnicheskiy institut imeni

Card 3/4   A.A. Zhdanova (Gor'kiy Polytechnical Institute imeni

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Using the Signal Phase Predistortion for Increasing the Noise-
proofness of Radio Telegraph Communication Systems

A.A. Zhdanov). There are 5 sets of graphs, 1 block
diagram and 5 references, of which 4 are Soviet and
1 English.

SUBMITTED: January 22, 1959 and after re-working, March 20, 1959

Card 4/4

BARANN, Yu. N., Cand Tech Sci — (diss) "Improving the interference-killing features of radio communication circuits by spreading the impulse interference in time," Moscow, 1960, 11 pp (Moscow Electrotechnical Institute of Communications) (KL, 34-60, 122)

30132
S/194/61/000/007/057/079
D201/D305

AUTHOR: Babanov, Yu.N.

TITLE: The use of signal pre-distortion to increase the
             interference-killing properties of communication
             systems

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
             no. 7, 1961, 6, abstract 7 I54 (V sb. 100 let so
             dnya rozhd. A.S. Popova, M., AN SSSR, 1960, 125-132)

TEXT: The reduction is considered of the effect of pulse inter-
ference on group transmitted signals C (S). One of the variants
of the group transmission of n elementary signals of duration T_0
each, consists in that those signals are transmitted not in sequence,
but simultaneously during time nT_0. The signals in the receiver may
be separated. The second variant differs from the first in that the
group signals having number $k(k = 1,2,..,n)$ is shifted in time with
respect to the start of the group by $(k - 1) T_1/n$ (T_1 - the group

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The use of signal pre-distortion...

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duration). The method of forming a group signal in this variant
consists of having m parallel connected delay systems with narrow-
band filters, the output voltages of the filters are added to obtain
a group signal. In the receiver the signals undergo a reverse trans-
formation in the compensating circuit. With a pulse interference
the compensating circuit stretches it in time and thus lowers its
level and its interfering features. The experimental model of the
communication set-up is described which applies the group method of
transmitting elementary signals and oscillograms which make the op-
eration of the system clear. /Abstracter's note: Complete trans-
lation_/

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ZHDANOV, Yu.N.

MASS I BOOK EXPLOITATION

807/5135

A.S. Popov

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CONTENTS

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S/142/60/003/002/01 /022
E192/E382

AUTHOR: Babanov, Yu.N.

TITLE: Estimate of the Gain in the Noise Immunity of a
Communication System Employing the Method of Phase
Predistortion of Signals

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy,
Radiotekhnika, 1960, Vol. 3, No. 2, pp 261-265

TEXT: The method of introducing phase predistortion of signals
is based on the principle proposed by D.V. Ageyev in 1938. In
such a system the elementary signals are transmitted in groups.
The signals in each group are distributed in parallel with each
other on the time axis, i.e. the signals in a group are trans-
mitted through a communication channel simultaneously. The
forming of the groups is effected in a special device in the
transmitter which introduces phase distortion into the signals.
The received signals are then suitably processed in order to obtain
the original sequence of the elementary signals. It should be
clear that it is necessary to compensate the phase distortion at
the receiver; in other words, reverse phase distortion should be
introduced into the signals. The presence of a phase-distorting
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Estimate of the Gain in the Noise Immunity of a Communication
System Employing the Method of Phase Predistortion of Signals

device in the receiver increases the immunity of the system
with regard to pulse-type noise. The gain in the noise immunity
of the system as compared with that of a normal receiver is
expressed by:

$$N = \frac{E_1^{*2}}{E_2^{*2}} = \frac{K}{m} \frac{\ln\frac{m}{K_1\varepsilon}}{\ln\frac{1}{\varepsilon}} = \frac{1}{q} \frac{\ln\frac{q}{\varepsilon}}{\ln\frac{1}{\varepsilon}} \qquad (4)$$

where ε is an arbitrarily small error,
    q   is the ratio of the overall duration of the pulse
        noise at the output of the receiver to the duration
        of the transmitted signals,
    m   is the number of noise pulses which appear at the
        input receiver during a period τ. (τ is the duration
        of a pulse-type disturbance at the output of the
        receiver), and

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K is the factor defining by how much a perturbing pulse
has been lengthened by the compensating device of
the receiver.

Eq. (4) is plotted in Fig. 3. The figure also gives four
experimental points; these are in agreement with the theoretical
results. From the analysis and the experiment, it is concluded
that the method of phase predistortion of signals results in a
considerable gain in the noise immunity, provided the mark-to-
space ratio of the pulse noise is low. The author expresses his
appreciation to Doctor of Technical Sciences Professor D.V.
Ageyev for valuable advice.
There are 3 figures and 4 Soviet references.

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Estimate of the Gain in the Noise Immunity of a Communication
System Employing the Method of Phase Predistortion of Signals

ASSOCIATION: Kafedra radiopriyemnykh ustroystv Gor'kovskogo
                 politekhnicheskogo instituta im. A.A. Zhdanova
                 (Chair of Radio-Receiving Equipment of Gor'kiy
                 Polytechnical Institute im. A.A. Zhdanov)

SUBMITTED: June 9, 1959, initially;
                 July 13, 1959, after revision.

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BABANOV, Yu.N.

Low-frequency delay lines. Izv. vys. ucheb. zav.; radiotekh. 3
no.4:448-452 Jl-Ag '60.   (MIRA 13:10)

1. Rekomendovana kafedroy radiopriyemnykh ustroystv Gor'kovskogo
politekhnicheskogo instituta im. A.A.Zhdanova.
      (Pulse techniques (Electronics)) (Electric lines)

30133
S/194/61/000/007/058/079
D201/D305

AUTHOR: Babanov, Yu.N.

TITLE: Statistical properties of interference as observed
               at the output of a communication system with signal
               phase pre-distortion

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
               no. 7, 1961, 6, abstract 7 I55 (Tr. Gor'kovsk. poli-
               tekhn. in-ta, 1960, 16, no. 2, 5-11)

TEXT: The circuit of the receiving communication channel with the
signal phase pre-distortion protecting against interference is the
so-called compensating arrangement. It is inserted into LF-channel
of the receiver and consists of a system of parallel-connected fil-
ters with different pass-bands, with a delay line connected in front
of each of them. The time constants of the delay lines are so cho-
sen that at the output of the summing device the interference pre-
sent a series of reflections from the filters to the input pulse.

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Statistical properties...

Thus, the compensating device transforms the interference pulse into a signal as described by a certain function. Analysis is made of the rate of convergence of the distribution function of the magnitude v_{out} (t) towards a normal distribution, depending on the number of components of v_{out} (t) representation. The graphs, constructed from calculations permit the conclusion to be reached that with increasing n the distribution law $p_n(v)$ of the instantaneous values of interference dt receiver output approaches very quickly the normal distribution. For n = 7 or n = 10 the distribution law of instantaneous values of interference may be assumed to be normal. The calculated error will not exceed 1 - 3%. A second important conclusion may be made from the graphs: The pulse interference at the output of the communication system receiver which applies the method of the signal phase pre-distortion, has the character of fluctuating noise with a normal distribution of its instantaneous values. 4 figures. 9 references. /¯Abstracter's note: Complete translation_7

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BABANOV, Yu.N.

A method for increasing the selectivity of receiving devices
by superposing frequency spectra of two AM signals. Radiotekhnika
17 no.12:48-51 D '62.
                                                (MIRA 15:12)

1. Deystvitel'nyy chlen Nauchno-tekhnicheskogo obshchestva
radiotekhniki i elektrosvyazi imeni Popova.
                            (Radio)

BABANOV, ...

... ability of using a ... technique for suppressing ...

(M ...)

AGEYEV, D.V.; BABANOV, Yu.N.

Method for increasing the selectivity of radio reception in presence
of superimposed frequency spectra of useful and interfering A M
signals. Elektrosviaz' 17 no.9:8-15 S '63.   (MIRA 16:10)

BABANOV, Yu.N.

Increase in the effectiveness of a method for improving the selectivity of radio receiving systems. Elektrosviaz' 17 no.11:64-68 N '63.

(MIRA 17:1)

L 11078-63

ACCESSION NR: AP3001125   S/0108/63/018/006/0026/0028

AUTHOR: Babanov, Yu. N.

TITLE: Experimental investigation of a method for improving the selectivity of
radio receiving systems with superimposed spectra of AM signals

SOURCE: Radiotekhnika, v. 18, no. 6, 1963, 26-28

TOPIC TAGS: improved selectivity, radio receiver, superimposed spectra separation,
special conversion cascade, AM signal separation

ABSTRACT: The method is based on a gradual separation of the interfering AM
signal from the useful AM signal. This separation is accomplished by means of
a system consisting of special conversion stages, in each of which the heterodyne
voltage is formed from the carrier frequency of the interfering signal. The
circuit shaping the heterodyne voltage consists of the following components:
1) a narrow-band filter based on a quartz filter with a pass band of about 500 cps,
2) a frequency doubler equipped with a 6K4P tube operating under cutoff conditions,
and 3) a phase-shifting network. The filter in the plate circuit of the tube is
tuned to a frequency equal to double the frequency of the oscillations coming
from the output of the quartz filter. The plate circuit of converter tube 6I1P

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carries a standard band filter with a center resonant frequency of 465 kc. The experiment consisted in feeding two AM signals ($f_1 = 470$ kc, $f_2 = 475$ kc) to the input of a "Baltika" receiver with two special stages connected into its circuit. The signals were taken from the output of GSS-6 oscillators. With the help of a narrow-band analyzer (a receiver of the US-9 type) the amplitudes of harmonic signal components were measured at the output of the special stages. Experiments demonstrated that a system using two conversion stages can separate the spectra of the useful from the interfering signals with the result that the interference signal remaining in the plate current of the converter tubes does not exceed 2 to 3% of the useful signal amplitude. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 30Nov61   DATE ACQ: 01Jul63   ENCL: 00

SUB CODE: CO   NO REF SOV: 002   OTHER: 000

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