KHACHATURYAN, M.Kh.

Role of the correlative strength of excitation of cortical centers in the function of conditioned reflex connections of the second order. Trudy Fiziol.lab.AN SSSR 1:63-95 '59.
(MIRA 12:8)

(CONDITIONED RESPONSE)

DOLGIKH, M.A.; MATVIYENKO, V.V.; KHACHATUR'YAN, N.S.

Estimating the stability of leaching chambers in deposits of rock salt. Trudy VNIIST no.12:74-111 '62. (MIRA 16:11)

KHACHATURYAN, N.S.

Mechanical characteristics of the rock salt of the Avansk deposit in the Armenian S.S.R. Izv. AN Arm. SSR. Ser. tekh. nauk 18 no.1:74-76 '65.
(MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut podzemnoy gazifikatsii ugley.

AUTHOR: Gorbachev, S.V., Khachaturiyan, O.B. 76-11-23/35

TITLE: The Dependence of the Velocity of Electrolysis on the Composition of Reversible Redox Systems (Zavisimost' skorosti elektroliza ot sostava obratimykh okislitel'no-vosstanovitel'nykh sistem)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1957, Vol. 31, Nr 11, pp. 2526-2533 (USSR)

ABSTRACT: The system ferro-, ferricyanides was investigated. The method employed was that of the temperature dependence of current density on the polarization potential, which was used in a number of works (e.g. Ref.6-10). The investigation of the kinetics of the electrochemical reaction oxidation of ferro-, ferricyanides shows that with a concentration of 0.1 and 0.3 M and 25, 40, 60 and 80° C the velocity of the process concerned is limited by the concentration polarization. An equation is derived with the help of which it is possible to compute the dependence of amperage on composition in the case of any polarization potential for reversible redox systems. There are 8 figures and 12 references, 8 of which are Slavic.

Card 1/2

ASSOCIATION: Chemical-Technological Institute imeni D.I.Mendeleyev (Khimiko-tekhnologicheskiy institut im. D.I.Mendeleyeva)

KHACHTURYAN. O.B. Cand Chem Sci -- (diss) "Study of electrochemical kinetics of certain ~~transmutable~~ reversible ~~oxido-reducible~~ oxidation-reduction systems." Mos 1958, 12 pp (Min of Higher Education USSR. Mos Order of Lenin Chem Tech Inst im D.I. Mendeleyev) 120 copies. (KL, 21-58, 88)

AUTHORS: Khachaturyan, O. B., Gorbachev, S. V. SOV/156-58-1-6/46

TITLE: The Polarization of Reversible Oxidative-Reductive Systems (Polyarizatsiya obratimykh okislitel'no-vosstanovitel'nykh sistem)Ferro-Ferri Ions (Ferro-ferriiony)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 1, pp. 19 - 22 (USSR)

ABSTRACT: In spite of a great number of papers on the kinetics of the electrochemical oxidation and reduction of the iron ions in solutions a uniform point of view concerning the nature of the polarization which accompanies this process has hitherto been lacking. This is shown by a survey of publications(Refs 1-6) according to which the nature of the overcharging process of the iron ions is not finally explained. Therefore the authors investigated its kinetics in sulfuric acid solutions under application of the temperature-kinetic method (Ref 9). In this connection the mechanism of the most retarded stage which determines the velocity of the whole process may be determined reliably only if the following three factors are investigated: a) The absolute value of the effective activation energy,

Card 1/4

b)its dependence on the polarization potential, and c) the influence of stirring on the velocity of the proceeding process. Solutions of bi- and trivalent iron sulfate in 0,1 n.sulfuric acid were investigated. Figure 1 shows curves which were plotted for 0,1 M solution in a not stirred electrolyte at 20 - 80°C. The curves increase rapidly with rising temperature and the polarization is reduced. The imperfect symmetry of the anode- and cathode curves points out that the anode process is lagging behind the cathode process. It was found that the curves of the current density logarithm versus the inverse temperature function in a wide range represent parallel straight lines (Fig 2). On the strength of the obtained polythermal curves the amount of the effective activation energy (Ref 9) of the cathode- and anode process was calculated for all investigated concentrations. It fluctuated between 6 and 7 kcal/mol. Since stirring is a criterion which suggests a diffusion nature of the process, its influence was investigated. Figure 3 shows that the stirring of the electrolytes reduces to a great extent the polarization and increases the current density. The values of the activation energy were in this case not equal to the

last mentioned. It was found that also a prototropical (prototropnyy) mechanism takes place beside the ionic conductivity. Thus an occurrence may be assumed of a hydrolysis in the sulfate iron solutions which leads to the formation of the colloidal iron hydroxide. The latter was proved as well. The iron hydroxide plays the rôle of a surface-active addition in the solution. The existence of the latter causes an increased value of the amount of the effective activation energy (Ref 10). There are 3 figures and 10 references, 3 of which are Soviet.

ASSOCIATION: Kafedra fizicheskoy khimii Moskovskogo khimiko-tekhnologicheskogo instituta im.D.I.Mendeleyeva (Chair of Physical Chemistry of the Moscow Institute of Chemical Technology imeni D.I. Mendeleyev)

SUBMITTED: September 12, 1957

5(4) SOV/153-58-2-18/30

AUTHORS: Khachaturyan, O. B., Gorbachev, S. V.

TITLE: Electrochemical Kinetics of Some Reversible Redox Systems (Elektrokhimicheskaya kinetika nekotorykh obratimykh okislitel'no-vosstanovitel'nykh sistem)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 2, pp 106-113 (USSR)

ABSTRACT: The reversible systems have a particular position among the various electrochemical processes. The number of the different elementary stages which are responsible for the occurrence of polarization is here the least. Therefore, quite recently, the investigators have taken much interest in redox systems especially in such typical cases as ferro-ferricyanides (Ref 1) and others (Refs 2-6). In these studies, however, the influence exercised by the composition of these systems upon the rate of the electrochemical reaction is scarcely being considered. Even in those papers where this was done (Refs 5-8), no conclusions with respect to the rate of electrolysis were drawn. The authors investigated the problem under review for systems of the ferro-ferricyanides and of simple iron salts. The method of

Card 1/4

measurement and the equipment were already previously described (Ref 11). Diagrams of the "electrochemical activity" on the basis of the isotherms of the dependence of the electrolysis rate upon the polarization potential (Fig 1) were studied. These measurements were carried out for various relations of oxidized and reduced ions at 20°, 60°, and 80° with a total concentration of the solution of 0.1 M. Neutral salts of ferro-ferricyanides and iron sulfates in a 0.1 N sulfuric acid were tested. As it can be seen in figures 2 and 3, the isopotential curves of the dependence of the electrolysis rate on the composition of the system pass through a maximum. This maximum is shifted with the increasing polarization potential and with the change of the composition of the solution. This shift is characteristic both of anodic and cathodic processes. The investigation of the systems (Refs 11,12) shows that the above rules remain valid for all concentrations (up to the saturated solutions) and for all temperatures investigated. From this it may be concluded that the rule detected is not determined by the individual properties of the system investigated, but apparently by the most retarded stage of the process. This stage pos-

sesses a diffusion nature. Starting from this it was tried to calculate the curves obtained. After various computations the authors establish the equation (6), from which can be seen that the position of the maximum on the curve is determined by the total concentration, the polarization potential and temperature. If the equation (6) is applied to the description of the experimental data regarding ferro-ferri ions, only the character of the rule observed can be determined. The maximum of the corresponding curves remains below the maximum computed and the rate of the process is considerably reduced as compared with its calculated value (Fig 4). Finally, the determination and dependence of the coefficient μ (equation 4) (Tables 1,2) are discussed. Thus the authors proved that in a system consisting of ferro-ferri-sulfates quantitative deviations from the values computed by equation (6) are observed. They are explained by adsorption of the colloidal iron hydroxide on the electrodes. There are 4 figures, 2 tables, and 18 references, 10 of which are Soviet.

SOV/153-58-2-18/30

Electrochemical Kinetics of Some Reversible Redox Systems

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskiy institut imeni D. I. Mendeleyeva (Moscow Institute of Chemical Technology imeni D. I. Mendeleyev)
Kafedra fizicheskoy khimii (Chair of Physical Chemistry)

SUBMITTED: September 23, 1957

Card 4/4

AUTHORS: Khachaturyan, O. B., Gorbachev, S. V. 76-32-4-39/43

TITLE: The Polarization of the Reversible Ferri-Ferrocyanide Redox Systems (Polyarizatsiya obratimykh okislitel'no--vosstanovitel'nykh sistem. Ferri-ferrotsianidy)

PERIODICAL: Zhurnal Fizicheskoy Khimii, 1958, Vol. 32, Nr 4, pp. 952-954 (USSR)

ABSTRACT: Investigations of the problem mentioned in the title have been carried out already by many scientists, as there are Grube (Reference 1), Friedenhagen (Reference 2), Von Hayek (Reference 3), Le-Blanc (Reference 4), Gust (Reference 5). V. P. Il'inskiy and N. P. Lapin (Refe= rence 6); the latter pointed out that these processes take place without a diffusion mechanism. In the present paper the temperature-kinetic method of investigation described in references was applied, an U-shaped vessel and platinum electrodes having been used as electrolyser. From the graphically represented experimental data can be seen that the cathode- and anode curves take a symme= trical course, and that limit currents were observed at 25, 4o and 6o°C. The amount of effective activation

Card 1/2

energy was computed according to a formula and an interval of 4±0.3 kcal/mol was found. This is regarded as proof for the diffusive kind of the limit stage of the process and the course of the polarization curves is computed according to Nernst. By modifyin the apparatus the investigations were carried out in mixing and it was found that the mixing of the liquid exerts a strong influence on the course of the polarization curve. There are 2 figures and 1o references, 5 of which are Soviet.

ASSOCIATION: Khimiko-tekhnologicheskiy institut im. D. I. Mendeleyeva Moskva (Moscow, Chemical-Technological Institute im. D. I. Mendeleyev)

SUBMITTED: February 28, 1957

1. Ferri-ferrocyanide redox systems--Polarization

BURMISTROVA, Ol'ga Aleksandrovna; KARAPET'YANTS, Mikhail Khristoforovich, prof.; KARETNIKOV, German Sergeyevich, dots.; KISELEVA, Yekaterina Vasil'yevna, dots.; KUDRYASHOV, Igor' Vladimirovich, dots.; MIKHAYLOV, Vladimir Vasil'yevich, dots.; STAROSTENKO, Yekaterina Pavlovna, dots.; STREL'TSOV, Igor' Sergeyevich; KHACHATURYAN, Ol'ga Borisovna, dots.; GORBACHEV, S.V., doktor khim. nauk, prof., zasl. deyatel' nauki i tekhniki, red.; ALAVERDOV, Ya.G., red.; VORONINA, R.K., tekhn. red.

[Laboratory work in physical chemistry] Praktikum po fizicheskoi khimii. [By] O.A.Burmistrova i dr. Moskva, Vysshaia shkola, 1963. 553 p. (MIRA 16:11)
(Chemistry, Physical and theoretical—Laboratory manual)

KRESHKOV, A.P.; MYSHLAYAYEVA, L.V.; KHACHATURYAN, O.B.; KRASNOSHCHEKOV, V.V.

Conductometric analysis of silicon in organosilicon compounds.
Zhur. anal. khim. 18 no.11:1375-1379 N '63. (MIRA 17:1)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I. Mendeleyeva.

ACCESSION NR: AP4019521 S/0076/64/038/002/0372/0374

AUTHOR: Khachaturyan, O. B. (Moscow); Fedorova, N. S. (Moscow)

TITLE: Natural convection vs recharging rate in reversible oxidation-reduction systems

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 2, 1964, 372-374

TOPIC TAGS: electrolytic convection, oxidation reduction electrolysis, ferri ferro electrolysis, electrolytic recharging rate, iron ion

ABSTRACT: After reviewing a considerable number of studies dealing with recharge in reversible oxidation-reduction processes, the authors define their purpose as an investigation in how far natural convection influences the rate of anodic and cathodic process during recharge of simple and complex iron ions. For their tests they used the IAB-451 shadow instrument to determine (by changing refraction) the viscosity and distribution of upward and downward flows. It was found that recharge of iron ions is accompanied by natural convection. To characterize the amount of convective summand of polarization, it is proposed to use the amount of hydraulic resistance of friction, ΔP, which, in the given case, only depends

Card 1/2

ACCESSION NR: AP4019521

on the viscosity of the solution flowing along the electrode. In the recharge of complex iron ions, the convective summands of polarization in the anodic and cathodic processes are equal. A considerable difference in the viscosity of the ferro- and ferri-sulfate solutions can explain the lag of the anodic behind the cathodic process when recharging in these solutions.

ASSOCIATION: Moskovskiy khimiko tekhnologicheskiy institut im. D. I. Mendeleyeva (Moscow Chemical Engineering Institute)

SUBMITTED 01Feb63 DATE ACQ: 31Mar64 ENCL: 00

SUB CODE: CH NO REF SOV: 009 OTHER: 000

Card 2/2

KHACHATURYAN, G.B.; FEDOROVA, N.S.

Effect of natural convection on the recharging rate in reversible redox systems. Zhur. fiz. khim. 38 no.2:372-374 F '64. (MIRA 17:8)

1. Moskovskiy khimiko-tekhnologicheskiy institut imeni Mendeleyeva.

KHACHATURYAN, O.B.

Kinetic method of determining concentration in reversible redox systems. Zhur. fiz. khim. 38 no.3:728-732 Mr '64. (MIRA 17:7)

1. Khimiko-tekhnologicheskiy institut imeni D.I. Mendeleyeva, Moskva.

SHENGELIYA, F.G.; KHACHATURYAN, E.A.

Controlling the seasonal imbalance in gas consumption in the Georgian Soviet Socialist Republic. Gaz. prom. 7 no.12: 20-22 '62 (MIRA 17:7)

NAZIROV, R.K.; SMAGIN, I.F.; KHACHATURYAN, S.A.

Designing and building the first experimental precast reinforced concrete movable pier in the Zyrya-More marine oil field. Azerb. neft.khoz. 40 no.12:47-50 D '61. (MIRA 15:8)
(Apsheron region—Artificial Islands)
(Precast concrete construction)

NAZIROV, R.K., inzh.; SMAGIN, I.F.; KHACHATURYAN, S.A., kand. tekhn. nauk [deceased]; DOBSHITS, M.L., inzh., red.

[Construction of precast reinforced concrete offshore piers; work practice of the Azerbaijan offshore Construction Trust] Stroitel'stvo morskikh transportnykh estakad iz sbornogo zhelezobetona; opyt raboty tresta "Azmorneftestroi." Moskva, Gosstroiizdat, 1963. 20 p. (MIRA 17:7)

1. Akademiya stroitel'stva i arkhitektury SSSR. Nauchno-issledovatel'skiy institut organizatsii, mekhanizatsii i tekhnicheskoy pomoshchi stroitel'stvu. 2. Direktor Gosudarstvennogo nauchno-issledovatel'skogo i proyektnogo instituta morskoy nefti (for Nazirov). 3. Glavnyy inzhener proyekta zhelezobetonnykh sooruzheniy Gosudarstvennogo nauchno-issledovatel'skogo i proyektnogo instituta morskoy nefti (for Smagin). 4. Nachal'nik otdela zhelezobetonnykh sooruzheniy Gosudarstvennogo nauchno-issledovatel'skogo i proyektnogo instituta morskoy neft (for Khachaturyan).

KHACHATURYAN, S. A.

Khachaturyan, S. A. -- "Experimental Investigation of the Acoustic Supercharging of Piston Compressors with the Aid of Variable Volume Resonators." Min Higher Education USSR, Moscow Order of Labor Red Banner Petroleum Inst imeni Academician I. M. Gubkin, Chair of Petroleum-Industrial Machines and Mechanisms, Moscow, 1955 (Dissertation for the Degree of Candidate in Technical Sciences)

SO: Knizhnaya Letopis', No. 23, Moscow, Jun 55, pp 87-104

KHACHATURYAN, S.A.

Supercharging in compresser pipeline stations. Gaz.prom.no.9: 28-32 S '56. (MLRA 9:10)
(Compressers) (Gas distribution)

KHACHATURYAN, S.A.

24(1);14(5) PHASE I BOOK EXPLOITATION SOV/2965

Gladkikh, Petr Andreyevich, and Sergey Aramovich Khachaturyan

Vibratsii v truboprovodakh i metody ikh ustraneniya (Methods of Eliminating Vibrations in Pipes) Moscow, Mashgiz, 1959. 242 p. Errata slip inserted. 2,500 copies printed.

Reviewer: L. Ya. Tsikerman Candidate of Technical Sciences; Ed.: L. B. Kublanovskiy, Candidate of Technical Sciences; Ed. of Publishing House: A. L. Tairova; Tech. Ed.: V. D. El'kind; Managing Ed. for Literature on Machine and Instrument Construction: N. V. Pokrovskiy, Engineer.

PURPOSE: This book is intended for technical personnel, designers, mechanics, and scientific workers.

COVERAGE: The book deals with the theory of the generation of vibrations in pressure pipelines and piston-blower installations. Practical suggestions for lowering vibrations to a permissible level are given. The use of acoustic filters as pulsating pressure dampers is described. N. N. Andreyev and A. I. Belov are mentioned for their contributions to the development

Card 1/5

of the theory, design, and testing of acoustic filters used on compressors. There are 57 references: 37 Soviet, 18 English, and 2 German.

TABLE OF CONTENTS:

Card 2/5

APPROVED FOR RELEASE: 09/17/2001 CIA-RDP86-00513R000721620020-1"

AVAILABLE: Library of Congress (TA492.P6G5)

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KHACHATURYAN, S.A.

Studying the acoustical method for piston compressor pumping using variable volume resonators. Trudy VNIIGAZ no.5:285-303 '59. (MIRA 12:9)

(Compressors) (Resonators)

KHACHATURYAN, S.A., kand.tekhn.nauk

Pulsation dampening in gas pipeline compressor stations. Trudy VNIIGAZ no.8:59-65 '60. (MIRA 15:5)
(Compressors) (Gas, Natural--Pipelines)

KHACHATURYAN, S.A., kand.tekhn.nauk

Calculating the buffer capacity of a piston compressor. Trudy VNIIGAZ no.8:66-77 '60. (MIRA 15:5)
(Compressors) (Gas, Natural--Pipelines)

KOZOBKOV, A.A.; KHACHATURYAN, S.A.

Spectrum of natural frequencies of gas oscillations in the communication systems of compressor machines. Trudy MINKHiGP no.45:69-73 '63. (MIRA 16:7)

(Gas pipes) (Compressors) (Gas dynamics)

GLADKIKH, P.A.; KHACHATURYAN, S.A.; KAZAKEVICH, V.V., doktor tekhn. nauk, prof., retsenzent; BODNER, V.A., doktor tekhn. nauk, prof., retsenzent; DANILOV, L.N., inzh., red.; DANILIN, L.N., red.izd-va; TIMOFEYEVA, N.V., tekhn. red.

[Preventing and eliminating vibrations in pumping units] Preduprezhdenie i ustranenie kolebanii nagnetatel'nykh ustanovok. Moskva, Izd-vo "Mashinostroenie," 1964. 274 p. (MIRA 17:4)

KOZOBKOV, A.A.; MESSERMAN, A.S.; KHACHATURYAN, S.A.

Simulating gas-flow motion in a gas pipeline. Izv. vys. ucheb. zav.; neft' i gaz 6 no.10:83-85 '63. (MIRA 17:3)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akademika I.M.Gubkina i Vsesoyuznyy zaochnyy politekhnicheskiy institut.

KOZOBKOV, A.A.; KHACHATURYAN, S.A.

Extinguishing pressure surges in the pipelines of compressor machinery. Izv. vys. ucheb. zav.; neft' i gaz 5 no.10:83-88 '62. (MIR 17:8)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika Gubkina i Vsesoyuznyy zaochnyy politekhnicheskiy institut.

KOZUBKOV, A.A.; MESSERMAN, A.S.; KHACHATURYAN, S.A.

Estimating the error in the electric modeling of a pulsating gas flow. Gaz. prom. 9 no.11:42-46 '64. (MIRA 17:12)

KHACHATURYAN, S.A.

Investigating pressure variations in the tubing of gas piston compressor machinery. Gaz. delo no.10 17-19 '64.

(MIRA 18:1)

1. Vsesoyuznyy zaochnyy politekhnicheskiy institut.

VLADISLAVLEV, A.S.; KOZOBKOV, A.A.; MESSERMAN, A.S.; PISAREVSKIY, V.M.; KHACHATURYAN, S.A.

Physical modeling of the pressure vibrations in pipeline systems. Gaz. delo no.1:14-17 '65.

(MIRA 18:6)

1. Moskovskiy ordena Trudovogo Krasnogo Znameni institut neftekhimicheskoy i gazovoy promyshlennosti im. akad. Gubkina i Vsesoyuznyy zaochnyy politekhnicheskiy institut.

AHONZON, N.Z., kand.tekhn.nauk; KOZOBKOV, A.A., kand. tekhn.nauk; KHACHATURYAN, S.A., kand.tekhn.nauk; KOZLOV, V.A., inzh.

Electrical model of a piston-type compressor station. Prom. energ. 20 no.10:43-45 O '65. (MIRA 18:10)

KHACHATURYAN, S.K., inzh.

Inbuilt transformer stations in municipal electric power distribution networks. Energetik 11 no.11:23-25 N '63.
(MIRA 16:11)

ACC NR: AT6028971 SOURCE CODE: UR/0000/65/000/000/0101/0107

AUTHOR: Levi, V. A.; Musayelyan, A. S.; Polonskiy, E. M.; Khachaturyan, S. S.

ORG: Bureau of Marine Geophysical Prospecting. Azerbaydzhan Scientific-Research Institute of Petroleum Production (Kontora morskoy geofizicheskoy razvedki. Azerbaydzhanskiy nauchno-issledovatel'skiy institut po dobyche nefti)

TITLE: Results of the application of the central-ray method in the southeastern part of the Kur depression

SOURCE: Vsesoyuznyy seminar po novoy metodike seysmorazvedki. Seysmorazvedka s primeneniyem gruppirovaniya vzryvov na dlinnykh bazakh i sposoba tsentral'nykh luchey (Seismic prospecting using the grouping of shots on long bases and the method of central rays); trudy seminara. Moscow, Izd-vo Nedra, 1965, 101-107

TOPIC TAGS: seismic prospecting, underground explosion, seismic wave, [illegible]ology, marine seismic prospecting

ABSTRACT: The article presents an analysis of data obtained by the central-ray method (STsL) in the Mugansk steppe. It is shown that under favorable surface and subsurface seismogeological conditions,

Card 1/2

ACC NR: AT6028971

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STsL provides more detailed and complete cross sections than continuous profiling by the method of reflected waves. Recording time increases to 7—8 sec with up to 16 instruments in the receiving group and explosive weights of 30—35 kg. Quality of data is found to decrease closer to the piedmont regions. STsL is recommended for marine seismic prospecting. Orig. art. has: 4 figures and 1 formula.

SUB CODE: 08/ SUBM DATE: 30Apr65/

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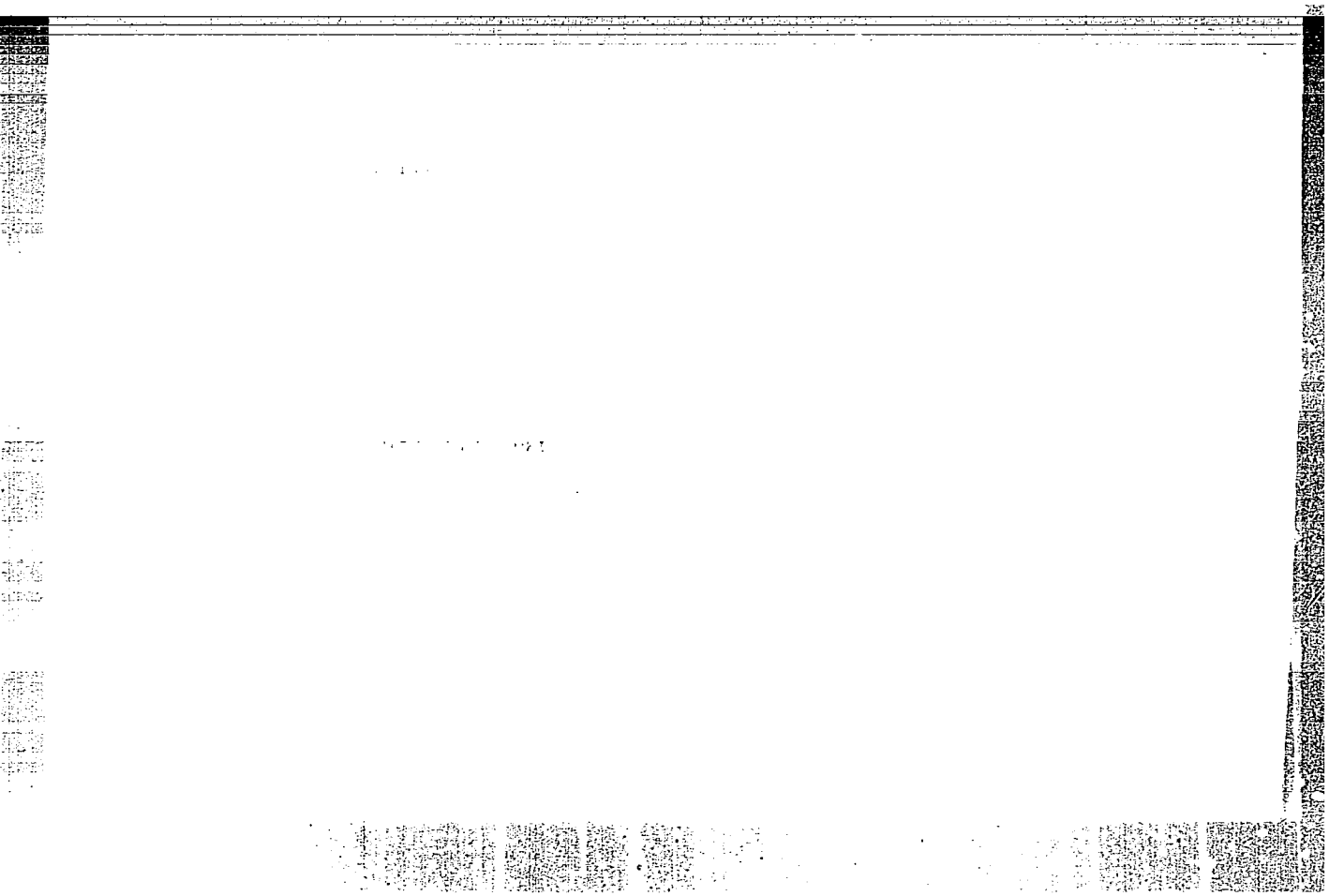

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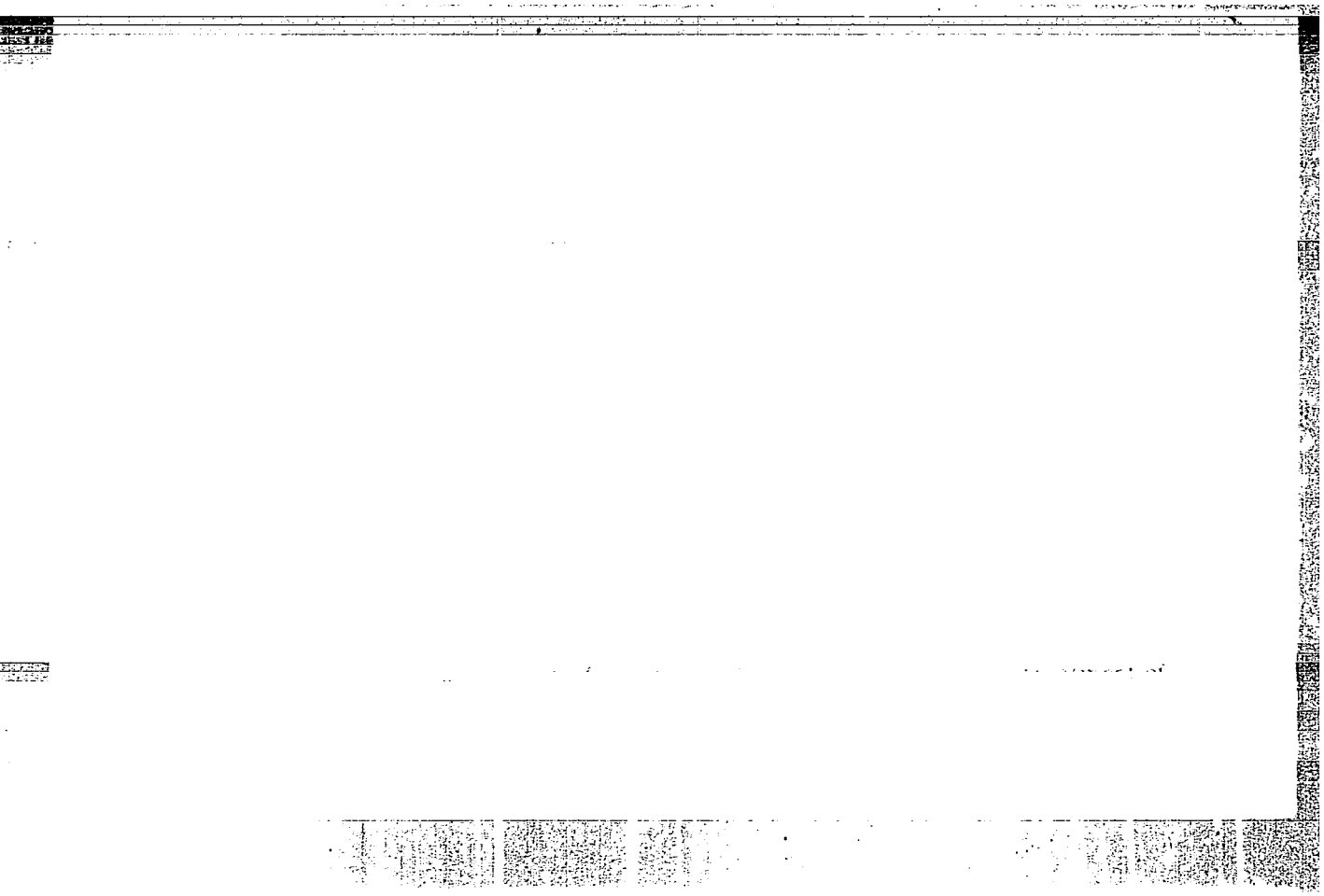

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However, since there are indications in the literature that HgSe dissociates in the vapor,

SILINA, E.Yu.; KHACHATURYAN, T.A.

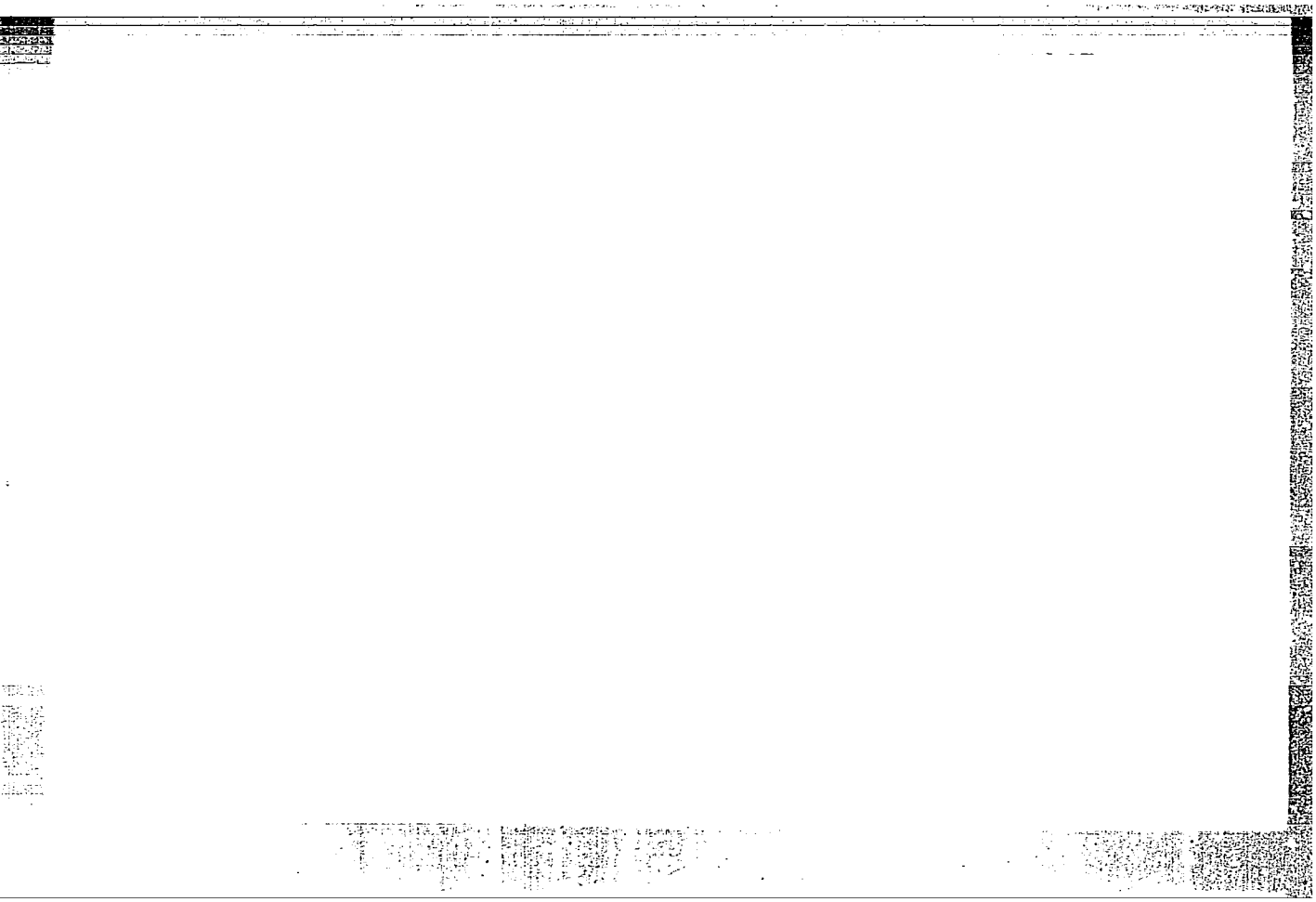
Accounting for the effect of thermal diffusion in the determination of saturated vapor pressure by the gas stream method. Trudy MKHTI no.44:13-19 '64. (MIRA 18:1)

Temperature dependence of the pressure of mercury selenide saturated vapor. Ibid.:20-23

KHACHATURYAN, T.T.

Stability of a round cylindrical shell. Izv.AN Arm.SSR.Ser.FMET nauk 1 no.6:473-483 '48. (MLRA 9:8)

1. Sektor matematiki i mekhaniki Akademii nauk Armyanskoy SSR.
(Strains and stresses) (Elastic plates and shells)



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1. KHACHATURYAN, T. T.

2. USSR (600)

4. Elastic Plates and Shells

7. Some analogies between problems of bending and plane tension of rectangular plates. Soob.Inst.mat. i. mekh.AN Arm. SSR, no. 5, 1950;

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

89486

S/022/61/014/001/006/010
B112/B202

10.9110
16.7300

AUTHOR: Khachaturyan, T. T.

TITLE: On taking account of the influence of tangential stresses in the plate-bending theory

PERIODICAL: Izvestiya Akademii nauk Armyanskoy SSR. Seriya fiziko-matematicheskikh nauk, v. 14, no. 1, 1961, 67-78

TEXT: The author discusses the bending of isotropic plates of a thickness of 2h. In this case, the normal stress is put zero, i.e., only the effect of tangential stresses is studied. If the z-axis of the system of coordinates has the direction of the normal of the plate, the following ansatz holds for the components e_{xz}, e_{yz} of the displacement tensor:

$e_{xz} = \varphi_1(x,y)\,(1 - z^2/h^2)$, $e_{yx} = \varphi_2(x,y)\,(1 - z^2/h^2)$, $e_{zz} = 0$ with displacement functions φ_1 and φ_2 which, together with the displacement w of the central plane of the plate, are determined by the equations:

Card 1/3

$w = \phi - \lambda\nabla^2\phi$, $\varphi_1 = -\frac{5}{4}\lambda\frac{\partial}{\partial x}\nabla^2\phi$, $\varphi_2 = -\frac{5}{4}\lambda\frac{\partial}{\partial y}\nabla^2\phi$.

The potential function ϕ satisfies a differential equation of the form: $\nabla^4\phi = \kappa$. For $\lambda = 0$ these formulas are in agreement with those of the classical theory of plate bending: $\phi = w$. If $\kappa = 0$, $\varphi_1 = \frac{\partial F}{\partial y}$, $\varphi_2 = -\frac{\partial F}{\partial x}$ is obtained for the displacement functions, where F is an arbitrary function. The author studies a series of boundary problems and illustrates the agreement between his results and those obtained by other authors by numerical examples: free boundary, fixed boundary, freely supported boundary, round plate with fixed boundary and symmetrical load, round plate with freely supported boundary, freely supported rectangular plate (comparison with studies made by V. M. Deyev, V. I. Blokh, B. F. Vlasov, S. A. Ambartsumyan, Kh. M. Mushtari), rectangular plate with partially (freely) supported boundary. There are 2 tables and 12 references: 10 Soviet-bloc and 2 non-Soviet-bloc.

89486

On taking account of the influence... S/022/61/014/001/006/010
B112/B202

ASSOCIATION: Yerevanskiy Politekhnicheskiy Institut
(Yerevan Polytechnic Institute)

SUBMITTED: November 16, 1960

26740
S/040/61/025/003/017/026
D208/D304

24.4200 1327 1103 1080 1344

AUTHOR: Khachaturyan, T.T. (Yerevan)

TITLE: Basic equations of the general theory of thin elastic shells under stress

PERIODICAL: Akademiya nauk SSSR. Otdeleniye tekhnicheskikh nauk. Prikladnaya matematika i mekhanika, v. 25, no. 3, 1961, 536 - 542

TEXT: The aim of this work to present the general theory of shells in a form more suitable for practical applications, and the use of such quantities as e.g. stresses in the outer layers of shells is proposed instead of the customary tensions, moments etc. Small values shall all be derived with an accuracy of $1 + \varepsilon + \varepsilon^2 = 1 + \varepsilon$ where ε - projection of semi thickness of the shell on its radius of curvature. A curvelinear coordinate system is used, axes α, β and z being in the directions of principal curvatures and inner normal of the neutral surface and by the linear law of distribu-

Card 1/7

26740
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D208/D304

Basic equations of the general ...

tion of principal stresses

$$\sigma_\alpha = \sigma_1 + m_1 \frac{z}{h}, \qquad \sigma_\beta = \sigma_2 + m_2 \frac{z}{h}, \qquad \sigma_{\alpha\beta} = \sigma_{12} + m_{12} \frac{z}{h} \tag{1.1}$$

where σ_1, σ_2, σ_{12} are normal and tangential stresses on the neutral surface m_1, m_2 and m_{12} - normal and tangential stresses at the boundary points $z = \pm h$, designated bend and torsion respectively. The stresses at those points will be

$$\begin{aligned} \sigma_\alpha^+ &= \sigma_1 + m_1, & \sigma_\beta^+ &= \sigma_2 + m_2, & \sigma_{\alpha\beta}^+ &= \sigma_{12} + m_{12} \\ \sigma_\alpha^- &= \sigma_1 - m_1, & \sigma_\beta^- &= \sigma_2 - m_2, & \sigma_{\alpha\beta}^- &= \sigma_{12} - m_{12} \end{aligned} \tag{1.2}$$

The Laplace operator in curvilinear coordinates, gives

$$L_1(\sigma_1, 2\sigma_{12}) + L_2(\sigma_{12}, \sigma_1 - \sigma_2) + \frac{\lambda_1 + \lambda_2}{3} L_1(m_1, 2m_{12}) + \\ + \frac{2\lambda_1}{3} L_2(m_{12}, m_1 - m_2) + \frac{q_1}{2h} = 0 \tag{1.9}$$

Card 2/7

Basic equations of the general

$$L_2(\sigma_2, 2\sigma_{12}) + L_1(\sigma_{12}, \sigma_2 - \sigma_1) + \frac{\lambda_1+\lambda_2}{3} L_2(m_2, 2m_{12}) + \frac{2\lambda_2}{3} L_1(m_{12}, m_1 - m_2) + \frac{q_2}{2h} = 0 \quad (1.9)$$

$$\frac{h}{3}[L_1(n_1, n_2) + L_2(n_2, n_1)] - \frac{\sigma_1}{R_1} - \frac{\sigma_2}{R_2} + \frac{q_3}{2h} = 0 \qquad \left(n_1 = \frac{3}{2h^3} N_1, \quad n_2 = \frac{3}{2h^3} N_2\right)$$

and

$$n_1 = L_1(m_1, 2m_{12}) + L_2(m_{12}, m_1 - m_2) \quad (1.11)$$
$$n_2 = L_2(m_2, 2m_{12}) + L_1(m_{12}, m_2 - m_1)$$

which constitute the first group of basic equations.

$$\varepsilon_1 = L_1(u, v) + k_1 w, \qquad \varkappa_1 = L_1(f_1, f_2) - k_1 \varepsilon_1$$
$$\varepsilon_2 = L_2(v, u) + k_2 w, \qquad \varkappa_2 = L_2(f_2, f_1) - k_2 \varepsilon_2 \quad (2.5)$$
$$\omega = L_2(u - v) + L_1(v, -u)$$

Card 3/7

Basic equations of the general

$$2\tau = L_1(f_2, -f_1) + L_2(f_1, -f_2) - k_1 L_1(v, -u) - k_2 L_2(u, -v) \quad (2.5)$$

constitutes the 2nd group of basic equations, and represents the components of deformation of the neutral surface. Third group expressing the compatibility of deformation of neutral surface are

$$L_1(\varkappa_2, -2\tau) - L_2(\tau, \varkappa_1 - \varkappa_2) - (k_1 + k_2) L_1(\varepsilon_2, -\omega) + 2k_1 L_2\left(\tfrac{1}{2}\omega, \varepsilon_1 - \varepsilon_2\right) = 0$$
$$L_2(\varkappa_1, -2\tau) - L_1(\tau, \varkappa_2 - \varkappa_1) - (k_1 + k_2) L_2(\varepsilon_1, -\omega) + 2k_2 L_1\left(\tfrac{1}{2}\omega, \varepsilon_2 - \varepsilon_1\right) = 0 \quad (2.6)$$
$$L_1(\gamma_1, \gamma_2) + L_2(\gamma_2, \gamma_1) + k_2\varkappa_1 + k_1\varkappa_2 = 0 \quad (2.6)$$

where Здесь

$$\gamma_1 = L_1(\varepsilon_2, -\omega) - L_2\left(\tfrac{1}{2}\omega, \varepsilon_1 - \varepsilon_2\right), \qquad \gamma_2 = L_2(\varepsilon_1, -\omega) - L_1\left(\tfrac{1}{2}\omega, \varepsilon_2 - \varepsilon_1\right) \quad (2.7) \quad (2.7)$$

and fourth group will consist of equations of elastic relations

$$\sigma_1 = \frac{E}{1-\mu^2}(\varepsilon_1 + \mu\varepsilon_2), \qquad \sigma_2 = \frac{E}{1-\mu^2}(\varepsilon_2 + \mu\varepsilon_1), \qquad \sigma_{12} = \frac{E}{2(1+\mu)}\omega \quad (3.2)$$
$$m_1 = \frac{Eh}{1-\mu^2}(\varkappa_1 + \mu\varkappa_2), \qquad m_2 = \frac{Eh}{1-\mu^2}(\varkappa_2 + \mu\varkappa_1), \qquad m_{12} = \frac{Eh}{1+\mu}\tau$$

Card 4/7

Basic equations of the general ...

If the shell is edge loaded, then all stresses and moments can be expressed in terms of three functions of coordinates α and β, a, b, c as follows:

$$\sigma_1 = h\varkappa_2'(a, b, c), \quad \sigma_2 = h\varkappa_1(a, b, c), \quad \sigma_{12} = -h\tau(a, b, c) \tag{4.1}$$
$$m_1 = -3\varepsilon_2(a, b, c), \quad m_2 = -3\varepsilon_1(a, b, c), \quad m_{12} = \frac{3}{2}\omega(a, b, c)$$

The equations of compatibility of deformations in terms of stresses are

$$L_1(m_1, 2m_{12}) + L_2(m_{12}, m_1 - m_2) - \frac{1}{1+\mu}L_1(m_1 + m_2, 0) + \frac{\lambda_1+\lambda_2}{1+\mu}\times$$
$$\times L_1(\sigma_1 + \sigma_2, 0) - (\lambda_1 + \lambda_2)L_1(\sigma_1, 2\sigma_{12}) - 2\lambda_1 L_2(\sigma_{12}, \sigma_1 - \sigma_2) = 0 \quad (5.1) \tag{5.1}$$
$$L_2(m_2, 2m_{12}) + L_1(m_{12}, m_2 - m_1) - \frac{1}{1+\mu}L_2(m_1 + m_2, 0) +$$
$$+ \frac{\lambda_1+\lambda_2}{1+\mu}L_2(\sigma_1 + \sigma_2, 0) - (\lambda_1 + \lambda_2)L_2(\sigma_2, 2\sigma_{12}) - 2\lambda_2 L_1(\sigma_{12}, \sigma_2 - \sigma_1) = 0$$
$$L_1(p_1, p_2) + L_2(p_2, p_1) - \frac{m_1 - \mu m_2}{R_2 h(1+\mu)} - \frac{m_1 - \mu m_2}{R_1 h(1+\mu)} = 0$$

Card 5/7

Basic equations of the general ...

where

$$p_1 = L_1(\sigma_1, 2\sigma_{12}) + L_2(\sigma_{12}, \sigma_1 - \sigma_2) - \frac{1}{1+\mu} L_1(\sigma_1 + \sigma_2, 0)$$
$$p_2 = L_2(\sigma_2, 2\sigma_{12}) + L_1(\sigma_{12}, \sigma_2 - \sigma_1) - \frac{1}{1+\mu} L_2(\sigma_1 + \sigma_2, 0) \qquad (5.2)$$

and (1.9) with (5.1) are the initial equations for solving stress problems. From

$$m_1 = L_1(\psi_1, \psi_2) + \mu L_2(\psi_2, \psi_1), \quad m_2 = L_2(\psi_2, \psi_1) + \mu L_1(\psi_1, \psi_2) \qquad (7.9)$$
$$m_{12} = (1-\mu) L_1(\psi_2, -\psi_1) = (1-\mu) L_2(\psi_1, -\psi_2)$$

which is the Sofre Germain's formula, for the case when $\sigma_i \sim m_i$, will agnitudes of order 1 neglected, the following approximate equations are obtained

$$L_1(\sigma_1, 2\sigma_{12}) + L_2(\sigma_{12}, \sigma_1 - \sigma_2) + \frac{q_1}{2h} = 0$$
$$L_2(\sigma_2, 2\sigma_{12}) + L_1(\sigma_{12}, \sigma_2 - \sigma_1) + \frac{q_2}{2h} = 0 \qquad (8.1)$$

$$\nabla^2(m_1 + m_2) - \frac{3(1+\mu)}{h}\left(\frac{\sigma_1}{R_1} + \frac{\sigma_2}{R_2}\right) + \frac{3(1+\mu)}{2h^2} q_3 = 0 \qquad (8.2)$$

Card 6/7

Basic equations of the general ...

$$L_1(m_1, 2m_{12}) + L_2(m_{12}, m_1 - m_2) - \frac{1}{1+\mu} L_1(m_1 + m_2, 0) = 0$$
$$L_2(m_2, 2m_{12}) + L_1(m_{12}, m_2 - m_1) - \frac{1}{1+\mu} L_2(m_1 + m_2, 0) = 0 \qquad (8.3)$$

$$\nabla^2(\sigma_1 + \sigma_2) + \frac{m_1 - \mu m_2}{R_2 h} + \frac{m_2 - \mu m_1}{R_1 h} + \frac{1+\mu}{2h}[L_1(q_1, q_2) + L_2(q_2, q_1)] = 0 \qquad (8.4)$$

There are 5 Soviet-bloc references.

SUBMITTED: March 14, 1961

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Card 7/7

KHACHATURYAN, T.T. (Yerevan)

Fundamental equations of the general theory of thin elastic shells under stress. Prikl. mat. i makh. 25 no.3:536-542 My-Je '61. (MIRA 14:7)

(Elastic plates and shells) (Strains and stresses)

ACCESSION NR: AP4010022 S/0022/63/016/006/0041/0061

AUTHOR: Khachaturyan, T. T.

TITLE: Theory of flexure and stress of thick plates

SOURCE: AN ArmSSR. Izvestiya. Ser. fiz.-matem. nauk, v. 16, no. 6, 1963, 41-61

TOPIC TAGS: flexure theory, thick plate, normal stress, biharmonic function, axisymmetric deformation, circular plate, Lame equation, Kirchoff boundary conditions, Poisson boundary conditions

ABSTRACT: The author extends previous work on solving the problem of a thick plate under normal loads q_1 and q_2 applied to its face planes:

$$\sigma_z = q_1, \quad \tau_{xz} = \tau_{yz} = 0 \quad \text{for} \quad z = h \tag{1}$$

$$\sigma_z = q_2, \quad \tau_{xz} = \tau_{yz} = 0 \quad \text{for} \quad z = -h.$$

Using the symbolic method of integrating the equations of elasticity theory, previous authors have reduced the solution of the problem of stress and flexure of an unbounded layer to integration of the following two equations:

Card 1/3

ACCESSION NR: AP4010022

$$\left(1+\frac{\sin 2hd}{2hd}\right)d^2F=\frac{q_1+q_2}{4G} \quad \text{(for stress)} \qquad (2)$$

$$\left(1-\frac{\sin 2hd}{2hd}\right)d^2\phi=\frac{q_1-q_2}{4Gh} \quad \text{(for flexure)} \qquad (3)$$

where F and ϕ are functions of the x,y coordinates,

$$d^2=\nabla^2=\partial_1^2+\partial_2^2; \quad \partial_1=\frac{\partial}{\partial x}; \quad \partial_2=\frac{\partial}{\partial y}. \qquad (4)$$

For the problem of a thick plate with face conditions (1) A. I. Lur'ye recommends using particular solutions of equations (2) and (3) and general solutions in the form necessitated by the form of the chosen biharmonic functions, making it possible to satisfy the boundary conditions on the lateral surface of the plate. V. Z. Vlasov recommends using, as the complete solution of the plate problem, the sum of the particular and the general solution of the same equation (2) (for stress) or (3) (for flexure). The author shows that with the help of only the functions F and ϕ he can solve a certain class of problems (for example, the problem of axisymmetric deformation of a circular plate). He further shows that the integrals of the Lame equations satisfying the face conditions (1) can be expressed in terms of four functions F(x,y), f(x,y), and $\phi(x,y)$, $\Phi(x,y)$ which are the general solutions of equations (2), (3) and the following two equations

Card 2/3

ACCESSION NR: AP4010022

$$d \sin hdf = 0 \quad \cos hd\rho = 0. \qquad (5)$$

On the basis of (2), (3) and (5) the author gives variants of concrete approximate theory of flexure and stress of plates in which, by appropriate choice of the functions F, f, ϕ, and Φ, the modified boundary conditions on the lateral surface of the plate are satisfied. He studies in detail the variants of the approximate theories of flexure of plates with Kirchoff and Poisson boundary conditions, giving comparison of these with the variants of other authors. Orig. art. has: 2 tables and 93 formulas.

ASSOCIATION: Yerevanskiy politekhnicheskiy institut (Yerevan Polytechnical Institute)

SUBMITTED: 22Apr63 DATE ACQ: 03Feb64 ENCL: 00

SUB CODE: AP NO SOV REF: 007 OTHER: 001

Card 3/3

KHACHATURYAN, V.

Export deliveries of Armenia. [with English summary in appendix]. Vnesh.torg. 30 no.11:32-35 '60. (MIRA 13:11)
(Armenia--Foreign economic relations)

KHACHATURYAN, V.A.

Ornamental properties of natural building materials. Izv. AN AR Arm. SSR. Ser. tekh. nauk 18 no.4:65-67 '65. (MIRA 18:9)

[illegible]'yan, V. R.

USSR/Chemistry - Systems, Binary
Chemistry - Piperidine

Apr 1947

"Physico-chemical Analysis of the System: Water--Piperidine," L. Ya. Teitel'baum, N. A. Trifonov, V. R. Khachatur'yan, 6 pp

"Zhur Fiz Khim" Vol XXI, No 4

Gives experimental data illustrated with tables and graphs. It is concluded, among other things, that thorough study of the system indicates a formation of dihydrate of piperidine $C_5H_{10}NH \cdot 2H_2O$, in a state of thermic dissociation.

PA 14T97

KHACHATUR'YAN, V. R.

USSR/Physical Chemistry
Piperidine

1 May 1947

"Physical Chemical Analysis of the System of Water - Piperidine," B. Ya. Teyetl'baum, N. A. Trifonov, V. R. Khachatur'yan, 4 pp

"Dok Akad Nauk USSR Nov Ser" Vol LVI, No 4

PA 1T87

ABSALYAMOV, I.F., kand. veter. nauk; DAMINOV, R.A., aspirant; KHACHATURYAN, Yu.S., starshiy nauchnyy sotrudnik

Hemolytic jaundice in Karakul sheep. Veterinariia 42 no.11:66-68 N '65. (MIRA 19:1)

1. Uzbekskiy nauchno-issledovatel'skiy veterinarnyy institut i Vsesoyuznyy nauchno-issledovatel'skiy institut karakulevodstva.

KHACHATUR'YANTS, L. S.

"The auditory parameters of radio operators, their training and their instruction" p. 45

Voyenno Meditsinskiy Zhurnal, No. 3, 1962

ACC NR: AT7002003 SOURCE CODE: UR/0214/66/016/006/0974/0983

AUTHOR: Popov, V.A.; Simonov, P.V.; Tishchenko, A.G.; Frolov, M.V.; Khachatur'yants, L.S.

ORG: none

TITLE: Analysis of the intonational characteristics of speech as an index of emotional state in humans under spaceflight conditions

SOURCE: Zhurnal vysshey nervnoy deyatel'nosti, v. 16, no. 6, 1966, 974-983

TOPIC TAGS: manned space flight biotelemetry, bioastronautics, psychologic stress, speech analysis, emotional tension, emotion, space psychology, human engineering, speech spectrum

ABSTRACT: A method is described for analyzing the spectral characteristics of speech (frequency, intensity of articulatory components) which can serve as a reliable index of emotional state. Increased emotional tension is accompanied by increases in articulatory frequency F and signal intensity A, i.e., by an increase in the moment of articulation $M_F = A \cdot F$. Monitoring of sympathetic indices (pulse, respiration, etc.) concurrently with the parameter M_F provides a more reliable evaluation of operator state and permits differentiation of physical from emotional tension. Human

Card 1/3 UDC: 612.821

ACC NR: AP7002683

emotions modeled by Stanislawski-method actors were used to check the speech intonation analysis method. Considerable changes in the actors' heart rhythms during these tests attest to the presence of genuine emotion. The method described was used for actual determination of A. A. Leonov's emotional state during his EVA on the Voskhod-2 flight. The cosmonaut's physical strain was successfully differentiated from emotional tension. A graph is given comparing results obtained for a) the speech characteristic M_F, and b) pulse rate at various stages of 1) actual flight, and 2) thermal pressure chamber rehearsals. Computer analysis will permit more exact correlation of the spectral characteristics of speech sounds with various degrees of positive and negative emotions.

SUB CODE: 06, 05/ SUBM DATE: 14Jun66/ ORIG REF: 007/ OTH REF: 004
ATD PRESS: 5113

Card 3/3

L 36332-66

ACC NR: AT6012901 SOURCE CODE: UR/0000/65/000/000/0235/0240

AUTHOR: Khachatur'yants, L. S. 43 B+1

ORG: None

TITLE: Prediction and probability as an indicator of man's operational efficiency

SOURCE: Sistema chelovek i avtomat (Man-automaton systems). Moscow, Izd-vo Nauka, 1965, 235-240

TOPIC TAGS: bionics, man machine communication, psychology, information theory

ABSTRACT: The author studies operational efficiency of man under the effect of various noises, as well as reactions of man-operators to two different activities and the effect on this system of extreme factors. The first program consisted of presenting two light signals (white-green) to the subjects in a rigid sequence. Each signal was extinguished by its own switch. The second program consisted of the same light signals but in a different sequence. Each subject received 300 signals. In the first program the probability of both alternative signals was the same and they carried two binary units of information each, but in the second the probability of the signals was different. The probability of the appearance of the white signal was 0.4 and the green 0.6. Consequently the quantity of informa-

Card 1/2

L 20443-66 EWT(d)/FSS-2/EWT(1)/EEC(k)-2/EWA(d) SCTB AST/RT/DD/RD/GW

ACC NR: AP6007744 SOURCE CODE: UR/0293/66/004/001/0137/0143

AUTHOR: Belyayev, P. I.; Leonov, A. A.; Popov, V. A.; Khachatur'yants, L. S.; Filosofov, V. K.

ORG: none

TITLE: Some dynamic characteristics of the operator when tracking under Voskhod-2 spaceflight conditions

SOURCE: Kosmicheskiye issledovaniya, v. 4, no. 1, 1966, 137-143

TOPIC TAGS: man machine factor, psychophysiology/Voskhod 2

ABSTRACT: The study was designed to determine the effects of the entire complex of physical and psychophysiological factors of spaceflight on the Voskhod-2 crew. Four situations were considered: 1) Training under normal conditions; 2) activity in a spacecraft mockup; 3) activity on the launch date; 4) activity during the actual spaceflight. The reaction of Belyayev and Leonov to visual tracking regimens of various frequencies was monitored and the data was statistically processed by a computer. The mode of recording tracking activity is shown in Fig. 1. Using this system, it was possible to study the following operator characteristics: 1) the amplitude-frequency characteristic; 2) phase-frequency characteristic; 3) auto-correlation function; 4) cross-correlation function; 5) transition function and some other characteristics. The studies showed that the dynamic characteristics of

UDC: 629.198.61

Card 1/2

L 20443-66

ACC NR: AP6007744

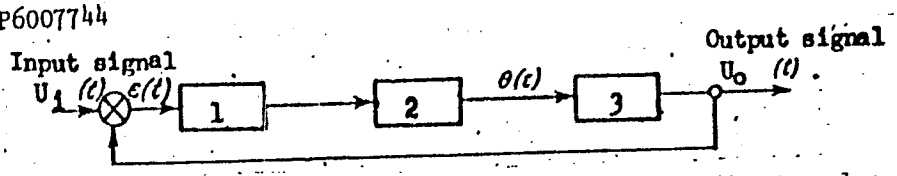

Fig. 1. Functional diagram of a tracking activity recorder

1 - Indicator; 2 - operator; 3 - object.

the Voskhod-2 crew did not undergo any drastic changes under the influence of the spaceflight. Even the 10 min EVA activity did not alter operator characteristics. There was also no significant change in operator reaction time. The data suggested that the duration of reliable work, which in the present study was maintained for nearly 13 min, is not altered. However, the study did show that operator activity concerned with incoming signals (frequency greater than 0.5 cps) was the most susceptible to spaceflight factors. It is felt that future, prolonged spaceflights will reveal how the stability of the cosmonaut who is acting as a vital link in a control system will change with respect to time, mission characteristics, and conditions. Orig. art. has: 6 figures and 1 table. [CD]

SUB CODE: 05, 06/ SUBM DATE: 28Jul65/ ORIG REF: 002/ OTH REF: 010/ ATD PRESS: 4222

Card 2/2 BK

KHACHATURYANTS, S.A.; POVLOTSKIY, M.Z.

Precast reinforced concrete bridge piles. Avt. dor. 21 no.5:5-6 (MIRA 11:6)
My '58.
(Bridges, Concrete) (Pile driving)

KHACHATURYANTS, S.A., kandidat tekhnicheskikh nauk.

Using water jet piles in bridge construction. Avt.dor. 19 no.9: 6-7 S '56. (MLRA 9:11)

(Piling (Civil engineering))

KHACHATURYANTS, S.S.

Simplified means of interpreting hodographs of reflected waves.
Prikl. geofiz. no.36:101-117 '63. (MIRA 16:9)
(Seismic prospecting)

ANDREYEV, A.B.; ANTONOV, A.I.; ARAPOV, P.P., BARMASH, A.I., BEDNYAKOVA, A.B.; BENIN, G.S.; BERESNEVICH, V.V.; BERNSHTEYN, S.A.; BITYUTSKOV, V.I.; BLYUMENBERG, V.V.; BONCH-BRUYEVICH, M.D.; BORMOTOV, A.D.; BULGAKOV, N.I.; VEKSLER, B.A.; GAVRILENKO, I.V.; GENDLER, Ye.S., [deceased]; GERLIVANOV, N.A., [deceased]; GIBSHMAN, Ye.Ye.; GOLDOVSKIY, Ye.M.; GORBUNOV, P.P.; GORYALNOV, F.A.; GRINBERG, B.G.; GRYUNER, V.S.; DAKOVSKIY, N.F.; DZEVUL'SKIY, V.M., [deceased]; DREMAYLO, P.G.; DYBETS, S.G.; D'YACHENKO, P.F.; DYURNBAUM, N.S., [deceased]; YEGORCHENKO, B.F. [deceased]; YEL'YASHKEVICH, S.A.; ZHERNOV, L.P.; ZAVEL'SKIY, A.S.; ZAVEL'SKIY, F.S.; IVANOVSKIY, S.R.; ITKIN, I.M.; KAZHDAN, A.Ya.; KAZHINSKIY, B.B.; KAPLINSKIY, S.V.; KASATKIN, F.S.; KATSAUROV, I.N.; KITAYGORODSKIY, I.I.; KOLESNIKOV, I.F.; KOLOSOV, V.A.; KOMAROV, N.S.; KOTOV, B.I.; LINDE, V.V.; LEBEDEV, N.V.; LEVITSKIY, N.I.; LOKSHIN, Ya.Yu; LUTTSAU, V.K.; MANNERBERGER, A.A.; MIKHAYLOV, V.A.; MIKHAYLOV, N.M.; MURAV'YEV, I.M.; NYDEL'MAN, G.E.; PAVLYSHKOV, L.S.; POLUYANOV, V.A.; POLYAKOV, Ye.S.; POPOV, V.V.; POPOV, N.I.; RAKHLIN, I.Ye., RZHEVSKIY, V.V.; ROZENBERG, G.V.; ROZENTRETER, B.A.; ROKOTYAN, Ye.S.; RUKAVISHNIKOV, V.I.; RUTOVSKIY, B.N. [deceased]; RYVKIN, P.M.; SMIRNOV, A.P.; STEPANOV, G.Yu, STEPANOV, Yu.A.; TARASOV, L.Ya.; TOKAREV, L.I.; USPASSKIY, P.P.; FEDOROV, A.V.; FERE, N.E.; FRENKEL', N.Z.; KHEYFETS, S.Ya.; KHLOPIN, M.I.; KHODOT, V.V.; SHAMSHUR, V.I.; SHAPIRO, A.Ye.; SHATSOV, N.I.; SHISHKINA, N.N.; SHOR, E.R.; SHPICHENETSKIY, Ye.S.; SHPRINK, B.E.; SHTERLING, S.Z.; SHÜTYY, L.R.; SHUKHGAL'TER, L. Ya.; ERVAYS, A.V.;

(Continued on next card)

ANDREYEV, A.B. (continued) .... Card 2.

YAKOVLEV, A.V.; ANDREYEV, Ye.S., retsenzent, redaktor; BERKEN-GEYM, B.M., retsenzent, redaktor; BERMAN, L.D., retsenzent, redaktor; BOLTINSKIY, V.N., retsenzent, redaktor; BONCH-BRUYEVICH, V.L., retsenzent, redaktor; VELLER, M.A., retsenzent, redaktor; VINOGRADOV, A.V., retsenzent, redaktor; GUDTSOV, N.T., retsenzent, redaktor; DEGTYAREV, I.L., retsenzent, redaktor; DEM'YANYUK, F.S., retsenzent; redaktor; DOBROSMYSLOV, I.N., retsenzent, redaktor; YELANCHIK, G.M. retsenzent, redaktor; ZHEMOCHKIN, D.N., retsenzent, redaktor; SHURAVCHENKO, A.N., retsenzent, redaktor; ZLODEYEV, G.A., retsenzent, redaktor; KAPLUNOV, R.P., retsenzent, redaktor; KUSAKOV, M.M., retsenzent, redaktor; LEVINSON, L.Ye., [deceased] retsenzent, redaktor; MALOV, N.N., retsenzent, redaktor; MARKUS, V.A. retsenzent, redaktor; METELITSYN, I.I., retsenzent, redaktor; MIKHAYLOV, S.M., retsenzent; redaktor; OLIVETSKIY, B.A., retsenzent, redaktor; PAVLOV, B.A., retsenzent, redaktor; PANYUKOV, N.P., retsenzent, redaktor; PLAKSIN, I.N., retsenzent, redaktor; RAKOV, K.A. retsenzent, redaktor; RZHAVINSKIY, V.V., retsenzent, redaktor; RINBERG, A.M., retsenzent; redaktor; ROGOVIN, N. Ye., retsenzent, redaktor; RUDENKO, K.G., retsenzent, redaktor; RUTOVSKIY, B.N., [deceased] retsenzent, redaktor; RYZHOV, P.A., retsenzent, redaktor; SANDOMIRSKIY, V.B., retsenzent, redaktor; SKRAMTAYEV, B.G., retsenzent, redaktor; SOKOV, V.S., retsenzent, redaktor; SOKOLOV, N.S., retsenzent, redaktor; SPIVAKOVSKIY, A.O., retsenzent, redaktor; STRAMENTOV, A.Ye., retsenzent, redaktor; STRELETSKIY, N.S., retsenzent, redaktor;

(Continued on next card)

ANDREYEV, A.V.,(continued) .... Card 3.

TRET'YAKOV, A.P., retsenzent, redaktor; FAYERMAN, Ye.M., retsenzent, redaktor; KHACHATYROV, T.S., retsenzent, redaktor; CHERNOV, H.V., retsenzent, redaktor; SHERGIN, A.P., retsenzent, redaktor; SHESTOPAL, V.M., retsenzent, redaktor; SHESHKO, Ye.F., retsenzent, redaktor; SHCHAPOV, N.M., retsenzent, redaktor; YAKOBSON, M.O., retsenzent, redaktor; STEPANOV, Yu.A., Professor, redaktor; DEM'YANYUK, F.S., professor, redaktor; ZNAMENSKIY, A.A., inzhener, redaktor;PLAKSIN, I.N., redaktor; RUTOVSKIY, B.N. [deceased] doktor khimicheskikh nauk, professor, redaktor; SHUKHGAL'TER, L. Ya, kandidat tekhnicheskikh nauk, dotsent, redaktor;BRESTINA, B.S., redaktor; ZNAMENSKIY, A.A., redaktor.

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1. Chlen-korrespondent AN SSSR (for Plaksin)
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2.Nachal'nik sluzhby dvizheniya Omskoy dorogi (for Khachevskiy).
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KHACHIDZE, A.N., otv. za vypusk; SHTEFAN, D.Ye., tekhn.red.

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1. DURMISHIDZE, S.V.; KHACHIDZE, O.T.

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KHACHIDZE, O.T.; KACHARAVA, A.V.

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KHACHIDZE, Sh.G., gosudarstvennyy sanitarnyy inspektor

Mass destruction of fish in the Kura River. Gig. i san. 21 no.11: 69-70 N '56. (MLRA 10:2)

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Development of sanitary protection for natural waters in Georgia. (MIRA 14:2)
Gig. i san. 25 no. 12:71-74 D '60.

1. Iz Nauchno-issledovatel'skogo instituta sanitarii i gigiyeny Ministerstva zdravookhraneniya Gruzinskoy SSR.
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KHACHIDZE, SH. G., Doc Med Sci, "Problem of the sanitary protection of the reservoirs of the Georgian SSR." Tbilisi, 1961. (Tbilisi State Med Inst). (KL-DV, 11-61, 226).

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KHACHIDZE, V.S.

USSR/Cultivated Plants. Fruit Trees. Small Fruit Plants. M

Abs Jour: Ref Zhur-Biol., No 17, 1958, 77871.

Author : ~~Khachidze, V.S.~~
Inst : Institute of Vineyards and Viticulture AS Georgia SSR.
Title : Carotene in Various Varieties of Grape Shrub.

Orig Pub: Tr. In-ta vinogradarstva i vinodeliya, AN GruzSSR, 1956, 9, 211-216.

Abstract: A study of the standard Georgian varieties of grape showed that up to the start of blossoming there is no carotene (C) in one of the organs of the grape shrub. C forms in the leaves from the start of their formation. In the parts of the grape shrub above ground, C is greater in the white grape

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KRUPSKAYA, A., apparatchitsa; GORBORUKOV, A.; VARUKHA, P.; KHACHIK'YAN, A.; NORKINA, V.; MAYOROVA, V., kontroler; ARONOVICH, V.; MOZHEVITINOV, V., pensioner, yuriskonsul't, obshchestvennik

Interview with our reporter. Sov.profsoiuzy 7 no.2:40-44, 48-49, 51-55

1. Novo-Kubanskiy sakharnyy zavod (for Krupskaya). 2. Predsedatel' komiteta profsoyuza Apsheronskogo avtoremontnogo zavoda(for Gorborukov). 3. Direktor Kubanskogo sel'skokhozyaystvennogo instituta (for Varukha). 4. Chlen profsoyuznogo posta po kontrolyu za stroitel'stvom zhilogo doma (for Norkina). 5. Chlen Starominskogo raykoma profsoyuza meditsinskikh rabotnikov (for Khachik'yan). 6. Zavodskaya izmeritel'naya laboratoriya. Predsedatel' komissii obshchestvennogo kontrolya za rabotoy Krasnodarskogo raypishchetorga (for Mayorova). 7. Predsedatel' kul'tkomissii profsoyuza zavoda izmeritel'nykh priborov (for Aronovich).
(Labor and laboring classes)

KHACHIK'YAN, A.S.

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(STARO-MINSKIY DISTRICT--PUBLIC HEALTH)

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(STARO-MINSKIY DISTRICT--MEDICAL CARE)

GOLOVCHENKO, I.A.; YELINSON, I.I., starshiy nauchnyy sotrudnik; KHACHIKYAN, E.D., starshiy inzhener

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(Cranes,derricks,etc.—Equipment and supplies)
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KHACHIKYAN, E.Ye.

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