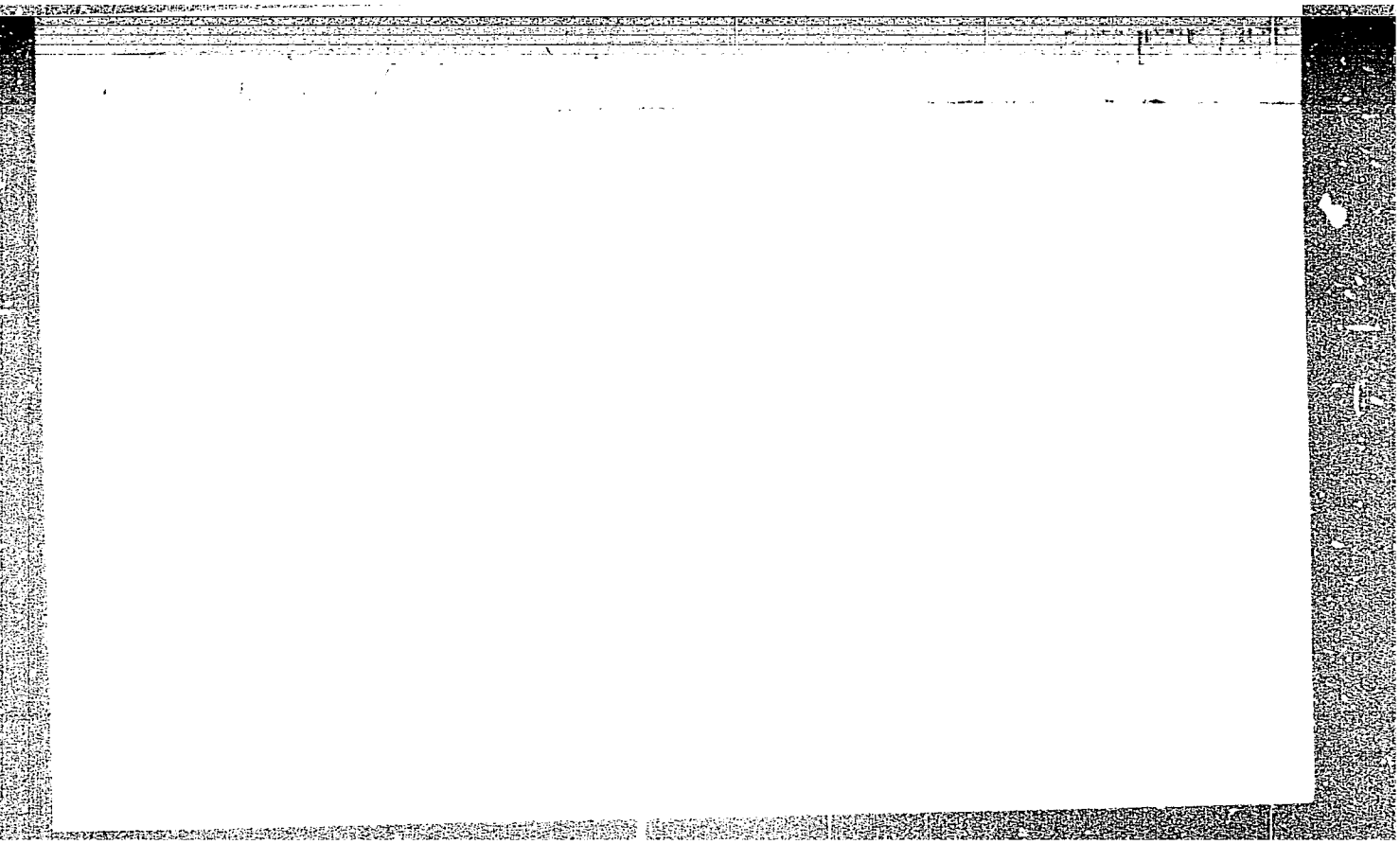
KUZ'MIN, V. V.

KUZ'MIN, V. V. --"Aspects of the Course of Coccal Infections in Animals under Experimental Conditions. (Variability in the Appearance of Certain Biological Properties of Purulent Cocci)." Leningrad Veterinary Inst, Min Higher Education USSR. Leningrad, 1955 . (Dissertation for the Degree of Doctor of Veterinary Science.)

SO: Knizhnaya letopis', No. 4, Moscow, 1956



APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000928020(

KUZ'MIN, V. V.

Increasing Labor Productivity in Machine Building (Voprosy povysheniya proiavoditel'nosti truda v mashinostroenni) Gosudarstvennoye nauch-tekh. izdat. mashinostroitel'. literatury, Moscow, 1957, 511 pp.
(Table of Contents authors below)

This collection presents a comparative tech. and economic analysis of most effective methods and industrial processes for obtaining high labor productivity in machine building a. Output may be stepped up by further standardization of machine tools, materials, and production methods; drawing on unused potentials. Covers all stages of planning and production as performed in modern plants of USSR, acatual experience, and new methods are discussed.

KUZ'MIN, V. V., "Standardization of Machine-Tool Instrumentation,"

KUZMIN, Vitaliy Vasil'yevich; GOL'DSHTEYN, S.A., red.; CHUMAYEVA, Z.V., tekhn.red.

[Veterinary microbiology] Veterinarnaia mikrobiologiia. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1958. 231 p. (MIRA 11:5)
(Veterinary bacteriology)

PROTASOV, A.I., dotsent; BOGDASHEV, N.F., prof., doktor veterinarnykh nauk, red.; KUZ'MIN, V.V., dotsent, red.; BORODAYEV, A.A., red.; CHUMAYEVA, Z.V., tekhn.red.

[Textbook for young veterinary orderlies] Uchebnik dlia mladshego veterinarnogo fel'dshera. Izd.7., perer.i dop. Moskva, Gos. izd-vo sel'khoz. lit-ry. Vol.1. 1958. 512 p.; Vol.2. 1958. 664 p.
(Veterinary medicine) (MIRA 12:1)

KUZ'MIN, Vitaliy Vasil'yevich; PANKRATOV, Aleksandr Yakovlevich; SEFERSHAYEV, Memet Abduramanovich; SHAPOVALOVA, Anna Ivanovna; GOL'DSHTEYN, S.A., red.; BARANOVA, L.G., tekhn.red.

[Practical lessons in veterinary microbiology] Prakticheskie zaniatiia po veterinarnoi mikrobiologii. Pod red. V.V.Kuz'mina. Izd.2., ispr. i dop. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1959. 203 p. (MIRA 12:7)

(Veterinary bacteriology)

SEFERSHAYEV, Mamet Abduramanovich; SHAPOVALOVA, Anna Ivanovna; KUZ'MIN, V.V., doktor vet.nauk, red.; GOL'DSHTEYN, S.A., red.; CHUNAYEVA, Z.V., tekhn.red.

[Role of micro-organisms in stockbreeding] Rol' mikrobov v zhivotnovodstve. Pod red.V.V.Kuz'mina. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 101 p. (MIRA 14:5)

(Veterinary microbiology)

KONONOV, G.A., kand.veterin.nauk; KUZ'MIN, V.V., prof., red.; POLYAKOV, P.Ya., red.; FRIDMAN, Z.L., tekhn.red.

[Concise handbook for the veterinary feldsher] Kratkii spravochnik veterinarnogo fel'dshera. Leningrad, Gos.izd-vo sel'khoz.lit-ry, 1960. 447 p. (MIRA 13:12)
(Veterinary medicine)

PROTASOV, A.I., dotsent; SINEV, A.V., prof.; SMIRNOV, A.M., dotsent; BAZHENOV, A.N., dotsent; VIL'NER, A.M., prof.; BASHMURIN, A.F., dotsent; SHAKALOV, K.I., prof.; VELLER, A.A., prof.; NIKANOROV, V.A., prof.; FEDOTOV, V.P., dotsent; KUZNETSOV, G.S., prof.; BOCHAROV, I.A., prof.; SHCHERBATYKH, P.Ya., prof.; TSION, R.A., prof.; GRIBANOVSKAYA, Ye.Ya., dotsent; ADAMANIS, V.F., assistent; KOLABSKIY, N.A., dotsent; MITSKEVICH, V.Yu., dotsent; GUSEVA, N.V., dotsent; MYSHKIN, P.P., dotsent; GUBAREVICH, Ya.G., prof.; FEDOTOV, B.N., prof.; DOBIN, M.A., dotsent; SIROTKIN, V.A., prof. [deceased]; KUZ'MIN, V.V., prof.; YEVDOKIMOV, P.D., prof.; POLYAKOV, A.A., prof.; POLYAKOV, P.Ya., red.; BARANOVA, L.G., tekhn.red.

[Concise handbook for the veterinarian] Kratkii spravochnik veterinarnogo vracha. Leningrad, Gos.izd-vo sel'khoz.lit-ry, 1960. 624 p. (MIRA 13:12)

(Veterinary medicine)

KUZ'MIN, Vitaliy Vasil'yevich, prof., doktor veter. nauk; POLYAKOV, P.Ya., red.; FRIDMAN, Z.L., tekhn. red.

[How to increase the resistance of farm animals to infectious diseases] Kak povysit' ustoichivost' sel'skokhoziaistvennykh zhivotnykh k zaraznym zabolevaniiam. Leningrad, Izd-vo sel'-khoz.lit-ry, zhurnalov i plakatov, 1961. 113 p. (MIRA 15:1)
(Stock and stockbreeding—Diseases and pests)

ANDREYEV, A.I.; SHISHKINA, Ye.Ya., veterin.vrach; GULIYEV, M.A., veterin.vrach; DUBAKIN, N.I.; FOMINA, A.Ya., kand.veterin.nauk; SOKKAR, I.M.Kh., aspirant; KUZ'MIN, V.V., prof.; TSYGENBORD, O.A., veterin.vrach

Laboratory practice. Veterinariia 40 no.7:66-76 Jl '63.
(MIRA 16:8)

1. Direktor Akhtyrskoy mezhrayonnoy veterinarnoy laboratorii, Sumskaya obl. (for Andreyev). 2. Vsesoyuznyy institut eksperimental'noy veterinarii (for Shishkina, Fomina, Sokkar). 3. Respublikanskaya veterinarnaya laboratoriya Gruzinskoy SSR (for Guliyev). 4. Moskovskaya oblastnaya veterinarnaya laboratoriya (for Dubakin). 5. Leningradskiy veterinarnyy institut (for Kuz'min, TSygenbord).
(Veterinary medicine)

ACC NR: AP6030799 (A,N) SOURCE CODE: UR/0346/66/000/009/0040/0040

AUTHOR: Tsyro, V. A. (Aspirant); Kuz'min, V. V. (Deceased; Research director; Professor)

ORG: Leningrad Veterinary Institute (Leningradskiy Veterinarnyy institut)

TITLE: Turkey ornithosis

SOURCE: Veterinariya, no. 9, 1966, 40

TOPIC TAGS: ornithosis, ornithosis virus, animal disease, diagnostic medicine, antigen

ABSTRACT: Turkey ornithosis is a comparatively new disease in the Soviet Union. An ornithosis antigen has been tested and produced. Its use in recent tests of birds on a large turkey farm has shown that there is a high percentage of positive complement fixation, indicating that the disease is present in a latent form but seldom breaks out among the birds. [WA-50; CBE No. 12]

SUB CODE: 06/ SUBM DATE: none/

Card 1/1 UDC: 619:616.988.73:636.592

KUZ'MIN, V.V.

Seminar of directors is an active form of promoting advanced practices. NTI no.1:16 '65. (MIRA 18:6)

SHVARTS, A.L., kand. tekhn. nauk; KUZ'MIN, V.V., inzh.

Hydraulic characteristics of the heating surfaces of once-through type boilers with supercritical steam parameters. Elek sta 36 no.4:14-20 Ap '65. (MIRA 18:6)

SOURCE: IVUZ. Priborostroyeniye, v. 8, no. 1, 1965, 19-25

TOPIC TAGS: three phase / dc converter

APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000928020(

1. BOGOFALOV, I., IVASCHENKO, P., ROMANIUK, I., OLENIN, K., KOSTIN, YE., KUZ'MIN, YA.

2. SSSR (600)

4. Mineral Industries

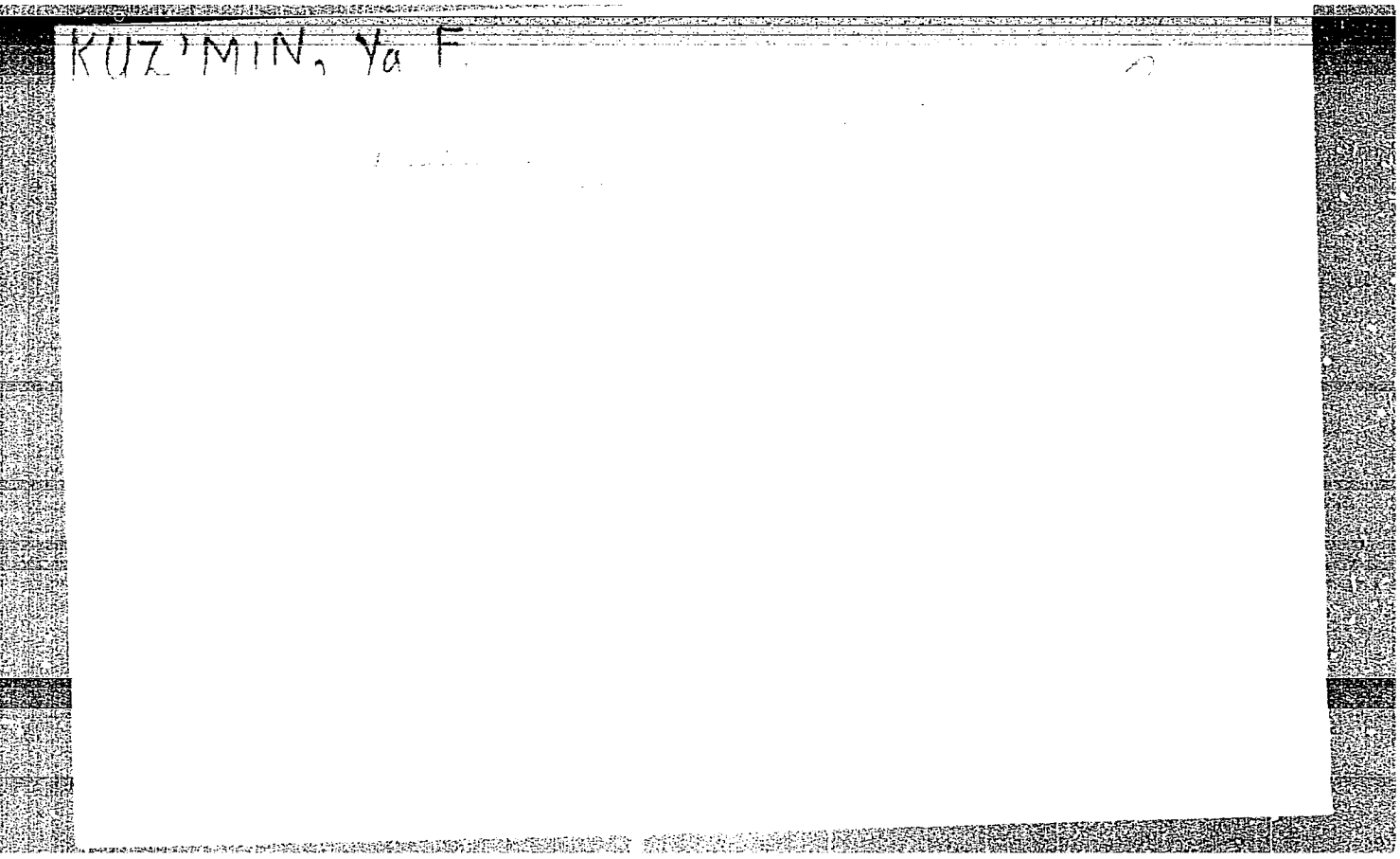
7. Will give more coal and metal to the fatherland.
Mast. ugl. 1 No. 8, 1952

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

KUZMIN, Ya. F.

MUSATOV, T.P., inzhener; NAUMOVSKIY, L.D., inzhener; IOFFE, Ye.F., inzhener; POBEGAYLO, K.M., inzhener; KUZMIN, Ya.F., inzhener; VASIL'YEV, A.A., inzhener.

On permanent markings on the supports of electric transmission lines. Elek. sta. 26 no.1:43-45 Ja '55. (MLRA 8:3)
(Electric lines--Overhead)



KUZ'MIN, Ya. F.

KLESHCHINSKIY, A.Ya., inzhener; KUZ'MIN, Ya. F., inzhener.

Use and impregnation of spruce supports. Elek.sta. 27 no.11:46-48 N '56. (MIRA 10:1)

(Wood--Preservation) (Spruce) (Electric lines--Poles)

KUZ'MIN, Ya.F., inzhener.

Improving the reliability of the power system and lowering the cost of transmitting electric energy. Elek.sta.27 no.12:33-37 D '56. (MLRA 10:1)

(Electric power distributions)

KUZMIN, YA. F.

TRANSMISSION LINES

"Electric Transmission Lines for 110 kv Without Anchored Towers" by Engineer Ya. F. Kuzmin, Elektricheskiye Stantsii, No. 5 May 1957, Pages 50 -- 54.

On the basis of operating experience with 110 kv lines, the author claims that the present design is too conservative. 110 kv line conductors very seldom break, other than under the influence of accidental factors, and such damage is practically independent of the safety factor used to design the conductors. It can therefore be recommended to use the minimum amount of copper possible, to employ intermediate wooden towers instead of anchored towers, and thus effect an economy of approximately 10 -- 15%. The only precaution that must be taken is reinforcement of the insulator strings.

Card 1/1

- 44 -

AUTHOR: Kuzmin, Ya.F., Engineer. 104-4-16/40

TITLE: The organisation of repair and operational work on transmission lines with mechanised repair stations. (Organizatsiya remontnykh i ekspluatatsionnykh rabot na liniyakh elektroperedachi remontno-mekhanizirovannymi stantsiyami)

PERIODICAL: "Elektricheskie Stantsii" (Power Stations), 1957, Vol. 28, No.4, pp. 58 - 61 (U.S.S.R.)

ABSTRACT: For a long time the operation and repair of transmission lines and sub-stations was organised on a territorial basis consisting of sections of 120 - 180 km of 110 kV lines with 3 to 5 sub-stations. The linesman and roundsman carried out major repairs on the lines and smaller repairs were carried out by the personnel of a single section. In 1955, the power system received two small and one large mechanised repair stations. However, it took a long time for these stations to become fully equipped. As soon as the repair stations were received the organisation of the work was altered so that the four territorial sections were replaced by two specialised sections, one for the line and the other for the sub-stations. The staff were especially trained in the new methods of working. Considerable economies were achieved particularly in the number of staff required. Details are given in tables

1/2

The organisation of repair and operational work on transmission lines with mechanised repair stations. (Cont.)

104-4-16/40

in the paper. Some difficulties are still experienced. There are not yet machines for carrying out earth work and not all the equipment for mechanised repair of lines is available. It is concluded that the mechanisation of repair and operational work based on the use of mechanised repair stations resulted in a considerable reduction in staff during the first year and a half. It is expected that after the repair station has been working for three or four years the line staff will be halved. During this time economy in wages will completely cover the cost of the purchase of the stations. The stations should be completed by providing mechanisms for groundwork, for the repair of lines, with provision of further trailers and tracked vehicles. The mobile cranes should be mounted on machines able to run on rough country. More attention will be required to
2/2 repair and maintenance of the station equipment to ensure petrol supplies and to complete the construction of bases.

There are 3 tables.

AVAILABLE:

KUZ'MIN, Ya.F., dotsent; VONSOVICH, M.Ya., inzh.

Experience in operating 110 kv. substations without cutouts on the voltage end. Elek. sta. 32 no.12:63-66 D '61. (MIRA 15:1)
(Electric substations) (Electric power distribution)

KUZ'MIN, Ya.F., dotsent

Methods for calculating the reliability of an electric power supply system taking into account the possibility of the development of faults. Izv. vys. ucheb. zav.; energ. 5 no.1:30-36 Ja '62. (MIRA 15:2)

1. Rizhskiy politekhnicheskiy institut. Predstavlena kafedroy elektricheskikh stantsiy.
(Electric power distribution)

KUZ'MIN, Ye., starshiy dispetcher-tekhnolog; VASIL'YEV, Ye., brigadir gruzchikov; TIMOFEYEV, A., starshiy kranovshchik; KUSLAP, A., starshiy kranovshchik; KHVOSTOVA, D.M., red.; KIRSANOVA, N.A., tekhn.red.

[New equipment in the port of Riga] Novaia tekhnika v Rizhskom portu. Izd-vo VTsSPS Profizdat, 1958. 54 p. (MIRA 12:3)
(Riga--Harbor) (Loading and unloading)

KUZ'MIN, Ye., kand.tekhn.nauk; MAKARENKO, I., nauchnyy sotrudnik; PERVAKOV, A., nauchnyy sotrudnik; TATARINOV, V., nauchnyy sotrudnik

New developments in the design of a joint for series 1-464 houses. Na stroi.Ros. 4 no.6:29-30 Je '63. (MIRA 16:6)

1. Odesskiy inzhenerno-stroitel'nyy institut (for all except Kuz'min).

(Building--Details)

Kuz'min, Ye. A.

24(6) PHASE I BOOK EXPLOITATION SOV/2385

Akademiya nauk SSSR

Nekotoryye problemy prochnosti tverdogo tela; sbornik statey (Some Problems in the Strength of Solids; Collection of Articles) Moscow, Izd-vo AN SSSR, 1959. 386 p. Errata slip inserted. 2,000 copies printed.

Ed. of Publishing House: V. I. Aver'yanov; Tech. Ed.: R. S. Pevzner; Editorial Board: A.F. Ioffe, Academician; G. V. Kurdyumov, Academician; S. N. Zhurkov, Corresponding Member, USSR Academy of Sciences; B. P. Konstantinov, Corresponding Member, USSR Academy of Sciences; F. F. Vitman, Doctor of Physical and Mathematical Sciences, Professor (Resp. Ed.); L. A. Glikman, Doctor of Technical Sciences, Professor; N. A. Zlatin, Doctor of Physical and Mathematical Sciences; V. A. Stepanov, Doctor of Technical Sciences; Ya.B. Fridman, Doctor of Technical Sciences, Professor; B. S. Ioffe, Candidate of Technical Sciences (Deputy Resp. Ed.).

PURPOSE: This book is intended for construction engineers, technologists, physicists and other persons interested in the strength of materials.

COVERAGE: This collection of articles was compiled by the Otdeleniye fiziko-matematicheskikh nauk AN SSSR (Department of Physical and Mathematical Sciences) and the Fiziko-tekhnicheskiy institut AN SSSR (Institute of Applied Physics, Academy of Sciences, USSR) in commemoration of the 80th birthday of Nikolay Nikolayevich Davidenkov, Member of the Ukrainian Academy of Sciences, founder and head of the Otdel prochnosti materialov (Department of the Strength of Materials) at the Institute of Applied Physics, Academy of Sciences, USSR, founder of the Fakul'tet fizicheskogo metallovedeniya (Department of Physical Metallurgy) at the Leningradskiy politekhnicheskiy institut (Leningrad Polytechnic Institute), recipient of the Stalin Prize (1943), the Order of the Red Banner of Labor (1945) and the Order of Lenin (1953). The articles deal with the strength of materials, phenomena of imperfect elasticity, temper brittleness, hydrogen embrittlement, cold brittleness, influence of deformation speed on the mechanical properties of materials, fatigue of metals, and general problems of the strength, plasticity, and mechanical properties of nonmetals. Numerous personalities are mentioned in the introductory profile of Professor Davidenkov. References are [illegible]

AVAILABLE: Library of Congress

24

05828

5 (4) SOV/76-33-10-26/45

AUTHOR: Kuz'min, Ye. A.

TITLE: Plotting of Composition - Property Diagrams of Multicomponent Equilibrium Systems

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 10, pp 2271 - 2279 (USSR)

ABSTRACT: The author devised a new method of plotting rectangular diagrams on the dependence of the properties of the afore-mentioned systems on the composition. A diagram for a quaternary system is described here for which the concentration of the various components is represented by a rectangle (Fig 1). The composition-versus-property dependence of the equilibrium systems is defined by the position of the straight-line intersections (by which the afore-mentioned rectangles are divided). Diagrams of the alloy Al - Cu - Mg - Si (60% Al, 8% Si) (Ref 1) are represented as planar section of the tetrahedron and in rectangular form (Figs 3,4). Diagrams of sections through ternary systems may be transformed from the rectangular form into a triangular one. The author presents the five-component diagram of sea-water salt crystallization which was plotted according to data by Van't Hoff (Tables 1,2). Projected three-dimensional diagrams are shown

Card 1/2

Plotting of Composition - Property Diagrams of Multi-component Equilibrium Systems

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SOV/76-33-10-26/45

which were plotted in analogy to rectangular plane diagrams. In this case, the number of points representing the composition-versus-property dependence is, however, reduced. Sections through multicomponent systems are, in principle, given by the well-known method of representing two-component diagrams. There are 13 figures, 2 tables, and 2 Soviet references.

SUBMITTED: February 15, 1958

Card 2/2

S/169/62/000/008/052/090
E202/E192

AUTHORS: Bibilashvili, N.Sh., Zaytseva, A.M., Kuz'min, Ye.A., Lapcheva, V.F., Ordzhonikidze, A.M., and Sulakvelidze, G.K.

TITLE: Theory of the formation of large drop fractions in the heavy radial cumulo-nimbus clouds, and factors affecting these processes

PERIODICAL: Referativnyy zhurnal, Geofizika, no.8, 1962, 80, abstract 8 B 550. (In the collection: "Issled. oblakov, osadkov i grozovogo elektrichestva" ('Studies of clouds, precipitations and thunderstorm electricity') M., AN SSSR, 1961, 3-6).

TEXT: Using observational data from the strato-cumulus, cumulus and heavy cumulus clouds in the years 1956-1958 in Trans-Caucasus and Caucasus, the growth of clouds' droplets was calculated according to the method of Bouen and Kiryukhin, in terms of the gravitational coagulation, assuming linear increase of the anabatic velocity w, with respect to the height z.

Card 1/4

As a result of these calculations it was established that with the greater velocities of the vertical streams the drop does almost cease to grow during the anabatic branch of the trajectory. The droplets are retained in the upper part of the cloud, where the velocities are small and the principal growth of the droplets or hailstones occurs prior to reaching the upper portion of the cloud. With the aqueous exchange of 10^{-6} g/cm^3, and the coefficient of catchment of 0.85, the position of the apex of the trajectory depends principally on the height z_1, at which $w = w_{max}$ and the degree of decrease of w with height at which $z > z_1$. With the velocity of the anabatic stream w_{max} greater than the velocity attained by the falling droplet with a radius of 2.5 mm of the v_{cr}, a chain reaction is started which leads to the accumulation of a large quantity of moisture in the upper part of the cloud and to the appearance of intensive showers. A cloud with $w_{max} \leq v_{cr}$ gives only a very short-duration and weak shower.

In the case when the temperature of the cloud's top is lower than the temperature of natural crystallisation, hail is formed in the cloud and the size of the falling hail particles is determined by the relation:

$$R \geq 1/8 w_{max}^2 \rho(z) \rho(0),$$

where $\rho(z)$ and $\rho(0)$ are air densities at levels z and y of the Earth's surface. The growth of hail to the size $R \sim 2.4$ cm at $w_{max} \approx 10 - 20$ m/sec occurs substantially above the level w_{max}, at the beginning of the katabatic branch of hail trajectory. The time necessary for the growth of hailstones to the above dimensions depends chiefly on the value of w_{max} and varies within the interval of 20 - 70 min. The terminal dimensions of hailstones depend very little on the vertical thickness of the cloud, and are determined chiefly by the moisture content of the air masses entering the cloud, the height of the zero isotherm, the value and the stability of w_{max}, and also by the velocity gradient of the vertical streams along their height.

Taking into consideration in the calculations the last mentioned, leads to a conclusion that the accumulation of large amounts of droplet water and hail takes place in the zone before the top of the cloud, which explains the high intensity and short duration of the showery precipitates and hail. The pressure of the large droplet fraction in the upper part of the cloud lowers the value of the anabatic velocity of the stream down to v_{cr}, and the corresponding quantity of water holding may be calculated from the formula:

$$q = \frac{m}{2gz} (w_{max}^2 - v_{cr}^2),$$

where m - the mass of air in a unit volume. The action on the upper part of the growing heavy cumulus with $w_{max} > v_{cr}$, with surface active or hygroscopic agents does not give a positive effect. Prevention or even weakening the effect of a hail is possible only by full crystallisation of the supercooled fraction of the liquid droplets entering the upper part of the cloud. 4-10 kg of reagent are required to destroy the hail centre.

Card 4/4 [Abstractor's note: Complete translation.]

[illegible], Ye. D.

"Some Methods of Raising the Water Impermeability of Thin-Walled Ferroconcrete Structures." Cand Tech Sci, Chair of Construction Production, Leningrad Order of Labor Red Banner Construction Engineering Inst, Min Higher Education USSR, Leningrad, 1954. (KL, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational

SO: Sum. No 598, 29 Jul 55

14(6) SOV/112-59-1-340

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 1, p 46 (USSR)

AUTHOR: Kuz'min, Ye. D.

TITLE: Experimental Construction of Watertight Heat-Pipeline Manholes in Leningrad

PERIODICAL: Tr. Nauchno-tekhn. soveshchaniya po proyektir. i str-vu teplovykh setey. M.-L., Gosenergoizdat, 1956, pp 79-86

ABSTRACT: Methods for constructing watertight heat-pipeline manholes were developed by LISI in 1953-1954. Observations have shown that the principal cause of ground-water penetration is the poor quality of borulin hydroinsulation. Investigation of measures for protecting the manholes against ground water covered the following tacks: (1) selection of additions tending to improve the concrete watertightness with a view toward abandoning the glue-type hydro-insulation; (2) searching for new types of hydroinsulating materials that would eliminate gluing; (3) constructing the watertight built-up manholes without

Card 1/2

Experimental Construction of Watertight Heat-Pipeline Manholes in Leningrad

hydroinsulation by using VRTs and VBTs cements; (4) finding methods that would protect a reinforced-concrete manhole from ground water. Additions tested in constructing experimental manholes are described. A vinyl plastic was tested as a hydroinsulating material. It is pointed out that using the above hydroinsulation methods reduces the cost of heat-pipeline manholes vs. borulin-insulated types. Use of a better watertight concrete also tends to decrease construction costs.

M.L.Z.

Card 2/2

KUZ'MIN, Ye.D.

Hot-air treatment of concrete. Sbor.nauch.trud.TISI 1:8-19 '56.
(MIRA 10:12)
(Concrete)

KUZ'MIN, Ye.D.

KUZ'MIN, Ye.D.

Formula for calculating basic parameters of over-all construction processes carried out by assembly-line methods. Sbor.nauch.trud. TISI 1:52-60 '56. (MIRA 10:12)

(Building)

DAVIDSON, Mikhail Genrikhovich, doktor tekhnicheskikh nauk; KUZ'MIN, Yevgeniy Dmitriyevich, kandidat tekhnicheskikh nauk; SAVINOV, O.A., kandidat tekhnicheskikh nauk, nauchnyy redaktor; KAPLAN, M.Ya., redaktor izdatel'stva; PUL'KINA, Ye.A., tekhnicheskiy redaktor

[New methods of increasing the waterproofnessof reinforced concrete structures] Novye sposoby povysheniia vodonepronitsaemosti zhelezo-betonnykh sooruzhenii. Leningrad, Gos. izd-vo lit-ry po stroit. i arkh., 1957. 85 p. (MLRA 10:6)
(Concrete construction) (Waterproofing)

L 25834-66 EWT(m)

ACC NR: AT6012275 (A) SOURCE CODE: UR/3166/65/000/004/0082/0086

AUTHORS: Katuntsevskiy, O. G.; Kuz'min, Ye. D.

ORG: Odessa Civil Engineering Institute (Odesskiy inzhenerno-stroitel'nyy institut)

TITLE: Influence of the duration of compression of cement-sand mixtures on the final strength of sand concrete

SOURCE: ASiA UkrSSR. Institut stroitel'nykh materialov i izdeliy. Stroitel'nyye materialy, detali i izdeliya, no. 4, 1965. Betony (Concretes), 82-86

TOPIC TAGS: cement, concrete, pressure effect

ABSTRACT: The effect of precompressing concrete mixtures on the final strength of the concrete was determined. The concrete mixtures consisted of 1:3 = portland cement M400:sand and 1:2.5 = water:cement. The specimens were compressed with an applied pressure of 10 kg/cm^2 for various periods of time, and the compression strength of the specimens was determined (see Fig. 1). It is concluded that precompression of cement-sand mixtures increases the final strength of the concrete. It is also suggested that the mechanism for the strength increase consists in the initial destruction of the relatively weak aluminate structure and subsequent formation of a strong crystalline skeleton.

Card 1/2

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ACC NR: AT6012275

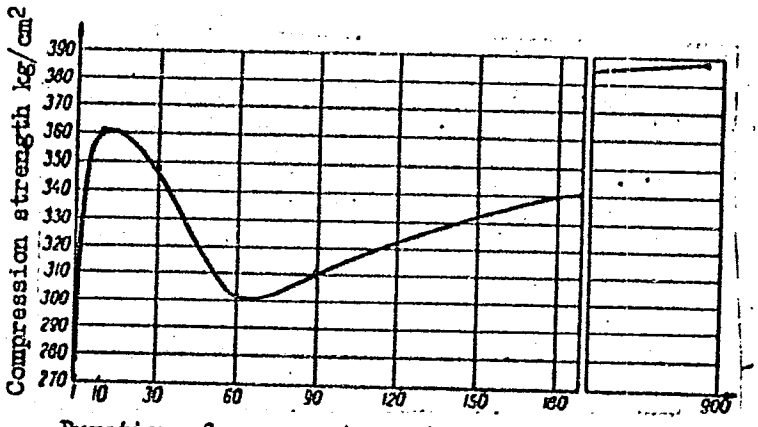

Fig. 1. Influence of the duration of compression of cement-sand mixtures on the final strength of the concrete.

Orig. art. has: 1 figure.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 004

Card 2/2

KUZ'MIN, Ye.I., inzh.; ANDREYEV, V.G., inzh.

Readers' letters. Bet. i zhel.-bet. no.11:530-531 N '60. (MIRA 13:11)
(Bridges, Concrete)

L 1412-66 EWA(k)/EWT(d)/FBD/FSS-2/EWT(l)/EWP(e)/EWT(m)/EEC(k)-2/EWP(i)/T/EWP(k)/EED-2/EWP(b)/EWA(m)-2/EWA(h)/EWA(c) SCTB/IJP(c) WG/BC/WH

ACCESSION NR: AP5021570 UR/0286/65/000/013/0042/0042

621.375.8

62—752.4

AUTHOR: Slashchin, M. S.; Kuz'min, Ye. I. 44

69

B

TITLE: A laser gyroscope with a quartz resonator. Class 21, No. 172400

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 13, 1965, 42

TOPIC TAGS: gyroscope, resonator, laser, quartz

ABSTRACT: This author certificate introduces a laser gyroscope (see Fig. 1 of Enclosure) containing a resonator composed of two joined quartz plates with quartz mirrors glued on them. This type of resonator assures the rigidity of the laser gyroscopes. Orig. art. has: 1 figure. [ZL]

ASSOCIATION: none

SUBMITTED: 23Mar64 ENCL: 01 SUB CODE: NG, EC

NO REF SOV: 000 OTHER: 000 ATD PRESS: 4099

Card 1/2

L 1412-66

ACCESSION NR: AP5021570

ENCLOSURE: 01

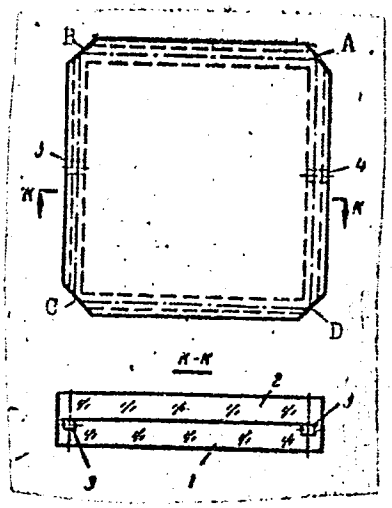

Fig. 1. Laser gyroscope with quartz resonator

A, B, C, and D - Mirrors; 1 and 2 - quartz plates; 3 - resonator; 4 and 5 - openings in the plates.

Card 2/2

KUZ'MIN, Ye.N.

Commutators in elastic rings. Sib. mat. zhur. 1 no.2:198-204 Jl-Ag '60. (MIRA 13:12)
(Rings (Mathematics))

KUZ'MIN, Ye.N.

Generalization of Cayley's identity. Usp. mat. nauk 16 no.4:171-174 Jl-Ag '61. (MIRA 14:8)
(Matrices)

Kuzmin, Ye. N.

E 8

PHASE I BOOK EXPLOITATION SOV/6352

Akademiya nauk SSSR. Vychislitel'nyy tsentr

Nomograficheskiy sbornik (Collected Papers on Nomography, no. 1.) Moscow, 1962. 248 p. 1800 copies printed.

Resp. Ed.: G. S. Khovanskiy, Candidate of Technical Sciences; I. A. Orlova; Tech. Ed.: A. I. Korkina.

PURPOSE: This collection of papers is intended for those engaged in research on and design of nomographs.

COVERAGE: This collection contains 27 papers concerning various aspects of the theory, construction, and use of nomograms for the solution of algebraic, functional, transcendental, and differential equations. No personalities are mentioned. There are 122 references: 102 Soviet (1 of which is a translation from the English), 8 German, 5 French, 2 English, 2 Spanish, 2 Rumanian, and 1 Czech.

Card 1/10

Collected Papers on Nomography SOV/6352

TABLE OF CONTENTS:

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Collected Papers on Nomography

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This paper is based on the author's report at the Conference on Computational Mathematics in Moscow, November 1959.

II. Stammberger, A. (Scientific Director of the Nomographic Group of the Institute of Applied Mathematics and Mechanics of the German Academy of Sciences, Berlin). Nomography in the German Democratic Republic 15

Translation of a report in German presented at the Computing Center of the Academy of Sciences of the USSR (Moscow) at the end of May 1962 and at the First All-Union Geometric Conference (Kiyev), on 28 May 1962.

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Collected Papers on Nomography

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Collected Papers on Nomography SOV/6352

Card 5/10

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Collected Papers on Nomography SOV/6352

The content of this paper was presented by the author at the First All-Union Geometric Conference.

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Collected Papers on Nomography

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Collected Papers on Nomography SOV/6352

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Collected Papers on Nomography SOV/6352

XXV. Bogolyubov, Yu. I., Cheboksary. On the Possibility of Writing a System of Two Equations With Six Variables in the Form
$A_3 + A_6 = A_{12} + A_{34}$, $B_3 + B_6 = B_{12} + B_{34}$,
Permitting the Construction of a Nomogram With Oriented Moving Scale 216

The results obtained were presented by the author at the scientific-research seminar on synthetic geometry and nomography, Moscow State University, 2 and 16 October 1961.

XXVI. Kuz'min, Ye. N. Possibility of Writing an Equation With Five Variables in the Form
$x_3 = \varphi_{12} + \psi_{34} + \Phi(\gamma_{12} + \gamma_{34})$,
Permitting the Construction of a Nomogram With Oriented Moving Scale 225

Card 9/10

Collected Papers on Nomography

SOV/6352

240

XXVII, Kuz'min, Ye. N. Anamorphosis of Functions

AVAILABLE: Library of Congress

SUBJECT: Mathematics

IS/jj/gm
6/27/63

Card 10/10

KUZ'MIN, Ye.N. (Novosibirsk)

Transformability of nomograms with an oriented transparency for certain functions of four and five variables. Nom. sbor. no.2: 178-198 '64. (MIRA 18:3)

GOLUBEV, V.S.; KUZ'MIN, Ye.N.; PANCHENKOV, G.M.

Sorption dynamics in the presence of interaction of adsorbed molecules. Zhur. fiz. khim. 39 no.4:1018-1021 Ap '65.
(MIRA 19:1)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
Submitted July 29, 1964.

KUZ'MIN, Ye.S.

Present-day tasks in the history of psychology. Vop.psikhol. 2 no.2:23-27 Mr-Ap '56. (MLRA 9:8)

1. Kafedra psikhologii Leningradskogo gosudarstvennogo universiteta.
(Psychology--History)

KUZ'MIN, Ye.S.

Some problems in the investigation of the problem of needs.
Uch.zap.LGU no.287:74-85 '60. (MIRA 13:6)
(Psychology)

KUZ'MIN, Ye.S. (Leningrad)

On the subject of social psychology. Vop. psikhol. 9 no.1:142-145 Ja-F '63. (MIRA 16:4)

(Social psychology)

LYUBANSKIY, V.M., inzh.; KUZ'MIN, Ye.T., inzh.

Redesigning of the cooling system of an ejector. Energetik 10 no.3:16-17 Mr '62. (MIRA 15:2)
(Ejector pumps—Cooling)

0c

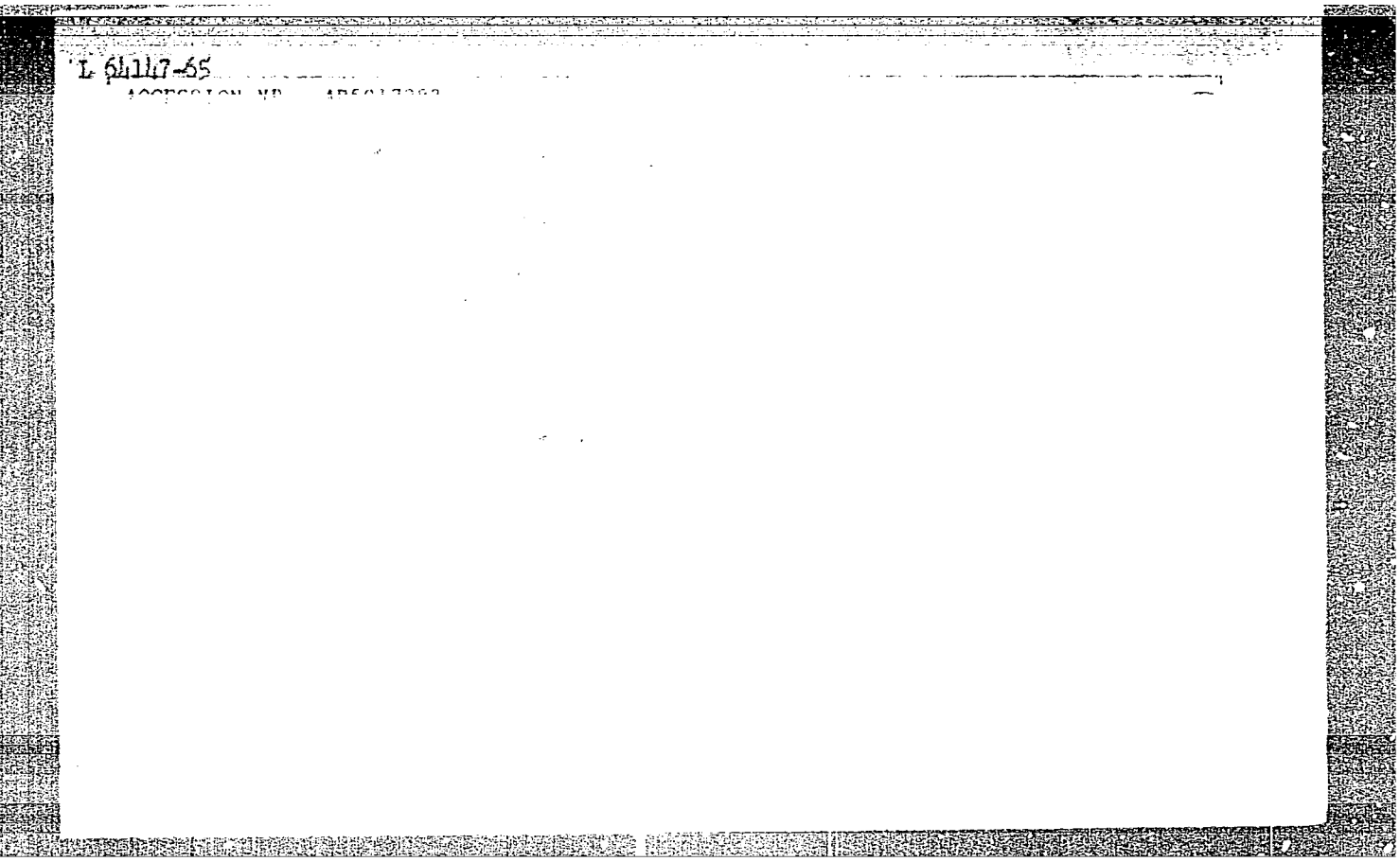
spectrum of the characteristic frequencies of [illegible] phenomeno-

netoelastic system, with the phenomenological expressions for [illegible]
Hamiltonian and the equations of motion modified to take these
[illegible] of the resultant

Card 1/3

in a thin magnetic film a discrete spectrum of characteristic frequencies dependent on magnetoelastic interaction. The two spectra are not independent and mixed exchange-magnetoelastic oscillations can therefore be excited in the film. The positions of the resonance peaks of these oscillations depends both on the exchange constant parameter and on the magnetoelastic interaction para-

ACCESSION NR: AP5000337



APPROVED FOR RELEASE: Monday, July 31, 2000 CIA-RDP86-00513R000928020

These conditions are further modified for the case when there is no magnetoelastic

L 15381-66 EWT(1)/EWP(e)/EWT(m)/T/EWP(t)/EWP(b) IJP(c) JD/GS

ACC NR: AP6004456 SOURCE CODE: UR/0048/66/030/001/0012/0016

60

B

AUTHOR: Ignatchenko,V.A.; Kuz'min, Ye.V.; Gorenko,L.M.

ORG: Institute of Physics of the Siberian Section of the Academy of Sciences, SSSR (Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: Influence of damping on the magneto-elastic vibration spectrum of a thin magnetic film (Transactions of the Second All-Union Symposium on the Physics of Thin Ferromagnetic Films held at Irkutsk 10 July to 15 July, 1964)

21,44,55

SOURCE: AN SSSR. Izvestiya.Seriya fizicheskaya, v.30, no. 1, 1966, 12-16

TOPIC TAGS: ferromagnetic film, magnetic thin film, magnetodielectrics, magnetostriction, spin wave, resonance line, relaxation process,

ABSTRACT: Two of the authors have previously calculated the discrete spectrum of the characteristic vibrations of a thin magnetic film (21,44,55) due to exchange and magnetoelastic interactions (V.A.Ignatchenko and Ye.V.Kuz'min, Zh. eksperim. i teor. fiz., 47, 1814 (1964)). In the present paper the widths and amplitudes of the corresponding lines are calculated. Terms are adduced to describe the relaxation of the spin and phonon systems, and linearized equations are written for the magnetization and the elastic displacement under the influence of a high frequency external field in a thin uniaxial ferromagnetic dielectric film which is isotropic with regard to its elastic and magnetostrictive properties. It is stated that this equation can be derived by the method

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L 15381-66

ACC NR: AP6004456

employed in the earlier paper. The dispersion equation for plane waves propagating perpendicular to the plane of the film is written. For right-hand polarized waves this equation describes slightly modified elastic waves; these solutions are not further discussed. For left-hand polarized waves the dispersion equation describes magnetoelastic vibrations. The roots of the dispersion equation corresponding to magnetoelastic vibrations are discussed at some length. The spectrum is made discrete by imposing the boundary conditions that the elastic stresses vanish and the spins are pinned at the boundary, and expressions are derived for the widths and amplitudes of the resonance lines. Orig. art. has: 29 formulas and 2 figures.

SUB CODE: 20 SUBM DATE: 00 ORIG. REF: 002 OTH REF: 000

Card 2/2

L 8812-66 EWT(1)/EWT(m)/T/EWP(b)/EWP(t) IJP(c) GG/JD

ACC NR: AP5024700 SOURCE CODE: UR/0056/65/049/003/0787/0796

AUTHOR: Ignatchenko, V. A.; Kuz'min, Ye. V.

ORG: Institute of Physics, Siberian Department, Academy of Sciences SSSR (Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: Magnetic and acoustic excitation of coupled magnetoelastic oscillations in a thin magnetic film

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 49, no. 3, 1965, 787-796

TOPIC TAGS: excited state, magnetic thin film, excitation spectrum, electric energy conversion

ABSTRACT: The purpose of the investigation was to calculate the amplitudes and effective relaxation parameters line widths) of magnetoelastic oscillation in a thin magnetic film, both in the case of magnetic and in the case of acoustic excitation. A linearized system of equations is written out for a magnetically uniaxial ferrodielectric which is isotropic with respect to its elastic and magnetoelastic properties and has the form of a thin film supporting uniform oscillations in the plane of the film. A general solution is obtained, from which equations are derived for the amplitudes of the spin waves in the case of magnetic excitation and for the amplitudes of the acoustic waves produced by acoustic excitation (complex amplitudes of the elastic components of magnetoelastic oscillations). This is followed by a study of

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L 8812-66
ACC NR: AP5024700

the magnetic components of magnetoelastic oscillations under acoustic excitation and the elastic components of magnetoelastic oscillations under magnetic excitation. The relaxation characteristics of the magnetoelastic oscillations are also considered. For both magnetic and acoustic excitation, it is shown that a discrete spectrum of resonance peaks and coupled magnetoelastic oscillations, determined by exchange of magnetoelastic interactions, should be observed in a thin magnetic film. In the case of acoustic excitation, in contrast to excitation by a uniform microwave magnetic field, even modes are also excited, thus doubling the number of resonance peaks. The distributions of the peaks are discussed, together with the optimal conditions for the most effective use of a thin magnetic film as an element for mutual conversion of microwave oscillations of different types. Orig. art. has: 4 figures and 39 formulas.

SUB CODE: 20/ SUBM DATE: 11Feb65/ ORIG REF: 004/ OTH REF: 002

jw
Card 2/2

L 08764-67 EWT(m)/EWP(t)/ETI IJP(c) JD/HW
ACC NR: AP6029121 SOURCE CODE: UR/0048/66/030/006/1009/1010

AUTHOR: Rusov, G.I.; Tushkov, B.P.; Kuz'min, Yo.V.

ORG: Institute of Physics, Siberian Section, Academy of Sciences, SSSR (Institut fiziki Sibirskogo otdeleniya Akademii nauk SSSR)

TITLE: Spin-wave resonance in thin Fe-Ni-Co alloy films /Report, All-Union Conference on the Physics of Ferro- and Antiferromagnetism held 2-7 July 1965 in Sverdlovsk/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 6, 1966, 1009-1010

TOPIC TAGS: spin wave, spin wave spectrum, nickel base alloy, iron containing alloy, cobalt containing alloy, magnetic thin film

ABSTRACT: The authors have investigated spin-wave resonance at 9.1 MHz in 350 to 1800 Å thick films of 17Fe-80Ni-3Co alloy, vacuum deposited at 10^{-5} mm Hg onto glass substrates heated to 200° C. The specimens were mounted in a rectangular cavity which was excited in the H_{120} mode and had a loaded Q factor of about 1500. From resonance absorption measurements with the films in different orientations with respect to the constant magnetic field it was found that the effective magnetization was independent of the film thickness and equal to $9900/4\pi$ G. Spin-wave resonances were observed only in the thickest (~ 1800 Å) films when the external field was perpendicular to the film. The data were satisfactorily described by the theory of

Card 1/2

L 08754-67
ACC NR: AP6029121

C.Kittel (Phys. Rev., 110, 6, 1295 (1958)), although the spin-wave modes were shifted toward the homogeneous ferromagnetic resonance, owing, obviously, to inconplete surface pinning of the spins. Three peaks were clearly distinguished on the spin-wave resonance spectrum; these are identified as the fifth, seventh, and ninth modes. From the measured separation between the successive spin-wave modes it was found that the exchange interaction constant A was $(0.25 \pm 0.015) \times 10^{-6}$ erg/cm; this value is somewhat less than the sum of the exchange interaction constants for the separate components of the alloy. Orig. art. has: 1 formula and 2 figures.

SUB CODE: 20/ SUBM DATE: 00/ ORIG REF: 000/ OTH REF: 003

Card 2/2 bc

SHISHMAREV, O.A (Kaliningrad); KUZ'MIN, Ye.Ya. (Kaliningrad)

Dependence of elastic constants of a metal on plastic deformations. Izv.AN SSSR.Otd.tekh.nauk.Mekh.i mashinostr. no.3:167-169 My-Je '61. (MIRA 14:6)

(Deformations (Mechanics)) (Metals--Testing)

DOROKHIN, A.K.; KUZ'MIN, Yu.D.

Field tests of the AM-13 aerial magnetometer. Geofiz. prib. no. 12:113-122 '62. (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut razvedochnoy geofiziki.

TRUSHTALEVSKAYA, Ye.A.; KUZ'MIN, Yu.G.

Sand paint-grinders and their operating conditions. Lakokras.mat.i ikh prim. no.1:76-79 '61. (MIRA 14:4)
(United States--Paint industry--Equipment and supplies)

KUZ'MIN, Yu.G.; TRUSHTALEVSKAYA, Ye.A.

Thinning and dispersion of pigments in binders. Lakokras.mat. i ikh prim. no.2:86-87 '61. (MIRA 14:4)
(Paint materials)

RYKOV, I.A., kand.tekhn.nauk; KUZ'MIN, Yu.G.; ZVORYGIN, L.V.

Shield system for mining extra-thick steeply dipping seams. Ugol' 37 no.7:16-19 Jl '62. (MIRA 15:7)

1. Institut gornogo dela Sibirskogo otdeleniya AN SSSR.
(Coal mines and mining)

GEL'FAND, I.M. (Moskva); DYUDENI, N.Ye. (SShA); KIRILLOV, A.A. (Moskva); PODSYPANIN, V. (Tula); TER-MKRTACHAN, M. (Yerevan); KUZ'MIN, Yu.I. (Moskva); VEYL', G. (SShA); FADDEYEV, D.K. (Leningrad); ARNOL'D, V.I. (Moskva); IVANOV, V.F. (San-Karlos, Kaliforniya, SShA); GRAYEV, M.I. (Moskva); LEBEDEV, N.A. (Leningrad); LOPSHITS, A.M. (Moskva); ZHITOMIRSKIY, Ya.I.; MITYAGIN, B.S. (Moskva); SKOPETS, Z.A. (Yaroslavl'); PUANKARE, A. (Frantsiya); GAVEL, V.V. (Brno, Chekhoslovakiya); SOLOMYAK, M.Z. (Leningrad); LEVIN, V.I. (Moskva); BARBAN, M.B. (Tashkent); FRIDMAN, L.M. (Tula)

Problems. Mat. pros. no.5:253-260 '60. (MIRA 13:12)
(Mathematics--Problems, exercises, etc.)

ANDREYEV, A.P.; BRODOVOY, V.V.; GOL'DSHMIDT, V.I.; KUZ'MIN, Yu.I.; MOROZOV, M.D.; EYDLIN, R.A.

Distribution of deep faults in Kazakhstan. Izv. AN Kazakh. SSR. Ser. geol. 22 no.4:11-17 Jl-Ag '65. (MIRA 18:9)

ACC NR: AR6024837 SOURCE CODE: UR/0169/66/000/004/G003/G004

15

AUTHOR: Bekzhanov, G. R.; Brodovoy, V. V.; Gol'dshmidt, V. I.; Zhivoderov, A. B.; Zlavdinov, L. Z.; Ivanov, O. D.; Kiychin, I. N.; Kolmogorov, Yu. A.; Bachin, A. P.; Kotlyarov, V. M.; Kuz'min, Yu. I.; Kuminova, M. V.; Kunin, N. Ya.; Lyubetskiy, V. G.; Melent'yev, M. I.; Morozov, M. D.; Tret'yakov, V. G.; Tychkova, T. V.; Tsaregradskiy, V. A.; Eydlin, R. A.

TITLE: A schematic geophysical map of Kazakhstan

SOURCE: Ref. zh. Geofizika, Abs. 4G17

REF SOURCE: Sb. Geol. rezul'taty prikl. geofiz. Geofiz. issled. stroyeniya zemn. kory. M., Nedra, 1965, 142-154

TOPIC TAGS: geologic survey, geologic prospecting, map

ABSTRACT: Regional geophysical surveys are conducted in Kazakhstan to divide the territory into tectonic regions, to study its plutonic structure, and to solve some problems of geophysical mapping. The results of these surveys will make it possible to establish structural belts and regions in which minerals are likely to be found. The basic material will be obtained from investigations of the magnetic and gravitational fields in combination with seismic studies. In the magnetic and gravitational fields, tectonic and plutonic seams are isolated which correspond to terraces in the

Card 1/2 UDC: 550.311(574)

ACC NR: AR6024837

Mohorovicic discontinuity. Methods of regional geophysics are used to study the plutonic structure of a folded base, the structure and thickness of sedimentary sheaths, and to indicate prospective petroleum bearing uplifts. [Translation of abstract]
M. Speranskiy

SUB CODE: 08

Card 2/2

ACC NR: AP7004554 SOURCE CODE: UR/0215/66/000/006/0034/0047

AUTHOR: Andreyev, A. P.; Brodovoy, V. V.; Gol'dshmidt, V. I.; Kuz'min, Yu. I.; Morozov, M. D.; Eydlin, R. A.

ORG: Kazakh Geological Trust (Kazakhskiy geologicheskiy trest)

TITLE: Deep tectonic regionalization of kazakhstan on the basis of geophysical data

SOURCE: Sovetskaya geologiya, no. 6, 1966, 34-47

TOPIC TAGS: tectonics, earth crust / Kazakhstan

ABSTRACT:

All available data are reviewed for the purpose of tectonic regionalization of Kazakhstan. In particular, observations along a series of profiles with a total length of 4,600 km were used. A merit of the article is that the authors describe exactly how all materials were used in regionalizing the area, and the study could be used as a model for regionalization of other areas on the basis of equivalent information. The graphic representation of the generalized data is particularly clear and easily interpreted. Fig. 2 shows analysis of the gravity field over columns of the earth's crust of identical thickness in different areas; Fig. 2 effectively shows the generalized characteristics of the deep structure of the principal tectonic blocks of Kazakhstan; Fig. 4 is a composite map of the distribution of deep faults and areas of intrusive magmatism in Kazakhstan; Fig. 5 is a map of the tectonic regionalization on the basis of geological-geophysical data. Orig. art. has: 5 figures. [JPRS: 38,460]

Card 1/1 SUB CODE: 08 / SUBM DATE: none / ORIG REF: 018 UDC: 550.3:551.24(574)

0926 1353

L 42131-66

ACC NR: AT6028379 SOURCE CODE: UR/0000/65/000/000/0142/0154

AUTHOR: Bachin, A. P.; Bekzhanov, G. R.; Brodovoy, V. V.; Gol'dshmidt, V. I.; Zhivoderov, A. B.; Zlavdinov, L. Z.; Ivanov, O. D.; Klenchin, I. N.; Kolmogorov, Yu. A.; Kotlyarov, V. M.; Kuz'min, Yu. I.; Kuminova, M. V.; Kunin, N. Ya.; Lyubetskiy, V. G.; Melent'yev, M. I.; Morozov, M. D.; Tret'yakov, V. G.; Tychkova, T. V.; Tsaregradskiy, V. A.; Eydlin, R. A.

ORG: none

TITLE: Geophysical sketch map of Kazakhstan

SOURCE: International Geological Congress. 22d, New Delhi, 1964, Geologicheskiye rezul'taty prikladnoy geofiziki (Geological results of applied geophysics); doklady sovetskikh geologov, problema 2. Moscow, Izd-vo Nedra, 1965, 142-154

TOPIC TAGS: ~~Kazakhstan~~ geophysics, map, ~~geophysical mapping~~, tectonics, ~~regional~~ regional study

ABSTRACT: On the basis of regional geophysical and geological investigations (seismic, gravimetric, magnetoelectric), a composite geophysical sketch map of the physical fields of Kazakhstan has been compiled. From this map, the major tectonic zones, deep structures, and geological structural zones are defined. Long zones representing high field gradients in the gravitational and magnetic fields reflect deep geosutures, which seismic sounding data suggest are scarps in the M-discontinuity

Card 1/2

L 43121-66

ACC NR: AT6028379

Among the major structural zones of Kazakhstan defined are: 1) the Turgayskaya, 2) the Petropavlovskaya, 3) the Uspenskaya, 4) the Tokrauskaya, and 5) the Dzhalair-Naymanskaya. Regions of magmatism are also defined. In the tectonic depression zones, contour lines indicate the thickness of the sedimentary cover, overlying the folded basement, and possible oil-bearing formations. Orig. art. has: 1 figure. [DM]

SUB CODE: 08/ SUBM DATE: 06Jan65/ ATD PRESS: 5063

Card 2/2

KUZMIN, Yu. I.

"Mobile Palatography as a Tool for Acoustic Study of Speech Sounds."

report submitted for the 4th Intl. Congress of Acoustics,
Copenhagen, Denmark, 21-28 Aug 1962.

Pavlov Inst. of Physiology, Leningrad USSR

ACC NR: AR6032146 SOURCE CODE: UR/0169/66/000/006/G005/G005

AUTHOR: Andreyev, A. P.; Brodovoy, V. V.; Gol'dshmidt, V. I.; Kuz'min, Yu. I.; Morozov, M. D.; Eydlin, R. A.

TITLE: Abyssal tectonic zoning of the territory of Kazakhstan according to geophysical data

SOURCE: Ref. zh. Geofizika, Abs. 6G32

REF SOURCE: Sb. Geofiz. issled. v Kazakhstane. Alma-Ata, Kazakhstan, 1965, 9-27

TOPIC TAGS: geophysics, geology, geographic location, tectonics, earth crust

ABSTRACT: A description is given of the sequential development of the geological interpretation of geophysical data, from factual material to maps of the abyssal structure of the earth's crust and the typification of its individual blocks, the quantitative characteristics of the abyssal fractures, and the development of a system of geotectonic zoning. It is shown that the Moho discontinuity (M) was built according to graphoanalytic correlation dependencies between zonal anomalies and the delineation of the M boundary, and studied according to deep seismic

Card 1/3 UDC: 550.311(574)

ACC NR: AR6032146

sounding and deep seismic profiling. An isodepth system of the "basalt" and "diorite" surface layers was built. Knowledge of the delineation of the M surface makes it possible to construct systems of isopachous lines of the "basalt" layer. A simultaneous analysis of the Moho and Conrad discontinuities provides data for the definition of the structure of the earth's crust in various regions. The coefficient of basalt saturation ($K_б$), equal to the relation between the thickness of the "basalt" layer and the general thickness of the earth's crust, is used to define individual blocks. Earth-crust blocks of similar structure are defined by similar coefficient values (0.77 and 0.67 for the Akbastau and Kokchetav massifs, respectively, 0.38 for the Russian platform, etc.) The simultaneous analysis of the definition of the core of interfaces makes it possible to suppose that zonal anomalies can be caused by a possible heterogeneity in the density of the mantle. Maps of anomalous magnetic fields, gamma fields, etc., and geological information are brought out to study the structure of the "granite" layer aside from the gravitation field. The authors synthesize the data obtained and work out regional tectonic delimitations of areas of intrusive magnetism, abyssal fractures, deep-seated faults, preorogenic synclinales, foredeeps, intermountain depressions, superimposed troughs, etc. The deep faults are divided into 4 groups: those reflected in the M surface; those not reflected in it, but controlled by ultrabasite belts; those manifested in the "basalt" layer; and those dying out in the "granite"

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ACC NR: AR6032146

and "diorite" layers. The structure of the basic geotectonic blocks of the Kazakhstan-Caspian tectonic syncline, group of ancient rigid folding structures, including the Kokchetav, Balkhash, Akbastau, Slavgorod, and Aral blocks, and areas of Caledonian and Hercynian folding. It is shown that the faults of the first group are concentrated mainly in eastern Kazakhstan; the displacement of blocks contacting under it reaches 5—7 km, while the extension reaches 500—1000 km. The faults of the second group are oriented mainly in the north-east and meridional directions. They are widespread, as are those of the third and fourth groups. The complex tectonic-formation block structure of Kazakhstan is caused by the coincidence of the main abyssal faults. The bibliography contains 28 entries. G. Reysner. [Translation of abstract]

SUB CODE: 08/

Card 3/3

S/245/62/000/006/003/006
D222/D307

AUTHORS: Chistovich, L. A., Klaas, Yu. A. and Kuz'min, Yu. I.

TITLE: Continuous recognition of speech

PERIODICAL: Voprosy psikhologii, no. 6, 1962, 27-39

TEXT: This is a report of experiments on the rapid reproduction and alphabetic transcription of consonants, a continuation of previous work by the senior authors. The purpose of this work was to investigate the articulation dynamics in the running reproduction of consonants, and to find the relationship between reproduction and literal transcription. Nonsense syllables of the vowel-consonant-vowel and consonant-vowel type were read by an experimenter into an intercom system and the articulation movements were recorded by means of a special apparatus developed by Kuz'min and Shuplyakov (Voprosy psikhologii, no. 1, 1963). The two subjects tested were required to give a running reproduction or a literal transcription of the syllables, while the same parameters were recorded. It was found that 100 - 150 msec after the transition from

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Continuous recognition of speech

S/245/62/000/006/003/006
D222/D307

vowel to consonant in the speech signal the articulation apparatus of the subject takes up a nondifferentiated 'consonant state' which does not coincide with any consonant of the given language. As new information is received this state is progressively modified towards the specific consonant perceived. This supports the view that the articulation during fast reproduction reflects the discrimination processes whereby the running synthesis of the articulation image is achieved. This is contrasted with the view which holds that the process is based on the identification of phonemes. The experiments with literal transcription also show that the selection of letters os not based on the acoustic information as such, but on the final state of the articulatory motor image reached during the running synthesis of the consonant. All this supports the theory that speech sound discrimination is based on the recoding of acoustic information into an articulatory image. There are 11 figures.

ASSOCIATION: Institut fiziologii im. I. P. Pavlova, AN SSSR, Leningrad (Physiological Institute im. I. P. Pavlov, AS USSR, Leningrad)

Card 2/2

ANDREYEV, A.P.; BRODOVOY, V.V.; GOL'DSHMIDT, V.I.; KUZ'MIN, Yu.I.; MOROZOV, M.D.; EYDLIN, R.A.

Crustal subsurface structure of Kazakhstan and methods for its study. Izv. AN Kazakh. SSR. Ser. geol. 21 no.4:3-15 Jl-Ag '64. (MIRA 17:11)

1. Iliyskaya geofizicheskaya ekspeditsiya i Geofiztrest, Alma-Ata.

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ABSTRACT: Development of a logic scheme for automatic encoding of speech signals will require detailed information on the temporal structure of speech signals. Acoustic analysis is too beset with difficulties to be useful for this purpose. Analysis of articulatory movements appears more promising.

A method of palatography was therefore sought which (unlike the classical palatograph of the phoneticians) would permit continuous recording of running speech, and which (unlike Stetson's rubber bulb palatogram) would give a complete picture not only of the duration, but also of the exact location, of tongue-palate contacts.

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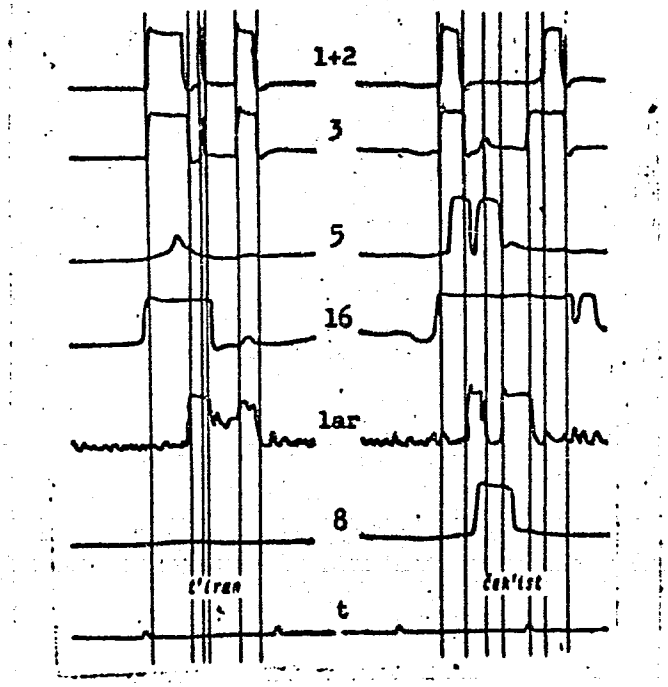

Fig. 1. Dynamic palatograms taken during pronunciation of the words "tiran" and "chekist"

1+2, 3, 5, 16, 8 - Number of electrode; lar - laryngogram; t - time mark.

A sensor, consisting of a prosthetically fitted artificial palate with imbedded electrodes, was devised for this purpose (see Fig. 1 in "Research Toward Man-Machine Speech Communication," p. 114 of this special issue). Palatograms showing tongue contact at different points of the hard palate are recorded on a multichannel recorder together with a laryngogram trace and a time mark. Objective data are thus obtained for studying the temporal structure and physical articulation of consonants in various phonetic environments (alone and in combination with other elements in initial, medial, and final position). Fig. 1 shows typical palatograms obtained by this method.

The amount and nature of these data require computer processing. System noise levels and signal strength required to obtain data which would yield sufficiently reliable results when processed by computer had to be established, and the limits of variation of the same speech signal when produced by different speakers determined.

It was found that not only the shape, size, and location of tongue-palate contacts, but also their relationship to each other in time during the production of a given consonant, were essential elements of the distinctive and unambiguous palatographic "signature" of that sound. Static (classical) palatography superimposes all later steps in the pronunciation