"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, Georgiy Aleksandrovich; SHAT'KO, Nina Ivanovna; D'YAKOV, G.S., retsenzent; POVALYAYEV, P.I., dots., retsenzent; PROKOF'YEV, F.I., dots., retsenzent; KULIKOV, A.A., starshiy prepodavatel', retsenzent; YUROV, S.I., red.; KOMAR'KOVA, L.M., red. izd-va; ROMANOVA, V.V., tekhn. red.

[Safety engineering in topographic and geodetic work]Tekhnika bezopasnosti na topografo-geodezicheskikh rabotakh. Moskva, Geodezizdat, 1962. 226 p. (MIRA 15:9)
(Surveying--Safety measures)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

FINKOVSKIY, Viktor Yaklevich, kand. tekhn. nauk, dots.; ANTIPOV, Ivan Timofeyevich, kand. tekhn. nauk; PAVLOV, Ivan Mikhaylovich, inzh.; Prinimal uchastiye MINAYEV, G.A., inzh.; MIRKIN, A.I., inzh., retsenzent; BUROV, M.I., red.; SHURYGINA, A.I., red. izd-va; ROMANOVA, V.V., tekhn. red.

[Handbook on horizontal and vertical control for aerial photographs by the phototheodolite surveying method in making topographic maps at a 1:25,000 scale] Posobie po planovo-vysotnoi priviazke aerosnimkov metodom fototeodolitnoi s"emki pri sozdanii topograficheskikh kart v masshtabe 1:25 000. Moskva, Gosgeoltekhizdat, 1963. 150 p. (MIRA 16:7)
(Photographic surveying)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

S/808/61/011/000/005/006

AUTHORS: Berezhiani, V.M., Minayev, G.P.

TITLE: Investigation of the machinability of low-Carbon steels of the Fe-Mn, Fe-Mn-Cr, and Fe-Mn-Cr-N systems.

SOURCE: Akademiya nauk Gruzinskoy SSR. Institut metallurgii. Trudy, v.11, 1961, 203-207.

TEXT: The paper describes an experimental investigation comprising a study of the machinability of low-C (C=0.1%) Mn, Cr-Mn, and Cr-Mn-N steels in conjunction with a general effort to make and study high-Mn stainless steels. The machinability criteria were based on the standard methods set forth in All-Union Standard (GOST) 2625-44. The test specimens specified in the Standard are rolled rods not less than 60-mm diam for longitudinal machining and not less than 150-mm diam fo transverse turning; inasmuch as only cast specimens of smaller diam were availab a slightly modified methodology was employed in which the machinability was deter mined by means of comprehensive data on longitudinal and transverse machining, the depth of drilling under a constant load, and various sawing methods. The basic criterion was the depth of a 2-mm diam hole drilled in 1 min. Following are the basic definitions of the 4 qualitative machinability groups: (1) "Nonmachinable" ar

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those steels characterized by a mean drillhole depth of 1 mm and total resistance to sawing and turning with a high-speed steel cutter; (2) "difficult-to-machine" are those steels characterized by a mean drillhole depth of from 2 to 5 mm and by substantial resistance to sawing and turning (standard: Steel ЭЯ1Т [EYa1T]); (3) "readily machinable" are those steels characterized by a mean drillhole depth of 6 to 10 mm and ready sawability and turnability (standard: Steel 50); (4) "excellently machinable" are those steels characterized by a mean drillhole depth of more than 10 mm and easy sawability and turnability (standard: Calibrated steel 25). A total of 85 Mn, Cr-Mn, and Cr-Mn-N steels were tested. The results are tabulated and graphed. The overwhelming majority of the steels investigated of the 3 systems, containing from 0 to 30% Mn and Cr with 0.1% C, are characterized by good machinability, both in the cast and in the quenched state. In most of the steels investigated, a homogenization at 1,150°C and subsequent quench does not impair the machinability but, on the contrary, improves it appreciably. It is asserted that the opinion, widely prevailing throughout the literature, that low-C steels of the Fe-Mn-Cr and Fe-Mn-Cr-N systems are not readily machinable, requires correction and that the Fe-Mn, Fe-Mn-Cr, and Fe-Mn-Cr-N stainless nonmagnetic steels investigated are more readily machinable than standard Cr-Ni steels. There are 2 figures and 1 one-and-one-half-page table; no references.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV I.A.

MATONIN, V.M., slesar'; MINAYEV, I.A., tokar'.

Mechanizing the production of tongues for sport shoes. Leg.prom. 14 no.8: 48-50 Ag '54. (MLRA 7:8)
(Boots and shoes)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, I.A.; KOLOBRODOV, G.L.

[Work organization and technical standardization in cotton-spinning] Organizatsiia truda i tekhnicheskoe normirovanie v khlopkopriadil'nom proizvodstve. Moskva, Gos. nauchno-tekhn. izd-vo Ministerstva promyshl. tovarov shirokogo potrebleniia, 1953. 300 p. (MLRA 7:3)
(Cotton spinning)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

ZAMAKHOVSKIY, L.I.; PAVLOV, N.N.; BARABANOV, L.G.; SLUTSKIN, S.M.; MIHAYEV, I.A., inzhener.

Efficient work organization for spinners and bobbin removers. Tekst. prom. 16 no.6:16-21 Je '56. (MLRA 9:8)

1. Zaveduyushchiy normativno-issledovatel'skoy laboratoriyey Glavkorda (for Slutskin).

(Spinning)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MIKAYEV, I.A.; SLUTSKIY, S.M.

Erroneous principles expressed in L. I. Zamakhovskii's article. (MIRA 11:7)
Tekst. prom. 18 no.6:65-66 Je '58.
(Cotton spinning)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, I.A.; SLUTSKIN, S.M.

Technical norms for winding processes on the Hacoba automatic weft winders. Tekst.prom. 19 no.4:12-16 Ap '59.
(MIRA 12:6)

(Spinning machinery)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, I.G., inzh.; SHVECHIKOV, M.N., inzh.

Construction of one of the largest coal preparation plants.
Shakht.stroi. 7 no.5:19-23 My '63. (MIRA 17:4)

1. Trest Krasnodonpromshakhtostroy.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

L 44679-66 EWT(m)

ACC NR: AP6005361 SOURCE CODE: UR/0413/66/000/001/0106/0106

AUTHORS: Belov, Ye. M.; Gorodilov, V. M.; Minayev, I. G.; Titov, V. N.

ORG: none

TITLE: Ionization pulse gas analyzer detector. Class 42, No. 177681 [announced by Tomsk Polytechnic Institute of the Order of the Workers' Red Banner (Tomskiy ordena trudovogo krasnogo znameni politekhnicheskiy institut)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 106

TOPIC TAGS: gas analyzer, gas composition analyzer, gas ionization

ABSTRACT: This Author Certificate presents an ionization pulse gas analyzer detector containing a chamber with two coaxial electrodes. An ionization source, e.g., an α-emitter, is located inside the chamber. To increase the sensitivity of the detector to electronegative gases (e.g., oxygen in argon), the ionization source is located at the bottom of an annular slot in the insulating end cover of the chamber (see Fig. 1).

Card 1/2

UDC: 543.51.08

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

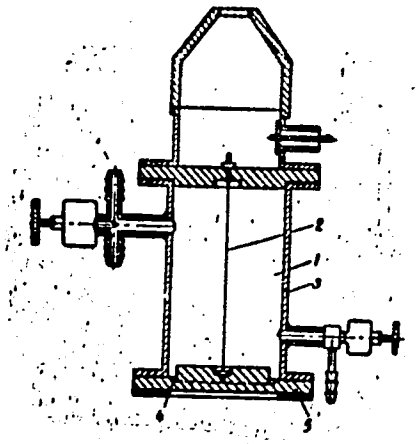
"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

L 44679-66

ACC NR: AP6005361

0

Fig. 1. 1 - chamber; 2 and 3 - coaxial electrodes; 4 - ionization source; 5 - end cover



Orig. art. has: 1 diagram.

SUB CODE: 07/ SUBM DATE: 22Dec64

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, I.I.

The use of rocks. Est.v shkole no.2:84-85 Mr-Ap '54. (MLRA 7:3)

1. Vserossiyskoye obshchestvo okhrany prirody. (Rooks (Bird))

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

L 8501-66

ACC NR: AP5028549 SOURCE CODE: UR/0286/65/000/020/0162/0163

37

AUTHORS: Lazarev, V. N.; Minayev, I. I.; Aksenov, V. V.

B

ORG: none

TITLE: A vibration method for determining the surface of a liquid. Class 42, No. 148544

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 162-163

TOPIC TAGS: vibration effect, vibrator, vibration, liquid level indicator, liquid level instrument

ABSTRACT: This Author Certificate presents a method for locating the level of a liquid. To increase the accuracy of level location, a vibrator is placed in the liquid. A vibration receiver in close proximity to the vibrator is excited only when the space between the vibrator and the receiver is filled with liquid.

SUB CODE: 14/ SUBM DATE: 29Sep61

BVK

Card 1/1

2

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

SUVOROV, K.G.; MINAYEV, I.M., starshiy veterinarnyy vrach.

Use of antibiotics at the Kuntsevskaia poultry plant. Veterinariia 32 no.8:61-63 Ag '55. (MLRA 8:10)

1.Direktor ptitsefabriki (for Suvorov).
(ANTIBIOTICS) (POULTRY--DISEASES AND PESTS)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, I.M., inzh.

Determining economically advantageous methods of forming rock dumps. Shakht. stroi. no.4:8-10 '58. (MIRA 11:6)
(Coal mines and mining) (Materials handling)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

BOGACHEV, I.N.; DUBININ, N.P.; YEGORENKOV, I.P.; ZHUKOV, A.A.; IVANOV,B.G.; IVANOV, D.P.; MARIYENBAKH, L.M., doktor tekhn. nauk, prof.; MINAYEV, I.M.; ROZENFEL'D, S.Ye.; SIDEL'NIKOV, S.V.; SOSNENKO, M.N.; YUKALOV, I.N.; YUDIN, S.B.; RUBTSOV, N.N., doktor tekhn. nauk, prof., red.; CHERNYAK, O.V., inzh., red. izd-va; MODEL', B.I., tekhn. red.

[Founding handbook; iron founding] Spravochnik liteishchika; chugunnoe lit'e. Pod obshchei red. N.N.Rubtsova. Moskva, Mashgiz, 1961. 774 p. (MIRA 14:12)

(Iron founding)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, Ivan Makarovich; SOSNENKO, M.N., nauchn. red.; MOKRETSOV, A.M., red.

[Making core skeletons in foundry practice] Izgotovlenie karkasov v liteinom proizvodstve. Moskva, Vysshaia shkola, 1965. 235 p. (MIRA 18:4)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

AUTHOR: Minayev, I.V., Engineer SOV/99-58-10-4/13

TITLE: The Economical Distribution of Vertical Drainage Wells (Ekonomicheskoye razmeshcheniye skvazhin vertikal'nogo drenazha)

PERIODICAL: Gidrotekhnika i melioratsiya, 1958, Nr 10, pp 24-30 (USSR)

ABSTRACT: Drainage of land with a high ground water level can be carried out successfully by vertical drains. For this purpose pump wells are equally distributed over the entire are at a certain distance from one another, which cam be determined by the condition of the minimal yearly expenditure of draining 1 ha of swamp area. The author evolves a number o formulas showing the advantage of vertical drainage for certain areas. With low costs for electric power, it is possible to have a greater lowering of the water level than can be obtained by filtration of the ground. The distance between the pumps is governed by the permeability of the

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

The Economical Distribution of Vertical Drainage Wells

ground. The capacity of pumps for the individual shafts should be considered for efficient operation.
There are 2 diagrams, 1 graph, and 4 Soviet references.

1. Water--Control systems 2. Wells--Performance 3. Pumps --Performance

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, I. V.: Master Tech Sci (diss) -- "Problems of the exploitation and economic computation of vertical drainage". Moscow, 1959. 22 pp (Min Agric USSR, Moscow Inst of Water Economy Engineers im V. R. Vil'yams), 150 copies (KL, No 11, 1959, 119)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, I.V. [Minaiev, I.V.], kand.tekhn.nauk

Economic effectiveness of sink-hole drainage in areas of subsurface flooding. Visnyk sil'hosp.nauky 4 no.8:66-72 Ag '61. (MIRA 14:7)

1. Kamenets-Podol'skiy sel'skokhozyaystvennyy institut.
(Drainage) (Water, Underground)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV,I.V., kand. tekhn. nauk

"Rural water supply and land reclamation" by A.IA.Kalabugin, S.I. Murashev. Reviewed by I.V.Minaev. Gidr. i mel. 13 no.9:63-64 S '61. (MIRA 14:9)
(Irrigation) (Drainage) (Water supply, Rural)
(Kalabugin, A.IA) (Murashev, S.I.)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

SEREBRYAKOV, L.P.; VOLODCHENKO, K.G.; MINASHKIN, M.A. Prinimali uchastiye: TITOV, N.A.; PROSELKOV, N.L.; MINAYEV, I.Z.; NIKOLAYEV, S.V.; SAMOYLOVA, V.F.; SIDOROVA, L.P.; FOMIN, V.F., red. vypuska; BOBRYSHEV, A.T., red. vypuska; CHAPOVSKIY, Ye.G., red. vypuska; POSPELOVA, A.M., red. izd-va; GUROVA, O.A., tekhn. red.

[Collection of unified district estimates for geological prospecting] Sbornik edinykh poraionnykh edinichnykh rastsenok na geologorazvedochnye raboty. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po geol. i okhrane nedr. No.2. [Hydrogeology and geological engineering] Gidrogeologicheskie i inzhenerno-geologicheskie raboty. 1960. 91 p. (MIRA 14:12)

1. Russia (1923- U.S.S.R.) Ministerstvo geologii i okhrany nedr. 2. Ministerstvo geologii i okhrany nedr SSSR (for Titov, Nikolayev).

(Prospecting)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAEV, K. A.

Teoreticheskoe i eksperimental'noe issledovanie raboty otkrytykh profilei na szhatie. Dannye eksperimenta dlia profilei zakrytogo tipa. Moskva, 1939. 56 p., illus., tables, diagrs. (TSAGI. Trudy, no. 393)

Title tr.: Theoretical and experimental investigation of the strength of the open sections under compressive load. Experimental data for the closed type sections.

QA911.M65 no. 393

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAEV, K. A.

Issledovanie raboty stal'nykh profilei na szhatie. Moskva, 1940. 27 p., illus. (TSAGI. Trudy, no. 521)

Title tr.: Investigation of steel sections under compression.

NCF

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAEV, K. A.

Raschetnye grafiki dlia szhatykh i szhatoizognutykh profilei. (Tekhnika vozdushnogo flota, 1940, no. 8, p. 64-78, diagrs.)

Title tr.: Curves for design of profile structural members under compression and bending loads.

TL504.T4 1940

SO: Aeronautical Sciences and Aviation in the Soviet Union, Library of Congress, 1955.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, K.A., Doc Tech Sci -- (diss) "Author's abstract of ~~resume on~~ the work, 'Study of certain problems of ~~the~~ critical and extreme states of rods and panels of air craft ~~construction~~ design' presented as a dissertation in competition for the scientific degree of doctor of technical sciences." [Mos], 1958, 7 pp . 150 copies. ~~Retaprinted~~ Printed on rotary press (KL, 29-58, 131)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

YESAREV, O.I.; MINAYEV, K.Ye.; SLAVITSKAYA, N.N.

[Treatment of metal-cutting tools in a steam atmosphere] Obrabotka instrumenta v atmosfere para. Riazan', Riazanskoe knizhnoe izd-vo, 1961. 14 p. (MIRA 18:3)

1. Nachal'nik uchastka termicheskoy obrabotki Ryazanskogo zavoda tyazhelogo kuznechno-pressovogo oborudovaniya (for Yesarev).

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, L., and CHEREZOV, B.,

"The Struggle for Greater Labor Productivity," Sotsialisticheskoye stroitel'stvo na Urale; sbornik statey (Socialist Construction in the Ural Industrial Area; Collection of Articles) [Sverdlovsk] Sverdlovskoye knizhnoye izdo-vo, 1957. 345 p.

Ed. (front of book): ZUYKOV, V. N. Candidate of Historical Sciences; Ed. (back of book): GETLING, Yu.; Tech. Ed.: PAL'MINA. N.

PURPOSE: Thiscollection of articles is intended for the general reader.

COVERAGE: The collection contains reports on the economic growth of the Ural Industrial Area, including the development of farming. Particular attention is given to the role played by this region during the 2nd World War.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

LEZIN, V.V., prof.; MINAYEV, L.M.; KOROL'KOV, V.A.; SHESTOVA, L.M., red.; MARTYNOVA, M.N., tekhn. red.

["Common Market" and workers of capitalist countries] "Obshchii rynok" i trudiashchiesia kapitalisticheskikh stran. Moskva, Izd-vo VPSh i AON pri TsK KPSS, 1963. 289 p. (MIRA 17:2)

1. Moscow. Akademiya obshchestvennykh nauk.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

S/0258/64/004/003/0566/0570

ACCESSION NR: AP4043533

AUTHOR: Vasil'kov, B. S. (Moscow); Minayev, I. S. (Moscow)

TITLE: On the stability of flat shells with double curvature on a rectangular surface

SOURCE: Inzhenernyy zhurnal, v. 4, no. 3, 1964, 566-570

TOPIC TAGS: flat shell, Gaussian curvature, instability, critical load, minimum load, local stability, stress function, trigonometric series, Galerkin method

ABSTRACT: On the basis of V. Z. Vlasov's (Obshchaya teoriya obolochek i yeye prilozheniya v tekhnike. Gostekhizdat, 1949) theory of flat shells with linear arrangement, the stability of shells with positive Gaussian curvature was studied. Deflection at the moment instability sets in is represented by $w = f \sin(m\pi x/a) \sin(n\pi y/b)$ where the critical load is defined by means of a particular value of m and n for a minimum load. The equations of local stability are written

$$\frac{1}{Eh}\nabla^4\nabla^4\varphi + \left(k_1\frac{\partial^2 w}{\partial y^2} + k_2\frac{\partial^2 w}{\partial x^2}\right) = 0,$$

$$D\nabla^4\nabla^4 w - \left(k_1\frac{\partial^2\varphi}{\partial y^2} + k_2\frac{\partial^2\varphi}{\partial x^2}\right) + N_1^0\frac{\partial^2 w}{\partial x^2} + 2N^0\frac{\partial^2 w}{\partial x\partial y} + N_2^0\frac{\partial^2 w}{\partial y^2} = 0,$$

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

ACCESSION NR: AP4043533

where φ - stress function, N_1^0, N_2^0, S^0 - normal and shear loads. φ and w are represented as products of functions, or $\varphi(x; y) = AU(x)V(y)$, $w(x; y) = BX(x)Y(y)$, and the loads expanded in double trigonometric series, for example,

$$N_1^0 = \frac{16a^2}{\Pi^2 b^2} q \sum_{i=1}^{\infty}\sum_{j=1}^{\infty} \frac{i}{j(k_2 i^2 + k_1 j^2 \gamma)} \sin\frac{i\Pi x}{a} \sin\frac{j\Pi y}{b}$$

Galerkin's variational method is employed, which subsequently leads to an expression for the load q expressed by

$$q = \frac{\Pi^4 E h^3 (k_2\gamma^{-1} + k_1\gamma)(m^2\gamma^{-1} + n^2\gamma)^2 (m^2 - 0{,}25)(n^2 - 0{,}25)}{768(1-\mu^2) a^2 m^2 n^2 (m^2 + n^2 - 0{,}5)} + \frac{\Pi^6 E h a b (k_2\gamma^{-1} + k_1\gamma)(k_2 m^2\gamma^{-1} + k_1 n^2\gamma)^2 (m^2 - 0{,}25)(n^2 - 0{,}25)}{64(m^2\gamma^{-1} + n^2\gamma)^2 m^2 n^2 (m^2 + n^2 - 0{,}5)}.$$

The critical load is then determined for two special cases: 1) $n = 1$, $m^2 \gg 1$ or $m = 1$ and $n^2 \gg 1$, and 2) $m \geq 2$, $n \geq 2$. The first gives for q^*, $q^* = 0{,}75 k_2\gamma^{-1}(k_2\gamma^{-1} + k_1\gamma)$, $q^* = 0{,}75 k_1\gamma(k_2\gamma^{-1} + k_1\gamma)$, where $q^* = \frac{64\sqrt{3(1-\mu^2)}}{\Pi^4 E/h^2} q$. The second case leads to similar results but at a higher value of q(critical) than the former case. Orig. art. has: 31 equations.

ASSOCIATION: none

Card 2/3

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

ANDRIANOV, S.M.; BARYUTIN, B.S.; BEZHETSKIY, M.I.; BOGDANOV, M.N.; GOLOVANOV, S.V.; IOFFE, N.S.; KAPLAN, N.M.; KIRSYEV, A.V.; KOLOBOV, G.M.; KOROLEVA, M.A.; KURIN, A.I.; MINAYEV, M.S.; POZDNYAKOVA, T.A.; PROKOPOVICH, V.M.; SOLOV'YEV, S.N.; TRET'YAKOV, N.P.; CHEKOV, A.M.; FILIMONOV, N.D.

Petr Fedorovich Lel'kov; obituary. Ptitsevodstvo 9 no.8:48 Ag '59. (MIRA 12:12)
(Lel'kov, Petr Fedorovich, 1905?—1959)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, N.

From bad to very good work. Avt.transp. 37 no.1:16-17 Ja '59.
(MIRA 12:2)

1. Glavnyy inzhener Mariyskogo avtotresta.
(Transportation, Automotive)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, N.

Manager and chief engineer of an automotive transportation unit.
Avt.transp. 39 no.3:34-35 F '61. (MIRA 14:3)
(Transporation, Automotive)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

KUZ'MINA, O.O.; MINAYEV, N.G.; PSHENICHNIKOV, A.P.

Method for determining subsurface defects in metals by means of transverse ultrasonic waves. Zav.lab. 22 no.8:943-949 Ag '56. (MLRA 9:11)

(Metals-Testing) (Ultrasonic testing)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

S/181/60/002/007/045/047/XX
B006/B067

AUTHORS: Latsh, V. V., Minayev, N. G., Somin, B. Kh.

TITLE: X-Ray Study of the Phase Composition of Ni-Zn Ferrites by Using COK_{α} Radiation

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 7, pp. 1632-1642

TEXT: The use of the emission of an iron anticathode for analyzing the phase of Ni-Zn ferrites proved to be inadequate since it renders the determination of NiO or of the solid solution of ZnO in NiO difficult or impossible because the lines of NiO and the spinel coincide. If harder (monochromatized) Co-K_{α} radiation is used, this disadvantage is not observed; the X-ray pictures show two additional intensive interference lines of NiO with the indices (133) and (420), and the Bragg angles 69° and 74°, respectively. An X-ray tube of the type БСВ-4 (BSV-4) (time of exposure 10 hours; 10 ma, 35 kv) was used for taking the Debye powder patterns. Mixed oxides with an NiO:ZnO ratio of 0.35 - 1.1 and an Fe_2O_3 content of 45-55.0 mole% were studied. By means of Co-K_{α} radiation, interference lines could also be observed at the following concentrations:

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NiO (0.5 wt%), ZnO (2.0 wt%), Fe_2O_3 (2.0 wt%). The results of the investigations are illustrated by means of X-ray diagrams, tables, and microstructural pictures, and they are summarized as follows: 1) With Co-K_α radiation NiO or ZnO can be determined in Ni-Zn ferrites and NiO, respectively by means of interference lines. 2) During the ferritization process, in the case of stoichiometric composition, no formation of solid ZnO solutions in NiO was observed. The formation of Zn ferrite in the synthesis from oxides ceases at a temperature of 900°C, the ferritization of nickel ferrite ceases at 1100°C. 3) A rise of the annealing temperature of ferrite mixtures with a low content of iron oxide over 900°C leads to a substitution reaction between the excess NiO and the Zn ferrite which brings about a change in the ratio between divalent Ni and Zn ions in the ferrite lattice. 4) Zinc oxide and nickelous oxide form solid substitution solutions with conservation of the Ni-O crystal lattice; the lattice parameter practically increases linearly with increasing ZnO content (see Fig. 3 and Table 3). The solubility limit of ZnO and NiO amounts to about 50 wt% at an annealing temperature of 1350°C. If this temperature is reduced to 900°C the solubility limit of ZnO is reduced to ~30 wt%. A change in the solubility of ZnO in NiO could not be observed on a further

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X-Ray Study of the Phase Composition of Ni-Zn Ferrites by Using COK_{α} Radiation

S/181/60/002/007/045/047/XX
B006/B067

temperature increase; this is connected with the strong decrease of the diffusion rate. 5) In Ni-Zn ferrites with less than 50 mole% of Fe_2O_3, NiO and ZnO excesses exist which form solid solutions. The formation of a solid ZnO solution in NiO was observed after the termination of zinc ferritization. B. Ye. Levin is mentioned. There are 8 figures, 3 tables, and 11 references: 9 Soviet and 1 US.

SUBMITTED: July 22, 1959

Card 3/3

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

84082
S/181/60/002/009/023/036
B004/B056

9.2571

AUTHORS: Latsh, V. V., Minayev, N. G., Somin, B. Kh., Stepina, N.E.

TITLE: Dissolution of Excess Iron Oxide in Ni-Zn Ferrite

PERIODICAL: Fizika tverdogo tela, 1960, Vol. 2, No. 9, pp. 2191 - 2198

TEXT: For the purpose of explaining the contradictory published data concerning the solubility of Fe_2O_3 in ferrites, the authors carried out the following experiments: Ni-Zn ferrites with a content of 50-95 mole% Fe_2O_3 and an NiO/ZnO ratio of from 0.43 to 4.0 were synthetized from the oxides, were briquetted after the addition of polyvinyl alcohol as a binding agent, annealed for 4 h at 1000-1350°C, after which they were either slowly cooled (100°C/h) in a furnace or quenched with air or water. Besides, they were also slowly cooled under oxygen deficiency (0.7 to 0.35 torr). Fig. 1 shows the results obtained by chemical analysis: The quantity of Fe_2O_3 converted into magnetite as a function of the Fe_2O_3 content and the cooling conditions; Fig. 2 shows the quantity

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Dissolution of Excess Iron Oxide in Ni-Zn Ferrite

of Fe_2O_3 converted into magnetite as a function of the annealing temperature. The quenched samples were found to have the highest magnetite content. The Fe_2O_3 excess dissociates to form magnetite, and together with the ferrite it forms solid solutions of iron-nickel-zinc ferrite of stoichiometric composition. When slowly cooled in air, the magnetite is oxidized to γ-Fe_2O_3 or α-Fe_2O_3. The latter separates as the second phase. Figs. 3-6 (microphotographs) confirm this process. The quenched samples form a homogeneous phase, while the slowly cooled samples have two phases because of the separation of hematite. X-ray analysis (Fig. 7) shows that the lattice constant of quenched samples approaches that of magnetite (8.38 kX), whereas Fe_2O_3 formed by oxidation reduces the lattice constant (8.32 kX at 100 mole% Fe_2O_3). Fig. 8 shows the temperature of the dissociation of Fe_2O_3 to Fe_3O_4, as a function of the Fe_2O_3 content. For pure Fe_2O_3, the dissociation temperature is 1450°C, and in the system

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84082

Dissolution of Excess Iron Oxide in Ni-Zn Ferrite

S/181/60/002/009/023/036
B004/B056

Ni-Zn-ferrite - Fe_2O_3, it approaches the value of 900°C with decreasing iron-oxide excess. There are 8 figures and 23 references: 11 Soviet, 4 US, 2 British, 3 German, and 1 French.

SUBMITTED: October 26, 1959

Card 3/3

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

ACCESSION NR: AR4018314 S/0137/64/000/001/G036/G036

SOURCE: RZh. Metallurgiya, Abs. 1G251

AUTHOR: Somin, B. Kh.; Gorbachevskiy, Ye. V.; Latsh, V. V.; Minayev, N. G.

TITLE: The influence of nickel on the sinterability of pressed powders of tungsten and molybdenum

CITED SOURCE: Tr. Kuyby*shevsk. aviats. in-t, vy*p. 16, 1963, 141-148

TOPIC TAGS: powder metallurgy, nickel, tungsten, molybdenum, material strength, heat-treatment

TRANSLATION: Research was conducted on the influence of Ni on sintering in an atmosphere of H_2 and in vacuum Mo and W in a range of 1,100-2,000 degrees for Mo and 1,100-2,500 for W, with a nickel content of 0.01-10% by weight. Density (P), microstructure, microhardness, and the parameters of the crystal network of the first phase were studied. An increase in the density of the sintered Mo with an inclusion of 0.5-1% Ni takes place as low as 1,100 degrees. At 1,300 degrees, the porosity of the samples with the above nickel content amounts to 10%. At 1,500 degrees, the effectiveness of the influence of small inclusions of Nickel on the sinterability

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

ACCESSION NR: AR4018314

of Mo decreases considerably. The curves of function P of sintered W with the nickel content has a maximum equal to a 0.25% nickel content. After sintering at 1,500 degrees, the W with an admixture of 0.25-0.5% nickel amounts to 5-7%. The inclusion of nickel also leads to an increase in the microhardness of W from 250 to 600 kg/sq cm, and the microhardness of Mo from 150 to 500 kg/sq cm. The liquifiability of nickel at 1,500 degrees is 0.3 atmospheric % in W and 1 atmospheric % in Mo. At sintering temperatures of 1,350 degrees for Mo, and 1,495 degrees for W, and a nickel content greater than 0.5% for Mo and 0.25% for W, an oozing out of the Nickel phase is observed, accompanied by a decrease in hardness of the samples during sintering in H_2.

SUB CODE: MM ENCL: 00

Card 2/2

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

24(6)

SOV/139-59-1-6/34

AUTHORS: Yepifanov, G. I. and Minayev, N. I.

TITLE: Investigation of the Dependence of the Friction Force on the Real Area of Friction and the Normal Load (Issledovaniye zavisimosti sily treniya ot istinnoy ploshchadi treniya i normal'noy nagruzki)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Fizika, 1959, Nr 1, pp 35-43 (USSR)

ABSTRACT: A great d r a w b a c k of most of the work devcted to experimental study of the process of external friction lies in the fact that the experiments were carried out without knowing the magnitude of the real friction area which really does participate in the friction process. The friction theories prevailing at present are based on the incorrect concept that the real area of friction is the area of contact of the rubbing pairs. This complicates understanding the process of external friction and also complicates the physical interpretation of experimentally established facts. This relates particularly to the dependence of the coefficient of external friction on the normal load. In earlier work one of the authors of this paper (Refs 8-10) applied

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

Investigation of the Dependence of the Friction Force on the Real Area of Friction and the Normal Load

the concept of V. D. Kuznetsov (Ref 1) and of Bowden and Tabor (Ref 12) on the physical nature of the process of external friction and attempted to justify the point of view that this process consists basically of plastic shear which proceeds inside relatively thin surface layers of the rubbing pairs. As a result of this, the real friction area is that along which the process of shear takes place during friction. This point of view follows directly from analysis of the basic types of interaction of solid surfaces which bring about external friction (Refs 8,9). To verify experimentally this concept, the friction was studied of a semi-spherical slide block made of hardened steel along freshly cut surfaces of the following metals: tin, lead, aluminium, copper, zinc, bronze, steels 45 and U12, iron, alloys EI437, VT2 etc. It was found that displacement of the slide block along a freshly cut surface of the specimen brings about the formation of a "stagnant" zone (build-up) and that the displacement of the slide is not effected by external

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sliding along the surface of the specimen but by shifting (shear) along the internal boundary of this zone. Thus, in the case of pure metallic rubbing pairs, the friction does not consist in cutting off the molecular bridges occurring at the points of physical contact, as was suggested by Bowden, but by shear along the internal surface of the "stagnant" zone. On increasing the normal load N there will be an increase in the real area of friction S_c and of the friction force. Thereby, with increasing N the specific friction force f will remain practically unchanged and will equal approximately the shear strength of the material of the specimen (Ref 10); this indicates that the friction force is determined de facto by the frictior surface and is almost independent of the normal pressure. Since this latter conclusion is considered of great importance, the authors studied the behaviour of the friction force under conditions such that the friction area remained practically unchanged in spite of the continuous increase in the normal load. These experiment

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Investigation of the Dependence of the Friction Force on the Real Area of Friction and the Normal Load

were carried out by means of a cutting tool with a limited friction area. In the experiments chips of a pre-determined thickness between 0.02 and 1.0-3.0 mm were planed off by means of a specially built cutting tool, a sketch of which is shown in Fig 3, p 38. This tool consisted of a high speed steel wedge with an angle of 30° at the apex and a facet with an angle of 25°, whereby the width of the facet varied between 0.2 and 1.0 mm. In Fig 5 the dependences are graphed of the horizontal and the vertical components of the planin force of brass as a function of the depth of cut. Fig 6 shows a typical curve of the dependence of the friction force on the normal force applied during planir of aluminium by means of the special cutting tool used in the experiments, which had a limited area of friction. In Fig 7 the dependence is graphed of the friction force on the normal force for iron, copper, brass, aluminium, lead and tin. It can be seen from the graphs, Fig 7, that qualitatively the picture is the same for all meta

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

Investigation of the Dependence of the Friction Force on the Real Area of Friction and the Normal Load

It is concluded that the friction force is not directly dependent on the normal force but only indirectly, inasmuc as the normal force determines the size of the friction area. However, if the size of the friction area cannot change with the magnitude of the normal force, the friction force will no longer depend on the normal load. It can be seen from the data of Table 2 that the specific friction force does not depend on the width of the land and is approximately equal to the shear strength of the machined metal. The shear strength was determined by means of a press, a sketch of which is shown in Fig 9, p 42. The following conclusions are arrived at:
1) The process of external friction of pure metallic surfaces consists mainly of plastic shear taking place in the relatively thin surface layers of the rubbing pairs along areas, the magnitude of which is generally a function of the normal component of the load.
2) The main factor which determines the friction force is the real area of friction. The friction will be dependent on the normal force only as long as this normal force determines the size of the real area of friction. However,

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if this area of friction cannot change as a result of changes in the normal load, the friction force will no longer be dependent on the normal load.
3) The real area of friction is the area along which the process of shear develops during friction. If the real area of friction is correctly evaluated, the specific friction force will equal the shear strength of the weaker member of the rubbing pair in which the shear is localised.

Card 6/6 There are 9 figures, 3 tables and 12 references, 11 of which are Soviet, 1 English.

ASSOCIATION: Institut fizicheskoy khimii AN SSSR (Institute of Physical Chemistry, Ac. Sc., USSSR)
SUBMITTED: May 4, 1958 (Initially)
August 25, 1958 (After revision)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

Minayev, N. I., and Yepifanov, G. I.

"Investigation of Friction as Resistance to the Displacement of Thin Surface Layers of Solid Bodies" p 50

Sukhoye i granichnoye treniye. Friktsionnyye materialy (Dry and Boundary Friction. Friction Materials) Moscow, Izd-vo AN SSSR, 1960. 302 p. Errata slip inserted. 3,500 copies printed. (Series: Its: Trudy, v. 2)

Sponsoring Agency: Akademiya nauk SSSR. Institut mashinovedeniya.
Resp. Ed.: I. V. Kragel'skiy, Doctor of Technical Sciences, Professor; Ed. of Publishing House: K. I. Grigorash; Tech. Ed.: S. G. Tikhomirova.

The collection published by the Institut mashinovedeniya, AN SSSR(Institute of Science of Machines, Academy of Sciences USSR) contains papers presented at the III Vsesoyuznaya konferentsiya po treniyu i iznosu v mashinakh (Third All-Union Conference on Friction and Wear in Machines, April 9-15, 1958.

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

GINTSBURG, B.Ya., doktor tekhn. nauk; MINAYEV, N.I.; IPPOLITOV, Ye.S.; SHAKHNAZARYAN, V.M.

Improving starting characteristics of a diesel engine. Avt. prom. 31 no.3:12-14 Mr '65. (MIRA 18:7)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

ACC NR: AP7003518 (A,N) SOURCE CODE: UR/0113/67/000/001/0014/0016

AUTHORS: Gintsburg, B. Ya. (Doctor of technical sciences); Minayev, N. I.; Ippolitov, Ye. S.; Shakhnazaryan, V. M.

ORG: none

TITLE: Effect of sealed closures of piston rings on the starting qualities of diesels

SOURCE: Avtomobil'naya promyshlennost', no. 1, 1967, 14-16

TOPIC TAGS: temperature dependence, temperature measurement, piston engine, diesel engine, engine component, ENGINE PISTON, ENGINE STARTER SYSTEM

ABSTRACT: The equation for compressed gas in a cylinder (with consideration of the leakage through the piston rings) is given as

$$T_c = T_a\left[\varepsilon\left(1-\frac{\Delta G}{G_a}\right)\right]^{n_1-1},$$

where n_1 is the average exponent of the compression curve; T and G are the temperature and weight. The subscripts a and c refer to the start and the end of the compression;

Card 1/3 UDC: 621.436.629.113:62--24.3

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ACC NR: AP7003518

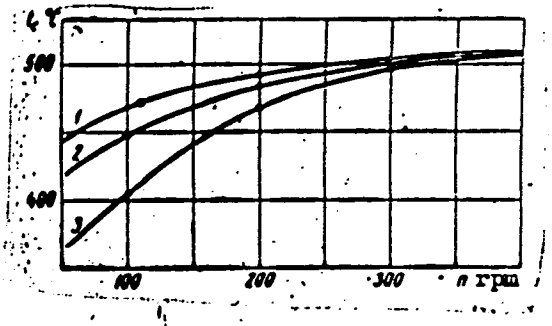

Fig. 1. Air temperature at the compression ring vs number of engine rpm: 1 - three-component ring; 2 - ring with soldered closure; 3 - standard ring

$\Delta G = G_a - G_c$ is the gas loss during compression. With V representing the volume of gas, $\varepsilon = \frac{V_a}{V_c}$ is the geometrical degree of the engine compression. To determine the rpm effect on $\frac{\Delta G}{G_a}$ and T_c, tests were conducted on a single-cylinder assembly with a cylinder diameter of 150 mm and an effective $\varepsilon = 12.8$. The piston was driven by a Pendel-dynamo, and the gas leaking past the piston rings was collected from the crankcase and measured by a rotameter. The temperature was measured by a tungsten resistance thermometer replacing an injector in the head. Three types of piston rings were tested: a) the standard type with a 0.6-mm gap in the closure; b) a

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ACC NR: AP7003518

similar ring with the gap sealed by tin solder; c) a compounded ring of three overlapping layers with no gap. Where the leakage was small, $\frac{\Delta G}{G_a}$ vs rpm was hyperbolic. For standard rings $\frac{\Delta G}{G_a} = \frac{16}{n}$, and for the soldered gap it is $\frac{8.2}{n}$. The temperature dependence is shown in Fig. 1. Rings made by German and American firms have complex tongue closure sections which effectively seal and also compensate for small irregularities in the cylinder shape. Orig. art. has: 6 figures and 5 formulas.

SUB CODE: 21/ SUBM DATE: none/ ORIG REF: 001/ OTH REF: 002

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APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, Nikolay Nikolayevich; CHERNOV, Ye., red.; PAVLOVA, S., tekhn.red.

[We are mastering technology of the future] Osvaivaem tekhniku budushchego. Moskva, Mosk.rabochii, 1960. 46 p.
(MIRA 13:9)

1. Rukovoditel' brigady kommunisticheskogo truda zavoda "Krasnyy proletariy" imeni A.I.Yefremova (for Minayev).
(Technological innovations)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, N. P., ENG.

Woodworking machinery

Improving the technology of producing bent and pressed rims. Les. prom. 11 no. 7, 1951.

Monthly List of Russian Accessions. Library of Congress. December 1952. UNCLASSIFIED.

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAEV, N. V.

Papavin-Stakhanovite communication electronic specialists and signalmen of a railroad signaling, centralization and block system. Moskva, Gos. transp. zhel-dor. izd.vo, 1941. 35 p. (Metodom Stakhanova-Krivonosa) (49-58145)

TF615.M5

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MIKAYEV, N.V.; KAZAKOV, A.A., nauchnyy redaktor; KONTSEVAYA, E.M., redaktor; KRYUCHKINA, K.V., tekhnicheskiy redaktor.

[Automatic and telemechanic equipment for railroad transportation systems (ATiT)] Avtomatika i telemekhanika na zheleznodorozhnom transporte (ATiT). Moskva, Vses. uchebno-pedagog. izd-vo Trudrezervizdat, 1954. 66 p. (MLRA 8:2)
(Railroads--Signaling)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, O.A.

Horizontal stability of the wide-cut ZKRN-2,8A tractor-mounted cultivator. Trudy MIMESKH 4 no.2:136-151 '59. (MIRA 15:4)
(Cultivators)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, O.A., aspirant

Operational efficiency of the mounted wide-range ZKRN-2,8-A cultivator. Trudy MIMESKH 6:235-251 '59. (MIRA 14:5)
(Cultivators)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

GALKANOVA, N.D., assistant; MINAYEV, O.A., inzh.

Work of the specialized laboratory of the institute. Bet. i zhel.-bet. no.8:376 Ag '60. (MIRA 13:8)
(Kuybyshev--Reinforced concrete)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, P.A., inzh.; PRUTKIN, E.A.

Using industrial methods in assembling automatic control and regulation systems. Nov.tekh.mont.i spets.rab.v stroi. 22 no.1:4-7 Ja '60. (MIRA 13:5)

1.Glavproyektmontazhavtomatika, Minstroy RSFSR.
(Automatic control)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, P.A., inzh.

In the Council of Technology and Economics. Mont. i spets. rab. v stroi. 26 no.8:29-30 Ag '64.

(MIRA 17:11)

APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2"

"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, P. F. Chair of Physiology of the State Pedagogical Institute, Mosc

"Parasympathicolytic Action of Seneciphilline"

SOURCE: Farmakol i Toksikol, 5, No 4, 1942

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MINAYEV, P. F.

"Further Data on Modifications of the Activity of Cholinesterase in the Nervous Fibres on the Poles of Continuous Current"

Bulletin of Experimental Biology and Medicine, Vol 13, Nos 3 & 4, 1942, p 77

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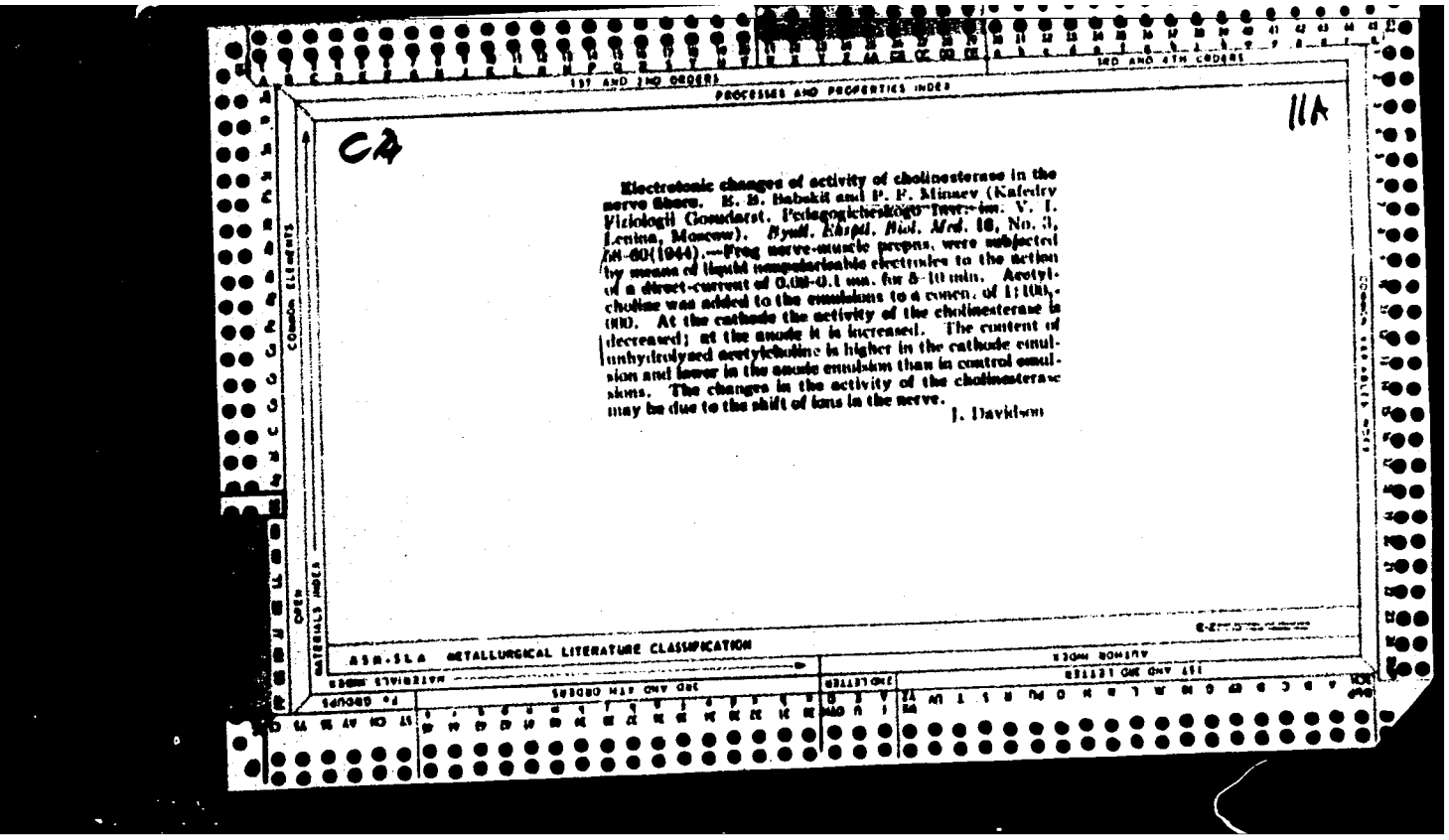

PROCESSES AND PROPERTIES INDEX

C4

11A

Electrotonic changes of activity of cholinesterase in the nerve fibers. E. B. Babskii and P. P. Mitnev (Kafedry Fiziologii Gosudarst. Pedagogicheskogo Instituta im. V. I. Lenina, Moscow). *Byull. Eksptl. Biol. Med.* 18, No. 3, 58-60(1944).—Frog nerve-muscle preps. were subjected by means of liquid nonpolarizable electrodes to the action of a direct-current of 0.08-0.1 ma. for 5-10 min. Acetylcholine was added to the emulsions to a concn. of 1:100,000. At the cathode the activity of the cholinesterase is decreased; at the anode it is increased. The content of unhydrolyzed acetylcholine is higher in the cathode emulsion and lower in the anode emulsion than in control emulsions. The changes in the activity of the cholinesterase may be due to the shift of ions in the nerve.

J. Davidson

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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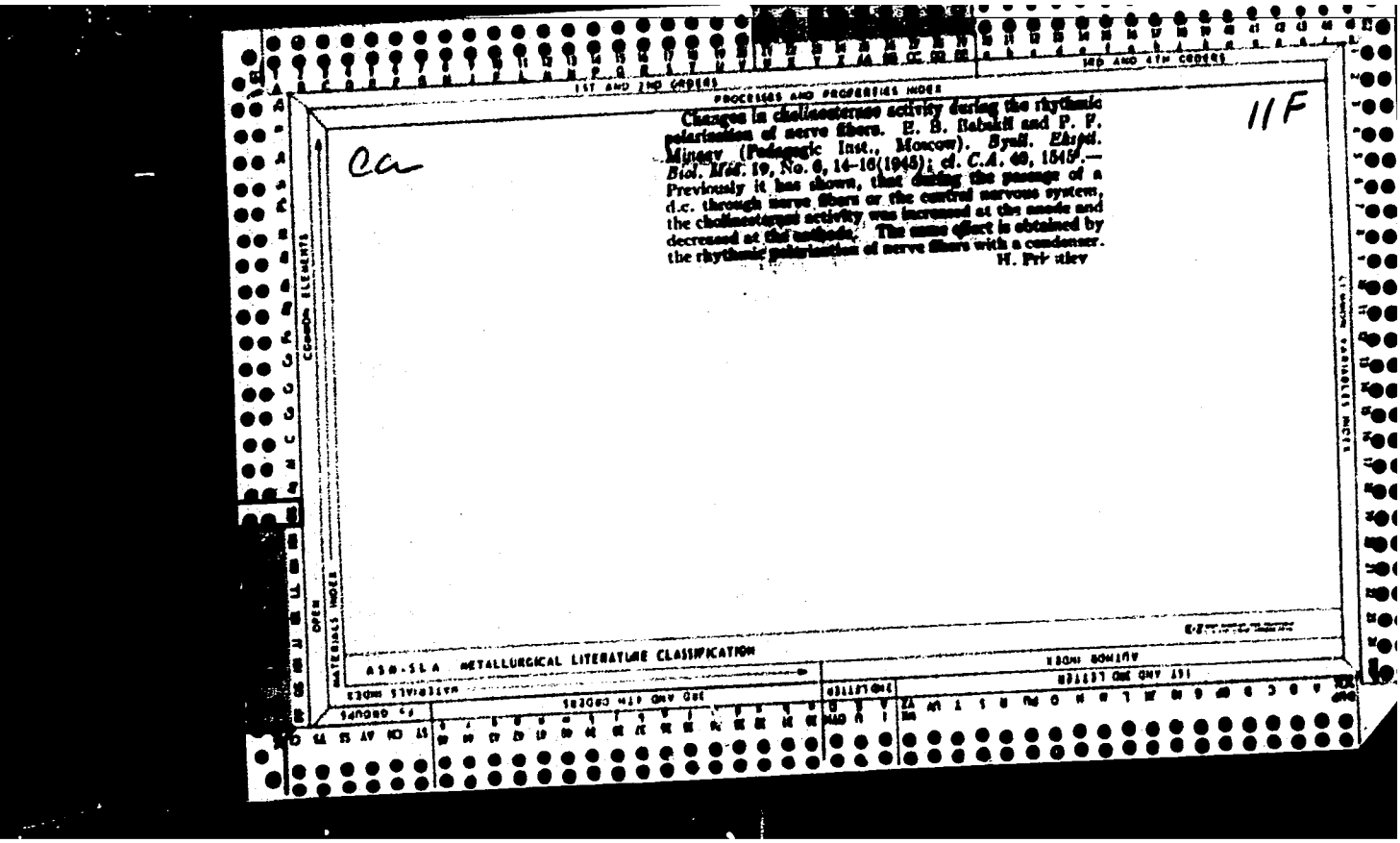

Ca

11F

Changes in cholinesterase activity during the rhythmic polarization of nerve fibers. E. B. Babskii and P. F. Minaev (Pedagogic Inst., Moscow). *Byull. Eksptl. Biol. Med.* 19, No. 6, 14-16(1945); cf. *C.A.* 40, 1845.— Previously it has shown, that during the passage of a d.c. through nerve fibers or the central nervous system, the cholinesterase activity was increased at the anode and decreased at the cathode. The same effect is obtained by the rhythmic polarization of nerve fibers with a condenser.
H. Priestley

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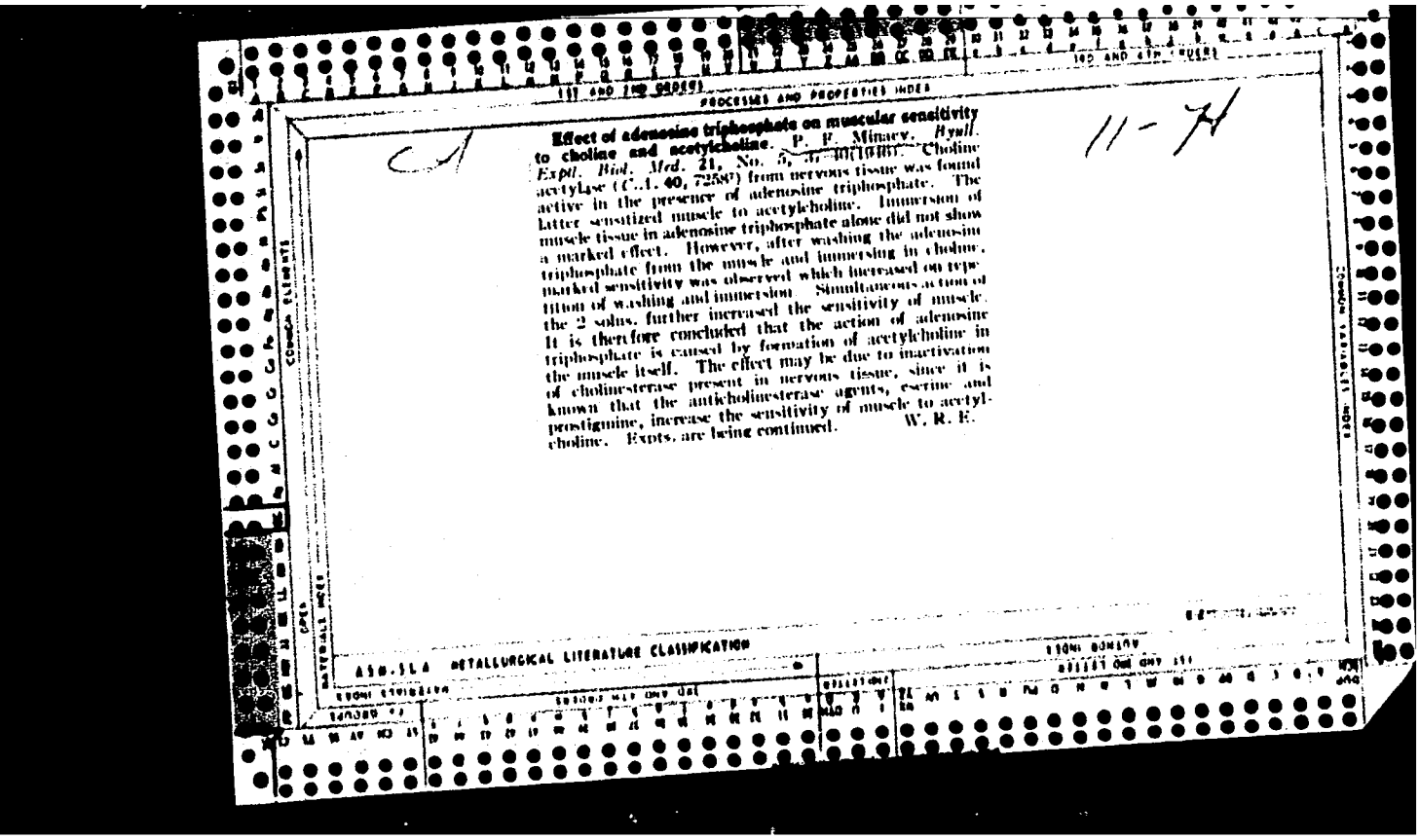

PROCESSES AND PROPERTIES INDEX

C-1

11-H

Effect of adenosine triphosphate on muscular sensitivity to choline and acetylcholine. P. F. Minaev. *Byull. Eksptl. Biol. Med.* 21, No. 5, [illegible]. Choline acetylase (C.A. 40, 7258f) from nervous tissue was found active in the presence of adenosine triphosphate. The latter sensitized muscle to acetylcholine. Immersion of muscle tissue in adenosine triphosphate alone did not show a marked effect. However, after washing the adenosine triphosphate from the muscle and immersing in choline, marked sensitivity was observed which increased on repetition of washing and immersion. Simultaneous action of the 2 solns. further increased the sensitivity of muscle. It is therefore concluded that the action of adenosine triphosphate is caused by formation of acetylcholine in the muscle itself. The effect may be due to inactivation of cholinesterase present in nervous tissue, since it is known that the anticholinesterase agents, eserine and prostigmine, increase the sensitivity of muscle to acetylcholine. Expts. are being continued. W. R. E.

A58-3LA METALLURGICAL LITERATURE CLASSIFICATION

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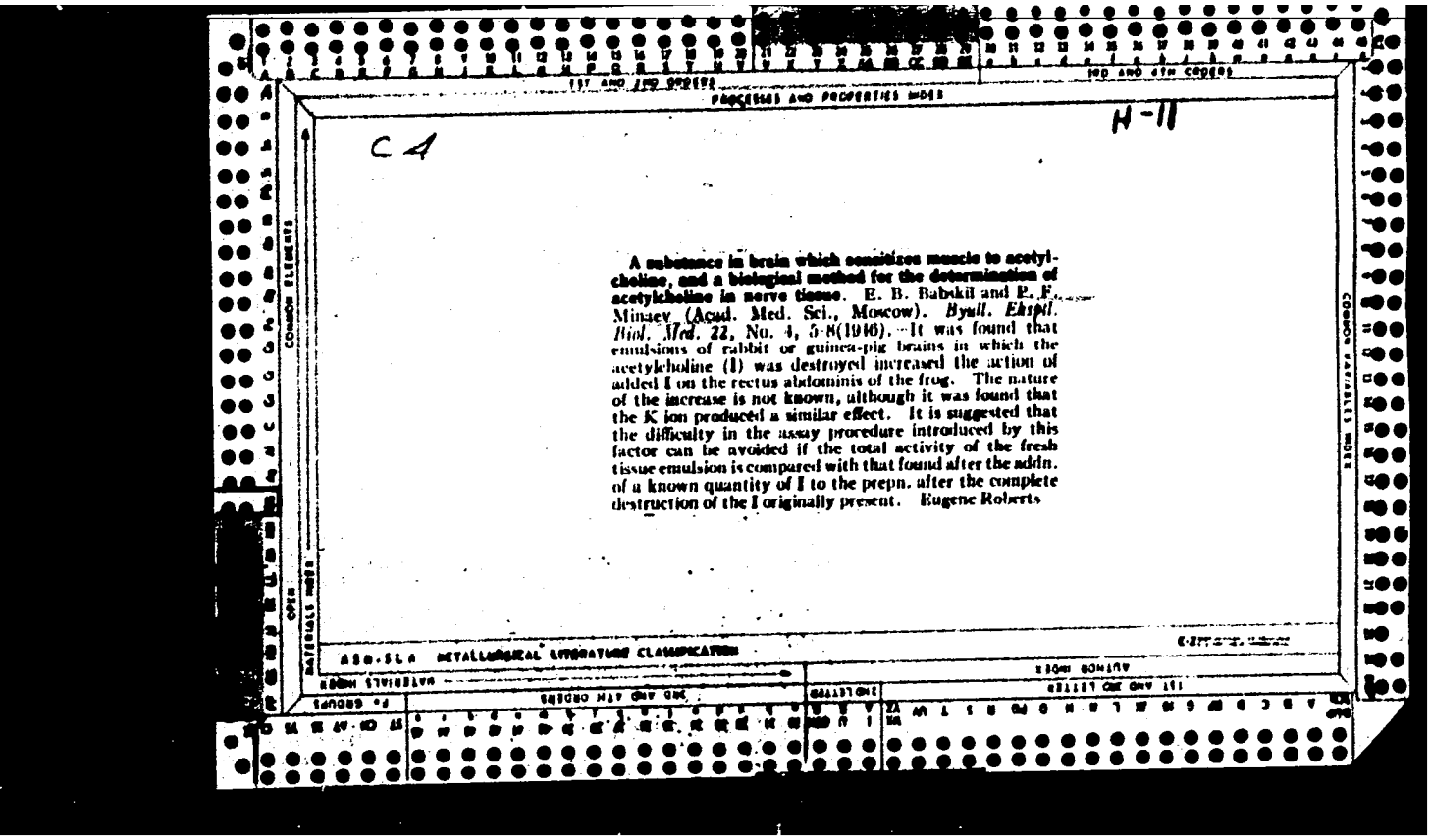

C 4

H-11

A substance in brain which sensitizes muscle to acetylcholine, and a biological method for the determination of acetylcholine in nerve tissue. E. B. Babskil and P. F. Minaev (Acad. Med. Sci., Moscow). *Byull. Eksptl. Biol. Med.* 22, No. 4, 5-8(1946).—It was found that emulsions of rabbit or guinea-pig brains in which the acetylcholine (I) was destroyed increased the action of added I on the rectus abdominis of the frog. The nature of the increase is not known, although it was found that the K ion produced a similar effect. It is suggested that the difficulty in the assay procedure introduced by this factor can be avoided if the total activity of the fresh tissue emulsion is compared with that found after the addn. of a known quantity of I to the prepn. after the complete destruction of the I originally present. Eugene Roberts

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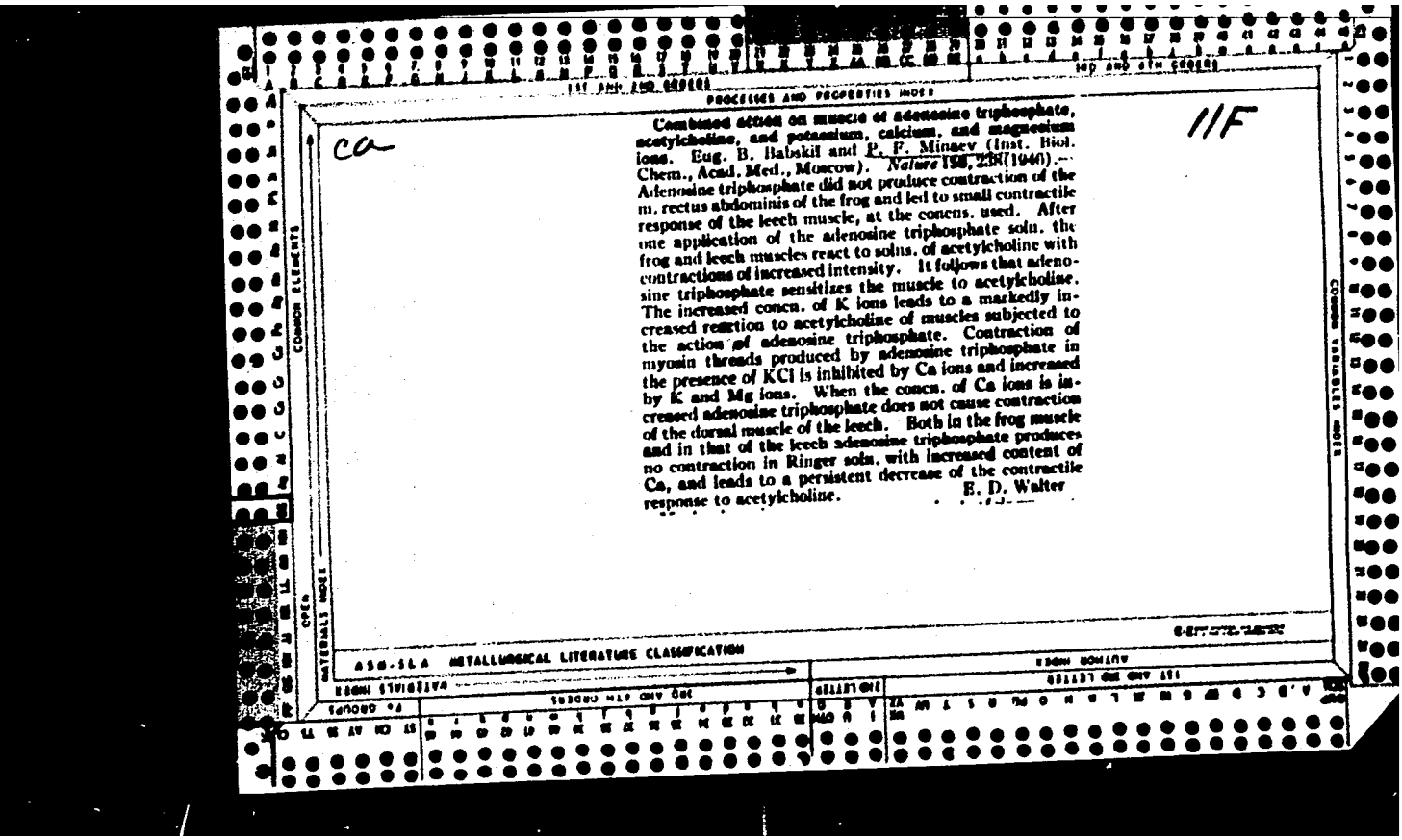

Ca

11F

Combined action on muscle of adenosine triphosphate, acetylcholine, and potassium, calcium, and magnesium ions. Eug. B. Babskii and P. F. Minaev (Inst. Biol. Chem., Acad. Med., Moscow). *Nature* 158, 238(1946).—Adenosine triphosphate did not produce contraction of the m. rectus abdominis of the frog and led to small contractile response of the leech muscle, at the concns. used. After one application of the adenosine triphosphate soln. the frog and leech muscles react to solns. of acetylcholine with contractions of increased intensity. It follows that adenosine triphosphate sensitizes the muscle to acetylcholine. The increased concn. of K ions leads to a markedly increased reaction to acetylcholine of muscles subjected to the action of adenosine triphosphate. Contraction of myosin threads produced by adenosine triphosphate in the presence of KCl is inhibited by Ca ions and increased by K and Mg ions. When the concn. of Ca ions is increased adenosine triphosphate does not cause contraction of the dorsal muscle of the leech. Both in the frog muscle and in that of the leech adenosine triphosphate produces no contraction in Ringer soln. with increased content of Ca, and leads to a persistent decrease of the contractile response to acetylcholine. E. D. Walter

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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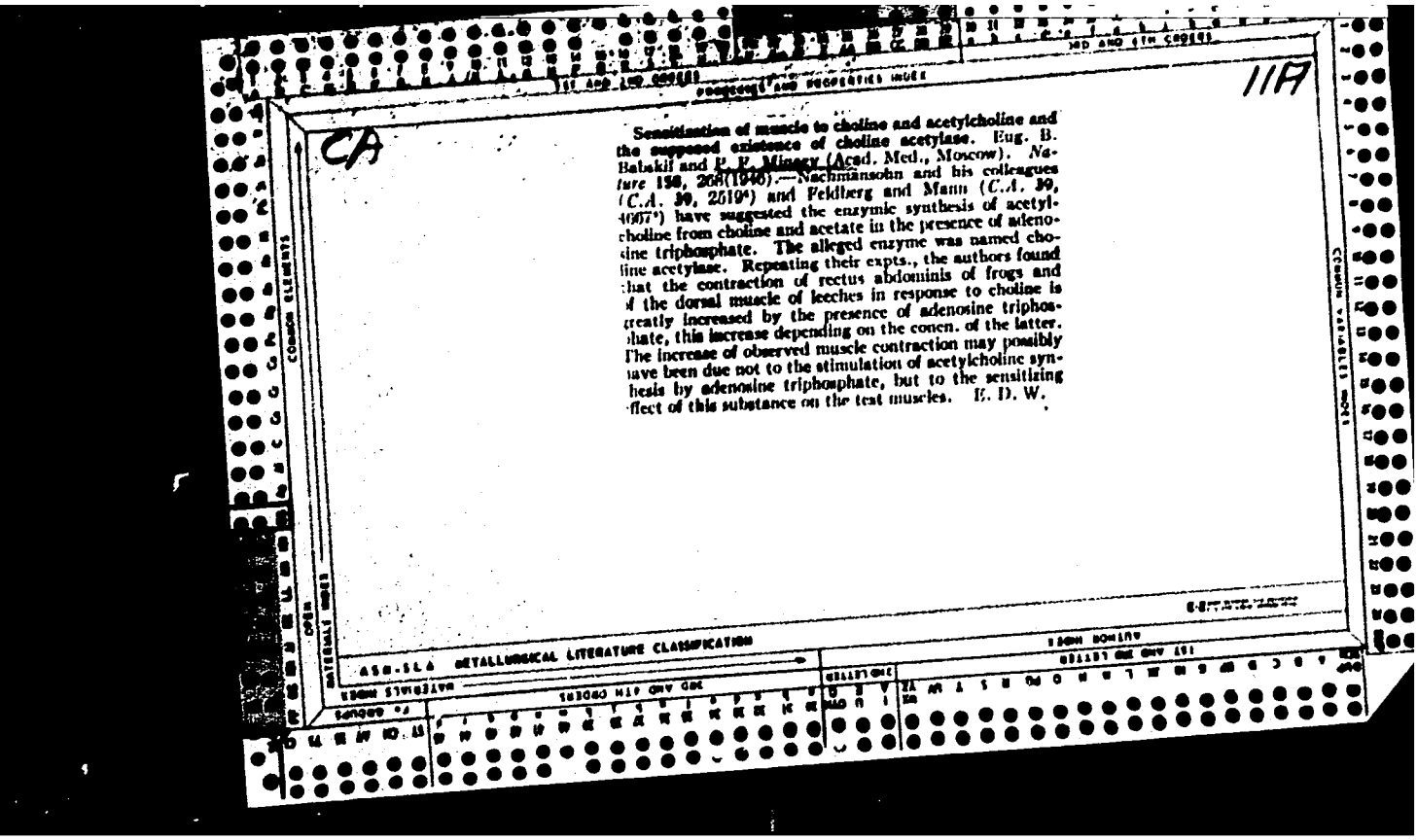

CA

11A

Sensitization of muscle to choline and acetylcholine and the supposed existence of choline acetylase. Eug. B. Babskii and P. P. Mingey (Acad. Med., Moscow). *Nature* **150**, 268(1940).—Nachmansohn and his colleagues (*C.A.* **30**, 2519⁴) and Feldberg and Mann (*C.A.* **30**, 4997⁴) have suggested the enzymic synthesis of acetylcholine from choline and acetate in the presence of adenosine triphosphate. The alleged enzyme was named choline acetylase. Repeating their expts., the authors found that the contraction of rectus abdominis of frogs and of the dorsal muscle of leeches in response to choline is greatly increased by the presence of adenosine triphosphate, this increase depending on the concn. of the latter. The increase of observed muscle contraction may possibly have been due not to the stimulation of acetylcholine synthesis by adenosine triphosphate, but to the sensitizing effect of this substance on the test muscles. E. D. W.

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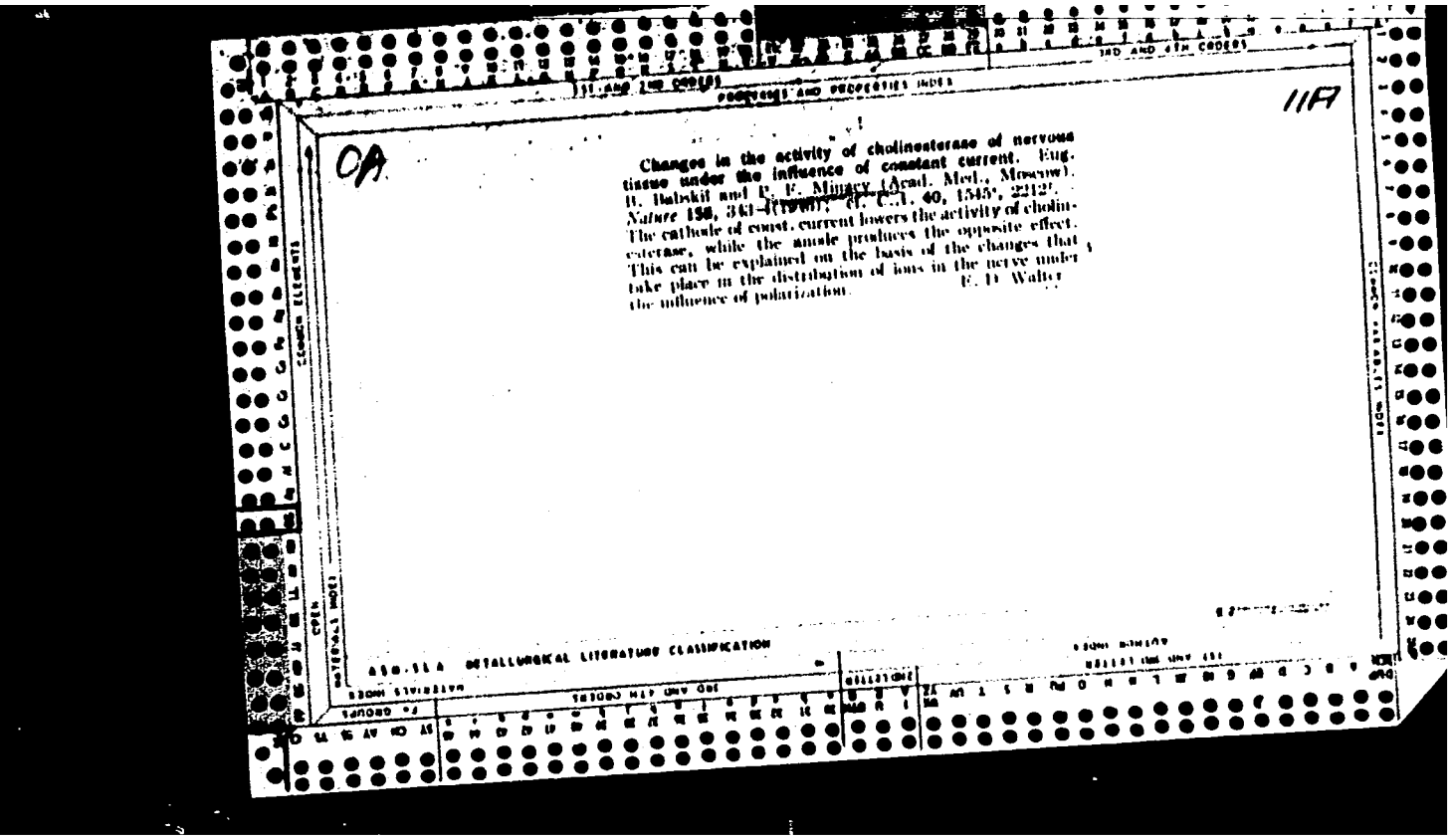

1ST AND 2ND ORDERS

PROPERTIES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

11A

OA

Changes in the activity of cholinesterase of nervous tissue under the influence of constant current. Eug. B. Babskii and P. F. Minaev (Acad. Med., Moscow). *Nature* 158, 343-4(1946); cf. C.A. 40, 1545[5], 2212[1]. The cathode of const. current lowers the activity of cholinesterase, while the anode produces the opposite effect. This can be explained on the basis of the changes that take place in the distribution of ions in the nerve under the influence of polarization. E. D. Walter

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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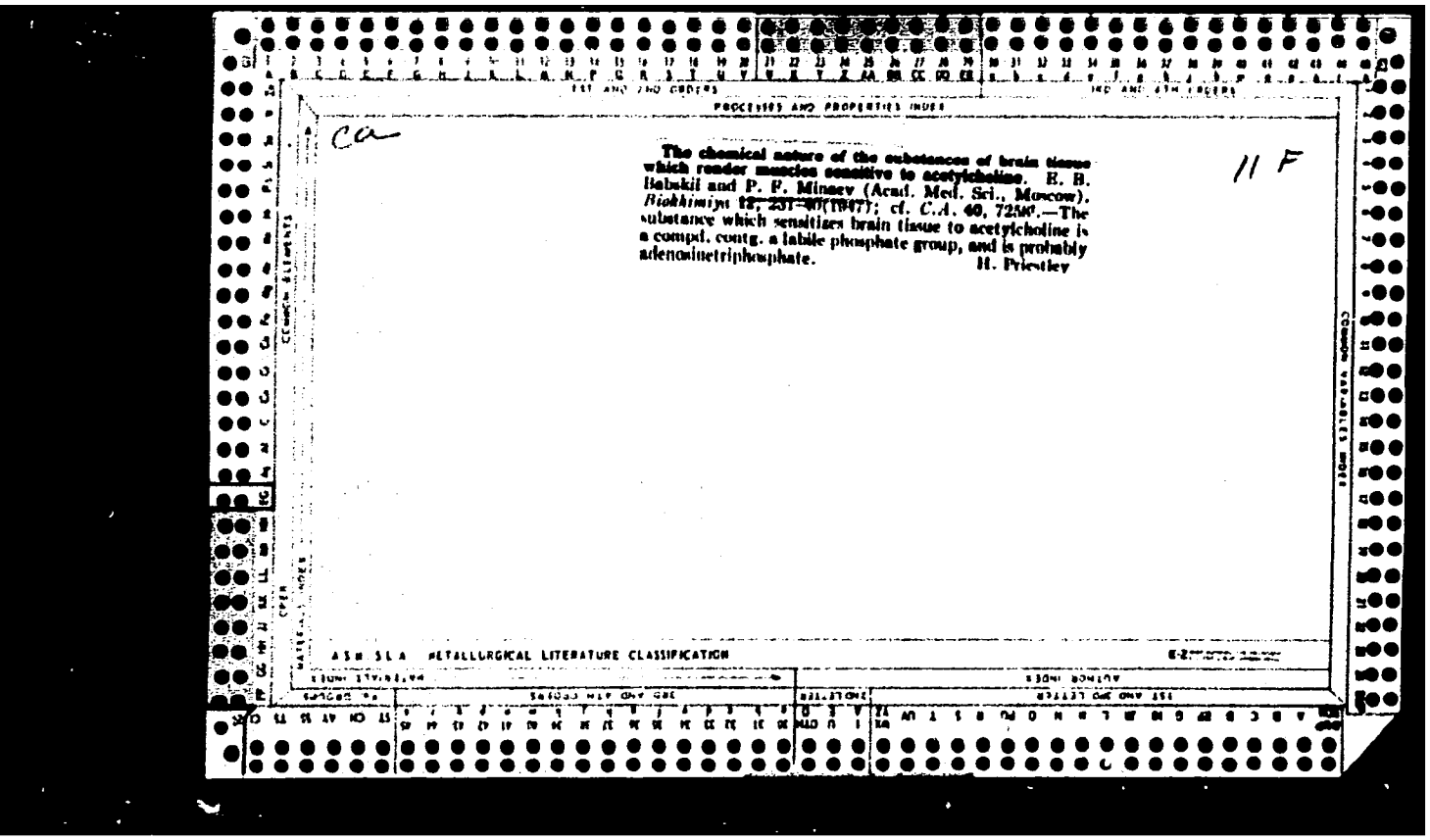

PROCESSES AND PROPERTIES INDEX

Ca

11 F

The chemical nature of the substances of brain tissue which render muscles sensitive to acetylcholine. E. B. Babskii and P. F. Mineev (Acad. Med. Sci., Moscow). *Biokhimiya* 12, 231–40 (1947); cf. *C.A.* 40, 7258⁹.—The substance which sensitizes brain tissue to acetylcholine is a compd. contg. a labile phosphate group, and is probably adenosinetriphosphate.
H. Priestley

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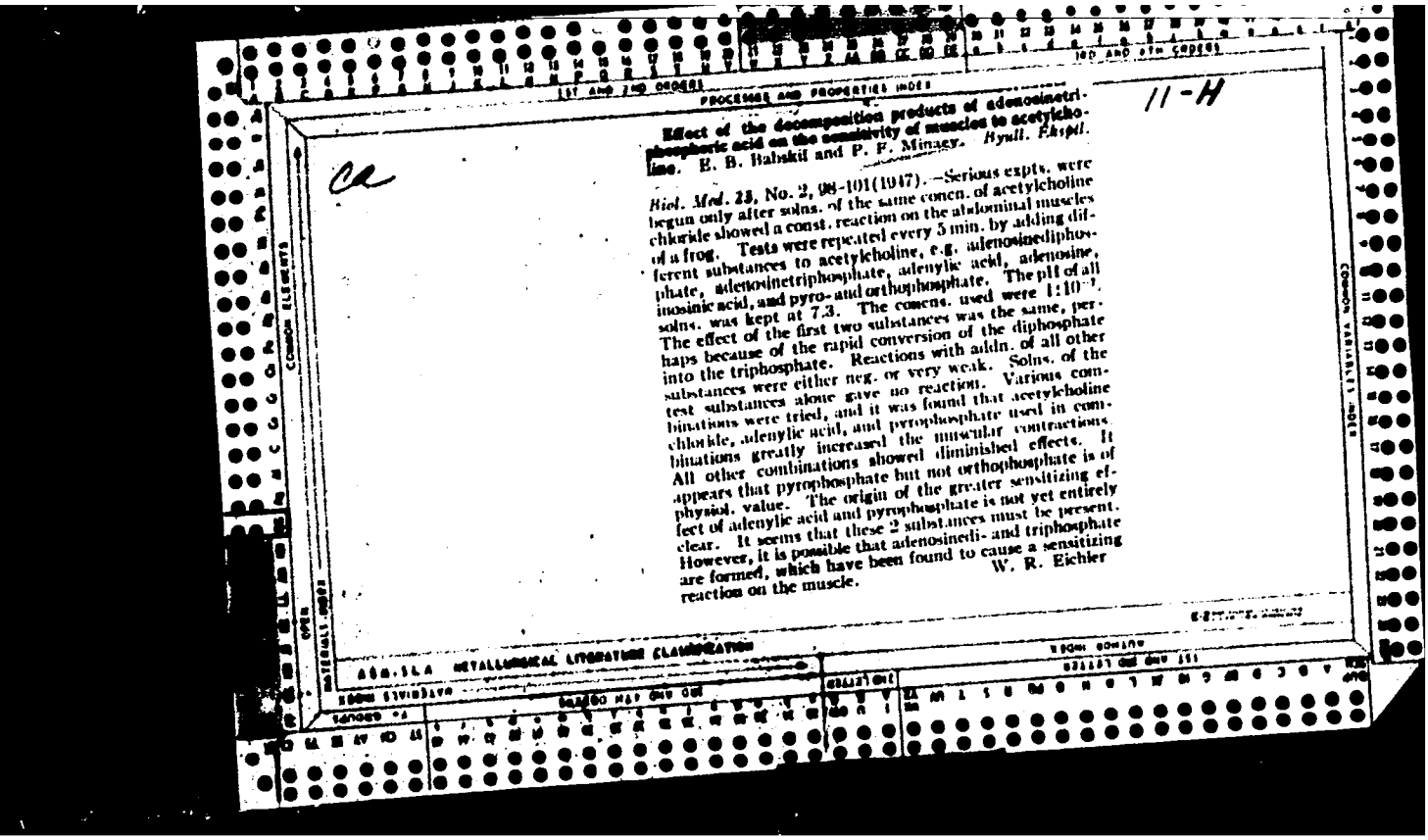

PROCESSES AND PROPERTIES INDEX

11-H

Effect of the decomposition products of adenosinetriphosphoric acid on the sensitivity of muscles to acetylcholine. E. B. Babskii and P. F. Minaev. *Byull. Eksptl. Biol. Med.* 23, No. 2, 98-101(1947).—Serious expts. were begun only after solns. of the same concn. of acetylcholine chloride showed a const. reaction on the abdominal muscles of a frog. Tests were repeated every 5 min. by adding different substances to acetylcholine, e.g. adenosinediphosphate, adenosinetriphosphate, adenylic acid, adenosine, inosinic acid, and pyro- and orthophosphate. The pH of all solns. was kept at 7.3. The concns. used were $1:10^{-7}$. The effect of the first two substances was the same, perhaps because of the rapid conversion of the diphosphate into the triphosphate. Reactions with addn. of all other test substances were either neg. or very weak. Solns. of the substances alone gave no reaction. Various combinations were tried, and it was found that acetylcholine chloride, adenylic acid, and pyrophosphate used in combinations greatly increased the muscular contractions. All other combinations showed diminished effects. It appears that pyrophosphate but not orthophosphate is of physiol. value. The origin of the greater sensitizing effect of adenylic acid and pyrophosphate is not yet entirely clear. It seems that these 2 substances must be present. However, it is possible that adenosinedi- and triphosphate are formed, which have been found to cause a sensitizing reaction on the muscle.

W. R. Eichler

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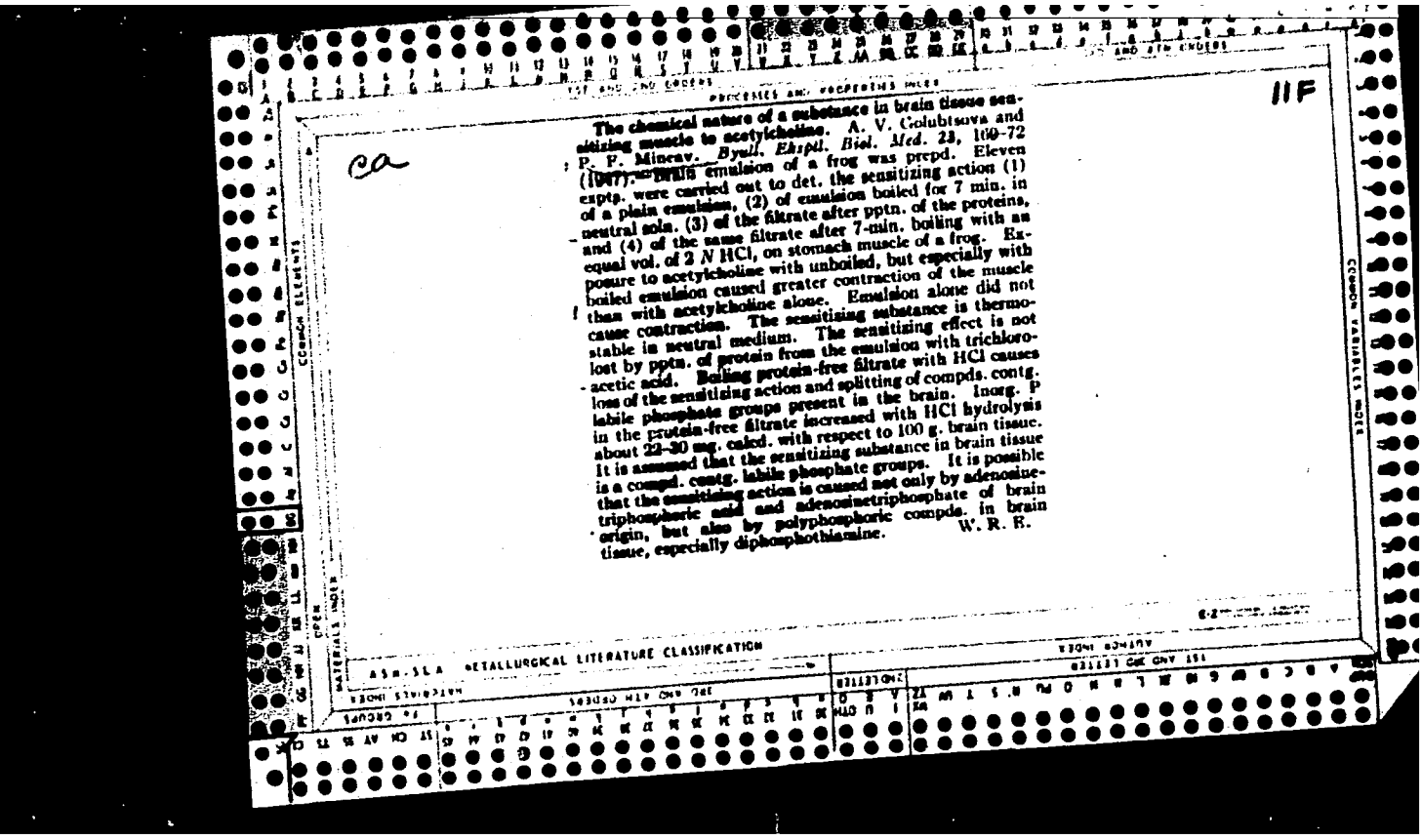

11F

ca

The chemical nature of a substance in brain tissue sensitizing muscle to acetylcholine. A. V. Golubtsova and P. P. Mincav. *Byull. Eksptl. Biol. Med.* 23, 169–72 (1947). Brain emulsion of a frog was prepd. Eleven exptg. were carried out to det. the sensitizing action (1) of a plain emulsion, (2) of emulsion boiled for 7 min. in neutral soln. (3) of the filtrate after pptn. of the proteins, and (4) of the same filtrate after 7-min. boiling with an equal vol. of 2 *N* HCl, on stomach muscle of a frog. Exposure to acetylcholine with unboiled, but especially with boiled emulsion caused greater contraction of the muscle than with acetylcholine alone. Emulsion alone did not cause contraction. The sensitising substance is thermostable in neutral medium. The sensitizing effect is not lost by pptn. of protein from the emulsion with trichloroacetic acid. Boiling protein-free filtrate with HCl causes loss of the sensitizing action and splitting of compds. contg. labile phosphate groups present in the brain. Inorg. P in the protein-free filtrate increased with HCl hydrolysis about 22–30 mg. calcd. with respect to 100 g. brain tissue. It is assumed that the sensitizing substance in brain tissue is a compd. contg. labile phosphate groups. It is possible that the sensitising action is caused not only by adenosinetriphosphoric acid and adenosinetriphosphate of brain origin, but also by polyphosphoric compds. in brain tissue, especially diphosphothiamine. W. R. B.

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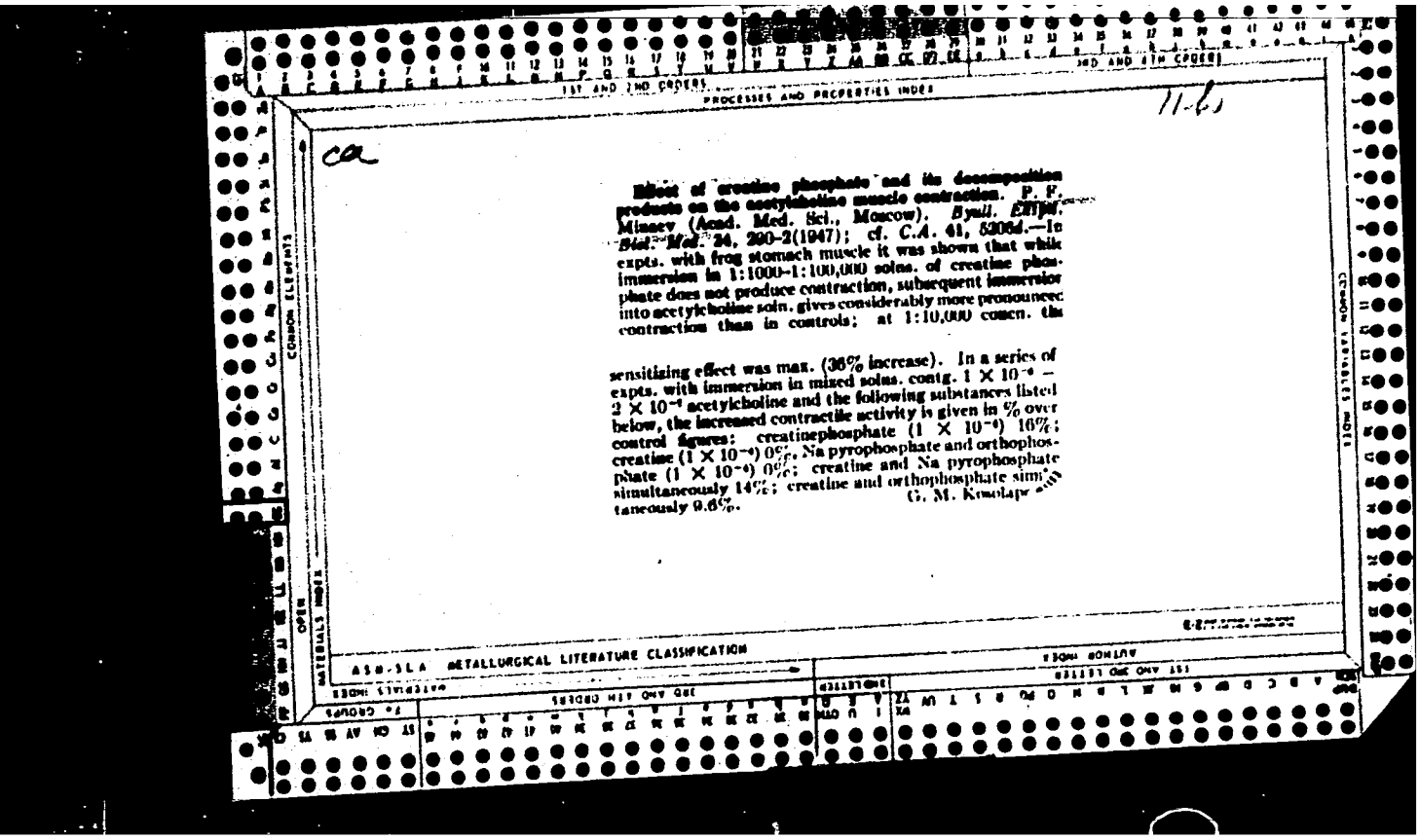

Effect of creatine phosphate and its decomposition products on the acetylcholine muscle contraction. P. F. Minaev (Acad. Med. Sci., Moscow). *Byull. Eksp. Biol. Med.* 24, 200-2(1947); cf. *C.A.* 41, 5206d.—In expts. with frog stomach muscle it was shown that while immersion in 1:1000–1:100,000 solns. of creatine phosphate does not produce contraction, subsequent immersion into acetylcholine soln. gives considerably more pronounced contractions than in controls; at 1:10,000 concn. the sensitizing effect was max. (36% increase). In a series of expts. with immersion in mixed solns. contg. 1×10^{-6} – 2×10^{-4} acetylcholine and the following substances listed below, the increased contractile activity is given in % over control figures: creatinephosphate (1×10^{-4}) 16%; creatine (1×10^{-4}) 0%; Na pyrophosphate and orthophosphate (1×10^{-4}) 0%; creatine and Na pyrophosphate simultaneously 14%; creatine and orthophosphate simultaneously 9.6%.

G. M. Kwolaje

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MINAYEV, P. F.

BABSHIY, Yevgeniy Borisovich, and MINAYEV, P. F.

"Effects of Adenosintriphosphate and its Derivatives on Muscular Sensitivity to acetylcholine and choline." Zef. Zhur., Vol 33, No 6, 1947, p 773. Physiology Laboratory, Inst of Biological and Medical Chemistry, Acad Med Sci USSR.

SO: U-4396

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, P. F.; B. N. Stepanenko; Ye. A. Silayeva

"Action of Phosphoril Hydrocarbons on the Acetylcholine Contracture of Muscles "

SOURCE: Byulleten' Eksperim. Biologii i Meditsiny, No 3, 1948, pp 188-91

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, P. F.; Golubtsova A. V.;

"Distribution into Various Parts of the Cerebrum of Substances which Sensitize Muscles to Acetylcholine"

SOURCE: Byulleten' Eksperim. Biologii i Meditsiny, No 4, 1948, pp 309-12

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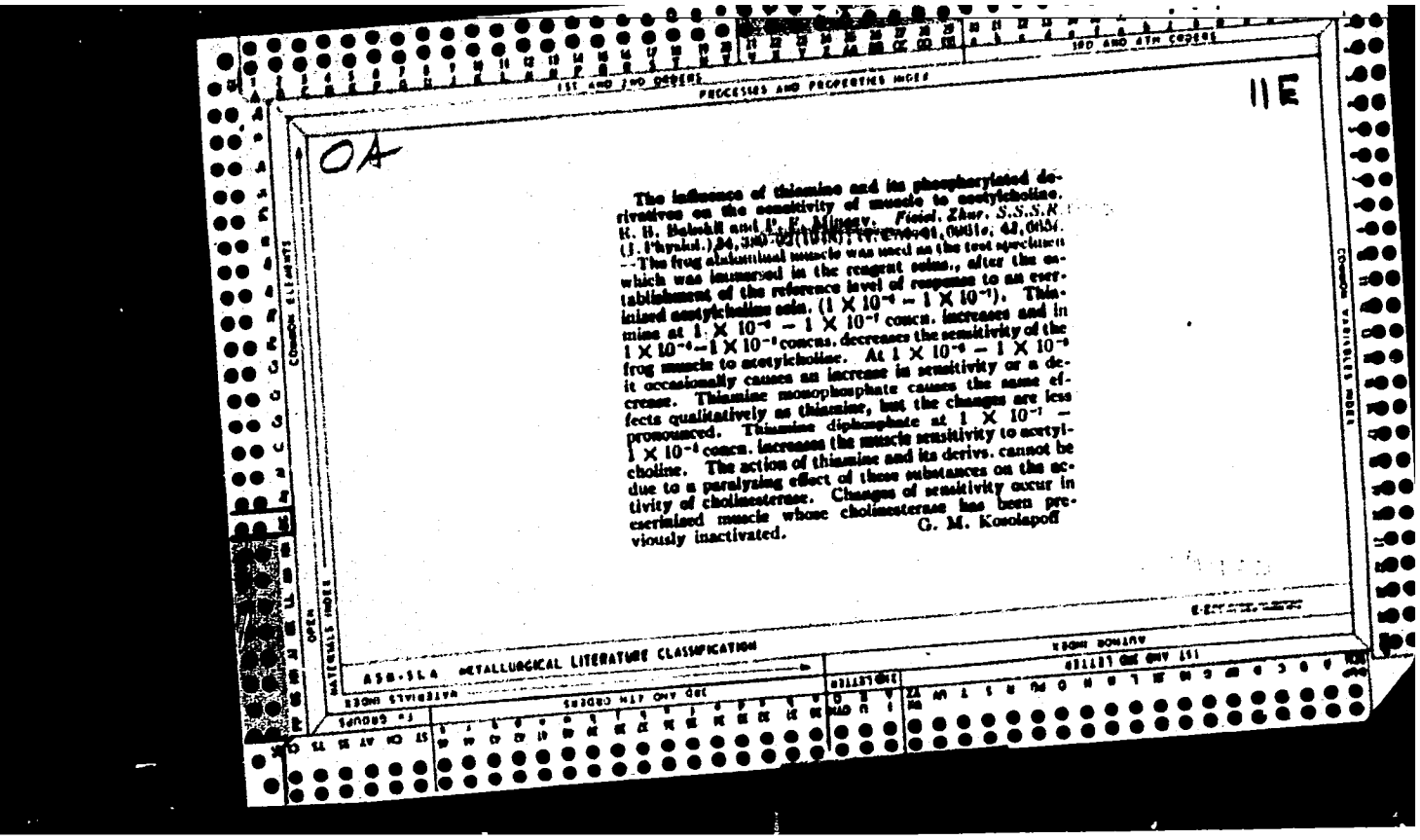
1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS



11E

OA

The influence of thiamine and its phosphorylated derivatives on the sensitivity of muscle to acetylcholine. R. B. Balskii and P. F. Minsev. *Fiziol. Zhur. S.S.S.R.* (J. Physiol.) 34, 380-92 (1948); [illegible] 41, 6661; 42, 6654. —The frog abdominal muscle was used as the test specimen which was immersed in the reagent solns., after the establishment of the reference level of response to an eserinized acetylcholine soln. ($1 \times 10^{-6} - 1 \times 10^{-7}$). Thiamine at $1 \times 10^{-6} - 1 \times 10^{-7}$ concn. increases and in $1 \times 10^{-6} - 1 \times 10^{-8}$ concns. decreases the sensitivity of the frog muscle to acetylcholine. At $1 \times 10^{-6} - 1 \times 10^{-8}$ it occasionally causes an increase in sensitivity or a decrease. Thiamine monophosphate causes the same effects qualitatively as thiamine, but the changes are less pronounced. Thiamine diphosphate at $1 \times 10^{-7} - 1 \times 10^{-8}$ concn. increases the muscle sensitivity to acetylcholine. The action of thiamine and its derivs. cannot be due to a paralyzing effect of these substances on the activity of cholinesterase. Changes of sensitivity occur in eserinized muscle whose cholinesterase has been previously inactivated.

G. M. Kosolapoff

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MINAYEV, P.F.

Phosphocreatine and adenosinetriphosphate (ATP) changes in brain cortex after electro-convulsions. P. F. Minaev and T. P. Kurokhtina (Inst. Biol. and Med. Chem., Acad. Med. Sci. U.S.S.R., Moscow). *Ukrain. Biokhim. Zhur.* 21, 550(F-62(1949)(in Russian).—The content of phosphocreatine (I) and of ATP (II) decreases sharply after convulsions and before a 2nd stimulus is effective, excitability of the cortical motor zone decreasing sharply at the same time; 30 min. after termination of convulsions, the contents of I and of II in the cortex return to normal, by which time excitability of the cortex has been considerably restored. Trephination of the dog skull was carried out under morphine-ether-chloroform or ether-chloroform; 30 min. after incision of the dura mater, excitability of the cortical motor zone was detd. by a constant current from Ag electrodes of a chronaximeter, and was estd. by contraction of the hind paw extensor muscles. Having detd. excitability, a portion of the cortex was excised from 1 control lobe by a surgical spoon chilled in liquid air and the sample frozen in liquid air, no more than 2-3 sec. lapsing from moment of sampling to immersion in liquid air. Five min. after the excision, convulsions were produced by elec. current, 1 electrode on the lower lip, the second on the neck muscles. Duration of the irritation was 2-3 sec., with 1-min. intervals between convulsions. It was not possible to obtain more than 5-12 seizures in a row, the last attacks being short and weak. Convulsions having ceased, a portion of cortex from the 2nd lobe was similarly extd., frozen, and the excitability detd. every 5-10 min.; 30 min. after termination of convulsions, 1 more portion of cortex was excised and frozen. Each of the 3 portions of cortex were ground to a powder while frozen and cooled 8% CCl_3COOH was added (1:10). The following P compds. were detd. in the filtrate: (1) inorg. P, after pptn. with Mg mixt., (2) some inorg. P + phosphocreatine P, (3) P after 10-min. hydrolysis in 1*N* HCl at 100°. P was detd. colorimetrically according to Fiske and SubbaRow in a step photometer.

Clayton P. Holoway

(1)

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MINAYEV P.F.

Effect upon depleted nerve centers of adenosinetriphosphate (ATP) introduced into the brain ventricles. P. F. Minayev (Inst. Biol. and Med. Chem., Acad. Med. Sci. U.S.S.R., Moscow). *Ukrain. Biokhim. Zhur.* 21, 368-73 (1949)(in Russian).--Injection of ATP into the ventricles changes the compn. of nerve centers depleted by epileptic seizures, enabling them to regain activity toward elec. stimulation. After exclusion of brain glycolysis by monoiodoacetate inactivation, and after failure of the animal to react to elec. stimulation by manifesting epileptic convulsions, the introduction of ATP into the brain ventricles makes it possible for convulsions to begin anew.

Clayton F. Holoway

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MINAYEV, P. F.

155T40

USSR/Medicine - Physiology Dec 49
Traumatic Shock

"Treatment of Traumatic Shock in Animals With Adenosin Triphosphoric Acid," P. F. Minayev, Lab of Restoration of Functions, Lab of Physiol Chem, Acad Sci USSR, 4 pp

"Dok Ak Nauk SSSR" Vol LXIX, No 4

Conducted tests on 70 dogs to find relative effects on traumatic shock by suboccipital and lumbar injections of adenosin triphosphoric acid in amount of 1-2 mg per kg of body weight, intramuscular and subcutaneous injection of 5-10 mg

155T40

USSR/Medicine - Physiology (Contd) Dec 49

per kg, and intravenous injection of much smaller concentrations of 10-15 ml per kg of physiological solution containing 2-6 mg per 100 ml of subject solution. Intravenous injection of small concentrations proved good antishock factor. Submitted 30 Aug 49.

155T40

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, P. F.

PA 174T36

USSR/Medicine - Shock Therapy 1 Sep 50

"Treatment of Traumatic Shock in Animals With Fructose 1,6-Diphosphate," P. F. Minayev, B. N. Stepanenko, Ye. A. Silayeva, Lab Physiol Chem, Acad Sci USSR, Moscow Pharm Inst

"Dok Ak Nauk SSSR" Vol LXXIV, No 1, pp 153-156

Discusses results of 35 tests of treating traumatic shock in cats and dogs by introduction of fructose 1,6-diphosphate suboccipitally, (2-4 mg per kg of body wt); and intravenously and intra-arterially (2-2.5 mg per kg of body

174T36

USSR/Medicine - Shock Therapy (Contd) 1 Sep 50

wt). Suboccipital introduction was highly effective in shock of light and medium severity, but only introduction into blood produced good therapeutic effect in cases of deep shock.

Submitted 20 Jun 50.

174T36

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USSR/Medicine - Shock Therapy 11 Sep 50
Adenosinetriphosphoric Acid

"Treatment of Traumatic Shock in Animals With Adenosinetriphosphoric Acid in Conjunction With Various Substances," P. F. Minayev, Lab of Restoration of Functions of Lab of Physiol Chem, Acad Sci USSR

PA 174137 "Dok Ak Nauk SSSR" Vol LXXIV, No 2, pp 397-400

Conducts series of tests on cats and dogs establishing therapeutic effect in cases of severe traumatic shock of introduction of adenosinetriphosphate (ATF) in conjunction with E. A. Asratyan antishock

174137

USSR/Medicine - Shock Therapy 11 Sep 50
(Contd)

liquid or with glutaminic acid and glucose. Finds both combinations more effective than ATF alone. Mechanism of effect is normalization of oxidation processes in body tissue creating conditions favorable for removal of ammonia from cen nervous system.

Submitted 4 Jul 50.

174137

MINAYEV, P. F.

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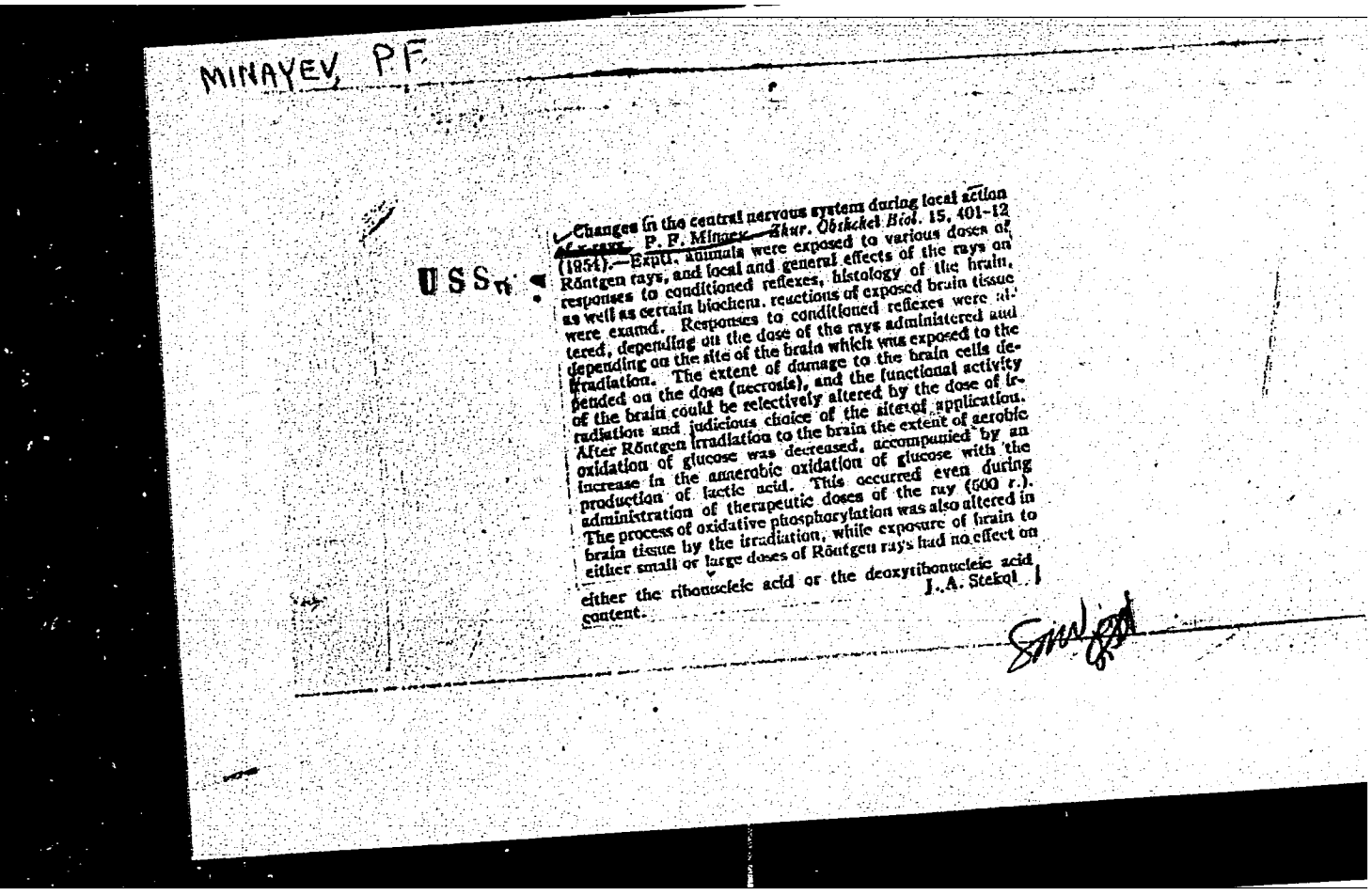

MINAYEV P.F.

USSR

Changes in the central nervous system during local action of rays. P. F. Minaev. *Zhur. Obshchei Biol.* 15, 401-12 (1954).—Exptl. animals were exposed to various doses of Röntgen rays, and local and general effects of the rays on responses to conditioned reflexes, histology of the brain, as well as certain biochem. reactions of exposed brain tissue were examd. Responses to conditioned reflexes were altered, depending on the dose of the rays administered and depending on the site of the brain which was exposed to the irradiation. The extent of damage to the brain cells depended on the dose (necrosis), and the functional activity of the brain could be selectively altered by the dose of irradiation and judicious choice of the site of application. After Röntgen irradiation to the brain the extent of aerobic oxidation of glucose was decreased, accompanied by an increase in the anaerobic oxidation of glucose with the production of lactic acid. This occurred even during administration of therapeutic doses of the ray (500 r.). The process of oxidative phosphorylation was also altered in brain tissue by the irradiation, while exposure of brain to either small or large doses of Röntgen rays had no effect on either the ribonucleic acid or the deoxyribonucleic acid content.

J. A. Stekol

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MINAYEV, P.F.

Effect of X rays on the functions of various sections of the central nervous system. Dokl.AN SSSR 95 no.3:693-696 Mr '54. (MLRA 7:3)

1. Institut biologicheskoy fiziki Akademii nauk SSSR. Predstavleno akademikom A.L.Kursanovym.
(X rays--Physiological effect) (Brain)

Translation M-166, 11 Feb 55

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USSR/Medicine - Physiology

Card 1/1 Pub. 22 - 53/56

Authors : Minayev, P. F.

Title : The decisive role of the nervous system in the ethiology and pathogenesis of traumatic shock.

Periodical : Dok. AN SSSR 99/5, 865-868, Dec 11, 1954

Abstract : Experiments were carried out on dogs and cats to determine the role of the nervous system in the ethiology and pathogenesis of traumatic shock. According to toxemic theory the decisive factor in the ethiology of traumati shock is the accumulation of toxic decomposition products in the organism. According to the plasmo-blood loss theory the basic cause for traumatic shock is the loss of plasma and blood by the organism. Both theories tak individually do not however explain the complexity of the process which develops in the organism during traumatic shock. Five USSR references (1 1953). Diagrams.

Institution: Academy of Sciences USSR, Physiological Laboratory

Presented by: Academician A. L. Kursanov, September 15, 1954

Translation M-634, 15 Dec 56

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MINAYEV, P.F.

3972 AEC-tr-2435((Pt. 4)(p.45-58))
LOCAL ACTION OF X-RAYS ON VARIOUS DIVISIONS OF THE CENTRAL NERVOUS SYSTEM OF ANIMALS. P. F. Minaev. p.45-58 of CONFERENCE OF THE ACADEMY OF SCIENCES OF THE USSR ON THE PEACEFUL USES OF ATOMIC ENERGY, JULY 1-5, 1955. SESSION OF THE [illegible] OF BIOLOGICAL SCIENCE. (Translation). 14p.

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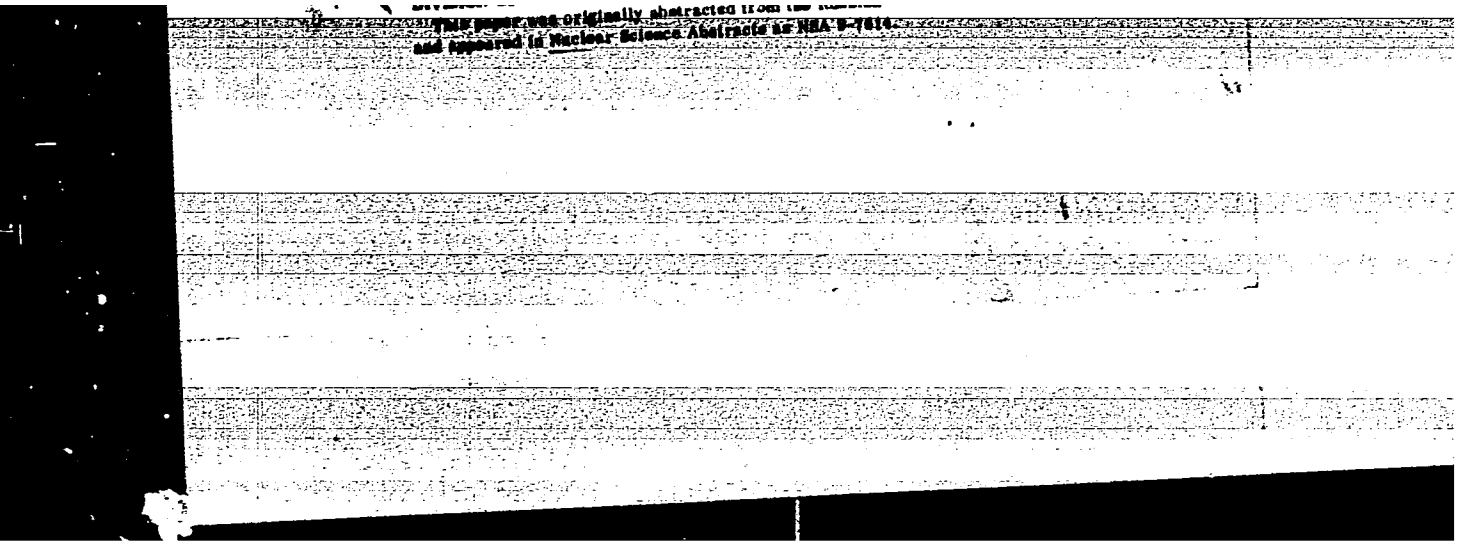

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MINAYEV, P.F., kandidat biologicheskikh nauk.

Radiation surgery. Nauka i zhizn' 23 no.7:24-27 Jl '56. (MLRA 9:9)
(RADIOTHERAPY)

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, P.F.

CARD 1 / 2 PA - 1256

SUBJECT USSR / PHYSICS
AUTHOR MINAEV, P.F., SLEPOV, A.A.
TITLE The Influence Exercised by the Local Irradiation of the Nervous System with X-Rays on the Composition of Peripheral Blood.

PERIODICAL Dokl.Akad.Nauk, 109, fasc.2, 303-304 (1956)
Publ. 7 / 1956 reviewed 9 / 1956

The cerebral hemispheres and the cerebellum of white Leghorn hens were irradiated by the directed X-rays (total dose 7000-9000 Roentgen) of a tube of 180 kV, 10 millampère with a series-connected filter of 1 mm Al + 0,5 mm Cu. The irradiated parts were at a distance of 20-30 cm from the tube and the dose was 85-114 Roentgen per minute. Both on the occasion of the irradiation of the cerebral hemispheres and also of the cerebellum all phases of cariokinesis of the limboblasts are noticeably in the peripheric blood, viz.: a distinct confusion of dependent reflectory activity, the fact that the clinical degenerations of nervous activity are strongest after 3-5 days, and considerable modification of the metabolism of the nerve tissue itself. At the same time, the oxidation mechanism of the glycosis is interrupted. On the occasion of the irradiation of the cerebellum the composition of red blood changes, nucleus partitions become noticeable in the mother cells, and even binuclear erythrocyts occur. On the occasion of the irradiation of the cerebrum such changes have as yet not been noticed.
The changes in peripheral blood on the occasion of the irradiation of the cerebral hemispheres and of the cerebellum are in a certain degree similar

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MINAYEV, P. F.

"The change of the cerebral metabolism under local action of X-rays," a paper submitted at the 2nd Conference on Biochemistry of the Nervous System, AS Ukr SSR, 12-16 Feb 1957, Kiev.

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MINAYEV, P. F., SKVORTSOVA, R. I., and LOGVINOVA, O. F. (USSR)

"Biochemical Changes in the Brain under Normal and Pathological Conditions."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 Aug 1961

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, P. F.

USSR / Human and Animal Physiology (Normal and Pathological). Effect on Physical Factors. Ionizing Irradiations T

Abs Jour: Ref Zhur-Biologiya, No 21, 1958 98054

Author : Minayev, P. F.; Skvortsova, R. I.

Inst : Not given

Title : The Influence of X-Rays on the Metabolism in Nerve Tissue

Orig Pub: V sb.: Vopr. biokhimii nervn. sistemy. Kiyev, AN USSR, 1957, 289-294

Abstract: No abstract

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"APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R001134410005-2

MINAYEV, P.F.; CHUKHROVA, A.I.

Separation of brain proteins of paper electrophoresis. Ukr. biokhim. zhur. 33 no.3:431-435 '61. (MIRA 14:6)

1. Institut biologicheskoy fiziki AN SSSR, Moskva.
(PAPER ELECTROPHORESIS) (PROTEINS) (BRAIN)

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D296/D307

27.1220

AUTHORS: ~~Minayev, P.F.,~~ Antonova, A.M., Kantorova, V.I., Logvinova, O.F., and Mironova, A.P.

TITLE: Changes in the central nervous system after exposure to ionizing radiation

PERIODICAL: Trudy Tashkentskoy konferentsii po mirnomu ispol'zovaniyu atomnoy energii, v. 3, Tashkent, Izd-vo AN Uzb. SSR, 1961, 53 - 58

TEXT: In continuation of earlier work the authors studied in greater detail changes in the nucleic acid content and histological changes in the cerebellum of guinea pigs after localized exposure to X rays. The DNA and RNA contents of the of the cerebellum (mean values in mg % for wet tissue) was estimated in 108 guinea pigs immediately after the exposure (i.e. before the appearance of cerebellar disorders); after 3-4 hours (initial phasis of changes); after 24 hrs. (peak of changes), as well as after 10, 15, 20 and 30 days; (period of gradual restoration). Immediately after the exposure the nucleic acid content appeared to be unchanged; after 3-4 hours a slight de-

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Changes in the central nervous ...

crease could be observed and after 24 hours the DNA content had decreased by 27.9 % and the RNA content by 26.4 % compared to the control levels. Owing to the cerebellar edema prevailing at that stage, however, the weight of the dried residue was 20 % lower in the experimental animals than in the control animals; hence the above values for wet tissue correspond to an actual decrease of only 7.9 % for DNA and of 6.4 % for RNA respectively. In the subsequent period (10 -30 days) the nucleic acid level gradually returned to normal values The cerebellum of 40 guinea pigs exposed to localized radiation in a dose of 9000 r and of 65 guinea pigs exposed to 16,000 r was investigated histologically. No gross changes were found immediately after exposure, but the microscope revealed some cell enlargement, beginning edema of the stroma and tigrolysis in some Purkinje cells of the ganglion cell layer. 3-6 hours after the exposure marked changes were found in all cortex layers; only a few cells retained their normal appearance. 24 hours after the radiation, changes culminated in the destruction of numerous cells: in some parts all Purkinje cells were destroyed, in others their number was diminished. In parts of the cerebellum more remote from the exposed area the changes were correspondingly less intensive. During the period of restoration

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