KARATAYEV, G.I.

Some facts from functional analysis and the theory of linear approximations. Trudy Inst. geol. i geofiz. Sib. otd. AN SSSR no.21:7-21 '63. (MIRA 17:11)

ACCESSION NR: AT4044074 S/2994/63/000/021/0022/0075

AUTHOR: Karatayev, G. I., Serbulenko, M. G., Gusev, Yu. M., Kolmogorova, P. P., Luk'yanova, N. N., Puchkov, Ye. P., Sary*cheva, Yu. K.

TITLE: Solving some of the problems of geophysical prospecting on electronic computers

SOURCE: AN SSSR. Sibirskoye otdeleniye. Institut geologii i geofiziki. Trudy*, no. 21, 1963, Geofizicheskiy sbornik. no. 4: Primeneniye elektronny*kh tsifrovy*kh mashin pri reshenii nekotory*kh zadach geofiziki (Geophysical papers, no. 4: Using electronic computers in solving some geophysical problems), 22-75

TOPIC TAGS: geophysical prospecting, computer programming, gravity, magnetic field, magnetic prospecting

ABSTRACT: When computers are used, more realistic assumptions may be made to replace the idealized formulations which give inadequate interpretations of geophysical anomalies. In the present paper, a classification is given of the main problems of geophysical interpretation. Examples of computer application to geophysical problems include: 1. transformation of the observed anomalous field into the upper half-space; 2. calculation of the field in the lower half-space; 3. computing of vertical and horizontal

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ACCESSION NR: AT4044074

derivatives of various orders from observed anomalies; 4. distinguishing components which reflect geological structure in the study of crystal structure; and 5. constructing contact surfaces and determining the elements of perturbing masses. The authors then deal with calculation of the improper integrals encountered in geophysical interpretation and estimate the errors resulting, using model fields for specific cases. Recommended formulas are given for two and three-dimensional problems. Integral representation of anomalous potential fields is then treated, and formulas are derived and tabulated for computing the coefficients of the cubature formula and the quadratic sum. Detailed instructions are given for construction of tangential gravitating planes, correction for the effects of local relief, and the preparation of structural and topographic maps for computer processing. The following computer programs are listed: 1. evaluating anomalous fields in the lower and upper half-space; 2. computing vertical gradients of various orders; 3. calculating horizontal derivatives of any other; 4. calculating functions orthogonal to observed functions and values of regional anomalies; 6. filtering errors in observations; 7. solution of the direct problem of gravitational prospecting for the case of one or several tangential gravitating surfaces; 8. obtaining constants of contact

Card 2/4

ACCESSION NR: AT4044074

surfaces; 9. determining lodes and the physical nature of perturbations; 11. averaging anomalous fields; 12. evaluating errors in relief. Brief descriptions are given of programs for solving the quadrature and cubature formulas, a subroutine for formulating true addresses on the grid, and a program for calculating the correlation functions for several paths traced out in a field. The theoretical predictions were confirmed. Most of the computer time was spent on reading in and punching out data. This work makes it possible to solve complex problems relating to the correlation of morphologies of geophysical fields of different origin. "Acknowledgements are given to E. E. Fotiadi, corresponding member of the SSSR Academy of Sciences, and to Prof. A. I. Zaborovskiy, R. F. Volodarskiy and T. I. Landa of MGU (Moscow State University), as well as to the Vy*chislitel'ny*y tsentr SO AN SSSR(Computer Center, Siberian Division, SSSR Academy of Sciences). Orig. art. has: 3 tables, 7 figures and 145 formulas.

ASSOCIATION: Institut geologii i geofiziki, Sibirskoye otdeleniye, Akademiya Nauk SSSR (Institute of Geology and Geophysics, Siberian Division, SSSR Academy of Sciences)

Card 3/4

KARATAYE" G.I.

Correlation scheme of the linear forecasting structure of the composition of the earth's crust according to gravity and magnetic anomalies. Geol. i geofiz. no.10:33-50 '64.

(MIRA 18:4)

1. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk.

ACCESSION NR: AP4016494 S/0210/63/000/012/0137/0140

AUTHOR: Karatayev, G. I.

TITLE: Correlation of linear prediction of deep structures in the earth's crust by gravity and magnetic anomalies

SOURCE: Geologiya i geofizika, no. 12, 1963, 137-140

TOPIC TAGS: gravity anomaly, magnetic anomaly, earth structure, crustal structure, earth crust, linear operator, linear prediction, standard space, actual space

ABSTRACT: The earth's crust is divided into several segments according to amount of mafic and ultramafic magmatism, degree of metamorphism, ratios of thicknesses of different layers, and geologic and tectonic history. These segments tend to have their own particular type of gravity and magnetic field, but it is necessary to know the details of these fields in order to use gravity and magnetic data for reliable interpretation. The present paper furnishes a mathematical method as a unique approach to the practical solution of this problem. The author has sought to use correlation theory of random functions to construct a mathematical model of the actual geological-geophysical patterns in such a way that gravity and magnetic

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ACCESSION NR: AP4016494

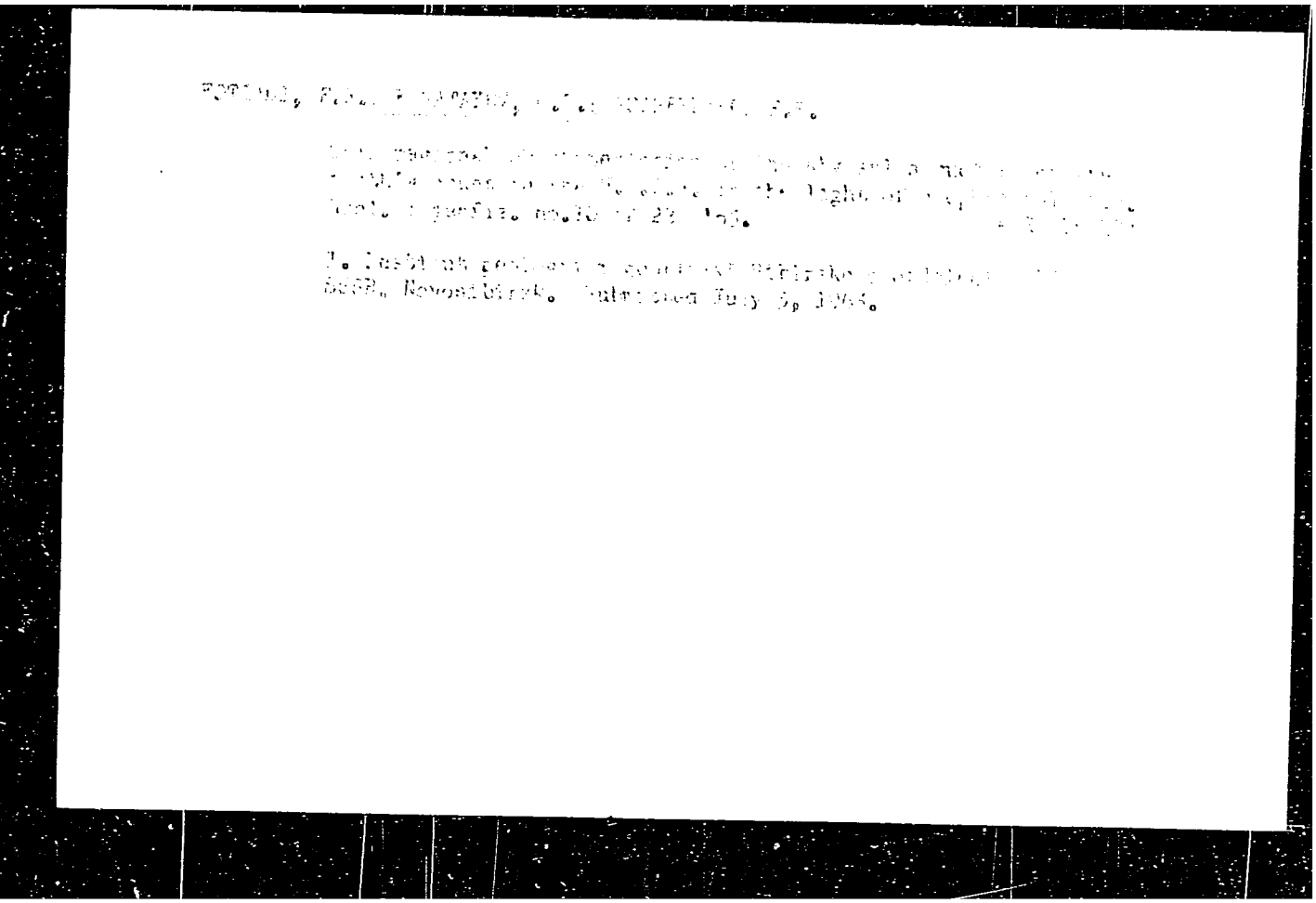
anomalies may be used to identify deep structures of the crust. Two assumptions have been made: 1) crustal zones having like geologic development are characterized by anomalous fields alike in morphology and intensity; zones differing in geologic structure are characterized by fields differing in morphology and intensity; and 2) the morphology and intensity of an anomaly change in conformity with changes in the zone, kind of rock, thickness of rock, shape of rock mass, and similar factors. This solution has permitted unique solutions to many reciprocal problems of potential theory. It involves derivation of an expression for standard space and then the development of a proper operator to obtain an expression for actual space, considering the physical factors in the crust that may modify this space. "The author thanks Yu. A. Voronin, M. G. Serbulenko, Professors M. M. Lavrent'yev and A. A. Lyapunov, and E. E. Fotiadi, corresponding member of AN SSSR, for valuable suggestions." Orig. art. has: 2 formulas.

ASSOCIATION: Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR, Novosibirsk (Institute of Geology and Geophysics, Siberian Department AN SSSR)

SUBMITTED: 17Jul63 DATE ACQ: 18Mar64 ENCL: 00

SUB CODE: AS NO REF SOV: 007 OTHER: 000

Card 2/2



L 20466-66 EWT(1) GW
ACC NR: AP6012051 SOURCE CODE: UR/0210/65/000/010/0012/0022

AUTHOR: Fotiadi, E. E.; Karatayev, G. I.; Moiseyenko, F. S. 29 B

ORG: Institute of Geology and Geophysics, Siberian Department, AN SSSR, Novosibirsk (Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR)

TITLE: Some regional characteristics of the deep structure of the Earth's crust in the USSR in the light of geophysical data

SOURCE: Geologiya i geofizika, no. 10, 1965, 12-22

TOPIC TAGS: earth crust, tectonics, geophysics, physical geology, petrology

ABSTRACT: This paper presents and discusses the results of comparison of large-scale features of stratification of the earth's crust in the USSR obtained by interpretation of a wide array of regional geophysical data with the elements of pre-Neogene and post-Neogene tectonic structure. It was found that the thickness of the crust as a whole and the thickness of the basalt layer are related closely to the Neogene-Quaternary structure and the thickness of the granite layer also reveals a relationship to the pre-Cenozoic structure and the history of its development. A study of density inhomogeneity of the upper mantle is presented, clearly showing the appearance of isostasy over large areas. It is asserted that basification processes play an important role in development of the earth's crust. The large fold-out maps are outstanding

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L 20466-66

ACC NR: AP6012051

and unique: the first map shows the relief of the Mohorovicic discontinuity in comparison with the neotectonics of the USSR; Fig. 2 is a map of the thickness of the basalt layer; Fig. 3 is a map of the thickness of the granite layer in comparison with the elements of tectonics; Fig. 4 is a map of the relation of thicknesses between the granite and basalt layers; Fig. 5 is a map of all inhomogeneities of the upper mantle. All maps are analyzed in detail. Orig. art. has: 5 figures. [JPRS]

SUB CODE: 08 / SUBM DATE: 05Jul65 / ORIG REF: 043 / OTH REF: 003

Card 2/2 Lgc

ACC NR: AP6036358

exists, on which the anomalous fields are determined as well as the geological element sought in the concrete region. The correlation scheme was tested by means of several examples involving both quantitative interpretation (construction of deep-lying seismic boundaries such as the surfaces of the granite and basalt layers and of the Mohorovicic boundary, study of local foundation foldings, and calculation of isostatic anomalies) and qualitative interpretation (determination of the real composition of disturbing masses of gradation, distinction between ore-containing and oreless magnetic anomalies) of some effects observed in SSSR territory. Orig. art. has: 7 formulas.

SUB CODE: 08, 12/ SUBM DATE: 04Aug65/ ORIG REF: 011

Card 2/2

ACC NR: AP7001910 SOURCE CODE: UR/0387/66/000/012/0028/0036

AUTHORS: Karatayev, G. I.; Chernyy, A. V.; Gusev, Yu. M.

ORG: Institute of Geology and Geophysics, Siberian Division, Academy of Sciences, SSSR (Akademiya nauk SSSR, Sibirskoye otdeleniye, Institut geologii i geofiziki)

TITLE: Constructing linear operators in a correlation scheme for geologic interpretation of gravity and magnetic anomalies

SOURCE: AN SSSR. Izvestiya. Fizika Zemli, no. 12, 1966, 28-36

TOPIC TAGS: magnetic anomaly, earth gravity, data correlation, linear operator, random process, statistic distribution, approximation, mathematic matrix, vector

ABSTRACT: Problems of the joint correlation and regression analysis of geologic and geophysical data are examined. The main idea of a correlation model for geologic interpretation of gravity and magnetic anomalies was presented in an earlier work by G. I. Karatayev, Yu. M. Gusev, and A. V. Chernyy (Korrelyatsionnaya skhema postroyeniya geologicheskikh elementov po gravitatsionnym i magnitnym anomaliyam. Izv. AN SSSR, Fizika Zemli, No. 11, 1966). It is necessary to construct a geologic element $\lambda_0$ with an error not exceeding $\varepsilon_0$ in some specific region $R^k$ according to the gravity and magnetic anomalies $\lambda$. The values of the geologic element $\lambda_0$ and the values of the gravity and magnetic anomalies are considered to be specific cases of



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ACC NR: AP7001910

certain random values:

$$\begin{cases} \lambda_0^c = \{\lambda_{01}, \lambda_{02}, \ldots, \lambda_{0n}\}, \\ \lambda_1^c = \{\lambda_{11}, \lambda_{12}, \ldots, \lambda_{1n}\}, \\ \lambda_2^c = \{\lambda_{21}, \lambda_{22}, \ldots, \lambda_{2n}\}, \\ \ldots \\ \lambda_m^c = \{\lambda_{m1}, \lambda_{m2}, \ldots, \lambda_{mn}\}. \end{cases}$$

The joint multidimensional discrete distribution of these random values:

$$P(\lambda_0^c, \lambda_1^c, \lambda_2^c, \ldots, \lambda_m^c) = p_{vl}, \quad \sum_{v,l} p_{vl} = 1.$$

The conditional distribution of the randcm value $\lambda_0^{c_i}$

$$P(\lambda_0^c | \lambda_1^c, \lambda_2^c, \ldots, \lambda_m^c) = \frac{P(\lambda_0^c, \lambda_1^c, \lambda_2^c, \ldots, \lambda_m^c)}{P(\lambda_1^c, \lambda_2^c, \ldots, \lambda_m^c)} = \frac{p_{vl}}{p_l},$$

where $p_l = \Sigma p_{vl} > 0$. A linear multivariate mean square regression is proposed for qualitative interpretation of the anomalies. The theory of automatic pattern recognition is used for the qualitative interpretation. Orig. art. has: 9 formulas.

SUB CODE: 08, 12/ SUBM DATE: 04Jul65/ ORIG REF: 015

Card 2/2

ACC NR: AP7001551 SOURCE CODE: UR/0020/66/171/003/0590/0592

AUTHOR: Fotiadi, E. E. (Corresponding member AN SSSR); Karatayev, G. I.; Shcheglov, V. L.

ORG: Institute of Geology and Geophysics, Siberian Department, Academy of Sciences SSSR (Institut geologii i geofiziki Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: On the theory of temporal perturbations of gravitational and magnetic fields in relation to recent tectonic and physical processes in the earth

SOURCE: AN SSSR. Doklady, v. 171, no. 3, 1966, 590-592

TOPIC TAGS: gravity perturbation, ~~magnetic perturbation~~, earth ~~structure~~, gravimetric analysis, magnetic anomaly, gravitation field, magnetic field, geophysical station, geophysical ~~polygon/Siberian~~ research facility, tectonics

ABSTRACT: Although the geophysical station network in Siberia includes several stations at which periodic (every 2—3 yrs) observations are made of geophysical fields, leveling, triangulation, etc., and other station at which continuous measurements are made of the time-wise variations in the earth's gravity and magnetic fields and tilts of the earth's surface, no provision has been made for simultaneous measurements of both gravitation and magnetic fields. The authors report on some theoretical investigations of the connection between the temporal variations of the gravitational and magnetic fields and the time-dependent variation of the shape, density, and magnetization of various perturbing bodies. The analysis includes both the direct problem (determination of an analytic expression for the potential as a

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ACC NR: AP7001551

function of coordinates and time for a given density of magnetization and for a given configuration of the anomaly) and the inverse problem (determined from specified variations of the potential the temporal field of the density or magnetization and the configuration of the anomaly). Solutions of the direct problem are presented for the case of a circularly-distributed force applied to the plane boundary of an elastic half-space, and for a certain anomalous mass along a vertical hollow cylinder. Possible future applications of the analysis and some still unresolved problems are briefly outlined. Orig. art. has: 11 formulas.

[02]

SUB CODE: 08/ SUBM DATE: 23Aug66/ ATD PRESS: 5117

Card 2/2

KARATAYEV, G.S., inzh.; BELYAYEV, B.Ye., inzh.

Road construction work has been carried out in winter. Avt.dor. 26 no.10:5-6 O '63. (MIRA 16:11)

KARATAYEV, G.S.; SOKHRANSKIY, S.T.

In the fight for early fulfillment of the production plan. Avt.dor. 21 no.11:10-12 N'58. (MIRA 11:12)

1. Nachal'nik Upravleniya No.17. (Road construction)

KARATAYEV, G.S.

Kikerino rubble plant is an outstanding enterprise of the Northwestern Road Construction Trust. Avt.dor. 27 no.1:5-6 Ja '64. (MIRA 17:4)

1. Upravlyayushchiy trestom "Sevzapdorstroy".

KAZATAYEV, I. A.

"On the Sensory Innervation of the Intestinal and Spinal Aorta of the Sturgeon." Cand Biol Sci, Moscow State Pedagogical Inst imeni V. I. Lenin, Moscow, 1954. (KL, No 5, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (13) SO: Sum. 500, 29 Jul 55

KARATAYEV, I.A.

Morphology of sensory nerve endings in the wall of the abdominal aorta in chondrosteans. Uch. zap. VGPI 27:295-302 '62. (MIRA 16:8)

(Fishes--Anatomy)
(Abdominal aorta--Innervation)

KALININ, V.I.; KARATAYEV, I.A.; LAPOCHKIN, I.A.

Secretion and enzymatic properties of the glandular stomach in poultry following exclusion of the left gastric artery and vagus nerves. Uch. zap. VGPI 27:289-294 '62. (MIRA 16:8)

(Digestive organs--Birds)
(Stomach--Innervation)
(Stomach--Blood supply)

KARATAYEV, I.A.

Afferent innervation of the dorsal aorta in chondrosteans.
Uch. zap. VGPI 27:303-325 '62. (MIRA 16:8)

(Fishes—Anatomy)
(Blood vessles—Innervation)

KALININ, V.I.; KARATAYEV, I.A.; LAPOCHKIN, I.A.

Effect of methylthiouracil on the organism of swine. Uch. zap. VGPI 27:362-363 '62. (MIRA 16:8)

(Uracil—Swine—Feeding and feeds)

KARAVAYEV, I.I., kand.tekhn.nauk

Cleaning of rolling stock parts and equipment in the United States. Zhel.dor.transp. 44 no.11:87-89 N '62. (MIRA 15:11)
(United States--Railroads--Rolling stock--Cleaning)

KARATAYEV, I.I.

Chemists of the Moscow region and their contribution to the national economy. Khim. prom. no.5:327-331 My '63.
(MIRA 16:8)

1. Sovet narodnogo khozyaystva Moskovskogo ekonomicheskogo rayona.

L 56192-65

ACCESSION NR: AP5017800 UR/0286/65/000/011/0031/0031
631.859.12:002.2

AUTHOR: Karatayev, I. I.; Mel'nik, B. D.; Repenkova, T. G.; Sviridova, A. G.; Doktorov, N. I.; Nazarov, G. N.; Raygorodskiy, I. M.; Vasil'yev, B. T.; Bystrov, M. V.; Babaryka, I. F.; Kuzyak, F. A.; Fel'dman, M. V.; Soverchenko, D. A.; Buslakova, L. P.; Torgptseva, N. P.; Lyubimov, S. V.; Ul'yanov, A. T.; Andres, V. V.; Sobchuk, Yu. I.; Tsetlina, M. M.; Andreyev, V. V.; Kramer, G. L.

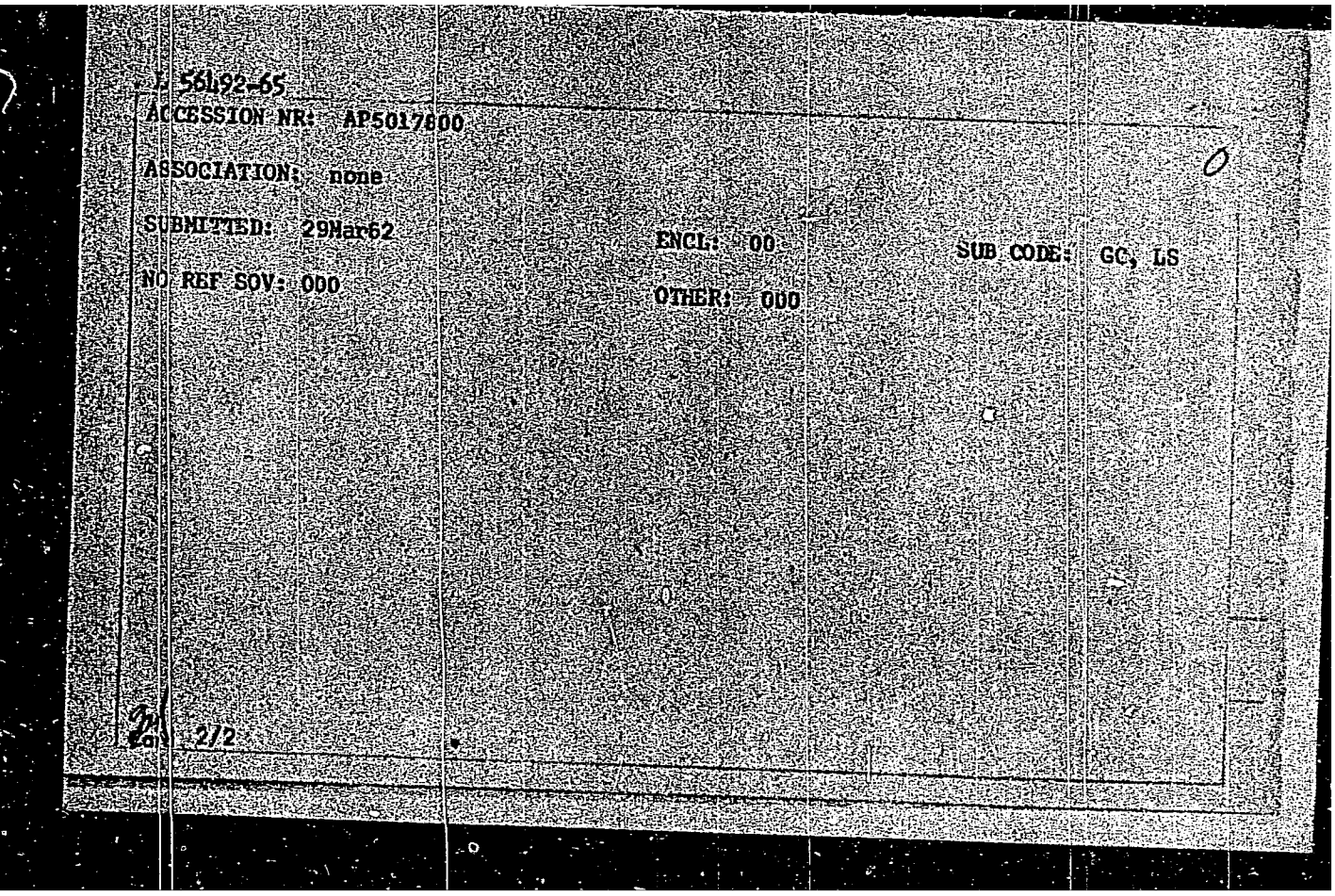
TITLE: A method for producing phosphoro-potassium fertilizers. Class 16, No. 171-409

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 11, 1965, 31

TOPIC TAGS: fertilizer, phosphate, potassium

ABSTRACT: This Author's Certificate introduces a method for producing phosphoro-potassium fertilizers using cement dust (waste from cement production) as the potassium raw material. The process of adding potassium to the product is simplified and evaporation is prevented by using a 20% excess of an acid which directly neutralizes the cement dust for breaking down the phosphate raw material.

Card 1/2



L 56492-65

ACCESSION NR: AP5017800

ASSOCIATION: none

SUBMITTED: 29Mar62 ENCL: 00 SUB CODE: GC, LS

NO REF SOV: 000 OTHER: 000

Card 2/2

KARATAYEV, N.

Economic thought and economic science. Vop.ekon. no.6:101-111 Je '60. (MIRA 13:6)

(Economics)

FIL'SHIN, Yu.I.; KARATAYEV, N.B.

Operation of tailing ponds at the Zyryanovsk Ore Dressing Plant. TSvet. met. 35 no.7:86-89 Jl '62. (MIRA 15:11)
(Zyryanovsk--Tailings (Metallurgy))

GLAZUNOVA, V.K.; GRUZDEVA, A.K.; KARATAYEV, N.B.

Possibility of using rapid flotation for Zyrianovsk sulfide ores. TSvet. met. 34 no.1:7-12 Ja '61. (MIRA 17:3)

KARATAYEV, N. K.

PA 66T4

USSR/Academy of Sciences Jan 1948

"The Preparation of Young Soviet Scholars," N. K. Karatayev, 10 pp

"Vest Ak Nauk SSSR" No 1

Presents development of the education of scientific personnel by Acad Sci USSR from the period of socialistic reform through recent reorganization, and the new system of doctorate study.

66T4

KARATAYEV, Nicolay Konstantinovich

N/5
805.3
.K1

EKONOMICHESKIYE NAUKI V MOSKOVSKOM UNIVERSITETE (1755-1955) (SCIENCE OF ECONOMICS AT MOSCOW UNIVERSITY) MOSKVA, IZD-VO MOSKOVSKOGO UNIVERSITETA, 1956. 343 P. BIBLIOGRAPHICAL FOOTNOTES.

KARATAYEV, Nikolay Konstantinovich; STEPANOV, Ivan Georgiyevich; ZHUK, I., red.; ULANOVA, L., tekhn.red.

[History of economic theories of Western Europe and Russia before the rise of Marxism; lecture course] Istoriia ekonomicheskikh uchenii Zapadnoi Evropy i Rossii (do vozniknoveniia marksizma); kurs lektsii. Moskva, Izd-vo sotsial'no-ekon.lit-ry, 1959. 438 p. (MIRA 12:12)

(Economics)

KARATAYEV, N.K., doktor ekon.nauk; POLYANSKIY, F.Ya., doktor istor.nauk; TSAGOLOV, N.A., doktor ekon.nauk; VLASOV, N.A., kand.ekon.nauk [deceased]; KORNIYENKO, A.A., kand.ekon.nauk; MOROZOV, F.M., kand.ekon.nauk; PLITSYNA, K.T., kand.ekon.nauk; PODOROV, G.M., kand.ekon.nauk; CHUBUK, I.F., kand.ekon.nauk; PASHKOV, A.I., red.; ZHUK, I., red.; MOSKVINA, R., tekhn.red.

[History of Russian economic thought] Istoriia russkoi ekonomicheskoi mysli. Pod red. A.I.Pashkova i N.A.TSagolova. Moskva, Izd-vo sotsial'no-ekon.lit-ry. Vol.2. [Epoch of premonopolistic capitalism] Epokha domonopolisticheskogo kapitalizma. Pt.1. 1959. 526 p. (MIRA 13:5)

1. Akademiya nauk SSSR. Institut ekonomiki.
(Economics)

KARATAYEV, N.K., prof.; POLYANSKIY, F.Ya., prof.; REUEL', A.L., prof.; AFANAS'YEV, V.S., dotsent; BOBKOVA, K.I., dotsent; ZAMYATNINA, V.N., dotsent; RYNDINA, M.N., dotsent; BAKOVETSKIY, O., red.; CHEPKLEVA, O., tekhn.red.

[Curriculum for the course "History of economic theory"; for economic institutions of higher learning and faculties] Programma kursa "Istoriia ekonomicheskikh uchenii" dlia ekonomicheskikh vysshikh uchebnykh zavedenii i fakul'tetov. Moskva, Izd-vo sotsial'no-ekon.lit-ry, 1960. 48 p.

(MIRA 14:1)

1. Russia (1923- U.S.S.R.) Upravleniye prepodavaniya obshchestvennykh nauk. 2. Komissiye Upravleniya prepodavaniya obshchestvennykh nauk Ministerstva vysshego i srednego spetsial'nogo obrazovaniya SSSR (for all, except Bakovetskiy, Chigina).

(Economics--Study and teaching)

KARATAYEV, N.K.; MOROZOV, F.M., otv.red.; ZHUK, I.N., red.izd-va; RYLINA, Yu.V., tekhn.red.

[Studies on the history of economics in 18th-century Russia] Ocherki po istorii ekonomicheskikh nauk v Rossii XVIII veka. Moskva, Izd-vo Akad.nauk SSSR, 1960. 290 p.
(Economics) (MIRA 13:12)

PASHKOV, A.I.; KARATAYEV, N.K., doktor ekon.nauk; POLYANSKIY, F.Ya., doktor istor.nauk; TSAGOLOV, N.A., doktor ekonom.nauk; BEZMAN, R.R., kand.ekonom.nauk; PRIKAZCHIKOVA, Ye.V., kand.ekonom.nauk; SHUKHOV, N.S. Prinimali uchastiye: KOSHELEVA, Ye.F., mladshiy nauchnyy sotrudnik; KHUTORNA, V.F., mladshiy nauchnyy sotrudnik; CHIZHOVA, L.G., mladshiy nauchnyy sotrudnik; VILENSKAYA, V.S., starshiy nauchno-tekhnicheskiy sotrudnik; ZHUK, I., red.; MOSKVINA, R., tekhn.red.

[History of Russian economic thought] Istoriia russkoi ekonomicheskoi mysli. Pod red. A.I.Pashkova i N.A.TSagolova. Moskva, Izd-vo sotsial'no-ekon.lit-ry. Vol.2. [Epoch of premonopolistic capitalism] Epokha domonopolisticheskogo kapitalizma. Pt.2. 1960. 676 p. (MIRA 13:11)

1. Akademiya nauk SSSR. Institut ekonomiki. 2. Chlen-korrespondent AN SSSR (for Pashkov). 3. Institut ekonomiki AN SSSR (for Kosheleva, Khutorna, Chizhova).

(Economics)

KARATAYEV, Nikolay Konstantinovich; RYNDINA, M.

[History of economic ideas (from the rise of Marxism to the Great October Revolution); a course of lectures] Istoriia ekonomicheskikh uchenii (ot vozniknoveniia marksizma do Velikoi Oktiabr'skoi revoliutsii); kurs lektsii. Moskva, Izd-vo sots.-ekon.lit-ry, 1961. 742 p. (MIRA 14:11)
(Economics)

AL'TER, L.B., doktor ekon. nauk; BLYUMIN, I.G., doktor ekon. nauk [deceased]; KARATAYEV, N.K., prof.; REUEL', A.L., doktor ekon. nauk; STEPANOV, I.G., doktor ekon. nauk; SHTEYN, V.M., doktor ekon. nauk; POLYANSKIY, F.Ya., doktorist. nauk; BOBKOV, K.I., kand. ekon. nauk; VASILEVSKIY, Ye.G., kand. ekon. nauk; MOROZOV, F.M., kand. ekon. nauk; PONOMAREV, Ye.I., kand. ekon. nauk; RYNDINA, M.N., kand. ekon. nauk; FIRSOVA, S.M., kand. ekon. nauk; TSAGA, V.F., kand. ekon. nauk; ZHUK, I., red.; VOSKRESENSKAYA, T., red.; NEZNANOV, V., red.; ULANOVA, L., tekhn. red.

[History of economic theories] Istoriia ekonomicheskikh uchenii. Moskva, Sotsekgiz, 1963. 549 p. (MIRA 17:2)

1. Akademiya nauk SSSR. Institut ekonomiki.

KARATAYEV, Nikolay Mikhaylovich

[Nikolai Mikhailovich Przheval'skii, first explorer of Central Asia] Nikolai Mikhailovich Przheval'skii, pervyi issledovatel' prirody TSentral'noi Azii. Moskva, Izd-vo Akad.nauk SSSR, 1948. 267 p. (MIRA 13:11)
(Przheval'skii, Nikolai Mikhailovich, 1839-1888)

KARATAEV, NIKOLAI MIKHAILOVICH

KARATAEV, NIKOLAI MIKHAILOVICH. Nikolai Mikhailovich Przheval'skii, pervyi issledovatel' prirody TSentral'-noi Azii. Moskva, ANN SSSR, 1948. 281 p. "Bibliograficheskaia zametka": p. [274]-281. DLC: DS785.P93K3 CU CtY ICU LH MdBJ NNC WaU

SO: LC, Soviet Geography, Part I, 1951, Uncl.

KARATAYEV, N. N.

AID P - 4310

Subject : USSR/Engineering

Card 1/1 Pub. 128 - 10/26

Authors : Krasnikov, V. K. and N. N. Karatayev

Title : Semiautomatic machine for rotor winding

Periodical : Vest. mash., #3, p. 35, Mr 1956

Abstract : A semiautomatic machine for single chord rotor winding with changeable saddle is described. Diagrams, photo.

Institution : None

Submitted : No date

KARATAYEV, P.

Miscalculations in planning. Fin. SSSR 37 no.8:72-74 Ag '63.
(MIRA 16:9)

1. Zaveduyushchiy Molodechnenskim gorodskim finansovym otdelom.
(Molodechno—Auditing and inspection)

KARATAYEV, P.

In pursuit of "gross output." Prom.koop. no.10:12 O '56. (MLRA 9:11)

1. Zaveduyushchiy gorodskim finansovym otdelom.
(Molodechno--Cooperative societies)

1. KARATAYEV, S. F.

2. USSR (600)

4. Stalingrad Province-Afforestation

7. Great transformation.
Les i step' 4 No. 12, 1952

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

KARATAYEV, Sh.

19

PHASE I BOOK EXPLOITATION 80V/5575

Akademiya nauk SSSR. Astronomicheskiy sovet.

Byulleten' stantsiy opticheskogo nablyudeniya iskusstvennykh sputnikov Zemli, no. 6. (Bulletin of the Stations for Optical Observation of Artificial Earth Satellites, No. 6) Moscow, 1959. 23 p. 500 copies printed.

Sponsoring Agency: Astronomicheskiy sovet Akademii nauk SSSR.

Resp. Ed.: Ye. Z. Gindin; Secretary: O. A. Severnaya.

PURPOSE : This bulletin is intended for scientists and engineers concerned with optical tracking of artificial satellites.

COVERAGE : The bulletin contains 9 articles which present the results of satellite observations, and describe methods and specific equipment used for photographic observation of earth satellites. An appendix contains a listing of 84 Soviet satellite observation stations with station number. No personalities

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Bulletin of the Stations (Cont.) SOV/5575

are mentioned. There are no references.

TABLE OF CONTENTS:

Panova, G. V., T. Ye. Syshchenko, B. A. Firago, and D. Ye. Shchegolev [Glavnaya (Pulkovskaya) Astronomicheskaya observatoriya AN SSSR - Main (Pulkovo) Astronomic Observatory of the Academy of Sciences of the USSR]. Observations of the Second Artificial Earth Satellite (1957 β) at Station No. 039 (Pulkovo) (Observations: B. A. Firago, D. D. Polochentsev, G. V. Panova, N. M. Bronnikova. Measurements and Calculations: T. Ye. Syshchenko, G. V. Panova, D. Ye. Shchegolev, B. A. Firago, and G. F. Miseleva) 1

Lengauer, G. G. [ Main (Pulkovo) Astronomic Observatory of the Academy of Sciences of the USSR]. On Methods for Precise Photographic Determinations of the Positions of Artificial Earth Satellites 6

Card 2/6

Klimenko, I. Ye., and B. D. Fomenko [Stalingradskaya stantsiya nablyudeniya ISZ - Stalingrad Satellite Tracking Station] On Some Problems in the Method of Satellite Observation 8

Khusainov, S. Kh., and Sh. Karatayev [Stantsiya nablyudeniya ISZ pri Kayl - Ordinskom gos. pedinstitute - Satellite Tracking Station at the Kayl - Orda State Pedagogical Institute]. Table of the Conversion of Horizontal Coordinates Into Equatorial Coordinates 10

Synasto, Ya., and U. Veysmann [Institut fiziki i astronomii AN ESSR - Stantsiya nablyudeniya sputnikov pri Tartuskom gosdarstvennom universitete - Institute of Physics and Astronomy of the Academy of Sciences of the Estonian Soviet Socialist Republic. Satellite Tracking Station at Tartu State University]. Preliminary Results of Using Automatic Recording in Theodolite Satellite Observations 11

Zatsiorskiy, L. M. [Main (Pulkovo) Astronomic Observatory]. Modifi-

KHUSAINOV, S.Kh.; KARATAYEV, Sh.

Table for converting horizontal coordinates to equatorial.
Biul.sta.opt.nabl.isk.sput.Zem. no.6:10-11 '59.
(MIRA 13:6)

1. Stantsiya nablyudeniya iskusstvennogo sputnika Zemli pri Kzyl-Ordinskom gosudarstvennom pedinstitute.
(Astronomy, Spherical and practical)

KARATAYEV, V.I.

IONOV, N.I.; KARATAYEV, V.I.

Mass analyzer for the rapid determination of isotopic components of alkaline and alkali earth metals. Zav. lab. 23 no.5:621-624 '57. (MLRA 10:8)

1. Leningradskiy fiziko-tekhnicheskiy institut Akademii nauk SSSR.
(Mass spectrometry) (Isotopes)

KARATAYEV, V.I.

Quick-acting vacuum lock of a mass spectrometer. Prib. i tekh.eksp. 6 no.4:162-163 Jl-Ag '61. (MIRA 14:9)

1. Fiziko-tekhnicheskiy institut AN SSSR.
(Mass spectrometry--Equipment and supplies)

39163
S/120/62/000/003/029/048
E032/E114

5.5310

AUTHORS: Ionov, N.I., and Karatayev, V.I.

TITLE: A double magnetic mass spectrometer for the analysis of small impurities

PERIODICAL: Pribory i tekhnika eksperimenta, no.3, 1962, 119-122

TEXT: One of the most important aims of analytical mass spectrometry is the development of methods for the quantitative analysis of very pure materials, capable of determining the presence of small impurities ($10^{-4}$-$10^{-8}$%). This means that the appropriate mass spectrometer must be able to handle mass lines differing in intensity by a factor of $10^{6}$-$10^{10}$. The present authors describe a two-stage mass spectrometer which is capable of achieving this. It uses a uniform magnetic field and the average ion trajectories take the form of semicircular arcs with radii $r_1$ (first stage) and $r_2$ (second stage), as shown in Fig.3. The spectrometer chamber is in the form of a brass cylinder 20 cm in diameter, 4 cm long. The chamber is divided into two parts by means of a partition with slits Ш1, Ш2, Ш3 and Ш6. Ions leaving the source through Ш1 pass through Ш2,

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reaching the collector $K_1$. Alternately they can pass through Ш3 and Ш4 into the second stage of the device and then through Ш5 and Ш6 on to the second collector $K_2$. The motion in the second stage takes place in the stainless steel container D which is insulated from the main chamber. A potential difference is applied between the two chambers so as to reduce the ion velocity between Ш3 and Ш4. Ion currents to $K_1$ and $K_2$ are measured by independent electrometers ЭМУ-3 (EMU-3). The residual gas pressure was of the order of $10^{-7}$ mm Hg. Fig.4 shows a spectrum obtained with the first stage only, and Fig.5 the same spectrum as recorded by $K_2$. It is noted that comparable results were obtained by F.A. White and T.L. Collins (Appl. Spectroscopy, 8, 1954, 169) with a very much more complicated apparatus. There are 5 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR
(Physicotechnical Institute, AS USSR)

SUBMITTED: October 30, 1961)

S/057/62/032/005/017/022
B104/B102

26.2312

AUTHORS: Ionov, N. I., and Karatayev, V. I.

TITLE: The distribution of initial velocities of thermoelectrons and of $K^+$ and $Cl^-$ ions produced by the surface ionization of KCl molecules on tungsten and tantalum

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 5, 1962, 626 - 631

TEXT: An experimental arrangement (Fig. 1) is described which enables determination of the distribution of the normal and tangential components of the initial velocities of thermoelectrons and positive and negative ions. The normal components of the initial velocities of $K^+$ ions and thermoelectrons produced by ionization on W and Ta have Maxwellian distribution up to relatively high $V_3$ potentials (-2.5 v). The distribution was measured at the temperature of the emitter. Deviations from Maxwellian distribution at low $V_3$ values are explained by the nonuniformity of the work functions of emitter and collector. The tangential components of the initial velocities of thermoelectrons and $K^+$ ions from a spot emitter

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possess Maxwellian distribution only when the contact field is neutralized by an external accelerating field. This is the experimental proof of the existence of a temperature equilibrium on surface ionization of KCl molecule on W and Ta and of the fact that the accomodation coefficient of the molecule equals one. The tangential components of the initial velocities of $Cl^-$ ions on the ionization of KCl on W have Maxwellian distribution. The volume ionization of KCl molecules by thermoelectrons is small. There are 5 figures.

ASSOCIATION: Fiziko-tekhnicheskiy institut im. A. F. Ioffe AN SSSR Leningrad (Physicotechnical Institute imeni A. F. Ioffe AS USSR, Leningrad)

SUBMITTED: July 3, 1961

Fig. 1. Diagram of the experimental arrangement.
Legend: (И) emitter; ($Э_1$) and ($Э_2$) accelerating electrodes; (П) KCl quartz vaporizer; (О) plate capacitor; (А) grid analyzer; (К) cathode; ($V_3$) potential between the middle grid of the analyzer and the emitter; (1) to the photomultiplier.

KARATAYEV, V.I.

Two-stage magnetic mass spectrometer for analyzing minor impurities. Vest. AN SSSR 33 no.10:65-66 O '63. (MIRA 16:11)

1. Fiziko-tekhnicheskiy institut im. A.F.Ioffe AN SSSR.

ACCESSION NR: AP4018379 S/0120/64/000/001/0138/0141

AUTHOR: Ionov, N. I.; Karatayev, V. I.

TITLE: Two-stage magnetic mass spectrometer

SOURCE: Pribory* i tekhnika eksperimenta, no. 1, 1964, 138-141

TOPIC TAGS: spectrometer, mass spectrometer, magnetic mass spectrometer, two stage magnetic mass spectrometer, mass spectrometry

ABSTRACT: A further development of these authors' two-stage mass spectrometer (PTE, 1962, no. 3, p. 119) is described. In this model, a change in the ion-path radius in the second stage is effected by means of a step change in the magnetic field intensity. Dispersion formulas are derived. A sample mass spectrum of isotopes ($K^{39}$, $K^{40}$, and $K^{41}$) of nautral potassium illustrates the feasibility of measuring two peaks differing by one mass unit and having an intensity ratio of $10^9/10^7$. These advantages over the previous model are

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ACCESSION NR: AP4018379

claimed: (1) The entire chamber volume is under the same potential; there is no necessity of an additional internal chamber insulated from the external; (2) Easier alignment procedure and sweep. Orig. art. has: 3 figures and 10 formulas.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR (Physico-Technical Institute, AN SSSR)

SUBMITTED: 02Mar63 DATE ACQ: 18Mar64 ENCL: 00

SUB CODE: PH NO REF SOV: 002 OTHER: 000

Card 2/2

L 45917-66 EWT(1) AT

ACC NR: AP6028620 SOURCE CODE: UR/0057/66/036/008/1459/1468

AUTHOR: Paleyev,V.I.; Karatayev,V.I.; Zandberg, E.Ya. 64

ORG: Physicotechnical Institute im. A.F.Ioffe, AN SSSR, Leningrad (Fiziko-tekhnicheskiy institut AN SSSR)

TITLE: On the applicability of the Saha-Langmuir formula to the description of the temperature dependence of the positive ion current incident to surface ionization of atoms on silicon

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 8, 1966, 1459-1468

TOPIC TAGS: surface ionization, silicon single crystal, work function, thermionic emission, contact potential, Richardson equation, ION CURRENT

ABSTRACT: The authors have previously investigated the surface ionization of Na, Li, and In on a (111) face of a silicon single crystal (ZhTF, 35, 2092, 1965) and obtained from their results, with the aid of the Saha-Langmuir formula, the value 4.9 V for the work function of the (111) face of silicon. This value of the work function is much greater than the value 4.0 V obtained from Richardson plots. Possible hypothesized reasons for this discrepancy are discussed briefly and most are found to be unconvincing. To clarify this situation, measurements of the work function by different techniques were undertaken. The measurements were made on the (111) face of a p-type silicon crystal with a resistivity of about 1000 ohm cm. Contact potential work

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ACC NR: AP6028620



functions were derived from retarding potential curves of the thermoelectron emission current and of the positive ion current from surface ionization of cesium by comparison with analogous curves obtained with tungsten and graphite emitters. The thermoelectron emission current was also measured, and work functions were derived both from Richardson plots and from the total emission current. The retarding potential curves showed that both the electrons and the positive ions had Maxwellian distributions with temperatures equal within the experimental error of 100° C to the temperature of the emitter. The contact potential work functions derived from the retarding potential curves were independent of temperature over the investigated range from 1100 to 1600°K and were equal, within the experimental error of about ± 0.1 V, to the value previously obtained with the aid of the Saha-Langmuir equation from the temperature dependence of the surface ionization. The total emission current work function was equal to the contact potential work function of 1600°K but had a temperature derivative of $6 \times 10^{-4}$ V/degree. The Richardson plot gave the previous low value for the work function (4.07 ± 0.05 V). From the agreement between the contact potential and surface ionization work functions it is concluded that the Saha-Langmuir equation correctly describes the temperature dependence of the surface ionization of Na, Li, and In on silicon. Possible reasons for the low value of the Richardson plot work function are briefly discussed, but none is selected as the most likely. The authors thank N.I.Ionov and H.D.Potekhin for discussions. Orig. art. has: 5 formulas, 6 figures and 1 table.

SUB CODE: 20 SUBM DATE: 03Jan66 ORIG. REF: 011 OTH REF: 008

Card 2/2 mjs

YAKOBSON, Andrey Genrikhovich, inzh.; KARATAYEV, Vasiliy Kuz'mich, inzh.; ZHELEZNYAKOV, Georgiy Vasil'yevich, prof., doktor tekhn.nauk; VOLKOV, Petr Petrovich, inzh.; GRISHIN, M.M., retsenzent; KRITSKIY, S.N., doktor tekhn.nauk, nauchnyy red.; PETROV, G.D., inzh., nauchnyy red.; SOKOL'SKIY, I.F., tekhn.red.

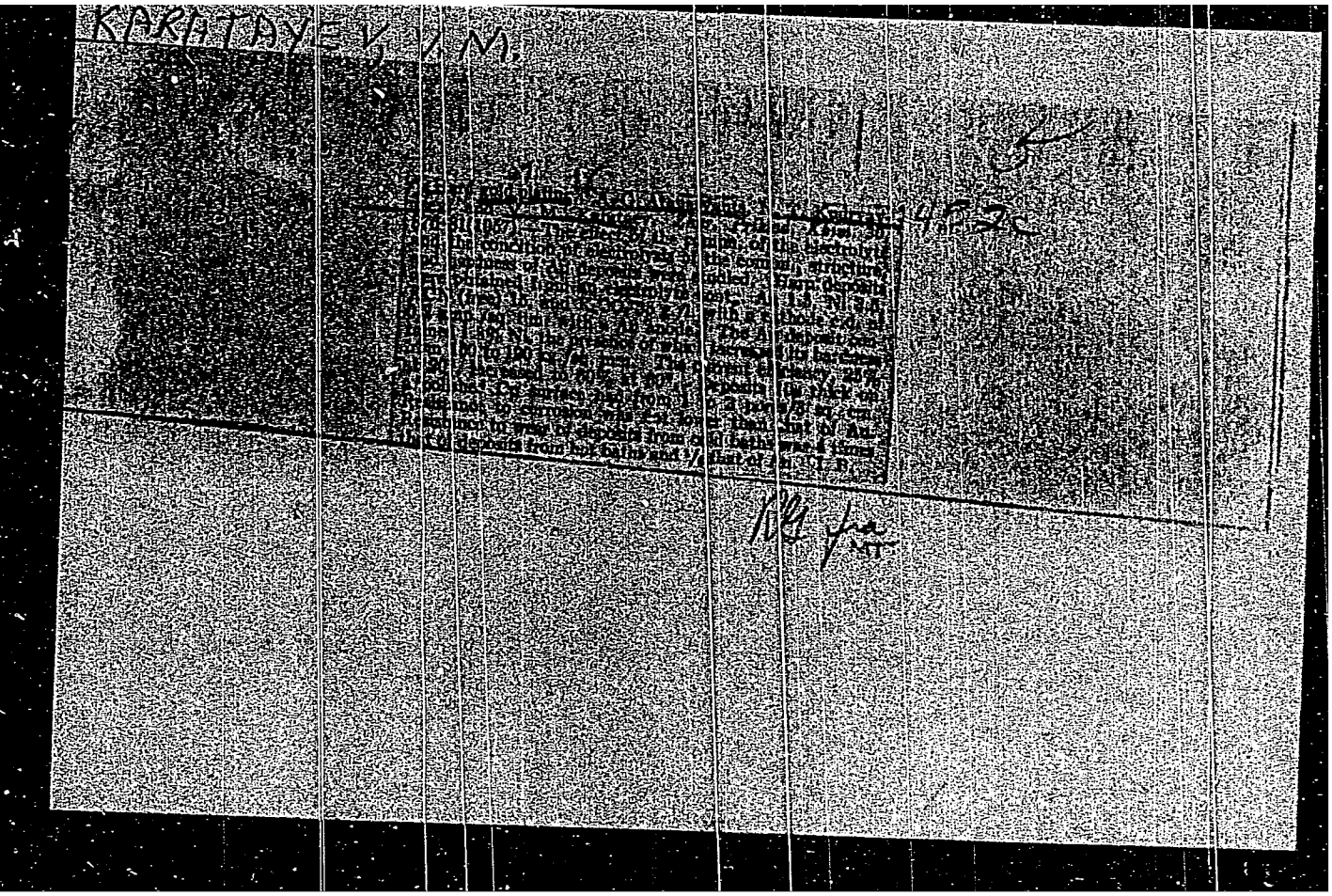
[Construction of cofferdams on the Volga River at the site of the Stalingrad Hydroelectric Power Station; designing and studying construction sites from the point of view of engineering geology] Perekrytie rusla Volgi v stvore Stalingradskoi GES; opyt proektirovaniia, inzhenerno-gidrologicheskikh issledovanii i nabliudenii. Moskva, 1959. 88 p. (MIRA 13:6)

1. Deystvitel'nyy chlen Akademii stroitel'stva i arkhitektury SSSR (for Grishin).
(Stalingrad Hydroelectric Power Station) (Cofferdams)

ATANASYANTS, A.G.; KARATAYEV, V.M.; KUDRYAVTSEV, N.T., doktor khimicheskikh nauk.

Electropolishing of magnetic soft-alloy tapes using alternating current. Vest. mash. 36 no.8:67-68 '56. (MLRA 9:10)

(Polishing, Electrolytic)



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5.4600 1273, 1241, 1164

S/129/60/000/011/010/016
E073/E535

AUTHORS: Smolenskaya, G. N., Engineer, Kudryavtsev, N.T., Doctor of Chemical Sciences Professor and Karatayev, V. M., Engineer

TITLE: Electroplating of Titanium

PERIODICAL: Metallovedeniye i termicheskaya obrabotka metallov, 1960, No.11, pp.42-43

TEXT: In check tests in which the surface preparation and the plating conditions recommended by H. Richmond (Electroplating and Metal Finish, No.10, 1956) were applied, it was found that the plating peeled off easily when scratched with a knife, filed at an angle of 45° and on heating to 150-250°C. Therefore, the authors selected different plating conditions. The titanium was first degreased and etched in a mixture of 185 ml/l of 48% HF and 8.6 ml/l of 70% $HNO_3$ for several minutes. Following that, anodic treatment was applied for a few seconds with an anode current density of 0.1-10 A/$dm^2$ and more in solutions of various compositions and concentrations. Then, plating with nickel, copper, zinc and other metals was applied. In testing the bond strength (filing at an angle of 45°) satisfactory results were obtained only on powdered Ti,

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Electroplating of Titanium

which was preliminarily sand-blasted. Various other methods were also tried. On the basis of these experiments the following technology is recommended:

1) Degreasing with gasoline, rubbing with wet Vienna lime, followed by rinsing in cold running water.
2) Pickling in a solution containing 185-200 g of HF (40%), 8-10 g of nitric acid and 1 litre of water at 18 to 25°C for 40-60 sec.
3) Rinsing in cold running water.
4) Rinsing for 2 to 3 min in ethylene glycol for the purpose of preventing dilution of the zinc electrolyte with water; this operation can be substituted by drying.
5) Chemical or electro-chemical zinc plating in a solution containing 200 g of HF, 100 g of metallic zinc and 800 ml of ethylene glycol.
6) Rinsing in cold water.
7) Nickel plating in an ordinary sulphuric acid bath at 18 to 25°C with an initial current density of 1-2 $A/dm^2$, which drops within 1 to 2 min to 0.5-1 $A/dm^2$. The duration of the nickel plating is 1 to 1.5 hours.
8) Rinsing in cold running water, following by drying with warm air

L 22557-65 EWG(j)/EWP(e)/EWT(m)/EPF(c)/EPR/EWP(j)/EWP(b) Pc-4/Pr-4/Ps-4
WW/RM/WH
ACCESSION NR: AP5002181 S/0080/64/037/012/2590/2596

AUTHOR: Karatayev, V. V.; Mel'nikova, L. V.; Reyfman, M. R. 8

TITLE: Increasing the gas-impermeability and chemical resistance of graphitic articles

SOURCE: Zhurnal prikladnoy khimii, v. 37, no. 12, 1964, 2590-2596

TOPIC TAGS: gas impermeability, chemical resistance, pyrocarbon deposition, graphiting

ABSTRACT: Coating objects with a layer of pyrocarbon obtained by thermal decomposition of hydrocarbons resulted in a deposit with very good gas impermeability--1.5 x $10^{-8}$ darcy units. Toluene was pyrolysed at 1000-1100C onto the articles in an argon system and the articles were cooled at less than 10 degrees per minute. Higher pyrolysis temperatures resulted in poor adhesion between the deposit and the substrate. Although up to 0.3 mm thick deposits were obtainable, even thin layers (100 micrometers) of the pyrocarbon were resistant to agressive melts such as silicon heated to 1700C. The Si reacted with the pyrocarbon layer, forming a SiC phase at the boundary at the rate of 3 x $10^{-3}$ gm/cm$^2$. hr. When these crystals attained a length of about 3 mm they separated from the

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L 22557-65
ACCESSION NR: AP5002188

crucible wall and crystallized in a cooler section. Orig. art. has: 4 figures and 1 table

ASSOCIATION: None

SUBMITTED: 03Dec62 ENCL: 00 SUB CODE: GC, IC

NR REF SOV: 004 OTHER: 007

Card 2/2

L 29796-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD
ACC NR: AP6015065 (N) SOURCE CODE: UR/0363/66/002/005/0833/0837

AUTHOR: Karatayev, V. V.; Mil'vidskiy, M. G.; Zakharova, N. Ya.

ORG: Giredmet

TITLE: Density and surface tension of fused gallium arsenide

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 5, 1966, 833-837

TOPIC TAGS: gallium arsenide, surface tension, arsenic, vapor pressure

ABSTRACT: The density of gallium arsenide at the melting point and at an equilibrium vapor pressure of arsenic was determined pycnometrically in a sealed quartz ampoule. The initial gallium arsenide had an n-type conductivity and a carrier concentration of $10^{16}$-$10^{17}$ $cm^{-3}$. The density was found to be $5.99 \pm 0.08$ $g/cm^3$. The volume change on melting was 11.3%. The surface tension, also measured in a sealed quartz ampoule at definite arsenic vapor pressures, determined by weighing falling drops, was found to be $442 \pm 16$ dynes/cm for a melt of stoichiometric composition. A relationship was established between the surface tension of fused gallium arsenide and the vapor pressure of arsenic in the ampoule. Tellurium and excess arsenic were

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UDC: 546.681'191-143

L 29796-66

ACC NR: AP6015065

shown to be surface-active impurities in gallium arsenide. Orig. art. has: 3 figures, 3 tables, and 3 formulas.

SUB CODE: 20,07/ SUBM DATE: 17Sep65/ ORIG REF: 007/ OTH REF: 007

Card 2/2

KARATAYEV, Ye. S., Candidate Agric Sci (diss) -- "The biological apsects of forcing fruit plants". Pushkin, 1959. 20 pp (Min Agric USSR, Leningrad Agric Inst) (KL, No 24, 1959, 145)

KARATAYEV, Yu.

Our people's university. NTO 7 no.3:40-41 Mr '65. (MIRA 18:5)

1. Uchenyy sekretar' Novosibirskogo narodnogo universiteta novykh dostizheniy nauki i tekhniki.

KARATAYEVA, G.K.

Changes in the urine in traumatism following the administration of the heterogenic BK-8 protein blood substitute. Trudy Kiev. nauch.-issl. inst. perel. krovi i neotlozh. khir. 3:114-116 '61.

(MIRA 17:10)

1. Kiyevskiy institut perelivaniya krovi.

KARATAYEVA, G.K. (Kiyev, ul. Yanvarskogo vosstaniya, d.3, kv.24)

Effect of heterogenous BK-8 protein blood substitute on the adhesion fractures. Nov.khir.arkh. no.11:86-87 '61. (MIRA 14:12)

1. Khirurgicheskoye otdeleniya (zav. - prof. V.I. Akimov) Kiyevskogo nauchno-issledovatel'skogo instituta perelivaniya krovi i neotlozhnoy khirurgii.
(FRACTURES) (BLOOD PLASMA SUBSTITUTES)

KRASIL'SHCHIKOV, A.I.; ANTONOVA, L.G.; BIRYUKOVA, Z.M.; KARATAYEVA, I.M.; FIL'CHENKOVA, T.G.

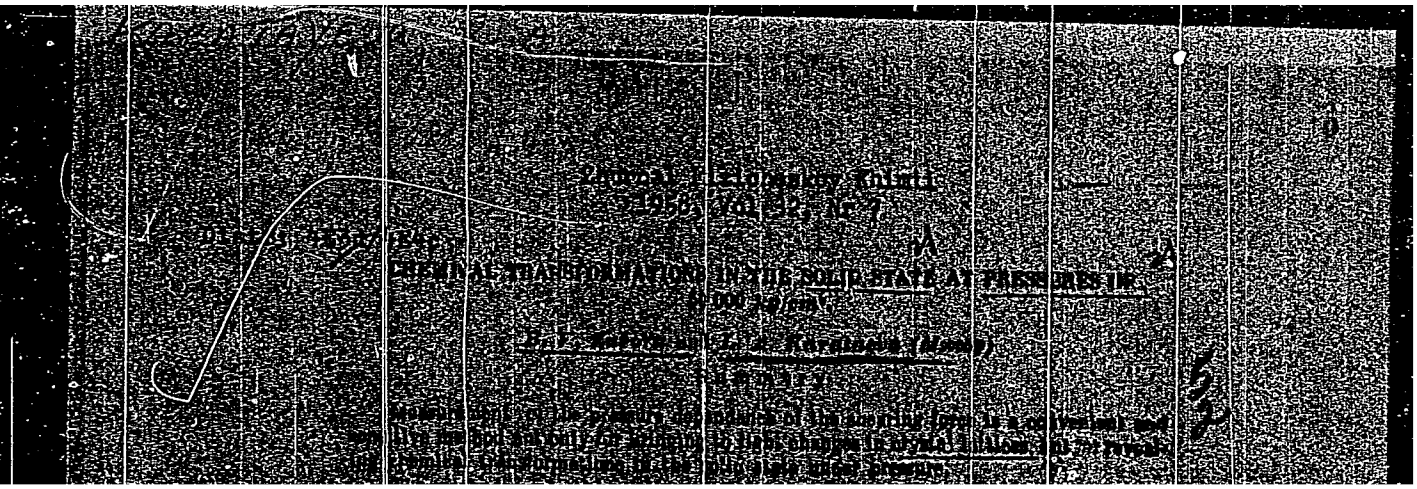
Activated adsorption of nitrogen. Zhur.fiz.khim. 37 no.1:204-206 Ja '63. (MIRA 17:3)

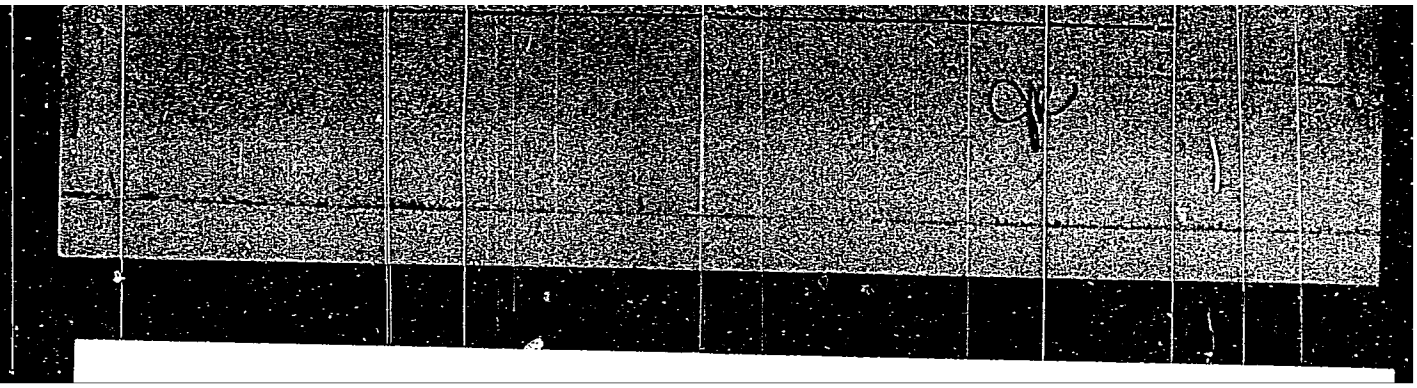
1. Institut azotnoy promyshlennosti.

KARATAYEVA, K. G.

"Data on the Serum Therapy of Influenza," by F. G. Epshteyn, A. S. Levinson, Z. A. Semashko, A. G. Chetverikov, M. M. Vitel, M. A. Belavintseva, K. G. Karatayeva, N. N. Malkova, R. Ye. Gel'shteyn, Ye. G. Korabishcher, A. A. Krums, K. I. Matveyava

Voprosy Meditsinskoy Virusologii, Moscow, No. 2, 1949, pp. 278-287





APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000720620015-8"

KARATAYEVA, T.P.; YERMOLENKO, N.F.

Structure of coprecipitated $Mg(OH)_2$ - $Fe(OH)_3$ hydroxides as dependent on the component ratio. Vestsi AN BSSR.Ser.khim. nav. no.2:121-126 '65. (MIRA 18:12)

YERMOLENKO, N.F.; KARATAYEVA, T.P.

Dependence of the structure and sorption properties of the system of hydroxides $Mg(OH)_2 - 2Fe(OH)_3$ on the conditions of preparation and heat treatment. Dokl. AN BSSR 9 no. 11: 725- 728 N '65 (MIRA 19:1)

1. Kafedra neorganicheskoy khimii Belorusskogo gosudarstvennogo universiteta imeni Lenina.

YERMOLENKO, N.F.; KARATAYEVA, T.P.

Structure and sorptive properties of the system of hydroxides $Mg(OH)_2$ - $2Fe(OH)_3$ as dependent on the conditions of preparation. Dokl. AN BSSR 9 no.10:668-670 O '65.

(MIRA 18:12)

1. Kafedra neorganicheskiy khimii Belorusskogo gosudarstvennogo universiteta imeni V.I.Lenina. Submitted May 29, 1965.

DONSKAYA, Ye.P.; KARATAYEVA, Ye.A.; BUDILINA, Yu.D.; GOROKHOVA, V.I.; DRITS, F.A.

M.A.Volkova; on her 60th birthday and the 35th anniversary of her medical service. Probl.tub. 36 no.1:124 '58. (MIRA 11:4)
(VOLKOVA, MARIIA ALEKSANDROVNA, 1897- )

KARATAYUTE-TALIMAA, V. N.: Master Biol Sci (diss) -- "Devonian astrolepids of the USSR and their stratigraphic distribution". Moscow, 1958. 18 pp (Acad Sci USSR, Paleontological Inst), (KL, No 1, 1959, 117)

KARATAJUTE - [illegible] V. M.

KARATAJUTE, V.

GEOGRAPHY & GEOLOGY

MOKSLIANI PRANESIMAI.

KARATAJUTE, V. The mode of life of some Asterolepidae (subcl. Pterichthyes.) In Russian. p. 258.

Vol. 8, 1958.

Monthly List of East European Accession (EEAI) LC Vol. 8, No. 3
March 1959, Unclass.

BELYUKAS, K.K.[Beliukas, K.], akademik, red.; GRIGYALIS, A.A. [Grigelis, A.], kand. geol.-miner. nauk, red.; GUDELIS, V.K., kand. geol.-miner. nauk, red.; KISNERYUS, Yu.L. [Kisnerius, J.], kand. geol.-miner. nauk, red.; KARATAYUTE-TALIMAA, V.N.[Karatajute-Talimaa, V.], kand. biol. nauk, red.

[Problems of geology in Lithuania] Voprosy geologii Litvy. Pod red. A.A.Grigialisa i V.N.Karataiute-Talimaa. Vil'nius, 1963. 623 p. (MIRA 16:11)

1. Lietuvos TSR Mokslu Akademija, Vilna, Geologijos ir geografijos institutas. 2. AN Litovskoy SSR (for Belyukas).
(Lithuania--Geology)

KARATETSKIY, S.S.; YEMEL'YANOV, A.F.

Effect of high-frequency coupling between detectors on the accuracy of a correlation method for measuring microwave generator fluctuations. Radiotekh. i elektron. 7 no.11:1896-1900 N '62. (MIRA 15:11)

(Microwave measurements) (Oscillators, Electric)

L 10279-63 EWT(1)/BDS--AFFTC/ASD

ACCESSION NR: AP3001130 S/0108/63/018/006/0062/0070

52

AUTHOR: Karatetskiy, S. S.; Kornilov, S. A.; Khatskeyich, Ye. I. Members of the Society (see Association)

TITLE: Potentialities of the coherent method of measuring low-frequency fluctuations in low-power SHF oscillators 25

SOURCE: Radiotekhnika, v. 18, no. 6, 1963, 62-70

TOPIC TAGS: SHF oscillator; measuring SHF fluctuations

ABSTRACT: In measuring low-frequency fluctuations by means of a crystal detector, the post-detector amplifier receives (a) measurand fluctuations and (b) crystal noise whose spectral density, at frequencies under 10 sup 4 or 10 sup 5 cps, is inversely proportional to the frequency. Effect of the crystal noise can be eliminated in a two-channel instrument that permits segregating the coherent from the incoherent noises. Such a system was used by Nikonov (Izvestiya vuzov MVSSO, seriya "Radiofizika", vol 2, no. 6, 1959) for measuring fluctuations in a reflex klystron within 40 mc down to hundreds kc. Potentialities of the two-channel method are analyzed mathematically in the article. Errors inherent to the method are considered, and the maximum sensitivity of the method is determined in terms of detector and measuring-circuit parameters. Orig. art. has: 10 formulas and 4 figures.

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L 10279-63
ACCESSION NR: AP3001130

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A. S. Popova (Scientific and Technical Society of Radio Engineering and Electrocommunications)

SUBMITTED: 190ct61 DATE ACQD: 01Jul63 ENCL: 00

SUB CODE: CO, SD NO REF SOV: 002 OTHER: 003

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UDC:621.378.233.089.52

L 27780-66 EWA(h)/EWT(1) JM
ACC NR: AP6004827 SOURCE CODE: UR/0108/66/021/001/0054/0059 36 B

AUTHOR: Karatetskiy, S. S. (Active member); Yemel'yanov, A. F. (Active member)

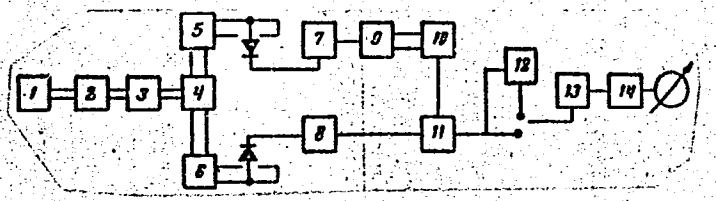
ORG: Scientific and Technical Society of Radio Engineering and Electrocommunication (Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi)

TITLE: Experimental investigation of fluctuations in reflex klystrons 25

SOURCE: Radiotekhnika, v. 21, no. 1, 1966, 54-59

TOPIC TAGS: reflex klystron, SHF tube, signal detection, frequency band

ABSTRACT: As the results reported by various researchers have differed widely, a special investigation of 1 -f fluctuation of the reflex klystron has been organized. To eliminate the error associated with measuring-detector noise, a preliminary detection by two independent detectors and a subsequent measuring of the correlation coefficient of the two

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Card 1/2 UDC: 621.385

L 27780-66

ACC NR: AP6004827 0

signals were used. Energy from the klystron oscillator 1 being tested is applied, via waveguide 2-3, to two amplitude detectors by means of bridge-type branching device 4. Ferrite isolators 5 and 6 preclude coupling between the detectors. From the first detector, the signal is fed to amplifier 7 with paraphase final stage 9; from the second detector, the signal is fed to amplifier 8. Switch 10 applies both signals alternatively to summator 11. Spectrum analyzer 12 isolates the frequency band subject to fluctuation. Noise power is measured by square-law detector 13 terminated with averaging filter 14. It was found that: (1) The oscillator stability depends on the klystron load; (2) The amplitude stability of the oscillator is very high ($\chi$ = 158 db/cps); (3) The frequency stability is much lower ($\chi$ = 90 db/cps at 10 kc). Orig. art. has: 8 figures, 4 formulas, and 1 table.

SUB CODE: 09 / SUBM DATE: 13Jan64 / ORIG REF: 005 / OTH REF: 003

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KARATEYEV, A. D.

KARATEYEV, A. D.: "Investigation of the effect of secondary processes on the radiation of the carbon monoxide band at the positive post of a glow discharge." Min Higher Education USSR. Tomsk State U imeni V. V. Kuybyshev. Tomsk. 1956. (Dissertation for the Degree of Candidate in Physicomathematical in Sciences).

SO: Knizhaya letopis', No. 23, 1956

S/170/62/005/008/006/009
B104/B102

AUTHORS: Bykov, S. B., Karateyev, A. D., Oreshkin, P. T., Rayeva, I.S.

TITLE: Microthermistors for working temperatures up to 200°C

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 5, no. 8, 1962, 93-96

TEXT: 1 - 1.5 mm long and 0.8 mm thick cylinders, small grains and beads, were produced from the three powder mixtures (1) 75% CuO + 25% $Fe_2O_3$, (2) 68% $MnO_2$ + 32% $Co_2O_3$, (3) 70% $MnO_2$ + 30% NiO with the aid of press molds. The first mixture was calcined at 1000°C, the other two at 1200°C for 2 hours. The ends of the specimens were silver plated, with iron or silver wires brazed onto them. After aging, these thermistors were calibrated in the temperature range from 20 to 200°C. The mean temperature coefficient α and the quantity B, which enters into the relation for the resistance $R = Ae^{xp(B/T)}$ have the following values for the three compositions:

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Microthermistors for working ...

| | $\alpha_{20^\circ}$ | $\alpha_{100^\circ}$ | $\alpha_{200^\circ}$ | B |
|---|---|---|---|---|
| (1) | 3.6% | 2.0% | 1.2% | 2830 °K |
| (2) | 6.7% | 5.9% | 2.75% | 12980 °K |
| (3) | 4.1% | 2.5% | 1.0% | 3660 °K |

The calibration curves reproduce well and no aging occurs with continuous operation. The thermistor has a low heat capacity and can be connected with elastic conductors (Fig. 1). There are 2 figures.

ASSOCIATION: Sibirskiy metallurgicheskiy institut imeni Sergo Ordzhonikidze, g. Novokuznetsk
(Siberian Metallurgical Institute imeni Sergo Ordzhonikidze, Novokuznetsk)

SUBMITTED: October 4, 1961

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L 16874-63 EWT(1)/BDS/ES(w)-2 AFFTC/ASD/ESD-3/AFWL/SSD Pab-4
ACCESSION NR: AR3006300 S/0058/63/000/007/G008/G008

SOURCE: RZh. Fizika, Abs. 7G41

63

AUTHOR: Karateyev, A.D.

TITLE: Spectral method of determining the temperature of electrons in a glow discharge

CITED SOURCE: Tr. Stalinskogo gos. ped. in-ta, v. 3, no. 4, 1960, 44-50

TOPIC TAGS: glow discharge, electron temperature, spectral determination, hydrogen line

TRANSLATION: A spectral method is developed for determining the electron temperature from the relative intensities of two $H_2$ lines. The optical excitation functions, which takes into account the cas-

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cade transitions, is determined experimentally. This function indicates automatically the process of direct excitation of the $H_2$ atoms by electrons and the excitation of $H_2$ atoms due to dissociation of the molecules. In the electron-temperature interval $T_e$ = 1--5 eV, the dependence of the relative intensity of the $H_\beta$ and $H_\gamma$ lines on the electron temperature is calculated theoretically. To verify the proposed method, probe measurements were carried out simultaneously with the optical ones. The discharge was produced in a mixture of Ar and $H_2$, in a cylindrical tube 3.5 cm in diameter and 25 cm long. The partial $H_2$ pressure was 10 per cent, the pressure of the working gas was 1--1.5 mm Hg, the discharge current 50--200 mA. The intensity of the spectral lines was measured by the method of photographic photometry. The values of the electron temperature measured by

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the method of probe characteristics and by the optical method are in good agreement. N. Shchedrin.

DATE ACQ: 15Aug63 SUB CODE: PH ENCL: 00

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L 19367-63 EWT(1)/BDS AFFTC/ASD/IJP(C)

ACCESSION NR: AR3006965 S/0058/63/000/008/D007/D008

SOURCE: RZh. Fizika, Abs. 8D44

53

AUTHOR: Karateyev, A. D.

TITLE: Effect of secondary processes on the radiation intensity of triplet systems of carbon monoxide bands

CITED SOURCE: Tr. Novokuznetskogo gos. ped. in-ta, v. 4, 1962, 143-145

TOPIC TAGS: carbon monoxide, triplet system band, radiation intensity, secondary process

TRANSLATION: The influence of the discharge conditions and of secondary processes on the intensity of radiation of different systems of CO bands are discussed. The investigation of the role of secondary processes in the radiation is based on the method of com-

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paring the theoretical and experimental intensities. Good agreement between the theoretical and experimental curves is observed for all band systems belonging to a single group of terms. For bands belonging to the triplet group of terms, a noticeable discrepancy is observed. The analysis carried out by the author shows that the quenching of the radiation can occur only by transferring the molecular excitation energy to the walls of the discharge tube.

DATE ACQ: 06Sep63 SUB CODE: PH ENCL: 00

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ACCESSION NO: AP4013315 S/0032/64/030/002/0234/0235

AUTHORS: Oreshkin, P. T.; Tret'yakov, A. V.; By*kov, S. B.; Grachev, A. V.; Karateyev, A. D.

TITLE: Thermistors for measuring surface temperatures of bodies

SOURCE: Zavodskaya laboratoriya, v. 30, no. 2, 1964, 234-235

TOPIC TAGS: thermistor, surface temperature, thermistor SMI-1, thermistor SMI-2, thermistor ITV-275

ABSTRACT: The working portions of thermistors SMI-1 and SMI-2 represent grains 0.5 x 0.5 x 0.5 mm in size, consisting of 75% CuO and 25% $Fe_2O_3$. Two opposite surfaces of each grain are coated with silver. In a contactless thermistor SMI-1 two steel wires are soldered to the silvered surfaces; in a contact thermistor SMI-2 one of the leads is a spring and the other a wire. The working parts are coated either with enamel or with lacquer, the former coating serving up to temperatures of 300-350C, the latter up to 80-100C. Preliminary graduating of thermistors was accomplished on a hollow steel roller with a nichrome heating element installed along its axis. Surface temperatures were measured with a thermocouple. Thermistor SMI-1 was enclosed in a textolite cup and fixed on the roller.

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Contactless thermistor ITV-275 was held at 0.75 ± 0.15 mm from the roller. In both cases the temperatures were somewhat lower than those shown by the thermocouple. This difference increased with the distance from the roller, with the speed of revolution of the roller, and with air circulation. However, for continuously fluid-cooled rollers, the contactless and the contact thermistors gave equal readings. Contactless thermistors were found adaptable to stationary conditions. Readings obtained with a contact thermistor SMI-2 varied with the amount of pressure applied to the spring. For a wet roller these readings were similar to those obtained with SMI-1. The contact thermistor was found useful for measuring surface temperatures of ferromagnetic bodies. It provides readings every 5-7 seconds. Orig. art. has: 2 figures.

ASSOCIATION: Sibirskiy metallurgicheskiy institut i Uralmashzavod (Siberian Metallurgical Institute and Uralmashzavod)

SUBMITTED: 00 DATE ACQ: 26Feb64 ENCL: 00

SUB CODE: SD NO REF SOV: 002 OTHER: 000

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SOV/58-59-12-28311

Translation from: Referativnyy zhurnal, Fizika, 1959, Nr 12, pp 259 - 260 (USSR)

AUTHORS: Plotkin, Ye.I., Karateyev, B.V., Yudina, O.M.

TITLE: On the "Ionophone"-Type Electroacoustical Transducer

PERIODICAL: Tr. Nauchno-tekhn. konferentsii Leningr. elektrotekhn. in-ta svyazi., Nr 3, Leningrad, 1959, pp 39 - 46

ABSTRACT: A description is given of the first experimental model of an ionophone, developed at the Leningrad Electrical-Engineering Institute of Communication. The electric power supply circuit diagram is submitted, as well as the main electroacoustical characteristics of the ionophone.

Author's résumé

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