

ACCESSION NR: AP3010672

been treated with fractional doses of gamma radiation daily for 1-2 mos. In the first group skin, hair, and dermovascular changes were found. In many cases skin texture and pigmentation were affected, hair pigmentation had changed or hair loss had occurred, and subcutaneous fatty cellular tissue was sclerotic. Telangiecstasis was found in 18 cases. Also, in this group skin temperature was higher by 1-2° in exposed areas compared to symmetrical non-exposed areas. In the second group skin, hair and dermovascular changes were much rarer and less intense. Telangiecstasis was found only in 5 cases. Skin temperature for exposed areas was within the normal range. Patch test reactions to histamine, carbocholine, and adrenalin solutions for both groups were normal in half of the cases and higher or lower in the other half. With higher concentrations of histamine and adrenalin the dermovascular responses changed and in some cases were reversed. It was established that 2.5-9 yrs after radiation therapy the functional damage to the dermavascular network in exposed areas is significant. Orig. art. has: None.

ASSOCIATION: I Moskovskiy ordena Lenina meditsinskiy institut imeni I. M. Sechenova (First Moscow Lenin Order Medical Institute)

Card 2/10<sup>2</sup>*Submitted Apr 63*

RAKHMANOV, V. A., prof.; IVANOV, O. L., aspirant

Histochemical studies of the connective tissue of the skin in chronic lupus erythematosus. Vest. dermat. i ven. 36 no.7:23-28 J1 '62.  
(MIRA 15:7)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. - chlen-korrespondent AMN SSSR prof. V. A. Rakhmanov) i Moskovskogo ordena Lenina meditsinskogo instituta imeni I. M. Sechenova.

(LUPUS ERYTHEMATOSUS) (CONNECTIVE TISSUE)

RAKHMANOV, V. A., prof.; POTEKAYEV, N. S., kand. med. nauk

Moscow Scientific Society of Dermatologists and Venereologists;  
on the 70th anniversary of its founding. Vest. derm. i ven. no.4:  
68-73 '62. (MIRA 15:4)

1. Chlen-korrespondent AMN SSSR (for Rakhmanov).

(MOSCOW—DERMATOVENEREOLOGICAL SOCIETIES)

RAKHMANOV, V.A.; LEVIN, A.M.; ROMANENKO, G.F.; METEL'SKIY, V.I.;  
VERENCHIKOVA, Ya.V.

Immediate results of the treatment of syphilis with bicillin-3.  
Vest.derm.i ven. 34 no.9:37-40 '60. (MIRA 13:11)

1. Iz kafedry kozhnykh i venericheskikh bolezney I Moskovskogo  
ordena Lenina meditsinskogo instituta imeni I.M. Sechenova  
(zav. - chlen-korrespondent AMN SSSR prof. V.A. Rakhmanov).  
(SYPHILIS) (PENICILLIN)

RAKHMANOV, V.A., prof.; KHMEL'NITSKIY, R.Kh.

Histochemical study of changes in the connective tissue of the skin in patients with scleroderma treated with lydase. Sbor. nauch. rab. po lepr. i derm. no.13:103-110'59. (MIRA 14:6)

1. Chlen-korrespondent AMN SSSR (for Rakhmanov).  
(SCLERODERMA) (CONNECTIVE TISSUES)  
(HALURONIDASE)

RAKHMANOV, V.A., prof.; PRORVICH, L.V., kand.med.nauk; BORISOVA, T.S.

Local application of corticosteroids in the treatment of certain dermatoses. Vest.derm.i ven. 34 no.10:30-35 '60.

(MIRA 13:11)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. - prof. V.A. Rakhmanov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova. 2. Chlen-korrespondent AMN SSSR (for Rakhmanov).

(STEROIDS---THERAPEUTIC USE)

(SKIN---DISEASES)

RAKHMANOV, V.A.; KHMEL'NITSKIY, R.Kh.

Mechanism of action of lidase in the treatment of patients with  
scleroderma. Vest.derm.i ven. 33 no.6:3-7 N-D '59.

(MIRA 13:12)

(SCLERODERMA)

(HYALURONIDASE)

RAKHMANOV, V.A., prof.; POTEKAYEV, N.S.

Professor Ivan Fedorovich Zelenov; on the centennial of his  
birth. Vest.derm. i ven. 34 no.11:61-63 N '60.

(MIRA 13:12)

(BIOGRAPHIES)



USSR / Human and Animal Morphology (Normal and Pathological). Nervous System. Peripheral Nervous System. S

Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 16926

Author : Rakhmanov, V. A.

Inst : First Moscow Medical Institute

Title : Some Problems of the Study of Neuroreceptor Skin Apparatus

Orig Pub : Tr. 1-go Mosk. med. in-ta, 1958, 4, 6-17

Abstract : During impregnation of the neuroreceptor skin elements of man according to Lavrent'yev-Gross-Bil'shovskiy with modifications, on several thousand specimens, Merkel cells were not discovered; the author thinks that they are altogether absent. The presence of endings of the type of "Ruffini's corpuscles" in the

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USSR / Human and Animal Morphology (Normal and Pathological). Nervous System. Peripheral Nervous System.

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Abs Jour : Ref Zhur - Biologiya, No 4, 1959, No. 16926

skin of man is not confirmed. Around the hair, palisade-shaped, circular and tree-shaped endings are observed and extremely rarely Vater-Pacini and Meissner's corpuscles, encapsulated endings, and others. The problem of participation of the neuro-receptor apparatus of the skin in the process of development and physiological renewal of hair is discussed.

Card 2/2

35

RAKHMANOV, V.A., prof.; LINDGREN, I.M.

Main problem in the prevention of epidermophytosis. *Sov.med.* 23  
no.12:68-71 D '59. (MIRA 13:4)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zaveduyushchiy -  
chlen-korrespondent AMN SSSR prof. V.A. Rakhmanov) I Moskovskogo  
ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.  
(RINGWORM prev. & control)

RAKHMANOV, V.A., prof.: POTEKAYEV, M.S., aspirant

The department of dermatological and venerological diseases of the First Moscow Medical Institute; on the 90th anniversary of its organization. Vest.derm.i ven. 33 no.4:68-72 J1-Ag '59.

(MIRA 12:11)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. - chlen-korrespondent AMN SSSR prof. V.A. Rakhmanov) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.  
(DERMATOLOGY, education)

RAKHMANOV, V.A., prof.; POTEKAYEV, N.S., aspirant

Honored Professor N.P. Mansurov; 125th anniversary of his birth. Vest.  
derm. i ven. 33 no.2:74-77 Mr-Apr '59. (MIRA 12:7)

1. Iz kafedry kozhnykh i venericheskikh bolezney (zav. - chlen-korre-  
spondent AMN SSSR prof V. A. Rakhmanov) I Moskovskogo ordena Lenina  
meditsinskogo instituta imeni I.M. Sechenova, 2. Chlen-korrespondent  
AMN SSSR (for Rakhmanov).

(BIOGRAPHIES,

Mansurov, N.P. (Rus))

EXCERPTA MEDICA Sec.13 Vol.12/5 Dermatology, etc. May 58

RAKHMANOV, V.A.

835. THE TEACHING OF DERMATO-VENEREOLOGY IN MEDICAL INSTITUTES  
(Russian text) - Rakhmanov V. A. - VESTN. DERM. VENER. 1957,  
31/4 (25-28)

The lecture is the most important part of teaching. Apart from aetiology, clinical course and pathogenesis it should deal with preventive measures as well. Free attendance at the lectures is discussed. They should lead the students to independent work.  
Kraus - Hradec Králové (XIII, 17)

... baths with water of various temperatures in ...  
... 1122-124 Ju '57.

1. 12 Kofory kozhnykh i venerichentian ... (20% ...  
... (M. Rukhmanov) i Moskovskogo ordena ...  
... imeni I. I. Sechenova

(skin diseases, therapy)

local baths with water of various temperatures (40-50°C)  
(BATHOLOGY, in various dis.)

local baths with water of various temperatures (Rus)

RAKHMANOV, V.A., prof.; SMELOV, N.S., prof.; MALYKIN, R.Ya., prof.

Achievements of Soviet dermatology in the last 40 years. Vest.derm.  
i ven. 31 no.5:11-19 ~~SO~~ '57. (MIRA 10:12)

1. Chlen-korrespondent Akademii meditsinskikh nauk SSSR. (for  
Rakhmanov)

(DERMATOLOGY  
in Russia, progr.)



RAKHMANOV, V.A., prof.; NERADOV, L.A., dotsent

Brief report on the work of the Moscow Society of Dermatologists and Venerologists in 1956. Vest.derm. i ven. 31 no.5:55-59 S-O '57.  
(MIRA 10:12)

1. Predsedatel' pravleniya Moskovskogo nauchnogo obshchestva dermatologov i venerologov (for Rakhmanov). 2. Otvetstvannyi sekretar' Moskovskogo nauchnogo obshchestva dermatologov i venerologov (for Neradov)

(SKIN--DISEASES) (VENEREAL DISEASES)

RAKHMANOV, V.A., professor (Moskva)

Problems of teaching dermatovenerology in medical schools. Vest.  
derm. i ven. 31 no.4:25-28 J1-Ag '57. (MIRA 10:11)

(DERMATOLOGY, educ.

dermato-venereol., instruction methods in Russia)

(VENERAL DISEASES

same)

RAKHMANOV, V.A., professor

Fifteenth congress of the Polish Dermatological Society in Warsaw,  
April 21-23, 1955. Vest.derm. i ven. 31 no.3:57-61 My-Je '57.  
(POLAND--DERMATOLOGY--CONGRESSES) (MIRA 10:11)

RAKHMANOV, V.A., professor; NERADOV, L.A.

Brief report on the work of the Moscow Dermatological and Venerological Society in 1955. Vest.ven. i derm. 30 no.5:57-59 S-O '56. (MLRA 9:12)

1. Predsedatel' Moskovskogo dermato-venerologicheskogo obshchestva  
(for Rakhmanov). 2. Sekretar' Moskovskogo dermato-venerologicheskogo  
obshchestva (for Neradov)

(DERMATOLOGY) (VENERELOGY)

BAKHMANOV, V.A., professor; XSANTOPULO, P.I., kandidat meditsinskikh nauk

Resochin in the treatment of lupus erythematosus. Vest.ven. i dermat.  
30 no.4:8-10 J1-Ag '56. (MIRA 9:10)

1. Iz kafedry kozhnykh i venericheskikh bolezney I Moskovskogo  
ordena Lenina meditsinskogo insituta imeni I.M. Sechenova)  
(LUPUS ERYTHEMATOSUS, DISCOID, ther.  
chloroquine phosphate)  
(CHLOROQUINE, ther. use  
lupus erythematosus, discoid, ther. with chloroquine  
phosphate)

RAKHMANOV, V.A., professor; POTFKAYEV, N.S., ordinator

Instruction in dermatology and venereology at the medical school of the University of Moscow before the organization of a special department. Vest.ven. i derm. 30 no.2:38-42 Mr-Apr '56. (MIRA 9:7)

1. Iz kafedry kozhnykh i venerologicheskikh bolezney I MOIMI (zav. prof. V.A.Rakhmanov)

(VENEREAL DISEASES

hist. of venereol. educ. in Russia)

BUTENOP, V.V., BAKHMANOV, V.A.; DECTIAREV, A.P.; PROSTOSERDOV, A.P.,  
redaktor izdatel'stva; MEL'NICHENKO, P.P., tekhnicheskiy redaktor

[Safety manual for brigades operating single-bucket excavators]  
Paniatka po tekhnike bezopasnosti dlia brigady odnokovshovogo  
ekskavatora. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture,  
1955. 30 p. (MLRA 9:7)

1. Russia (1923- U.S.S.R.) Ministerstvo stroitel'stva predpriyatij  
metallurgicheskoy i khimicheskoy promyshlennosti.  
(Excavating--Safety measures)

RAKHMATOV V. A.  
EXCERPTA MEDICA Sec 13 Vol 13/2 Dermatology Feb 59

342. ACHIEVEMENTS OF SOVIET DERMATOLOGY (Russian text) - Rakhmatov V. A., Smelov N. S. and Malykin R. Ya. - VESTN. VENER. DERM. 1957, 31/5 (11-19)

Special attention is given to the relationships between skin diseases and the nervous system and the internal organs, in accordance with the traditions of the founders of dermatology in Russia: A. G. Polotebnoff, T. P. Pavlov, A. I. Pospeloff and P. V. Nikolsky. Skin reactivity represents a fundamental problem from the point of view of physiology and physiopathology. The present tendency to a functional viewpoint is mainly due to O. N. Podwissotzka and his collaborators. For the study of the function of the cerebral cortex, physiological methods have been introduced, inspired on Pavlov's work. Mention is made of the results of sleep treatment, by physiological and electrical conditioned reflexes, drugs and hypnosis. A systematic study of occupational skin diseases and a good organization of the campaign to combat them has greatly diminished the incidence of these conditions. The problem of pyoderma is discussed, with reference to new preventive measures in various industries such as mines, metal works, chemical and textile factories etc. Mention is also made of the significance of microtrauma and its rational prophylaxis, the biology of the pyococci and the treatment with immuno-biological preparations. Efficacious antimycotic measures are proposed. Lupus was for the first time successfully treated with vitamin D (irradiated yeasts) by M. A. Bichowsky and M. K. Pavlov in 1929. A. Ya. Prokoptschuk introduced acricine for the treatment of lupus erythematosus. Procaine, orally, intravenously, paravertebrally and circular block, has been largely applied in dermatology (V. A. Rachmanoff and many others). The scientific results became common knowledge as the consequence of the IIIrd and IVth Congresses of Dermato-Venereology of the USSR, in 1929 and in 1937. At these congresses, the physiopathological, biochemical and biological aspects of skin reactivity have been extensively discussed. There have been many other conferences, dealing with dermatological problems of the first order as the classification of skin diseases, microbial eczema, neurodermatitis, Borowsky's disease (Leishmaniasis), dermatomycosis, pyoderma, leprosy, skin tuberculosis, the influence of nervousness and the application of Pavlov's theories to dermatology, the history of dermatology and of venereology, the therapeutical problems in dermatology, teaching methods, radioactive isotopes in dermatology, etc. A series of dermatological reviews have seen the light.

Balabanoff - Sofia



BONDAR', Z.A., prof.; STRUKOV, A.I., prof.; LINDENBRATEN, L.D., prof.;  
RAKHMANOV, V.B., red.

[Rheumatism - the present-day status of the problem; a text-  
book for students, postgraduates and interns] Revmatizm -  
sovremennoe sostoianie voprosa; posobie dlia studentov, aspi-  
rantov i ordinatorov. Moskva, 1962. 27 p. (MIRA 15:9)

1. Moscow. Pervyi meditsinskiy institut. 2. Fakul'tetskaya  
terapevticheskaya klinika I Moskovskogo meditsinskogo insti-  
tuta im. I.M.Sechenova (for Bondar'). 3. Chlen-korrespondent  
Akademii meditsinskikh nauk SSSR (for Strukov). 4. Zafeduya-  
shchiy kafedroy rentgenologii i radiologii I Moskovskgo medi-  
tsinskogo instituta im. I.M.Sechenova (for Lindenbraten).  
(RHEUMATIC FEVER)

RUSSIAN TV, 1964.

People's control in a textile factory. Tekst. prod. 24 no.7:17-20  
41 164. (MIRA 17:10)

1. Vashatalnyy inspektor Komiteta praktyno-gosudarstvennogo kontrolya  
Moskovskogo gorodskogo komiteta Kommunisticheskoy partii Sovetskogo  
Soюза i Moskovskogo gorodskogo soveta Deputatov trudyashchikhsya.

KUZ'MIN, Mikhail Kuz'mich; RAKHMANOV, V.B., red.; RAYKO, N.Yu.,  
tekh. red.

[Lectures on the history of Russian medicine] Lektsiia po  
istorii russkoi meditsiny. Moskva, Pervyi MOIMI im. I.M.  
Sechenova, Lecture 1. [Medicine in old Russia] Meditsina  
Drevnei Rusi. 1961. 44 p. (MIRA 15:2)  
(MEDICINE--HISTORY)

SHENFEL'D, Khristian [Schoenfeld, Christian], doktor, nauchnyy setrudnik;  
RAKHMANOV, V.D. [translator]

Experimental confirmation of the theory of evolution. Priroda 48  
no.5:56-61 My '59. (MIRA 12:5)

1. Narednoye predpriyatiye "Karl TSeys", Jena.  
(Evolution) (Echinodermata)

RAKHMANOV, V.D.

Vocational and general education schools in the U.S.A. Politekh.  
obuch. no.4:87-90 Ap '57. (MLBA 10:7)  
(United States--Education)

STRUTT, M.J.O., professor; RAKHMANOV, V.F. [translator]; SHCHEL'KIN, V.P. [translator]; ATABEKOV, G.I., professor, redaktor; LARIONOV, G.Ye., tekhnicheskii redaktor

[Transistors; the principle of their operation, their characteristics and uses. Translated from the German] Poluprovodnikovye pribory; printsip deistviia, svoistva i primeneniia. Perevod s nemetskogo V.F.Rakhanova i V.P.Shchelkina, pod red. G.I.Atabekova. Moskva, Gos. izd-vo, 1956. 207 p. (NLRA 10:1)  
(Transistors)

*RAKHMANOV, V.F.*

USSR / Radiophysics. Application of Semiconductors

I-8

Pub Jour : Ref Zhur - Fizika, No 5, 1957, No 12603

Author : Rakhmanov, V.F.

Inst : Not given

Title : Analogy Between the Methods Used in the Design of Transistor Amplifiers and Those Used for Vacuum Tube Amplifiers at Small Signal Voltages.

Orig Pub : Tr. Mosk. aviats. in-ta, 1956, vyp. 66, 81-94

Abstract : The coefficients of the voltage-current characteristics of a transistor, written in the Y-parameter system, are compared with the corresponding coefficients of the characteristics of the vacuum tube. A connection is established between the tube parameters ( $\mu$ ,  $R_1$ ,  $S$ ) and the

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RAKHMANOV, V. F.

119-6-10/16

AUTHORS: Kamenskiy, A. V., Rakhmanov, V. F.

TITLE: Voltage-Control Relays With Semiconductor Elements  
(Rele napryazheniya na poluprovodnikovyykh elementakh).

PERIODICAL: Priborostroyeniye, 1957, Nr 12, pp. 26-26 (USSR)

ABSTRACT: The semiconductor-diodes and -triodes recently worked out permit to produce a reliable small relay for voltage increase which corresponds to the requirements of the vibration-stability, which does not react to changes of position and acceleration and which possesses advantages over the mechanical and the electron-tube relays. Figure 1 shows the characteristic of a semiconductor-silicon-diode. In the point of break-through the inverse current suddenly increases and is only limited by the circuit-resistance which makes it possible to use the silicon-diode as sensitive indicator of the voltage level. The scheme of the new voltage-increasing relay with the use of semiconductor diodes and triodes is shown in figure 2 and then described in detail. Figure 3 shows the dependence of the voltage on the time in the case of the formation of excessive voltage. The voltage-increasing relay consists of 25 small component

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Voltage-Control Relays With Semiconductor Elements

119-6-10/16

parts whose total weight does not exceed 400 g. The described relay has great advantages as compared to the mechanical relay, especially in electroinstallations of airplanes. There are 3 figures.

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RAKHMANOV, V.F., inzh.

Circular diagrams for determining current and voltage amplification factors at complex loads. Trudy MAI no.85:75-83 '57. (MLRA 10:9)  
(Electric measurements) (Electric currents)

ANILKANTH, V.P., Cond Tech Sci--(disc) "Observative study with specialized  
methods of calculation of identifying constants with light semiconductor  
triodes and electronic lamps." Ind, 1957. 15 p. (India Higher Education  
USSR: Institute of Aeronautics Inst for Research, 1957) 112  
(A1,26-58,112)

1(1); 28(1) <sup>P 2</sup>

PHASE I BOOK EXPLOITATION

SOV/3180

Moscow. Aviatsionnyy institut imeni Sergo Ordzhonikidze

Elektricheskiye tsepi i elementi avtomaticheskikh ustroystv;  
sbornik statey. (Electric Circuits and Components of Automatic  
Systems; Collection of Articles) Leningrad, Sudpromgiz, 1958.  
86 p. (Series: Its; Trudy, vyp. 102) Errata slip inserted.  
5,100 copies printed.

Sponsoring Agency: U.S.S.R. Ministerstvo vysshego obrazovaniya.

Resp. Ed.: G.I. Atabekov; Ed. (Title page): G.I. Atabekov,  
Doctor of Technical Sciences, Professor; Ed. (Inside book):  
V.S. Chichkanova; Tech. Ed.: R.K. Tsal.

**PURPOSE:** This collection of articles is intended mainly for persons  
engaged in problems of electrical engineering and automation  
in aviation.

**COVERAGE:** The collection contains articles dealing with the analysis

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Electric Circuits (Cont.)

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and design of components of automatic control systems and also with methods of calculating the parameters of the "two wires-frame" aircraft system. The articles are based on the work carried out in 1956 and 1957 by the staff of the Department of Theoretical Electrical Engineering of MAI. This work is characterized by two basic approaches: 1) theoretical and experimental investigation and development of methods of designing the components of automatic control systems and electrical systems of aircraft, 2) theoretical development of methods of calculating electric circuits. Most of the articles in this collection are a continuation of works published in two preceding collections by the above Department (Trudy MAI, 1956, Nr 66 and 1957, Nr 85, Oborongiz). No personalities are mentioned. References follow most articles.

TABLE OF CONTENTS:

Foreword

4

Rakhmanov, V.F., Engineer. Comparison of Frequency Response Characteristics of Low-frequency Cascade Amplifiers With a Common Emitter and a Common Cathode  
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5

Electric Circuits (Cont.)

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The author compares theoretically obtained amplitude- and phase-frequency characteristics of a cascade amplifier with common cathode and of a cascade amplifier with common emitter. He finds that these characteristics differ sharply for both types of cascade amplifiers and explains that this difference is caused by the fact that the coefficient (D) for the negative current feedback in the cathode circuit equals zero, while in the emitter circuit  $D \gg 1$ . The author also compares theoretically obtained curves with those obtained experimentally and finds them in complete qualitative agreement and satisfactory quantitative agreement.

Bibliography

19

Timofeyev, A.B., and V.G. Ter-Zakharyan, Candidates of Technical Sciences. Finding the Optimum Number of Turns of a Current Transformer

20

On the basis of some considerations concerning a simplified vector diagram of a current transformer, the authors obtain simple formulas which help to find with sufficient accuracy

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Electric Circuits (Cont.)

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the optimum number of turns when operating current and resistance of the relay are known.

Ter-Zakharyan, V.G. Candidate of Technical Sciences. Grapho-analytical Method of Investigating a "Current Transformer-Relay" System

24

The method suggested by the author may be employed in designing relay protection circuits for aircraft. According to the author, this method does not provide for an accurate quantitative accounting of all effects occurring in the system but makes possible a qualitative evaluation of the designed equipment and the efficient selection of parameters close to the optimal.

Bibliography

33

Kamenskiy, A.V. and V.G. Ter-Zakharyan, Candidates of Technical Sciences. Summators of Three-phase Current

34

The authors tabulate values of the proportionality factor as a function of the transformation ratio for various types of summators. In another table the authors present elementary  
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Electric Circuits (Cont.)

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circuits of some summators with rectangular magnetic circuits and calculations of their sensitivity. They discuss the characteristic properties of several types of summators and present a method of testing them.

Istratov, V.N., Candidate of Technical Sciences. Electrical Parameters and Calculation of the Transverse Asymmetry of a Two-wire Three-phase Aircraft Electrical "Two-Wire-Frame" System 43

The author investigates the electrical parameters of an asymmetric circuit for various cases of transverse asymmetry and finds their symmetrical components for generator currents.

Bibliography 56

Kamenskiy, A.V., Candidate of Technical Sciences. Electrical Parameters of a "Two-Wire-Frame" System 57

The author presents methods of calculating the following parameters: wire resistance, average values of wire resistance per phase, self-impedances and mutual impedances of separate phases and circuits ("wire-aircraft skin"). He also

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Electric Circuits (Cont.)

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presents a method of finding resistances experimentally.

Bibliography

67

Kovzan, A.A., Engineer. Method of Electrical Calculation of Systems: "Two Wire-Aircraft Frame"

68

The author presents his method of calculation.

Bibliography

73

Kovzan, A.A., Engineer. Electrical Calculation of Systems: "Two Wire-Aircraft Frame" With Asymmetric Loads

74

The author outlines his method of calculation and presents a numerical example.

Bibliography

78

Istratov, V.N., Candidate of Technical Sciences. Some Conditions for Optimal Performance of Pulse Protection Against Short-circuits

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Electric Circuits (Cont.)

SOV/3180

in D-C Systems

79

The author describes the type of differential pulse protection used, finds analytically the conditions for optimal performance, and presents a numerical example of calculations.

AVAILABLE: Library of Congress

Card 7/7

JP/jb  
4-5-60

BAKHMANTOV, V.F., inzh.

Frequency response of stage with a common emitter. Izv. vys. ucheb.  
zav.; energ. no.4:13-22 Ap '58. (MIRA 11:6)

1. Moskovskiy ordena Lenina aviatsionnyy institut imeni Sergo  
Ordshonikidze.

(Transistors)

ANDREYEVSKIY, Mir Nikolayevich; ~~BAKHMAYOV, V.P.~~ kand.tekhn.nauk, red.;  
TER-ZAKHARYAN, V.G., inzh., red.; GORTSUYEVA, N.A., izdat.red.;  
GARNUKHINA, L.A., tekhn.red.

[Design of elements for radio transmitters used on moving objects]  
Konstruirovaniye elementov radioperedatchikov, ustanavlivaemykh na  
podvizhnykh ob'ektakh. Moskva, Gos.izd-vo obr.promyshl., 1959.  
261 p. (MIRA 12:11)

(Radio--Transmitters and transmission)

MILOVZOROV, Vladimir Petrovich; SOTSKOV, B.S., retsenzent;  
MITYUSHIN, F.F., dots., retsenzent; RAKHMANOV, V.F.,  
dots., retsenzent; NEGNEVITSKIY, I.B., dots.,  
retsenzent; KOROL'KOV, N.V., kand. tekhn.nauk, red.

[Electromagnetic techniques] Elektromagnitnaia tekhnika.  
Moskva, Energiia, 1964. 511 p. (MIRA 17:12)

1. Chlen-korrespondent AN SSSR (for Sotskov). 2. Kafedra  
vychislitel'noy tekhniki i elementov vychislitel'noy  
tekhniki Moskovskogo aviatsionnogo instituta im. S.Ordzho-  
nikidze (for Mityushin, Rakhmanov). 3. Moskovskiy energe-  
ticheskiy institut (for Negnevitskiy).

RAKHMANOV, V.F.

Concerning some features of the frequency characteristics of a  
stage with a common emitter. Radiotekhnika 15 no.12:53-60  
D '60.

(MIRA 14:9)

(Transistor amplifiers)

36885

S/108/60/015/012/007/009  
B010/B059

9.2520 (1020, 1154, 1159)

AUTHOR: Rakhmanov, V. E.

TITLE: Certain Properties of the Frequency Response of an Emitter  
Circuit Stage

PERIODICAL: Radiotekhnika, 1960, Vol. 15, No. 12, pp. 53 - 60

TEXT: The frequency response of amplification of an emitter circuit with a shunted emitter resistor is calculated exactly. The result is compared with the conventional approximative formula. Fig.2 shows the equivalent-circuit diagram of an emitter circuit with a shunted emitter resistor  $R_3$ ;  $R_1$  and  $R_2$  denote partial resistors of the base;  $r_{osn}$ ,  $r_k$ ,  $r_e$  are resistors of the equivalent-circuit diagram of the transistor. Voltage amplification is exactly calculated from the formula  $K_v = K_c \cdot \Phi_1 \cdot \Phi_2 \cdot \Phi_3$ .  $\Phi_3$  describes the action of the (frequency-dependent) inverse current feedback on the amplification factor  $\Phi_3 = \frac{1}{1+D/(1+i\omega\tau_3)}$ ,  $\Phi_2$  being the input voltage loss

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86885

Certain Properties of the Frequency Response  
of an Emitter Circuit Stage

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caused by the voltage divider consisting of  $C_1$  and the parallel connection of  $R_1, R_2$ , and by the input resistance (which is assumed to be independent of frequency)  $R_{in}$  of the active four-terminal network:  $\Phi_2 = \frac{i\omega\tau_1}{1+i\omega\tau_1}$ ;  $\Phi_1$

describes the frequency-independence of  $R_{in}$  due to negative feedback:

$$\Phi_1 = \frac{1 + i\omega\tau_1}{F + Q + i\omega\tau_2 F}, \text{ where } K_0 - \text{amplification at infinitely high}$$

$$i\omega\tau_1 + \frac{F + FQ + i\omega\tau_2 F}{F + FQ + i\omega\tau_2 F}$$

$$C_1, C_2, \Delta = r_b(r_k - r_g + r_e + R_n) + r_e(r_k + R_n), Q = \frac{(r_k + R_n)R_3}{\Delta}$$

$$F = 1 + \frac{R_1 R_2 (r_k - r_g + r_e + R_n)}{(R_1 + R_2)\Delta}, D = \frac{(r_b + r_k + R_n)R_e}{\Delta}, \tau_1 = \frac{C_1}{\frac{1}{R_1} + \frac{1}{R_2} + \frac{r_k - r_g + r_e + R_n}{\Delta}}$$

$\tau_3 = R_3 C_3$ . This formula is compared with the known approximation formula

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0005

Certain Properties of the Frequency Response of an Emitter Circuit Stage

S/108/60/015/012/007/009  
B010/B059

$K_v \approx K_c \cdot \bar{\Phi}_2 \bar{\Phi}_3$ , i.e., the function  $\bar{\Phi}_1$  as depending on frequency and sizing is analyzed. The results (Fig.4a,b) for the amplitude- and phase dependence of  $\bar{\Phi}_1$  ( $n = \frac{\tau_3}{\tau_1}$ ,  $a = Q(1-1/F)/(1-Q/F)$ ,  $b = \sqrt{\frac{Q+1}{n}} + \sqrt{\frac{n}{Q+1}}$ ) show that the largest discrepancy between the exact and the approximative formula occurs with  $\frac{\tau_3}{\tau_1} = a + 1$  ( $\equiv b=2$ ), and that approximation is the better, the greater  $b$ . For  $\nu_1 = \sqrt{\frac{1}{2}(1 + \frac{1}{a+1})}$ ,  $|\bar{\Phi}_1| = 1$ , i.e., both formulas supply the same amplification factor. For frequencies above  $\nu_1$ , the difference between the two formulas for the value and phase of the amplification factor does not exceed 13.4% and  $38^\circ 51'$  (Fig.6). Fig.5 shows the amplitude- and phase response of the amplification factor for the exact (solid lines) and the approximative solution (dashed lines) for  $Q = 58.5$ ,  $F = 4.5$ , and  $a = 3.25$ . The two families of curves intersect at the point  $\nu_1$ . The maximum possible value of  $\frac{K_v}{K_c}$  at this point is calculated in Table 1 as a function of  $Q$ . It

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Certain Properties of the Frequency Response of an Emitter Circuit Stage S/108/60/015/012/007/009  
3010/3059

may be seen that for  $Q \gg (\sqrt{2} - 1)$  amplification drops below the standard value  $\frac{1}{\sqrt{2}}$ . There are 6 figures, 1 table, and 2 Soviet references.

SUBMITTED: June 5, 1959 (initially), May 11, 1960 (after revision)

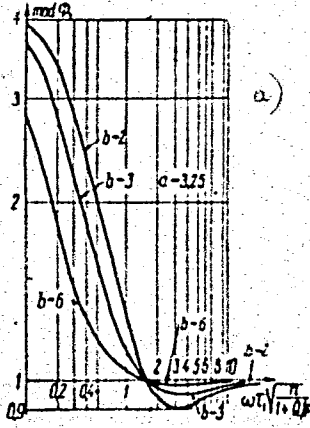
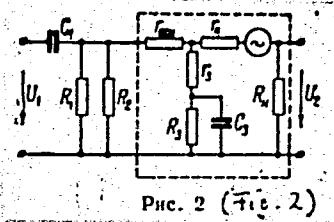
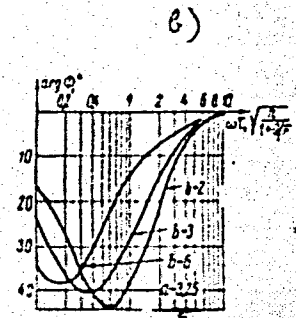


Fig. 4



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S/108/60/015/012/007/009  
B010/B059

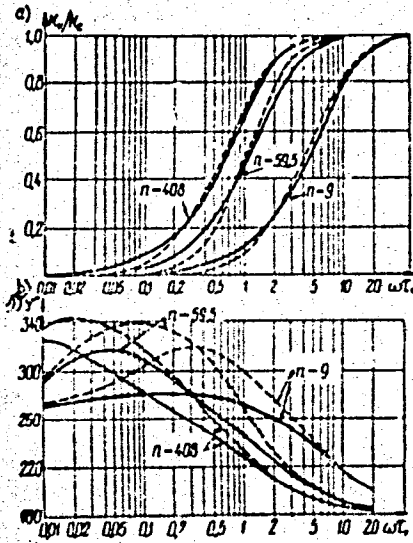


Рис. 5 (Fig. 5)

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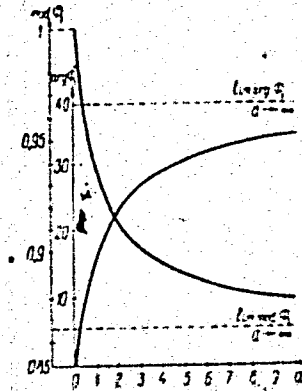


Рис. 6 (Fig. 6)

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S/108/60/015/012/007/009  
B010/B059

(Table 1) Таблица 1

$Q$	Наибольшее возможное значение $\frac{K_D}{K_C}$ в точке пе- ресечения
0,0	1,000
0,1	0,909
0,2	0,833
0,3	0,769
0,4	0,714
$\sqrt{2} - 1$	0,707
0,5	0,671
1,0	0,577
2,0	0,530
3,0	0,517
4,0	0,510
5,0	0,507

Card 6/6

RAKHMANOV, V.P.

High-grade iron ores in the Mikhaylovskiy deposit of the Kursk  
Magnetic Anomaly. Kora vyvetr. no. 3:152-179 '60.

(MIRA 13:12)

1. Institut geologii rudnykh mestorozhdeniy, petrografii,  
mineralogii i geokhimii AN SSSR.

(Kursk Magnetic Anomaly--Iron ores)

BAKHMANOV, Vitaliy Pavlovich; KALGANOV, M.I., kand.geol.-min.nauk,  
otv.red.; POPOVA, T.S., red.izd-va; IKHCHIROVA, S.G.,  
tekhn. red.; DOROKHINA, I.N., tekhn. red.

[Rich iron ores of the weathering surface in the Kursk  
Magnetic Anomaly as revealed by the studies of the Mikhay-  
lovka] Bogatye zheleznye rudy kory vyvetrivanii Kurskoi  
magnitnoi anomalii; na primere Mikhailovskogo nestorozh-  
denia. Moskva, Izd-vo Akad.nauk, 1962. 151 p.

(MIRA 15:7)

(Kursk Magnetic Anomaly--Iron ores)  
(Kursk Magnetic Anomaly--Weathering)

RAKHMANOV, V.P.

Distribution of certain secondary minerals in sedimentary and residual high-grade ores in the Yakovlevskoye deposit of the Kursk Magnetic Anomaly. Mat. po geol. i pol. iskop. tsentr. raion. evrop. chasti SSSR no.2:113-126 '59. (MIRA 13:9)

1. Sovet po izucheniya proizvoditel'nykh sil pri Prezidiume Akademii nauk SSSR.

(Kursk Magnetic Anomaly--Iron ores)

RAKHMANOV, V.P.

Magnetite formed in the upper part of the erosion surface from ferruginous quartzites of the Kursk Magnetic Anomaly. Dokl. AN SSSR 122 no.6:1103-1106 O '58. (MIRA 11:12)

1. Sovet po izucheniyu proizvoditel'nykh sil AN SSSR. Predstavleno akademikom D.S. Korzhinskim.  
(Gostishchevo District--Magnetite)



RAKHMANOV, V.P.; SHUTLIV, F.A.

Some characteristics of complex metal ores of eastern Trans-  
baikalia. Trudy Min.muz. no.13:79-101 '62. (MIRA 16:2)  
(Transbaikalia—Ore deposits)

5(8)

AUTHOR: Rakhmanov, V. P. SOV/20-122-6-42/49

TITLE: Hypergenic Magnetite in the Weathered Crust of the Iron-Bearing Quartzites of the Kurskaya Magnetic Anomaly (KMA)  
(O gipergennom magnetite v kore vyvetrivaniya zhelezist-ykh kvartsitov Kurskoy magnitnoy anomalii (KMA))

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 132, Nr. 6, pp 1105 - 1106 (USSR)

ABSTRACT: In the rich martite ores of the northern Gostishchevskoye deposit (Belgorodskiy iron ore region of the Kurskaya Magnetic Anomaly) the author has discovered hypergenic (supergenic) magnetite. The unique form and characteristics of this magnetite distinguish it from the relict metamorphic magnetite of the same ores. The hypergenic magnetite was evidently precipitated in a reducing environment from weakly acidic ground water solutions. The rich iron ores of the Gostishchevskoye deposit as well as

Card 1/4

By... in the West... of the... -42/49  
Bearing Quartzites of the Kurilaga Magnetic Anomaly (KMA)

all the other ores of the KMA are predominantly residual ores of the weathered crust. They have formed from iron-bearing quartzites under continental conditions. According to many researchers (Refs 1,5,7,8,11) quartz was dissolved and carried away by groundwater. At the same time iron-bearing silicates were destroyed and replaced by iron hydroxides. Magnetite was changed to martite. Only hematite remained unchanged. The ore deposits occur in the steeply dipping beds only near the earth's surface. Vertical zoning occurs in the weathered zone of all the ores. Every zone is defined by a particular mineral association, which corresponds to a gradual decrease in weathering and oxidation processes with depth. The author designates the following zones from deep to shallow: 1) Zone of rich hematite residual ore. 2) Zone of martite production and weak solution of the iron-bearing quartzite. 3) Zone of fresh quartzite (not oxidized). In the first zone the residual ore zone, 3 mineral associations are clearly delimited: a metamorphic minerals which remain

Car8 2/4

Hypergenetic Magnetite in the Weathered Crust of the Iron- SOV/20-122-6-42/49  
Bearing Quartzites of the Kurskaya Magnetic Anomaly (KMA)

in the ore as relicts, magnetite, "mushketowit", as well as corroded quartz grains and finally small plates of iron glance scarcely disturbed by the weathering, b. martite, limonite, goethite and others, and c. siderite (hypogenic) magnetite, iron-rich chlorite, marcasite and pyrite. This latter association of minerals (c) was formed after the ore bodies were covered by marine Paleozoic and Mesozoic sedimentary rocks and the oxidation conditions were replaced by a reducing environment. The minerals of this association were precipitated from the ground water, replacing and cementing the earlier-formed minerals. Thus in the residual ores of the KMA two distinct paragenetic series exist which originated under different physical-chemical conditions. A) those formed in an oxidizing environment when metamorphic magnetite was replaced by martite and B) those formed in a reducing environment when mineral association (3) was precipitated. Thus the existence of not only hypogenic magnetite but hypergenetic (supergenic) magnetite is proven by this occurrence. There are 3 figures and

Card 3/4

Hypergenic Magnetite in the Weathered Crust of the Iron-  
Bearing Quartzites of the Kurskaya Magnetic Anomaly (ISLA)

14 references, 12 of which are Soviet.

ASSOCIATION: Sovet po izucheniyu proizvoditel'nykh sil Akademii Nauk SSSR  
(Council for the Study of Productive Forces,  
Academy of Sciences, USSR)

PRESENTED: June 4, 1958, by D.S. Korzhinskiy, Academician

SUBMITTED: March 26, 1958

Card 4/4

RAKHMANOV, V. R.

"The Water-Regulating and Oil-Protecting Role Played by Tree Plantations,"  
Meteorologiya i Gidrologiya, Issue No. 1, 1949.

U-1442, 28 Aug 51

RAKHMANNINOV, V.S. [translator]; TURKYSKIY, V.M. [translator]; SUSHKEVICH,  
V.I., kand.tekhn.nauk, red.; DANILOV, N.A., red.; KLIMENKO, S.V.,  
tekhn.red.

[Band systems of super-high frequencies; collected studies]  
Poloskovye sistemy sverkhvysokikh chastot; sbornik statei.  
Moskva, Izd-vo inostr.lit-ry, 1959. 356 p. (MIRA 12:8)  
(Electric circuits)

RAKHMANOV, V.S.--

Determination of the performance characteristics of extruders.  
Plast.massy no.5:49-51 '61. (MIRA 14:4)  
(Extrusion process)



RUSSIAN, V. I. Gorkh, 1947.

Dissertation: "Characteristics of Layers of the Atmosphere" (Moscow, 1947).  
Weather Forecasting, 27, 1947.

SO: Vostochnaya Yazyki, Jan, 1947 (number 1947).

21

CA

Analysis of the reciprocal relations between the heating value, the ash content, and the degree of decomposition of peat. V. V. Rakhmanov. *Tekhn. Prom.* 23, No. 2, 25-31 (1948); *Chem. Zvest.* 1960, 337.—A close, inverse, linear relation exists between the heating value and the ash content of lower or bottom peat, so that the ash content can serve as a criterion of the heating value. This relation does not apply so accurately to upper or top peat, although such a relation does exist between the heating value and the degree of decumpan. of top peat. Equations representing these relations are developed. M. G. Moore

Coal Geol. Sci.

RAKHMANOV, V. V.

2

551.579:551.588.6  
57-167  
Rakhmanov, V. V. Vliyanie lesa na stok rek. [Influence of forests on river runoff.]  
Les i Step; Moscow, 9:11-17, 1951. 2 figs., 3 tables. DLC--The author compares the runoff  
from 37 catchment areas, divided in 6 groups with similar unspecified climatic and topographic  
conditions, with the percentage of forests in each area and finds that forests definitely increase  
the annual runoff. Subject Headings: 1. Runoff 2. Forest influences 3. European U.S.S.R.  
A.A.

1

40

RAKHMANOV, V.V., kandidat geograficheskikh nauk

Theoretical "aims" of some agricultural meteorologists. Meteor.  
i gidrol. no.1:17-24 Ja 52. (MLRA 8:9)

1. Glavnoye upravleniye gidrometsluzhby, Moskva.  
(Meteorology, Agricultural)

RAKHMANOV, V. V.

4.8-258

①

551.588.7

Rakhranov, V. V., Hydrologiske og meteorologiske flger av menneskets indring av naturforholdene i Sovjet-Samveldet. /Hydrological and meteorological results of man-made changes of the natural conditions in the USSR./ Naturen, 76(17):529-544, 1952. DNB--An article translated from Russian into Norwegian. Explains the task of cultivating not less than twenty million km<sup>2</sup> of land in the U.S.S.R. by planting forests and changing the courses of rivers, thereby achieving a man-made climate. A map showing the climate as modified by shelter belts and the 8 regions where shelter belts are being planted is given. The project will be carried out under the Michurin plan. Subject Headings: 1. Climatic amelioration 2. Shelter belts 3. U.S.S.R.--W.N.

10/27/54 LM

RAKHANOV, V. V.

"World-Wide Meteorological Organization," *Meteorol. i Aerokosmos*, No. 6, 1963, pp 28-32

A brief outline of the history of the International Meteorological Organization since 1872 and of the contemporary World Meteorological Organization (Vsemirnaya meteorologicheskaya organizatsiya) since 1946. The author gives information on the structure of the later organization, on the first congress in Paris in 1951, and on the first session of the European regional association in 1952 in Zurich. He recalls accounts of several technical sessions. (*RZhGeol*, No 5, 1954)

CC: Sun No. 568, 6 Jul 55

RAKHMANOV, V.V.

PA 216701

USSR/Meteorology - Water Cycle

Jan/Feb 53

"How Great Is the Influence of Forests on the Water Cycle in the Atmosphere?" V.V. Rakhmanov

"Iz V-S Geograf Obshch" Vol 85, No 1, pp 49-59

Discussion of theories of outstanding Russian scientists on influence of forests on the water cycle in the atmosphere. States that influence of forests is greatest in the lower layers of the atmosphere and in the strengthening of vertical currents, which are instrumental in causing precipitation.

246784

RAKHMANOV, V.V.

Artificial diagram of hydrologic cycle. Izv.Vses.geog.ob-va 86 no.2:  
178-198 Mr-Apr '54. (MLRA 7:6)  
(Hydrology)



AKHMANOV, V. V.

AID P - 1881

Subject : USSR/Meteorology and Hydrology

Card 1/1 Pub. 71-a - 24/26

Author : Rakhmanov, V. V.

Title : ~~On the influence of forests on precipitation~~  
On the influence of forests on precipitation

Periodical : Met. i gidro., no.2, 61-64, 1955

Abstract : The article is a review of the second edition of the text book General Forestry by V. G. Nesterov, published in 1954. The author criticizes Nesterov's contention that wooded areas increase precipitation because of turbulence and a concentration of cold air masses over forests. The author strongly recommends a revision and additional study of the problem. Twelve Russian references, 1884, 1907, 1918, 1940, 1948 - 1954.

Institution : None

Submitted : No date

RAKHMANOV, V. V.

AID P - 3175

Subject : USSR/Meteorology

Card 1/2 Pub. 71-a - 2/23

Author : Rakhmanov, V. V.

Title : On causes of river runoff decrease in certain regions of the USSR

Periodical : Met. i. gidr., 5, 9-14, S/O 1955

Abstract : The author discusses the theory presented by a number of Soviet scientists on the decrease of river runoff resulting from water distribution and irrigation layouts according to the new plans of cultivating virgin and waste land. The author considers the over-all increase in the mean annual temperature in Europe and Asia as the cause of increased evaporation which has resulted in a decrease in runoff. In his opinion the cultivation of land cannot in itself seriously affect river runoff in the future. Eleven Russian references, 1938-1955, 4 English, 1951-1954 and 2, 1953 German references.

AID P - 3175

Met. 1. gldr., 5, 9-14, S/O 1955

Card 2/2 Pub. 71-a - 2/23

Institution : None

Submitted : No date

*Rakhranov U.U.*

K-1

USSR/Forestry - General Problems

Abs Jour : Ref Zhur - Biol., No 5, 1958, 20099

Author : Rakhranov, V.V.

Inst : -

Title : The Dependence of Snow Thawing in the Forest on the Nature of the Weather.

Orig Pub : V sb.: Sneg i talye vody. Ikh izucheniye i ispol'zovaniye. M., AN SSSR, 1956, 112-124

Abstract : The meteorological conditions were examined for the snow thawing period during recent years in a number of rayons of the European portion of the USSR. Diverse combinations in the synoptic processes are analyzed which cause variations in the nature of snow thawing and differences in the periods of snow accumulation both in the forest and on open spaces. It is noted that a delay in snow thawing in the forest is not only caused by a weakening of solar radiation but by particularities in the exchange of

Card 1/2

- 22 -

RAKHMANOV, V.V.

Influence of forests on the formation of snow reserves. Meteor. i  
gidrol no.11:21-28 N '56. (MLRA 10:1)  
(Snow) (Forest influences)

RAKHMANOV, V. V.

USSR/Physics of the Hydrosphere - General Problems, N-1

Abst Journal: Referat ~~Zhur~~ - Fizika, No 12, 1956, 36245

Author: Rakhmanov, V. V., Sapozhnikov, V. I.

Institution: None

Title: On the Procedure for Aerial Photography of Snow Covers During the Time of Melting

Original  
Periodical: Tr. Tsentr. in-ta prognozov, 1956, No 33, 95-106

Abstract: Notice is taken of the importance of data on the snow cover of basins during the melting period in the prediction of the elements of the spring high water, and of the advantages and objectivity of the aerial photography method, which makes it possible to investigate the dynamics of the descent of the snow cover under various physical and geographical conditions. It is indicated that the value of these materials becomes greater if they are supplemented by surface snow-measuring expeditions, carried out at the same time with the aerial photography. Based on the analysis of

Card 1/2

USSR/Physics of the Hydrosphere - General Problems, II-1

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 36245

Abstract: materials of the aerial photography, carried out by the Central Institute of Forecasting in the spring of 1954, recommendations are given concerning what part of the area and in what locations of the basin it is necessary to photograph in order to obtain a material that describes fully enough the distribution of the snow cover over the entire basin.

Card 2/2

BAKEMANOV, V.V.

Role of climatic factors and agricultural improvement through affor-  
estation in decreasing annual stream flow. Trudy TSIP no.48:3-51  
'56. (MLBA 10:2)

(Hydrology) (Runoff) (Forest influences)



RAKHMANOV, V. V.

Popov, I. V.

(4,5)

FEASIBLE BOOK EXPLOITATION

27/165

Abstrakty knigi SSSR. Komitet po geologii i geografii.

Trudy dokladov na XI General'noy sessiiye Nauchnoissledovaniya geodesicheskoy i geograficheskoy otdelov. Nauchnoissledovaniya asociatsiya nauchnoy gidrologii (Abstracts of Reports Submitted to the 11th General Assembly of the International Union of Geodesy and Geophysics. The International Association of Scientific Hydrology) Moscow, 1977. 101 p. /Parallel text in Russian and English or French/ 1,500 copies printed.

No additional contributors mentioned

PURPOSE: This booklet is intended for hydrologists and civil engineers.

COVERAGE: This collection of abstracts covers reports presented at the 11th General Assembly of the International Union of Geodesy and Geophysics on hydrological, erosion, and glaciological processes. Studies related to problems of underground waters, seas, and rivers are also discussed. The abstracts are in Russian, with English or French translations. Those appearing in English are designated by a single asterisk; those in French by two. There are no references given.

Card 1/4

Rakhmanov, V.V. Influence of Forests on the Accumulation and Thawing of Snow in Relation to Meteorological Conditions \*

Card 2/4

RAKHMANOV, V.V.; SAPOZHNIKOV, V.I.

Using aerial inspection for visual determination of the snow cover  
in basins during the snow melt period. Meteor. i gidrol. no. 3:58-59  
Mr '57. (MLRA 10:5)

(Snow)

50-11-7/9

AUTHOR: Bakhtanov, V. V.

TITLE: The Development of Hydrologic Forecasts in the Course of 40 Years  
(Razvitiye gidrologicheskikh prognozov za 40 let).

PERIODICAL: Meteorologiya i Gidrologiya, 1957, Nr 11, pp. 51-59 (USSR).

ABSTRACT: In the beginning of the twenties V. M. Lebedev suggested a method of forecasts for the maximum levels of the floods of rivers which was based on the classification of a number of factors. This method was used for the arrangement of forecasts for the floods of the rivers Volchov, Volga, Kama, Neva a. o. since 1923. The height of maximal water levels was fixed according to the amount of rains and snow in the winter time as well as to the deviation of temperature from the standards for the same period of time. Besides the study of the elements of the water transport of rivers also investigations of the creation of forecast methods for ice phenomena were carried out. In 1926 V. Yu. Vize suggested a method of forecast for the icebreaks of the river Neva which is based on the statistical connections of icebreak data with the airpressure as well as with the temperature of the air in Leningrad and at other places. The development of the observation system and the regular hydrological information made it possible to arrange the supplying of na-

Card 1/4

The Development of Hydrologic Forecasts in the Course of 10 Years. 50-11-7/9

tional economy by local administration of the hydrometric service in the thirties, which at that time were erected over the whole territory of the USSR. In 1936 S. Yu. Belinkov, G. A. Spengler, a. o. worked out the methods of forecasts for spring floods of rivers taking into account the snow stocks in the water basins as well as the intensity of snow melt. G. R. Bregman arrived at the conclusion that the general background of the development of iceprocesses on rivers of the European part of the USSR are really determined by the meteorologic conditions of the passing period which again depends on the warm-air flows and first of all on the flows of Atlantic origin. G. Ya. Van- genheim formed the whole manifold character of synoptic processes during winter time into three groups of winter circulation-eastern, Western and Central-European, meridianic. He discovered their connection with general periods of icebreaks on rivers of the European part of the USSR.

As one of the leading methods of investigation for the forecasts of the course of mountain- as well as of valley-rivers the method of water-balance, which makes it possible to take into account the drainage of water in connection with other processes, has to be regarded, which develop in water basins and river beds.

According to the demands of geodesits the systematic snow pictures introduced still in prewar time continued their further development.

Card 2/4

The Development of Hydrologic Forecasts in the Course of 40 Years. 50-11-7/9

In winter 1953/1954 these snow pictures in the European part of the USSR were taken at 505 camps and in 1953/54 at 3000 camps. Air reconnaissance of the snow cover in water basins as well as of the ice cover of rivers is of great importance for operative work. In the field of water forecasts the investigations of the important element, the evaporation, was of great importance. Based on mass pictures of the snow it was proved that at the end of the winter snow, as a rule, accumulated by 10 % - 20 % more in forest districts than in open areas.

Of late more and more investigations of small rivers are carried out. In this connection the explanation of the general dependence of water drainage on the factors which are effective in an area with the same kind of physical-geographical conditions, are of great importance. The investigation of the processes of the formation of summer- and winter drainage, which were carried out by L. I. Guryevich, P. I. Milyukov, a. c. make it possible to forecast the waterlevel and waterconsumption of a number of rivers in the USSR already 20-30 days in advance. A special place is taken by the investigations of the regularities of change of the water reserves in the river system which are based on the use of the equation of continuity as well as on other equations of hydraulics. Hydrologists pay their special at-

Card 3/4

The Development of Hydrologic Forecasts in the Course of 40 Years. 50-11-7/9

tention in the elaboration of the methods for mountain rivers to the determination of snow reserves in the mountains as well as to the course of snow melt.

AVAILABLE: Library of Congress.

1. Hydrology-Development-USSR
2. Ground water-USSR

Card 4/4

RAKHMANOV, V.V.

Is the precipitation intercepted by tree crowns lost to the forest?  
Bot.zhur. 43 no.11:1630-1633 N '58. (MIRA 11:11)

1. Tsentral'nyy institut prognozov, Moskva.  
(Rain and rainfall) (Plants--Transpiration)  
(Forests and forestry)

RAKHMANOV, V.V.

~~Forests and the water cycle. Trudy TSIP no.65:107-152 '58.~~

(MIRA 11:6)

(Hydrology) (Forest influences)



R. K. H. M. A. N. V.

(7); 10(4) p. 2

PHASE I BOOK EXPLOITATION

SOV/2680

Leningrad. Tsentral'nyy institut prognozov

Issledovaniya formirovaniya stoka (Investigation of Runoff Formation)  
Moscow, Gidrometeoizdat, 1959. 129 p. (Series: Ibs: Trudy, vyp.  
82) Errata slip inserted. 900 copies printed.

Sponsoring Agency: Glavnoye upravleniye gidrometeorologicheskoy  
sluzhby pri Sovete Ministrov SSSR.

Ed. (Title page): P.I. Milyukova; Ed. (Inside book): L.V. Blinnikov;  
Tech. Ed.: I.M. Zarkh.

**PURPOSE:** This issue of the Institute's Transactions is intended for hydrologists. It will also be of interest to hydrogeologists, geographers, soil scientists, and foresters.

**COVERAGE:** This collection of articles treats problems in the formation of runoff. Individual papers discuss the build-up of spring runoff waters in drainage basins located in plains regions, the effect of forest cover on runoff, and the possibility of forecast-

Card 1/2

RAKHMANOV, V.Y.

Effects of afforestation on the amount of precipitation in  
lowland areas of the European part of the U.S.S.R. Trudy  
TSIP no. 94:48-66 '59. (MIRA 12:8)  
(Forest influences) (Precipitation (Meteorology))

RAKHMANN, U.V.

MADE 1 BOOK EXTRACTS 807/7511

Soviet Technical Institute Program

Voprosy gidrometeorologii (problems in hydrology) Moscow, Gidrometeorizdat (Okeanizdat) 1979. 90 p. (Series: 1st Study, 77p. 90) 200 copies printed.

Specializing Agency: Technical Institute Program; Gidrometeorizdat; Gidrometeorologicheskiy tsentr pri Sovetskom Ministerstve OZBKh.

MA. (Title page): S. Ia. Rakhmannov; Ed. (Inside book): V. I. Kornilovskii; Tech. Ed.: V. Ia. Rakhmannov.

PROGRAM: This publication is intended for hydrological forecasters in field offices of the Hydrometeorological Service. It will also be of interest to scientific engineering workers.

CONTENTS: This issue of the Transactions of the Central Institute of Weather Forecasting contains articles dealing with problems in hydrological forecasting: 1) critical articles discuss forecasting with physical models, forecasting on the basis of groundwater, flood runoff and stream discharge forecasting, etc. Evaluation of forecasting methods is given and their accuracy is analyzed. 2) precipitation and

Rakhmann, U.V. and T.T. Rakhmannov. Investigation of Some Problems of Spring Flood Runoff. Prilozhenie k zhurnalu "Voprosy gidrometeorologii" (Appendix to the journal "Problems in Hydrology") 1979. 10 p. (Series: 1st Study, 77p. 90) 200 copies printed.

Rakhmann, U.V. Dependence of the Amount of Precipitation on the Power of the Storm. Trudy Gosgidrometeorologicheskogo nauchno-issledovatel'skogo tsentra pri Ministerstve OZBKh SSSR (Proceedings of the Hydrometeorological Service of the USSR) 1979. 10 p. (Series: 1st Study, 77p. 90) 200 copies printed.

Rakhmann, U.V. On the Probability Form of Hydrological Forecasting. Trudy Gosgidrometeorologicheskogo nauchno-issledovatel'skogo tsentra pri Ministerstve OZBKh SSSR (Proceedings of the Hydrometeorological Service of the USSR) 1979. 10 p. (Series: 1st Study, 77p. 90) 200 copies printed.

Rakhmann, U.V. The Most Commonly Used Methods in the USSR for Calculating the Transformation of Flood Gains During Their Passage Through a Stream Channel. Trudy Gosgidrometeorologicheskogo nauchno-issledovatel'skogo tsentra pri Ministerstve OZBKh SSSR (Proceedings of the Hydrometeorological Service of the USSR) 1979. 10 p. (Series: 1st Study, 77p. 90) 200 copies printed.

U.V. Rakhmann. The Problem of Accuracy in Precipitation Measurements (According to Observational Data at the S. I. Serebrovskiy Station). Trudy Gosgidrometeorologicheskogo nauchno-issledovatel'skogo tsentra pri Ministerstve OZBKh SSSR (Proceedings of the Hydrometeorological Service of the USSR) 1979. 10 p. (Series: 1st Study, 77p. 90) 200 copies printed.

AVAILABLE: Library of Congress

3(7)

SOV/50-60-1-19/20

AUTHOR:

Rakhmanov, V. V.

TITLE:

Scientific Conference on Problems of Forecasts on Mainland Waters

PERIODICAL:

Meteorologiya i gidrologiya, 1960, Nr 1, pp 63-64 (USSR)

ABSTRACT:

A Scientific Conference of hydrologists supplying national economy with hydrological forecasts on rivers was held in Moscow from October 13 to 21, 1959. The introductory speech was delivered by A. A. Zeletukhin, Chief of the Glavnoye upravleniye gidrometeosluzhby (Main Administration of the Hydrometeorological Service). The following persons reported on the elaboration of methods for high-water forecasts: V. D. Komarov, A. N. Vashnov, K. M. Alyushinskaya, V. N. Parshin. Ice conditions were dealt with by B. M. Ginsburg, G. N. Makarevich, and L. G. Shulyakovskiy. P. M. Mashukov gave an analysis of the forecast methods available today. Over 50 reports were delivered. V. A. Romanenko reported on calculations of the soil-freezing depth on the basis of meteorological data. S. N. Tachalov spoke about the regulation of overflow quantities in hydroelectric power stations to prevent possible troubles due to ice. M. A. Velikanov, Corresponding Member of the AS USSR, gave an analysis of the forecast theory.

Card 1/2

Scientific Conference on Problems of Forecasts on  
Mainland Waters

SOV/50-60-1-19/20

The Conference pointed out certain shortcomings such as insufficient progress in the study of the rules governing the formation of flowoff in spring, and of the influence of weather, relief, and vegetal cover on the former; the network of observation stations in mountainous regions is inadequate; the rules governing the alterations of processes in the atmosphere during transition times are as yet unknown; the work of hydrologists of different specialisations are insufficiently coordinated. At the end of the Conference, the project of the "Nastavleniye po sluzhbe gidrologicheskikh prognozov" (Specification for the Hydrological Forecast Service) was approved, and hope was expressed for the project to undergo further improvements. The project was worked out by Ye. G. Popov and V. N. Parshin in the Tsentral'nyy institut prognozov (Central Institute of Forecasts).

Card 2/2

RAKHMANOV, V.V.

Influence of forests on annual runoff of river basins. Trudy TSIP  
no.105:9-52 '60. (MIRA 14:1)  
(Forest influences) (Runoff)

RAKHMANOV, V. V., DOC GEOGRAPH SCI, <sup>11</sup> THE HYDROLOGICAL  
ROLE OF FORESTS IN THE EUROPEAN TERRITORY OF <sup>the</sup> USSR. MOS-  
COW, 1960. (MOSCOW ORDER OF LENIN AND ORDER OF LABOR  
RED BANNER STATE UNIV IM M. V. LOMONOSOV. GEOGRAPH FAC).  
(KL, 2-61, 201).

RAKHMANOV, V.V.

Percolation of moisture into the deeper soil layers ~~under~~ forest  
belts. Trudy TSIP no.113:95-111 '61. (MIRA 14:9)  
(Soil moisture) (Forest influences)



RAKHMANOV, Viktor Vasil'yevich; KILDANOV, V. Ya., red.; PLATOVA, L. E.,  
red. izd-va; GRECHISHCHEVA, V. I., tekhn. red.

[Water-retaining role of forests] Vodookhrannaia rol' lesov.  
Moskva, Goslesbumizdat, 1962. 234 p. (MIRA 16:2)  
(Forest influences)

RAKHMANOV, V.V., doktor geograf. nauk

Concerning A.A. Rode's review. Meteor. i gidrol. no.6:53-56  
Ja '64. (MIRA 17:8)

KORZUN, V.I.; RAKHMANOV, V.V.

International Hydrological Decade. Meteor. i gidrol. no.1:  
8-11 Ja '64. (MIRA 17:3)

1. Glavnoye upravleniye gidrometeoslužby i Tsentral'nyy  
institut prognozov.

RAHMANCEV, V.V.

Delimitation of the water conserving forests in the U.S.S.R.  
Dokl. AN BSSR 9 no.12:829-834 D '65. (MIRA 19:1)

1. Tsentral'nyy institut prognozov.