In this formula $\varphi(z)$ and $\psi(z)$ are functions analytic in $\sigma \cup L \cup \bar{\sigma}$, where

(4) $$\varphi(x) = w(x,0)$$

(5) $$\psi(x) = \lim_{y \to 0} \left(\frac{y}{1-c}\right)^c \frac{\partial w}{\partial y}.$$

Theorem: In order that a solution $w(x,y)$ of (1) for $0 < c < 1$ belonging to $C_2(T)$, $T \in B$ can be represented in the form (3) it is necessary and sufficient that one of the following conditions is satisfied: 1) there exists a solution conjugated in T, 2) there exists a function analytic in T which on L satisfies the condition (4), 3) in T there exists an analytic function which on L satisfies the condition (5).
Two functions $w(x,y)$ and $w^*(x,y)$ defined in T are called conjugated if they belong to $C_2(T)$ and on L they satisfy the relations

$$w(x,0) = w^*(x,0), \quad \lim_{y \to 0} y^c \frac{\partial w}{\partial y} = -\lim_{y \to 0} y^c \frac{\partial w^*}{\partial y}.$$

Card 2/2 Some conclusions are formulated.

ASSOCIATION: Moscow Physical-Technical Institute(Moskovskiy fiziko-tekhnicheskiy institut)
PRESENTED BY: M.A. Lavrent'yev, Academician, April 9, 1957
SUBMITTED: April 5, 1957
AVAILABLE: Library of Congress

AUTHOR: Krivenkov, Yu.P. SOV/20-123-2-7/59

TITLE: Representations of Solutions of the Equation of Euler-Poisson-Darboux for Negative Coefficients (Predstavleniya resheniy uravneniya Eylera-Puassona-Darbu pri otritsatel'nom koeffitsiyente)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 123, Nr 2, pp 239-242 (USSR)

ABSTRACT: The equation

$$(1) \qquad \frac{\partial^2 w}{\partial x^2} + \frac{\partial^2 w}{\partial y^2} + \frac{c}{y}\frac{\partial w}{\partial y} = 0 \qquad c = \text{const}$$

investigated by the author in earlier papers [Ref 1,2] under the assumption $c > 0$ is now considered for $c < 0$.
Let T denote a domain of the half plane $y > 0$ being adjacent to the interval ab (or L) of the Ox-axis; let $\overline{T}$ be the domain symmetric with respect to Ox. Let T (or $\overline{T}$) belong to the class B if $T \cup L \cup \overline{T}$ contains all points of the rectilinear line which combines two arbitrary points of the domain with the same abscissas. To the class $E_\alpha(T)$ there belongs every function continuous in $T \cup L$ and two times continuously differentiable in T, which for $c = \alpha$ satisfies the equation (1). To the class $N_\alpha(T)$ there belong those functions of $E_\alpha(T)$ which besides on L satisfy the condition

$$\lim_{y \to 0} y^\alpha \frac{\partial w}{\partial y} = 0.$$

Card 1/3

Representations of Solutions of the Equation of Euler- SOV/20-125-2-7/59
Poisson Darboux for Negative Coefficients

Theorem: If the solution $w(x,y) \in E_c(T)$ $(-2 < c < 0)$ on L satisfies the condition $w(x,0) = 0$, then in T it can be represented in the form

$$w(x,y) = \gamma\left(1-\frac{c}{2}\right)\left(\frac{y}{1-c}\right)^{1-c}\int_0^1 \frac{\psi[x+iy(1-2\sigma)]\,d\sigma}{[\sigma(1-\sigma)]^{c/2}}.$$

Here $\gamma(\alpha) = \frac{\Gamma(2\alpha)}{\Gamma^2(\alpha)}$ and $\psi(z)$ is a function analytic in T which on L satisfies the condition

$$\lim_{y\to 0}\left(\frac{y}{1-c}\right)^c \frac{\partial w}{\partial y} = \psi(x).$$

If a solution belongs to the class $E_\alpha(t)$ and if on L it satisfies the condition $\frac{\partial^2 w}{\partial x^2} = O(y^{-1-c+\varepsilon})$, $\varepsilon>0$, then the solution belongs to the class $E_c^*(T)$. Three further theorems contain assertions similar to theorem 1 on solutions belonging to $E_c^*(T)$.

Card 2/3

Representations of Solutions of the Equation of Euler-Poisson-Darboux for Negative Coefficients SOV/20-123-2-7/59

There are 3 references, 2 of which are Soviet, and 1 American.

ASSOCIATION: Moskovskiy fiziko-tekhnicheskiy institut (Moscow Physico-Technical Institute)

PRESENTED: May 30, 1958, by I.N.Vekua, Academician

SUBMITTED: May 27, 1958

Card 3/3

AUTHOR: Krivenkov, Yu.P. SOV/20-123-3-3/54

TITLE: Some Problems for the Equation of Euler - Poisson - Darboux (Nekotoryye zadachi dlya uravneniya Eylera - Puassona - Darbu)

PERIODICAL: Doklady Akademii nauk SSSR,1958, Vol 123, Nr 3, pp 397 - 400 (USSR)

ABSTRACT: The paper directly starts from the preceding publication of the author [Ref 5] ; the same notations are used. For the equation

$$(1) \quad \frac{\partial^2 w}{\partial x^2} + \frac{\partial^2 w}{\partial y^2} + \frac{\alpha}{y} \frac{\partial w}{\partial y} = 0$$

the author formulates the following three problems: Problem C_1: A solution $w(x,y) \in E_c(T)$, $c > 1$ is to be found which satisfies the condition

$$(2) \quad w(x,0) = f_1(x)$$

on the interval L of the x - axis. Problem C_2 : A solution

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$w(x,y) \in E_c(T)$, $-1 < c < 0$, $0 < c < 1$, is to be found which on L satisfies the conditions (2) and

(3) $\lim_{y \to 0} y^c \frac{\partial w}{\partial y} = f_2(x)$.

Problem C_3 : A solution $w(x,y) \in E_c(D)$, $-1 < c < 0$, $0 < c < 1$ is to be found in $D = T \cup L \cup \overline{T}$ which on L satisfies the conditions (2) and (3). Theorem : The solution of C_1 exists if and only if there is a function $\varphi(z)$ analytic in T which takes on L the real values $f_1(x)$.

Theorem: One of the following conditions is sufficient for the existence of the solution of C_2 :

a) Analytic functions $\varphi(z)$ and $\psi(z)$ exist in T which on L take the real values

(4) $\varphi(x) = f_1(x)$ and

(5) $\psi(x) = \left(\frac{1}{1-c}\right)^c f_2(x)$

Card 2/3 b) The conjugate solution and an analytic function $\varphi(z)$ which

satisfies (4) exist in T.
c) The conjugate solution and an analytic function which satisfies (5) exist in T.
Theorem: The condition a) of the preceding theorem is necessary and sufficient for the existence of the solution of C_3.

Three further theorems contain statements concerning the correctness of the solutions of C_1, C_2, C_3.

The paper has been guided by I.N.Vekua.
There are 7 references, 4 of which are Soviet and 3 American.
ASSOCIATION: Moskovskiy fiziko-tekhnicheskiy institut (Moscow Physico-Technical Institute)
PRESENTED: May 30, 1958, by I.N. Vekua, Academician
SUBMITTED: May 27, 1958

KRIVENKOV, Yu. P.: Master Phys-Math Sci (diss) -- "Investigation of solutions of the Euler-Poisson-Darboux elliptic equation". Moscow, 1959. 8 pp (Acad Sci USSR, Math Inst im V. A. Steklov), 160 copies (KL, No 18, 1959,121)

KRIVENKOV, Yu.P., kand.fiz.-matem.nauk

Problem D for the Euler-Poisson-Darboux equation. Trudy MFTI no.5: 134-145 '60. (MIRA 13:10)

(Differential equations, Partial)

27054
S/044/61/000/007/025/039
C111/C222

11.3500

AUTHOR: Krivenkov, Yu. P.

TITLE: The problem D for the equation of Euler-Poisson-Darboux

PERIODICAL: Referativnyy zhurnal, Matematika, no. 7, 1961, [illegible] abstract 7 B 221. ("Tr. Mosk. fiz.-tekhn. in-ta [illegible] vyp 5, 1960, 134-145)

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TEXT: The equation

$$w_{xx} + w_{yy} + cw_y/y = 0 \quad , \quad c = \text{const} \qquad (1)$$

is considered in the region G. This region consists 1) of the simply connected region T_1 lying in the halfplane $y \geq 0$ on which the interval AB(L) of the axis $y = 0$ is joined and which is bounded by the piecewise smooth curve Γ_1 with the ends in A and B ; 2) of the region T_2 being symmetric to T_1 with respect to the axis $y = 0$ and bounded by the curve Γ_2 being symmetric to the class Γ_1 with respect to the axis $y = 0$,

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The problem D for the equation ...

and 3) of the interval L. The class $E_c(T)$ is formed by solutions of (1) being continuous in $T \cup L$ and two times continuously differentiable in T. The subclass $N_c(T) \subset E_c(T)$ is formed by functions which possess on L satisfy the condition

$$\lim |y|^c w_y = 0 \quad , \quad y \to 0 \quad .$$

The class $E_c(G)$ is formed by all pairs of functions belonging to $E_c(T_1)$ and $E_c(T_2)$, respectively, and which in G form a function continuous together with $|y|^c w_y$. In this class in the region G the author considers the problem D (Dirichlet) to determine a solution of (1) bounded in G from its given piecewise continuous boundary values on $\Gamma = \Gamma_1 \cup \Gamma_2 \cup \{A,B\}$.

In the class $N_c(T_1)$ the author gives the problem N_0 with given piecewise continuous values of the solution on $\Gamma_1 \cup \{A,B\}$.

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S/044/61/000/007/025/055
C111/C222

The problem D for the equation ...

For functions of the class $N_0(T)$ the author formulates a maximum principle for $c<1$ which guarantees the uniqueness of the solution of the problem N_0 for $-1<c<0$ and $0<c<1$. The existence and uniqueness of the solution of the problem D are proved under the same assumptions on c at first for the case where G is a circle the center of which lies on the axis $y = 0$. Then, with the aid of the alternating method by Schwarz there follows the generalization to an arbitrary region G ; here it is assumed that the boundary conditions are continuous in the points A and B, where the continuity of the solution in these points is examined with the aid of specially constructed bound functions. In the last part of the paper the author expresses more precisely and generalizes the results of his earlier papers (Krivenkov, Yu.P., R zh Mat 1959, 1525 ; 1960, 374, 7675). In these papers the author considered the representations of the solutions of (1) which contain arbitrary analytic functions, and he used these representations for the solution of the Cauchy problem for (1), where the "initial data" were given on the axis $y = 0$.
[Abstracter's note : Complete translation.]

Card 3/3

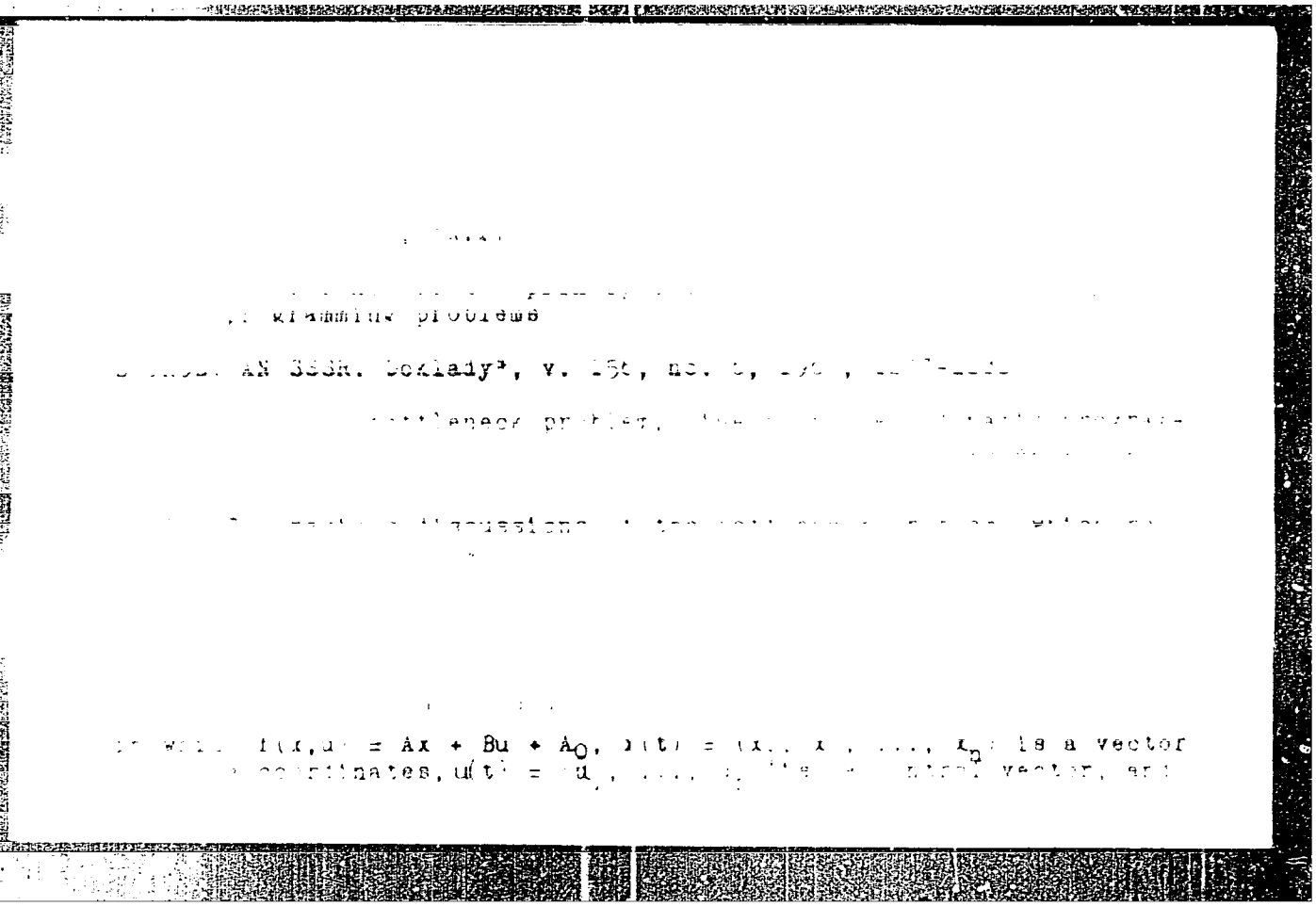
KRIVENKOV, Yu.P., kand.fiziko-matem.nauk

Zero-torque stresses in some curved shells with total curvature disappearing or becoming infinite at the edge. Trudy MFTI no.9: 80-91 '62. (MIRA 16:5)
(Elastic plates and shells)

KRIVENKOV, Yu.P.

A production model in dynamic programming. Dokl. AN SSSR 156 no. 4:752-755 Je '64. (MIRA 17:6)

1. Moskovskiy fiziko-tekhnicheskiy institut. Predstavleno akademikom A.A.Dorodnitsynym.



[redacted] are matrices and vectors of appropriate orders. The

where

the coefficients $s_{1\alpha}$ (α = 1, 2, . . ., [illegible]) are defined for [illegible] by the expression

Σ [illegible]

[illegible] value of $u_m(t)$ corresponding [illegible]

[illegible] at [illegible]

[illegible] is optimal on [illegible] then the

[illegible]N: Moskovskiy fiziko-Tekhnicheskiy [illegible] Moscow Physico-technical Institute

NR REF SOV [illegible]

L 32681-66 EWT(d)/T/EWP(1) IJP(c)

ACC NR: AP6011647 SOURCE CODE: UR/0020/66/167/003/0506/0509

AUTHOR: Krivenkov, Yu. P.

ORG: Moscow Physicotechnical Institute (Moskovskiy fiziko-teknicheskiy institut)

TITLE: Linear dynamic programming in unrestricted control

SOURCE: AN SSSR. Doklady, v. 167, no. 3, 1966, 506-509

TOPIC TAGS: dynamic programming, linear programming, operations research, linear dynamic programming

ABSTRACT: A class of linear dynamic programming problems occurring in control applications is discussed. A proof is given of the sufficiency and, on the basis of a new approach to problems of variational computation, the necessity of the maximum principle for the given class of problems. The space K_n^l of the basic function $\phi(t)$ is studied, i.e., the space of n-dimensional vector functions consisting of finite l-times continuous differentiable functions. A generalized function f(t) is each linear continuous functional $(f(t), \phi(t))$, defined on K_n^l, and F^l is designated the class of such functions. If for $f(t) \in F^l$ there exists an integer k $(k \leq l)$ and if the integrable function F(t) and k are such that for any $\phi(t) \in K^l$

$$(f(t), \varphi(t)) = (-1)^k (F(t), \varphi^{(k)}(t)),$$

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UDC: 517.91

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ACC NR: AP6011647

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then the least k is the order of f(t). The general form of control functions is given along with boundary conditions. The problem is stated as one of finding the maximal control function from a set of possible functions such that the boundary conditions are met. Four theorems are stated in demonstrating the necessary and sufficient conditions for optimality of the control function. This paper was presented by L. S. Pontryagin, academician, on 24 June 1965. Orig. art. has: 9 equations.

SUB CODE: 09/ SUBM DATE: 27May65/ ORIG REF: 005/ OTH REF: 001

Card 2/2 BLG

AUTHORS: Yelovich, S.Yu., Zhabrova, G.M., Krivenkova, P.G. and Semenovskaya, T.D. SOV/80-59-1-30/44

TITLE: Hydrogenation of Fats in Foam (Gidrogenizatsiya zhirov v pene)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Nr 1, pp 187-193 (USSR)

ABSTRACT: The authors employed the method of hydrogenation of fats in foam which proved already to yield satisfactory results [Ref. 1 to 4]. The present paper describes the results of the hydrogenation of cotton oil in the foam which is formed during the passing of hydrogen through the porous partitions in Schott's filters. This technique leads to a very selective course of the process. The ratio of the hydrogenation rate of olein radicals to that of the saturation of linoleic radicals is equal to 0.01 to 0.04. The analysis of experimental data leads to the conclusion that the foam process proceeded in the kinetic region by all the components of the heterogeneous reaction of catalytic hydration. The electronmicroscopic investigation, carried out by I.I. Tret'yakov and I.A. Bespalova, of the nickel catalyzer obtained from the nickel formate and used in the experiments, leads to the conclusion that the prevailing dimensions of the particles are

Card 1/2

Hydrogenation of Fats in Foam

SOV/80-59-1-39/44

0.1 to 0.2 microns.
There are 4 graphs, 1 diagram, 1 microphoto, 3 tables and 8 Soviet references.

SUBMITTED: April 3, 1957

Card 2/2

KRIVENOK, I.I., gornyy inzh.

Necessity of making haulage entries in pillar methods of block mining. Ugol' 33 no.1:9-11 Ja '58. (MIRA 11:2)

1. Shakhta "Yagunovskaya" tresta Kemerovugol'.
(Coal mines and mining)

KRIVENTSEV, V. I.

Kriventsev, V. I.

"The problem of welding load on a three-phase source of concentrate power." Min Higher Education USSR. Moscow Inst of Mechanization and Electrification of Agriculture imeni V. M. Molotov. Stalingrad, 1956. (Dissertation For the Degree of Candidate in Technical Sciences).

Knizhnaya letopis'
No 34, 1956. Moscow.

8(0), 14(0) SOV/112-59-4-7288

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 4, p 119 (USSR)

AUTHOR: Kriventsev, V. I.

TITLE: Single-Phase Welding Transformers Should be Used on a Wider Scale

PERIODICAL: S. kh. Povolzh'ya, 1958, Nr 4, pp 80-83

ABSTRACT: Considerations are submitted on selecting a permissible value of welding current for single-phase STAN-1 and STE-24 welding transformers which are supplied from 3-phase rural generating stations or transformer substations. A 5-percent distortion of symmetry of phase-to-neutral voltages in the network serves as an initial data in the calculations. Curves are presented for determining the permissible welding-current value depending on the distance between the machine-tractor station or the repair-tractor station and a transformer substation, on the latter's capacity, and on the cable size. It is recommended that the welding load be connected to the line-to-line voltage. If the lighting load at a machine-tractor station amounts to 10-15% of the total

Card 1/2

Single-Phase Welding Transformers Should be Used on a Wider Scale

load, the permissible current should be halved. With a welding transformer supplied from a rural electric station, whose generators usually have salient poles, the phase-to-neutral voltage distortion is considerably higher than that of a transformer substation of the same capacity, and the maximum voltage variation depends on the type of voltage regulator. In this connection, it is recommended that the welding load be connected to the distributing board of the generating station. To maintain a more stable generator voltage, it is suggested that the primary detector of the voltage regulator be connected to a phase-to-neutral voltage while the welding load is connected to two other phases. A rectifying 3-phase bridge circuit for feeding the voltage regulator is better as the regulator responses to the average rectified voltage. This permits doubling the welding current in comparison with the first scheme of the regulator connection.

V.V.G.

Card 2/2

KRIVENTSEV, V. I., Candidate Tech Sci (diss) -- "The effect of a single-phase welding load on a source of three-phase current of commensurate power". Stalingrad, 1959. 17 pp (Moscow Inst of Mechanizationand Electrification of Agric), 250 copies (KL, No 24, 1959, 137)

GOLUBKOV, N.Ye.; KRIVENTSEV, V.I.;

[Calculating the efficiency of single-row differential and planetary mechanisms] O vychislenii KPD odnoriadnykh differentsial'nykh i planetarnykh mekhanizmov; monografiia. Stalingrad, Izd-vo M-va sel'khoz. in-ta, 1959. 23 p. (MIRA 16:7)

(Mechanisms)

8(3)

AUTHOR: Kriventsev, V. I., Engineer

SOV/105-59-1-12/29

TITLE: Changes in Voltage of Three-Phase Current Transformers at Unsymmetrical Load Conditions (Izmeneniya napryazheniy trekhfaznykh transformatorov pri nesimmetrichnoy nagruzke)

PERIODICAL: Elektrichestvo, 1959, Nr 1, pp 48-54 (USSR)

ABSTRACT: In order to determine in advance the changes of voltage at unsymmetrical load conditions, it is convenient to solve such problems by the method of symmetrical components. Here the total vector diagram is built up for the voltages of a three-phase current transformer, the coilings of which are connected with each other at an unsymmetrical total load according to the connection diagram YyO (Russian designation Y/Y_O, means star connection of the secondary winding, star connection of the undervoltage winding and O - the zero conductor or star point). To determine the changes of voltage, the vector diagram of a phase is examined. It is shown that, if the laws for the change in the ratios between symmetrical and unsymmetrical components are known, the calculation of percentage voltage changes can be carried out in three processes. At first, the current intensities are determined

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according to known loads or given operation methods. The nominal voltage is assumed as load voltage. The currents of unsymmetrical load conditions are divided in symmetrical components according to the rules of the method for symmetrical components. At the same time, one determines the total voltage drops in the phases for all sequences. In order to determine the ratio between symmetrical and unsymmetrical components, the cosine of the angle difference must be calculated. Formulas are given for the final calculation of voltage changes in known conditions of the symmetrical and unsymmetrical components, and known total voltage drops in the phases. One can also consider the influence of symmetrical three-phase load if this is predominant. The analysis of coiling connections in three-core, three-phase current transformers from the point of view of unsymmetrical voltage changes in the limiting case of unsymmetry, for instance at a one-phase load, is given as an example. The results of a comparison between experimental and calculation data confirm the justification of the method given here for determining the voltage changes of a transformer at unsymmetrical

Changes in Voltage of Three-Phase Current Transformers at Unsymmetrical Load Conditions

SOV/105-59-1-12/29

load conditions for practical use. There are 4 figures, 3 tables, and 3 references, 2 of which are Soviet.

SUBMITTED: February 11, 1958

Card 3/3

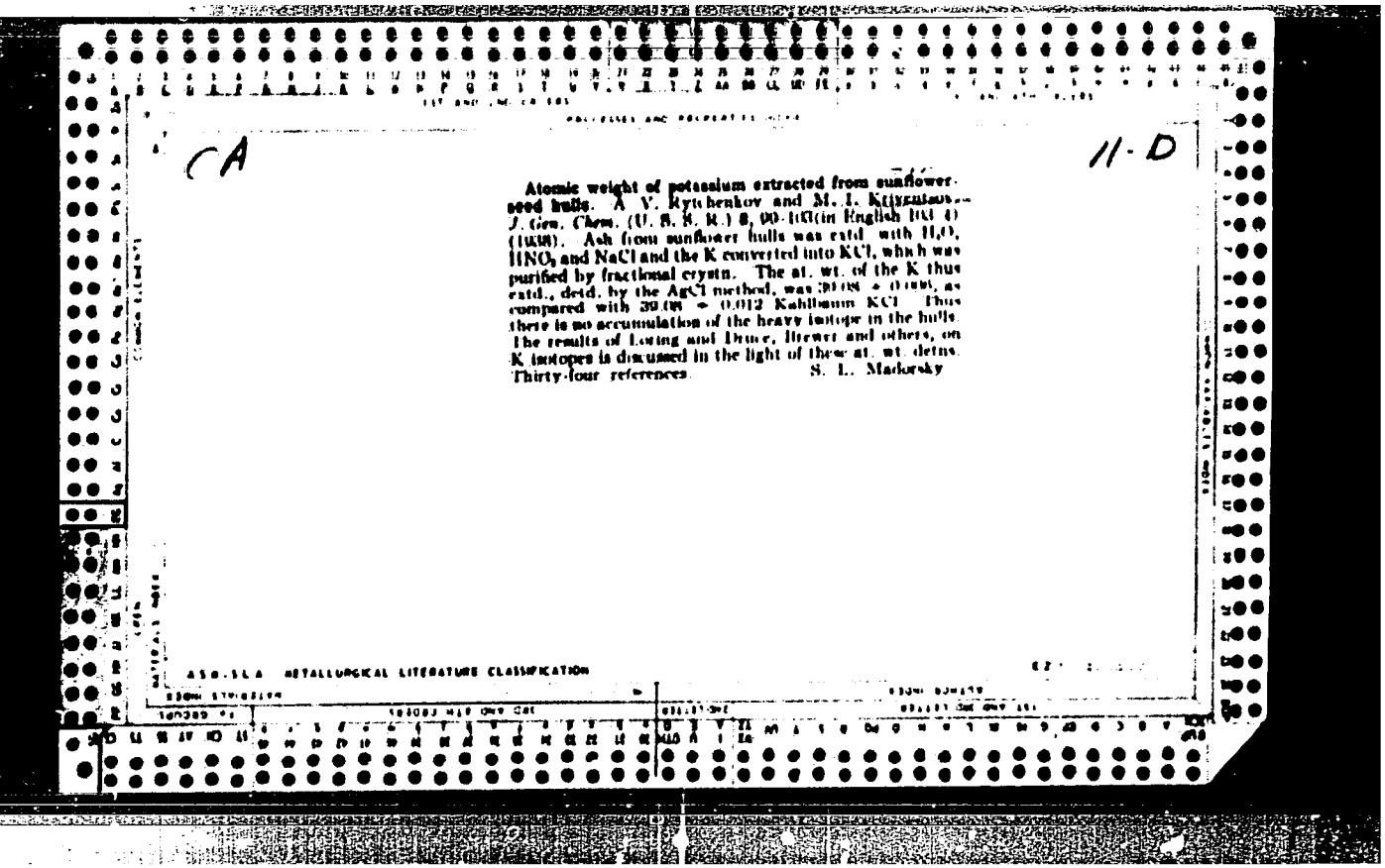
KRIVENTSEV, V.I., kand.tekhn.nauk

Design of 6 to 10 kv. power transmission lines with aluminum and steel wires and minimum power loss as criteria. Izv.vys.ucheb. zav.; energ. 5 no.11:30-35 N '62. (MIRA 15:12)

1. Volgogradskiy sel'skokhozyaystvennyy institut. Predstavlena kafedroy proizvodstva i raspredeleniya elektroenergii v sel'skom khozyaystve i elektricheskikh mashin.
(Electric lines—Overhead) (Electric power distribution)

FERSMAN, A.A.; KRIVETSKIY, A.A.

Analyzer of the probability density of irregular phase differences.
Prib. i tekh. eksp. 9 no.3:81-84 My-Je '64 (MIRA 18:1)

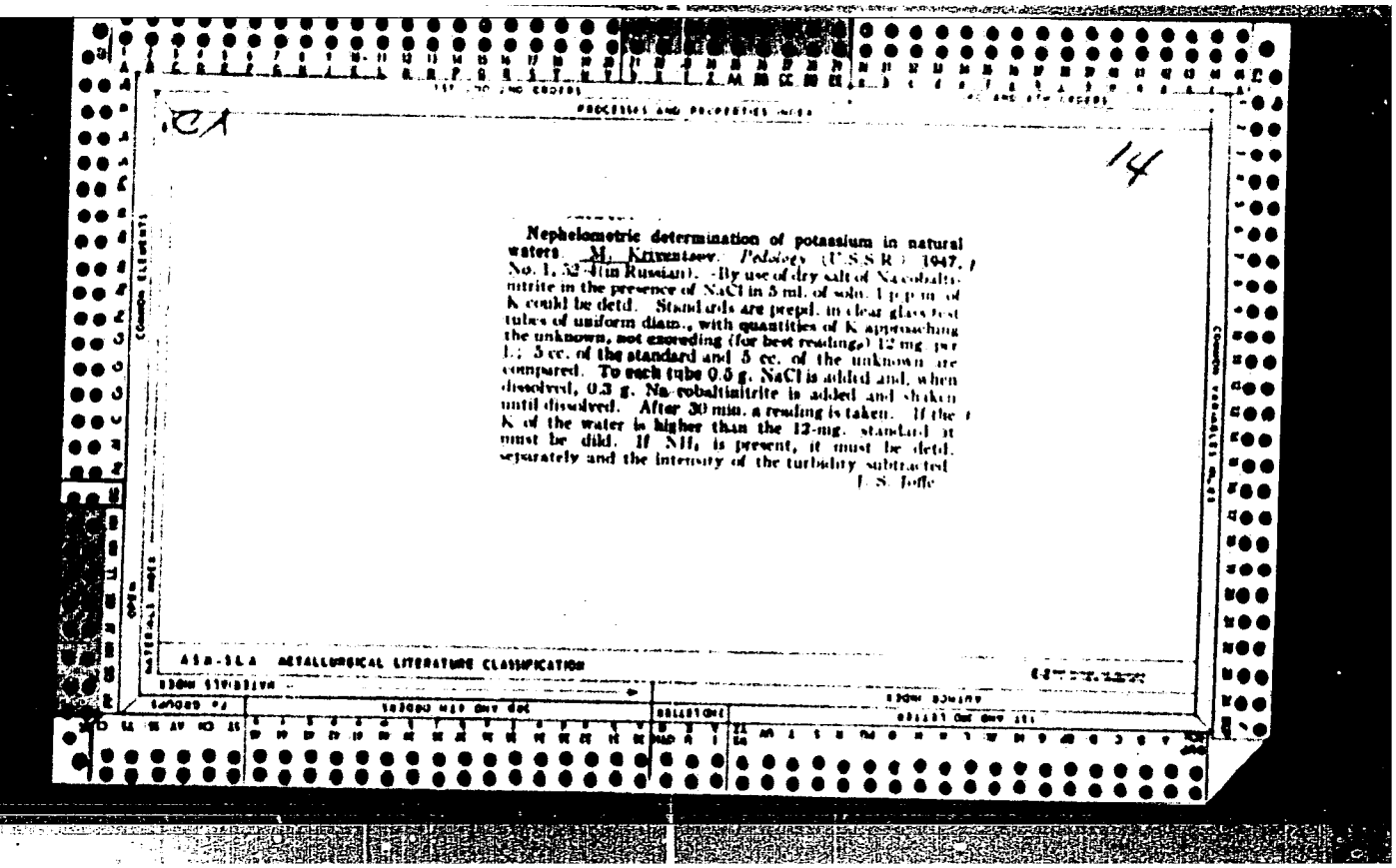


CA

11-D

Atomic weight of potassium extracted from sunflower-seed hulls. A. V. Rytchenkov and M. I. Kiryanova. *J. Gen. Chem. (U. S. S. R.)* 8, 99-101 (in English 101-4) (1938). Ash from sunflower hulls was extd. with H_2O, HNO_3 and NaCl and the K converted into KCl, which was purified by fractional crystn. The at. wt. of the K thus extd., detd. by the AgCl method, was 39.08 ± 0.00[illegible], as compared with 39.08 ± 0.002 Kahlbaum KCl. Thus there is no accumulation of the heavy isotope in the hulls. The results of Loring and Druce, Hewes and others, on K isotopes is discussed in the light of these at. wt. detns. Thirty-four references. S. L. Madorsky

A50-51A METALLURGICAL LITERATURE CLASSIFICATION

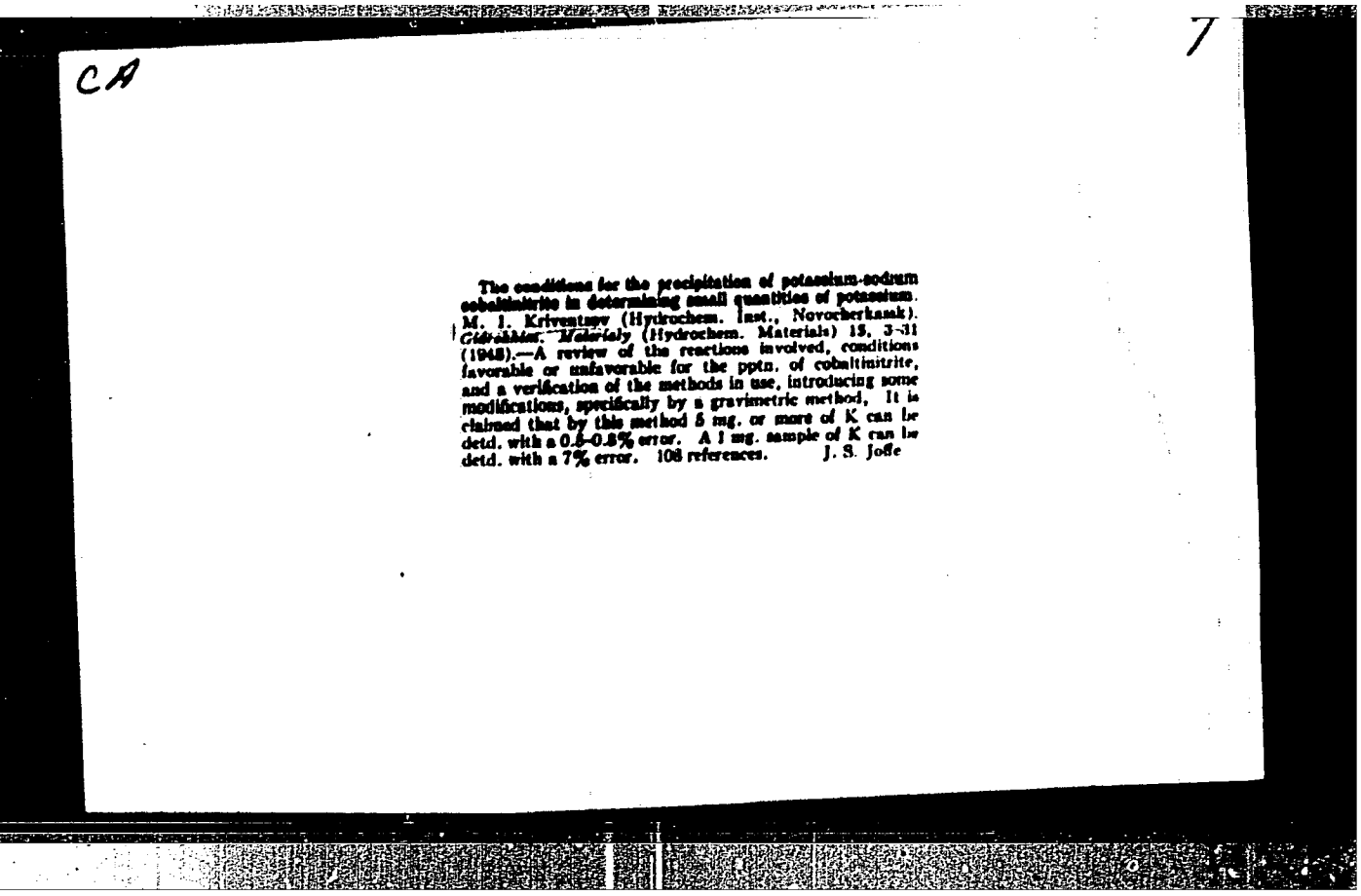


14

Nephelometric determination of potassium in natural waters. M. Kravtsov. *Pedology* (U.S.S.R.) 1947, No. 1, 32-4 (in Russian). -By use of dry salt of Na cobaltinitrite in the presence of NaCl in 5 ml. of soln. 1 p.p.m. of K could be detd. Standards are prepd. in clear glass test tubes of uniform diam., with quantities of K approaching the unknown, not exceeding (for best reading) 12 mg. per l.; 5 cc. of the standard and 5 cc. of the unknown are compared. To each tube 0.5 g. NaCl is added and, when dissolved, 0.3 g. Na cobaltinitrite is added and shaken until dissolved. After 30 min. a reading is taken. If the K of the water is higher than the 12-mg. standard it must be dild. If NH_4 is present, it must be detd. separately and the intensity of the turbidity subtracted.

I. S. Joffe

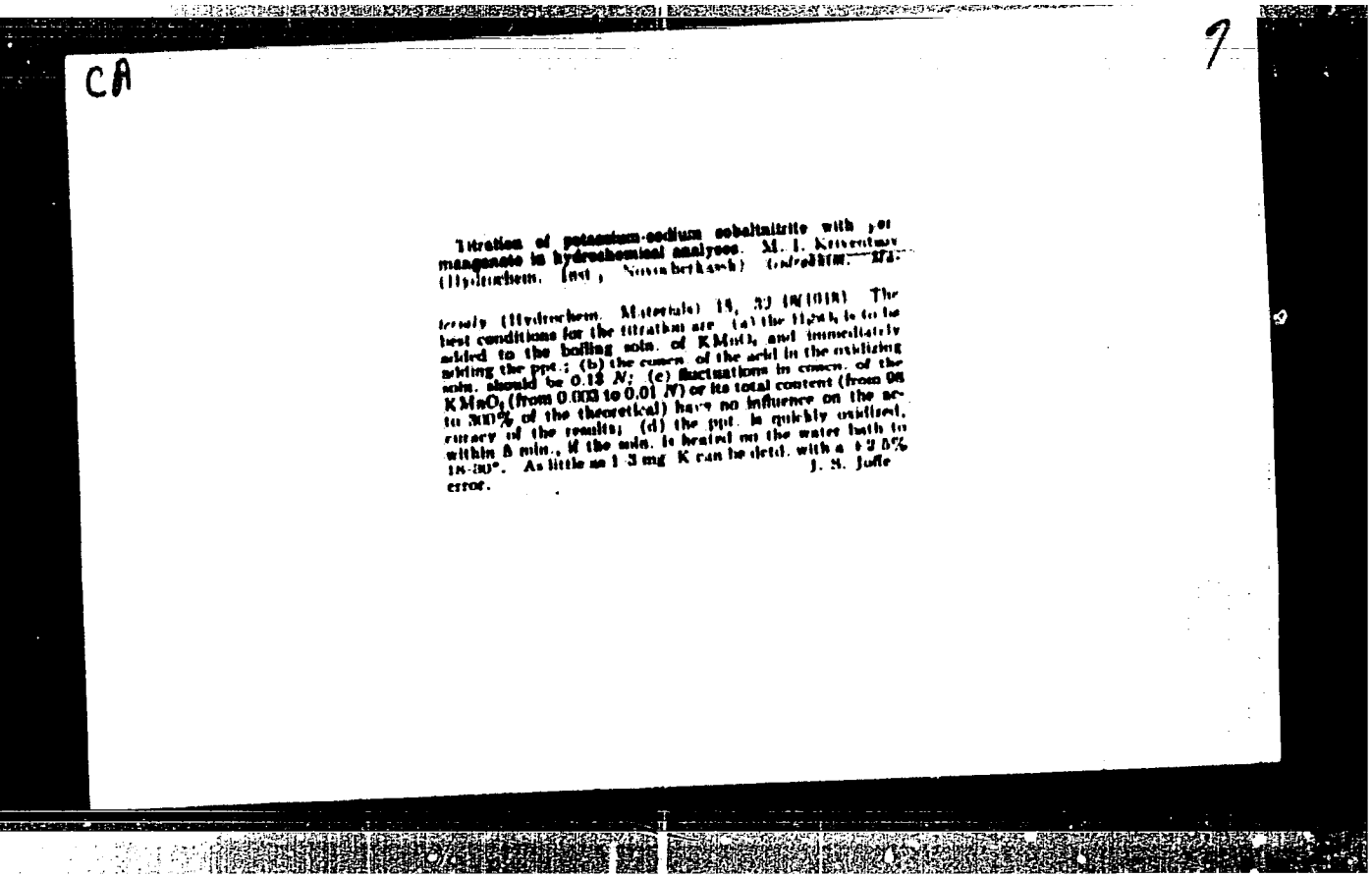
ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



CA

7

The conditions for the precipitation of potassium-sodium cobaltinitrite in determining small quantities of potassium. M. I. Krivenstsov (Hydrochem. Inst., Novocherkassk). *Gidrokhim. Materialy* (Hydrochem. Materials) 15, 3-31 (1948).—A review of the reactions involved, conditions favorable or unfavorable for the pptn. of cobaltinitrite, and a verification of the methods in use, introducing some modifications, specifically by a gravimetric method. It is claimed that by this method 5 mg. or more of K can be detd. with a 0.5–0.8% error. A 1 mg. sample of K can be detd. with a 7% error. 108 references. J. S. Joffe



CA

7

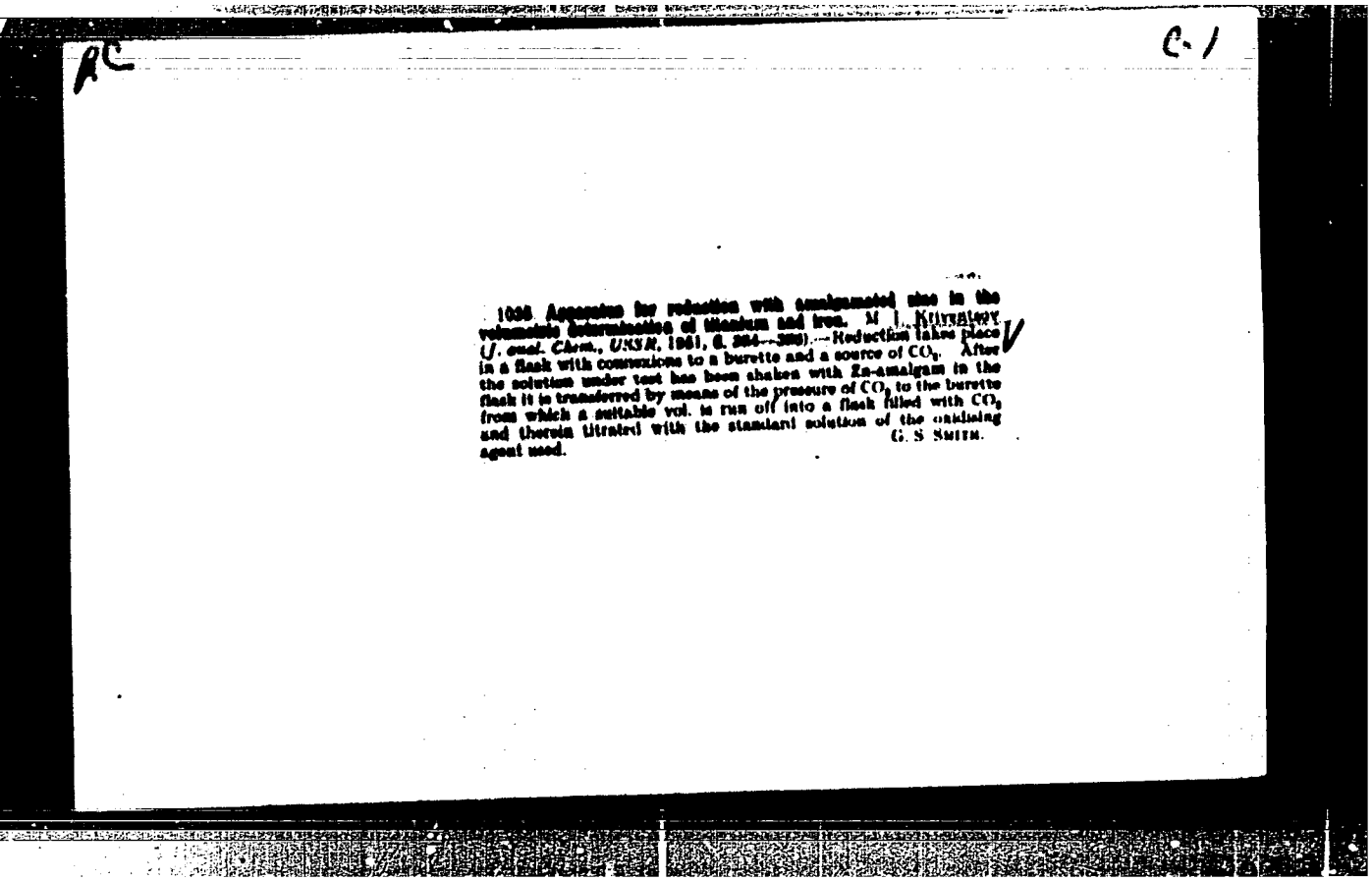
Titration of potassium-sodium cobaltinitrite with permanganate in hydrochemical analyses. M. I. Krivenkova (Hydrochem. Inst., Novocherkassk). Gidrokhim. Materialy 19, 33 (1951). The best conditions for the titration are: (a) the liquid is to be added to the boiling soln. of $KMnO_4$ and immediately after the ppt.; (b) the concn. of the acid in the stabilizing soln. should be 0.13 *N*; (c) fluctuations in concn. of the $KMnO_4$ (from 0.003 to 0.01 *N*) or its total content (from 98 to 300% of the theoretical) have no influence on the accuracy of the results; (d) the ppt. is quickly stabilized, within 5 min., if the soln. is heated on the water bath to 18-20°. As little as 1.3 mg K can be detd. with a ±2.5% error.

J. S. Joffe

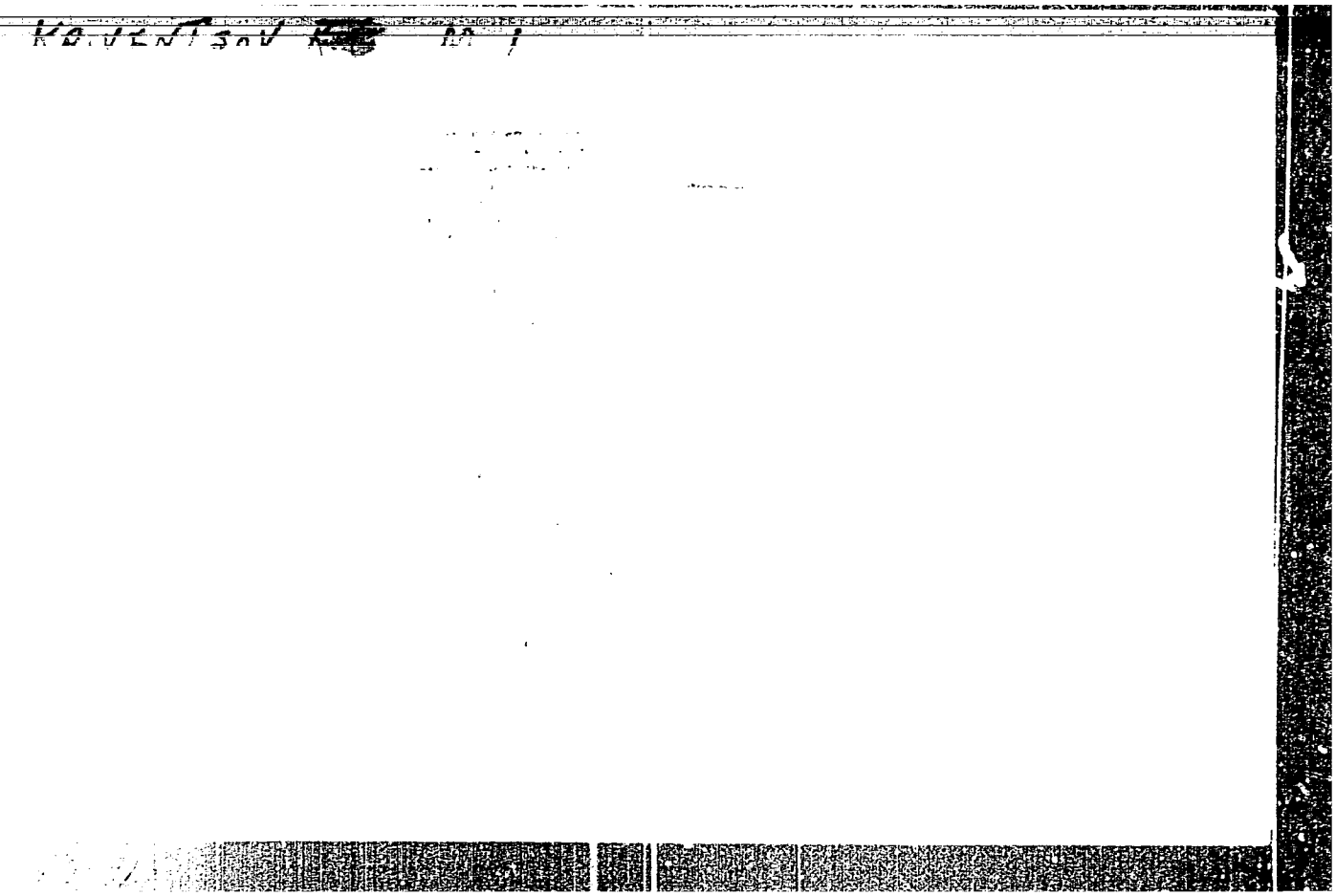
CA 7

Volumetric determination of titanium in medicinal mud
M. I. Kriventsov (Hydrochem. Inst. Acad. Sci., Novocher kassk).—*Gidrokhim. Materialy (Hydrochem. Materials)* 16 3-14(1949).—The detn. can be made with an error of ±0.6% by titration with $K_2Cr_2O_7$ in the presence of 0.2% soln. of indigo in concd. H_2SO_4 after reducing in a special app. which prevents oxidation. App. consists of a graduated 50-ml. tube connected at the bottom, through a stopcock to a 20-25 ml. round-bottomed flask and equipped with a sidearm and stopcock near the bottom. The soln. from the tube is reduced with an amalgam; a sidearm on the tube serves to reduce pressure from time to time. This method, however, makes it possible to det. Fe also in the same soln. The method is suitable also for analysis of soils, clays, etc. 43 references.

B. Z. Kamush



1098. Apparatus for reduction with amalgamated zinc in the volumetric determination of titanium and iron. M. I. Kuznetsov. *Zh. anal. Khim., USSR*, 1951, 6, 384—389).—Reduction takes place in a flask with connexions to a burette and a source of CO_2. After the solution under test has been shaken with Zn-amalgam in the flask it is transferred by means of the pressure of CO_2 to the burette from which a suitable vol. is run off into a flask filled with CO_2 and therein titrated with the standard solution of the oxidising agent used. G. S. SMITH.



Concerning the expected mineralization of waters of the Stalingrad and Kuibyshev reservoirs. M. I. Kriventsov (Hydrochem. Inst., Acad. Sci. U.S.S.R., Novocherkassk). *Gidrokhim. Materialy, Akad. Nauk. S.S.S.R.* 22, 3–19 (1954).—Since the subject reservoirs (artificial lakes) are to be used in conjunction with shipping, energy generation, and irrigation, the mineral content of the waters are of interest. Factors governing this mineralization which are discussed include: environmental conditions, mineral content of the waters entering, evaporative losses, formation and melting of ice, and the leaching of salts.—J. A. K.

KRIVENTSOV, M.V.

Hydrochemical regime of the Proletarskii Reservoir. Report No.1: The process of water displacement in the eastern part of the reservoir. Gidrokhim. mat. 26:97-115 '57. (MLRA 10:8)

1. Gidrokhimicheskiy institut Akademii nauk SSSR, Novocherkassk. (Proletarskaya (Rostov Province)--Reservoirs)

KRIVENTSOV, M.I.

Mineralization expectancy of the Proletarskaya water reservoir.
Gidrokhim. mat. 27:92-95 '57. (MIRA 11:4)

1. Gidrokhimicheskiy institut AN SSSR, Novocherkassk.
(Proletarskaya reservoir--Water--Analysis)

NECHIPORENKO, G.N.; KRIVENTSOV, M.I.

Trilonometric determination of small quantities of sulfate ions in water. Gidrokhim.mat. 29:211-213 '59.
(MIRA 13:5)

1. Gidrokhimicheskiy institut Akademii nauk SSSR, Novocherkassk.
(Mineral waters--Analysis) (Sulfates)

KRIVENTSOV, M.I.

Atmospheric precipitation of the region of the Proletarskaya Reservoir on the Western Manych River. Gidrokhim. mat. 31:12-17 '61. (MIRA 14:3)

1. Gidrokhimicheskiy institut Akademii nauk SSSR, g. Novocherkassk.
(Proletarskaya Reservoir region—Precipitation(Meteorology))

KRIVENTSOV, M.I.

Role of coastal deposits in the salt balance of reservoirs (based on the study of Karlovskoye Reservoir). Gidrokhim. mat. 32:105-112 '61. (MIRA 14:6)

1. Gidrokhimicheskiy institute AN SSSR, Novocherkassk.
(Karlovskoye Reservoir--Water--Composition)

KRIVENTSOV, M.I.

Chemical composition of the water in the Veselyy Reservoir (1954-1956). Gidrokhim. mat. 35:25-48 '63. (MIRA 16:7)

1. Gidrokhimicheskiy institut, g. Novocherkassk.
(Veselyy Reservoir--Water--Composition)

KRIVENTSOV, M.I.

Change in the hydrochemical regime of the Veselyy Reservoir in connection with the inflow of Tsimlyansk water. Gidrokhim. mat. 35:49-59 '63. (MIRA 16:7)

1. Gidrokhimicheskiy institut, Novocherkassk.
(Veselyy Reservoir--Water--Composition)

KRIVENTSOV, M.I.

Hydrochemical regime of the Ust'-Manych Reservoir. Gidrokhim. mat. 35:60-64 '63. (MIRA 16:7)

1. Gidrokhimicheskiy institut, Novocherkassk.
(Ust'-Manych Reservoir--Water--Composition)

KRIVENTSOV, M.I.; PETRENKO, M.V.; KHOMENKO, A.N.

Comparison of the accuracy of basic methods of forecasting the water salinity of reservoirs. Gidrokhim. mat. 37:49-55 '64.
(MIRA 18:4)

1. Gidrokhimicheskiy institut Glavnogo upravleniya gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR, Novocherkassk.

KRIVANTSOV, M.I.

Biogenous substances, oxidizability, and dissolved oxygen in the water of the Veselovskoye Reservoir, 1954-1956. Gidrokhim. mat. 37:79-94 '64. (MIRA 18:4)

1. Gidrokhimicheskiy institut Glavnogo upravleniya gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR, Novocherkassk.

KRIVENTSOV, V., inzh.

Using single-phase welding transformers on the repair and supply and machine-tractor stations. MTS 18 no.8:43-45 Ag '58 (MIRA 11:9)

1. Stalingradskiy sel'skokhozyaystvennyy institut.
(Electric transformers)

KHIVENTSOV, V. I.

KHIVENTSOV, V. I.: "The problem of the kinetics of oil extraction from cottonseeds." Acad Sci Turkmen SSR. Ashkhabad, 1956.
(Dissertation for the degree of doctor in Tecnical Sciences)

SO: Knizhnaya Letopis', No 36, 1956, Moscow.

KRIVENTSOV, V.I.; MARKMAN, A.L.

Kinetics of oil extraction from cottonseed. Izv.AN Turk.S.S.R. no.3:31-41 '57. (MIRA 10:10)

1. Institut khimii Akademii nauk Turkmenskoy SSR.
(Cottonseed oil) (Extraction (Chemistry))

KRIVENTSOV, V.I.; MARKMAN, A.L.

Effect of the conditions of extraction on the diffusion coefficient of cottonseed oil. Izv.AN Turk.SSR no.4:104-107 '57. (MIRA 10:10)

1. Institut khimii AN Turkmenskoy SSR.
(Cottonseed oil)

AUTHORS: Markman, A. L., Kriventsov, V. I. 32-2-13/60

TITLE: The Determination of the Concentration of Micelles (Opredeleniye kontsentratsii mistsell)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 2, pp. 158-159 (USSR)

ABSTRACT: In the gravimetric method, by means of distillation of the solvent and subsequent drying a partial oxidation of the oils is caused; the determination lasts for 3-4 hours. The methods based on the determination of the specific weight which were proposed by Kinney and Holmes (ref. 2) can not always be applied. A method was developed which consists of the determination of the temperature at which a mixture of the micelle with a certain amount of 89%-methanol or 25%-solution of glycerine in methanol dissolves completely. The investigation is carried out in a little tube of conic shape supplied with a thermometer (0.1° division) and an agitator. The point of dissolution can be noticed by a complete clearing of the mixture and occurs in heating as well as in cooling, the mean value being taken from repeated

Card 1/2

The Determination of the Concentration of Micelles 32-2-13/60

temperature readings. With glycerine/methanol the mixture is easier to determine, besides, the dependence of the micelle concentration and dissolution temperature with the 89%-methanol mixture is a curve while with the glycerine/methanol mixture (within the concentration range of from 0-3,5%) it is straight line, and thus the results can be calculated according to an empirical formula. The duration of investigation is mentioned to be 4-6 minutes. A series of results of an investigation of cotton micelles is mentioned in a table in comparison with gravimetric results of investigations.
There are 2 figures, 1 table, and 2 references, 1 of which is Slavic

AVAILABLE: Library of Congress

1. Colloids-Determination

Card 2/2

KRIVENTSOV, V.I., kand. khim. nauk; BAKYYEV, K., tekhn. red.

[Cotton is an important chemical raw material] Govacha mokhum khimiki chig maldyr. Ashgabat, 1960. 27 p. [In Turkmen] (MIRA 15:1)

(Cotton)

KRIVENTSOV, V.I.

Characteristics of the raw material supply of the new citric acid industry in Turkmenistan. Izv.AN Turk.SSR.Ser.fiz.-tekh., khim.i geol.nauk no.3:40-47 '61. (MIRA 14:7)

1. Institut khimii AN Turkmenskoy SSR.
(Turkmenistan—Cotton waste) (Citric acid)

KRIVENTSOV, V.I.

Increasing the lightfastness of solutions of anthraquinone derivatives in Borntrager's reaction. Izv.AN Turk.SSR.Ser.fiz.-tekh., khim.i geol.nauk no.1:106-109 '62. (MIRA 16:12)

1. Institut khimii AN Turkmenskoy SSR.

KRIVENTSOV, V.I.

Presentation of dissertations. Izv.AN Turk.SSR.Ser.fiz.-tekh., khim.i geol.nauk no.1:125-126 '62. (MIRA 16:12)

KRIVENTSOV, V.I.; KISLOVA, L.V.; KOMISSAROVA, S.D.; KOROBKOVA, L.

Photometric method of determining pentabromacetone. Izv. AN Turk. SSR. Ser. fiz.-tekh., khim. i geol. nauk no.1:54-60 '65. (MIRA 18:7)

1. Institut khimii AN Turkmenskoy SSR.

KRIVTSOV, Yu. I.

"The Role of the Light Factor in the Biology of the Mulberry Silkworm." Cand Agr Sci, Tashkent Agricultural Academy, Min Higher Education USSR, Tashkent, 1955. (KL, No 12, Mar 55)

So: Sum. No. 670, 29 Sept 55- Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

KRIVENTSOV, Yu.I.

Effect of the light factor on the daily rhythm of emergence of the silkworm moth from its cocoon. Izv.AN Turk.SSR. no.1:27-32 '55. (MLRA 9:5)

1. Sredneaziatskiy nauchno-issledovatel'skiy institut shelkovodstva.

(Silkworms)

KRIVENTSOV, Yu.I.

Feeding silkworms in relation to their daily rhythm of activity. Izv. AN Turk.SSR no.5:39-44 '56. (MLRA 9:12)

1. Turkmenskiy sel'skokhozyaystvennyy institut imeni M.I.Kalinina.

(Silkworms)

USSR/Cultiv[illegible] Plants - Technical, [illegible], Sacchariferous. I-7

Abs Jour : Ref Zhur - Biol., No 9, 1958, 39467

Author : Karyagdyyev, N.N., Krivchenko, Yu.I.

Inst : Ac Turkm SSR

Title : The Two-Fold Cutting of Mulberry Tree Sprouts Under Conditions in Turkmenistan.

Orig Pub : Izv. Ak Turkm SSR, 1957, No 3, 112-115.

Abstract : The results of studies conducted in 1955-1956 in the Institute of biology Ak Turkm SSR are given. The first cutting of sprouts took place in spring and the second in the summer of the same year. It was found that the food stock for the spring feeding of caterpillars of mulberry silkworms was reduced by half for the next year, after the two-fold cutting. Therefore, it is necessary to cut the sprouts twice in Turkmeniya only after having taken into

Card 1/2

USSR/Cultivated Plants - Technical, Oleaginous, Sacchariferous. I-7

Abs Jour : Ref Zhur - Biol., No 9, 1956, 39467

account all practical possibilities related to cocoa stock preparation and the presence of a food base in the farming economy. -- A.N. Sidirov

Card 2/2

USSR / Farm Animals. The Silkworm. Q

Abs Jour: Ref Zhur-Biol., No 5, 1959, 21344.

Author : Kriventsov, Yu. I.
Inst : Turkmenian Institute of Agriculture.
Title : The Problem of Raising New White Cocoon Breeds of the Mulberry Silkworm.

Orig Pub: Tr. Turkm. s.-kh. in-ta, 1957, 9, 47-51.

Abstract: At two places of the Ashkhabadskiy rayon of the Turkmen SSR, the raising of new White-Cocoon breeds was carried out: the Baghdad, Soviet I breed, the SANIISh-EI, the SANIISh-EII, the white-cocooned 1, the White-Cocoon 2, and the hybrids of Baghdad x Soviet I, and those from the reverse of crossing. Raising was performed by alternate-regimen feeding of caterpillars of the first development stage and by around-the-clock

Card 1/2

98

USSR / Farm Animals. The Silkworm. Q

Abs Jour: Ref Zhur-Biol., No 5, 1959, 21344.

Abstract: feeding of caterpillars of age V. The air temperature in the premises for young caterpillars was 28° (C) during the day, 21-23° (C) at night, for ages III and IV it was 27-26° (C) and for age V it was lowered to 22-24° (C). In the Ashkhabadskiy rayon the raising of White-Cocoon breed caterpillars produced positive results. The best new breeds proved to be White-Cocoon I, SANIISh-EI and SANIISh-EII. -- G. V. Samokhvalova.

Card 2/2

L 29890-66 EWT(1) GW
ACC NR: AP6020108 SOURCE CODE: UR/0387/65/000/008/0074/0076

AUTHOR: Drumya, A. V.; Yovsoyeva, K. G.; Kriventsov, Yu. M.; Podymova, I.S.; Popov, V.M.

ORG: Division of Physicotechnical and Mathematical Sciences, AN MoldSSR (Otdeleniye fiziko-tekhnicheskikh i matematicheskikh nauk AN MoldSSR)

TITLE: Carpathian earthquake of 10 January 1965

SOURCE: AN SSSR. Izvestiya. Fizika zemli, no. 8, 1965, 74-76

30
B

TOPIC TAGS: earthquake, seismology

ABSTRACT: On 10 January 1965 at approximately 0553 hours Moscow time the "Kishinev" (Moldavian SSR) seismic station recorded an earthquake with the epicenter near Fokshan in the Rumanian People's Republic. The earthquake was felt throughout Moldavia, a large part of eastern Rumania and the southwestern part of Odesskaya Oblast. Instrumental data are given in a table. The information given includes data on focal depth; the area of occurrence of the earthquake is a single square degree (26.2°-26.8° E, 45.4°-46.0° N. Foci in this area are at depths of 80-160 km, sometimes 200 km. The earthquake mentioned had been preceded by four smaller shocks in the preceding ten months. Most of this article is a description of the physical sensations and phenomena accompanying the earthquake which were observed in various towns and villages visited by the authors for interviewing the local inhabitants. On the basis of both instrumental data and these interviews the authors constructed a map of the isoseists for this earthquake. Orig. art. has: 1 figure and 2 tables. [JPRS]

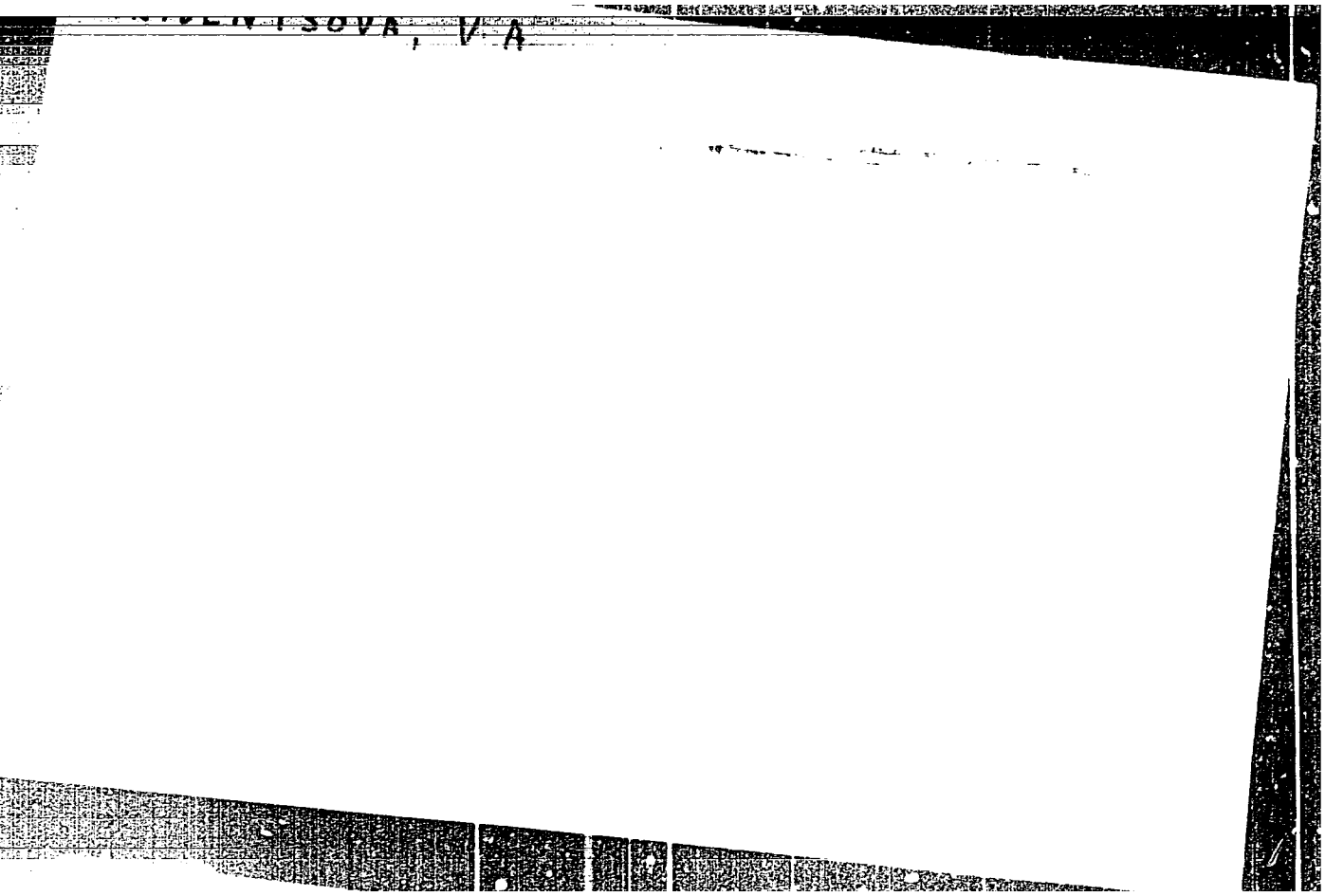
SUB CODE: 08 / SUBM DATE: 06Feb65 / ORIG REF: 004

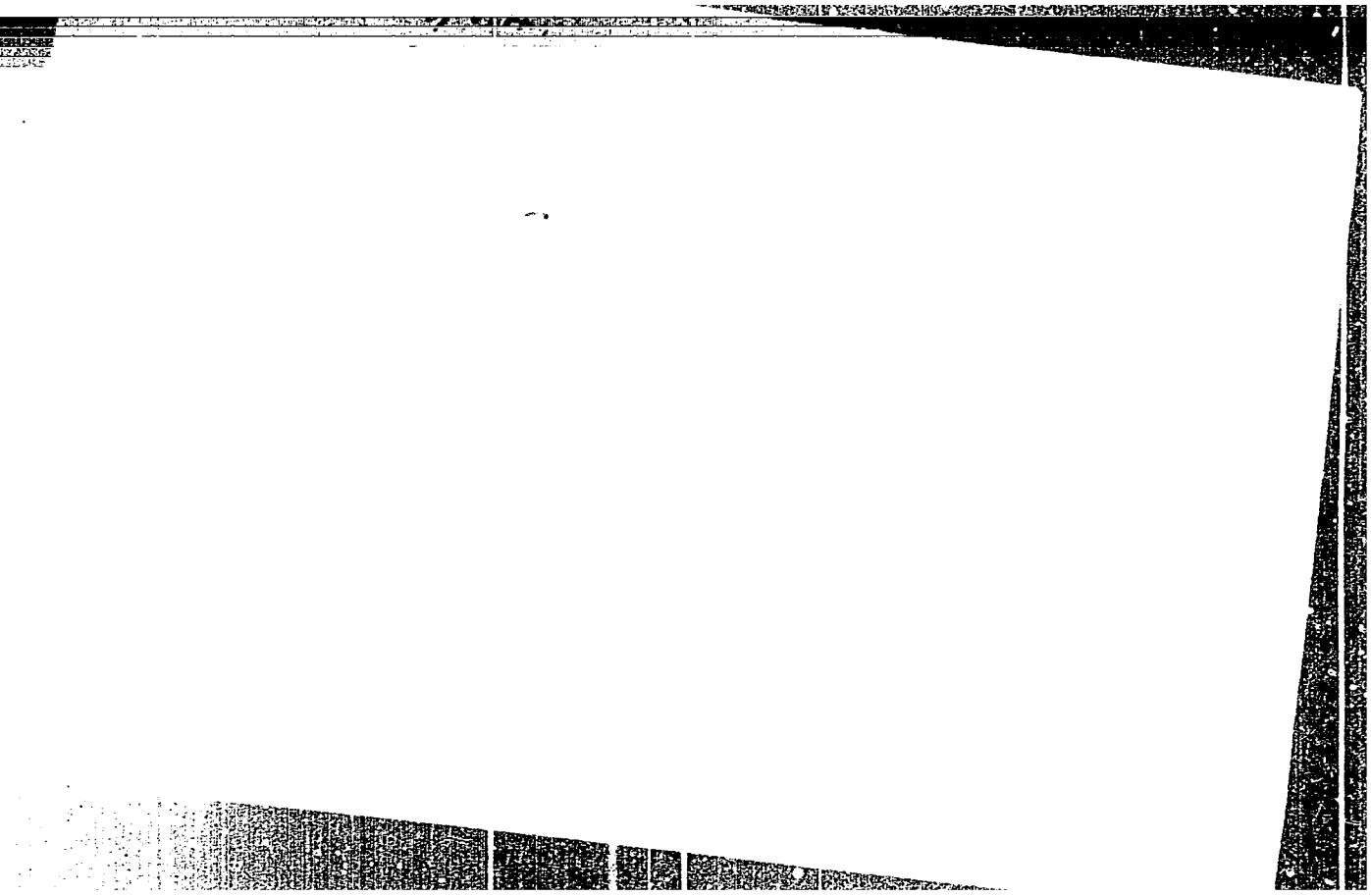
UDC: 550.346

Card 1/1

KRIVENTSOVA, R.I.

Reformist movement at the end of the 19th and beginning of the 20th century in teaching the fundamentals of physics and mathematics in secondary schools. Uch. zap. MOPI 123:335-351 '63.
(MIRA 17:4)





APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000826520014-3"

KRIVESHCHENKO, N.M., elektrosvarshchik (st.Brovki, Yugo-Zapadnoy dorogi)
IL'IN, A.F.

Letters to the editor. Put' i put. khoz. 5 no.3:47 Mr '61.
(MIRA 14:3)

1. Zaveduyushchiy uchebnoy chasti tekhshkoly, st.Dzhambul, Kazakhskoy dorogi.

(Railroads)

KRIVESHEYEV, V.N. kand. tekhn. nauk.

Economical machining of railroad car wheel pairs. Vest. TSNII MPS 17 no.8:38-40 D '58. (MIRA 12:1)
(Car wheels)

45576
S/658/62/000/009/007/013
A059/A126

10,6100

AUTHOR: Krivenkov, Yu.P., Candidate of Physical and Mathematical Sciences

TITLE: Momentless stresses in a certain class of convex shells the complete curvature of which becomes zero or infinity at the boundary

SOURCE: Moscow. Fiziko-tekhnicheskiy institut. Trudy. no. 9, 1962. Issledovaniya po mekhanike i prikladnoy matematike. 80 - 91

TEXT: Shells are considered the momentless stressed state of which is described by the elliptic equation of Euler, Poisson, and Darboux. The behavior of the central surface of such shells in the vicinity of a line where the complete curvature becomes zero or infinity is studied for the case of rotary shells. Based on the singular solutions (which are indefinite in the neighborhood of the line y = 0) of the Euler-Poisson-Darboux equations, ideas and estimates are presented for the stresses in the vicinity of the line; where the complete curvature degenerates. If, in the shell S_c (T), $(-1 < c < 0, \quad 0 < c < 1)$, the stress T_{11} in the vicinity of the line y = 0 is estimated to be $T_{11} = 0(1)\zeta^{\beta}$, $\beta > -\frac{2c}{1+c}$, and the stressed state will be of the order:

Card 1/3

Momentless stresses in a certain class of ....

$$T^{11} = O^*(1)\,\zeta^{\frac{1-c}{1+c}}, \quad T^{12} = O^*(1)\,\zeta^{-\frac{c}{1+c}}.$$

If, however, in the shell S_c (T), ($-1 < c < 0$, $0 < c < 1$),

$$T^{11} = A(x)\,\zeta^{-\frac{2c}{1+c}} + o\left(\zeta^{-\frac{2c}{1+c}}\right),$$

where A (x) is an analytic function of x. In this case, the stressed state will be of the order:

$$T^{11} = O^*(1)\,\zeta^{-\frac{2c}{1+c}}, \quad T^{12} = O^*(1)\,\zeta^{-\frac{c}{1+c}}.$$

If, in the shell S_c (T), $c \geqslant 1$, stress is estimated to be $T^{11} = O(1)\,\zeta^{\beta}$, $\beta > -1$, and then:

$$T^{11} = \frac{O^*(1)}{\ln \zeta}; \quad T^{12} = \frac{O^*(1)}{\sqrt{\zeta}\ln \zeta}, \quad \text{when } c = 1, \text{ and}$$

$$T^{11} = O^*(1); \quad T^{12} = O^*(1)\,\zeta^{-\frac{1}{1+c}}, \quad \text{when } c > 1.$$

Card 2/3

Momentless stresses in a certain class of S/658/62/000/009/007/013
A059/A126

If, in the shell S_0 (T), $1 \leqslant c < 2$, stresses are estimated by the formulas:

$$T^{11} = A(x)\frac{1}{\zeta \ln \zeta} + o\left(\frac{1}{\zeta \ln \zeta}\right), \quad \text{if} \quad c = 1,$$

and $$T^{12} = \frac{A(x)}{\zeta} + o\left(\frac{1}{\zeta}\right), \quad \text{if} \quad c > 1,$$

where A (x) is an analytic function of x on L, and the stresses T^{11} and T^{12} are expressed as:

$$T^{11} = 0^*(1)\frac{1}{\zeta \ln \zeta}; \quad T^{12} = 0^*(1)\frac{1}{\sqrt{\zeta}}, \quad \text{if} \quad c = 1,$$

and $$T^{11} = 0^*(1)\frac{1}{\zeta}; \quad T^{12} = 0^*(1)\zeta^{-\frac{c}{1+c}}, \quad \text{if} \quad c > 1.$$

I.N. Vekua, A.V. Bitadze, and S.A. Tersenov are mentioned.

Card 3/3

SOV/58-59-8-17415

Translated from: Referativnyy Zhurnal Fizika, 1959, Nr 8, p 67 (USSR)

AUTHORS: Val'ter, A.K., Klyucharev, A.P., Krivets, G.Ye., Samsonov, V.M.

TITLE: Nuclear Reactions Under the Bombardment of Beryllium With He^3

PERIODICAL: Uch. zap. Khar'kovsk. un-t, 1958, Vol 98, Tr. fiz. otd. fiz.-matem. fak., Nr 7, pp 145-151

ABSTRACT: This article investigates the nuclear reactions which take place during the bombardment of beryllium with the nuclei of He^3 at 1.5 Mev energy. A beam of He^{3+} ions, accelerated by means of an electrostatic generator, struck a beryllium target 0.5 μ thick which had been applied to a platinum backing. The products of the reactions were registered on a photographic plate with an emulsion 200 μ thick, which was inclined in such a fashion that it was struck by particles flying out at an angle of 90^0 to the beam of He^3 ions. The spectrogram obtained on the film was plotted by 1,790 tracks. It consisted of a continuous spectrum and a discrete spectrum, consisting of five groups. Several maxima are clearly exhibited on the continuous spectrum. In order to interpret them, emulsions were used which permitted the separation of the α -particles from the

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Nuclear Reactions Under the Bombardment of Beryllium With He^3 SOV/58-59-8-17415

protons. It was established in the results that in the case of 1.5 Mev ions of He^3 (which corresponds to the excitation energy of a 26 Mev intermediate nucleus), the protons from a Be^9 (He^3, p) B^{11} reaction correspond to B^{11} levels of 0, 2.1, 4.4, 5.0, 6.7, 7.3, 8.0, 8.5, 8.9 and 9.2 Mev. It is shown that a reaction takes place with an emission of α-particles possessing a maximum energy of 19 Mev, which corresponds to both a Be^9 (He^3,α) Be^8 and a $Be^9 + He^3 \rightarrow 3He^4$ reaction. It was not possible to draw any quantitative conclusions concerning the contribution of the individual reactions.

V.I. Man'ko

Card 2/2

SOV/58-59-8-17416

Translated from: Referativnyy Zhurnal Fizika, 1959, Nr 8, p 67 (USSR)

AUTHORS: Val'ter, A.K., Klyucharev, A.P., Krivets, G.Ye., Samsonov, V.M.

TITLE: Cross Sections for Be^{9} (He^{3}, p) B^{11*} Reactions at 1.5 Mev Energy

PERIODICAL: Uch. zap. Khar'kovsk un-t, 1958, Vol 98, Tr. fiz. otd. fiz.-matem. fak., Nr 7, pp 159-161

ABSTRACT: In order to determine the cross sections for Be^{9} (He^{3}, p) B^{11*} reactions, which correspond to the excitation levels of 7.3, 5.0 and 4.4 Mev of the B^{11} nucleus, a thin beryllium target was bombarded with He^{3} ions, accelerated by means of an electrostatic generator up to 1.5 Mev. The charged particles flying out at an angle of 120°, were registered on photographic plates having an emulsion 200 μ thick. The quantity of He^{3} ions was determined from the intensity of current in the target, which was measured with an integrator. The total cross sections for the three groups of protons were estimated from the resulting magnitudes of the differential cross sections at an angle of 120° and of the angular distributions of these groups of protons, corresponding to the nuclear

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Cross Sections for Be^9 (He^3, p) B^{11*} Reactions at 1.5 Mev Energy

SOV/58-59-8-17416

levels of 7.3, 5.0 and 4.4 Mev. The following values(in mbarn) were obtained in the result: (1.4 ± 0.7), (0.5 ± 0.25) and (1.0 ± 0.5) respectively.

V.I. Man'ko

Card 2/2

VAL'TER, A.K.; ZALYUBOVSKIY, I.I. [Zaliubovs'kyi, I.I.]; KRIVETS, G.Ye. [Kryvets', H.IU.]; LUTSIK, V.P. [Lutsyk, V.P.]

Isomeric states of odd-odd nuclei from the viewpoint of a collective model. Ukr.fiz.zhur. 4 no.6:689-696 N-D '59. (MIRA 14:10)

1. Fiziko-tekhnicheskiy institut AN USSR.
(Isomerism) (Nuclear models)

21(7)

AUTHORS: Val'ter, A. K., Zalyubovskiy, I. I., Klyucharev, A. P., Krivets, G. Ye., Lutsik, V. A.

SOV/48-23-2-12/20

TITLE: On the Excitation States of the Nuclei Ga^{67} and Ga^{68} (O vozbuzhdennykh sostoyaniyakh yader Ga^{67} i Ga^{68})

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 2, pp 225-227 (USSR)

ABSTRACT: For the study of the lower energy levels Gd^{67} and Gd^{68} the authors investigated the γ radiation which occurs in the reactions $Zn^{66}(p,\gamma)Ga^{67}$, $Zn^{67}(p,n\gamma)Ga^{67}$ and $Zn^{67}(p,\gamma)Ga^{68}$. The zinc targets used were enriched with Zn^{66} and Zn^{67}. The γ lines determined during proton irradiation of the targets are listed (representation of the spectra in figures 1 and 2). The lines 170, 358, 850, and 510 kev are caused by reactions of the types $Zn^{66}(p,\gamma)Ga^{67}$, $Zn^{67}(p,n\gamma)Ga^{67}$. The $(p,n\gamma)$ reaction corresponds to the transition from the secondary excitation state into the basic state; it is a threshold re-

Card 1/2

action. According to these data, a scheme of the lower energy levels of Ga^{67} is given in figure 4. Because of the difficulties of investigating reaction $Zn^{67}(p,\gamma)Ga^{68}$ the authors measured only the upper limit of the γ spectrum in the Ga^{68} decay. It is found at γ quantum energies of 2.05 ± 0.1 Mev. There are 4 figures and 4 references, 3 of which are Soviet.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk USSR, Khar'kovskiy gos. universitet im. A. M. Gor'kogo
(Physico-technical Institute of the Academy of Sciences, UkrSSR, Khar'kov State University imeni A. M. Gor'kiy)

... NR: AP3003093 EWT(m)/BDS AFFTC/ASD S/0056/63/044/006/1753/1759

AUTHOR: Klyucharev, A. P.; Krivets, O. Ye.; Rutkevich, N. Ya.

TITLE: The (p, Alpha) reaction at 20 MeV

SOURCE: Zhurnal eksper. i teor. fiziki, v. 44, no. 6, 1963, 1753-1759

58
52

TOPIC TAGS: proton induced alpha emission, mass number dependence, natural cobalt, natural platinum, enriched copper, enriched nickel, enriched zinc, enriched tin, compound nucleus, direct interaction

ABSTRACT: The (p, Alpha) reaction was investigated on cobalt and platinum of natural isotopic composition and on various isotopes of nickel, cooper, zinc, and tin. The present investigation was aimed at tracing in greater detail the dependence of the properties of the (p, Alpha) reaction on the mass number of the target, and is the first investigation in which targets of other than natural isotopic composition are used. The 20.5 MeV bombarding protons were produced in a linear accelerator, and the targets were free-standing foils. The Alpha particles resulting from the reaction were registered by specially developed nuclear emulsions placed at various angles to the direction of the incident protons. ...he emulsions made it possible to distinguish between protons and Alpha particles. ...e differential cross section of the reaction was found to decrease with in-

... 1/2

per...
authors ...
Smirnov. ...
microscopists ...
Orig. art. has: 10 ...

ASSOCIATION: Fiziko-tekhn... (Physicotechnical Institute, ...

SUBMITTED: 18Sep63 DATE ACQ: ...

NO REF SOV: 000

SUB CODE: 00

Card 2/2

L 13617-63

ACCESSION NR: AP3003093

6

creasing mass number for the majority of the targets investigated. The angular and energy distributions of the alpha particles indicate that there are two mechanisms by which the reaction can proceed: directly and via production of a compound nucleus. "In conclusion, the authors thank Senior Scientist of NIKFI, A. A. Sirotinskaya, for developing and producing the special type D emulsions, permitting reliable discrimination of the Alpha particles and protons. The authors are grateful to the crew of the linear accelerator, headed by A. M. Smirnov. The authors note with gratitude the large amount of work done by microscopists T. N. Startseva and A. A. Kir'yanova in scanning the emulsions." Orig. art. has: 10 figures and 1 table.

ASSOCIATION: Fiziko-tekhnicheskiy institut Akademii nauk Ukrainskoy SSR (Physicotechnical Institute, Academy of Sciences, UkrSSR)

SUBMITTED: 18Sep63 DATE ACQ: 23Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 000 OTHER: 010

Card 2/2

ACCESSION NR: AP4041022 S/0120/64/000/003/0081/0084

AUTHOR: Fersman, A. A.; Krivetskiy, A. A.

TITLE: Analyzer of the probability density of irregular phase difference

SOURCE: Pribory* i tekhnika eksperimenta, no. 3, 1964, 81-84

TOPIC TAGS: phase difference analyzer, phase difference probability density

ABSTRACT: An amplitude-independent method for measuring the probability density of the irregular phase difference between a random-phase voltage and a reference voltage of the same frequency is suggested. The method is based on a special device (which includes a ferrite-core nonlinear coil) for isolating a zero phase in the reference and test channels. A block diagram (see Enclosure 1) of the instrument and a simplified connection diagram of the zero-phase isolator are supplied. Orig. art. has: 3 figures and 7 formulas.

ASSOCIATION: none

SUBMITTED: 05Jun63 ENCL: 01

SUB CODE: EC NO REF SOV: 001 OTHER: 000

Card 1/2

Card 2/2

32920
S/194/61/000/011/055/070
D271/D302

6.4400

AUTHOR: Krivetskiy, A.A.

TITLE: New noise-suppressing attachments for marine radio receivers type "AS-2" and "Volna"

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 11, 1961, 10, abstract 11 K73 (Inform. sb. tsentr. n.-i. in-t morsk. flota, 1960, no. 54, 64-69)

TEXT: New noise-suppressing attachments for "AS-2" and "Volna" receivers are described; their purpose is to help the aural reception of radiotelegraph signals when interference level is high. The apparatus is a limiter clipping both positive and negative interference peaks exceeding the amplitude of the useful signal. Limiting level is automatically maintained equal to the amplitude of the received signal, and with any relations of signal and noise at the limiter input, interference voltage at its output cannot exceed the amplitude of the signal. To ensure a more reliable noise stability,

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New noise-suppressing attachments...

the limiter, whose basic function is to limit the energy of noise is placed not in the low frequency part of the receiver after the detector as is usual, but in front of the detector in the IF amplifier. In consequence, it was possible to introduce after the limiter the voltage from the third local oscillator which is used for form beat-frequency for aural reception. This process of frequency conversion of interference already reduced to the level of the signal, further helps in its reduction. As a result, noise level at the detector output is below signal level. The mechanism of noise reduction by frequency conversion is clarified. It is pointed out that the noise limiting equipment and the frequency conversion, between them, ensure even greater defense against interference. [Abstracter's note: Complete translation]

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29551
S/106/61/000/011/003/006
A055/A127

6.7110
9.3210 (1132,1159)

AUTHOR: Krivetskiy, A. A.

TITLE: Method for suppressing pulse interferences in radiotelegraphy reception.

PERIODICAL: Elektrosvyaz', no. 11, 1961, 25 - 29

TEXT: The author describes a method permitting to reduce the average level of pulse interferences by heterodyning the interference voltage. This method is based on theoretical investigations carried out under the supervision of the Candidate of Technical Sciences A.A. Fersman. The underlying idea is the following: when the interferences and the third heterodyne voltage act simultaneously on the detector, the probability laws of the distribution of interferences change, and it proves possible to create more advantageous conditions as regards noise immunity. For simplicity, the amplitudes (U_{int} and U_{het} respectively) of the envelopes of the interferences and of the heterodyne can be considered equal. In the h-f channel of the receiver, the interference voltage is added to the heterodyne voltage. The total voltage is a random magnitude. Figure 1 is a vector dia-

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gram showing the sum of $\bar{U}_{int}$ and $\bar{U}_{het}$. Since $U_{int} = U_{het}$, the modulus of the sum-vector is given by:

$$\left| \bar{U}_{int} + \bar{U}_{het} \right| = \sqrt{2\,U_{het}^2 + 2\,U_{het}^2 \cos\varphi} \qquad (2)$$

With audio reception, the ear reacts, during the intervals between pulses, only to the changes of the direct component of the heterodyne voltage across the detector load. In the presence of interferences, the variation of this direct component is determined by:

$$\Delta U_{het} = \sqrt{2\,U_{het}^2 + 2\,U_{het}^2 \cos\varphi} - U_{het} \qquad (3)$$

Therefore, the interference overshoot is fully reproduced only when $\cos\varphi = \pm 1$ (see curve in Figure 1). The total value of the interference overshoots "upwards" is determined by the integral.

$$\int_0^{\pi/3} \left(\sqrt{2\,U_{het}^2 + 2\,U_{het}^2 \cos\varphi} - U_{het} \right) d\varphi. \qquad (4)$$

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Method for suppressing pulse ....

The average value of these overshoots at all possible phase-difference angles is:

$$M(U_{int\,+}) = \frac{1}{\pi}\int_0^{2\pi/3}\left(\sqrt{2\,U_{het}^2 + 2\,U_{het}^2\cos\varphi} - U_{het}\right)d\varphi = \frac{4}{\pi}\,U_{het}\sin\frac{\varphi}{2}\left|_0^{2\pi/3} - \frac{U_{het}}{\pi}\varphi\right|_0^{2\pi/3} = 0.44\,U_{het} \qquad (5)$$

The analogous expression for the overshoots "downward" is:

$$M(U_{int\,-}) = \frac{1}{\pi}\int_{2\pi/3}^{\pi}\left(U_{het} - \sqrt{2\,U_{het}^2 + 2\,U_{het}^2\cos\varphi}\right)d\varphi = \frac{U_{het}}{\pi}\varphi\left|_{2\pi/3}^{\pi} - \frac{4}{\pi}\,U_{het}\sin\frac{\varphi}{2}\right|_{2\pi/3}^{\pi} = 0.16\,U_{het} \qquad (6)$$

The average value of the interference overshoots acting on the ear is equal to the sum of (5) and (6) (the sign not being taken into account in this addition), i.e.

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Method for suppressing pulse ....

$$M(U_{int}) = 0.44\ U_{het} + 0.16\ U_{het} = 0.6\ U_{het} = 0.6\ U_{int}. \quad (7)$$

Heterodyning permits thus to reduce by 40 % the effect of interferences. Under the usual conditions, any relation may exist in the receiver between the heterodyne and the interference voltage. To set up conditions reducing $M(U_{int})$, it is sufficient to limit the interference voltage in the h-f channel before the heterodyning stage and to choose a heterodyne voltage not inferior to the threshold level. If the limiting threshold is equal to the amplitude of the useful signal, the average magnitude of interferences in the interval will be:

$$M(U_{int}) = 0.6\ U_{signal}.$$

The use of a bilateral limiter in the h-f channel of the receiver permits to obtain a noiseproof system called "wideband- limiter-narrowband filter system". This system with the added heterodyning can be called "wideband-limiter-heterodyne-narrowband filter system". The complete circuit of this system is briefly described. There are 2 figures.

SUBMITTED: May 12, 1960.

Card 4/5

KRIVETSKIY, A.A.

Possibility of clipping in radiotelephone communications in the merchant marine. Inform. sbor. TSNIIMF no.85 Sudovozh. i sviaz' no.22:85-89 '63. (MIRA 17:3)

KORNEV, L.P.; KRIVETSKIY, A.A.

Measuring the effective transmission band of resonance system frequencies. Izv. vys. ucheb. zav.; prib. 8 no.5:18-21 '65.
(MIRA 18:10)

1. Leningradskoye vysshoye inzhenernoye morskoye uchilishche imeni admirala S.O. Makarova. Rekomendovana kafedroy teoriticheskoy radiotekhniki.

ACC NR: AR6035394 (N) SOURCE CODE: UR/0398/66/000/009/V025/V025

AUTHOR: Kononov, O. V.; Krivetskiy, A. A.

TITLE: Estimate of the accuracy of radio direction finders with audio output when working under pulsed noise conditions

SOURCE: Ref. zh. Vodnyy transport, Abs. 9V178

REF. SOURCE: Inform. sb. Tsentr. n.-i. in-t morsk. flota, no. 31(141), 1965, 54-57

TOPIC TAGS: direction finder, acoustic noise, signal noise separation, navigation aid

ABSTRACT: The authors have determined experimentally the dependence of the limiting value of the coefficient K_{lim} characterizing the minimum signal amplitude that can be distinguished from noise, as a function of the repetition frequency F and the amplitude of the pulsed noise. The dependence on F can be approximated by straight line with 6 db/octave slope. Using this dependence, one can calculate the maximum error of an audio direction finder under conditions of pulsed noise with known value of F. 2 illustrations. Bibliography, 2 titles. [Translation of abstract]

SUB CODE: 17, 09

Card 1/1 UDC: 621.396.663.004

ACC NR: AR6035210 SOURCE CODE: UR/0274/66/000/008/B032/B032

AUTHOR: Kononov, O. V.; Krivetskiy, A. A.

TITLE: Assessing the accuracy of acoustic direction finders during operation with pulse interference

SOURCE: Ref. zh. Radiotekhnika i elektrosvyaz', Abs. 8B211

REF SOURCE: Inform. sb. Tsentr. n.-i. in-t morsk. flota, no. 31(141), 1965, 54-57

TOPIC TAGS: direction finder, signal interference, pulse interference

ABSTRACT: The dependence of the limit value of the coefficient K_{lim} was experimentally determined. It characterizes the minimum amplitude at which signals can be distinguished in interference, from repetition rate F and the amplitude of the pulse noise. The dependence on F can be approximated by a straight line with an incline of 6 dB for an octave. Using this dependence, it is possible to compute the maximum error by the acoustic direction finder under pulse interference conditions with a known F. Orig. art. has: 2 figures. Bibliography of 2 titles. [Translation of abstract] [NT]

Card 1/1 SUB CODE: 17/ UDC: 621.396.982.6

KRIVETSKIY, F., inzhener (Kiyev).

Travelling exhibition on construction technology. Gor. i sel'. stroi. no.2:26 F '57. (MLRA 10:6)
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BILOSHTAN, A.P.; BOYKO, M.F.; DOROSHENKO, Ye.P. [Doroshenko, K.P.]; DOTSENKO, P.P.; KIL'CHEVSKIY, I.A. [Kil'chevs'kyi, I.O.]; MARINICHENKO, V.G. [Marynychenko, V.H.]; RAK, L.K.; KRIVETSKIY, I.S. [Kryvets'kyi, I.S.], red.; ROMANENKO, I.N., red.; TRITINCHENKO, A.P. [Trytynchenko, A.P., red. inzd-va; VIRICH, D.V. [Virych, D.V.], tekhn. red.

[Russian-Ukrainian agricultural dictionary] Rosiis'ko-ukrains'kyi sil'skohospodars'kyi slovnyk. Ukladachi: A.P.Biloshtan ta inshi. Kyiv, Vyd-vo AN URSR, 1963. 438 p. (MIRA 17:3)

1. Akademiia nauk URSR, Kiev. Instytut movoznavstva. 2. Chlen korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Romaenko).

BILOSHTAN, A.P.; BOYKO, M.F.[Boiko, M.F.],kan.fil.nauk;DOROSHENKO,Ye.P.; DOTSENKO, P.P.; KIL'CHEVSKIY, I.A.[Kil'chevs'kyi, I.O.]; MARINICHENKO, V.G.[Marynychenko, V.H.]; RAK, L.K.; KRIVETSKIY, I.S.[Kryvets'kyi, I.S.], red.; ROMANENKO, I.N., red.; TRITINCHENKO, A.P.[Trytynchenko, A.P.], red.izd-va; VIRICH, D.V.[Virych, D.V.], tekhn. red.

[Russian-Ukrainian agricultural dictionary] Rosiis'ko-ukrans'kyi sil's'kohospodars'kyi slovnyk. Ukladachi: A.P. Biloshtan ta inshi. Kyiv, Vydiv, Vydvo AN URSR, 1963. 438 p. (MIRA 17:2)

1. Akademiya nauk URSR, Kiev. Instytut movoznavstva. 2. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Romanenko).