

USSR/Virology. Human and Animal Viruses.

E-3

Abs Jour: Ref. Zhur.-Biol., No 7, 1957, 28723.

Author : Shen, R.M., Orlova, N.N., Turevich, S.T., Nazarov,
V.A., Bezelyuk, M.I.

the same strain and is somewhat higher than the standard phenolated vaccine used for animal immunization. The authors recommend a dried formolvaccine treated by calcium phosphate for veterinary practice.

Card : 2/2

HAZAROV, V.A.

Changes in conditioned reflex activity in offspring of dogs
exposed to the long-term effects of Sr⁹⁰. Med.rad. 4 no.9:
13-17 S '59. (MIRA 12:11)
(STRONTIUM radioactive)
(REFLEX CONDITIONED radiation eff)

NAZAROV, V.A.

Disorders in the higher nervous activity of the progeny of dogs previously exposed to prolonged chronic internal irradiation by beta rays of Sr^{90} . Radiobiologia 1 no.3:412-417 '61.

(STRONTIUM--ISOTOPES)

(CEREBRAL CORTEX)

(MIRA 14:12)

NAZAROV, V.A.

Conditions of the central nervous system in acute uranyl nitrate
poisoning. Med.rad. 6 no.4:85-87 '61. (MIRA 14:12)
(URANYL NITRATE--PHYSIOLOGICAL EFFECT)
(NERVOUS SYSTEM)

40475

S/205/62/002/002/009/015
1020/1215

200 0210 42-2
AUTHOR Nazarov, V A

TITLE Deviations in higher nervous activity in the second generation offspring of dogs subjected to chronic internal irradiation with β -rays from Sr^{90}

PERIODICAL Radiobiologiya, v 2, no 2, 1962, 287-292

TEXT The effect of internal irradiation on the second generation has not been sufficiently studied. Adult male and female dogs received, with food, 0.2 microcuries/kg of Sr^{90} daily. Females received it up to the moment of birth for a total of 140 microcuries/kg. Unlike their parents, the second generation (nephews and nieces) did not reveal cowardice or a weakening of the tentative reflex. The conditioned reflex to a moderate stimulus appeared in those animals even sooner, but the same reflex to strong stimuli was evoked with difficulty. The evoked positive reflex was not exact because of a diffusion in the excitations. The strength of the conditioned reflex response during the latent period, differed from that of the control animals because of inertia of the excitatory process. The inhibition and gross differentiation features were the same as in control animals. Fine differentiations were developed with difficulties in the experimental animals. The extinction of developed conditioned reflexes was in male dogs similar to the control animals, but it showed certain difficulties in the females. The greatest difference appeared during transformation of two conditioned

Card 1/2

Deviations in higher nervous activity in

S/205/62:002 002 009 015
1020/1215

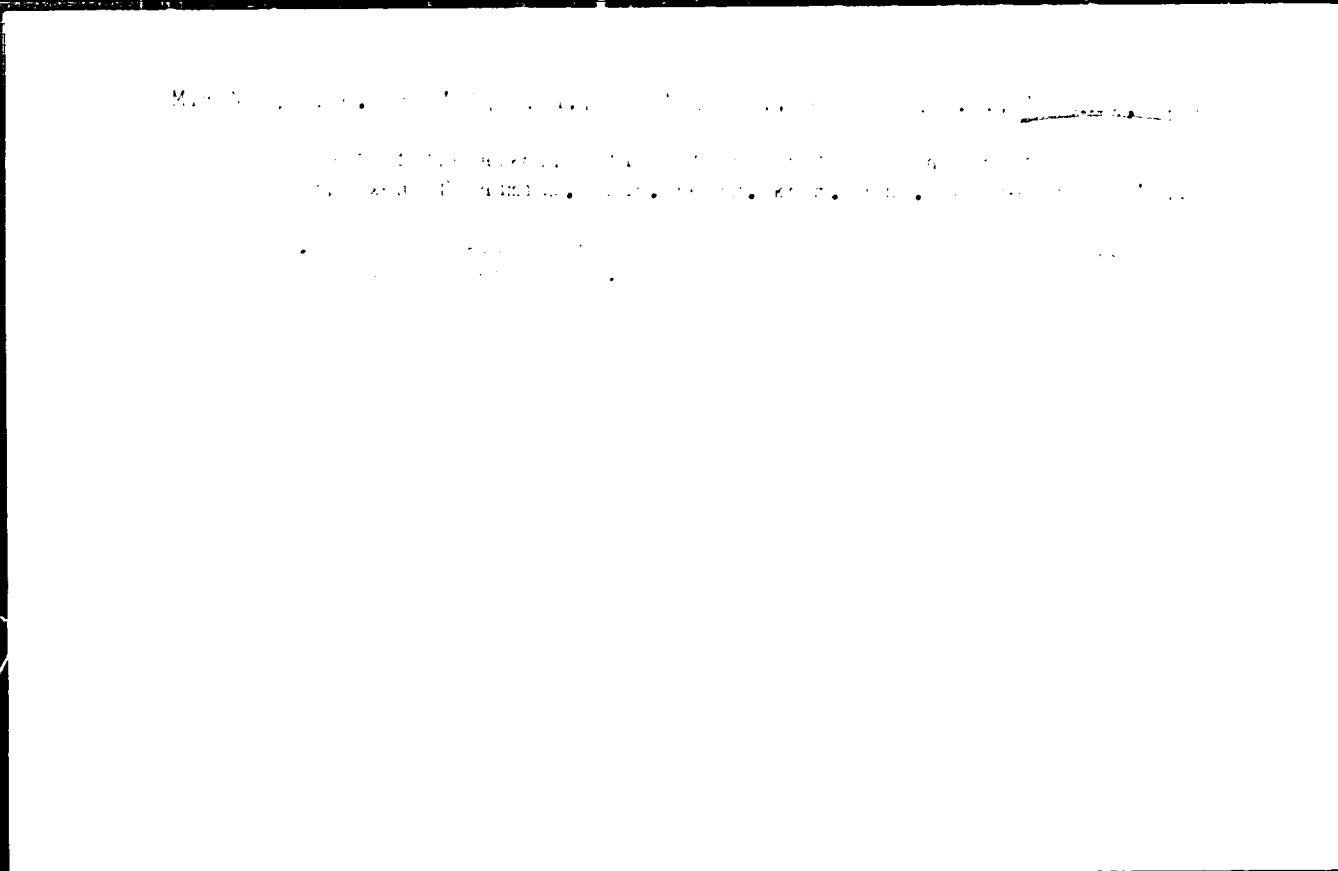
stimuli from positive to negative. The predominance of excitatory processes and the susceptibility to irradiation in the dogs of the 1st and 2nd generations, greatly resemble the behavior of 3-4 month old puppies received from non-irradiated parents. This indicates that the offspring of chronically irradiated dogs develops functional cortical defects which are less obvious in the 2nd generation. There are 2 figures

SUBMITTED August 18, 1961

Card 2/2

NAZAROV, V.A., inzh.

Using UGBKh-150 boring equipment in erecting pile foundations.
Stroi. i dor. mash. 10 no.2:1-2 F '65. MIRA 18:3



84-5-24/42

AUTHOR: Nazarov, V.

TITLE: Expansion of Local Air Routes (Razvivat' mestnyye vozdushnyye linii)

PERIODICAL: Grazhdanskaya Aviatsiya, 1957, Nr 5, pp. 32-33 (USSR)

ABSTRACT: The article calls for the development of the local network of air routes, for heavier planes, and for the study of the economic needs and traffic frequency of each region. During the last 5 years, the length of local air routes increased by 20,000 km. Air routes connect larger administrative centers with regional ones and with industrial and farming rayons, especially with the most distant localities, with which no other modern communication lines exist. The article gives the Yakut ASSR as an example. In the Kazakh SSR, 16 new routes with a total length of 4,000 km were established; now planes fly to 60 sovkhoses. In Altay kray and Chkalov, Saratov and other oblasts, traffic to a number of virgin-land sovkhoses and kolkhozes is maintained by planes. In the Kostroma oblast, the number of local air routes has grown from 4 in 1955 to 13 in 1956: in October, November and December of 1956 the planes carried 10,700 passengers. Better planes are being used, some of them heated and equipped with radio. Larger carriers fly where traffic is heaviest, especially in the South, South-East and East, and between Moscow and some neighboring localities. In 1956, as compared with 1955, the total flight turnover (in ton/km) increased 50 per cent, passenger transport - 60.5%,

Card: 1/3

84-5-22/42

Expansion of Local Air Routes (cont.)

cargo transport - 49.5%, mail transport - 15.7%. On local routes, passenger traffic in 1956, as compared with 1955 increased 40.3%, cargo traffic - 29.5%, and mail traffic - 36.3%. In spite of this increase, local line traffic is still far below the needs. Not only is the service bad, but on certain routes, especially within the Krasnoyarsk and East-Siberian Territorial Administrations, the frequency of flights is low and flights are irregular. Within the Georgian Territorial Administration little attention is paid to local lines. This is also true of the West-Siberian Territorial Administration; for instance, there is no air connection from Sverdlovsk to any other part of the oblast, although such connections are urgently needed. Within the Ukrainian Territorial Administration local airport facilities are poorly developed and service is unsatisfactory. In North-Caucasus, the Ukraine, and the Volga Region the regularity of flights on local lines is most unsatisfactory in spring and summertime, due to the fact that the majority of planes serving this area are mobilized to help fight crop pests. More routes, better frequency and definite regularity are the tasks of prime importance. Even in those regions, such as the Tatar ASSR, Kostroma oblast, Vologda oblast, etc. where the

Card: 2/3

84-5-24/42

Expansion of Local Air Routes (cont.)

local air network is well developed, further possibilities of increasing passenger traffic nevertheless exist. It is urged that the authorities of the GVF make full use of all available aircraft!

AVAILABLE: Library of Congress

Card: 3/3

А. А. НАЗАРОВ

AUTHOR: Nazarov, V.

84-12-10/49

TITLE: Perfecting Flying Skill (Sovershenstvovat' letnoye mausterstvo)

PERIODICAL: Grazhdanskaya aviatsiya, 1957, Nr 12, p 10 (USSR)

ABSTRACT: The author criticizes the training level of aircraft commanders and pilots of special-purpose aviation. He stresses the necessity of stricter supervision, better organization of preliminary training of young pilots and on-the-job refresher courses for old pilots and commanders, especially in connection with the new equipment now in process of introduction, such as the An-2 and the Yak-12 type planes.

AVAILABLE: Library of Congress

Card 1/1

SOV, 84-58-9-13/51

AUTHOR: Nazarov, V.

TITLE: In Iran (V Iran)

PERIODICAL: Grazhdanskaya aviatsiya, 1958, Nr 9, p 8 (USSR)

ABSTRACT: This is a story about the operations of a task force of 10 An-2 agricultural aircraft sent to Iran to help fight locusts in the area of Daulatabad, Seydabad, Bekhramabad, and Bartsir Sugar Refinery. The base of the operations was at Kerman airfield. Two photographs accompany the text.

Card 1/1

SC V/84-58-3-3/52

AUTHOR: ~~V. Masarov~~, Deputy Chief, Directorate of Special Purpose and Aerial
Photography Aviation, GUGVF

TITLE: Toward a Better Organization of Agricultural Work (Organizovanno
provedi aviatsionno-khimicheskiye raboty)

PERIODICAL: Grazhdanskaya aviatsiya, 1958, Nr 3, pp 1-3 (USSR)

ABSTRACT: The editorial deals with achievements and shortcomings of agricultural
and other special purpose air operations during 1957. It contains
instructions for the coming spring and summer work season of 1958.
Problems such as selection and formation of crews, technical fitness
of equipment, organization of work, cooperation between airmen and the
representatives of the customers, and stationing and shunting of
aircraft between and within Territorial Administrations are discussed
in some detail.

ASSOCIATION: Upravleniye aviatsii spetsial'nogo primeneniya i vozdushnykh
s"yemok GUGVF (Directorate of Special Purpose and Aerial
Photography Aviation, GUGVF)

Card 1/1 1. Agriculture 2. Aircraft--Applications 3. Aviation personnel
 --Performance

HAZAROV, Viktor Apollonovich; LAVROV, Lev Davydovich; GRIGOR'YEVA, A.I.,
red.; GOR'KOVA, Z.D., tekhn.red.

[Aeronautics in agriculture] Aviatsiia v sel'skom khoziaistve.
Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 94 p. (MIRA 13:7)
(Aeronautics in agriculture)

NAZAROV, V.

Aviation in agriculture. Kryl.rod. 11 no.3:3-4 Mr '60.
(MIRA 13:5)

1. Nachal'nik Upravleniya aviatsii spetsial'nogo primeneniya
Grazhdanskogo vozdušnogo flota.
(Aeronautics in agriculture)

NAZAROV, V.

The second spring of the seven-year plan. *Grashd.av.* 17
no.3:1-3 Kr '60. (MIRA 13:6)

1. Nachal'nik upravleniya aviatsii spetsial'nogo primeneniya i
vozdukhnykh s"yemok. (Aeronautics in agriculture)

NAZAROV, V.

Fields producing high crop yields are the pride of aviators. Grazh.
av. no.3:14-15 Mr '61. (MIRA 14:3)

1. Nachal'nik Upravleniya aviatsii spetsial'nogo primeneniya i
vozdushnykh s'yemok. (Aeronautics in agriculture)

NAZAROV, V.A.

Aeronautics in the agriculture of socialist countries. Zashch.
rñst. ot vred. i boľ. 6 no.9:58-59 S '61. (MIRA 16:5)

1. Nachal'nik Upravleniya aviatsii spetsprimeneniya Grazhdanskogo
vozdušnogo flota.

(Aeronautics in agriculture)

NAZAROV, V.A.

Forty years in the service of agriculture. Zashch.rast.ot vred.
1 bol. 7 no.4:14-17 Ap '62. (MIRA 15:12)

1. Nachal'nik ypravleniya aviatsii spetsprimeneniya i vozdushnykh
s'yemok Glavnogo upravleniya Grazhdanskogo vozdušnogo flota.
(Aeronautics in agriculture) (Spraying and dusting)

HAZAROV, V.

Expert flight control. Kryl.rod. 13 no.4:15 Ap '62. (MIRA 15:5),
(Flight training)

NAZAROV, V.

Paths of progress in "small-scale aviation". Grazhd. av. 1
no.3:12-14 Mr '62. (MIRA 15:5)
(Aeronautics in agriculture)

NAZAROV, V.

For a perfect organization. Grazhd.av. 19 no.9:7-8 S '62.
(MIRA 16:1)

1. Nachal'nik Upravleniye aviatsii spetsprimeneniya i vozdushnykh
s'yemok.
(Aeronautics in agriculture)

NAZAROV, V.; SVETLICNY, V., Hrdina socialistické práce

Use of airplanes in agriculture. Letecký obzor 7 no.6:173
Je '63.

1. Vedoucí Spravy speciálního letectví a leteckého spinkování,
Glavnoe upravleniye Grazhdanskogo Vozdushnogo flota (for Nazarov).
2. Mechanizator skupiny (for Svetlicny).

MAZAROV, V.

The United States has been left behind. Grashd. av. 20 no.1:9
Ja '63. (MIRA 16:4)

1. Nachal'nik Upravleniya aviatsii spetsial'nogo primeneniya
i vozdushnykh s'yemok glavnogo upravleniye Grashdanskogo
vozduhnogo flota.

(Aeronautics in agriculture)

NAZAROV, V.A.

Aeronautics in agriculture abroad. Zashch. rast. ot vred. 1 bol.
8 no.6:46-47 Je '63. (MIRA 16:8)

1. Nachal'nik upravleniya aviatsii spetsprimeneniya Grazhdanskogo
vozdušnogo flota.
(Spraying and dusting in agriculture)
(Aeronautics in agriculture)

NAZAROV, V.A.

Agricultural airplanes in the protection of crops. Zashch. rast.
ot vred. i bol. 9 no.2:7-9 '64. (MIRA 17:6)

1. Nachal'nik otdela spetsprimeneniya i aerofotos"yemki
Gradzhdanskogo voyennogo flota.

NAZAROV, V.A.

Hours and hectares. Grazhd. av. 21 no. 12:22-23 D '64.
(MIRA 18:12)

1. Nachal'nik Upravleniya sel'skokhozyaystvennoy aviatsii i
spetsprimeneniya i chlen Kollegii Ministerstva grazhdanskoy
aviatsii SSSR.

L 18464-66

ACC NR: AP6006395

SOURCE CODE: UR/0413/66/000/002/0141/0141

INVENTOR: Tsukerman, M. Sh.; Nazarov, V. A.

13
B

ORG: none

TITLE: A device designed chiefly for remote control of an automobile radiator screen. Class 46, No. 178242 [announced by the Minsk Automobile Factory (Minakiy avtomobil'nyy zavod)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1966, 141

TOPIC TAGS: engine radiator, automotive industry, remote control

ABSTRACT: This Author's Certificate introduces: 1. A device designed chiefly for remote control of an automobile radiator screen. The device contains a cylindrical frame with a movable pull rod inside, a moving cable which controls the drum for the screen, a spherical catch designed for locking the rod, and a compensating spring which acts on the rod. The cable travel is increased by making the pull rod in the form of a toothed rack located in the cylindrical frame. This rack meshes with a gear fastened to the shaft of the drum on which the cable for moving the screen is

Card 12

UDC: 621.431.3

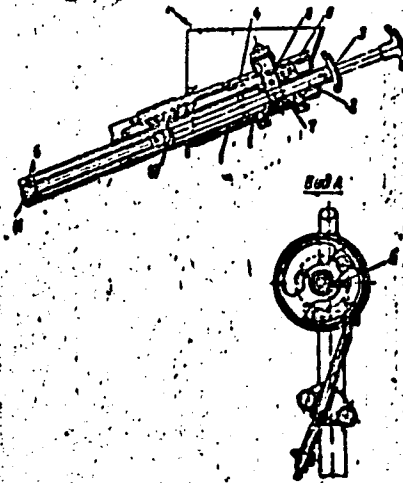
2

L 18464-66

ACC NR: AP6006395

wound. 2. A modification of this device in which the compensating spring is coaxial with the rod between a ring-shaped flange and a blind flange closing the opening in the cylindrical frame.

- 1.- cylindrical frame; 2 - rod; 3 - handle;
- 4 - drum; 5 - spherical catch; 6 - compensating spring;
- 7 - gear; 8 - shaft; 9 - cable;
- 10 - ring shaped flange; 11 - blind flange.



SUB CODE: 13/ SUB DATE: 21Nov64

Card 2/2

L 18482-66 EWT(d)/EWT(l)/EWP(m)/EPF(n)-2/EWA(d)/ETC(m)-6/EWA(l) LJP(c) WW
ACC NR: AP6007758 SOURCE CODE: UR/0021/66/000/001/0068/0070

AUTHOR: Mendelyeyeva, T. V — Mendeleyeva, T. V.; Nazarchuk, M. M.

73
B

ORG: Institute of Technical Thermophysics, AN URSSR (Intytut tekhnichnoy teplofiziky AN URSSR)

TITLE: Gretz's problem for a ring-shaped canal

SOURCE: AN UkrSSR. Dopovidi, no. 1, 1966, 68-70

TOPIC TAGS: laminar flow, laminar boundary layer, axisymmetric flow, temperature dependence, boundary layer temperature

ABSTRACT: A method for the determination of the temperature field in the case of an axisymmetric developed laminar flow of liquid in a ring-shaped canal with arbitrary unequal boundary temperatures is described. (Orig. art. has: 9 formulas. [Based on author's abstract.]
21, 44, 55
1, 55

SUB CODE: 20/ SUBM DATE: 26Jan65/ ORIG REF: 002/ OTH REF: 001/

Card 1/10

1 21403-66 EWT(m)/EWP(f)/T-2
ACC NN: AF6009923 (A) SOURCE CODE: UR/0413/66/000/004/0118/0118

INVENTOR: Teukerman, M. Sh.; Nazarov, V. A. 27
ORG: none 5

TITLE: Exhaust-gas neutralizer for internal-combustion engines
[announced by the Minsk Automotive Plant (Minskiy avtomobil'nyy zavod)]
Class 46, No. 179125

SOURCE: Izobreteniya, promyshlennyye obrastay, tovarnyye znaki,
no. 4, 1966, 118

TOPIC TAGS: internal combustion engine, exhaust gas neutralization,
exhaust gas ignition

ABSTRACT: An Author Certificate has been issued for an exhaust-gas
neutralizer for internal-combustion engines. The unit (see Fig. 1),
which is connected to the exhaust pipe, contains a two-pass back-flow
regenerator with a combustion chamber and a burner. To decrease size

Card 1/2

UDC: 621.43.068.4

L 21403-66

ACC NR: AP6009923

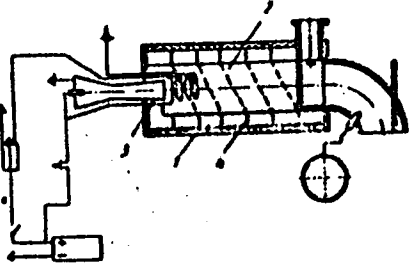


Fig. 1. Exhaust-gas neutralizer

- 1 - Regenerator; 2 - combustion chamber;
- 3 - burner; 4 - baffles

and improve economy, baffles forming spiral channels are installed on the inner walls of the first-pass regenerator. The burner is injection-type to provide flame ignition of the exhaust gases. Orig. art. has: 1 figure. [LB]

SUB CODE: 21/ SUBM DATE: 23Feb65/ ATD PRESS: 4221

Card 2/2 ULR

NAKABETOV, K. P. - NAKABETOV, K. P. (AKA);
KASHIN, A. I. - KASHIN, A. I. (AKA)

Sampling a powerful gas. Next to the...
MIRA...

ACC NR: AP6034227

(N)

SOURCE CODE: UR/0120/66/000/005/0110/0114

AUTHOR: Nazarov, V. B.; Zabrodin, V. A.; Kirillov, P. K.; Gal'perin, L. N.

ORG: Affiliate of the Institute of Chemical Physics, AN SSSR, Chernogolovka (Filial Instituta khimicheskoy fiziki AN SSSR)

TITLE: Reversible digital to analog converter counter based on decatrons

SOURCE: Pribory i tekhnika eksperimenta, no. 5, 1966, 110-114

TOPIC TAGS: pulse counter, digital analog converter

ABSTRACT: Figure 1 shows a simplified diagram of the digital to analog converter, associated with an up-down counter utilizing decatrons as counting elements. Such a counter is frequently needed in automatic control applications, where it is necessary to obtain a voltage proportional to the accumulated number of pulses. While the actual counter circuitry is conventional for use with decade counting and glow transfer tubes, the method of digital to analog conversion is quite unusual. As shown in figure 1, each decade is equipped with a bank of resistors. One resistor is associated with each cathode (except "0") in each of the three decatrons. The resistor values are weighted to generate output voltage exactly proportional to the instantaneous accumulated pulse count stored in the decatrons. Constant current sources are used to supply each of the tubes. The design of the current sources is conventional, utilizing a series triode in

UDC: 621.374.324

Card 1/2

ACC NR: AP6034227

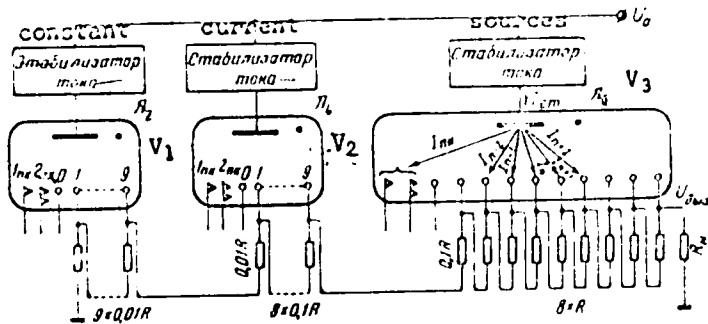


Fig. 1.

which the grid bias is maintained constant by a transistor network with a voltage reference in the form of a glow tube. The expressions for the output voltage and the predictable errors are given as functions of the pulse count and the circuit parameters. The total conversion error does not exceed 0.1% for temperature fluctuation of $\pm 5^\circ\text{C}$ and line voltage changes of $\pm 10\%$. Transistor logic is utilized in the input signal and the steering control. The instrument can be used for generation of extremely long ramp voltages. In this case the input pulses are generated by a crystal controlled oscillator. Orig. art. has: 4 figures, 5 formulas.

SUB CODE: 09/ SUBM DATE: 27Aug65/ ORIG REF: 003/ OTH REF: 001

Card 2/2

1. NAZAROV, V.F.

2. USSR (60)

4. Social Sciences

7. Financing tree farms and shelterbelt station. Moskva, Gosfinizdat.1952

9. Monthly List of Russian Accessions, Library of Congress, March,1953.Unclassified.

NAZAROV, V.F.

Designing of melting equipment for the formation of synthetic fibers.
Khim.volok. no.4:14-16 '62. (MIRA 15:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo
volokna.

(Textile fibers, Synthetic)

NAZAROV, Viktor Grigor'yevich; ZUBER, I.Ye., red.; POL'SKAYA, R.G.,
tekhn.red.

[Handbook on the slide rule; reference book for engineers
and students of institutions of higher learning] Spravochnik
po logarifmicheskoi lineike; rukovodstvo dlia inzhenerov i
uchashchikhsia vtuzov. Moskva, Gos.izd-vo fiziko-matem.lit-ry,
1959. 47 p. (MIRA 13:2)

(Slide rule)

ROZOVSKIY, Semen Yefimovich; NAZAROV, Viktor Grigor'yevich, inzh.:
SLAVNITSKAYA, N.N., red.; AZOVKIN, N.G., tekhn. red.

[Reduction of labor-consuming operations] Po puti snizhenia trudoemkosti. Riazan', Riazanskoe knizhnoe izd-vo, 1962. 24 p.
(MIRA 15:12)

1. Zamestitel' nachal'nika byuro ratsionalizatsii, izobretatel'stva i tekhnicheskoy informatsii Riazanskogo zavoda TKPO (for Rozovskiy). 2. Byuro ratsionalizatsii, izobretatel'stva i tekhnicheskoy informatsii Riazanskogo zavoda TKPO (for Nazarov).
(Metalwork--Technological innovations)

NAZAROVA, V.G., aspirant

Effect of partial removal of the large cerebral hemispheres on the catalase index of blood. Uch. zap. Sar. gos. pedagog. inst. no.28:59-67 '57.

(MIRA 11:7)

(CATALASE) (BLOOD--ANALYSIS AND CHEMISTRY) (BRAIN)

NAZAROVA, V.G., aspirant

Influence of the central nervous system on the catalase activity of
blood. Uch. zap. Sar. gos. pedagog. inst. no.28:68-77 '57.

(MIRA 11:7)

(CATALASE) (BLOOD--ANALYSIS AND CHEMISTRY) (NERVOUS SYSTEM)

MAZAROV, V. Ya.

62B-2-2/8

Author: Podlubny, I. Ya.; Terkh, V. N.; Starovoytova, Ye. I.;
1958, No. 2.

Title: The Influence of the Molecular Weight of Polymers on
Some Physical-Mechanical Properties of Their Vulcanizates.
(Vliyeniye molichnykh teletulyarnogo veshch polimerov na
nekotoryye fiziko-mekhanicheskiye svoystva ikh vulkanizatov).

Journal: Vulkanizatsiya, 1958, No. 2, pp. 3 - 11. (USSR).

Summary: The dependence of the strength and elasticity of vulcanizates on the molecular weight of the initial polymers was investigated for a number of 1,3-butadiene- and 1,3-butadiene-styrene rubbers made in the USSR. A similar investigation was carried out by A. S. Novikov et al. (1957, 11) on a sample of 1,3-butadiene-styrene rubber MKB-70. Samples of 1,3-butadiene rubber were prepared at 10°C, 20°C and 70°C (samples 1-6, 2-6, and 3-6), of 1,3-butadiene-styrene rubber MKB-70 at 10°C and 20°C (samples 1-7 and 2-7), and of purified 1,3-butadiene-styrene rubbers MKB-70, MKB-70A and MKB-70B (samples 3-7, 4-7, and 5-7). Properties of these polymers are given in Table 1. The samples were fractionated according to a method by I. I. Zhukov, I. Ya. Podlubny and A. V. Lebedev (ref. 12). The molecular weight of fractions was determined viscosimetrically, and calculated according to the formula

1/4

62B-2-2/7

Influence of Molecular Weight of Polymer on Some Physical-
Mechanical Properties of Their Vulcanisates.

$[\eta] = f(M)$, according to a method evolved in the Physical
 Chemistry Laboratory of MIISK. The composition of rubber
 fractions based on 1,3-butadiene and 1,3-butadiene-styrene
 rubber is given in Table 2; Table 3: correlation between
 molecular weight of the polymers during mixing on
 100-75 rollers; Table 4 and 5: the physico-mechanical
 properties of vulcanisates of fractions of various rubbers.
 It was found that for most polymers the strength of
 the vulcanisates depends on the molecular weight (Fig. 1).
 For highly branched polymers differed also with constant
 strength of the molecular weight above which the strength
 of vulcanisates is practically independent from the
 molecular weight; for 1,3-butadiene-styrene rubber the
 curve for strength-molecular weight reaches a maximum
 in the region 130 - 200,000 and for 1,3-butadiene rubbers
 in the region 320 - 340,000. Figures 2 and 3 give the
 dependence of the strength/R of 1,3-butadiene-styrene vulcani-
 sates on the molecular weight of 1,3-butadiene rubbers and the vulcanisate
 It can also be seen that at very high
 molecular weights the strength of the vulcanisates of
 1,3-butadiene-styrene rubber can reach values of 200 -
 300 kg/cm²; under similar conditions, the strength of

Fig. 2, 4

628-2-2/8

The Influence of the Molecular Weight of Polymers on Some Physical-
Mechanical Properties of Their Vulcanisates.

1,3-butadiene rubber vulcanisates CKB and of 1,3-butadiene rubber CKB manufactured at 0°C reaches a value of 260 - 270 kg/cm². Potassium - 1,3-butadiene rubber CKK, manufactured at 60°C has a very low breaking strength when compared with the polymer manufactured at 0°C. It was also shown that a linear relation covers the dependence of the break strength of vulcanisates and the value $\lambda = R \cdot A$. A molecular weight of 34,000 was found to give a strength of the vulcanisates practically equal to 0 for sodium 1,3-butadiene rubber, and the rubber CKB prepared at 0°C, and a molecular weight of 25,000 for 1,3-butadiene-styrene rubber. It was shown that 1,3-butadiene-styrene rubbers lose their elastic properties at a molecular weight of 20,000, and 1,3-butadiene rubbers at a molecular weight of 24,000. The character of the strength and elastic properties of the rubber CKB prepared at 60°C was determined; the vulcanisates of this polymer have very low values of break strength and elasticity which are practically independent from the molecular weight of the initial polymer. There are 24 References, 13 Russian

2 of 3/1

62B-2-2/8

1951 **Effect of the Molecular Weight of Polymers on Some Physical-Mechanical Properties of their Vulcanisates.**

11 English.

Author: **Union** Research Institute for Synthetic Rubber in Leningrad. **V. V. Lebedev.** (Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskogo kachuha im. S. V. Lebedeva).

Source: Library of Congress.

1. Vulcanizates- Physical Properties 2. Vulcanizates-Mechanical properties 3. Polymers-Molecular weight 4. Butadienes-(Polymerized)-Properties

Subject : USSR Electric Engineering AID P - 449

Card 1/1 Pub 27 - 1000

Author : Nazarov, V. G., Kand. of Tech. Sci., Leningrad

Title : Electrets and their Application in Electrical Engineering

Periodical : Elektrichestvo, 7, 1954, J1 1954

Abstract : The properties and characteristics of electrets, comparatively new and relatively little analysed electric insulating materials, are discussed in regard to their properties for permanent electrification and qualities analogical to those of permanent magnets. Fields of application and some technical data on their production are indicated. 7 references, 3 of which are Japanese (1922), and 1 Russian (1951).

Institution : None

Submitted : Mar 29, 1954

FD-205

USSR/Electronics-Circuits NAZAROV, V. G.

Card 1/1 Pub. 90-5/11

Author : Nazarov, V. G.

Title : Dielectric Amplifiers

Periodical : Radiotekhnika, 10, 44-57, Aug 1955

Abstract : A survey of the non-Soviet literature on the subject of the dielectric amplifier. Its operating principles, advantages, and some basic circuits, as well as data relating to materials for nonlinear capacitors, are discussed. The author gives some theoretical explanations which might be useful to persons acquainting themselves with the subject.

Institution :

Submitted : April 11, 1955

AUTHORS: Tarasov, Yu. A. and Nazarov, V. I., Engineers. ^{136-3-14/25}

TITLE: Measurement of the Quantity of Sucked-In Air in Flotation Machines. (Zamer kolichestva zasasyvayemogo vozdukhna vo flotatsionnykh mashinakh).

PERIODICAL: Tsvetnyye Metally, 1957, No.3, pp.75-79 (USSR)

ABSTRACT: The quantity of air sucked into flotation machines gives indications of the state of the processes and plant and an instrument for measuring this has been devised by the authors on the basis of an ordinary anemometer. The instrument ("aerometer") is in successful use at the Darsun beneficiation works and can be used for each chamber. A brief description and conversion equations are given. There are 2 figures.

1/1

AVAILABLE: Library of Congress

NAZAROV, V.I., instruktor

Joining pipes with a hand winch. avt. dor. 24 no.10:32 0'41.
MIRA 1:111

1. Tashkentskaya normativno-issledovatel'skaya stantsiya onptrais-
stroya.

(Pipe fitting)

NAZAROV, V. I.

USSR/Electricity - Instruments

Sep 52

"Volt-Ammeter With Measuring Clamps, Proposed by V. I. Nazarov (Fifth Prize in the Seventh All-Union Competition on Economy of Power)," ~~described by~~ Engr M. V. Lebedev

R "Prom Energet", No 9, pp 9-10

Describes (including diagram and photos) ² ~~two~~ pocket-sized meters for measuring current in range up to 300 a, voltage up to 600 v dc, 500 v ac. Dc values are read directly from clamp, which has built-in galvanometer. Ac readings are obtained by clipping clamp into suitable ~~metal~~ case contg coils and rectifier.

27

ARKHIPCHENKO, A.S.; NAZAROV, V.I.; SHAMES, D.Z.

Geologic and economic oil and gas prospecting indices for the
West Siberian Plain. Geol. nefti i gaza 7 no.7:13-17 J1 '63.
(MIRA 16:7)

1. Vsesoyuznyy neftyanoy nauchno-issledovatel'skiy
geologorazvedochnyy institut.
(West Siberian Plain--Petroleum geology)
(West Siberian Plain--Gas, Natural--Geology)

NAZAROV, V. I.

Importance of fruit culture for expanding the acreage and increasing
the productivity of forests in Chelyabinsk Province. Trudy Inst.
biol. UFAN SSSR no. 25:121-129 '61. (MIRA 15:6)
(Chelyabinsk Province—Fruit culture)

NAZAROV, V.I., instruktor

Building embankments of loess soils. Transp. stroi. 11 no.10:53
0 '61. (MIRA 14:10)

1. Tashkentskaya normativno-issledovatel'skaya stantsiya
Orgtransstroya (for Nazarov).
(Railroads--Earthwork) (Loess)

NAZAROV, V. I.

Constructing embankments of loess soils. Avt. dor. 25 no. 10:9
0 '62. (MIRA 15:10)

(Embankments) (Loess)

NAZAROV, V.I., inzh.; FROLOV, H.G., inzh.

Electron beam welding of metal with a thickness of less
than 0.5 mm. Svar. proizv. no.1:18-20 Ja '64.

(MIRA 17:1)

SLAVSKIY, V.M.; NAZAROV, V.I.

Developing a vibrational method for drilling wells. Trudy VNIIEP
no.10:29-39 '63. (MIRA 17:4)

ACCESSION NR: AP4009824

S/0135/64/000/001/0018/0020

AUTHOR: Nazarov, V. I. (Engineer); Frolov, N. G. (Engineer)

TITLE: Electron beam welding of a metal less than 0.5 mm thick

SOURCE: Svarochnoye proizvodstvo, no. 1, 1964, 18-20

TOPIC TAGS: electron beam welding, alloy welding, 1Kh18N9T steel, steel welding, titanium alloy, aluminum welding, copper welding, zirconium alloy, OT-4 titanium alloy, AD-1 aluminum, M2 copper

ABSTRACT: The formation of a weld by fusion welding is only possible when the initial gap and the initial displacement of the edges do not exceed a definite limit. The possibility of the gap being closed during welding depends on the thermal expansion of the edges and the change in their form during the fusion process. The admissible gap and displacement are related to the distance between clamps. In the present paper, the critical magnitudes of the gap, the displacement of the edges and the distance between clamps are determined for electron beam welding of sheets made of 1Kh18N9T steel, OT-4 titanium alloy, AD-1 aluminum, M2 copper and a zirconium alloy containing 1% Nb. The sheets were cut out with precision scissors to guarantee rectilinearity of the edges to the order of 0.01 mm. Some samples were welded as cut, some were cleaned with emery cloth and some were

Card 1/2

ACCESSION NR: AP4009824

ground. Just before welding, all the samples were degreased. The critical magnitudes were determined by joining the sheets in such a way that there was a linear change in the investigated value along the length of the sample. In all cases, the maximal value of the investigated magnitude at one end of the joint was greater than the critical magnitude, and the welding was carried out in the direction of decreasing magnitude. The authors conclude that: (1) the technological characteristics of electron beam welding make it possible to weld certain metals only 0.1 mm thick; (2) prerequisites for the quality welding of thin metals are careful preparation of the edges and the availability of special fixtures; (3) the strength of the weld in stainless steels is never less than 80% of the strength of the base material. "V. G. Kulakov and N. A. Vorontsov also took part in the work." Orig. art. has: 6 figures, 3 tables and 3 formulas.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MM

NO REF SOV: 008

OTHER: 000

Card 2/2

L 20020-65 EMT(d)/SEC-4/EEC(t)/FSS-2 Pa-4/Ep-4/Pac-4
ACCESSION NR: AP4049728 S/0106/64/000/011/0005/0015

AUTHOR: Nazarov, V. I.

TITLE: Reception of PSK signals with a "rotating phase" B

SOURCE: Elektrosvyaz', no. 11, 1964, 5-15 y

TOPIC TAGS: phase shift keying, radio telegraphy, rotating phase shift keying

ABSTRACT: Two types of phase-shift keying (PSK) systems are considered: (1) Those systems where the number of possible phases in a signal is equal to the number of phase shifts used for info transmission (0° - 180° , 0° - 120° - 240° , 0° - 90° - 180° - 270°); (2) Those systems where the number of possible phases in a signal is twice as high as the number of phase-shifts (90° - 270° , 45° - 135° - 225° - 315° Kineplex, triple PSK with 22.5° phase-shift). A synchronous coherent reception for both types is briefly described. A new method of "rotating phase" suitable for the second PSK type is based on using a coherent voltage obtained from the signal, phase keyed at the clock frequency, and applied (as a reference voltage) to phase detectors. The keying ensures that the phase of each packet

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L 20020-65

ACCESSION NR: AP4049728

reference voltage differs from that of the preceding packet by a minimum relative angle $\Delta\varphi$. Then, the reference-voltage vector will "rotate" in discrete steps multiple of $\Delta\varphi$; hence, the name "rotating-phase" keying. Another new method is based on a simplification of the structure of the arriving signal before the signal is detected and the reference voltage formed. A constant phase shift is introduced in the odd packets which eliminates the quadrature position of the signal and turns it into a 2-phase signal. Such a phase-converted signal can be demodulated by a synchronous-coherent method with a constant-phase reference voltage. "The author wishes to thank N. P. Bobrov for his valuable comments made as the article was being prepared." Orig. art. has: 9 figures and 30 formulas.

ASSOCIATION: none

SUBMITTED: 09 May 64

ENCL: 00

SUB CODE: EC

NO REF SOV: 004

OTHER: 000

Card 2/2

ANDREYEV, A.V.; N. A. ... NAVSKIY, V.M.

Results of the ... with ...
with ...

1. Vsesoyuznyy ...

NAZAROV, V.I.

Reception of the signals of a binary relative phase telegraphy
system with a "rotating phase." *Elektrsviaz'* 19 no.6:1-9 Je
'65. (MIRA 18:6)

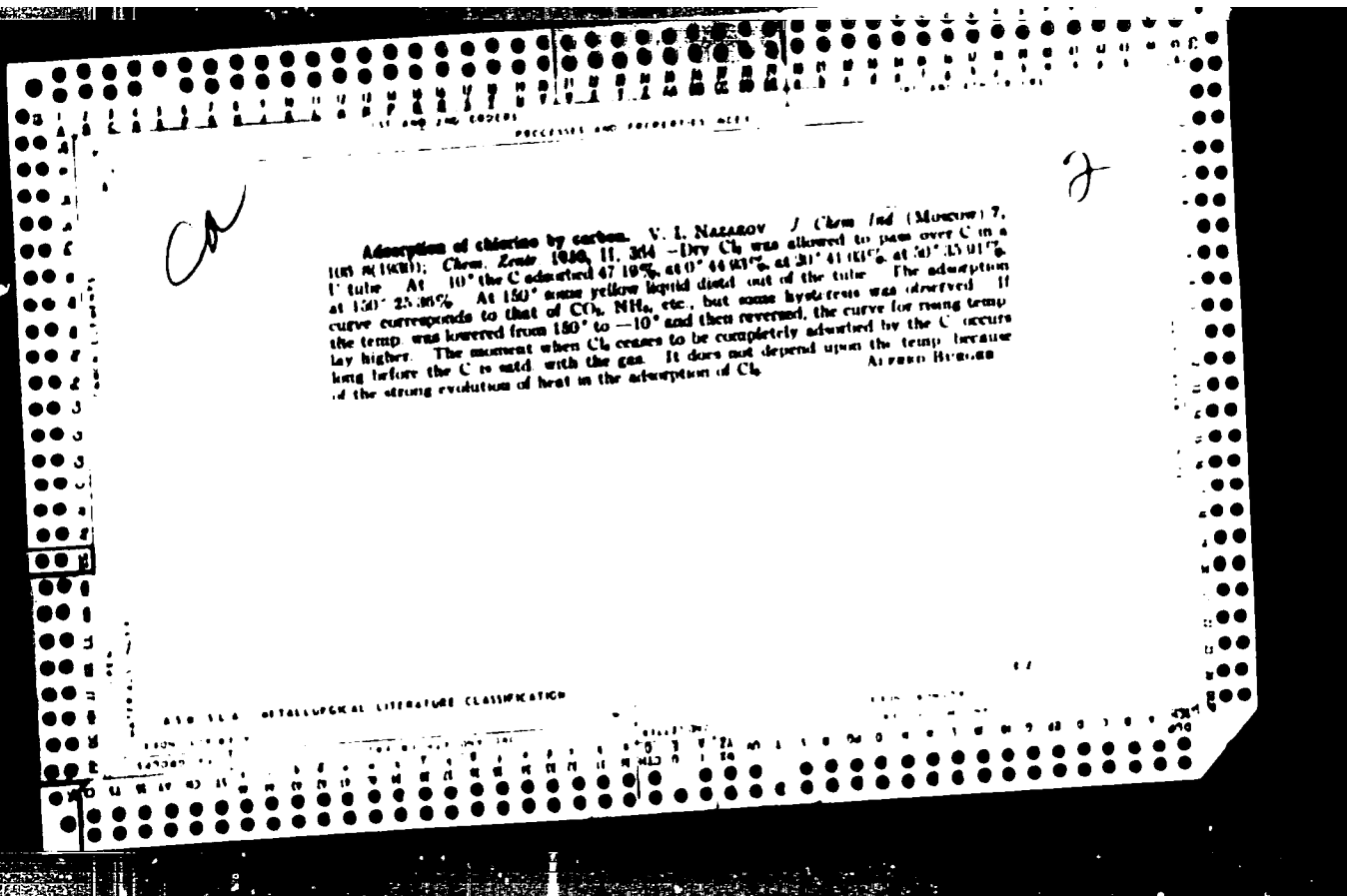
NAZAROV, V.I.; SKOBEYEV, I.K.

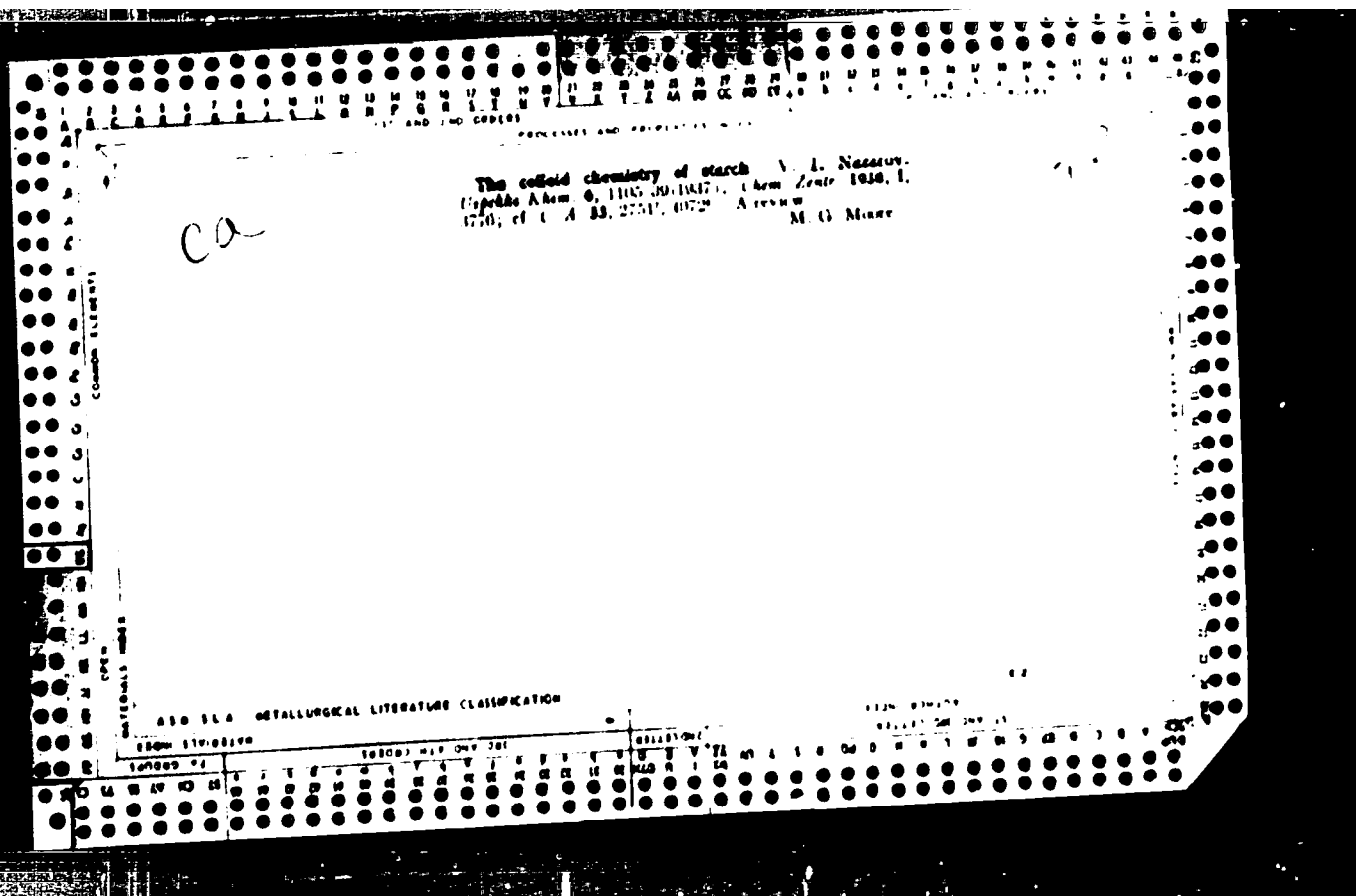
Investigating conditions of thickening ore pulps in an
upward flow. Trudy IPI no.18:160-172 '63.

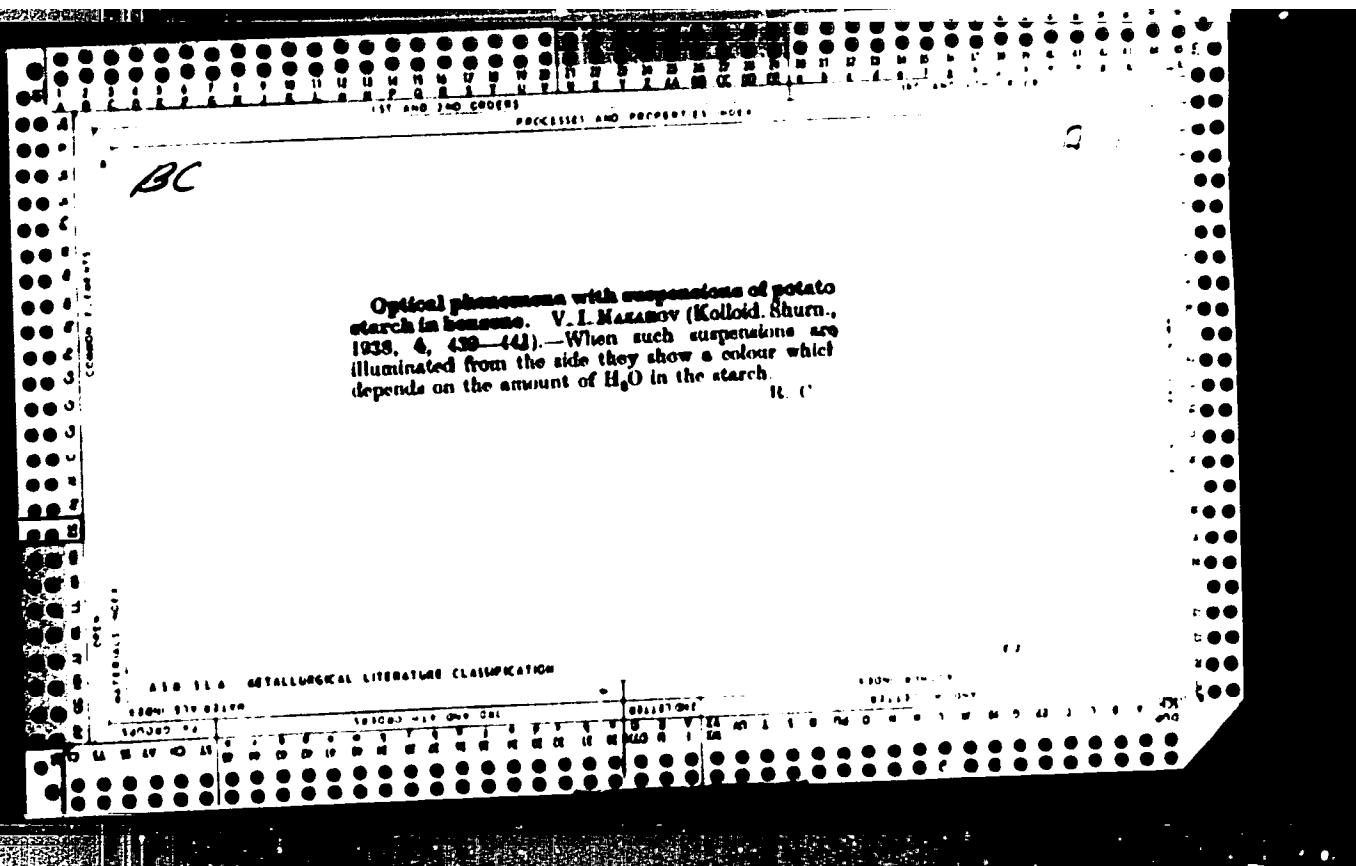
(MIRA 17:6)

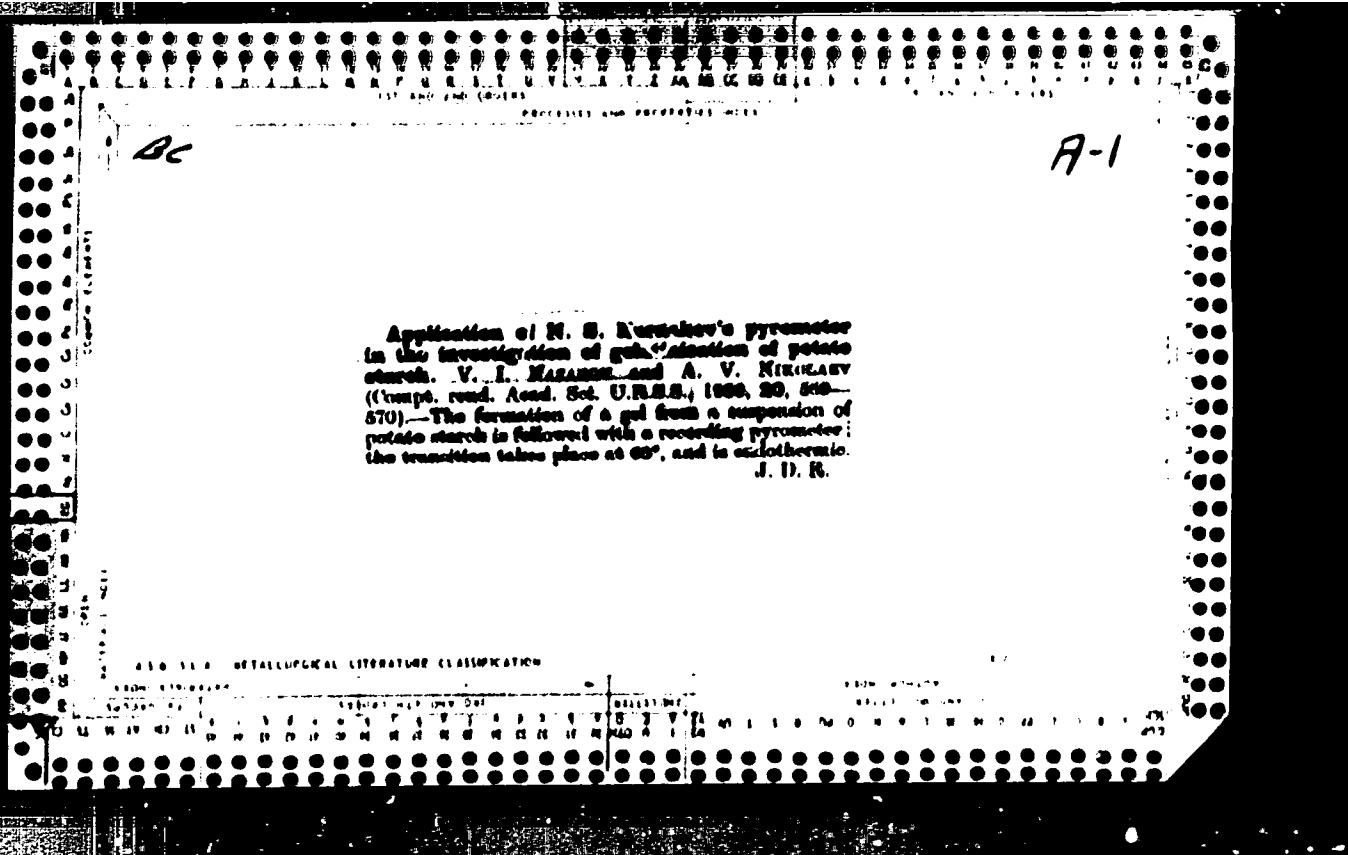
NAZAROV, V.I.; SKOBEYEV, I.K.

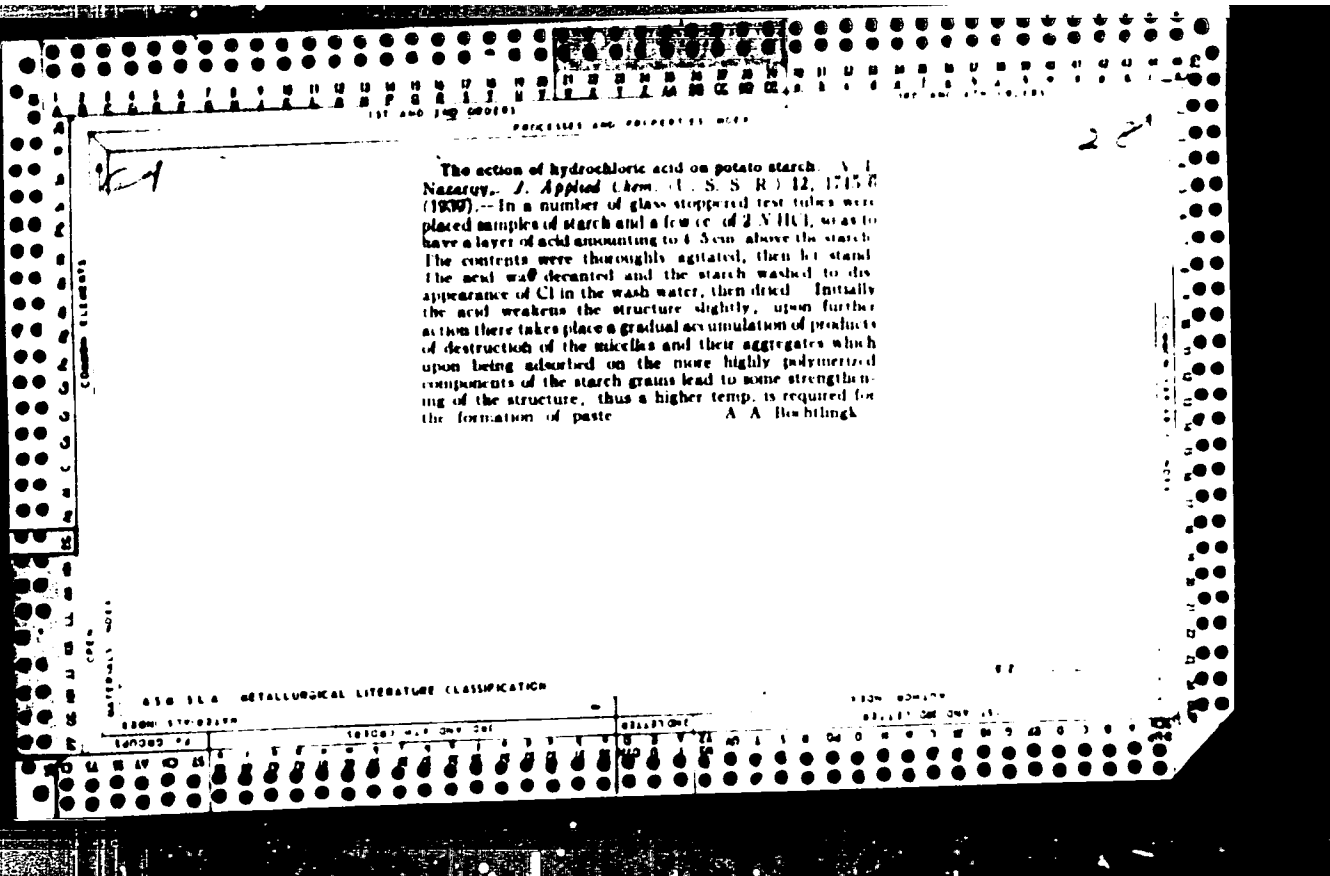
Thickening of pulps in an upward flow with a suspended
filter. Nauch. trudy IPI no.19:103-120 '63. (MIRA 17:6)

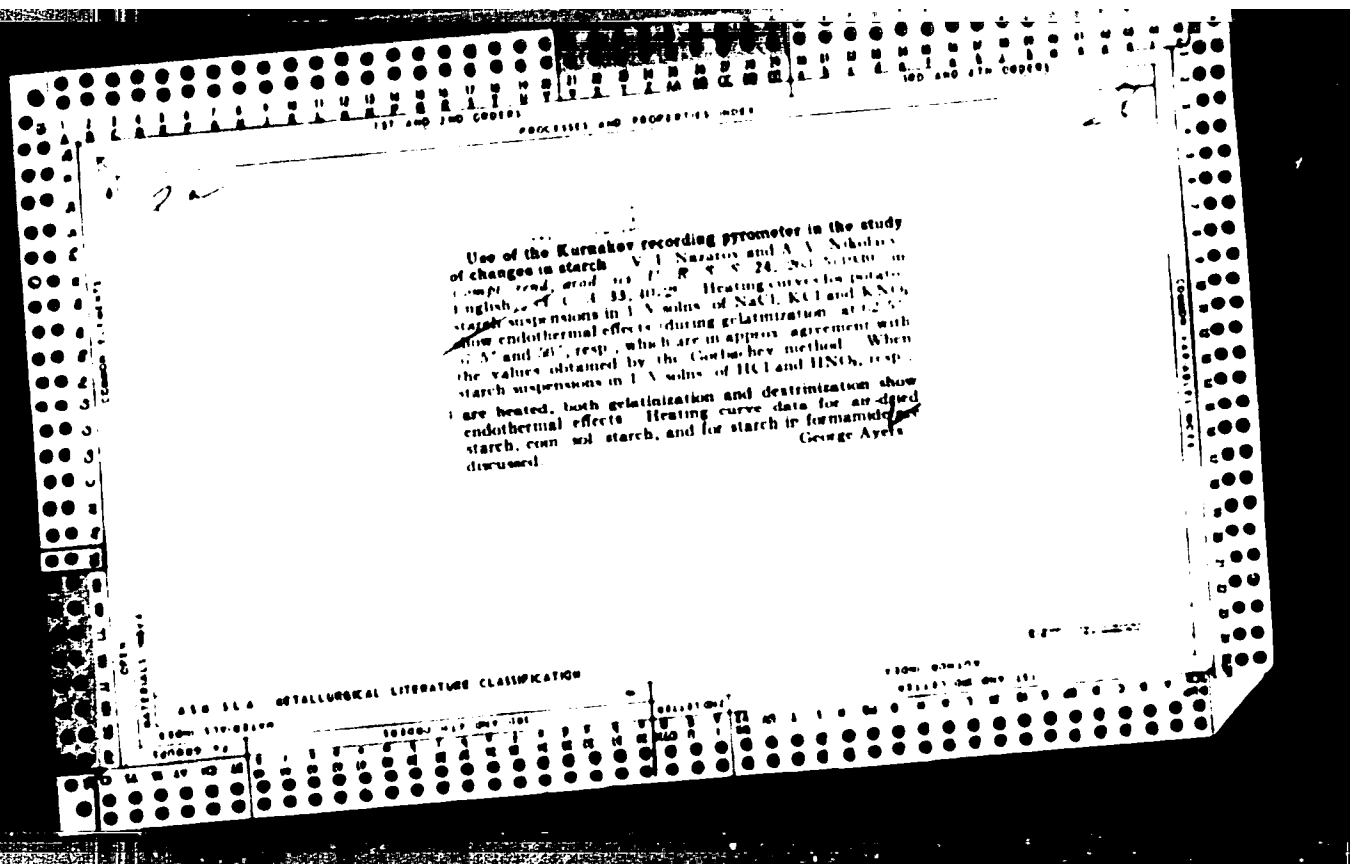


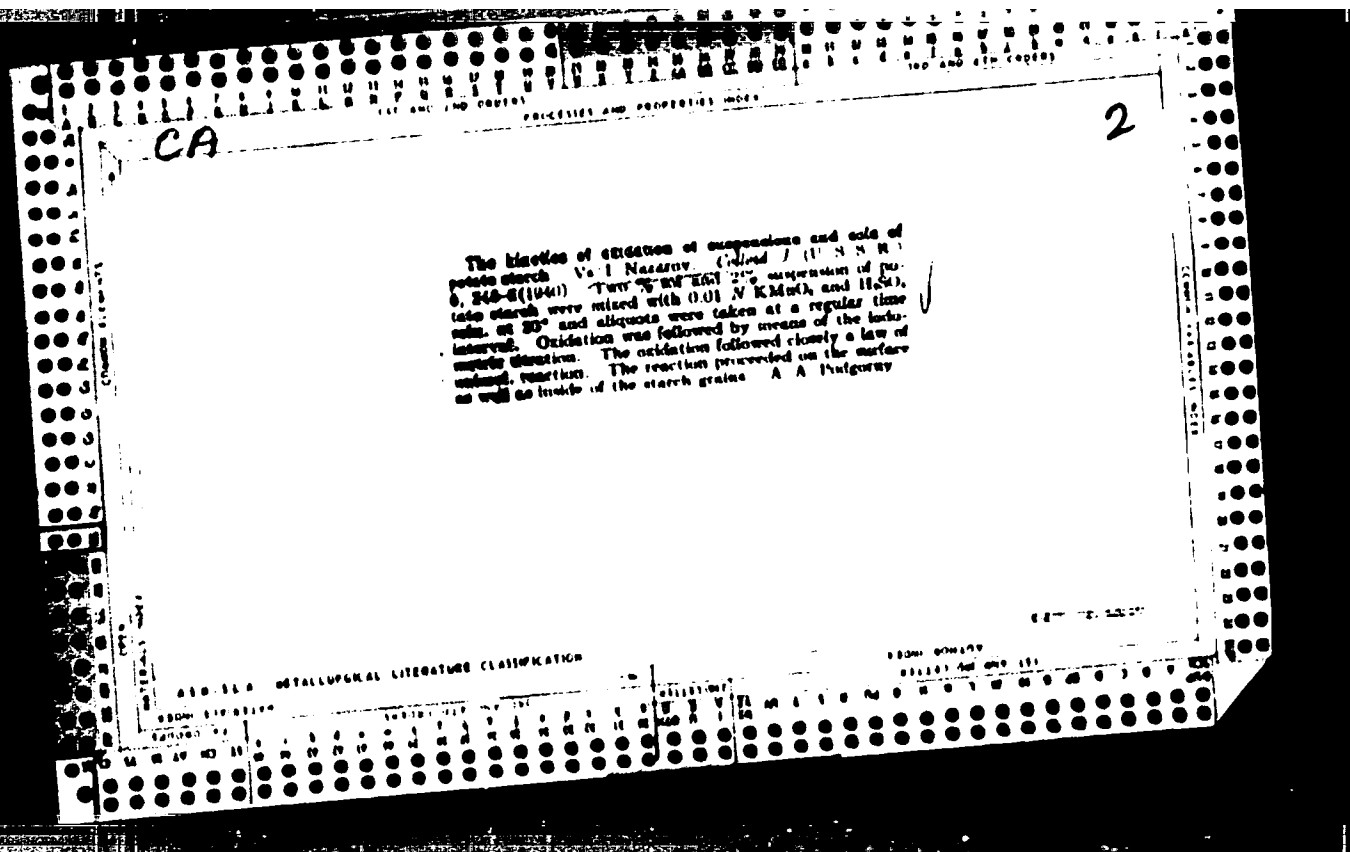












NAZAROV, V.I., professor, doktor khimicheskikh nauk.

Physical and colloidal chemistry of starch. Trudy MTIPP 2:
159-172 '52. (Starch) (MLRA 9:2)

Nazarov, V.I.

Use of thermographic methods in the study of heating processes in dough. V. I. Nazarov, A. S. Ginzburg, V. I. Korpachev, and K. M. Melnik. *Trudy Moskov. Tekhnol. Inst. Pishchevol Prom.* 1944, No. 3, 86-8; *Russk. Zhur. Khim.* 1944, No. 60868. -- An endothermal effect was observed in the degradation of starch. Heating curves for dough and temp. curves for baking are given. M. Hosen

MD
③

NAZAROV, V. I.

NAZAROV, V.I., professor.

Moscow Technological Institute of Food Industry. Khim.v shkole
9 no.4:77-79 J1-Ag '54. (MLRA 7:8)
(Food industry)

V. I. I.

U S S R .

Vladimir A. Naumov, V. I. Naumov, Colloid J.
U.S.S.R. 16, 91 (1974) See U.S. 48,
6173. U.S.S.R. 11.

17

~~777~~ NAZAROV, V-I.

CH
... on exchange of ... V. I. Nazarov and A. B.
Lut'yakov. Colloid J. (U.S.S.R.) 17, 285-7 (1955) (Engl.
translation).—Doc C.A. 49, 1164836. B. M. H.

①

NAZAROV, V. I.

④ Ion exchange on starch. V. I. Nazarov and A. B. Luk'yanov (Technol. Inst. Food Ind. Moscow). *Kolloid. Zhur.* 17, 302-4 (1955).—Potato starch (I) washed with HCl is an ion exchanger. Addn. of NaCl, KCl, or BaCl₂ to its suspensions causes an increase in elec. cond. because H⁺ ions ex. and metal ions leave the soln., while the elec. cond. of a 1% (OH)₂ is lowered by I because OH⁻ ions neutralize I⁺ ions displaced from I. Gelatinized I behaves similarly to a suspension of I. V. I. B.

①

NAZAROV, V.I., kand. tekhn. nauk; TIKHOMIROVA, T.P.

Physicochemical data on starch. Trudy NTIPP no.9:83-90 '57.
(Starch--Analysis) (MIRA 10:12)

HAZAROV, V.I.; SAKHAROV, V.G.; TIKHOMIROVA, T.P.

Some data for the study of the stability of gelatinous starch
and of the drying of bread. Izv.vys.ucheb.zav.pishch.tekh.
no.4:131-135 '58. (MIRA 11:11)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promyshlennosti,
Laboratoriya fizicheskoy i kolloidnoy khimii.
(Starch) (Colloids) (Bread)

07-02-86-1-11/18

AUTHORS: Nazarov, V.I., Silina, N.S., Tikhomirova, T.F.

TITLE: Some Experimental Investigations on the Physical Chemistry of Starch (Nekotoryye eksperimentalnyye issledovaniya po fiziko-khimiі krakmalā)

PERIODICAL: Kolloidnyy zhurnal, 1969, Vol. IX, Nr. 4, pp. 165-166

ABSTRACT: In the article, the influence of the temperature and electrolyte solutions on starch granules is studied. Starch is a high-molecular carbohydrate the properties of which are connected with the character of its internal structure. Experiments have shown, that at a temperature of 100°C , starch loses its water. If this dry starch is heated at 100°C for several hours, the temperature of paste formation is reduced (see Table). The complete elimination of water at 100°C leads to dextrine formation and other major changes in the internal structure. The influence of the electrolytes plays a great role since starch is an ion exchanging substance. A small quantity of ions connected with starch causes a considerable change in the filtration ability of the substance. The following cation range has been established: $\text{Mg}^{2+} > \text{Ca}^{2+} > \text{Ba}^{2+} > \text{Na}^{+}$. The adsorption capacity of starch has been determined by means of

Card 1 of 1

7-6019911-11 19

Some Experimental Investigations on the Physical Chemistry of Starch

methylene blue. The influence of the cations on this property is shown in the following range: $\text{Na}^+ > \text{Mg}^{2+} > \text{Ba}^{2+} > \text{Ca}^{2+}$. For the viscosity of starch the following cation range has been established: $\text{Ba}^{2+} > \text{Ca}^{2+} > \text{Mg}^{2+} > \text{H}^+$. A linear relationship is observed between the values of the ionic refractions and the paste formation temperature of the starch in the solutions of the respective electrolytes. There are 3 graphs, 1 table, and 11 references, 6 of which are Soviet and 5 German.

ORGANIZATION: Vaskovskiy tekhnologicheskii institut pishchevoy promyshlennosti, laboratoriya fizicheskoy i kolloidnoy khimii Moscow Technological Institute of the Food Industry, Laboratory of Physical and Colloidal Chemistry

SUBMITTED: April 1, 1957

1 Starches--Chemical properties

Card 2/2

NAZAROV, V. I.

Emulsions, foams, and aerosols in the food industry. Khim. v
shkola 14 no. 4:18-24 J1-Ag '59. (MIRA 12:11)
(Chemistry, Technical) (Food industry)

PISARENKO, Aleksandr Pavlovich, prof.; POSPELOVA, Kseniya Aleksandrovna, dots.; YAKOVLEV, Aleksandr Georgiyevich, dots.; VOYUTSKIY, S.S., prof., retsenzent; NAZAROV, V.I., prof., retsenzent; TAULMAN, S.S., prof., retsenzent; BARAMBOYM, N.K., prof., retsenzent; STUKOVNIN, I.D., red. izd-va; YEZHNOVA, L.L., tekhn. red.

[Course in colloid chemistry] Kurs kolloidnoi khimii. Moskva, Gos.izd-vo "Vysshaya shkola," 1961. 241 p. (MIRA 14:12)
(Colloids)

NAZAROV, V.I.; TESLENKO, O.S.

Comparative physicochemical studies of starch from common
and wax-like corn. Izv.vys.ucheb.zav.; pishch.tekh. 1:7-11 '61.

1. Moskovskiy tekhnologicheskiy institut pishchevoy promy-
shlennosti, Kafedra fizicheskoy i kolloidnoy khimii.
(Cornstarch)

HAZAROV, V.I.; SILINA, N.P.

Chromatographic study of the aging of wheat starch and wheat bread
jellies. *Izv.vys.ucheb.zav.* 1:117-121 '61. (MIRA 14:3)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promy-
shlennosti, Kafedra fizicheskoy i kolloidnoy khimii.
(wheat) (starch)

NAZAROV, V.I.

Vladimir Adol'fovich Naumov, history of the development of
Soviet colloidal chemistry!. Trudy Inst. ist. est. i tekhn. 1961:
386-394 '61. (MIFA 14:9
(Naumov, Vladimir Adol'fovich, 1879-1953)
(Colloids)

NAZAROV, V.I.

Some problems of the physical and colloidal chemistry of starch. Izv. vys. ucheb. zav.; pishch. tekhn. no.4:30-36 '63. (MIRA 16:11)

1. Moskovskiy tekhnologicheskiy institut pishchevoy promyshlennosti, kafedra fizicheskoy i kolloidnoy khimii.

SILINA, N.P.; NAZAROV, V.I.

Experience in the chromatographic study of the aging of
starch gels. Izv. vys. ucheb. zav.; pishch. tekhn. no.4:
37-39 '63. (MIRA 16:11)

1. Moskovskiy tekhnologicheskiy institut pishchevoy
promyshlennosti, kafedra fizicheskoy i kolloidnoy khimii.

DEULIN, V.I.; NAZAROV, V.I.

Determination of starch fractions by *amperometric* titration.
Zhur.anal.khim. 18 no.8:1016-1020 Ag '63. (MIRA 16:12)

1. Moscow Technological Institute of Food Industry.

NAZAROV, V.I.; SUKHORUKOVA, T.I.

Certain data on the adsorption properties of starch. Koll.zhur.
25 no.5:578-580 3-0 '63. (MIRA 16:10)

1. Moskovskiy tekhnologicheskiy institut pishchevoy
promyshlennosti, Kafedra fizicheskoy i kolloidnoy khimii.

NICHIGIN, Anatoliy Valentinovich; NAZAROV, Viktor Ivanovich;
TAGIYEV, Ryyub Izmaylovich

[Incremental-rotary drilling of wells] (darno-vraschta-
tel'noe sushenie kvazhizn. Moskva, Nedra, 1965. 161 p.
(MIRA 1965)

L 00865-66 ENT(d)/FSS-2/EEC-4

ACCESSION NR: AP5015863

UR/0106/65/000/006/0001/0009
621.396.235.1

AUTHOR: Nazarev, V. I. 55

20
B

TITLE: Reception of signals in the "rotating-phase" duplex PSK systems

SOURCE: Elektrosvyaz', no. 6, 1965, 1-9

TOPIC TAGS: phase shift keying, duplex telegraphy 80

ABSTRACT: Conventionally, the "rotating-phase" telegraph signals (such as used in the Kineplex system, AIEE trans. Comm. and El., 1958, no. 1) are received by phase-comparison methods. The present article suggests two modifications of the synchronous-coherent method for signal reception in duplex systems. In the first (rotating-phase) modification, the "reverse operation" and possible spontaneous reversals in the channels are compensated by a post-detector code converter. In the second modification, a pre-detector phase conversion is used. The synchronizing clockwork-frequency signals are derived directly from the information-carrying signal. Orig. art. has: 6 figures and 24 formulas.

Card 1/2

L 00865-66

ACCESSION NR: AP5015863

ASSOCIATION: none

SUBMITTED: 16Oct64

ENCL: 00

SUB CODE: EC

NO REF SOV: 004

OTHER: 002

0

Card 2/2

L 22453-66 EWT(A)/ESS-2

ACC NR. AP6005002

SOURCE CODE: UR/0106/66/000/001/0074/0076

AUTHOR: Nazarov, V. I.

18
E

ORG: none

TITLE: Isolation of synchronizing pulses from the signal in a phase-shift keying system with rotating phase

g

SOURCE: Elektrosvyas', no. 1, 1966, 74-76

TOPIC TAGS: phase shift keying, telegraphy, radio telegraphy

ABSTRACT: In some multichannel phase-shift keying (PSK) systems (such as Kineplex TE-202, TE-207), the sync signal is transmitted over a special channel. In few-channel PSK systems, where allotting a separate channel for sync purposes is undesirable, the synchronizing pulse can be isolated directly from the signal. The article proves theoretically that such isolation is possible in PSK systems with rotating phase. The rotating phase component makes the signal keying phase code redundant; this redundancy carries information on the keying frequency. To eliminate the phase keying, the carrier frequency ω should be multiplied by a factor

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UDC: 621.396.235.9

L. 22453-66

ACC NR: AP6005002

equal to the number of possible phase values in the signal. Two practical methods of sync-pulse isolation are recommended: (1) Amplitude detection of oscillations that passed a tuned circuit of $n\omega$ frequency; (2) Synchronous detection at $n\omega$ frequency by means of a reference voltage. Orig. art. has: 9 formulas.

SUB CODE: 17 / SUBM DATE: 17Apr65 / ORIG REF: 007

Card 2/2

L 13292-66 EWT(m)/EWP(j) RM
ACC NR: AP6000325 (A)

SOURCE CODE: UR/0286/65/000/021/0012/0012

INVENTOR: Volkova, L. I.; Zaitova, A. Ya.; Ioakimis, A. A.; Mochal'nikova, T. P.;
Nazarova, L. Yu.; Nazarov, V. I.; Pryakhina, M. S.; Petrov, V. N.; Rachkovskiy, E.
E.; Savel'yev, A. P.; Syrova, A. A.; Tikhonovskaya, S. G.

32
B

ORG: none

TITLE: A method for producing normal butanol by synthesis from ethyl alcohol.
Class 12, No. 175929 [announced by the Bashkir Scientific Research Institute for
Petroleum Refining (Bashkirskiy nauchno-issledovatel'skiy institut po pererabotke
nefti)]

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 21, 1965, 12

TOPIC TAGS: catalysis, butanol, ethyl alcohol

ABSTRACT: This Author's Certificate introduces: 1. A method for producing normal butanol by synthesis from ethyl alcohol on a catalyst. The process is done in a single stage by using a catalyst consisting of aluminum oxide, magnesium oxide, silicon oxide and a salt or oxide of an alkali metal. 2. A modification of this

Card 1/2

UDC: 66.097.3 : 547.264.07

L 13292-66

ACC NR: AP6000325

0

method in which the catalyst contains from 5 to 80 % aluminum oxide, from 95 to 10 % magnesium oxide, from 0 to 50 % silicon oxide and from 0 to 5 % of a salt or oxide of an alkali metal.

SUB CODE: 07/ SUBM DATE: 11Apr63/ ORIG REF: 000/ OTH REF: 000

JW
Card 2/2

L 46057-66 EWT(d)/FSS-2 GD

ACC NR: AT6022340

SOURCE CODE: UR/0000/66/000/000/0020/0022

AUTHOR: Nazarov, V. I.

ORG: None

TITLE: Use of phase signal keying with rotating phase in communication channels

SOURCE: Vsesoyuznaya nauchnaya sessiya, posvyashchennaya Dnyu radio. 22d, 1966. SeKtsiya teorii i tekhniki peredachi diskretnykh signalov. Doklady. Moscow, 1966, 20-22

TOPIC TAGS: phase coding, communication coding, communication channel

ABSTRACT: It is shown that signals of the form

$$u_c(t) = \sum_{i=1}^N U_{mi} \sin[\omega(t - t_i) + \varphi_i + \varphi_0 + \varphi_{inf} + \varphi_0' + \varphi_{rd}]$$

where $t_i = t_0 + \sum_{k=1}^{i-1} \tau_k$ is the length of the i -th pulse group, and N is the number of pulse groups in the message, is the most general form of phase-keyed signals. In addition to the initial, informational and indeterminate phase components, this signal has a determinate rotating phase component and a second indeterminate component which gives the signal a number of interesting properties. Among these properties are phase keying in any time interval $\Delta t \geq n\tau_n$, ($n \in \{2, 3, \dots, N\}$) for any combinations

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L 46057-66

ACC NR:

AT6022340

of informational symbols and when there is no useful information in the phase compression channels; mutual independence of the laws for variations in the informational and rotating phase components; storage and explicit discrimination of complete information on keying frequency or the boundaries between code combinations when multiplication of the carrier frequency for the signal being received is incomplete; the signal may be structurally simplified without loss of transmitted information. Examples are given illustrating engineering applications based on the specific properties of phase-keyed signals in phase telegraphy, predetector phase conversion and signal synchronization. Orig. art. has: 1 formula.

SUB CODE: 09/7/ SUBM DATE: 09Apr66/ ORIG REF: 004/ OTH REF: 001

Card

2/2

gd