

YURKOV, V.N.; BALABOLKIN, A.N.

Ways of improving the performance of perforator boring in hard  
rock. Trudy Alt. GMI AN Kazakh. SSR 10:76-80 '61. (MIRA 14:9)  
(Boring)

BALABOLKIN, A.N.

Dispersion study of mine dust. Trudy Ak. GINII AN Kazakh. SSR  
10:116-119 '61. (MIRA 14:9)  
(Mine dusts)

BALABOLKIN, A.N.; TAYMAYEV, Zh.

Using core bits and rods made of thin pipe in boring with rock  
drills. Bor'ba s sil. 5:171-173 '62. (MIRA 16:5)

1. Gorno-metallurgicheskiy nauchno-issledovatel'skiy institut  
AN KazSSR.

(Rock drills)

(Mine dusts—Prevention)

NIKOLAYEV, O.V., prof.; BALABOLKIN, M.I.

"Current problems in the hormonal and surgical treatment of diseases of the endocrine glands" by E.Polak, J.Syllaba. Reviewed by O.V.Nikolaev, M.I.Balabolkin. Probl. endokr. gormonoter. 9 no.4:113-116 JI-Ag'63 (MIRA 17:1)

SHUMILOVA, N.V.; BALABOLKIN, M.I.; ZAYRAT'YANTS, V.B.

Itsenko-Cushing disease in conjunction with cancer of the  
pancreas. Probl. endok. i gorm. 11 no.1:60-62 Ja-F '65.  
(MIRA 18:5)

1. Terapevticheskoye otdeleniye (zav. - kand. med. nauk A.G.  
Vasil'yeva) i patologoanatomicheskoye otdeleniye (zav. -  
kand. med. nauk V.B. Zayrat'yants) Vsesoyuznogo nauchno-  
issledovatel'skogo instituta eksperimental'noy endokrinologii  
(dir. - prof. Ye.A. Vasyukova), Moskva.

BALABOLIN, Nikolay Aleksandrovich; POPOV, G.V., ed.

[Percussion-pulse-type nut runner.] Gaikover't udarno-impul'snogo tipa. Leningrad, 1964. ~ p.  
(MIRA 17:9)

KALININ, A.I., kand.med. nauk ; BALABOLKIN, M.I. (Moskva)

Troell-Junet syndrome. Vrach. delo no.9:145-147. 8/63.

(MIRA 16:10)

1. Khirurgicheskoye otdelenie (zav. p. prof. O.V.Nikolayev)  
Vsesoyuznogo nauchno-issledovatel'skogo instituta eksperi-  
mental'noy endokrinologii.

(ACROMEGALY) (GOITER)

SHUMILOVA, N.V.; BALABOLKIN, M.I.

Xanthomatosis with disorders of cerebral blood circulation in a patient with acromegaly. Probl. endok. i gorm. 10 no.6:56-58 N-D '64. (MIRA 18:7)

1. Tarapevticheskoye otdeleniye kliniki Vsesoyuznogo instituta eksperimental'noy endokrinologii (dir. - prof. Ye.A.Vasyukova), Moskva.



KALININ, A.P.; DALABOLKIN, M.I.

Syndrome of hypercorticalism in malignant tumors of different organs.  
Vop. onk. 11 no.10:114-120 '65. (MIRA 18:10)

BALABOLKIN, M.I.

Growth hormone content in the blood serum in patients with  
acromegaly. Probl. endok. i gorm. 11 no.4:42-46 J1-Ag '65.

(MIRA 18:11)

1. Terapevticheskoye otdeleniye (sav.- kand. med. nauk A.G.  
Vasil'yeva) Vsesoyuznogo instituta eksperimental'noy endokrinologii  
(dir.- prof. Ye.A. Vasyukova), Moskva.

ZEFIROVA, G.S.; LEVITSKAYA, Z.I.; BALABOLKIN, M.I.

Toxic goiter and myocardial infarct. Probl. endok. 1 gorn.  
11 no.6:19-21 N-D '65. (MIRA 18:12)

1. Kafedra endokrinologii (sav. - prof. Ye.A. Vasyukova)  
TSentral'nogo inatituta usovershenstvovaniya vrachey i Institut  
eksperimental'noy endokrinologii (ispolnyayushchiy obyasnosti  
direktora - prof. L.M. Gol'ber), Moskva.

GREBENCHUK, A.I.; BAKULINA, L.I.; VANNICHENOK, G.I.; SONOVA, N.N.; PUDKO,  
T.A.; ANDREYEVA, A.P.; YUDINOVA, P.V.; BAEVASHOVA, V.A.; BALABONOVA, L.S.

Salmonellosis in rodents in Leningrad. Zhur. mikrobiol.,  
epid. i immun. 42 no.6:43-47 '65. (MIRA 18:9)

1. Leningradskaya protivochumnaya portovaya i gorodskaya natiya-  
datel'naya stantsiya i Leningradskaya sanitarno-epidemiologicheskaya  
stantsiya.

ACC NR: AT6035484

SOURCE CODE: UR/2572/66/000/012/0032/0062

AUTHOR: Balabukh, L. I. (Doctor of technical sciences, Professor); Shapovalov, L. A. (Candidate of technical sciences)

ORG: None

TITLE: Investigation of temperature stresses in a cylindrical shell reinforced by longitudinal ribs

SOURCE: Raschety na prochnost'; teoreticheskiye i eksperimental'nyye issledovaniya prochnosti mashinostroitel'nykh konstruktsiy. Sbornik statey, no. 12, 1966, 32-62

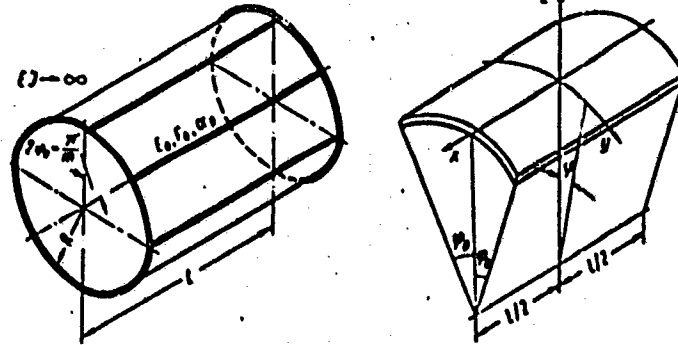
TOPIC TAGS: cylindric shell structure, shell theory, temperature stress, reinforced shell structure

ABSTRACT: The authors use the methods of shell theory for solving the problem of temperature stresses in structures made up of longitudinal ribs and connecting cylindrical panels. Two theories are used: the moment theory of shells and the semi-momentless theory of V. Z. Vlasov. Numerical results are given. The solutions may be used for determining temperature stresses in the given reinforced shell structure and for evaluating the accuracy of various approximate computational methods. A regular system is considered consisting of  $2m$  cylindrical panels and intermediate longitudinal ribs forming a closed reinforced shell of radius  $R$  (Figure 1). The coordinate system is taken on the middle surface along axes  $x, y$  coinciding with the axes of symmetry of an individual cylindrical panel (Figure 2). It is assumed that

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ACC NR: AT6035484

the longitudinal sides of the panels are hinged to the elastic ribs and that the bending rigidity of the ribs is negligible. The temperatures  $t_0(x)$  of all ribs are identical and constant within the cross sectional limits, and may vary along the axis of each rib. The temperature of each panel is taken as zero. The elastic characteristics and coefficient of linear expansion of the ribs are independent of temperature



and have values corresponding to some average rib temperature. The results show that the semimomentless theory of shells may be used for determining the temperature stresses in longitudinal ribs with an accuracy which is satisfactory for problems of this type. This theory is not so useful for calculating temperature stresses in the shell itself. Orig. art. has: 13 figures, 64 formulas.

SUB CODE: ~~00-100~~<sup>13</sup> SUBM DATE: None/ ORIG REF: 006

Cord 2/2

*Balabukh, L.I.*

BALABUKH, L. I.

Ustoichivost' fanernykh plastinok. (Tekhnika vozdušnogo flota, 1937, no.9,  
p. 19-38, diagrs.)

Title tr.: The stability of plywood plates.

TL504. Th 1937

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of  
Congress, 1955.

82495

24.5100

S/040/60/024/04/10/023

C 111/ C 333

AUTHORS: Balabukh, L. I., Shapovalov, L. A. (Moscow)TITLE: On the Variation Equations of ThermoelasticityPERIODICAL: Prikladnaya matematika i mekhanika, 1960, Vol. 24, No. 4,  
pp. 703-707

TEXT: Generalizing the result of Biot (Ref.1) the author sets up the variation equation of the thermoelastic problem in presence of heat sources and negative sources:

$$(23) \quad \iiint_{(V)} \left[ \delta \left( W + \frac{C \theta^2}{2T} \right) - \frac{\theta}{T} \delta W \right] dv + \iiint_{(V)} \frac{T}{K} \frac{d\bar{s}}{dT} \delta \bar{s} dv =$$

$$- \iint_{\Omega_1} (\bar{p} \delta \bar{u} + \theta \bar{n} \delta \bar{s}) d\Omega .$$

Here  $T$  is the constant absolute temperature of the body in the moment  $\tau = 0$  in the state free of stress,  $W$  the specific potential energy of the isothermic deformation. ( $\theta = 0$ ),  $\bar{p}$  the vector of intensity of the surface stress,  $\bar{n}$  the unit vector of the internal normal,  $\bar{u}$  displacement vector,  $C$  heat capacity for constant volume,  $\theta$  temperature increase;

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S/040/60/024/04/10/023  
C 111/ C 333

On the Variation Equations of Thermoelasticity

$\bar{S}$  is defined by

$$(15) \quad \frac{d\bar{S}}{d\tau} = -\frac{K}{T} \text{ grad } \theta ,$$

where K is the coefficient of thermal conductivity.

The author shows under which conditions the generalized Biot equation changes over into the variation equation of thermodynamics of the equilibrium processes.

L. M. Kachanov is mentioned by the author.

There are 3 references: 1 Soviet and 2 American.

SUBMITTED: April 7, 1960

Card 2/2

BALABUKH, L.I. (Moskva); SHAPOVALOV, L.A. (Moskva)

Contact problems of the coupling of zero-torque shells of revolution  
with elastic rings. Izv. AN SSSR, Otd. tekhn. nauk. Mekh. i mashinostr.  
no. 4:77-90 J1-Ag '62. (MIRA 15:8)

(Elastic plates and shells)

LERMAN, I.I.; BALABUKHA, A.S.

Cough-cerebral syndrome. Vrach.delo no.7:751 J1 '59. (MIRA 12:12)

1. Statsionarnoye otdeleniye (sav. - A.S. Balabukha, konsul'tant po nevropatologii - kand.med.nauk I.I. Lerman) Zhitomirskogo oblastnogo protivotuberkuleznogo dispansera.  
(ALCOHOLISM)

BALABUKHA, D. K

USSR/Physics - Color Photography 1 Jul 51

"Qualitative Evaluation of Photographic Effect on Multilayer Color-Photographic Materials," Yu. N. Gorokhovskiy, D. K. Balabukha, T. M. Levenberg

"Dok Ak Nauk SSSR" Vol LXXIX, No 1, pp 73-76

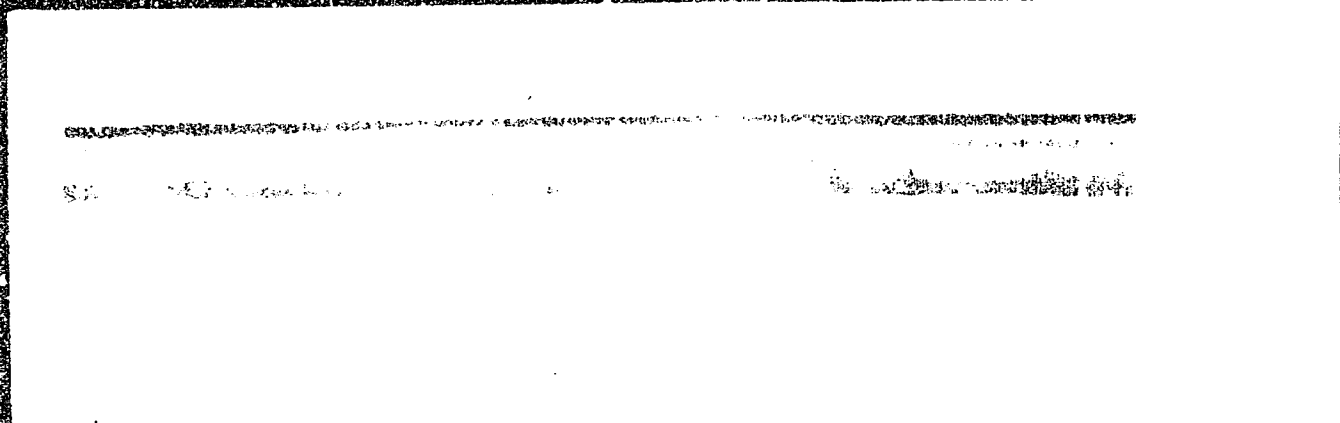
Authors devised new method for reading the color sensitivity of materials by means of spectrophotometry. Computation is based on Buger's law  $D_{\lambda} = k_{\lambda} \cdot c \cdot l$ , where  $l$  is the emulsion width and a const. Derived and solved system of linear eqs for 3 basic monochromatic layers. Presented by Acad A. N. Terenin 30 Apr 51.

210782

USSR .

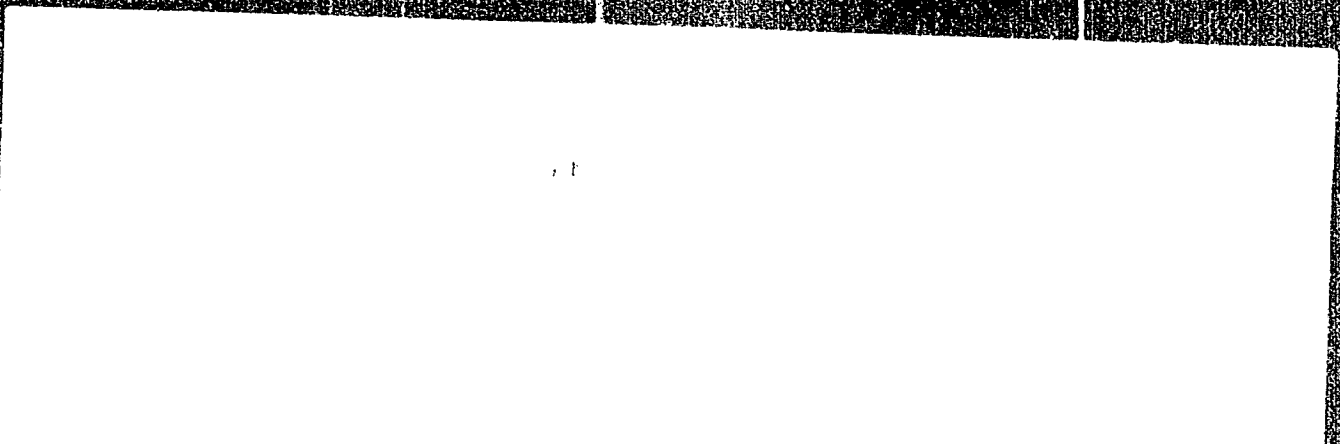
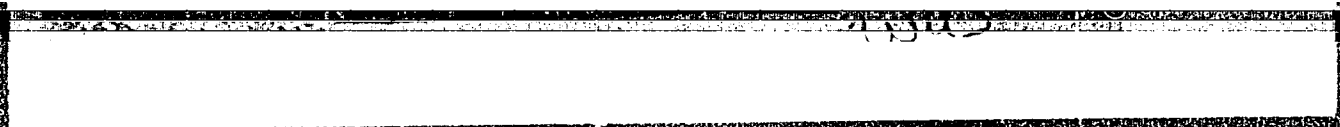
Sensitometric properties of color development in multi-layer color photographic materials. D. K. Babukha and Yu. N. Gorokhovskii. *Doklady Akad. Nauk SSSR*, 79 (1972) 1951. See C. 4: 40 (1972). 1. Re star track.

42  
①



"APPROVED FOR RELEASE: 06/06/2000

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CIA-RDP86-00513R000103130009-4"



GOROKHOVSKIY, Yu.M.; BALABUKHA, D.K.; PONOMARENKO, O.M.

Sensitometric investigation of multilayer color films. Part 2.  
Spectral photographic properties of color films. Usp.nauch.fot.  
2:105-118 '54. (MLRA 7:5)  
(Photographic sensitometry) (Color photography--films)

BALABUKHA, D.K.; GOROKHOVSKIY, Yu.N.

Sensitometric investigation of multilayer color films. Part 3.  
Mutual effect of elementary layers in color film development.  
Usp.nauch.fot. 2:119-130 '54. (MLRA 7:5)  
(Photographic sensitometry) (Color photography--Developing  
and developers)

BALABUKHA, D.K.; VASIL'YEV, A.L.

Relay protection of galvanometers. Izv.tekh.no.4:36-37 J1-Ag '55.  
(Glavanometer) (MIRA 8:10)

~~SECRET~~ ~~TOP SECRET~~ ~~SECRET~~

~~SECRET~~/Acoustics.

J

Abs Jour: Referat Zhur-Fizika, 1957, No 4, 10130

Author : Balabukha, D.K., Myasnikov, L.S., Plotnikova, E.N.

Inst : Leningrad Shipbuilding Institute, USSR

Title : Modulation Method of Measuring Small Electric Voltages in the Audio Frequency Range.

Orig Pub: Acust. Zh., 1956, 2, No 3, 248-254

Abstract: Description of the application of the modulation method for the measurement of small voltages in the audio frequency range. The modulation is effected by means of periodic variations of a capacitor. An approximate method is indicated for calculating the input circuit of the circuit and the parameters of the modulators, and suitable nomograms for the purpose are given. A counter-phase circuit for connecting two modulators is proposed and yields simultaneously large values of modulation coefficients and voltage transfer coefficients. The method developed permits measurements against a background that exceeds considerably the intrinsic noise of the measuring portion

Card : 1/2

POLAND/Acoustics.

J

Abs Jour: Referat Zhur-Fizika, 1957, No 4, 10130

of the apparatus and raises the sensitivity of the instrument by one order of magnitude compared with those usually employed at the present time.

Card : 2/2

S/058/63/000/002/031/070  
A062/A101

AUTHOR: Balabukha, D. K.

TITLE: Graphical analysis of color reproduction

PERIODICAL: Referativnyy zhurnal, Fizika, no. 2, 1963, 100, . abstract 2D646  
("Uspekhi nauchn. fotogr.", 1962, v. 8, 161 - 171)

TEXT: A method is proposed for evaluating the accuracy of color reproduction by the width of the color reproduction band comprised between the reproduction graphs of each of the synthesis dyes in isolated state and in presence of maximum quantities of two other dyes. Under the condition of a physically accurate reproduction of the gradation scale, the width of the color reproduction band provides a measure of the color distortions inherent to a given process of color photography. The relation between the accuracy of the color reproduction and the sensitometric characteristics (color separation and gradation) of various technological elements of the color photography process is established by plotting a color reproduction diagram analogous to Jones' tone reproduction diagram. Such a method of investigating color reproduction is more general than the analytic one,  
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Graphical analysis of color reproduction

S/058/63/000/002/031/070  
A062/A101

suggested by L. F. Artyushin, since here the non-linear portions of the characteristics of the intermediate processes are taken into account. A special test-original is proposed, whose color fields contain only dyes of the synthesis of the investigated color photography process. The study of a reproduction of such an original allows to realize the construction of the color reproduction band as well as of the whole color reproduction diagram. There are 14 references.

[Abstracter's note: Complete translation]

Card 2/2

S 000/003/048/104  
A007 A111

**AUTHORS:** Balatakhya, D. K., Levenberg, T. M., Lukatskiyevskaya, L. K.,  
~~Khrisistina, S. N.~~

**TITLE:** Sensitometric test for controlling color reproduction. I. Construc-  
tion principles of the test

**PERIODICAL:** Referativnyy zhurnal, Fizika, no. 3, 1963, 87, abstract 30549  
("Tr. Leningr. in-ta khimicheskoy fiziki" 1961, no. 6, 1-98)

**TEXT:** This is a report on elaborated construction principles of a test for investigating and controlling color reproduction. The test is based on the application of such a test procedure which is based on the investigation of the color reproduction in a color photograph. The investigation, by this test, of all the stages of a color photography process (color separation, synthetic and gradation stages) in their mutual relationship, permits to describe the color reproduction as an objective process properly characterized by the configuration of the color reproduction bands. The test provides the possibility to judge on

Card 1/2



Sensitometric test for controlling...

S/058/63/000/003/048/104  
A002 A.21

the immediate images, obtained at the different technological stages, about the color separation and gradation characteristics of these stages. Thus, with the aid of the test, it is possible to determine the part of different technological factors in the formation of the quality of a color image. It is shown that by the test it is possible to compare the two different technological stages or processes and different technological variants of the same process.

[Astrakher's notes: complete translation]

Card 2/2

S/058/63/000/003/049/104  
A062/A101

**AUTHORS:** Balabukha, D. K., Levenberg, T. M., Lokutsiyevakaya, L. K.,  
Khristiniha, O. N.

**TITLE:** Sensitometric test for controlling color reproduction. II. Techno-  
logy of preparing the test for the motion-picture industry

**PERIODICAL:** Referativnyy zhurnal, Fizika, no. 3, 1963, 87, abstract 3D590  
("Tr. Leningr. in-ta kinoinzhenerv", 1961, no. 6, 99 - 105)

**TEXT:** This is a report on the elaborated technology of preparing tests  
for color reproduction control in multilayer and hydrottype color photography  
processes, and on the experimental samples of these tests. For Part I see ab-  
stract 3D589.

[Abstracter's note: Complete translation]

Card 1/1

BALABUKHA, D.K.

Investigating the color gamut. Part 1: Optimum system of  
color coordinates. Zhur.nauch.i prikl.fot.i kin. 7 no.6:409-417  
N-D '62. (MIRA 15:12)

(Color photography)

(Spectrum analysis)

BALABUKHA, D.K.

Investigating the color gamut. Part 2: Color gamut of the dyes.  
Zhur.nauch.i prikl.fot.i kin. 8 no.1:10-21 Ja-Feb. '63.  
(MIRA 16:2)

1. Leningradskiy institut kinofshenerov (LIKI).  
(Color photography)

BALABUKHA, D.K.; LOKUTSIYEVSKAYA, L.K.; KHERSONSKAYA, L.I.

Color reproduction bands in the reversal color process.  
Zhur. nauch. i prikl. fot. i kin. 8 no.6:405-409 N-D '63.  
(MIRA 17:1)

1. Leningradskiy institut kinoinzhenerov (LIKI).

BALABUKHA, D.K.

Graphic analysis of color reproduction. Usp. nauch. fot. 8:  
161-171 '62.  
(MIRA 17:7)

BALABUKHA, D.K.; MIRFAZIYEVA, M.M.

Investigation of the color range. Report No.3: Color range in the  
color photographic process. Zhur.nauch. i prikl.fot. i kin. 9  
no.6:440-447 N-D '64. (MIRA 18:1)

1. Leningradskiy institut kinoinzhenerov.

BALABUKHA, D.K.; MIRFAZIYEVA, M.N.

Study of the color range. Part 4: Color range of photographic  
objects. Zhur. nauch. i prikl. fot. i kin. 10 no.2:84-90 Mr-Ap  
'65. (MIRA 18:5)

1. Leningradskiy institut kineinzhenerov.



L 07511-67

ACC NR: AP6019552

(A)

SOURCE CODE: UR/0416/66/000/001/0051/0052

AUTHOR: Balabukha, P. (Lt. Col.; Member of medical corps)

7

ORG: none

B

TITLE: Preparing for winter exercises

SOURCE: Tyl i snabzh sov vooruzh sil, no. 1, 1966, 51-52

TOPIC TAGS: military training, preventive medicine

ABSTRACT: This article, written by a medical officer, concerns the preparations to be taken for winter exercises when the troops are under extremely harsh conditions in order to prevent diseases and frostbite. The author discusses shoes to be worn, heating of tents, wearing of fur masks and goggles by tank troops, how tents are to be set up, how to dry out wet clothing, and categorically forbids sleeping in trucks with the motor running and heating by means of blowtorches. The prevention of colds and frostbite during winter exercises is a very serious matter and therefore it is necessary to observe the rules and regulations of accident prevention. Orig. art. has: 1 figure.

SUB CODE: 06,05,15/ SUBM DATE: none

Cord 1/1 *eglc*

BALABUKHA, P.P., mayor meditsinskoy slushby; LITOVCHENKO, I.O.,  
podporuchik meditsinskoy slushby

Organization of first aid for wounded and other combat  
casualties, their collection, evacuation, and transport from the  
battlefield during attack. Voen.-med. zhurn. no.4:18-22 Ap  
'61. (MIRA 15:6)

(MEDICINE, MILITARY)

IVANOV, I.I., professor; BALABUKHA, V.S.; ROMANTSSEV, Ye.F.; FEDOROVA, T.A.;  
ORODZHENSKIY, D.N., redaktor; BELYCHIKOVA, Yu.S., tekhnicheskii  
redaktor

[Metabolism in radiation sickness] Obmen veshchestv pri luchevoi  
bolezni. Pod red. I.I.IVANOVA. Moskva, Gos. izd-vo med. lit-ry,  
1956. 250 p. (MLRA 10:1)

(RADIATION SICKNESS) (METABOLISM)

21(3)

PHASE I BOOK EXPLOITATION

SOV/1210

Balabukha, Vera Sergeevna and Fradkin, Gerts Yefimovich

Nakopleniye radioaktivnykh elementov v organizme i ikh vyvedeniye (Accumulation of Radioactive Elements in the Body and Their Excretion) Moscow, Medgiz, 1958. 182 p. 7,500 copies printed.

Ed.: Zakutinskiy, D.I.; Tech. Ed.: Bul'dyayev, N. A.

**PURPOSE:** This book is intended for biologists, doctors and scientists interested in problems of radiobiology.

**COVERAGE:** This book is divided into two parts. The first part (by G. Ye. Fradkin) reviews general rules governing the specific nature of the exchange of radioactive isotopes of alkaline-earths, rare earths and heavy elements. The second part (by V.S. Balabukha) gives detailed information and evaluations of data concerning the behavior of different types of osteotropic radioactive isotopes in the body. The authors do not offer an exhaustive treatment of problems related to radioactive isotopes in the body because a number of questions thus far have not received sufficient experimental substantiation.

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Accumulation of Radioactive Elements (Cont.)

80V/1210

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80V/1210

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AVAILABLE: Library of Congress

Card 5/5

TN/gwp  
4-20-59



**AUTHORS:** Kabachnik, M. I., Medved', T. Ya., SOV/62-58-9-8/26  
Kozlova, G. K., Balabukha, V. S., Senyavin, M. M.,  
Tikhonova, L. I.

**TITLE:** Synthesis and Testing of the Complex-Forming Properties  
of Several Organophosphorus Compounds (Sintez i ispytaniya  
kompleksoobrazuyushchey sposobnosti nekotorykh fosfororga-  
nicheskikh soyedineniy)

**PERIODICAL:** Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk,  
1958, Nr 9, pp 1070 - 1075 (USSR)

**ABSTRACT:** After the discovery that the diaminocarboxylic acid  
series is highly active in forming complex compounds  
the authors of this paper became interested in studying  
the complexing properties of some  $\alpha$ -aminoalkyl phosphinic  
acids and their derivatives. Only a few papers appear  
in the publications on this topic (Refs 3-6). The authors  
investigated the complexing properties of some aminoalkyl  
phosphinic acids which they had previously prepared  
as well as several ethylenediaminodiphosphinic acids.  
The investigations showed that in the reaction between

Card 1/2

Synthesis and Testing of the Complex-Forming Properties of Several Organophosphorus Compounds SOV/62-58-9-8/26

ethylenediamine and dialkyl phosphites and aldehydes (or ketones), esters of ethylenediaminodialkylphosphinic acids form. By saponifying these esters the free acids can be obtained. The complexing properties of the ethylenediaminodialkylphosphinic acids so prepared were tested chromatographically. Other aminoalkyl phosphinic acids previously prepared were also studied to determine their complexing properties. It was shown that the ethylenediaminodialkylphosphinic acids form stable complex compounds with ytterbium and yttrium. There are 2 tables and 7 references, 2 of which are Soviet.

ASSOCIATION: Institut elementoorganicheskikh soedineniy Akademii nauk SSSR (Institute of Elemental-organic compounds, AS USSR)

SUBMITTED: February 14, 1957

Card 2/2

*BALABUKH, V.S.*

## PHASE I BOOK EXPLOITATION

SOV/4118

Khimicheskaya zashchita organizma ot ioniziruyushchikh izlucheniy (Chemical Protection of the Organism From Ionizing Radiation) Moscow, Atomsizdat, 1960. 151 p. Errata slip inserted. 6,000 copies printed.

Ed. (Title page): V.S. Balabukh, Professor; Ed. (Inside book): A.I. Zavadchikova; Tech. Ed.: N.A. Vlasova.

**PURPOSE:** This book is intended for chemists doing research on means of chemical protection and on complexing agents, and for biologists and other specialists working on problems in radiobiology.

**COVERAGE:** This collection of articles reviews the present state of the problem of chemical protection from ionization radiation and contains experimental data on the synthesis and biological testing of the protective properties of a number of chemical compounds (the amino thiols and pyrimidine derivatives). Results of experimental investigation on the elimination of radioactive isotopes from the organism are presented and the characteristics of the state of certain radioactive isotopes in the blood and in bone tissue are noted.

Card 1/5

## Chemical Protection of the Organism (Cont.)

80V/4118

Attention is given to explaining the action mechanism of protective substances. The articles discuss in the light of certain radiobiological and biophysical hypotheses possible ways of protecting the biosubstructure from the injurious effects of ionizing radiation. The effectiveness of complexing agents which induce radioactive isotopes to combine and be eliminated from the organism is evaluated on the basis of physicochemical data and biological experiments. No personalities are mentioned. Soviet and non-Soviet sources follow each article.

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Chemical Protection of the Organism (Cont.)

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SOV/4118

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and Stability of Y<sup>91</sup> Bonding With Bone Tissue 130

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Chemical Protection of the Organism (Cont.)

SOV/4118

Fradkin, G.Ye., and V.F. Ushakova. Analysis of the Effectiveness of  
Complexing Agents in Accelerating the Removal of Radioactive Isotopes  
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136

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8-26-60

RAZUMOVSKIY, N.O.; TORCHINSKAYA, O.L.; BALABUKHA, V.S.

Decreasing the deposit of  $Y^{91}$  and  $Co^{144}$  in the body by using  
some complexing agents. Biofizika 6 no.5:610-614 '61. (MIRA 15:3)  
(YTTRIUM--ISOTOPES)  
(GERIUM--ISOTOPES)  
(COMPLEX COMPOUNDS)



ISUPOVA, L.S.; BALABUKHA, V.S.

Prevention of depolymerization in the DNA liver of the irradiated  
rats by means of substances offering radiation protection. Med.  
rad. 6 no.8:36-41 Ag '61. (MIRA 14:8)  
(NUCLEIC ACIDS) (LIVER) (RADIATION PROTECTION)

PHASE I BOOK EXPLOITATION

SOV/6301

Balabukha, V. S., L. M. Razbitnaya, N. O. Razumovskiy, and I. I. Tikhonova

Problema vyvedeniya iz organizma dolgozhivushchikh radioaktivnykh izotopov (The Problem of Eliminating Long-Lived Radioactive Isotopes From Organisms) Moscow, Gosatomizdat, 1962. 166 p. Errata slip inserted. 4000 copies printed.

Ed.: V. S. Balabukha, Professor. Ed. (Title page): R. V. Boksha; Tech. Ed.: S. M. Popova.

PURPOSE: This book is intended for chemists, biochemists, radiobiologists, and general practitioners.

COVERAGE: The book deals with the elimination of radioactive substances from the body. It discusses the use and effectiveness of complex-forming agents for preventive and therapeutic purposes, the complex formation of chemical elements with organic

Card 1/X ✓

The Problem of Eliminating (Cont.)

SOV/6301

compounds and methods of determining their composition and stability, and the binding of radioactive isotopes in biological media for their ultimate elimination. No personalities are mentioned. References follow individual chapters.

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BALABUKHA, V. S.  
AID Nr. 996-5 24 June

PREVENTION OF RADIATION-INDUCED DEPOLYMERIZATION OF DNA  
OF RAT LIVER BY MEANS OF PROPYLGALLATE AND 5-METHOXY-  
TRYPTAMINE (USSR)

Isupova, L. S., and V. S. Balabukha. Radiobiologiya, v. 3, no. 2, 1963,  
256-258. S/205/63/003/002/015/024

Male white rats weighing 180 to 220 g were subjected to a 650-r dose of x-irradiation from an PVM-3 apparatus. Four series of experiments were conducted involving healthy rats, irradiated rats, rats irradiated after the administration of propylgallate, and rats irradiated after the administration of 5-methoxytryptamine. The rats were sacrificed 6, 24, and 72 hrs after exposure. The structural viscosity of the aqueous DNA solutions (0.2%) from rat liver was determined by the method of D. L. Rubinshteyn and M. P. Petrova. With intraperitoneal injections of propylgallate (50 mg/kg) 15 min before exposure the viscosity of the DNA solutions remained normal for a prolonged period. This indicates that depolymerization of DNA in an irradiated

Card 1/2

AID Nr. 996-5 24 June

PREVENTION OF RADIATION-INDUCED (Cont'd)

8/205/63/003/002/015/024

organism as well as in experiments *In vitro* proceeds as a free-radical reaction and that inhibitors of free-radical reactions may be used for the prevention of the depolymerization of DNA by irradiation. The viscosity of the DNA solutions after injection of 5-methoxytryptamine followed by irradiation remained normal for six hours after exposure. After 24 hours it dropped to the level found in irradiated rats which were not given injections of the protector. 5-methoxytryptamine prevents the depolymerization of DNA induced by irradiation but its effect is of short duration. The data obtained indicate that the method can be used for determining the extent to which radioprotective chemicals affect the inhibition of primary radiochemical reactions involving nucleic acids. (SOM)

Card 2/2

ISUPOVA, L.S.; BALABUKHA, V.S.

Prevention of radiation depolymerization of DNA in the liver  
of rats with the aid of propyl gallate and 5-methoxytryptamine.  
Radiobiologiya 3 no.2:256-258 '63 (MIRA 17:1)

S/205/81/001/004/009/032  
D298/D303

**AUTHORS:** Razumovskiy, N. O., Torchinskaya, O. L., and Balabukha, V. S.

**TITLE:** Acceleration of the excretion of the radioactive isotopes of yttrium and cerium ( $Y^{91}$  and  $Ce^{144}$ ) from rats with the help of new complexones

**PERIODICAL:** Radiobiologiya, v. 1, no. 4, 1961, 513-516

**TEXT:** Previous research established that the injection of rats with solutions of NaCa salts of diethylene-triamine-pentaacetic acid (DTPA) and  $N_1N_1N'_1N'_1$ -tetraacetic acid 2,2'-diaminodiethyl alcohol (DEETA) at

the same time as  $Y^{91}$  and  $Ce^{144}$  to a large extent prevented their deposition in both the soft tissues and the skeleton. This stimulated the authors to study the extent of these chelate agents' prophylactic effect. With this aim, solutions of the above complexones were injected

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Acceleration of the...

S/205/61/001/004/009/032  
D298/D303

into rats 2, 3 and 6 hours before the administration of  $Y^{91}$  or  $Ce^{144}$ . A study was also made of the efficacy of repeated injections of these agents. To test whether repeated injection of the complexones intensified the excretion of the radioisotopes, injections were begun 1 week or 1.5 months after administration of the isotopes. The experiments were conducted with white rats injected with a single intraabdominal dose of  $Y^{91}$  or  $Ce^{144}$  at  $0.1\mu\text{c/g}$  of the body weight. The complexones were injected intraabdominally in doses of 100 mg for  $Na_2Ca-DEETA$  and 50 mg for  $Na_3Ca-DTPA$ . The injection of DTPA and DEETA even 3 hours before administration of the radioactive isotope proved very effective. When injected 6 hours beforehand, their effect was weakened. The action of EDTA in the 3-hour pre-radiation period was much weaker, probably due to its rapid excretion from the body. [Abstracter's note: EDTA not defined.] The new complexones were therefore prophylactically more efficacious than EDTA. In the first 3 days after the start of repeated

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Acceleration of the...

S/205/61/001/004/009/032  
D298/D303

injections, excretion of the radioactive isotopes with the stools increased by 2.5 times in the case of DTPA and by 1.5 times in the case of DEETA. The excretion of  $\text{Ce}^{144}$  with the urine was even more marked: with DTPA injections, the excretion increased by 8 times and with DEETA by 4 times, whereas EDTA gave only a slight excretion increase. The action of DEETA and DTPA on the excretion also extended into the second period (4 - 7th day), which was not the case with EDTA. Repeated injections begun 1.5 months after the administration of  $\text{Ce}^{144}$  or  $\text{Y}^{91}$  showed that even at remote periods a marked intensification of  $\text{Y}^{91}$  excretion from the soft tissues (an average increase of 85 - 90%) and from the skeleton (by 30 - 35%) could be achieved.  $\text{Ce}^{144}$  excretion was similarly affected, but to a lesser degree. A point of interest was that, after injection of the complexones, skeletal radio-activity (from both  $\text{Y}^{91}$  and  $\text{Ce}^{144}$ ) reached a more or less constant level. This points to the presence of two fractions of radioisotope in the bone tissue--a labilely

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Acceleration of the...

S/205/61/001/004/009/032  
D298/D303

bonded and a more strongly fixed fraction. The first fraction may be removed from the skeleton by using the complexones, but they have no effect on the second fraction. There are 2 figures, 3 tables and 8 references: 2 Soviet-bloc and 6 non-Soviet-bloc. The references to the English-language publications read as follows: A. Catsch, D. Kh. Lê, Nature, 180, 609, 1957; H. Foreman, M. Vier, M. Magee, J. Biol. Chem., 203, 1045, 1953.

SUBMITTED: April 7, 1961

Card 4/4

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RAZUMOVSKIY, N.O.; TORCHINSKAYA, O.L.; BALABUKHA, V.S.

Accelerating the excretion of the radioactive isotopes of yttrium and cerium ( $Y^{91}$  and  $Ce^{144}$ ) from the organism of rats by the use of new complexes. Radiobiologia 1 no.4: 512-516 '61. (MIRA 17:2)

TORCHINSKAYA, O.L.; RAZUMOVSKIY, N.O.; YASHUNSKIY, V.G.; BALABUKHA, V.S.  
USHAKOVA, V.F.

Excretion of radioactive cerium from the body under the influence of triethylenetetraminehexaacetic and tetraethylenepentaminoheptacetic acids. Radiobiologia 3 no.2:270-275 '63  
(MIRA 17:1)

BALARUKHA, V.S.; RAZUMOVSKIY, N.O.

Prospects for the elimination of radioactive strontium from the  
body. Med. rad. 8 no.3:71-76 Apr '63. (MIRA 17:9)

WARRIOR, R. I. and GRIGORYUKHA, I. I.

"The Characteristic Autoclavic and Fermentative Hydrolyates of Gelatin" Zhur.Obshch. Khim. 10 No. 7, 1940. Dept. of Organic Chem. All-Union Inst. of Exptl. Med. imeni A. M. Gor'kiy. Received 17, June, 1939.

Report U-1627 11 Jan. 1952.

BALABUKHA-POFTSOVA, V. S.

"The Presence of Cyclic Structures in a Protein Molecule," Sub. 11 Jun 47, Moscow  
Order of Lenin State U imeni M. V. Lomonosov.

Dissertations presented for degrees in science and engineering in Moscow in 1947.

SO: Sum.No.457, 18 Apr 55

BALABUSHEVICH, I. A.

"The Results of Geological Work in the Trans-Carpathian Region," Trudy Nauk  
Geol. Sov. po Nefti, Ozokerityu i Goruzhim Gazam UkrSSR, 1949



BALABUSHEVICH, I. A.

"Geological Structure of the Dnieper-Donets Depression According to Geophysical Research Data," Trudy Nauk Geol. Sov. po Nefti, Ozokerityu i Goruzhim Gazam UkrSSR, 1949

**BALABUSHVICH, I.A.**

~~\*\*\*\*\*~~  
Possibilities for aerial gravitation surveying in principle.  
Publ.Kiev.astren.obser.no.6:139-152 '54. (MLRA 9:4)  
(Magnetism, Terrestrial) (Prospecting--Geophysical methods)

BALABUSHEVICH, I. A.

15-57-5-6836

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5,  
p 159 (USSR)

AUTHORS: Balabushevich, I. A., Zel'dina, M. Yu.

TITLE: The Solution of Direct and Inverse Problems of Gravimetry Along the Vertical Gradient for Disturbing Bodies of Simple Form (Resheniye pryamoy i obratnoy zadachi gravimetrii po vertikal'nomu gradiyentu dlya vozmushchayushchikh tel prosteyshy formy)

PERIODICAL: Publikatsiya Kiyevsk. astron. observ., 1956, Nr 7,  
pp 65-92.

ABSTRACT: The authors attempt to bring together in a single system the solutions of direct and inverse problems of gravimetry along the vertical gradient  $W_{zz}$ . The solution for the direct problem is examined, and also methods for solving the inverse problem for several bodies of the simplest form. The considered instances of solving direct and inverse problems of gravimetry

Card 1/2

15-57-5-6836

The Solution of Direct and Inverse Problems (Cont.)

along  $W_{zz}$  might also be used to a considerable degree in interpreting  
the magnetic field  $Z_a$ .

Card 2/2

A. L.

BALABUSHEVICH, I.A.

Classification of gravity and magnetic anomalies. Trudy Inst.  
geol.nav. AN BSSR no.1:108-118 '58. (MIRA 12:1)  
(Gravity) (Magnetic, Terrestrial)

BALABUSHEVICH, I.A.

Solving direct and indirect gravimetric problems through second derivative of the vertical gravity force for the disturbed bodies of a simplest form. Part 1. Vestsi AN BSSR. Ser. fiz.-tekhn. nav. no.2:94-110 '58. (MIRA 11:10)  
(Gravitation)

BALABUSHVICH, I.A.

Regularities in density distribution of sedimentary deposits in the western Donets Basin. Trudy Inst. geol. nauk AN URSR. Ser. geofiz. no.2:160-168 '58. (MIRA 11:6)

1. Ukrainskaya geofizicheskaya ekspeditsiya Ministerstva geologii i okhrany neдр SSSR.  
(Donets Basin—Sedimentation and deposition)

BALABUSHEVICH, I.A.

Calculating a second vertical derivative of the force of  
gravity in a plane for certain forms of disturbing bodies.  
Vestsi AN BSSR.Ser.fiv.-tekhn.nav. no.2:89-97 '59.

(MIRA 12:11)

(Gravity)



BALABUSHVICH, I.A.

Basic features of the subsurface structure and tectonics of the  
Pripte graben. Trudy Inst. geol. nav. An BSSR no. 2:25-35 '60.  
(MIRA 13:12)  
(Pripet Valley--Geology, Structural)

BALABUSHEVICH, I.A.; ZEL'DINA, M.Yu.

Solution of the direct and inverse problem in the gravimetry  
according to the vertical gradient for perturbing bodies of  
simplest shape. Publ.KAO no.8:115-140 '99. (MIRA 14:9)  
(Gravimetry)

BALABUSHEVICH, I.A.

Structure of the gravimetric field in the southwestern part  
of the European U.S.S.R. Publ.KAO no.8:141-157 '59. (MIRA 14:9)  
(Russia, Southern--Gravity)

BALABUSHEVICH, I.A.

Some characteristics of the subsurface structure and tectonics  
of the northwestern part of the Dnieper-Donets Lowland. Geol.  
zhur. 22 no.3:27-44 '62. (MIRA 15:7)

1. Institut geofiziki AN USSR.  
(Dnieper-Donets Lowland--Geology, Structural)

BALABUSHEVICH, I.A.

Some problems of crustal dynamics in the light of the hypothesis of contraction and expansion. Geofis.sbor. no.2:14-22 '62. (MIRA 16:3)

1. L'vovskiy filial Instituta geofiziki AN UkrSSR.  
(Earth—Surface)

BALABUSHEVICH, I.A.

Some principles for making vertical gradiometers and gravity  
sensitive elements for surveying while in motion. Geofis.sbor.  
no.1:44-49 '62. (MIRA 16:3)

1. Institut geofiziki AN UkrSSR.  
(Gravimeter (Geophysical instrument))  
(Aeronautics in surveying)

BALABUSHEVICH, Illarion Arkad'yevich; SUBBOTIN, S.I., akademik,  
otv. red.; TONKONOG, B.M., red.; LISOVETS, A.M., tekhn.  
red.

[Higher derivatives of the gravitational potential and  
their applicability in geological gravimetry] Vysshie pro-  
izvodnye potentsiala sily tiazhesti i vozmozhnosti ikh is-  
pol'zovania v geologicheskoi gravimetrii. Kiev, Izd-vo  
AN USSR, 1969. 266 p. (MIRA 16:12)

1. Akademiya nauk Ukr.SSR (for Subbotin).  
(Potential, Theory of) (Gravimetry)  
(Gravity prospecting)

BALABUSHEVICH, I.A.

Solution of the direct and inverse gravimetric problems based on the second gradients of the force of gravity for an inclined step. Geofis. sbor. no. 5:18-31 '63. (MIRA 17:5)

1. Institut geofiziki AN UkrSSSR.



SUBBOTIN, S.I.; BALABUSHEVICH, I.A.; VOLOGDIN, A.G.; KRYLOV, I.N.

Book reviews. Sov. geol. 7 no.11:148-154 N '64.

(MIRA 18:2)

BALABUSHEVICH, Illarion Arkad'yevich; SUBBOTIN, S.I., akademik,  
otv. red.; SHTUL'MAN, I.F., red.

[Pripet graben; practice in the paleotectonic analysis of  
its present-day structure] Pripiatskii graben; opyt paleo-  
tektonicheskogo analiza sovremennogo stroeniia. Kiev,  
Naukova dumka, 1965. 170 p. (MIRA 18:5)

1. Akademiya nauk Ukr.SSR (for Subbotin).

BALABUSHEVICH, P.

It isn't a fairy tale. Rab. 1 sial. 33 no.11:6-7 N '57. (MIRA 10:11)

1. Zagadchyk geafisichnay laboratoryi Instytutu gealogichnykh navuk  
AN BSSR.

(Artificial satellites)

POKATAYEVA, Tat'yana Sergeyevna; BALABUSHEVICH, V.V., otv.red.;  
BYKOV, I.K., red.isd-va; LEBKINEVA, L.A., tekhn.red.

[Condition of the working class in India] Polozhenie rabo-  
chego klassa Indii. Moskva, Izd-vo Akad.nauk SSSR, 1960.  
185 p. (MIRA 13:7)

(India--Labor and laboring classes)

GORDON, Leonid Abramovich; BALABUSHEVICH, V.V., otv. red.; KOSOLAPOV, B.Ye., red. izd-va; LESNYKH, I.S., red. izd-va; BERESLAVSKAYA, L.Sh., tekh. red.

[From the history of the working class of India; recent conditions of the Bombay proletariat] Iz istorii rabochego klassa Indii; polozhenie bombeiskogo proletariata v noveishee vremia. Moskva, Izd-vo vostochnoi lit-ry, 1961. 249 p. (MIRA 15:1)  
(India--Labor and laboring classes)

BALABUSHEVICH, V.V., kand. ist. nauk

← "Modern history of India." Reviewed by V.V.Balabushevich. Vest. AN  
SSSR 32 no.6:123-127 Je '62. (MIRA 15:6)  
(India--History)

GINZBURG, V.; BALABUYEV, A.

Creative seminars are a school of mastery. Sov.foto 21  
no.4:25 Ap '61. (MIRA 14:3)

1. Chlen byuro fotoseksii Soyusa zhurnalistov SSSR (for Ginsburg).
  2. Predsedatel' respublikanskoy fotoseksii Soyusa zhurnalistov SSSR (for Balabuyev).
- (Georgia--News photographers)





BALABUYEV, A.G.

Pluviometric gradients in Georgia. Soob.AN Grus.SSR 8 no.5:299-304  
'47. (MIRA 9:7)

1.Akademiya nauk Gruzinskey SSR, Institut fiziki i geofiziki, Tbilisi.  
Predstavlena deystvitel'nyy chlenom Akademii I.N.Vekua.  
(Georgia--Precipitation (Meteorology))

BALABUYEV, A.G.

Contents and methods of genetic climatology. Trudy Inst.geofiz.  
AN Grus.SSR 10:69-82 '47. (MLRA 9:8)  
(Climatology)

~~BALABUYEV, A.G.~~

Observations on jumping cocoons of the Caucasian maple leaf miner  
(Phylletoma flavicellis Guss.) Seeb. AN Gruz. SSR 9 no. 4: 261-267 '48.  
(MIRA 9:7)

1. Akademiya nauk Gruzinskiy SSR, Zoologicheskiy institut, Tbilisi.  
Predstavlene deystvitel'nykh chlenov Akademii F.A. Zaytsevykh.  
(Tiflis--Maple--Diseases and pests) (Sawflies)

HALABUYEV, A.G.

Basis of the method of genetic classification of climates. Trudy Inst.  
geofiz. AN Gruz. SSR 12:85-156 '53. (MIRA 9:9)  
(Climatology)