IVANKINA, T.

Legal regulation of work periods for merchant seamen. Mor. flot 23 no.3:20-21 Mr '63. (MIRA 16:3)

1. Pravovoy inspektor Leningradskogo oblastnogo soveta professional'nykh soyuzov.

(Merchant marine—Watch duty)

L 46248-66 EWT(m)/EWP(w)/T/EWP(t)/ETI LJP(c) JD

ACC NR: AP6023913 SOURCE CODE: UR/0363/66/002/007/1194/1199

55

AUTHOR: Samsonov, G. V.; Bazhenova, L. N.; Ivan'ko, A. A. B

ORG: Institute of Materials Science Problems, Academy of Sciences, UkrSSR (Institut problem materialovedeniya Akademii nauk UkrSSR)

TITLE: On the correlation of certain physical properties of type $A^{III}B^{V}$ and $A^{II}B^{VI}$ semiconductors

SOURCE: AN SSSR. Izv. Neorg materialy, v. 2, no. 7, 1966, 1194-1199

TOPIC TAGS: forbidden zone width, semiconductor crystal, electron structure

ABSTRACT: A correlation observed earlier between the forbidden gap width and the hardness of semiconductor compounds of types $A^{III}B^{V}$ and $A^{II}B^{VI}$ and also their melting points was confirmed. It is shown that when these compounds are formed, a redistribution of electrons among the components takes place with the formation of energetically stable sp^3 and s^2p^6 configurations; the prevalence of sp^3 configurations leads to the formation of a sphalerite-type structure, and the prevalence of s^2p^6, to a wurtzite-type structure. This is reflected to some extent in the physical properties of the semiconductors, owing to the great energetic stability of the s^2p^6 configurations as compared to sp^3. As the principal quantum number of sp electrons increases, the energetic stability of the corresponding configurations declines; there is a corresponding increase in the fraction of collective and weakly bonded electrons, causing a decrease

Card 1/2 UDC: 537.311.33

ACC NR: AP6036790 (N) SOURCE CODE: UR/0363/66/002/011/1991/1997

AUTHOR: Bazhenova, L. N.; Ivan'ko, A. A.; Samsonov, G. V.; Slyshankova, V. A.

ORG: Kiev Polytechnic Institute (Kiyevskiy politekhnicheskiy institut)

TITLE: Microhardness of some oxides

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 11, 1966, 1991-1997

TOPIC TAGS: oxide microhardness, aluminum oxide, beryllium oxide, magnesium oxide, calcium oxide, titanium oxide, zirconium dioxide, hafnium dioxide, niobium pentoxide, chromic oxide, HARDNESS, STRESS CONCENTRATION

ABSTRACT: The microhardness of a series of oxides has been tested with various indenter loads (30—200 g) applied for various lengths of time. It was found that the microhardness of oxides decreases with increased load and increased test duration. The average microhardness (kg/mm^2) was as follows: Al_2O_3—2540; MgO—1015; CaO—615; TiO_2—1085; ZrO_2—1230; HfO_2—925; Nb_2O_5—740; Cr_2O_3—2970. It is believed that the hardness of the oxides depends on the probability of metal and oxygen atoms forming stable electron configurations. As the number of stable configurations formed by one or both of the components drops, the number of free electrons increases and the hardness also drops. Orig. art. has: 3 figures and 2 tables.

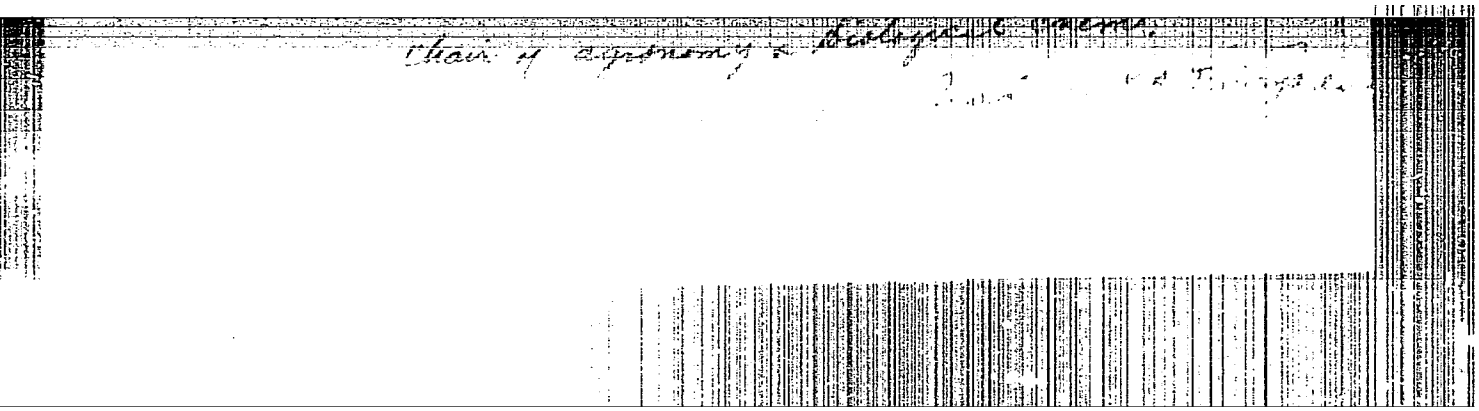
SUB CODE: 11/ SUBM DATE: 21Jul65/ ORIG REF: 007/ OTH REF: 001/
UDC: 541.45:539.53

Card 1/1

IVAN'KO, S.

IVAN'KO, S.; KASSIS, V.

Construction on the Yangtze. Vokrug sveta no.6:8-12 Je '54. (MLRA 7:6)
(Yangtze River--Building) (Building--Yangtze River)



IVANKO, SH

AUTHORS: Pleshkov, B. P., Ivanko, Sh., and Antonova, G.V., 20-6-42/47

TITLE: The Influence Exerted by Conditions of Nutrition Upon the Content of Free Amino Acids in Phaseolus Leaves (Vliyaniye usloviy pitaniya na soderzhaniye svobodnykh aminokislot v list'yakh fasoli)

PERIODICAL: Doklady AN SSSR, 1957, Vol. 117, Nr 6, pp. 1o7o-1o73 (USSR)

ABSTRACT: The conditions of the mineral nutrition may by modification of the intensity and the direction of metabolism of plants essentially influence the content of free amino acids in the individual organs. A lack of individual elements reduces the intensity of the protein synthesis and leads to the accumulation of free amino acids in the plant. This was noticed in the case of lack of sulphur, calcium, magnesium, boron, potassium, zinc, copper, manganese and iron although the nitrogen nutrition was the best and chlorine was abundantly present. A deficiency of molybdenum reduces the content of free amino acids in the plant (reference 1-11). The authors studied this problem in the cultivation of beans on different levels of nitrogen, phosphorus and potassium. First the method is described. The third, forth and fifth leaf of the beans of the sort "Triumf lushchil'nyy" were analyzed and the quantitative determination of the amino acids chromatographically performed on paper. Methionine + valine were calculated according to valine, leucine+

Card 1/4

The Influence Exerted by Conditions of Nutrition Upon the Content of Free Amino Acids in Phaseolus Leaves.

+ isoleucine according to leucine. From the results follows that in the case of nitrogen deficiency (variant PK) the content of amino nitrogen is about 1,5 times less than in the variant NPK. In phosphorus and potassium deficiencies (variant NK and NP) the content of amino nitrogen is more or less increased. Cystine, lysine, histidine, asparagine, arginine, glutamine, aspartic acid, serine, glycine, glutamic acid, treonine, α-alanine, ß-alanine, proline, tyrosine, tryptophane, valine, methionine, phenylalanine, leucine, isoleucine and 2 non-identified amino acids were chromatigraphically determined in the bean leaves. Figure 1 shows the photograph of chromatograms of the leaf-extracts of the 2 extreme variants NP and PK which differ most widely in their content of amino acids. The results of a quantitytive determination of these acids are given in table 1. In the case of normal nutrition (variant NPK) the following were found: arginine, aspartic acid, serine, glycine, glutamic acid, α-alanine, tryptophane and valine. The content of the other above-mentioned amino acidswas very small. In deficiencies of phosphorus and especially of potassium, when the protein synthesis in the leaves was very much inhibited, the content of free amino acids markedly increased. The content of

argine, aspartic acid, serine, and glycine especially strongly increased. In the case of nitrogen deficiency (variant PK), when all nitrogen reserves in the plant are put into the protein synthese, the content of free amino acids almost sank by the 1,5 fold. Arginine, aspartic acid, serine, glycine, glutamic acid, α- and ß-alanine, valine and phenylalanine especially strongly decreased. These amino acids apparently are capable of giving off their nitrogen by deamination and reamination above all to the synthesis of other amino acids which are necessary for the formation of protein molecules. Tyrosine and treonine increase in the case of nitrogen deficiency, which fact could not yet be explained. The content of arginine in the leaves is most affected by the variation of the conditions of nutrition. In nitrogen deficiencies it decreases 6-fold, but in potassium deficiencies it increases 2,5 fold. The major part of arginine decomposes in the case of nitrogen starvation and its nitrogen is, as above-indicated, used in the protein synthesis. The decomposition of arginine may also prodeed over the ornithine-cycle under formation of urea. Under the action of urease, urea forms ammonia which is used for the synthesis of new acids. There are 1 figure, 1 table, and 12 references, 6 of which are Slavic.

The Influence Exerted by Conditions of Nutrition Upon the Content of Free Amino Acids in Phaseolus Leaves. 20-6-42/47

ASSOCIATION:
Moscow Agricultural Academy imeni K.A. Timiryazev (Moskovskaya sel'skokhozyaystvennaya akademiya im. K.A. Timiryazev)

PRESENTED: July 17, 1957, by A.I. Oparin, Academician

SUBMITTED: July 15, 1957

AVAILABLE: Library of Congress

Card 4/4

PLESHKOV, B.P.; SHMYREVA, T.V.; IVANKO, Sh.

Variation of free amino acid concentration in corn leaves and roots under different conditions of nutrition. Fiziol.rast. 6 no.6:668-678 N-D '59. (MIRA 13:4)

1. Department of Agricultural and Biological Chemistry, K.A. Timiriazev Agricultural Academy, Moscow.
(Amino acids) (Corn (Maize)) (Plants--Nutrition)

PLESHKOV, B.P.; SHMYREVA, T.V.; IVANKO, Sh.

Rate of amino acid metabolism in plants. Biokhimiia 24 no.3:408-413 My-Je '59. (MIRA 12:9)

1. The Agricultural Academy, Moscow.
(PLANTS, metab.
amino acids (Rus))
(AMINO ACIDS, metab.
plants (Rus))

CZECHOSLOVAKIA

IVANKO, Stefan; MICHALIK, Ivan; Chair of Radiobiology and Biochemistry, College of Agriculture, Nitra. [Original version not given].

"The Uptake and Transformation of Phosphorus by the Roots of Corn as a Function of Preceding Nutrient Availability."

Bratislava, Biologia, Vol 21, No 5, 1966, pp 339 - 351

Abstract: Phosphorus tagged with P^{32} was introduced into corn roots; it was found that after 10 minutes it was present in all the phosphorylated intermediate products of glycolysis and in the nucleotides. When the plants lacked phosphorus before the experimental addition of it, P uptake is shown within 5 seconds after the plant was exposed to its presence; P is present in the form of high molecular weight compounds which are precipitated by trichloroacetic acid. The amount present in these high molecular weight compounds is proportionate to the total P uptake. 10 Figures, 1 Table, 18 Western, 1 Czech, 3 Russian references. (Manuscript received 16 Sep 65). Article is in German.

1/1

GONCHUKOV, V.S.; IVAN'KO, T.Ya.; KRASHYANSKIY, I.I.; LARIN, L.A.; MAKHON'KO, A.S.; RAKITO, N.I.; SAVEL'YEV, V.A.; SELIVON, V.A.; KHOKHORIN, A.I.; ZELEVICH, P.M., inzhener, redaktor; VERINA, G.P., tekhnicheskiy redaktor

[Manual for builders of narrow-gauge railroads] Spravochnik stroitelia uzkokoleinykh zheleznykh dorog. Moskva, Gos. transp.zhel-dor. izd-vo, 1956. 438 p. (MLRA 10:1)
(Railroads, Narrow-gauge)

VOL'SOV, V.F., inzh.; IVAN'KO, T.Ya, inzh.

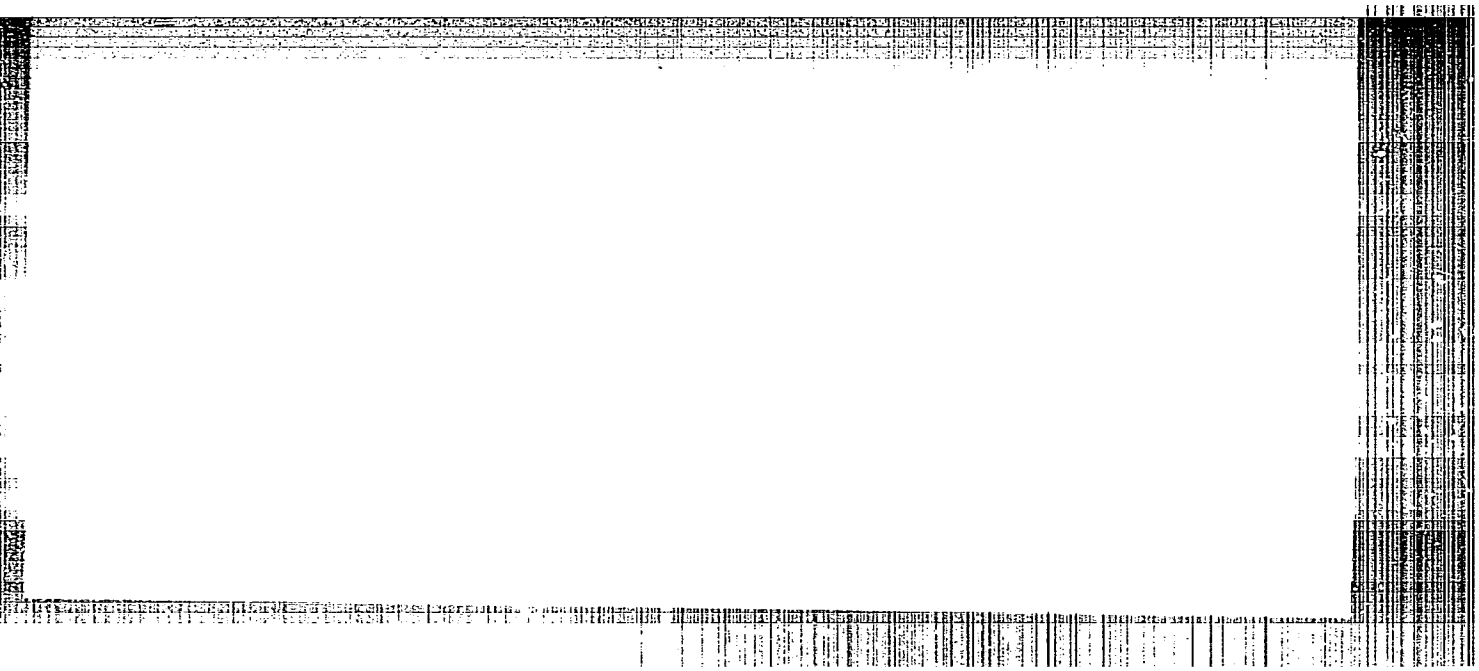
Constructing foundations for buildings of few stories above the freezing depth. Stroi prom. 36 no. 7:16-18 Jl '58. (MIRA 11:8)
(Foundations)
(Frozen ground)

ONUFRIYEV, Timofey Grigor'yevich, dots.; SHATNEV, Boris Nikolayevich, dots.; IVAN'KO, Timofey Yakovlevich, inzh.; GERGL'SKAYA, Lyudmila Sergeyevna, dots.; SARYCHEVA, Nina Petrovna, dots.; KOSTYAYEV, Sergey Petrovich, inzh.[deceased]; YEGOROV,L.P.,dots., retsenzent; ZAYCHENKO,I.R.,dots.,retsenzent; BYALYNITSKIY,V.A.,inzh.,retsenzent; CHERKASHIN,N.A.,inzh.,retsenzent; DYNER,I.I.,inzh.,retsenzent; PAUL', V.P.,inzh.,red.; NEKLEPAYEVA, Z.A.,inzh.,red.; MEDVEDEVA, M.A., tekhn. red.

[Buildings in railroad transportation] Zdaniia na zheleznodorozhnom transporte. Moskva, Transzheldorizdat, 1962. 408 p. (MIRA 15:6)
(Railroads--Buildings and structures)

IVAN'KO, Viktor Dmitriyevich; POPLAVSKIY, N.; ULIN, I.I., red.; LEVINA, L.G., tekhn.red.

[Zalimgeri Shogenov, the best milker of the Republic] Zalimgeri Shogenov - luchshii doiar respubliki. Moskva, Izd-vo M-va sel'. khoz.RSFSR, 1960. 25 p. (MIRA 14:2)
(Dairying)



APPROVED FOR RELEASE: 08/10/2001 CIA-RDP86-00513R000619010011-2"

PHASE 1 BOOK EXPLOITATION 52a

Ivan'ko, Vladimir Fedotovich

Pul'tovshchik dugovoy staleplavil'noy pechi (The Control-panel Operator of Electric-arc Steel Furnaces) Moscow, Metallurgizdat, 1957. 155 p. 3,000 copies printed.

Ed.: Mikhaylov, O.A.; Ed. of Publishing House: Yablonskaya; Tech. Ed.: Islent'yeva, P.G.

PURPOSE: This is a manual of instruction for operators of the control panels of electric-arc steel-melting furnaces. It may also be useful to steel melters, as well as electricians and attendants servicing the furnaces.

COVERAGE: The author describes the structure of the electric-arc steel-melting furnace, outlines the technology of melting electric steel, gives information on the properties of metals and presents the principles of electrical technology in such detail as is necessary for the proper care of furnace equipment and for control

Card 1/5

of the electrical conditions of melting. Other topics discussed include ways of improving the power factor of the arc furnace and economy of electric power in steel melting. In addition, practical methods of operating control panels, based on experience, are described, and safety rules are given. There are 17 references, all Soviet.

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Ch. II. Structure of the Electric-arc Steel-melting Furnace 10

1. Classification and types of arc furnaces 10
2. Mechanical construction of the furnace 12
3. Furnace lining 18
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Ch. III. Technological Process of Melting Electric Steel 21

1. Materials used for melting electric steel 21
2. Melting periods and their characteristics in brief 22
3. Melting steel with the use of oxygen 26

Ch. IV. Principles of Electrical Engineering and Electrical Technology 27

1. Nature of electricity. Conductors and nonconductors 27
2. Direct-current electric circuits 27
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7. Three-phase current 59
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9. Basic facts about insulating materials 65
10. Electric generators, motors and transformers 67

Ch. V. Electrical Equipment of Arc Furnaces for Steel Melting 82

1. Power supply for the furnace substations 82
2. High-voltage equipment and distributing devices 84
3. The electric arc 89
4. Furnace transformers and choke 92
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6. Short net 99
7. "Dead" and "wild" phases in the electric furnace 103
8. Automatic regulators of arc furnaces for steel melting 107
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Ch. VII. Conducting the Melting Process. Optimum Electrical Conditions 127

1. Energy balance of the electric steel-melting furnace 127
2. Optimum electrical conditions in melting 128
3. Conducting the melting process. Modern methods of operating the control panel 131
4. Melting-space of the furnace 135
5. Economy of electric power and improvement of the power factor 136
6. Faulty operation and means of correcting it 138

Ch. VIII. Safety Measures in the Operation of Electric-furnace Equipment 142

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AVAILABLE: Library of Congress
Card 5/5

GO/ad
8-21-58

SOKOLOV, A.N., kand. tekhn. nauk, dots.; MORGULEV, S.A., inzh.; IVAN'KO, V.F., inzh.

"Most satisfactory operating conditions of steel smelting electric arc furnaces" by IU. E.Efroimovich. Reviewed by A.N.Sokolov, S.A. Morgulev, V.F.Ivan'ko. Stal' 18 no. 6:529-531 Je '58. (MIRA 11:7)

1. TSentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii i "Dneprospetsstal'".
(Electric furnaces)
(Efroimovich, IU, E.)

SOV/133-59-1-10/23

AUTHORS: Gladkiy, D.F., Ivan'ko, V.F. and Kurganov, V.V., Engineers

TITLE: Experience in the Operation of an Electric Furnace of the DSV-30 Type With a High Secondary Voltage (Opyt ekspluatatsii elektropechi DSV-30 s vysokimi vtorichnymi napryazheniyami)

PERIODICAL: Stal', 1959, Nr 1, pp 45 - 48 (USSR)

ABSTRACT: Experiments on the determination of most suitable secondary voltages for furnace transformers are described. A DSV-30 furnace was used (charge 50 tons, yield of metal 46 tons). For this purpose, the furnace was fitted with two identical transformers - PDRO 10001/30 of 900 kW each with the primary voltage of 30 000 V and 26 steps in the secondary voltage from 86 to 270 V. Series connection of the low-voltage windings of both transformers enabled doubling the secondary voltage during the melting period. For obtaining low-voltage steps (which are necessary for refining) a circuit was used which allows series connection of the primary windings of both transformers (Figure 1, p 45). The comparison of the furnace performance with one and two transformers is shown in Tables 1 and 2. Operation with a secondary

Cardl/2

Experience in the Operation of an Electric Furnace of the DSV-30 Type with a High Secondary Voltage

voltage of 420 V (instead of 282 V) brought about a decrease in the melting period by 34 minutes. The increase in the power supplied and the simultaneous decrease in thermal and electric losses of the furnace (due to a decrease in the duration of melting period) resulted in a decrease in specific power consumption by 19 kWh/ton. Operation with two interconnected transformers brought about some improvement in the power factor during the melting period and also some reduction of the power factor during the boiling and refining periods due to an increase of the reactivity of the furnace circuit caused by the second transformer. Operation at 420 V did not result in any material change in the durability of the wall linings and the chrome-magnesite roofs nor in the metal quality. It is concluded that, during the melting period, 40-ton electric furnaces can be operated with a secondary voltage of 420 V with good results. Use of still higher voltages will be tested. There are 3 figures, 2 tables and 5 Soviet references.

Card2/2

IVAN'KO, V.F., inzh.

Use of high secondary voltage in arc furnaces. Stal' 22 no.7:622-623 Jl '62. (MIRA 15:7)

(Electric furnaces)

KAPTELKIN, N.I.; SEMEYKO, P.A.; IVANKOV, A.A.

The best in the profession. Put' i put.khoz. 6 no.6:11, 17, 18, 23, 30 '62. (MIRA 15:7)

1. Nachal'nik Slavyanskoy distantsii puti Donetskoy dorogi (for Kaptelkin).
(Railroads—Employees)

IVANKOV, A.G.

112-1-60 D

Translation from: Referativnyy Zhurnal, Elektrotekhnika, 1957, Nr 1, p. 6 (USSR)

AUTHOR: Ivankov, A. G.

TITLE: Development of the Teaching of Self-Induced Oscillations at Moscow University (Razvitiye ucheniya ob avtokolebaniyakh v Moskovskom universitete)

ABSTRACT: Bibliographic entry on the author's dissertation for the degree of Candidate of Physical and Mathematical Sciences, presented to the Institute of the History of Natural Sciences and Engineering, USSR Academy of Sciences, (In-t istorii yestestvozn. i tekhn. AN SSSR) Moscow, 1956.

ASSOCIATION: Institute of the History of Natural Sciences and Engineering, USSR Academy of Sciences, (In-t istorii yestestvozn. i tekhn. AN SSSR, Moscow)

Card 1/1

SHABALIN, A.A.; GANZHA, V.Ya., inzh.; NIKOL'SKIY, V.A. [deceased]; LAPINSKIY, L.G., inzh.; IVANKOV, A.G.; SOL'YAKOV, R.T.; TURYANSKIY, G.M.; SHMIDT, N.E.; GREBTSOV, P.P., red.; MAKHOVA, N.N., tekhn. red.; BALLOD, A.I., tekhn. red.

[Handbook for the state farm construction worker] Spravochnik sovkhoznogo stroitelia. Moskva, Sel'khozizdat, 1962. 598 p. (MIRA 15:9)
(State farms) (Construction industry)

L 44445-66 FSS-2/EWT(1) JM

ACC NR: AR6023286 SOURCE CODE: UR/0058/66/000/003/H015/H015

AUTHOR: Ivankov, A. G.

70

ORG: none

13

TITLE: Setting up dispersion in a resonance system

SOURCE: Ref. zh. Fizika, Abs. 3Zh109

REF SOURCE: Tr. Nauchn. ob"yedin. fiz-matem. fak. ped. in-tov Dal'n. Vost., v. 4, 1964, 3-10

TOPIC TAGS: noise jamming, electric filter, periodic pulse, magnetic resonance

ABSTRACT: Noise-jamming 25B properties of an oscillating circuit in a nonstationary (transitional) mode are theoretically analyzed. It was established that the circuit is more or less an optimum filter of radio pulses at $ht \ll 1$, where h is the index of circuit attenuation and t is the time of effect of signal and noise. A. Uspenskiy. [Translation of abstract] [NT]

SUB CODE: 20/

Card 1/1

IVANKOV, A.G.; OPOCHINSKIY, G.L.

New trends in planning enterprises in the dairy industry. Biul. tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. 16 no.8:51-54 '63. (MIRA 16:10)

L 16095-66 EWT(1)/EWT(m)/EWA(d)/EWP(t) IJP(c) JP

ACC NR: AP5022809 SOURCE CODE: UR/0141/65/008/004/0831/0833

AUTHOR: Prokopovich, M. R.; Ivankov, A. G.

38
13

ORG: Khabarov Pedagogical Institute (Khabarovskii pedagogicheskii institut)

TITLE: Statistical characteristics of noise produced by remagnetization of ferromagnets 14

SOURCE: IVUZ. Radiofizika, v. 8, no. 4, 1965, 831-833

TOPIC TAGS: remagnetization, radio noise, magnet, statistic analysis

21, 44, 55

ABSTRACT: In the past the statistical characteristics of noise produced by remagnetization of ferromagnets (Barkhausen's jumps) were studied under a very slow remagnetization. As a result, a relatively small number of realizations were averaged yielding in turn large errors in measurements. Here the authors study the one-dimensional probability density of Barkhausen's jumps (i.e., the time derivative of magnetization jumps) by way of investigating the statistical

21
44
55

Card 1/2

UDC: 538.56:519.25.538.2

L 16095-66

ACC NR: AP5022809

characteristics of the random component of EDF induction arising from cyclic remagnetization of the specimen. The noise of cyclic remagnetization was a periodic nonstationary process which could be transformed into a stationary process in view of results obtained from oscillographic studies. Orig. art. has: 2 figures and 4 formulas.

SUB CODE: 09 SUBM DATE: 04Jan65/ ORIG REF: 007/ OTH REF: 001

Card 2/2 SYM

IVANKOV, I. D. -- "Study of the Wear and Tear of Cotton Fabrics in Shoe Tops," Sub 14 Jan 52, Moscow Inst of Soviet Cooperative Trade (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Vechernaya Moskva, January-December 1952

GURFINKEL', I.Ye.[deceased]; BOYKO, D.Ya.; IVANKOV, I.D.; ALEKSEYEV, N.S.; KUTYANIN, G.I., prof., doktor tekhn. nauk, spets. red.; NIKOLAYEVA, N.G., red.

[Technical guide to glass, ceramics, furniture, and building materials] Tovarovedenie silikatnykh, mebel'nykh i stroitel'nykh tovarov. Moskva, Ekonomika, 1964. 376 p. (MIRA 17:9)

IVANKOV, I. I.

NOVIKOV, A. P., Cand. Vet. Sci.; IVANKOV, I. I., Lecturer

"On some features of experimental infectious anemai of horses."

SO: Veterinariia 24(2). Feb. 1947 p. 17

IVANKOV, L.I.; KULIKOVSKIY, A.S.; MLADENTSEV, G.D.; MARKELYUN, L.F.; FATIKOV, R.F.

Geological characteristics of the Dzhezkazgan deposit and new facts obtained by the mining geological service. Trudy Inst. geol. AN Kir. SSR no.9:253-263 '57. (MIRA 11:4)
(West Kazakhstan Province--Ore deposits)

SOV-127-58-10-2/29

AUTHORS: Brezgulevskiy, I.V. and Yalymov, N.G., Mining Engineers and Ivankov, L.I., Engineer-Geologist

TITLE: On the Mining of the Dzhezkazgan Deposits Without Leaving a Protective Ore Crust (O razrabotke Dzhezkazganskogo mestorozhdeniya bez ostavleniya rudnoy korki)

PERIODICAL: Gornyy zhurnal, 1958, Nr 10, pp 8-11 (USSR)

ABSTRACT: Experimental works conducted jointly by the Unipromed and the Administration of the Dzhezkazgan Mines showed that the introduction of a compulsory caving-in system gave much better results than those achieved by the old room-pillar system. According to the old system it was considered necessary to leave a protective ore crust, 1 or 2 m thick, in places where red sandstone directly overlies the ore body. This crust was not extracted, so that the losses in ore left in such crusts represented 50% of general ore losses. It was calculated that over 1,000,000 tons were lost in this way. Moreover, 1,5-3 m thick layers were not exploited at all. These experiments also showed that the protective ore crust did not improve the safety of mining operations. When the red sandstone was exposed, its first layer fell, but the next layer held fast and the whole massif remained solid for 6-7 months.

Card 1/2

On the Mining of the Dzhezkazgan Ore Crust — Deposits Without Leaving a Protective

Thus ore layers 1,5 to 6,5 m thick could be exploited without leaving the ore crust if the ceiling was regularly inspected after each shift. The reinforcement of such ceilings by beams 2,5 m long at 1 m interval permitted exploitation of ore layers of any importance with the least loss of ore. There are 5 diagrams, 1 photo and 1 table.

ASSOCIATION: Unipromed'. Shakhta Nr 45 Dzhezkazganskogo rudoupravleniya (Mine Nr 45 of the Dzhezkazgan Mining Administration)

1. Mining industry--USSR 2. Ores--Production 3. Mining engineering --USSR 4. Underground structures--Design

IVAN'KOV, M.D., st. vikladach.

Role of finance in the development of Ukrainian light industries. Nauk.zap.Kiev.un. 15 no.9:179-191 '56.
(MLRA 10:7)

(Ukraine--Manufactures)

CHUISTOV, V.M., kand. ekon. nauk; CHERNENKO, M.S.; KRASNOKUTSKAYA, O.I.[Krasnokuts'ka, O.I.]; DROSOVSKAYA, L.I.[Drosovs'ka, L.I.]; MOKIYENKO, B.F.; DARAGAN, M.V.[Darahan, M.V.]; OGANYAN, G.A. [Ohanian, H.A.]; TERESHCHENKO, I.P.; KRUGLIKOV, B.I.[Kruhlikov, B.I.]; KOROID, O.S., otv. red.; IVAN'KOV, M.D., red.; KADASHEVICH, O.O.[Kadashevych, A.A.], tekhn. red.

[Socialist reproduction of the means of production]Sotsialistychne vidtvorennia. Kyiv, Vyd-vo Akad. nauk URSR, 1962. 298 p. (MIRA 15:12)

1. Akademiya nauk URSR, Kiev. Instytut ekonomiky. 2. Chlen-korrespondent Akademii nauk Ukr. SSR (for Koroid). 3. Institut ekonomiki Akademii nauk Ukr. SSR (for all except Koroid, Ivan'kov, Kadashevich).

(Economics)

IVANKOV, M. F.

Ivankov, M. F. - "Some Laws of the Ovulation, Fertilization, First Stages of Embryonic Development, and the Qualities of the Offspring of Cows, Depending on the Times and Methods of Mating." Min Higher Education USSR. Leningrad Agricultural Inst. Leningrad, 1956 (Dissertation for the Degree of Candidate in Agricultural Sciences).

So: Knizhnaya Letopis', No. 10, 1956, pp 116-127

PITKYANEN, I.G.; IVANKOV, M.F.

Fertilization and the first phases of development of the embryo in cows. Izv.AN SSR.Ser.biol. no.3:77-86 My-Je '56. (MLRA 9:8)

1. Nauchno-issledovatel'skaya laboratoriya razvedeniya sel'skokhozyaystvennykh zhivotnykh g. Pushkin.
(FERTILIZATION (BIOLOGY)) (EMBRYOLOGY--MAMMALS) (COWS)

IVAN'KOV, M.G., dorozhnyy master

Not section brigades, but "work columns." Put' i put.khoz. no.10:17 O '59. (MIRA 13:2)

1. Raz"yezd 114-go kilometra, Belorusskoy dorogi.
(Railroads--Maintenance and repair)

IVANKOV, N.I.; BALABANOV, P.V.

Work practice in organizing socialist competition to greet the 22d Congress of the CPSU in the proper way. Razved. i okh. nedr 27 no.9:55-56 S '61. (MIRA 17:2)

1. Shakhtinskaya geologorazvedochnaya partiya i Volgo-Donskoy territorial'nyy komitet professional'nogo soyuza rabochikh geologo-razvedochnykh rabot.

IVANKOV, O.F.

Calculating cranes of great lifting power. Sbor. nauch. trud. Dnepr. inzh.-stroi. inst. no.31:137-141 '63 (MIRA 18:1)

IVANKOV, P. A.

Petroleum - Pumping

Experimental determination of the capacity of electric motors for oil-well pumps. Energ. biul. No. 3, 1953.

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

IVANOV, F. A.

Electric Motors

Experimental determination of the capacity of electric motors for oil-well pumps. Energ. biul. No. 3, 1953.

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

IVANKOV, P.A.

Power indices of deep well, centrifugal, electric pump installations. Energ. biul. no.12:13-18 D '53. (MLRA 6:11)
(Petroleum--Well boring) (Pumping machinery)

AID P - 1652

Subject : USSR/Electricity-Engineering

Card 1/2 Pub. 28 - 2/9

Author : Ivankov, P. A.

Title : Manometric protection of rodless electric drives

Periodical : Energ. byul, 2, 5-9, F 1955

Abstract : The electric motors of rodless pumps are protected by oil from water penetration. To safeguard the continuity of operation a special signaling device was developed in order to measure the oil pressure. This device is criticized by the author, who exposes its shortcomings and describes a more dependable and less cumbersome device, which does not require additional cable. The proposed device has been tested in the Laboratory of Industrial Electrotechnics of the All-Union Scientific Research Institute (VNII), where further improvements were made. The new device was under observation at oil

AID P - 1662

Energ. byul., 2, 5-9, F 1955

Card 2/2 Pub. 28 - 2/9

well #4025 of the All-Union Association of the Groznyy Oil and Gas Industry (GROZNEFT'), where practical observations and more improvements were added.

Institutions: VNII and GROZNEFT'.

Submitted : No date

IVANKOV, P.A.

AID P - 1667

Subject : USSR/Electricity

Card 1/1 Pub. 28 - 7/9

Authors : Virnovskiy, A. S. and Ivankov, P. A.

Title : Device which automatically switches off the electric motor of a walking beam depending on operation of deep pump

Periodical : Energ. byul., 2, 25-27, F 1955

Abstract : This paper was presented in a competition for suggestions on the more economical consumption of electric power. A relay switch is described which will cut off the electric drive of a walking beam when the oil level in the deep pump reaches a certain low point, and after a short interval switch on the drive again. The device and its operation is illustrated by 4 diagrams. The jury found 3 shortcomings in the proposed device, accepted it for further development, and awarded the authors third prize.

Institution: None
Submitted : No date

IVANKOV, P.A.

Standardization of the specific electric power consumption in deep well exploitation of petroleum. Azerb.neft.khoz. 35 no. 8:25-29 Ag '56. (MLRA 9:10)

(Petroleum engineering)

IVANKOV, P.A.; KUBLANOVSKIY L.B.; ZHEGALOV, V.K.

Remote control of water-enclosed wells. Neft.khoz. 34 no.1:35-38 Ja '56. (MLRA 9:5)
(Oil fields--Equipment and supplies) (Remote control)

IVANKOV, P.A.

Research on remote control and automatic oil-well equipment. (MIRA 12:2)
Trudy VNII no.18:105-111 '58.
(Oil wells--Equipment and supplies) (Remote control)

VIRNOVSKIY, A.S.; IVANKOV, P.A.

Method of determining the location of a sucker rod break. Trudy VNII no.22:13-19 '59. (MIRA 15:4)
(Sucker rods)

IVANKOV, P.A.

Choice of a wire communication system for remote control apparatus in oil production. Trudy VNII no.22:20-24 '59. (MIRA 15:4)
(Oil fields--Electronic equipment)
(Remote control)

IVANKOV, Pavel Aleksandrovich; GOR'KOVA, A.A., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Automatic control of deep-well pump installations] Avtomatizatsiia glubinnonasosnykh ustanovok. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1960. 125 p. (MIRA 13:12)

(Oil well pumps) (Automatic control)

IVANKOV, P. A.

Cand Tec Sci, Diss -- "Investigation of the electric drive of deep well pump installations". Baku, 1961. 20 pp, 22 cm (Joint Council of the Azerbaydzhan Inst of Petroleum and Chem imeni M. Azizbekov and inst and establishments of the Acad Sci AzSSR on power engr and automation of industrial processes), 250 copies, No charge (KL, No 9, 1961, p 182, No 24340). /61-54844/

ARKHANGEL'SKIY, Nikolay Konstantinovich, inzh.; GLAZKOV, Aleksandr Nikolayevich, inzh.; IVANKOV, Pavel Aleksandrovich, inzh.; MIKHAYLOV, Vram Vagramovich, kand.tekhn.nauk; MOVSESOV, Nerses Savadovich, inzh.; MOTSOKHEYN, Boris Iosifovich, inzh.; VRONSKIY, L.N., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Handbook on oil field electric equipment] Spravochnik po neftepromyslovoi elektrotekhnike. By N.K.Arkhangel'skii i dr. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 472 p. (MIRA 14:12)
(Oil fields--Electric equipment)

2

IVANKOV, P.A., TATEISHVILI, O.S., ABRUKIN, A.L.

Electric model tests, control and automation of deep well pumps.

Report to be submitted for the Sixth World Petroleum Congress, Frankfurt, 16-26 June 63

IVANKOV, P.A.

Experimental investigation of a system for the automatic maintenance of the constant delivery of a deep-well pump. Trudy VNII no.41:195-209 '64. (MIRA 17:11)

IVAN'KOV, Pavel Alekseyevich; SOKOLOV, Vladimir Viktorovich; PODOBEDOV, N.S., redaktor; SHAMAROVA, T.A., redaktor izdatel'stva; ROMANOVA, V.V., tekhnicheskiy redaktor

[Eternal snow and its representation on topographical maps] Vechnye snega i ikh izobrazhenie na topograficheskikh kartakh. Moskva, Izd-vo geodez. lit-ry, 1957. 81 p. (MLRA 10:10)
(Snow) (Cartography)

IVAN'KOV, P.A., kandidat tekhnicheskikh nauk.

Possibilities of using "vinylprose" for cartographic work. Geod. i kart. no.1:32-35 Ja '57. (MLRA 10:3)
(Plastics) (Map printing)

IVAN'KOV, P.A.

AUTHOR: Ivan'kov, P.A. 10-58-2-5/30

TITLE: The Glaciation of Kamchatka(Oledeneniye Kamchatki)

PERIODICAL: Izvestiya Akademii nauk SSSR - Seriya geograficheskaya, 1958, Nr 2, pp 42-53 (USSR)

ABSTRACT: The author gives a detailed description of the border line of perpetual snow in Kamchatka (Tables 1 and 2), of the individual glaciers and their location (Figure 1), and of active and extinct volcanoes. In this connection the names of various Soviet scientists, who devoted their ressarch work to the geological problems of Kamchatka, are mentioned: N.G. Kell', A.N. Zavaritskiy, A.N. Trotskiy (who participated in an expedition to Kamchatka organized by the USSR Academy of Sciences in 1935), S.A. Konradi, T.I. Ustinova and Yu.V. Averin. There are five charts, two tables, and five Soviet references.

1. Glaciers--Characteristics--USSR 2. Volcanoes--Characteristics --USSR 3. Snow

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3(4)

AUTHOR: Ivan'kov, P. A., Candidate of Technical Sciences

SOV/6-59-2-10/22

TITLE: On the Topographical Survey of Glaciers (O topograficheskoy s"yemke lednikov)

PERIODICAL: Geodeziya i kartografiya, 1959, Nr 2, pp 48 - 51 (USSR)

ABSTRACT: On modern topographical maps 1:10000 - 1:100000 even the outlines of glaciers are neglected on the representation of eternal snow. These deficiencies and the demands of the buyers of topographical maps are discussed in the present paper. The inaccuracies must be eliminated above all. The term "eternal snow and glacier" is employed here. We are interested in the eternal snow 1) as a special kind of glacier relief; 2) because it is closely connected with the hydrographical net and 3) determines the passability of the area and must be regarded as a special kind of soil. Geographers and hydrologists are interested in the position of glaciers with respect to the basic elements of the relief, the shape and size of the individual glaciers, the area covered with ice, the dynamics of glaciers within the period

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between two surveys of the region, the feeding and melting of glaciers. All these data can be easily obtained according to air photographs in the field or in the internal service. On modern topographical maps, especially on that mapped on a scale of 1:25000, also seasonal snow is represented in addition to glaciers, snowfields and eternal snow. The author mentions the following conditions for an accurate representation of glaciers on topographical maps: 1) appropriate selection of time for taking air photographs. This is the second half of summer when seasonal snow has melted completely or at least to a large extent. It must be taken into account herein that in the mountains snow falls also in summer so that surveys must be carried out during a sunny period when the new-fallen snow has already melted. 2) Appropriate cartographical generalization of the representation. In spots where the outlines are indistinct the topographer must mark them clearly in such a way that they can be represented accurately without distortions. It is necessary that the accurate ratio between snow-covered and uncovered slopes is demonstrated. 3) Furthermore, the map must contain the absolute level of the glacier end, the level of the snowline

(which divides the glacier into two main parts: the range of feeding and the range of melting), the shape of the glacier surface, the moraine cover of the surface, the presence of brooks and a grotto at the end of the glacier. In addition to that, new signs for the glacier outlines must be introduced. The sign used for moraines must be simplified. Genuine glaciers, snowfields and snow-basins of glaciers must be marked with individual signs. There is 1 Soviet reference.

3(5)
19(3)

SOV/12-91-3-2/14

AUTHOR: Ivan'kov, P.A.

TITLE: The Glaciation of the Great Caucasus and its Dynamics from 1890 to 1946

PERIODICAL: Izvestiya VGO, 1959, Vol 91, Nr 3, pp 220-235 (USSR)

ABSTRACT: The author studies the present situation of the glaciers in the Great Caucasus and compares it with the situation in 1890. The study has a practical motive, namely, to serve as a part of the preliminary work for the construction of huge power and irrigation plants in that region. The article is divided into 3 sections, West Caucasus, Central Caucasus and East Caucasus. All glaciers have been remeasured. The area of single glaciers and the snow line above-sea-level were measured. All major glaciers are listed by names with approximate location of each of them. Conclusions: Northern slopes of Caucasus lost about 16.5% of their ice-covered surface but the number of

Card 1/2

S/006/60/000/05/11/024
B007/B123

AUTHOR: Ivan'kov, P. A., Candidate of Technical Sciences

TITLE: Fossil Ice and Layer of Ice (Characteristics, Occurrences, and Mapped Representations)

PERIODICAL: Geodeziya i kartografiya, 1960, No. 5, pp. 45-51

TEXT: It is pointed out that fossil ice and layers of ice are widely spread in the northern hemisphere and form an integral part of the tundra and taiga. Nevertheless, they are hardly dealt with in publications. A survey of these elements is given in this paper. Fossil and underground ice is a powerful ice accumulation of many years covered by a thin ground layer only. Several species of fossil ice according to their origin and form must be distinguished. The most widely spread kind are the ice layers of different thickness within the frozen underground at a certain depth below the earth surface. They may be remainders of old glaciation or may be formed at present in places where the underground water of zones of permanent frost penetrates the soil. They become visible only at eroded places on steep sea coasts, river banks, etc. The extension of this

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kind of underground ice is shown in a map (Fig. 2). In Fig. 3 the proposed signs for mapping all kinds of fossil ice and layer of ice are given. The second kind of fossil ice is the cleft or lode ice which occurs only in tundra areas. It develops during years of freezing of water in frostsplit clefts of the ground. Such clefts are formed every year in the winter and spread along the same axis. Thereby the ice wedges become broader and deeper every year. Usually they cross each other at right angles and form polygons. The diameter of such polygons varies from 15 to 20 m, and from 100 to 150 m. After the ice lodes on the earth surface have melted, the polygonal cores form series of conical hills which are designated in Yakutiya as "baydzharakh" (Figs. 5 and 3v). The third kind of fossil ice is "dead ice". This is buried under moraine sediments and has no connection to glaciers. The second form of permanent ice in the zone of permafrost soil is the layer of ice. This is a one-year or several-year-old ice accumulation which is formed in the wintertime at places where the river or underground water protrudes systematically to the surface. According to their location, origin, and form one distinguishes several groups of layers of ice. Mostly spread are river layers of ice. Those which are formed by the protrusion of the river water to the surface

through cracks in the ice cap, or by the protrusion of underground water, are called "infiltrating layers of ice". Besides, there are also "ascending layers of ice". These are formed by the protrusion of water to the surface by a dome-like swelling of the ice and by an eruption on one spot. East of the Lena River more than 4000 large layers of ice, in Turkic language called "taryn", with a length of 100 m to 90-100 km, a width of from some meters up to 3-5 km, and a thickness of 0.5 to 10-12 m were recorded (Fig. 6). In the region of permafrost soil layers of ice are also formed outside the inundation bed of rivers because of an eruption of underground water. With the beginning of frost the melted ground freezes, sometimes down to permafrost soil, and thus forms a hindrance for the runoff of underground water. The high hydrostatic pressure raises the layer of the permafrost soil in the form of a hill, a so-called hydro-lakkolithe. In Turkic language they are called "bulgunnyakh". They are up to 50 m high and up to 200 m wide. There are 7 figures.

IVAN'KOV, Pavel Alekseyevich; SMOZHENKOV, Nikifor Fedosovich; ZHUDRO, A.N., red.; SHAMAROVA, T.A., red.izd-va; VORONOVA, V.V., tekhn.red.

[Plastics in cartography] Plastiki v kartografii. Izd-vo geodez.lit-ry, 1961. 80 p. (MIRA 15:2)
(Plastics) (Cartography)

MANZHOS, Fedor Matveyevich, doktor tekhn.nauk; IVANKOV, P.G., red.; FEDOROV, B.M., red.izd-va; KARASIK, N.P., tekhn.red.

[Precision of mechanical woodworking] Tochnost' mekhanicheskoi obrabotki drevesiny. Moskva, Goslesbumizdat, 1959. 261 p. (MIRA 13:3)

(Woodwork)

3(4) SOV/26-59-4-32/43

AUTHOR: Ivan'kov, P.I., Candidate of Technical Sciences (Moscow)

TITLE: The Present State of Glaciation of the Zangezurskiy Range (Sovremennoye oledeneniye zangezurskogo khrebta)

PERIODICAL: Priroda, 1959, Nr 4, p 114 (USSR)

ABSTRACT: The author points out that the southern center of present glaciation in the Caucasus is located in the southern part of the Zangezurskiy Range, north of the 39th parallel. This mountain range lies south-east of the Armenian Highlands and covers 150 km from the mountain Ginal (Shakhdag Range) in the north, up to the Araks in the south. The height of this range reaches 3,700-3,900 m in the glacial regions. Considering the location of most of the glaciers the present snow line of the Zangezurskiy Range can be fixed at a height of 3,600-3,650 m. According to the latest topographical map there are 52 glaciers in a 22 km zone of the

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The Present State of Glaciation of the Zangezur Range

Zangezurskiy Range. Each of them comprising an area of about 1.58 km^2. 44 glaciers are situated on the eastern slope, 8 on the western one, but all of them higher than 3,400 m. There is 1 map.

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OSADCHEV, Vasiliy Georgiyevich, kand. tekhn. nauk; IVANKOV, Petr Timofeyevich; LOTSMANOVA, Platonida Nikolayevna; SOKOLOV, Tikhon Davydovich; SHUBIN, Grigoriy Solomonovich; BASKAKOV, Ye.D., red.; SVETLAYEVA, A.S., red. izd-va; VDOVINA, V.M., tekhn. red.

[Handbook on woodwork and the processing of wood; for workers in shops manufacturing consumer goods] Spravochnik po obrabotke i pererabotke drevesiny; dlia rabotnikov tsekhov shirpotreba. 2., perer. izd. Moskva, Goslesbumizdat, 1961. 371 p. (MIRA 15:2)

(Woodwork) (Wood-using industries)

IVANKOV, Petr Timofeyevich; KULIKOV, I.V., retsenzent; KUZNETSOV, M.A., retsenzent; PLESKO, Ye.P., red. izd-va; VDOVINA, V.M., tekhn. red.

[Technical measurements and the fundamentals of metrology] Tekhnicheskie izmereniia s osnovami metrologii. Moskva, Goslesbumizdat, 1963. 256 p. (MIRA 16:7)
(Mensuration) (Measuring instruments)

OSADCHIYEV, Vasiliy Georgiyevich; IVANKOV, Petr Timofeyevich; SHUBIN, Grigoriy Solomonovich; TIKHOMIROV, V.V., nauchn. red.; LEYKINA, A.K., red.; DORODNOVA, L.A., tekhn. red.

[Manual for the young woodworker] Spravochnik molodogo derevoobrabotchika. Izd.2., perer.i dop. Moskva, Proftekhizdat, 1963. 346 p. (MIRA 16:7)
(Woodworking industries)

ADONIN, A.N., kand.tekhn.nauk; ALIVERDIZADE, K.S., kand.tekhn.nauk; AMIYAN, V.A., kand.tekhn.nauk; ANISIMOV, Ye.P., inzh.; APRESOV, K.A., dotsent; BELEN'KIY, V.N., inzh.; BOGDANOV, A.A., kand. tekhn.nauk; GORBENKO, L.A., inzh.; DANIELYAN, A.A., inzh.; DAKHNOV, V.N., prof.; IVANKOV, R.A., inzh.; KORNEYEV, M.I., inzh.; LAVRUSHKO, P.N., inzh.; LESIK, N.P., inzh.; LOVLYA, S.A., kand. tekhn.nauk; LOGINOV, B.G., kand.tekhn.nauk; MININZON, G.M., kand. tekhn.nauk; MOLCHANOV, G.V., kand.tekhn.nauk; MURAV'YEV, I.M., prof.; MUSHIN, A.Z., inzh.; OL'SHVANG, D.Ye., inzh.; PODGORNOV, M.I., inzh.; FAYERMAN, I.L., kand.tekhn.nauk; FOKINA, Ye.D., inzh.; EFISHEV, A.M., inzh. [deceased]; YERSHOV, P.R., vedushchiy red.; MUKHINA, E.A., tekhn.red.

[Reference book on petroleum production] Spravochnik po dobyche nefti. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry. Vol.2. 1959. 589 p. (MIRA 13:2)
(Oil fields--Production methods)

L 3984-66

ACCESSION NR: AP5022356 UR/0115/65/000/007/0001/0006
681.2.088.001.5

AUTHOR: Nemirovskiy, A. S.; Ivankov, S. A.

TITLE: New approximation polynomials for analyzing the results of measurements

SOURCE: Izmeritel'naya tekhnika, no. 7, 1965, 1-6

TOPIC TAGS: approximation method, mathematic analysis

ABSTRACT: Simple methods are proposed for deriving polynomials to approximate the physical relationships of empirically derived functions. These methods reduce the number of computational operations required for derivation of approximate polynomials in comparison with the method of least squares. However, the new methods entail somewhat of a loss in information (reduction in accuracy) or an increase in the number of experiments. It is proved that little accuracy is lost in the case of polynomials of the second and third degree if curves are passed through subintervals in the function being approximated and correction is made by adding a constant or a linear term. It is shown in the first part of the paper that a polynomial of any degree k requires correction by a polynomial of degree $k - 2$. Even if the corrective

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polynomial is derived by the method of least squares, the total number of operations is reduced by using the proposed method. A method is also proposed which may be used in cases where limited accuracy is required. The approximating curve is laid out by any simple rational method (even "by eye") and the deviation of this curve from the experimental points is then approximated by one of the polynomials proposed in this paper. It is frequently possible to approximate a function by a linear polynomial, which is easily found by the method of least squares. Orig. art. has: 45 formulas.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: MA

NO REF SOV: 001 OTHER: 000

PC

Card 2/2

IVAN'KOV, TS.A.

In southern Sakhalin. Priroda 45 no.6:66-74 Je '56. (MLRA 9:8)
(Sakhalin--Physical geography)

DONSKOY, V., inzh.; IVANKOV, V., inzh.; RABINOVICH, G.

What floor do you want? Izobr.i rats. no.5:11-12 My '62.
(MIRA 15:5)

1. Institut "Lenzhilproyekt" (for Donskoy, Ivankov).
2. Nachal'nik otdela novoy tekhniki i tipizatsii instituta "Lenzhilproyekt" (for Rabinovich).
(Elevators)

IVANKOV, V.A.; RABINOVICH, G.M.

New type of elevator. Gor. khoz. Mosk. 37 no.7:20-22 Jl '63.
(MIRA 16:11)

IVAN'KOV, Ye.I., podpolkovnik meditsinskoy sluzhby; LYASAKOV, N.A., podpolkovnik meditsinskoy sluzhby; SMIRNOV, V.V., podpolkovnik meditsinskoy sluzhby

Causes for the elimination of students in military flight training institutions for health reasons, Voen.-med.zhur. no.3:57-60 Mr '61. (MIRA 14:7)

(AVIATION MEDICINE)

IVAN'KOV, Ye.I., podpolkovnik meditsinskoy sluzhby

Medical study of the premises of flight incidences. Voen.-med.zhur. no.o:51-52 '64. (MIRA 18:5)

IVANKOV, Yu., inzh.

Multitone electronic musical instrument. Radio no.5:29-31 My '64. (MIRA 17:6)

IVANKOV, Yu., inzh.

Multitone electronic musical instrument. Radio no.1:29-31 Ja '66. (MIRA 19:1)

MIKHAYLOV, V.V., kand.tekhn.nauk; PLATONOV, V.V., inzh.; IVANKOV, Yu.I., inzh.

Increasing of the sensitivity of the starting devices of distance-type systems. Elek. sta. 34 no.6:65-68 Je '63. (MIRA 16:9)
(Electric protection) (Electric power distribution)

AUTHORS: Shcherbov, D.P., Ivankova, A.I. 32-24-6-3/44

TITLE: A Comparative Study of the Photometrical Methods of Determining Gallium (Sravnitel'noye izucheniye fotometricheskikh metodov opredeleniya galliya)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 6, pp 667-674 (USSR)

ABSTRACT: For the determination of small quantities of gallium a number of reactions was suggested; M.Z.Yampol'skiy (Ref 24) investigated the influence exercised by the nature of the chromophore upon the sensitivity of the reaction of the functional-analytical groups of some reagents. In the USSR the fluorescence method with orthooxyquinoline is the most frequently used, whereas in other countries the colorimetric and fluorometric determination by means of rhodamine B is the most used. Recently, A.M.Lukin and G.B.Zavarikhina suggested using the gallium reagent which was synthetized at the IRYeA for colorimetric determinations of gallium. In order to ascertain the sensitivity of the methods of determination employed, a table was worked out which shows that less than 0.05 γ/ml of gallium can be determined in the colorimetrical determination with purpurine, quinalizarin, and gallium, as well as by fluorometric

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A Comparative Study of the Photometrical Methods of Determining Gallium 32-24-6-3/44

measurement with sulphonaphtolazorezorein, orthooxyquinoline, and rhodamine B. For the purpose of studying reagents in the determination of gallium in mineral raw materials gallium and the rhodamines C (the corresponding USSR products B and 6 zh) were used, the structural formulae of which are given; the older laboratory workers R.M.Kuchina and V.I.Brymtseva assisted in the work of determination. In order to investigate the degree of selectivity of rhodamines with different ions and under different conditions, a special technique was developed and used, which is described together with the various types of UV-tubes used for the same purpose. Determinations carried out with rhodamine C (which are shown in form of schematical drawings) show that only ittrium, copper, antimony, thallium and tellurium exercise a disturbing influence; it is further shown that, according to a paper by H.Onishi and E.B.Sandell (Refs 13,14) the influence exercised by Au, Sb, Fe and thallium^{+3} can be eliminated. Experiments carried out with rhodamine 6 zh showed that selectivity was lower than in the case of rhodamine C, but, at the same time, it was found that, if gallium is first separated from the disturbing

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A Comparative Study of the Photometrical Methods of Determining Gallium

32-24-6-3/44

admixtures, the sensitivity attainable is five times as great and the range of application is from six to seven times as great as in the case of rhodamine C. It is recommended by the IRYaA that gallium be used with a biphtalate buffer at pH = 3. In the present paper an acetate buffer with a pH = 3 is, in addition, used and it was found that gallium reacts with many elements especially in the acetate buffer, and that therefore a previous separation of the major part of the ordinary components of mineral raw materials must take place. A comparison of the reagents investigated showed that rhodamine 6 Zh offers considerable advantages compared to orthooxyquinoline, whereas determinations carried out with gallium are comparatively simple although a particularly careful separation of disturbing admixtures must be carried out. There are 7 figures, 2 tables, and 27 references, 9 of which are Soviet.

Card 3/4

A Comparative Study of the Photometrical Methods of Determining Gallium

32-24-6-3/44

ASSOCIATION: Kazakhskiy institut mineral'nogo syr'ya i Tsentral'naya laboratoriya Yuzhno-Kazakhstanskogo geologicheskogo upravleniya (Kazakh Institute of Mineral Raw Materials and Central Laboratory of the South-Kazakh Geological Board of Administration)

1. Ores--Processing 2. Gallium--Determination 3. Photometry --Performance 4. Colorimetry--Performance 5. Fluorometers--Performance

Card 4/4

5(2)

AUTHORS: Shcherbov, D. P., Ivankova, A. I. SOV/32-24-11-10/37

TITLE: Fluorometric Determination of Tellurium Using Rhodamine C (Fluorometricheskoye opredeleniye tellura s rodaminom C)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 11, pp 1346-1349 (USSR)

ABSTRACT: The reagents recommended for fluorescence determinations of tellurium - acridine, α-naphtaflavone, and quinine (Refs 1,2) - are not sufficiently selective, and react with other elements. It was noticed that compounds of Rhodamine C and 6Zh with tellurium which were extracted with benzene from hydrochloric acid glowed intensely after being subjected to ultra-violet rays (Refs 3-5). The complete tellurium extraction was carried out using 3 ml. of a 2:1 benzene-ether mixture and extracting from 5-7% hydrochloric acid. Since Ga, Sb^{3+}, Sn^{2+}, Mo, Sn^{4+}, and Re and other elements cause fluorescence the sample to be determined was decomposed and Se and Te separated by ordinary methods (Refs 6,7). The solution was made to volume, and contained an optimal amount of tellurium (1 to 15γ). Rhodamine C

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appears to be more suitable for the tellurium determination than Rhodamine 6Zh . The fluorescence was compared against that of the standard solutions. The advantage of the described method is its inherently faster analysis and the fact that it is possible to use smaller samples (0.1-0.5 g). For the ultraviolet radiation a PRK-4 lamp with a quartz condenser and a UFS-3 filter, or a LYuM-1 apparatus (Ref 8) was used (Table). There are 4 tables and 8 references, 6 of which are Soviet.

ASSOCIATION: Kazakhskiy institut mineral'nogo syr'ya (Kazakh Institute for Mineral Raw Materials)

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AUTHORS: Ivankova, A. I. and Blyum, I. A.

TITLE: Separation and determination of low amounts of selenium and tellurium

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 4, 1961, 371-377

TEXT: Traditional methods of precipitating selenium and tellurium with a content of 1 - 2 mg/l show no quantitative separations; deviations of 20 - 35% occur with concentrations of 0.2 - 0.5 mg/l. The sensitiveness of color reactions cannot be fully utilized. The authors used the following methods to determine Se and Te in copper-zinc and copper ores of the Urals up to a content of 0.0005 - 0.0006% (error limits 3 - 5%): The mineral (2 g) dissolved in 35 - 40 ml of HNO_3 (1.40) was heated with 10 ml of H_2SO_4 (1:1) until SO_3 vapors were formed. 50 ml of HCl (1.19), 1 mg of dissolved arsenic (1 mg/ 1 ml), and 0.1 g of $CuSO_4$ were added to the solution after filling up to 50 ml. An excess of Na_3PO_2 was used for

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precipitating; the precipitate was dissolved in 5 ml of HNO_3 and 2 - 3 drops of HCl, heated with 2 ml of H_2SO_4 until SO_3 vapors were formed, and then filled up to 10 ml. 3 ml each of this solution were used for the Se (I) and Te (II) analyses. 2 ml of 2.5 N HCOOH and 3 ml of 0.1 M Trilon B solution were added for (I). A pH of 2 - 3 was established with NH_3 (1:1), and 2 ml of 0.5% 3,3'-diamino-benzidine solution were added. After extraction with 10 ml of toluene, a 20-mm layer of the solution was studied with an ФЭК-Н-57 (FEK-N-57) photocolorimeter, light filter no. 2 (λ_{max} = 410 mμ). The molar coefficient of light extinction in the passage range of filter no. 2 is 6300 referred to the Se content in aqueous solution before extraction. Cr, Sn, Ti, Zr, Au, and large amounts of Fe and Cu disturb the Se determination. For analysis (II), 5.8 ml of H_2SO_4 (1:1), 0.6 ml of 3.5 N HBr, 0.6 ml of 0.1% butyl rhodamine B solution, and 0.05 g of ascorbic acid were added to 3 ml of solution. After extraction with 5 ml of benzene, the optical density of a 5-mm layer is determined either with an ФЭК-М (FEK-M) photo-

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colorimeter with liquid light filters, or ФЭК-Н-57 (FEK-N-57) photocolorimeter with filter no. 5 (λ_{max} = 530 mμ; molar coefficient of light extinction = 35,000). The following rhodamine dyestuffs may also be used for the Te determination: ethyl rhodamine B, rhodamine 6 G, and rhodamine B. In the latter, a mixture of benzene and ether (3:1) is used for the extraction. A fluorimeter consisting of an СВДШ-250-3 (SVDSh-250-3) lamp, a monochromator, an ФЭУ-19 (FEU-19) photomultiplier, and an М-95 (M-95) microammeter, was used to measure the fluorescent intensity of Te compounds with rhodamines. The wavelength for rhodamine 6 G was 555 mμ, and for the other dyestuffs: 587 mμ. As the reference value = 100, a 10^{-3} M fluorescein solution of λ = 518 mμ was used. Results are shown in Fig. 1 and Tables 2,3. Best results were obtained with the bromide complex and butyl rhodamine B; 0.01γ of Te was still found in 5 ml. With a Te content of 10^{-5} to 10^{-6} %, however, the photometric method is to be preferred. D. P. Shcherbov and A. I. Ivankova are mentioned. There are 5 figures, 3 tables, and 13 references: 9 Soviet-bloc and 4 non-Soviet-bloc. The three references to English language publications read as follows: Ref. 9: D. Boltz, Colorimetric determina-

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tion of nonmetals, N.Y. (1958); Ref. 10: C. L. Luke, Anal. Chem., 31, no. 4, 572 (1959); Ref. 8: K. L. Cheng, Anal. Chem., 28, no. 11, 1738 (1956).

ASSOCIATION: Kazakhskiy nauchno-issledovatel'skiy institut mineral'nogo syr'ya (Kazakh Scientific and Research Institute of Mineral Raw Materials)

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