

ACCESSION NR: AT4019727

S/2759/63/000/005/0125/0133

AUTHOR: Zenkevich, P. R.; Milovanov, O. S.

TITLE: Influence of reflection on the operation of a magnetron feeding a linear electron accelerator with power feedback input

SOURCE: Moscow. Inzhenerno-fizicheskiy Institut. Uskoriteli (Accelerators), no. 5, 1963, 125-133

TOPIC TAGS: reflection, magnetron linear accelerator, electron accelerator, power feedback input

ABSTRACT: The use of power feedback input in traveling-wave linear electron accelerators is highly advantageous. The power feedback input node has special properties and strongly influences the band characteristics of the accelerator. In earlier papers by other authors the power feedback input node was considered to be completely matched, but at the shoulder of the accelerator there is a non-uniformity corresponding to a jump in the active impedance or in the purely reactive shunt conductance. In the present paper a more exact equivalent circuit of the high-frequency channel of the accelerator was adopted. This allows us to take into account the influence of the properties of the high-frequency channel of the accelerator with power feedback input on the frequency stability of the

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magnetron which feeds such an accelerator. Band characteristics are discussed for linear electron accelerators, both with and without feedback input. For the former, the frequency drift of the magnetron was derived. Orig. art. has: 20 formulas and 2 figures.

ASSOCIATION: Inzhenerno-fizicheskiy institut, Moscow (Engineering-Physics Institute)

SUBMITTED: 00

DATE ACQ: 19Mar64

ENCL: 00

SUB CODE: NP, EE

NO REF SOV: 002

OTHER: 002

Card 2/2

ACCESSION NR: AT4019728

S/2759/63/000/005/0134/0137

AUTHOR: Milovanov, O. S.; Shal'nov, A. V.

TITLE: Frequency drift in a magnetron directly connected with a linear accelerator channel

SOURCE: Moscow. Inzhenerno-fizicheskii Institut. Uskoriteli (Accelerators), no. 5, 1963, 134-137

TOPIC TAGS: frequency drift, magnetron, linear accelerator, magnetron oscillation, magnetron resonator, voltage, anode current, loading current

ABSTRACT: Magnetron oscillation frequency variation, arising as a result of the inconstancy of the external conditions, is called the frequency drift. The main reasons for such a frequency drift are: 1) temperature variations of the geometric dimensions of the accelerator waveguide system and of the magnetron resonator system, 2) magnetron frequency variation due to variation in magnetron anode current (or voltage), and 3) input impedance variation of the high frequency system of the accelerator due to variation in the loading current of the accelerated electrons. Under these conditions a stability criterion is obtained for the magnetron operation in the general case of band characteristics of the load. Orig. art. has: 15 formulas.

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ASSOCIATION: Inzhenerno-fizicheskiy Institut, Moscow (Engineering-Physics Institute)

SUBMITTED: 00

DATE ACQ: 19Mar64

ENCL: 00

SUB CODE: NP, EE

NO REF SOV: 003

OTHER: 000

Card 2/2

ACCESSION NR: AT4019729

S/2759/63/000/005/0138/0145

AUTHOR: Varaksin, V. B.; Milovanov, O. S.

TITLE: Internal pulse modulation of magnetron frequency when it is operating on a linear electron accelerator

SOURCE: Moscow. Inzhenerno-fizicheskii institut. Uskoriteli (Accelerators), no. 5, 1963, 138-145

TOPIC TAGS: magnetron, magnetron frequency, linear accelerator, electron accelerator, anode voltage, electromagnetic wave, electron acceleration, radio pulse spectrum, frequency modulation

ABSTRACT: The frequency variation of the oscillations generated by a magnetron during pulsing is called the internal pulse modulation, and is caused by two closely related phenomena: the instability of the anode voltage magnitude and the establishment of the frequency. The present paper gives the results of calculations and experimental observations of the internal pulse modulation of the magnetron frequency when it feeds a linear electron accelerator. The following conclusions are obtained: 1) the magnetron operation gives rise to a parasitic frequency modulation caused by the effects of electron mixing of the frequency and by the multiple reflections of the electromagnetic wave at the discontinuities of the  
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ACCESSION NR: AT4019729

channel; 2) the parasitic frequency modulation leads to a blurring of the radio-pulse spectrum and to the broadening of the energy spectrum of the accelerated electrons; 3) the distortions in the radio-pulse spectrum are expressed in terms of the carrier frequency modulation index. Orig. art. has: 7 formulas and 4 figures.

ASSOCIATION: Inzhenerno-fizicheskiy institut, Moscow (Engineering-Physics Institute)

SUBMITTED: 00

DATE ACQ: 19Mar64

ENCL: 00

SUB CODE: NP, EE

NO REF. SOV: 007

OTHER: 001

Card 2/2

ACCESSION NR: AT4019730

S/2759/63/000/005/0146/0155

AUTHOR: Milovanov, O. S.; Shchedrin, I. S.

TITLE: Study of the operation of a magnetron on a resonant chamber

SOURCE: Moscow. Inzhenerno-fizicheskiy Institut. Uskoriteli (Accelerators), no. 5, 1963, 146-155

TOPIC TAGS: magnetron, resonant chamber, generator, resonator, load, absorbing load, transmission line

ABSTRACT: In this article a method is considered for an approximate analysis of the conditions which ensure a stable operation of the generator at a given frequency. The proposed method allows us to obtain a more precise solution if the experimental characteristics of the resonator and the magnetron are used. The following conclusions are obtained: 1) stable operation of the magnetron can be achieved only when decoupling devices are used; 2) if we use an active absorbing load as a decoupling device, then the magnitude of the absorbed power strongly depends on the length of the transmission line and increases with this length; 3) the proposed analysis method has an accuracy of about  $\pm 10\%$ .

ASSOCIATION: Inzhenerno-fizicheskiy Institut, Moscow (Engineering-Physics Inst.)  
Card 1/2

L 22490-65 EWT(1)/EEC-li/EWA(n) Feb  
ACCESSION NR: AT5001494

8/2759/64/000/006/0036/0042

AUTHOR: Milovanov, O. S.; Sobenin, N. P.; Shchedrin, I. S.

TITLE: Engineering calculation of reflections in diaphragmed waveguides. 25 <sup>BH</sup>

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Uskoriteli, no. 6, 1964, 36-42

TOPIC TAGS: periodic waveguide, diaphragmed waveguide, scattering matrix, internal reflection, transmission matrix

ABSTRACT: This is a companion theoretical paper to a preceding experimental paper in this collection (by O. A. Val'dner and I. S. Shchedrin, p. 29, Accession Nr. AT5001493), in which diaphragmed waveguides are considered with constant dimensions and without losses in the walls, an assumption which is justified for the S-band. The waveguide with reflecting inhomogeneities is represented by parallel admittances located at different electrical distances from one another, and the scattering matrix is determined from the transmission matrix of the system. The reflections are assumed to be independent of the frequency, so that the band-pass characteristics depend only on the variation of the electric dis-

Card 1/2



L. 22490-65  
ACCESSION NR: AT5001494

tances from the input terminals to the existing inhomogeneities. A procedure for determining the reflections from the experimental results obtained by the method of the companion paper and a Smith chart is described. The method employed can also be used for waveguides with variable parameters (bunching sections), for other microwave bands, and for arbitrary long lines if the frequency variation of the electrical distance of the inhomogeneities is known as a function of the number of cells in the periodic line. Orig. art. has: 3 figures and 21 formulas.

ASSOCIATION: Inzhenerno-fizicheskiy institut, Moscow (Engineering-Physics Institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: EC

NR REF SOV: 004

OTHER: 000

Card 2/2

MILOVANOV, G.S.; SHECHDRIN, I.S.

Analyzing the performance of a magnetron on a system of paired resonators. Uskoriteli no.6:65-70 '64.

(MIRA 18:2)

MILOVANOV, S., gvardii podpolkovnik tekhnicheskoy sluzhby

Operation of an aircraft radar station. Vest. Vozd. Fl. 37  
no.1:70-73 J '55. (MIRA 16:8)

(Radar in aeronautics)

MILOVANOV, S.P.

Subject : USSR/Aeronautics AID P - 1060  
Card 1/1 Pub. 135 - 14/24  
Author : Milovanov, S.<sup>P.</sup> Guards Lt. Col. of Tech. Service  
Title : Operation of an aircraft-radar station  
Periodical : Vest. vozd. flota, 1, 70-73, Ja 1955  
Abstract : The author considers the range of the detection of ground targets as a basic quality of aircraft-radar stations. This quality depends mainly on the power and sensitivity of the station, which on the other hand depends on its technical maintenance. The author analyses this kind of maintenance. He outlines standard instruments and components of radio location stations.  
Institution : None  
Submitted : No date

AID P - 5430

Subject : USSR/Aeronautics - air navigation  
Card 1/1 Pub. 135 - 7/31  
Author : Milovanov, S. P., Lt. Col., mil. pilot class I  
Title : Air navigation in stratosphere  
Periodical : Vest. vozd. flota, 1, 36-39, Ja 1957  
Abstract : Some peculiarities of piloting the aircraft in stratosphere, the meteorological conditions there, and how various landmarks look when observed from high altitudes is described in this article. The article is of informative value.  
Institution : None  
Submitted : No date

MATUSEVICH, M.G., kand. ekon. nauk; MILOVANOV, V.A., kand. ist. nauk; NIKITIN, G.A., kand. geogr. nauk; GURVICH, G.Ts. kand. ekon.nauk; GOLUBEV, B.P., nauchn. sotr.; KRUTILINA, T.N., nauchn. sotr.; MIKHNEVICH, L.M., nauchn. sotr.; GIORGIDZE, Z.I., kand. ekon. nauk; RAVUN, I.I., kand. ekon. nauk; OKUN', M.V., kand. ekon.nauk; KOVALEVSKIY, G.T., kand. ekonom. nauk; KHROMOV, P.A., doktor ekonom. nauk, nauchnyy red.; LEONENKO, I., red. izd-va; ATLAS, A., tekhn. red.

[Economy of White Russia during the period of imperialism, 1900 - 1917] Ekonomika Belorussii v epokhu imperializma, 1900-1917. Minsk, Izd-vo AN BSSR, 1963. 420 p.

(MIRA 17:3)

1. Akademiya nauk BSSR, Minsk, Instytut ekonomiki.
2. Institut ekonomiki AN BSSR (for all except Leonenko, Atlas).

MILOVANOV, V. F.

Meteors

Determining the coefficient of correlation between the color and speed of meteors.  
Izv. Turk. fil. AN SSSR No. 1, 1951.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

MILOVANOVIĆ, M. K.

"Achievements of Soviet Biological Science in Livestock Breeding," Moscow, 1950.



MILOVANOV, V. K. ~~Zootekhnika~~

"Significance of the Teaching of Academician I. P. Pavlov in the Development of the Biology of Reproduction of Agricultural Animals," Sovetskaya Zootekhnika, 6 (4): 18-32, April 1951

Milovanov, V. K. (Prof, Doctor of Biological Sciences, Laureate of the Stalin Prize, All-Union Scientific Research Institute of Animal Husbandry)

MILOVANOV, V. K. (Prof.)

"Applying the Doctrine of Vitality to Agricultural Animals," *Agrobiologiya*,  
No 3, 1952

Vsesoyuznyy institut zhiivotnovodstva, g. Moskva

MILOVANOV, V. K.

STOCK AND STOCKBREEDING

Ways to increase viability of farm animals. Dost.sel'khoz. No. 9, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

MILOVANOV, V. K.

"Fertilization, Vitality and Sex of Agricultural Animals," Journal of Gen. Biology (Dzhural Obshchey Biologii), Vol. 13, No. 2, Press of the AS USSR, Moscow, 1952.

1. MILOVANOV, V. K.
2. USSR (600)
4. Impregnation, Artificial
7. Results of scientific research work on artificial insemination of farm animals. Trudy VIZh 20, 1952.

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

MILOVANOV, V.K.; SOKOLOVSKAYA, I.I.

The present status of the problem of fertilization of farm animals.  
Zhur. ob. biol. 16 no.5:383-396 S-0 '55. (MLRA 9:3)

(STOCK AND STOCKBREEDING) (FERTILIZATION (BIOLOGY))

~~MILOVANOV, V.K.~~, akademik; SOKOLOVSKAYA, I.I.; doktor biologicheskikh nauk; ~~PROKOVA, L.P.~~, kandidat biologicheskikh nauk; SYTINA, M.V.; KULESHOVA, V.G.

Three new microrespirometers for studying the metabolism of small biological specimens. Dokl.Akad.sel'khoz.21 no.11:17-21 '56.  
(MLSA 9:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhivotnovodstva.  
(Respirometer) (Spermatozoa) (Embryology)

COUNTRY : USSR  
CATEGORY : Farm Animals. Q  
          : General Problems.  
ABS. JOUR. : RZhBiol., No. 3, 1959, No. 11937  
  
AUTHOR : Milovanov, V. K.  
INST. : AS USSR  
TITLE : The Problem of the Neurohumoral Regulation  
       : of Reproductive Processes in Farm Animals.  
  
ORIG. PUB. : V sb.: Vopr. fiziol. s.-kh. zhivotnykh. M.-L.  
           : AN SSSR, 1957, 229-238  
ABSTRACT : On the basis of I. P. Pavlov's teaching, an  
          : analysis of the nervous system's leading role  
          : in processes of reproduction of farm animals  
          : is presented. Sex reflexes originate in two  
          : ways: through external stimuli affecting the  
          : peripheral nerves, and through inner stimuli,  
          : the hormones of sex glands. Unconditioned re-  
          : flexes, the copulatory and the ejaculatory  
          : reflexes, belong to the first group. The  
          : second group consists of conditioned reflexes  
          : whose stimuli act from a distance upon senso-

Card: 1/4



COUNTRY : USSR  
CATEGORY :  
ABS. JOUR. : RZhBiol., No. 1959, No.

AUTHOR :  
INST. :  
TITLE :

ORIG. PUB. :

ABSTRACT : ry organs, namely locomotive, secretory and vasomotor reflexes. Some stimuli may lead to an inhibition of sex reflexes. The author makes the distinction between a protective inhibition, an extinguishing and a differentiating inhibition. The reflexes of the gametogenesis regulation in males and females belong to the third group. The activity of semen formation in males does not only depend upon dietary conditions, but is also regulated by the

CARD: 2/4

COUNTRY : USSR  
CATEGORY :

ABS. JOUR. : RZhBiol., No. 1959, No.

AUTHOR :  
INDIC. :  
TITLE :

ORIG. PUB. :

ABSTRACT : nervous system depending upon the frequency of the males' copulations and the stimuli obtained by them. The female sex reflex in farm animals is not an unconditioned reflex which reacts only to stimuli initiated by the male. Under conditions in which cows are isolated from bulls and kept together with cows they develop new conditioned reflexes. The confirmation of this fact may be found in the kymograms of conditional reflex movements of the cows' vagina which were obtained in natu-

Card: 3/4

COUNTRY : USSR  
CATEGORY :

ABS. JOUR. : RZhBiol., No. 1959, No.

AUTHOR :  
REF. :  
TITLE :

ORIG. PUB. :

ABSTRACT : ral mating as well as in artificial insemination in which neuro-humoral regulation of reproductive processes is not excluded.  
-- V. V. Polovtsova

CARD: 4/1

USSR/Farm Animals. General Problems.

Q

Abs Jour: Ref Zhur-Biol., No 17, 1958, 78667.

Author : ~~Milovanov, V. K.~~; Smirnov-Ugryunov, D.V.;  
Yel'chaninov, V. V.

Inst :

Title : On Belated "Refutations" of Artificial Insemination.

Orig Pub: Zhivotnovodstvo, 1957, No 9, 7-19.

Abstract: Objections are critically analyzed which have been raised against the expediency of the use of artificial insemination in animal breeding. S. S. Perov objects on the principle of the "sex selection" of Darwin. According to A. A. Mashkovtsev, the method of artificial insemination is contrary to the teachings of Pavlov on conditioned reflexes, decreases fertilization, and impairs the

Card : 1/3

USSR/Farm Animals. General Problems.

Abs Jour: Ref Zhur-Biol., No 17, 1958, 78667.

Q

function of reproduction. P. K. Anokhin could not show the presence of hereditary-signal stimulators in adult mammals. N. A. Flegmatov and Shipilov consider that in artificial insemination of cows, low fertility is observed (not over 55%). The authors of this article refute the objections raised, and defend the method of artificial insemination both on the basis of data obtained and from the viewpoint of Pavlov's teaching. In England the fertilization of cows (1 million) in first heat is 68%; in the USA ~70%; for the USSR in 1956 the average for the first heat was 76%. The rapid formation of conditioned sex reflexes in cows, the dura-

Card : 2/3

USSR/Farm Animals. General Problems.

Q

Abs Jour: Ref Zhur-Biol., No 17, 1958, 78667.

tion of their preservation and their great  
changeability is pointed out.

Card : 3/3

2

USSR/Farm Animals. General Problems.

q

Abs Jour: Ref Zhur-Biol., 1958, No 17, 78666.

Author : ~~Milovanov, V. K.~~ Sokolovskaya, I. I.  
Inst : All-Union Academy of Agricultural Sciences imeni  
V. I. Lenin.

Title : Achievements of Soviet Science in the Biology of  
Reproduction and Artificial Insemination of Farm  
Animals in the USSR.

Orig Pub: Dokl. VASKhNIL, 1957, No 10, 34-42.

Abstract: No abstract.

Card : 1/1

USSR / Farm Animals. General Problems.

Abstr Jour : Ref Zhur - Biologiya, No 5, 1959; No. 21178

Author : Milovanov, V. K.; Sokolovskaya, I. I.  
Inst : All-Union Scientific Research Institute of Animal Husbandry

Title : Fertilization of Farm Animals and Its Medium

Orig Pub : Tr. Vses. n.-i. in-ta shivotnovodstva, 1957, 21, 14-39

Abstract : The sperm of males who ate rations with predominantly grain feeds absorbed more oxygen and its fertility was greater than the sperm of bulls who were given tuber-containing rations. A lack of carotene in the composition of fodder leads to a disruption of sexual functions in males and females. The mucinase ferment, which is utilized at the moment of fertilization for improving the condition of the success of sexual

Card 1/2



MILOVANOV, V.K., akademik; SOKOLOVSKAYA, I.I., prof.

Achievements of Soviet science biology of reproduction and artificial insemination of farm animals. Dokl. Akad. sel'khoz. 22  
no.10:34-42 '57. (MIRA 10:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhiivotnovodstva.  
(Artificial insemination)

MILOVANOV, V.K., akademik; SYTINA, M.F., kand.biol.nauk; KULESHOVA, V.G.,  
nauchnyy sotrudnik

A method of preserving semen without chilling by immobilization  
of the acids. Zhivotnovodstvo 21 no.3:64-78 Mr '59.  
(MIRA 12:4)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni V.I.  
Lenina (for Milovanov). Vsesoyuznyy nauchno-issledovatel'skiy institut  
zhivotnovodstva (for Kuleshova).  
(Semen)

MILOVANOV, V.K.,akademik; SYTINA, M.V.,kand.biol.nauk; KULESHOVA, V.G.

Effect of increased oxygen supply to male progenitors on their  
spermatogenesis, fertilizing capacity, and posterity. Dokl.  
Akad.sel'khoz. 24 no.2:32-39 '59. (MIRA 12:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhitovnovodstva.  
(ARTIFICIAL INSEMINATION) (OXYGEN--PHYSIOLOGICAL EFFECT)  
(RABBIT BREEDING)

MILOVANOV, V.K., akademik; SYTINA, M.V., kand. biolog. nauk; KULESHOVA, V.G.

Effect of feeding on the oxidation-reduction reaction of semen.  
Dokl. Akad. sel'khoz. 24 no.7:41-43 '59. (MIRA 12:10)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut zhivotnovodstva.  
(Semen) (Oxidation-reduction reaction)

MILOVANOV, V.K., akademik; SOKOLOVSKAYA, I.I., doktor biolog. nauk

Theory of the temperature shock to the spermatozoons of  
mammals. Dokl. Akad. sel'khoz. 24 no. 8:3-8 '59.  
(MIRA 12:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhivotnovodstva.  
(Spermatozoa) (Artificial insemination)

MILOVANOV, V.K., akademik; SYTINA, M.V., kand.biolog.nauk; KULESHOVA, V.G.

Alternating the feeding of male breeding stock. Dokl.Akad.sel'-  
khoz. 24 no.12:29-32 '59. (MIRA 13:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhivotnovodstva.  
(Feeding) (Semen)

MILOVANOV, Viktor Konstantinovich, akademik; SOKOLOVSKAYA, Irina Ivanovna, doktor biolog.nauk; KATSNEL'SON, S.M., red.; ATROSHCHENKO, L.Ye., tekhn.red.

[Artificial insemination of farm animals; the significance, present-day status, and future application of artificial insemination of farm animals] Iskusstvennoe osemenie sel'skokhoziaistvennykh zivotnykh; znachenie, sovremennoe sostoianie i perspektivy primeneniia iskusstvennogo osemeniia sel'skokhoziaistvennykh zivotnykh. Moskva, Izd-vo "Znanie," 1960. 38 p. (Vsesoiuznoe obshchestvo po rasprostraneniuiu politicheskikh i nauchnykh znani. Ser.5, Sel'skoe khoziaistvo, no.9). (MIRA 13:6)

1. Deystvitel'nyy chlen Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Milovanov).  
- (Artificial insemination)

MILOVANOV, V.K., akad.; PARSHUTIN, G.V., doktor biol. nauk; SOKOLOVSKAYA, I.I., doktor biol. nauk; OZHIN, F.V.; TSITOVICH, Ye.V.; TRUBKIN, G.D., red.; CHUBENKO, N.S., red.; TSVETKOV, I.V., red.; YERZINA, Z.K., red.; ME-SHCHANKINA, A.B., red.; SAYTANIDI, L.D., tekhn. red.

[Album on the artificial insemination of livestock] Al'bom po iskusstvennomu oshemeneniiu sel'skokhoziaistvennykh zhiivotnykh. Moskva, Izd-vo M-va sel'.khoz. RSFSR, 1960. 134 p. (MIRA 14:10)

1. Russia (1917- R.S.F.S.R.) Glavnoye upravleniye plemennogo dela i plemsovkhozov.  
(Artificial insemination) (Livestock)



MILOVANOV, V.K.; SOKOLOVSKAYA, I.I.; CHUBENKO, N.S.; TRUBKIN, G.D.:  
TSVETKOV, I.V.; BAYEV, K.D., red.; LEVINA, L.G., tekhn. red.

[Operating methods of stations for the artificial insemination of farm animals] Tekhnologiya raboty stantsii po iskusstvennomu osemneniiu sel'skokhoziaistvennykh zhivotnykh. Moskva, Izd-vo M-va sel'.khoz. RSFSR, 1961. 145 p.

(MIRA 15:2)

(Artificial insemination)

MILOVANOV, V.K., akademik

Present state of the problem of neurohumoral regulation of  
reproductive processes in animals (to be continued).  
Zhivotnovodstvo 23 no.8:68-75 Ag '61. (MIRA 16:2)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni  
Lenina.

(Reproduction)

MILOVANOV, V.K., akademik; KUZ'MICHEV, A.V., red.; DOBYCHINA, I.N.,  
red.; MAKHOVA, N.N., tekhn. red.; PEVZNER, V.I., tekhn. red.

[Biology of reproduction and artificial insemination of live-  
stock; biological-zootechanical monograph] Biologiya vosproizve-  
denia i iskusstvennoe osemnenie zhivotnykh; biologo-  
zootekhnicheskaja monografiia. Moskva, Sel'khozizdat, 1962. 695 p.  
(MIRA 15:6)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk im. V.I.  
Lenina (for Milovanov).  
(Reproduction) (Artificial insemination)

MILOVANOV, V.K.

Present stage of the problem of neurohumoral regulation  
of the reproduction processes in animals. Analele biol  
16 no.2:82-94 Mr-Ap '62.

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MILOVANOV, V.K.

Present state of the problem of neurohumoral regulation of the  
reproductive processes in animals. Analele biol 16 no.3:64-72  
My-Je '62.



MILOVANOV, V.K.; akademik

International exchange of the semen of best breeding bulls.  
Zhivotnovodstvo 24, no.9:89-90 S '62. (MIRA 15:12)  
(Semen)

MILOVANOV, V.K.

All-Union Scientific Research Institute of Animal Husbandry, Head

Report to be submitted for the 13th International Conference ,  
Wels, Austria, 29 Aug-1 Sep 63.

MILOVANOV, V.K.

Prospects of the development of biological reproduction and artificial impregnation of animals. Analele Agric zooteh 17 no.6:113-122 N-D'63.



MILOVANOV, V. K.

"Implementors--A New Class of Synthetic Media for Semen."

report presented at the 5th Intl Cong on Animal Reproduction & Artificial Insemination, Trent, Italy, 6-13 Sep 64.

All-Union Inst of Animal Husbandry, Moscow.

MILOVANOV, V.N.

Attachment to the welding jaw vise. Avtom.telem.i sviaz' 3  
no.10:42 0 '59. (MIRA 13:2)

1. Starshiy inshener po kontrol'no-izmeritel'nym priboram  
Batayskoy distantsii signalizatsii svyazi Severo-Kavkazskoy  
dorogi.

(Welding)

L 23732-66 -- EMT(m)/EWA(h)

ACC NR: AP6014813

SOURCE CODE: UR/0367/65/001/002/0329/0337

AUTHOR: Denisov, F. P.; Latypova, R. A.---Latipova, R. A.; Milovanov, V. P.; 30  
Cherenkov, P. A. BORG: Physics Institute im. P. N. Lebedev, AN SSSR (Fizicheskii institut AN SSSR)TITLE: Cascade mechanism of high-energy nuclear reactions.<sup>19</sup> 1. Total inelastic cross sections, angular and energy distribution of fast particlesSOURCE: Yadernaya fizika, v. 1, no. 2, 1965, 329-337TOPIC TAGS: inelastic resonance, nuclear reaction, angular distribution, proton, fast particle

ABSTRACT: The interactions of high-energy protons with nuclei have been calculated on the basis of the cascade theory of nuclear reactions. The nuclear reactions induced by protons with energies of 150, 340, and 660 MEV on  $Si^{28}$ ,  $(AgBr)_{41}^{95}$ , and  $Au^{197}$  were considered. The nuclear diffusion surface and refraction and reflection of nucleons in the process of the escaping of the nucleus were taken into account. Comparison of the calculations with the experiment allows one to conclude that the initial principal suppositions of the cascade theory are valid. Orig. art. has: 11 figures and 1 table.  
[Based on authors' Eng. abst.] [JPRS]

SUB CODE: 20 / SUBM DATE: 28Jul64 / ORIG REF: 007 / OTH REF: 015 2Card 1/1 AW

LOKTAYEV, V.S., kand.tekhn.nauk, dotsent; MILOVANOV, V.P., inzh.

Manufacturing printed circuits of foliated paper-filled phenol-  
formaldehyde resin by means of the raster-chemical method. Trudy  
MATI no.52:73-79 '61. (MIRA 15:4)

(Printed circuits)

L 54710-65 ENT(m) Feb DIAAP DM  
ACCESSION NR: AP5018136

UR/0089/65/018/004/0403/0404

AUTHOR: Denisov, F. P.; Milovanov, V. P.

118

TITLE: Calculations of the mean square of nuclear recoil momentum in evaporation

SOURCE: Atomnaya energiya, v. 18, no. 4, 1965, 403-404

TOPIC TAGS: particle motion, vaporization

ABSTRACT: Calculations of the mean square of nuclear recoil momentum in evaporation were made taking into account nuclear motion induced by evaporation of all previous particles in the nucleus. Orig. art. has: 4 formulas.

ASSOCIATION: none

SUBMITTED: 22May64

ENCL: 00

SUB CODE: NP, TD

NR REF SOV: 003

OTHER: 001

NA

Card 1/1

L 39836-66 EWT(m)/T GD-2

ACC No: AP0018851

SOURCE CODE: UR/0367/65/002/006/1042/1048

AUTHOR: Denisov, F. P.; Milovanov, V. P.; Latypova, R. A.; Cherenkov, P. A.

ORG: Physics Institute im. P. N. Lobodev, AN SSSR (Fizicheskiy institut AN SSSR)

TITLE: Distribution of knocked-out nucleons with respect to the nuclear volume and excitation energies and momentum distributions of nuclei in the cascade process [This paper was given at the 14th Annual Conference on Nuclear Spectroscopy, Tbilisi, February 1964]

SOURCE: Yadernaya fizika, v. 2, no. 6, 1965, 1042-1048

TOPIC TAGS: nucleon, excitation energy

ABSTRACT: The discussion of the results of calculations described in a previous paper (Journal of Nuclear Physics, Vol 1, p. 329, 1965) is continued. This discussion concerns the distribution of the knocked-out nucleons in the volume of the nucleus, the excitation energies of the residual nuclei, and the momentum distribution of the recoil nuclei. Orig. art. has: 7 figures and 3 tables. [Based on authors' Eng. abst.]

SUB CODE: 20 / SUBM DATE: 06Apr65 / ORIG REF: 006 / OTH REF: 002

Card 1/1 45

DOBRUSHIN, V.A.; MILOVANOV, V.S.; KARPOVA, N.L., red.; KHITROV, P.A.,  
tekh. red.

[Bibliographical guide to the publications of the State  
Publishing House for Railroad Transportation Literature,  
1950-1959] Bibliograficheskii spravochnik izdenii trans-  
zheldorizdata, 1950-1959. Moskva, Vses. izdatel'sko-  
poligr. ob'edinenie M-va putei soobshchenia, 1961. 345 p.  
(MIRA 14:5)

(Bibliography--Railroads)

MILOVANOV, Ye.

S-6 combine works without shockers. Tekh. v sel'khoz. 20 no.6:27-28  
Je '60. (MIRA 13:10)

(Combines (Agricultural machinery))



DRANNIKOV, A.B.; MILOVANOV, Y.I.

Utilization of intrafactory trackless wheel transportation. Avt.prom.  
no.2:1-7 P '61. (MIRA 14:3)

1. Nauchno-issledovatel'skiy institut tekhnologii avtoprom.  
(Transportation, Automotive)

ACC NR: AR6034935 (A) SOURCE CODE: UR/0285/66/000/008/0021/0021

AUTHOR: Milovanov, Yu. M.

TITLE: Operation of the a-c transmission of a gas-turbine locomotive

SOURCE: Ref. zh. Turbostroyeniye, Abs. 8.49.124

REF SOURCE: Tr. Khar'kovsk. in-ta inzh. zh. -d. transp., vyp. 82, 1965, 57-63

TOPIC TAGS: generator, turbine, synchronous generator, gas turbine locomotive, induction motor, traction turbine, locomotive

ABSTRACT: The combined operation of a traction turbine, a synchronous generator, and induction motors is discussed. The problems investigated include starting and acceleration of induction motors as reflected in various sectors of mechanical curves, as well as the operation of the system with deviations from preset synchronous generator voltage or turbine power. [Translation of abstract]

SUB CODE: 10/

Card 1/1

UDC: 621.438:621.313.1/.3.001.5

ACC NR: AP6032404

SOURCE CODE: UR/0089/66/021/003/0202/0202

AUTHOR: Milovanov, Yu. P.

ORG: none

TITLE: Concerning an analysis of transient processes in a reactor near prompt criticality

SOURCE: Atomnaya energiya, v. 21, no. 3, 1966, 202

TOPIC TAGS: subcritical reactor, reactor transient, slow neutron, prompt neutron, reactor neutron flux, kinetic equation, approximate solution

ABSTRACT: This is an abstract of article no. 97/3652, submitted to the editor and filed but not published in full. The kinetic equations, with allowance for delayed neutrons, are written down for the case when there were no neutrons prior to the transient process in the reactor. A function characterizing the growth of the neutron flux is introduced and it is used to solve the kinetic equation in approximate form. The introduced function simplifies the analysis of the kinetic equation and yields in some cases simple approximate expression for the characteristics of the transients in the reactor (especially when operating in pulsed mode). Orig. art. has: 7 formulas.

SUB CODE: 18/ SUBM DATE: 17Mar66

Card 1/1

UDC: 621.039.512

L 06457-67 EWP(m)/EWP(t)/ETI IJP(c) JD/WW/JG

ACC NR: AP6024537

SOURCE CODE: UR/0089/66/021/001/0017/0022

AUTHOR: Subbotin, V. I.; Ivanovskiy, M. N.; Milovanov, Yu. V.

ORG: none

TITLE: Diffusion-chemical and phase resistance in the condensation and evaporation of alkaline metals

SOURCE: Atomnaya energiya, v. 21, no. 1, 1966, 17-22TOPIC TAGS: liquid metal, alkali metal, nuclear reactor coolant, heat transfer, pressure effect, physical diffusion, heat balance

ABSTRACT: The authors analyze in greater detail the now-current scheme, whereby alkaline metals evaporate by surface emission of monoatomic molecules only, and that dimerization takes place only after the evaporation. An analysis of the thermodynamic equations and comparison with earlier experimental data (Teplofizika vysokikh temperatur v. 2, no. 4, 1964) show that this scheme is valid only at higher pressures and that the evaporation or condensation of alkaline metals at supersaturated-vapor pressures of 1 - 100 mm Hg must proceed via surface emission (or absorption) of both monoatomic and diatomic molecules. At these lower pressures the dimerization (or dissociation) of molecules is a result of a chemical reaction occurring on the surface of the liquid. The existence of a transition region between high and low pressures, in which the condensation coefficient changes from zero (at high pressures) to unity (at low pressure), is proposed. The diffusion-chemical resistance depends on the kinetics of

Card 1/2

UDC: 621.039.517.5

L 06457-67

ACC NR: AP6024537

the dimerization reaction, but there are not enough experimental data to describe this dependence in detail. It is proposed, nevertheless, that the coefficient of heat transfer at near-atmospheric pressure is quite high, even when the diffusion-chemical resistance is taken into account, and that at lower pressures the resistance is practically zero. Orig. art. has: 2 figures, 32 formulas, and 1 table.

SUB CODE: 18, 20/    SUB DATE: 20Nov65/    ORIG REF: 005/    OTH REF: 003

Card 2/2 *pla*

L 53754-65 EWT(m)/EWA(d)/T/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c) Pf-4  
EJW/JD/HW

ACCESSION NR: AR5008974

S/0137/65/000/001/I072/I072  
669.15.018.85

33  
32  
0

SOURCE: Ref. zh. Metallurgiya, Abs. II476

AUTHOR: Glukhenko, Z. Ye.; Milovanov, Yu. F.; Sokolov, Ye. N.; Yakhontov, A. G.

TITLE: Investigation of crystal lattice imperfections in EI-481 steel after aus-  
forming

CITED SOURCE: Sb. rabot Kafedry obshch. fiz. Kirgosun-ta. Issled. po fiz. tverd.  
tela. Frunze, 1964, 163-172

TOPIC TAGS: metallurgy, ferrous metal, metal structure, metal testing, heat  
treatment, metal ausforming

TRANSLATION: A connection was found between hardness and elements of the fine  
structure: the size of the elements in the mosaic structure, microdistortion of the  
crystal lattice and grain disorientation. EI-481 alloy (0.34-0.41% C, 0.3-0.8% Si,  
7.5-9.5% Mn, 11.5-13.5% Cr, 1.0-9.0% Ni, 1.25-1.55% V, 1.1-1.4% Mo, 0.25-0.45% Nb,

Card 1/2

L 53754-65

ACCESSION NR: AR5G08974

remainder Fe) was subjected to plastic deformation (rolling speed 1.5 m/min, reduction 25-30%) at 800, 900, 950, 1000 and 1100°, with subsequent quenching in water to prevent recrystallization. Some of the samples were age-hardened at 750° for four hours. This treatment breaks up the grain and distorts the crystal lattice. With an increase in the deformation temperature the total distortion of the structure is reduced until there is almost no noticeable interference line broadening at 1150°. Elimination of lattice imperfections with increased temperature is accompanied by softening of the material. With age-hardening, hardness is increased to a constant magnitude (290 kg/mm<sup>2</sup>) and is independent of deformation temperature. Bibliography, 8 titles. D. Samarin.

SUB CODE: MM

ENCL: 00

422  
Card 2/2

L 2126-66 EWT(1)/EWT(m)/EFF(c)/ZPF(n)-2 IJP(c) GG

ACCESSION NR: AP5025359

UR/0181/65/007/010/2890/2893

AUTHOR: Starostin, K. L.; Tuturov, Yu. F.; Milovanov, Yu. P. <sup>44,85</sup> <sup>44,85</sup> <sup>44,85</sup> 6.1

TITLE: The contribution of point defects and defect clusters to changes in mobility and concentration of carriers in n-Ge during irradiation with fast neutrons <sup>B</sup>

SOURCE: Fizika tverdogo tela, v. 7, no. 10, 1965, 2890-2893 <sup>79</sup>

TOPIC TAGS: radiation effect, radiation damage, neutron bombardment, germanium, defect, Hall effect, semiconductor point defect, defect cluster

ABSTRACT: The changes in mobility and the Hall effect <sup>21.44.85</sup> in n-type Ge were investigated during irradiation with fast neutrons. Samples with an initial concentration of electrons of about  $2 \times 10^{15} \text{ cm}^{-3}$  were exposed to a flux of neutrons (60% of the neutrons had an energy in excess of 0.6 Mev) at 308 and 100K. The applied magnetic field was 1090 oe and its direction was changed at a frequency of  $\sim 0.3 \text{ sec}^{-1}$ . The variation of the Hall constant and the relative change in mobility as a function of the integrated neutron flux are shown in Fig. 1 of the Enclosure. The formulas derived by J. H. Crawford et al. and H. G. Juretschke et al. (Journal of applied physics, v. 30, 1959, p. 1204, and v. 27, 1956, p. 838, respectively), were used to calculate the contribution of point defects and groups

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L 2126-66

ACCESSION NR: AP5025359

of defects (disordered regions) to the changes of the Hall constant and the mobility. Analysis of data in Fig. 1 shows that the average size of the disordered region produced during irradiation at 100K is about 1.6 times larger than that produced at 308K. It was established that the contribution of groups of defects to changes of the Hall constant and the mobility is much greater at 100K than at room temperature. The mobility of electrons in the lattice remained constant, at least until the fraction of the volume occupied by regions of the space charge reached 0.45 ( $\varphi = 3 \cdot 10^{14}$  n/cm<sup>2</sup>) at 308K and 0.17 ( $\varphi = 5 \cdot 10^{13}$  n/cm<sup>2</sup>) at 100K. Orig. art. has: 3 figures and 5 formulas. [CS]

ASSOCIATION: none

SUBMITTED: 26Feb65

ENCL: 01

SUB CODE: SS, NP

NO REF SOV: 000

OTHER: 000

ATD PRESS: 4117

Card 2/3

L 2126-66

ACCESSION NR: AP5025359

ENCLOSURE: 01

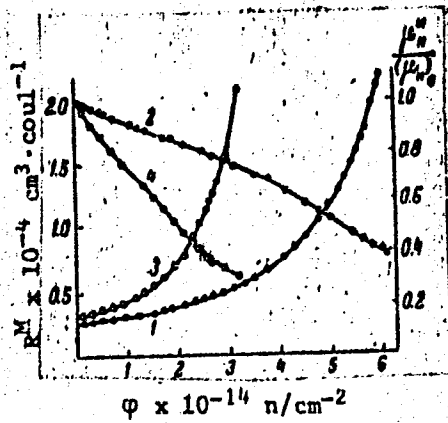


Fig. 1. Variation of the Hall constant  $R^M$  and mobility  $\mu_H^M$  as a function of the integrated flux during irradiation.

1 -  $R^M$ , 2 -  $\mu_H^M$  irradiated at 308K;  
3 -  $R^M$ , 4 -  $\mu_H^M$  irradiated at 100K.

Card 3/3

Handwritten initials/signature

DENISOV, V.I., dotsent; MILOVANOVA, A.G., norairovshchik

Following the initiative of the brigade named after the  
22d Congress and the CPSU. Tekst.prom. 22 no.11:24-27 N '62.

(MIRA 15:11)

1. Moskovskiy tekstil'nyy institut (for Denisov). 2. Khlopchato-  
bumazhnaya fabrika imeni Oktyabr'skoy revolyutsii Moskovskogo  
oblastnogo soveta narodnogo khsyaystva (for Milovanova).  
(Moscow Province--Textile factories)

MILOVANOVA, A.Kh.

Raising the standards for pediatric medical workers in rural areas. Zdrav. Ros. Feder. 5 no.9:11-13 S '61. (MIRA 14:9)

1. Rayonnyy pediater Belokalitvenskoy rayonnoy bol'nitsy (glavnyy vrach O.Ye.Chernetskiy). (PEDIATRICS)

CHERNETSKIY, O. Ye.; SHEPOTINOVSKIY, V. I.; MILOVANOV, A. Kh.

Our experience in providing drugs without a prescription to patients of a polyclinic. Zdrav. Ros. Feder. 6 no.6:23-25  
Je '62. (MIRA 15:7)

1. Belokalitvenskaya rayonnaya bol'nitsa (glavnyy vrach O. E. Chernetskiy) Rostovskoy oblasti.

(HOSPITAL PHARMACIES)

CHERNETSKIY, O.Ye.; MILOVANOVA, A.Kh.

Statistical reports of the medical and obstetrical station.  
Zdravookhranenie 6 no.3:14-17 My-Je'63 (MIRA 16:11)

1. Glavnyy vrach Belokalitvenskoy rayonnoy bol'nitsy, Rostovskaya oblast' (for Chernetskiy). 2. Rayonnyy peditr Belokalitvenskogo rayona, Rostovskaya oblast' (for Milovanova).

\*

KHEYFETS, L.B.; KHAZANOV, M.I.; LEYTMAN, M.Z.; KUZ'MINOVA, M.L.; SLAVINA, Zh.M.;  
VASIL'YEVA, A.V.; MILOVANOVA, A.S.

Typhoid-paratyphoid-tetanus chemically sorbed vaccine. (Experimental  
study, reactogenic properties, epidemiological effectiveness). Zhur.  
mikrobiol., epid. i immun. 32 no.9:18-25 S '61. (MIRA 15:2)

1. Iz Moskovskogo instituta vaktsin i syvorotok imeni Mechnikova,  
Tashkentskogo instituta vaktsin i syvorotok, Turkmenskogo instituta  
epidemiologii i gigiyeny i Kazakhskogo instituta epidemiologii,  
mikrobiologii i gigiyeny.

(TYPHOID FEVER)  
(TETANUS)

(PARATYPHOID FEVER)  
(VACCINES)

MILOVANOVA, A. S.; BORISOVA, L. A.; USACHEV, Yu. S.

Data on the epidemiology and reduced morbidity of diphtheria in  
South Kazakhstan Province. Zdrav. Kazakh. no.4:61-66 '62.  
(MIRA 15:6)

i. Iz Kazakhskogo instituta epidemiologii, mikrobiologii i  
gigiyeny (nauchnyy rukovoditel' - professor Kh. Zh. Zhumatov)  
i Yuzhno-Kazakhstanskoy oblsanepidstantsii.

(SOUTH KAZAKHSTAN PROVINCE--DIPHTHERIA)



KROPACHEV, A.M., prof.; PROTOPOPOV, A.N., dotsent; MILOVANOVA, A.Ye.

Chronic diffuse interstitial pulmonary fibrosis in children.  
Vest. rent. i rad. 40 no.6:34-37 N-D '65.

(MIRA 19:1)

1. Kafedra propedevtiki detskikh bolezney (nauchnyy rukovoditel' -  
prof. A.M. Kropachev) i kafedra rentgenologii i radiologii (zav. -  
prof. V.N. Shtern) Saratovskogo meditsinskogo instituta.

MILOVANOVA, G.A.

Materials on the biology of the greater titmouse during the period  
of nesting. Trudy Priok.-Terr.zap. no.1:266-286 '57.  
(MIRA 12:7)

(Oka Terrace Preserve--Titmice)

S/136/62/000/003/001/008  
E021/E435

AUTHORS: Milovanova, I.B., Kreymer, S.Ye., Rozov, V.N.

TITLE: Extraction method of purifying a nickel electrolyte  
from impurities

PERIODICAL: Tsvetnyye metally, no.3, 1962, 38-42

TEXT: The possibility of changing the existing methods of purifying nickel electrolyte from iron and copper to an extraction method was investigated. The conditions were worked out in the laboratory using the salts of fatty acids of fractions C<sub>10</sub>-C<sub>13</sub> as an extracting reagent. These are practically insoluble in the electrolyte and regenerated to take part in the reaction many times. The method was then proved on large-scale tests. The preparation of a nickel soap is a simple operation consisting of loading into a reaction chamber fatty acids, nickel solution and soda solution. The mixture is heated to 65 - 70°C and mixed for 20 to 30 minutes. Stratification is allowed to take place at the same temperature for 20 to 30 minutes. Soaps with different nickel concentrations can be prepared; in the present experiments the nickel concentration was 25 to 30 g/l and the solution had a  
Card 1/3

Extraction method of purifying ...

S/136/62/000/003/001/008  
E021/E435

viscosity of 4 to 9 centipoise at 60°C. Extraction purification was tried on an anolyte of the following composition: 60 to 65 g/l Ni, 0.2 to 0.3 g/l Co, 0.4 to 0.5 g/l Fe, 0.5 to 0.6 g/l Cu, 150 to 160 g/l SO<sub>4</sub><sup>2-</sup>, 40 to 45 g/l Cl<sup>-</sup>; pH 2.2 to 2.5. The iron was in the divalent form and 50% of the copper in the monovalent form. The soap was added to the electrolyte solution with a 10:1 ratio aqueous:organic. The purification from Cu and Fe took place in 3 to 5 stages. The solutions were mixed for 30 to 40 minutes and then transferred to a separating funnel where stratification took place. The aqueous solution was poured back into the reaction chamber and a further quantity of soap added. A study of the kinetics of the reaction showed that the iron was removed to a trace in 10 minutes. Preliminary oxidation of the copper intensified its extraction. The copper was also more efficiently extracted with soaps containing higher concentrations of nickel. After purification, the anolyte contained 0.003 g/l copper. After the usual chlorine purification from cobalt the solution contained 60 to 65 g/l Ni, 0.02 to 0.005 g/l Co, 0.003 to 0.001 g/l Cu.  
Card 2/3

Extraction method of purifying ... S/136/62/000/003/001/008  
E021/E435

Electrolysis was then carried out using a soluble nickel anode and a steel matrix for the cathode. The current density was 220 A/m<sup>2</sup>, the temperature 62 ± 2°C; the process was carried out for 10 hours. The resulting nickel was analysed and came within the specification for nickel type H-1 (N-1). There are 8 figures and 1 table.

Card 3/3

GEL'PERIN, N.I.; FEBALK, V.L.; ROZOV, V.N.; ASSMUS, M.G.; MILOVANOVA, I.B.

Extractive purification of nickel solutions from iron and  
copper impurities. TSvet.met. 36 no.2:37-42 F '63. (MIRA 16:2)

(Nickel—Electrometallurgy) (Electrolytes)  
(Extraction (Chemistry))

GEL'PERIN, N.I.; PEBALK, V.L.; ROZOV, V.N.; ZAMYSHLYAYEV, V.G.; MILOVANOVA,  
I.B.

Extractive refining of a nickel electrolyte from iron and copper.  
TSvet. met. 37 no.9:19-22 S '64. (MIRA 18:7)

GEL'PERIN, N.I.; PEBALK, V.L.; ROZOV, V.N.; ZAMYSHLYAYEV, V.G.; SOKOLOVA,  
T.O.; MILOVANOVA, I.B.; YEPISHEVA, M.S.

Fractional reextraction of metals from complex metal soaps.  
TSvet.met. 38 no.10:41-49 0 '65.

(MIRA 18:12)



VOL'FENZON, I.I., inzh.; MILOVANOVA, I.B., inzh.

Substances used in hair strengthening; bibliographic survey.  
Masl.-zhir.prom. 24 no.11:22-25 '58. (MIRA 12:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskikh i natural'nykh dushistykh veshchestv.  
(Hair--Care and hygiene)

MILOVANOVA, I.V.

~~MILOVANOVA, I.V.~~  
New and interesting diatoms from the Neogene of the Taman  
Peninsula (Novae et curiosae Diatomeae peninsulae Tamanj  
aetate neogenae). Bot.mat.Otd.spor.rast. 10:69-72 Ja '55.  
(MIRA 8:7)

(Taman Peninsula--Diatoms, Fossil)

16(1)

PHASE I BOOK EXPLOITATION

SOV/1921

Milovanova, Lidiya Nikolayevna

Funktsii i ikh issledovaniye (Functions and Their Study) Moscow,  
Izd-vo Akad.pedagog.nauk RSFSR, 1958. 122 p. Errata slip  
inserted. (Series: Pedagogicheskaya biblioteka uchitelya)  
17,000 copies printed.

Sponsoring Agency: Akademiya pedagogicheskikh nauk RSFSR. Institut  
metodov obucheniya.

Ed. (Title page): P.A. Bezsonov, Professor; Ed. (Inside book):  
G.G. Gus'kov; Tech. Ed.: R.Ya. Sokolova.

PURPOSE: The book is intended for mathematics teachers in secondary  
schools.

COVERAGE: The concepts of a function are given, a series of elemen-  
tary functions is studied, and their graphs are constructed,  
using algebraic and trigonometric methods. The limit concept,

Card ~~1/6~~

## Functions and Their Study

SOV/1921

the fundamentals of differential calculus and their application to the study of functions, and the construction of graphs are presented. In addition, the book discusses questions not included in the teaching program, such as the area of a curvilinear trapezoid, derivatives of a higher order, and Newton's binomial formula. No personalities are mentioned. There are 13 Soviet references

## TABLE OF CONTENTS:

## FUNCTION

1. Constant and Variable	3
2. On Functional Dependence	3
3. Designating a Function	4
4. Computing Particular Values of a Function	5
5. Domain of a Function	7

Card 2/6

MILOVANOV# L. IX

MILOVANOVA, L.N. (Moskva).

Program of mathematics curriculum and review of algebra textbooks  
of French secondary schools. Mat. v shkole no.1:60-72 Ja-F '58.  
(France--Mathematics--Study and teaching) (MIRA 11:1)  
(France--Algebra--Textbooks)

MILOVANOVA, L.N. (Moskva)

Teaching higher mathematics in secondary schools of the German  
Democratic Republic and France. Mat. pros. no.3:213-220 '58.  
(MIRA 11:9)

(Germany, East--Mathematics--Study and teaching)  
(France--Mathematics--Study and teaching)

MILOVANOVA, L.N. (Moscow)

Teaching of algebra in British secondary schools. Mat. v shkole  
no. 4:65-75 J1-Ag '58. (MIRA 11:7)  
(Great Britain--Algebra--Study and teaching)

Milovanova, L. P., Berznitskaya, S. A., Butskaya, L. K., Kostenko, G. R.,  
Nishchaya, S. YA., Filosofova, T. G., and Shekhter, A. B.

Study of the effectiveness of active immunization in whooping cough. 1959

Materialy nauchnykh knoferentsii, Kiev, 1959. 288pp  
(Kievskiy Nauchno-issledovatel'skiy Institut Epidemiologii i Mikrobiologii)



Milovanova, L. P., Shekhter, A. B. and Filosofova, T. G.

Immunological changes in persons, vaccinated with the whooping  
cough vaccine. *p. 216*

Materialy nauchnykh konferentsii, Kiev, 1959. 208pp  
(Kievskiy Nauchno-issledovatel'skiy Institut Epidemiologii i Mikrobiologii)

FILOSOFOVA, T.G.; MILOVANOVA, L.P.

Studies on the duration of immunity in persons vaccinated against whooping cough for the determination of the time of revaccination. Zhur. mikrobiol., epid. i immun. 33 no.7:59-62 J1 '62. (MIRA 17:1)

1. Iz Kiyevskogo instituta epidemiologii i mikrobiologii.

MILOVANOVA, L.V.; KOSYAKOVA, S.A.

Operating experience of P.E. Erastov, best spinner. Khim.  
volok. no.3:65 '60. (MIRA 13:7)

1. Klinskiy kombinat.  
(Klin--Rayon spinning)

Milovanova, K. V.

(110) Squash as a source of carotene. K. V. Milovanova and V. I. Filov. *Trudy Priklad. Botan. i Selkhoz. 31*, No. 1, 201-21 (1954); *Referat. Zhur. Khim., Biol. Khim.* 1955, No. 12554. — The carotene (B) content of a large variety of squash was detd. The dynamics of the carotene content of various parts of the squash at different stages of its development and in the seeds was studied. The seeds of *Cucurbita moschata* and *C. maxima* contained the highest I (up to 25 mg. % on wet wt. basis) mostly during the ripening stage. Acre for acre the yield of vitamin A from squash is about 6 times that of carrots. Squash, therefore, should be regarded as a valuable practical source of vitamin A.  
B. S. Levine

MILOVANOVA, L. V.

Biochemical alterations of the grape on nonroot feeding. L. V. Milovanova and M. S. Zhuravel. *Vinodolie i Vinogradarstvo S.S.S.R.* 15, No. 4, 33-6(1935).—Nonroot feeding (spraying 3 times in 10 days) with solutions of 1% KCl, 1% K<sub>2</sub>SO<sub>4</sub>, 1% NaHCO<sub>3</sub>, or 5% Ca(H<sub>2</sub>PO<sub>4</sub>)<sub>2</sub> gave improved flavor, and, in the case of KCl, a more uniform and intense color, in 10 grape varieties. Good grape flavor was defined as gluco-acidimetric index (ratio of sugar content in % to titratable acidity in g./l.) 3.5 or over. In nonroot feeding with 1.5% NH<sub>4</sub>NO<sub>3</sub> solutions, the ripening of early and middle ripening varieties was slowed and the flavor and av. wt. of these clusters was somewhat lowered. With this exception nonroot feeding increased the energy of plant photosynthesis and the wt. of the clusters. Nonroot feeding caused considerably increased hydrolytic activity of invertase (i.e. ripening), especially with K and P salts. N and P-feeding lowered catalase activity in 3 of 5 varieties tested, while feeding of CaSO<sub>4</sub>, KCl, and NaHCO<sub>3</sub> lowered it in all 5. K feeding caused some increase in vitamin C. This process was expected to give greater crop yields. A. W. Daly

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MILOVANOVA, L.V.; ANDREYEVA, Ye.I.

Use of washing compounds in bottle washing machines. Spirt.prom.  
23 no.8:14 '57. (MIRA 11:1)

L.Leningradskiy likero-vodochnyy zavod.  
(Bottle washing) (Washing powders)

LETOKHOV, V.S.; VATSURA, V.V.; PUKHLIK, Yu.A.; FEDOTOV, D.I.; KOSOZHICHIN,  
A.S.; ZHABOTINSKIY, M.Ye.; DASHEVSKAYA, Ye.I.; KOZLOV, A.N.;  
RUVINSKIY, L.G.; VASIN, V.A.; YURGENEV, L.S.; NOVOMIROVA, I.Z.;  
PETROVA, G.N.; SHCHEDROVITSKIY, S.S.; BELYAYEVA, A.A.; BRYKINA,  
L.I.; GLEBOV, V.M.; DRONOV, M.I.; KONOVALOV, M.D.; TARAPIN, V.N.;  
MIKHAYLOVSKIY, S.S.; ZHEGALIN, V.G.; ZHABIN, A.I.; GRIBOV, V.S.;  
MAL'KOV, A.P.; CHERNOV, V.N.; RATNOVSKIY, V.Ya.; VOROB'YEVA, L.M.;  
MILOVANOVA, M.M.; ZARIPOV, M.F.; KULIKOVSKIY, L.F.; GONCHARSKIY,  
L.A.; TYAN KHAK SU

Inventions. Avtom. i prib. no.1:78-80 Ja-Mr '65.

(MIRA 18:8)

MILOVANOVA, O.B., [Mylovanova, O.B.] (Kiyev)

Determining the Poisson's coefficient by the curvature of a bent  
beam. Prikl.mekh. 7 no.2:197-202 '61. (MIRA 14:4)

1. Institut mekhaniki AN USSR.  
(Elastic rods and wires)



MILOVANOV, O. V.

PA 49/49T78

USSR/Medicine-Radiations, Effects Nov 48  
Actinometers

"Deleterious Effects of Thermal Radiation on Sanitary Conditions in Hot Machine Industry Plants," H. I. Longon (deceased), O. V. MILOVANOV, Inst of Labor Hygiene, VTSIS, 3 pp

"Gig 1 San" No 11

Basis points in determining effect of thermal radiation on human organism are: Intensity of 8-cm<sup>2</sup>/sq cm per min, magnitude of exposed surface, and length and interruption of a working day. Observations on these points were made in various large plants.

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USSR/Medicine-Radiations, Effects Nov 48  
(Contd)

Kalitin actinometer (calibrated according to angstrom units) was used in this test.

49/49T78

23731

S/057/61/031/006/015/019  
B116/B201

9,4120  
AUTHORS:

Chistyakov, P. N. and  
Milovanova, R. A.

TITLE:

Values of  $V_{K.H.}$  and  $\varphi$  for a  
molybdenum cathode in argon

PERIODICAL:

Zhurnal tekhnicheskoy fiziki, v. 31, no. 6, 1961,  
746 - 748

TEXT: A study has been made of the condition of a metal-cathode surface in an inert gas on the condition that an accurate and reproducible value of  $V_{K.H.}$  of the cathode voltage drop was obtained in advance. The work function  $\varphi$  has been chosen as the quantity characterizing the condition of the cathode surface. In view of the fact that a cathode with a temperature of about 20°C was submitted to investigation, the authors applied the photoelectric method for determining  $\varphi$ . Mo was used as cathode material, and Ar as the inert gas. The experimental apparatus is

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Values of  $V_{K.H.}$  and  $\varphi...$

shown in the accompanying figure. The piston was made of 3C - 5 (3S - 5) molybdenum gas. The window O made of fused optical quartz was soldered onto the piston with the aid of transition glasses. The cathode and anode, flat disks 20 mm in diameter, were made of 0.2 mm molybdenum sheet containing at most 0.03% impurities. A hole (5 mm in diameter) was cut out in the center of the anode. Through it, the light from the monochromator hit the cathode surface. The distance between cathode and anode was 6 mm and was chosen such as not to give rise to a potential drop at the anode with the argon pressure used in the system. The latter was evacuated to 12 mm Hg for about 30 hours, filled with fresh argon and sealed. The system was then treated with a glow discharge, first with alternating current of 80 ma for half an hour, and thereupon with pulsating current of 100 ma. An opaque molybdenum layer (C region in the figure) formed on the piston walls around the discharge space during treatment (due to sputtering of the cathode). At the same time,  $V_{K.H.}$  dropped rapidly at first, then very slowly, and after 10 - 15 hours it stabilized on the level indicated in the accompanying table ( $V_{K.H.}$ ).

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S/057/61/031/006/015/019  
B116/B201

Values of  $V_{K.H.}$  and  $\psi...$

measurements were made at 8 ma with a 0.2-grade voltmeter). At a pressure of  $p = 12$  mm Hg. a  $V_{K.H.}$  value of  $100 \pm 1$  v was obtained for Ar-Mo with all devices. The potential gradient between cathode and anode was taken as  $V_{K.H.}$ , with the anode being situated in the Faraday dark space at a distance  $d \approx 0.5 d_{critical}$  ( $d_{critical}$  - distance at which a potential drop takes place at the anode) within the range of currents of a normal glow discharge (the range in which  $V_{K.H.}$  is very little dependent on I). The instability of  $V_{K.H.}$  in time was checked with a potentiometer for 30 hours, and was found to be less than 0.1%. The inclination of the volt-ampere characteristics within the range of normal glow discharge was very small. For currents ranging from 2 to 8 ma. the mean differential resistance was 50 ohms at most. The spectral characteristics of the photoelectric current were measured by a monochromator with quartz optics in the wavelength range between 2700 and 3100 Å. An evaluation of characteristics yielded the photoeffect threshold for a mean  $\lambda_0 = 3068 \text{ Å}$

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