

MIKHAYLOV, N.

From the tundra to the subtropics. Vokrug sveta no.2:12-19

F '54.

(MLRA 7:2)

(Geography)

MIKHAYLOV, N., laureat Stalinskoy premii.

1954

Plains and mountains. Znan.sila no.4:1-5 Ap '54. (MLRA 7:5)  
(Physical geography)

MIKHAYLOV, N.M.

Geology - Location of minerals

1/1 : Pub. 77, 14/26'

Authors : Mikhaylov, N.M., Laureate of the Stalin Prize

Subject : Map of the bowels of the earth

Periodical : Nauka i shizn' 21/7, 27 - 29, July 1954

Abstract : A general outline of the principles of geology is presented and a description is given of a map which bears a color and coding system by which the mineral wealth of all parts of the Soviet Union can be seen at a glance. An analysis is made of the map with specific mention of the minerals and their location with a geological explanation for their being formed in a given locality. Illustrations.

Institution : ...

Number : ...

ALICV, Nikolai Nikolaevich.

wide open spaces and treasures of our native land; materials for political  
ies M<sub>o</sub>skva, Voen. izd-vo Ministerstva oborony SSSR, 1955.39 p.

MAYOROV, Semen Mikhaylovich; MIKHAYLOV, Nikolay Nikolayevich;  
VADEYEV, O., redaktor; TROYANOVSKAYA, N., tekhnicheskij  
redaktor.

[The Russian federation] Rossiiskaya Federatsiya. Izd. 2-oe  
perer. i dop. Moskva, Gos.izd-vo polit.lit-ry, 1955. 213 p.  
(Russia) (MLRA 8:12)

**MIKHAYLOV, H.**

"Physical geography of the U.S.S.R.: Asiatic part" S.P.Suslov.  
Reviewed by H.Mikhailov. Geog.v shkole 18 no.4:69-70 J1-Ag '55.  
(MIRA 8:10)  
(Russia, Asiatic--Physical geography) (Suslov, Sergei Petrovich)

MIKHAYLOV, N.

"Geographic works." I.M. Krasheninnikov. Reviewed by N. Mikhailov.  
Izv.Vses.geog.ob-va 88 no.2:208-210 Mr-Apr '56. (MLRA 9:8)  
(Krasheninnikov, Ippolit Mikhailovich, 1884-1947)  
(Physical geography)

MIKHAYLOV, Nikolay Nikolayevich; KOZLOV, I.T., red.; KANDYKIN, A.Ye.,  
tekh.n.red.

[I travel along a meridian] Idu po meridiam. Moskva, "Sovetskii  
pisatel', " 1957. 169 p. (MIRA 11:2)  
(Voyages and travels)



*N.Y.*

AUTHOR: Mikhaylov, N.N. 25-11-13/28

TITLE: Change in the Character of the Country (Strana menyayet svoye litso)

PERIODICAL: Nauka i Zhizn', 1957, # 11, pp 27-29 (USSR)

ABSTRACT: The establishment of the Soviet regime brought about the industrialization of the country and the development of its mineral resources. The output of electricity increased by 100% In 1957 the output of coal in the Soviet Union increased by 15 times in comparison with the pre-revolution period and the production of oil in 1957 surpassed the former output by 9 times. In 1957 the production of cast iron increased by 8.5 times. The cultivation of virgin soil and waste land in Kazakhstan and the Altay district led to the creation of a cultivated area equal to the size of Italy. During the sixth Five-Year Plan the main routes of the Siberian railways will be electrified as far as Lake Baykal.  
There are two sketches.

AVAILABLE: Library of Congress

Card 1/1

MIKHAYLOV, Nikolay Nikolayevich; MAL'KOVA, G.V., otv.red.; TOKAREVA,  
T.M., tekhn.red.

[Traveling down the meridian; a trip from pole to pole] Idu po  
meridiamu; puteshestvie ot poliusa k poliusu. Moskva, Gos.izd-vo  
detskoi lit-ry M-va prosv.RSFSR, 1958. 190 p.

(MIRA 13:12)

(Voyages and travels)

MIKHAYLOV, N.N., kand.geograf.nauk; KOFTOV, G.Ye., kand.ekonom.nauk;  
~~BAKHTOV, K.K.~~; NESTEROV, M.V.; SMIRNOV, A.M., prof., doktor  
ekon.nauk; RUBINSHTEYN, G.I., kand.geograf.nauk; FOKIN, D.F.,  
kand.ekon.nauk; AZOV, V.N.; KOROTAYEV, A.P. [deceased];  
KEYLIN, A.D., prof.; YEZHOV, I.P.; RAMZAYTSEV, D.F.; ANKUDINOV,  
V.M.; SPANDAR'YAN, V.B., red.; SHLENSKAYA, V.A., red.isd-va;  
BRONZOVA, I.A., tekhn.red.

[Handbook of Soviet foreign commerce] Spravochnik po vneshnei  
torgovle SSSR. Moskva, Vneshtorgizdat, 1958. 270 p.  
(Commerce) (MIRA 12:2)

11/11/58  
MIKHAYLOV, N.

"Fundamental problems in the theory of physical geography" by  
I.M. Zabelin. Reviewed by N. Mikhailov. Geog. v shkole 21 no.2:  
73-75 Mr-Ap '58. (MIRA 11:2)  
(Physical geography)  
(Zabelin, I.M.)

ACHARKAN, V.A.; BARSKOV, I.M.; BIRYUKOV, I.S.; BORODINA, L.Ya.; BRENNER, M.M.;  
GOBELIK, B.Ye.; GUMEROV, M.N.; ZORKAYA, N.M.; IOYRYSH, A.I.;  
KAYDALOVA, O.N.; KAPUSTIN, Ye.I.; LEBEDEVA, M.A.; LESHKOVTSYEV, V.A.;  
LYSENKO, V.P.; MARKIN, A.B.; MIKHAYLOV, M.M.; NEST'YEV, I.V.; NECHAYEV,  
N.V.; NIKOL'SKIY, A.V.; OSTROUKHOV, M.Ya.; PISARZHEVSKIY, O.N.;  
POLUBOYARINOV, M.M.; POPOV, Yu.N.; PRASOLOV, M.A.; POKATAYEV, Yu.N.;  
RIMBERG, A.M.; RYABOV, V.S.; SEMKOV, B.F.; SPERANSKAYA, Ye.A.; TAKOYEV,  
K.F.; TRIFONOVA, G.K.; TROFIMOVA, V.I.; SHAKHNAZAROV, G.Kh.; SHKAREN-  
KOVA, G.P.; SHMERLING, K.G.; SYDEL'MAN, B.I.; MIKAELYAN, E.A., red.;  
MUKHIN, Yu.A., tekhn.red.

[U.S.S.R. as it is; a popular illustrated handbook] SSSR kak on est';  
populiarnyi illiustrirovannyi spravochnik. Moskva, Gos.izd-vo polit.  
lit-ry, 1959. 462 p. (MIRA 12:2)

(Russia)

Mikhaylov, Nikolay Nikolayevich

Glimpses of the U.S.S.R.; its economy and geography.

Moscow, Foreign Languages Publishing House, 1960.

196 p. illus., maps, port.

Translated from the original Russian: Vzgl'yad

na SSSR.

MIKHAYLOV, Nikolay Nikolayevich; KOSENKO, Zinaida Vasil'yevna, doktor med.nauk;  
VINNIKOVA, G.E., red.; BESSONOVA, N.D., tekhn. red.

[The Americans; travel tales]Amerikantsy; putevaia povest'.  
2 izd. Moskva, Sovetskii pisatel', 1962. 237 p.  
(MIRA 16:2)

(United States--Social conditions)

ACCESSION NR: AR4015491

S/0169/63/000/012/G007/G007

SOURCE: RZh. Geofizika, Abs. 12G54

AUTHOR: Mikhaylov, N. N.

TITLE: On the density of the intermediate layer in the oceans

CITED SOURCE: Inform. sb. In-ta geol. Arktiki, vy\*p. 31, 1962, 61-64

TOPIC TAGS: intermediate layer, Bouguer anomaly, earth's crust, Mohorovicic discontinuity

TRANSLATION: Gravity anomalies in oceanic regions are dependent on bottom relief, the Mohorovicic surface and heterogeneities in the earth's crust. With the introduction of a Bouguer correction with an effective density of  $1.67 \text{ g/cm}^3$  the obtained anomaly gives a reflected image of the bottom relief. An empirical formula of the relation of the gravity anomaly to the ocean depth is worked out, which makes it possible to estimate the effective density of rock in the intermediate layer as  $0.7-0.8 \text{ g/cm}^3$ . The introduction of a correction with the indicated density value frees the anomaly from the influence of the principal form of relief of the ocean bottom, and the latter in this case reflects only the influence of the two remaining

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ACCESSION NR: AR4015491

factors. It is recommended that the density of the intermediate layer be calculated by differentiation for different ocean regions, but the determination of the thickness of the earth's crust from gravimetric data at present is admittedly inexpedient. V. Bryusov.

DATE ACQ: 09Jan64

SUB CODE: AS, PH

ENCL: 00

Card 2/2

SOV/112-57-6-12877

Translation from: Referativnyy zhurnal. Elektrotehnika, 1957. Nr 6, p 174 (USSR)

AUTHOR: Mikhaylov, N. N.

TITLE: Devices for Finding Roots of Characteristic Equations  
(Ustroystva dlya otskaniya korney kharakteristicheskikh uravneniy)

PERIODICAL: Tr. 2-go Vses. soveshchaniya po teorii avtomat. regulirovaniya.  
M.-L., 1955, Vol 3, pp 117-129, discussions pp 140-143

ABSTRACT: Finding roots of a high-degree characteristic equation is a very laborious task. Many electromechanical and electronic devices have been suggested, under the name of "root finders," that quickly solve the above problem with an error of 2-4% for modulus and  $1^{\circ}$ - $3^{\circ}$  for argument. A number of electromechanical root finders produce an output voltage proportional to the value of the characteristic polynomial. The roots are found by bringing this voltage down to zero. Polar-coordinate notation (trigonometric or exponential) is often used; however, a Cartesian notation (algebraic) is also possible. Automatic root finders present a distribution of roots on an electron-beam screen in the form of luminous points on the complex plane; that permits

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SOV/112-57-6-12877

**Devices for Finding Roots of Characteristic Equations**

varying the parameters of the system in question to trace the movement of the roots, i. e. , to obtain all roots with negative real numbers. All points of the complex plane are automatically scanned in such root finders by means, for example, of motor-operated potentiometers supplying the modulus of the complex and by means of a cosine-and-sine potentiometer supplying its argument. The law of variation is so selected that the beam on the screen moves along a spiral or along radii. If the complex is defined in Cartesian coordinates, the complex plane is scanned line-by-line. Voltages proportional to the real and imaginary parts of the characteristic polynomial are fed to two zero-indicating circuits; each circuit, with zero input voltage, sends a pulse to the coincidence circuit, which gates the beam when both the real and imaginary parts vanish simultaneously. At this moment, a point flashes on the screen and indicates the position of the root. Electronic root finders can provide the same result with mechanical travels, which considerably increase the speed of the operation. Similar devices are used to reproduce functions of a complex variable.

A. S. R.

Card 2/2

KHAYLOV, N N

AUTHOR: Mikhaylov, N.N. 119-12-1/16

TITLE: Automation and Automatic Equipment (Avtomatizatsiya i avtomaticheskiye ustroystva)  
New Means of the NII Teplopribor for Pneumatic Automation (Novyye sredstva pnevmoavtomatiki NII Teplopribora)

PERIODICAL: Priborostroyeniye, 1957, Nr 12, pp. 1-5 (USSR)

ABSTRACT: During the years 1952-1953 a unified, pneumatic multicell system of apparatus and regulators (AUS) was developed upon the aggregate principle by the NII Teplopribor in collaboration with the Institute for Automation and Remote Control of the AN USSR. At present they are produced in series by the "Tizpribor" plant of the City Council for Political Economy, Moscow. A.Ia.Golosovskiy and M.I.Zhutovskiy (Ref. 1) have described the normal model of . The complex of pneumatic instruments and regulators of a small size constructed by the NII Teplopribor consists of 13 parts, among which there are:

- 1) secondary registration apparatus of two modifications type 3 PП-29B (fig.1) and type 2 PП-29 B (fig.2).
- 2) secondary indicators of three modifications, type 1 MП-30 B (fig.3), type 1 MП-30 A (fig.4) and type 1 C П-31 A (fig.5).

Card 1/2

**AUTHOR:** Mikhaylov, N. N. (Moscow) 103-19-5-12/14

**TITLE:** Electrical Devices for Solving Algebraic Equations  
(Elektricheskiye ustroystva dlya resheniya algebraicheskikh uravneniy)

**PERIODICAL:** Avtomatika i Telemekhanika, 1958, Vol. 19, Nr 5,  
pp. 477-490 (USSR)

**ABSTRACT:** A survey of the existing circuits for the finding of roots is given here. These are classified and evaluated from the point of view of the possibility of an automation of root-detecting. The following is stated:

- 1) According to the nature of the problems to be solved it is expedient to have two types of root-detectors: semi-automatic and automatic ones. The former are determined for finding the roots, the latter mainly for investigating the connection between the roots and the factors of the equations.
- 2) It is expedient to construct the automatic root-detectors in the form of open systems which search the roots according to the inspection method.

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Electrical Devices for Solving Algebraic Equations

103-19-5-12/14

- 3) The use of the carrier in the root-detecting circuit limits the frequency of repetition and thus renders the obtaining of the root-motion-trajectories difficult.
- 4) The formation of the polynomial in a trigonometrical form is possible without the presence of the carrier. Therefore such a form of the polynomial permits to construct fast-working root-detectors most rapidly.
- 5) The restrictions imposed upon the carrier-frequency and consequently also to the repetition frequency by the selsyns and the adjustable transformers are absent in a circuit with a delay line. Therefore this circuit is polynomial in the representation of the exponential (and not trigonometrical as with Choudhury (reference 12)) form and can serve as a basis for the construction of a fast-working root-detector.
- 6) The existing root-detecting construction are little usable for solving the characteristic equations in automatic control systems. Therefore it is desirable to construct such devices by means of which it is not only possible to investigate the influence of the poles but also that of the zeros of the transmission function of the open system upon the roots of

d 2/3

Electronic Devices for Solving Algebraic Equations 15 113 12/4

the equations of a closed system of automatic control.  
The possible schemes of such devices are suggested here.  
7) By utilizing the principle of continuous examination  
(scanning) of the complex plane a device for the construction  
of conformal mirror images can be produced on the basis of  
known root detectors. There are 12 figures and 14 references,  
11 of which are Soviet.

SUBMITTED September 9 1957

AVAILABLE Library of Congress

1. Mathematical computers--Applications 2. Algebraic equations

Card 3/3

AUTHOR: Mikhaylov, N. N. (Moscow) 103-19-7-4/9

TITLE: On the Problem of the Construction of Root Hodographs of Automatic Control Systems (K voprosu o postroyenii kornevykh godografov sistem avtomaticheskogo regulirovaniya)

PERIODICAL: Avtomatika i telemekhanika, 1958, Vol 19, Nr 7, pp 661 - 673 (USSR)

ABSTRACT: Here the analytical, the graphical-analytical, and the graphical methods for the construction of hodographs of automatic control systems are investigated. It is suggested to mechanize the process and to utilize root finders for it. The possibility of the automatic construction of root hodographs is proved. Block schemes of such devices are given. An automatic rootfinder was worked out at the IAT AS USSR and at present is in operation (Ref 8). The automatic rooters considerably facilitate and accelerate the construction of the hodographs. As the systems containing zeros in the transmission functions occur very frequently rootfinders specially for the solution of the characteristic equations of the automatic control systems of the general kind must be produced. At the same time these devices can also be used for the mechanization of the construction of root hodo-

Card 1/2



On the Problem of the Construction of Root Hodographs of Automatic Control Systems 103-19-7-4/9

graphs. The automatization of the hodographs gives the greatest effect when the device does not compose the single points but the whole (or a part of the) hodograph in form of a continuous line at the screen of the cathode ray tube. This gives the possibility to observe the influence of the various parameters of the system upon the configuration of the hodograph. On occasion of the production of such root-hodograph-plotters single blocks of the automatic rooters can be used. The block scheme of the hodograph-drawers, which are given, furnish the possibility to obtain also trajectories of roots which form in the variation of other parameters (save the amplification factor) and to construct families of the phase hodographs. There are 9 figures and 10 references, 5 of which are Soviet.

SUBMITTED: October 15, 1957

1. Control systems—Analysis 2. Hodoscopes—Performance

Card 2/2

KHAYLOV, N. N., Cand of Tech Sci -- (dis ) "An Apparatus for Plotting  
Radical Graphs and Stability Limitation of Automatic Regulation  
Systems," Moscow, 1959, 11 pp (Institute of Automatics and Telemechan-  
ics, Acad Sci USSR) (KL, 2-60, 110)

ACCESSION NR: AP4015307

S/0280/64/000/001/0187/0195

AUTHOR: Mikhaylov, N. N. (Moscow); Novosel'tseva, Zh. A. (Moscow)

TITLE: Optimum transient processes in a prediction system

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 1, 1964, 187-195

TOPIC TAGS: automatic control, third order automatic control, predictor  
automatic control, oscillatory element automatic control, oscillatory element  
plus integrator control

ABSTRACT: This article presents a mathematical description of phase trajectories and an analytical method for their construction in the case of transition of an oscillatory-element-and-integrator third-order system from one steady state to another. Trajectories of the state point in a phase plane are given as are formulas for the number of sign changings, duration of transients, etc. The prediction method is suggested for a practical realization of the optimum control.

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ACCESSION NR: AP4015307

ts advantage lying in that only a knowledge of the law of oscillatory-element control is necessary. An experimental verification of a third-order prediction control scheme included: (1) a conservative element plus an integrator; (2) an oscillatory element plus an integrator. Oscillograms of the transient processes in the simulator used are supplied. Orig. art. has: 8 figures and 23 formulas.

ASSOCIATION: none

SUBMITTED: 23Apr63

DATE ACQ: 12Mar64

ENCL: 00

SUB CODE: CG, IE

NO REF SOV: 002

OTHER: 001

card 2/2

AYLOV, N. N.; NOVOSELTSEV, Z. N.

"Prediction for an optimal steering of an object containing an oscillating member by means of an analog computer."

report submitted for 4th Intl Conf, Intl Assn for Analog Computation, Brighton, UK, 14-18 Sep 64.

AVEN, O.A.; DVORETSKIY, V.M.; DOMANITSKIY, S.M.; ZALMANZON, L.A.;  
KRASSOV, I.M.; KRUG, Ye.K.; TAL', A.A.; KHOKHLOV, V.A.;  
BULGAKOV, A.A.; DEMIDENKO, Ye.D.; BERNSHTEYN, S.I.; YEMEL'YANOV,  
S.V.; LERNER, A.Ya.; MEYEROV, M.V.; PEREL'MAN, I.I.; FITSNER,  
L.N.; CHELYUSTKIN, A.B.; ZHOZHKASHVILI, V.A.; IL'IN, V.A.;  
AGEYKIN, D.I.; GUSHCHIN, Yu.V.; KATYS, G.P.; MEL'TTSER, L.V.;  
PARKHOMENKO, P.P.; MIKHAYLOV, N.N.; FITSNER, L.N.; PARKHOMENKO,  
P.P.; ROZENBLAT, M.A.; SOTSKOV, B.S.; VASIL'YEVA, N.P.; PRANGISHVILI,  
I.V.; POLONNIKOV, D.Ye.; VOROB'YEVA, T.M.; DEKABRUN, I.Ye.

Work on the development of systems and principles of automatic  
control at the Institute of Automatic and Remote Control  
during 1939-1964. Avtom. i telem. 25 no. 6:807-851 Je '64.  
(MIRA 17:7)

8857-65 ASD(a)-5/AEDC(a)/AFETR/AFMDC/RAEM(d)/ESD(dp)

SESSION NR: AP4041465

S/0103/64/025/006/0896/0908

AUTHOR: Gul'ko, F. B.; Kogan, B. Ya. (Doctor of technical sciences);  
Gerner, A. Ya. (Doctor of technical sciences); Mikhaylov, N. N.;  
Kosel'tseva, Zh. A.

ABSTRACT: Prediction method with high-speed analog computers and its application

SOURCE: Avtomatika i telemekhanika, v. 25, no. 6, 1964, 896-908

KEYWORDS: automatic control, predictive automatic control, predictor, analog computer predictor

ABSTRACT: A method of optimum or near-optimum predictive control and the principles of analog predictors are considered. A time-optimized third-order system for controlling a 3-link plant is examined as an example illustrating the method of truncating the system by one order and using an analog-type predictor. This predictive method may be used for controlling plants of any order describable

1/3

857-65

SESSION NR: AP4041465

is form of differential equation:

$$\begin{aligned} \dot{x}_1 &= f_1(x_1, u) \\ \dot{x}_k &= f_k(x_k, x_{k-1}), \\ \dot{x}_n &= f_n(x_n, x_{n-1}), \end{aligned}$$



the  $u = u(t)$  is the controlling action;  $|u(t)| \leq 1$ , all functions  $f_k$  ( $k = 2, 3, \dots, n$ ) assumed to be continuous and continuously differentiable with respect to  $x_k$  and  $f_1$  continuous with respect to  $u$ . The optimality of the trajectories computed in any (but the first) predictor is ensured by the presence inside any predictor of other predictors computing, in an accelerating manner, the trajectories in a decreasing number of links. An approximate simulator of the system is recommended for the predictor, which is intended for repeated solving of the system of differential equations. A laboratory model of such a predictor with six integrating amplifiers, built by V. V. Gurov, permits an equation-solution

2/3



857-65

SESSION NR: AP4041465

frequency up to 200 per sec. Orig. art. has: 12 figures and 7 formulas.

ASSOCIATION: Institut avtomatiki i telemekhaniki AN SSSR (Institute of  
Automation and Telemechanics, AN SSSR)

MITTED: 00

ENGL: 00

CODE: DP, IE

NO REF SOV: 007

OTHER: 003

3/3

L 6526-66 EWT(d)/EPF(n)-2/EWP(v)/EWP(k)/EWP(h)/EWP(l) IJP(c) WW/BC  
ACC NR: AP5023111 SOURCE CODE: UR/0103/65/026/009/1502/1513

AUTHOR: Mikhaylov, N. N. (Moscow); Novosel'tseva, Zh. A. (Moscow)

ORG: none

57  
87

TITLE: Optimal processes in a third-order system having complex poles

SOURCE: Avtomatika i telemekhanika, v. 26, no. 9, 1965, 1502-1513

TOPIC TAGS: automatic control, automatic control system, automatic control design, automatic control theory 14

ABSTRACT: Time-optimal processes of transition, in a third-order plant, from an initial state  $(X_{1i}, X_{2i}, X_{3i})$  to its final stable state  $(X_{1f} = X_{1spec}, X_{2f} = X_{3f} = 0)$  are considered. The plant has complex conjugate poles and consists of series-connected oscillatory and integrating sections:  
 $\dot{X}_1 = X_2, \dot{X}_2 = X_3, \dot{X}_3 = -2\delta X_3 - X_3 + U,$  where  $\delta$  is the damping factor of the oscillatory section,  $0 < \delta < 1$ , and  $X_1$  is the plant output variable. The control law  $U$  limited in the form  $|U| \leq 1$  is sought. The optimal phase trajectory in the oblique-coordinate plane  $X_2 X_3$  consists of  $n$  arcs of the spirals which have the

Card 1/2

UDC: 62-505.385

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ACC NR: AP5023111

poles in  $(+1,0)$  and  $(-1,0)$  points alternatively. Loci of the switching points of the above trajectories are plotted, and the variation of the number  $n$  of intervals is analyzed. The case of  $\delta = 0$ , i. e., when the plant has a conservative section instead of the oscillatory section, is also considered. Orig. art. has: 7 figures and 23 formulas.

SUB CODE: DP, IE/    SUBM DATE: 12Nov64/    ORIG REF: 002/    OTH REF: 003

nw  
Card 2/2

Y. H. Y. ... KAND. ...

reference on analog ...  
... 1966.

KHAYLOV, N. N.

/ Physics - Elasticity

1/1 Pub. 86 - 11/35

ors : Mikhaylov, N. N.

e : Making glass denser under high pressure

odical : Priroda 44/2, 82 - 85, Feb 1955

ract : A study was made of the phenomenon of making certain types of glass permanently denser by the application of pressure. The experiment covered variations in pressure and rapidity with which the pressure was applied. The phenomenon was discovered by the Americans, P. W. Bridgman and I. Simon. One USA reference (1953). Graphs.

itution : The Acad. of Sc., USSR, S. I. Vavilov Institute of Physical Problems

itted : .....

AUTHOR  
TITLE  
PERIODICAL

MIKHAYLOV N.N.

PA - 2673

$T$ -meson-decay.

Zhurnal Eksperim. i Teor. Fiziki 1957, Vol 32, Nr 2.  
pp 284 - 288 (USSR)

Received: 5/1957

Reviewed : 6/1957

ABSTRACT

The present work investigates the energy spectrum of the pions created on the occasion of the decay of a  $T$ -meson on the assumption that the isotopic spin of the  $T$  mesons is equal to 1. Here a possible isotopic symmetry of the  $T$  mesons and the  $\pi$ -mesons with different electric charges are consistently considered. Furthermore, the following is shown: The energy distributions investigated by R.H. DALITZ and E. FABRI can exist also in consideration of the isotopic spin of the  $T$ - and  $\pi$ -mesons if the pions with a minimum orbital angular momentum fly apart. Here the ratio between the probability of the decay of the  $T$ -meson into three charged pions ( $dw_1$ ) and the probability  $dw$  of the decay with the scheme

$T^+ \rightarrow \pi^+ + 2\pi^0$  is as 4 to 1 if the  $T$ -meson is a pseudoscalar or a vectorial particle. If  $dw_1/dw_2$  differs from these values, then summands must occur in the matrix element of this process which correspond to higher orbital angular momenta of the pions. The author here mentions the most simple

RD 1/2

$T$ -meson-decay.

PA - 2673

expressions for the matrix elements which correspond to the decay of a  $T$  meson into 3 pions with  $dw_1/dw_2 = 1$  or 4 applying (see above).

The author investigates the decay of a particle with the spin  $J$ , the parity  $m_T$ , and with the isospin  $I_T$ , into three particles with the spin  $J_\pi = 0$ , the parity  $P_\pi = -1$ , the mass  $m_\pi$ , and the isospin  $I_\pi = 1$ .

As reference system that system applies, in which the  $T$ -meson rests. The matrix element  $\langle V \rangle$  corresponding to the decay of the  $T$ -meson here represents a component of an irreducible rotation group. For the probability of decay of a nonpolarized  $T$ -meson a formula is written down and transformed. Next, an expression for the ratio of probabilities of the reactions  $T^\pm \rightarrow 2\pi^+ + \pi^-$  and  $T^\pm \rightarrow \pi^+ + 2\pi^0$  is derived and discussed. The matrix elements thus found are shown together in a table. The  $T$ -meson cannot be scalar.

(1 table)

ASSOCIATION: not given.

PRESENTED BY: -

RECEIVED: 15. 11. 1955.

AVAILABLE: Library of Congress.

RD 2/2

27722

S/120/61/000/003/036/041  
E194/E155

24-5500

AUTHORS: Mikhaylov, N.N., and Kaganovskiy, A.Ya.

TITLE: Carbon resistance thermometers for low temperatures

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No. 3, pp. 194-197

EXT: It is difficult to measure temperatures below 20 °K because at such temperatures the sensitivity of metallic resistance thermometers is very poor. It is then convenient to use carbon resistance thermometers, which because of their negative temperature coefficient of resistance have relatively high sensitivity at low temperatures. Many thermometers of this kind have been described over the years. Recently, certain radio resistors have been used which happen to have the right properties for low temperatures. Anthracite resistors have been found useful because their region of maximum sensitivity could be displaced as required by the use of a suitable firing temperature. It seems likely that other materials besides anthracite might behave in this way, and so an attempt was made to fabricate solid carbon thermometers from materials that would ensure good reproducibility and uniformity. The base material was petroleum bitumen which was used 1/5



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carbon resistance thermometers for ... S/120/61/000/003/036/041  
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partially used without pretreatment as a binder in pressing  
rigarettes and was partially converted into petroleum coke. The  
bitumen was coked by heating in the absence of air at 700 °C for  
hours. The coke and bitumen were pulverized separately and  
sieved through a mesh with 625 apertures per cm<sup>2</sup>. To obtain the  
best results it was necessary to mix the powders in the  
proportion of 23% weight bitumen and 77% weight coke. The units  
were then pressed under a pressure of 12 tons per cm<sup>2</sup> at room  
temperature. The units, of dimensions 7 x 3 x 1 mm, were fired  
in a quartz tube filled with powdered charcoal. They were held at  
the maximum firing temperature for one hour. A thin layer of  
copper was deposited electrolytically on the ends of the units to  
make contact. The thermometers were then washed in alcohol and  
given a protective coating. The best current for measuring the  
resistance proved to be 20 microamps, using a potentiometer. It  
was found that increasing the firing temperature reduces the  
resistance of the thermometers. This is particularly evident at  
low temperatures. In any given group of thermometers fired under  
the same conditions there is a considerable scatter of resistance,  
part 2/5

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carbon resistance thermometers for ... S/120/61/000/003/036/041  
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vidently because the pressing conditions are not quite the same; also there are minor differences in firing temperature because of the temperature distribution within the furnace. Typical resistance-temperature characteristics of units fired at 790, 800 and 810 °C are shown in Fig.2. In use a special interpolation formula is recommended, and if the necessary constants are determined at temperatures of 2, 4.2 and 20.4 °K the temperature may be read to within some hundredths of a degree in the range from 0 to 4.2 °K. Each thermometer must be carefully calibrated. It was important to investigate the reproducibility of the calibration. Two cases may be distinguished; reproducibility during a single helium test, and reproducibility after one or a series of cycles of cooling and reheating to room temperature. It was found that reproducibility within a single helium test was complete, but variations were easily detected after repeated cooling and heating cycles. Fig.2 includes a temperature graph of resistance thermometer number 80-2 before and after heating and cooling 100 times from room temperature to the temperature of boiling nitrogen. The points 1 denoted by triangles correspond to results before and 3/5

carbon resistance thermometers for .... <sup>27722</sup> S/120/61/000/003/036/041  
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cycling and points 2 denoted by circles to points after cycling.  
For measurements in the helium region it is recommended to use  
thermometers fired at 810 °C, whilst those fired at 790 and 800 °C  
are suitable for measurements in the hydrogen region and in the  
intermediate region between hydrogen and helium temperatures.  
There are 3 figures, 1 table and 9 references: 2 Soviet and 7  
non-Soviet. The four most recent English language references read:  
ref.3: H.A. Fairbank, L.T. Lane, Rev. Scient. Instrum., 1947,  
Vol.18, 525.  
ref.4: I.R. Clement, E.H. Quinnett, Phys. Rev., 1950, Vol.79, 1028.  
ref.5: I.R. Clement, E.H. Quinnett, Rev. Scient. Instrum., 1952,  
Vol.23, 213.  
ref.6: R. Berman, Rev. Scient. Instrum., 1954, Vol.25, 94.

ASSOCIATION: Institut fizicheskikh problem, AN SSSR  
(Institute for Problems of Physics, AS USSR)

SUBMITTED: June 7, 1960

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31776

3/0-6/61/041/006/022,114

B102/B138

94.2140 (1033, 1072, 1141)

AUTHORS: Alekseyevskiy, N. I., Mikheylov, N. N.

TITLE: Superconducting solenoids of Nb<sub>3</sub>Sn for strong magnetic fields

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 41, no. 6(12), 1961, 1809-1810

TEXT: Nb<sub>3</sub>Sn with critical temperature 18.06°K was used to make short-circuited coils of 20 to 112 windings. The internal field H<sub>x</sub> was studied as dependent on the external field H<sub>0</sub>. The J<sub>crit</sub>(H)-curve was typical of a superconducting alloy. For zero field, J<sub>crit</sub> ≈ 1800 a, which corresponds to the critical current field at a superconductor surface of ~24 koe, found by Alekseyevskiy (ZhETF, 8, 1098, 1958). In the Nb<sub>3</sub>Sn experiments the field inside the short-circuited coil was ~15 koe; this value was dependent on the parameters of the exciting magnet. Small coils with external supply were also examined, with leads consisting of Card 1/2



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3/056/61, 041/056/62, 1014  
2102/B138

Superconducting solenoids of ...

semiconducting rods prepared by the method proposed by J. E. Kunzler et al. (Phys. Rev. Lett., 6, 3, 89, 1961). There are 2 figures and 6 references (1 Soviet and 5 non-Soviet). The four most recent references to English-language publications read as follows: V. D. Arp et al. Phys. Rev. Lett., 6, 9, 452, 1961; J. O. Betterton et al. Phys. Rev. Lett., 6, 10, 19, 1961; R. M. Bozorth et al. Phys. Rev. Lett., 5, 4, 146, 1960; J. E. Kunzler et al. Phys. Rev. Lett., 6, 4, 89, 1961



ASSOCIATION Institut fizicheskikh problem Akademii nauk SSSR  
(Institute of Physical Problems of the Academy of Sciences  
USSR)

SUBMITTED July 25, 1961

27413  
S/120/62/000/002/045/047  
E039/E435

24550  
AUTHORS: Mikhaylov, N.N., Govor, A.Ya.

TITLE: A resistance thermometer of lead brass for the measurement of low temperatures

PERIODICAL: Pribory i tekhnika eksperimenta, no.2, 1962, 180-182

TEXT: The early work on the temperature sensitivity of various bronzes for use as low temperature resistance thermometers is reviewed. In this paper the temperature sensitivity of two alloys is determined: No.1 alloy (62% Cu, 36% Zn, 1.73% Pb, 0.08% Ni) and ЛС-59-1 (LS-59-1) (59% Cu, 39.7% Zn, 1.3% Pb and small admixtures of Fe, Bi and Sb). The samples were in the form of wire 10 cm long and diameters 0.1, 0.07 and 0.05 mm wound into helices 3 mm diameter and 20 mm long and mounted without strain in a cryostat. In the case of alloy No.1, the working range for wire of 0.1 mm diameter lies between 4.5 and 5.5°K; for 0.07 mm diameter between 3.25 and 4.7°K and for 0.05 mm diameter between 2 and 4.2°K. The working ranges for the second alloy LS-59-1 are for 0.1 mm diameter 4.1 to 5.5°K; for 0.07 mm diameter 2.7 to 4.6°K and for 0.05 mm diameter 1.5 to 3.8°K.  
Card 1/2

S/120/62/000/002/045/047  
E039/E435

A resistance thermometer of lead ...

This alloy has a longer working range and is therefore more useful than alloy No.1. Thermometers of lead brass are very stable. Their disadvantage is that they are sensitive to magnetic fields. It is suggested that in order to extend the working range of such resistance thermometers it should be possible to use an assembly of different diameter wires. P.L.Kapitsa is mentioned. There are 2 figures.

ASSOCIATION: Institut fizicheskikh problem AN SSSR  
(Institute of Physical Problems AS USSR)

SUBMITTED: July 11, 1961

Card 2/2

ALEKSEYEVSKIY, N.Ye.; MIKHAYLOV, N.N.

Superconductivity of some binary and ternary alloys. Zhur. eksp.  
1 teor.fiz. 43 no.6:2110-2113 D '62. (MIRA 16:1)

1. Institut fizicheskikh problem AN SSSR.  
(Superconductivity) (Alloys)



RIKOSTOISKIY, A.P.; MIKHAYLOV, A.P.

Regeneratsiya of ...  
nats.-issl. rauch. i text. inform. 17 no. 2:18-19 S 162  
(MIRA 18:1)

C NR: AT6029239 SOURCE CODE: UR/0000/66/000/000/0262/0269

AUTHOR: Mikhaylov, N. N.; Novosel'tseva, Zh. A.

CLASSIFICATION: none

SUBJECT: Application possibilities of an analog prediction device for the optimum control of systems containing an oscillating circuit

ABSTRACT: Vsesoyuznaya konferentsiya-seminar po teorii i metodam matematicheskogo modelirovaniya. 4th, Kiev, 1964. Vychislitel'naya tekhnika v upravlenii (Computer technology in control engineering); trudy konferentsii. Moscow, Izd-vo Nauka, 1966, 262-269

KEYWORDS: analog digital computer, error prediction, mathematic prediction, time optimal control

SUMMARY: The possibilities of solving the optimum control problem for third-order systems incorporating an oscillating circuit are investigated. The prediction process is based on the reduction of all coordinates of the model to zero (except the output coordinate); thereupon, the stabilized value of the output coordinate is measured and stored in the memory until the beginning of the next cycle. This value is said to be the predicted value of the system's output coordinate. This method is applicable to linear objects with transfer functions containing real poles only. Based on Pontryagin's maximum principle, systems of equations were constructed and circuit diagrams

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C NR: AT6029239

is designed for an optimum process in a third-order system with two conjugate complex poles. When  $\delta > 0.003$ , the initial conditions do not go beyond a certain limit-domain. While at first glance this domain appears to be small, it grows exponentially with the growth of  $\delta$ . Several modifications of the problem were investigated: 1) modeling of optimum control for equilibrium, and 2) the modeling of optimum control for a rectilinear trajectory. The general form of the latter problem: given a function  $f(t)$ , it is necessary to provide a system control such that the relations

$$x_1(t) = f(t); x_2(t) = \dot{f}(t); x_3(t) = \ddot{f}(t).$$

is true from a previously unknown moment of time  $\tau$ . When  $f(t) = r_1\tau + r_2$ , the problem can be considerably simplified. A circuit diagram for this case is presented. The article has: 8 figures, 4 formulas.

CODE: 09,12/      SUBM DATE: 12Feb66/      ORIG REF: 006

end 2/2

MAKHENKOV, I.P.; MIKHAYLOV, N.N., kand. sel'skokhozyaystvennykh nauk.

Fertilizers for collective farm crop rotations in the non-Chernozem zone, Zemledelie 7 no.11:33-44 N '59 (MIRA 13:3)

1. Zamestitel' direktora po nauchnyy chasti Vsesoyuznogo nauchno-issledovatel'skogo instituta udobreniy i agropochvovedeniya (for Mamchenkov.

(Fertilizers and manures)

NAYDIN, P.G.; MIKHAYLOV, N.N.

Zonal investigation of mineral fertilizer norms and large-scale soil maps. Pochvovedenie no. 2:1-9 F '61. (MIRA 14:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut udobreniy i agropochvovedeniya.  
(Fertilizers and manures) (Soils--Maps)

KOREN'KOV, D.A., kand. sel'khoz. nauk; MIKHAYLOV, N.N., kand. sel'-  
khoz. nauk; MINENKOVA, V.R., red.; BELOVA, N.N., tekhn.  
red.

[Store fertilizers carefully and use them properly] Be-  
rezhno khranit' i pravil'no ispol'zovat' udobrenia. Mo-  
skva, Sel'khozizdat, 1963. 127 p. (MIRA 16:8)  
(Fertilizers and manures)

MIRNINOV, N.K., starshty nauchnyy sotrudnik

Treating agalactia in cows. Veterinariya 41 no. 12 1964 p. 145.

1. Vsesoyuznyy institut eksperimental'noy veterinarii.

MIKHAYLOV, N.N., kand. biolog. nauk

Obstetric practice in swine raising. Veterinariia 41 no.6:  
97-98 Je '64. (MIRA 18:6)

1. Vsesoyuznyy institut eksperimental'noy veterinarii.



MIKHAYLOV, N.N., kand. biolog. nauk; KONDRAKHINA, K.N.; CHISTYAKOV, I.Ya.,  
nauchnyy sotrudnik

Hygiene of the preputial cavity in boars. Veterinariia 41 no. 1: 92-  
93 S '64. (MIRA 121a)

1. Vsesoyuznyy institut eksperimental'noy veterinarii.
2. Starshiy laborant Vsesoyuznogo instituta eksperimental'noy veterinarii (for Kondrakhina).

22682-66

REG NR: AP5023736 (A) SOURCE CODE: UR/0346/65/000/008/0084/0085

AUTHOR: Sunaykin, A. A. (Candidate of biological sciences); Mikhaylov, N. (Candidate of biological sciences)

23  
B

ORG: All Union Institute of Experimental Veterinary VASKHNIL  
Nesoyuznyy institut eksperimental'noy veterinarii VASKHNIL)

TITLE: Use of neurotropic preparations for gynecological diseases  
in cows

SOURCE: Veterinariya, no. 8, 1965, 84-85

KEYWORDS: animal disease therapeutics, nervous system drug, drug  
effect, animal husbandry, hormone

ABSTRACT: Neurotropic preparations, furamon and proserine, have been  
used to treat gynecological diseases and infertility of cows at some  
vkhozes near Moscow over the past seven years. Subcutaneous injec-  
tions of a 0.5% aqueous solution of proserine or a 1% aqueous solution  
of furamon administered in a 2 ml dose at different intervals depending  
on the course of treatment have been used by veterinary specialists for  
the treatment of endometritis, ovary cysts, subinvolution of the uterus,  
and others. In treating ovary hypofunction, the therapeutic effect of

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UDC: 619:615.78:618.1:636.2

22682-66

C NR: AP5023736

0

neurotropic preparations was enhanced with the combined use of  
SZHK, a hormone preparation. With SZHK administered 5 to 6 days  
following the injection of a neurotropic preparation, the SZKH doses  
can be considerably reduced. The sovkhoses report that approximately  
1% of the animals with hynecological diseases or disorders have been  
successfully treated. It was also reported that the 1% aqueous solution  
of furamon in the recommended doses produces no side effects in animals.  
Fig. art. has: None,

B CODE: 06/ SUBM DATE: none

ard 2/2

8LP

MIKHAYICV, N.N.; SILAYEV, A.M.

Methods for analyzing the effectiveness of insemination  
of cows. Veterinariia no.12:71-75 D 165.

(MIRA 19:1)

36403-66 EWT(m)/T/EWP(t)/ETI IJP(c) JW/JD/HW

DOC NR: AP6019775

SOURCE CODE: UR/0070/66/011/003/0443/0447

AUTHOR: Mikhaylov, N. N.; Petrov, S. V.

INSTITUTE: Institute of Physical Problems, AN SSSR (Institut fizicheskikh problem AN SSSR)

TITLE: Growing single crystals of MnF<sub>2</sub> and CoF<sub>2</sub>

SOURCE: Kristallografiya, v. 11, no. 3, 1966, 443-447

KEYWORDS: manganese, cobalt, single crystal, magnetic property, single crystal growing

ABSTRACT: An apparatus is described and methods are presented for the growing of MnF<sub>2</sub> and CoF<sub>2</sub> single crystals. Details of the apparatus were presented along with a schematic drawing. The MnF<sub>2</sub> and CoF<sub>2</sub> raw materials were prepared by reacting 40% hydrofluoric acid with the corresponding carbonates in a platinum dish, processing in a vacuum extractor over P<sub>2</sub>O<sub>5</sub> and further treating in an atmosphere of dry HF at 850°C for 6 hours. The detailed preparation was different for each fluoride as was the single crystal preparation. For MnF<sub>2</sub> (with a melting point of 1100°C) 0.2 atm of HF was used in the single crystal furnace; the temperature of the conical platinum crucible was dropped to 970°C in the null-gradient part of the furnace; further cooling was done at 100°/hr and when the temperature reached 50°C, the furnace was flushed with air and the single crystal of MnF<sub>2</sub> removed. For CoF<sub>2</sub> the furnace was maintained at

UDC: 548.5

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86403-66

AC NR: AP6018775

00°C. Two forms of impurities were noticed in  $MnF_2$  single crystals: a change in color, indicating a lattice change in impurity levels, and a white zonal structure appearing at the top part of the crystal. The color change was related to the change in oxide content and the formation of a solid solution. Temperature distributions in the crucible were analyzed for different growth rates. Some crystals of  $CoF_2$  also exhibited the zonal structure but the brownish coloring was difficult to find. The dimensions of the crystals depended on the charge and varied from 0.5 to 4 cm in length; the weight of some crystals reached 8 g. Orig. art. has: 2 figures.

AC CODE: 20,14/

SUBM DATE: 20Apr65/

ORIG REF: 003/

OTH REF: 006

rd 2/2 mlk

ACC NR: AP6020200

SOURCE CODE: UR/0056/66/050/006/1472/1477

AUTHOR: Belyayeva, A. I.; Yeremenko, V. V.; Mizhaylov, N. N.; Pavlov, V. N.,  
Petrov, S. V.

ORG: Physicotechnical Institute of Low Temperatures, Academy of Sciences, Ukrainian  
SSR (Fiziko-tekhnicheskii institut nizkikh temperatur Akademia nauk Ukrainy SSR);  
Institute of Physical Problems, Academy of Sciences, SSSR (Institut fizicheskikh  
problem Akademii nauk SSSR)

TITLE: Magnon and phonon excitation during light absorption in antiferromagnetic  
NiF<sub>2</sub>

SOURCE: Zh Eksper i teor fiz, v. 50, no. 6, 1966, 1472-1477

TOPIC TAGS: magnon, phonon, magnon excitation, phonon excitation, light absorption,  
nickel fluoride, antiferromagnetic material, NICKEL COMPOUND, FLUORIDE,  
ABSORPTION SPECTRUM, ELECTRON TRANSITION, LIGHT EXCITATION

ABSTRACT: The structure of the  $^3A_{2g} \rightarrow ^1T_{2g}$  transition in the absorption spectrum of  
antiferromagnetic nickel fluoride at temperatures between 4.2 and 77K has been  
analyzed on the basis of experimental data on its vibrational frequencies. It has  
been shown that band  $\nu_I = 20,622 \text{ cm}^{-1}$  and band  $\nu_{II} = 20,717 \text{ cm}^{-1}$  are due to electron-  
magnon transitions with the formation of one and two magnons, respectively, with  
maximum frequencies. The maximum frequency of the magnon  $\nu_m = 100 \text{ cm}^{-1}$ . The magnon

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CC NR: AP6020200

ture of band  $\nu_1$  has been confirmed by an analysis of its shape, temperature dependence of spectral position, and half-width. Orig. art. has: 5 figures, 1 formula, and 1 table. [Based on authors' abstract] (NT)

WB CODE: 20/ SUBM DATE: 13Jan66/ ORIG REF: 0027 CTR REF: 005

rd. 2/2/66



MIKHAYLOV, N.N. (Moskva); NOVOSEKUTSEVA, Zh.A. (Moskva)

Internal processes in a third-order system with complex poles.  
Autom. i telex. 26 no. 9:1502-1513 S '65.

(MIRA 1:110)

OKURICHEV, P. I. (Professor), LAMKIN, S. I. (Assistant Professor) MIKHAYLOV, N. P.  
and MAKHANCHEYEV, (Veterinary Surgeons, Leningrad Veterinary and Buryat Agricultural  
Institutes)

"Utilization of sodium selenite for prophylaxis and treatment of the white  
muscle disease of lambs"

Veterinariya, vol. 39, no. 6, June 1962 pp. 50

RABINOVICH, M.A.; BLANK, M.S.; MIKHAYLOV, H.P.

Transferring ring kilns from operating on solid fuel to producer  
gas. Ogneupory 18 no.10:435-443 '53. (MIRA 11:10)  
(Kilns) (Fuel)

SHCRYGINA, N.N.; MIKHAYLOV, N.P.; GRUSHNIKOV, O.P.

Obtaining some modified preparations of hydrochloric-acid lignin.  
Zhur.prikl.khim. 37 no.1:170-176 Ja. '64. (MIRA 17:2)

1. Institut organicheskoy khimii AN SSSR imeni N.D.Zelinskogo.

NIKOLAY, N. .

Determining the physical amount of absorbent and determining the amount of hydrate-formation inhibitor in units for the low-temperature separation of natural gas. Gaz. delo no. 11/21 1983.

1. *Isobutany* and other related materials. Institut prirodnih nauk.

MIKHAYLOV, N.P.

Calculating the temperature conditions of units for the low-  
temperature separation of natural gas using inhibitors of  
hydrate formation. Gaz. delo no.12:8-11 '64. (MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut prirodnogo gaza.

1957, 11.

1957, N.P. "The zonal division of the upper part of Cretaceous sediments in the  
sea and the southern Ukraine according to its cephalopoda", Byulleten' na K. Sova  
tatskiy prirodniy, Otd. geol., 1957, Issue 6, p. 3-10, - Bibliog: 16 items.

1957, 11 March 13, (Letopis' na K. State, No. 1, 1957)

MIKHAYLOV, N. P.

Cand Geolog-Mineralog Sci

Dissertation: "Upper Cretaceous Ammonites in the South of the European USSR and their Significance in Zonal Stratigraphy

6 May 49

Inst of Geological Sciences, Acad Sci USSR

80 Vecheryaya Moskva  
Sum 71



*MIKHAYLOV, N.P.*

Geology - Kazakhstan

1/1 Pub. 46 - 8/21

Author : Mikhaylov, N. P.

Title : ~~.....~~  
The Chu-Balkhash ultra-basic-rock belt

Journal : Izv. AN SSSR. Ser. geol. 1, 93-104, Jan-Feb 1955

Abstract : In the article the author sums up the results of his study of the petrology of the ultra-basic and basic rocks in Bet-Pak-Dala and the southwestern part of the Balkhash region, which represents one of the largest ophiolite formations of eastern Kazakhstan. On the basis of a brief characterization of the structural position of the ultra-basic rocks, the conditions of their stratification, and the peculiarities of the quantitative and spatial distribution of the different representatives of the gabbro-peridot magmas the author draws conclusions about the processes of the formation of the whole magmatic complex. Ten USSR references (1936-1953). Illustrations; maps; table.

Classification : .....

Date : April 26, 1954

MIKHAYLOV, N.P.

Ultrabasite belts of Eastern Kazakhstan. Dokl. AN SSSR 110  
no.6:1060-1063 0 '56. (MLRA 10:2)

1. Predstavleno akademikom A.G. Betekhtinym.  
(Kazakhstan--Ultrabasite)

MIKHAYLOV, H.P.

Petrochemical characteristics of ultrabasic and basic rocks of  
Bet-Pak-Dala and the southwestern Balkhash region. Izv. AN Kasakh.  
SSR. Ser. geol. no. 22:23-32 '56. (MLRA 9:8)  
(Bet-Pak-Dala--Rocks, Igneous)  
(Balkhash region--Rocks, Igneous)

*MIKHAYLOV, N. P*

5-5-6/6

AUTHOR: Mikhaylov, N.P.

TITLE: Zones of the Portlandian stage in the Region Near Moscow (Zony podmoskovnogo portlanda)

PERIODICAL: Byulleten' Moskovskogo Obshchestva Ispytateley Prirody, Otdel Geologicheskiiy, 1957, No 5, pp 143-159 (USSR)

ABSTRACT: On the basis of new ammonite specimens collected in the region near Moscow and the revision of old collections, the author classifies the deposits of the Lower Volga stage and correlates them with the columnar sections of Western Europe. A number of new species characteristic for various zones of the Lower Volga stage is described, in particular, representatives of some genera typical for the English Portlandian stage. In conclusion the author proposes a new stratigraphic classification of the upper part of the Jurassic system for the regions near Moscow and the Russian plateau. He advocates the expediency of singling out the Portlandian substage as a definite stratigraphic unit in the columnar sections of the Upper Jurassic system, giving this substage the size corresponding to its English counterpart. The Portlandian substage will then include three upper zones of the Lower Volga stage which should be divided into two rather

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Zones of the Portlandian Stage in the Region Near Moscow

5-5-6/6

than three substages as presently. The lower substage will remain in the present size. It will correspond to the Middle and Upper Kimmeridge according to classification of Arkell (Ref. 21).

The article contains 3 figures, 3 photos, 2 tables and 37 references, 17 of which are Russian, 11 are English and 6 in French.

AVAILABLE: Library of Congress

Card 2/2

**MIKHAYLOV, N.P.**

General characteristics of the distribution of ultrabasic and  
basic intrusions in eastern Kazakhstan [with summary in English].  
Sov.geol. 1 no.7:99-112 J1 '58. (MIRA 11:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut.  
(Kazakhstan--Rocks, Igneous)

MIKHAYLOV, N.P.; POLYAKOVA, Ye.D.

Incorrectly isolated type of diamond primary deposits. Sov. geol.  
2 no.6:134-135 Je '59. (MIRA 12:12)

1.Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut  
(VSEGEI).

(Diamonds)

TOMKEYEV, S.I.; MENNER, V.V.; MIKHAYLOV, N.P.

W.D Arkell (1904-1958); obituary. Izv. AN SSSR. Ser. geol.  
25 no.9:136-137 S '60. (MIRA 13:9)  
(Arkell, William Joscelyn, 1904-1958)



ABLULKABIROVA, M.A.; ALEKSANDROVA, M.I.; AFONICHEV, N.A.; BANDALETOV, S.M.; BASPALOV, V.F.; BOGDANOV, A.A.; BOPOVIKOV, L.I.; BORSUK, B.I.; BORUKAYEV, R.A.; BUVALKIN, A.F.; BYKOVA, M.S.; DVORTSOVA, K.I.; DEMBO, T.M.; ZHUKOV, M.A.; ZVONTSOV, V.S.; IVSHIN, N.K.; KOPYATKEVICH, R.A.; KOSTENKO, N.N.; KUMPAN, A.S.; KULDYUKOV, K.V.; LAVROV, V.V.; LYAPICHEV, G.F.; MAURKEVICH, M.V.; MIKHAYLOV, A.Ye.; MIKHAYLOV, N.P.; MYCHNIK, M.B.; NIDLENKO, Ye.N.; NIKITIN, I.F.; NIKIFOROVA, K.V.; NIKOLAYEV, N.I.; PUPYSHEV, N.A.; RASKATOV, G.I.; RENGARTEN, P.A.; SAVICHVA, A.Ye.; SALIN, B.A.; SEVRYUGIN, N.A.; SEMENOV, A.I.; CHEFNYAKHOVSKIY, A.G.; CHUYKOVA, V.G.; SHLYGIN, Ye.D.; SHUL'GA, V.M.; EL'GER, E.S.; YAGOVKIN, V.I.; NALIVKIN, D.V., akademik, red.; PERMINOV, S.V., red.; MAKUSHIN, V.A., tekhn.red.

[Geological structure of central and southern Kazakhstan]  
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M. Hosh

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