MIKHAYLOV, M.I., doktor tekhn. nauk

Work of the International Joint Commission. Elektrichestvo no. 5:87 My '58. (MIRA 11:7)
(Electric engineering)

AUTHORS: Mikhaylov, M. I., Professor, Doctor of Technical Sciences, Razumov, L. D., Candidate of Technical Sciences (Moscow) SOV/105-58-10-4/20

TITLE: The Galvanic Effect of Alternating-Current Electrified Railways on Single-Conductor Circuits (Gal'vanicheskoye vliyaniye elektrifitsirovannykh zheleznykh dorog peremennogo toka na odnoprovodnyye tsepi)

PERIODICAL: Elektrichestvo, 1958, Nr 10, pp 20 - 24 (USSR)

ABSTRACT: The inductive influence of a.c. traction upon single-conductor circuits, that is to say on telegraph circuits and remote amplifier feeding circuits has already been thoroughly investigated. Little effort, however, has hitherto been made to study the galvanic effect. It is demonstrated that in the protection of single-conductor circuits against disturbances the maximum a.c.potential drop between the ground points of the telegraph or feeding circuits is the essential factor. This potential drop is primarily dependent upon the location of the ground points with respect to the track of the electrified railroad. This paper covers

Card 1/2

The Galvanic Effect of Alternating-Current Electrified Railways on Single-Conductor Circuits

SOV/105-58-10-4/28

several typical cases. In the determination of the stipulated clearance between single-conductor circuits and a.c. electrified railway tracks the galvanic and the magnetic effect must be taken into account. A diagram illustrates the results of the computation of the maximum attainable voltages and potential drops caused by magnetic effects and galvanic effects, respectively, in a single-conductor circuit of a cable with different shielding factors of the envelope and of the armor of the cable. It appears that the potential drop caused by galvanic effects may reach considerable values if the resistance of the ground is high. A check of the formula presented carried out on the test track Ozherel'ye-Pavelets in the vicinity of the Vilenka stop exhibited deviations from the computed values keeping within the limits of experimental error. There are 4 figures, 2 tables, and 6 references, 4 of which are Soviet.

SUBMITTED: April 28, 1958

Card 2/2

MIKHAYLOV, M.I., doktor tekhn. nauk; RAZUMOV, L.D., kand. tekhn. nauk.

Do we need overhead back voltage wires on railroads using alternating current? Zhel. dor. transp. 40 no.12:51-54 D '58. (MIRA 12:3)
(Electric railroads--Wires and wiring)

MIKHAYLOV, M. I.

Н. В. Суханов

Полупроводниковые схемы в системах уплотнения внутрирайонной связи

[illegible]

[illegible] 22 часов)

Н. Н. Асинфиев

Суммирование нелинейных помех многоканальных систем на магистралях большой протяженности

Н. В. Шахурин

Экспериментальное и теоретическое исследование закона сложения линейных шумов в канале кабельной магистрали большой протяженности

А. М. Мосиаль

Анализ одной из схем комбинированной обратной связи в [illegible] усилителе

Н. Н. Струков

О влиянии частотных нестабильностей на каналы тонального телеграфирования с частотной модуляцией

II заседание

(с 10 до 16 часов)

Н. Е. Акулинин

Влияние через третьи цепи высоковольтных [illegible] воздушных линий

А. Д. Авдеенко

Влияние радиостанций на цепи воздушных линий связи

Н. П. Балашов

Зависимость вторичных параметров цепей от степени скрещивания

М. И. Михайлов,
И. Д. Рогунов

Организация связи по ВЧ каналам воздушных линий связи, проложенных в непосредственной близости от контактных сетей электрифицированных ж. д. переменного тока

II заседание

(с 16 до 22 часов)

В. В. Заика

О методах характеристических параметров четырехполюсников с частотно зависимыми сопротивлениями

report submitted for the Centennial Meeting of the Scientific Technological Society of Radio Engineering and Electrical Communications im. A. S. Popov (VNORiE), Moscow, 8-12 June, 1959

VASIL'YEV, S.A.; GUROV, V.S.; DAVYDOV, G.B.; ZARIN, S.A.; ZAYONCHKOVSKIY, Ye.A.; IL'INA, L.D.; KIRILLOV, Ye.V.; LISHAY, K.P.; MILKVSKIY, Yu.S.; MIKHAYLOV, M.I.; NIKOL'SKIY, K.K.; PUKHAL'SKIY, A.Ch.; PUKHAL'SKAYA, N.N.; RABINOVICH, M.B.; SHVEDSKIY, S.A.; KONDRASHINA, N.M., red.; KARABILOVA, S.F., tekhn.red.

[Recommendations of international consultative committees on telephony and telegraphy] Rekomendatsii mezhdunarodnykh konsul'tativnykh komitetov po telefonii i telegrafii. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio, 1959. 335 p. (MIRA 13:3)

1. TSentral'nyy nauchno-issledovatel'skiy institut svyazi Ministerstva svyazi SSSR (for all except Kondrashina, Karabilova).
(Telephone) (Telegraph)

6(7) PHASE I BOOK EXPLOITATION SOV/2902

Mikhaylov, Mikhail Ivanovich, Doctor of Technical Sciences

Vliyaniye vneshnikh elektromagnitnykh poley na tsepi provodnoy svyazi i zashchitnyye meropriyatiya (Effect of External Electromagnetic Fields on Wire Communication Circuits and Protection Measures) Moscow, Svyaz'izdat, 1959. 582 p. Errata slip inserted. 4,500 copies printed.

Resp. Ed.: I.S. Grachev; Ed.: B.S. Belikov; Tech. Ed.: K.G. Markoch.

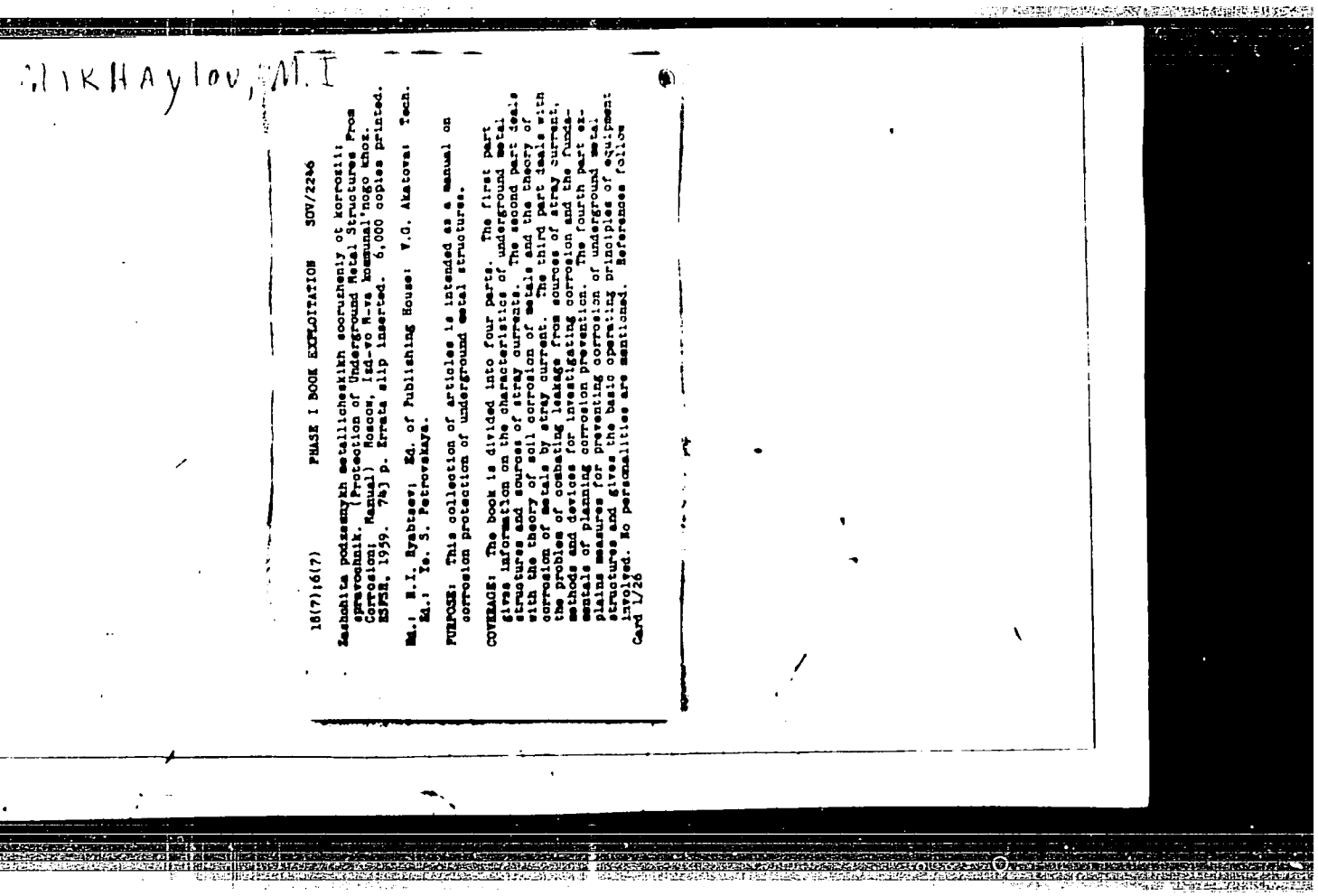
PURPOSE: This book is intended for engineers and technicians employed by organizations designing, building and operating transmission lines and equipment.

COVERAGE: The author presents a generalized and unified theory of interaction between circuits of various electrical systems with uniformly distributed constants. He discusses the effect of high-voltage lines on communication lines and describes protective measures against it. He also discusses the effect of lightning on overhead and cable communication lines and explains protective measures. The material is based largely on results of a study conducted by the author at the laboratory of TsNIIS The autnor thanks L.D. Razumov, who wrote some sections of the book. He also thanks I.I. Grodnev for reviewing the manuscript and I.S. Grachev for editing the text. There are 126 references; 91

Card 1/15

Soviet (including 1 translation), 25 English, 6 German and 4 French. References appear at the end of chapters.

TABLE OF CONTENT:



Mikhaylov, M.I.

PHASE I BOOK EXPLOITATION SOV/2246

16(7);16(7)

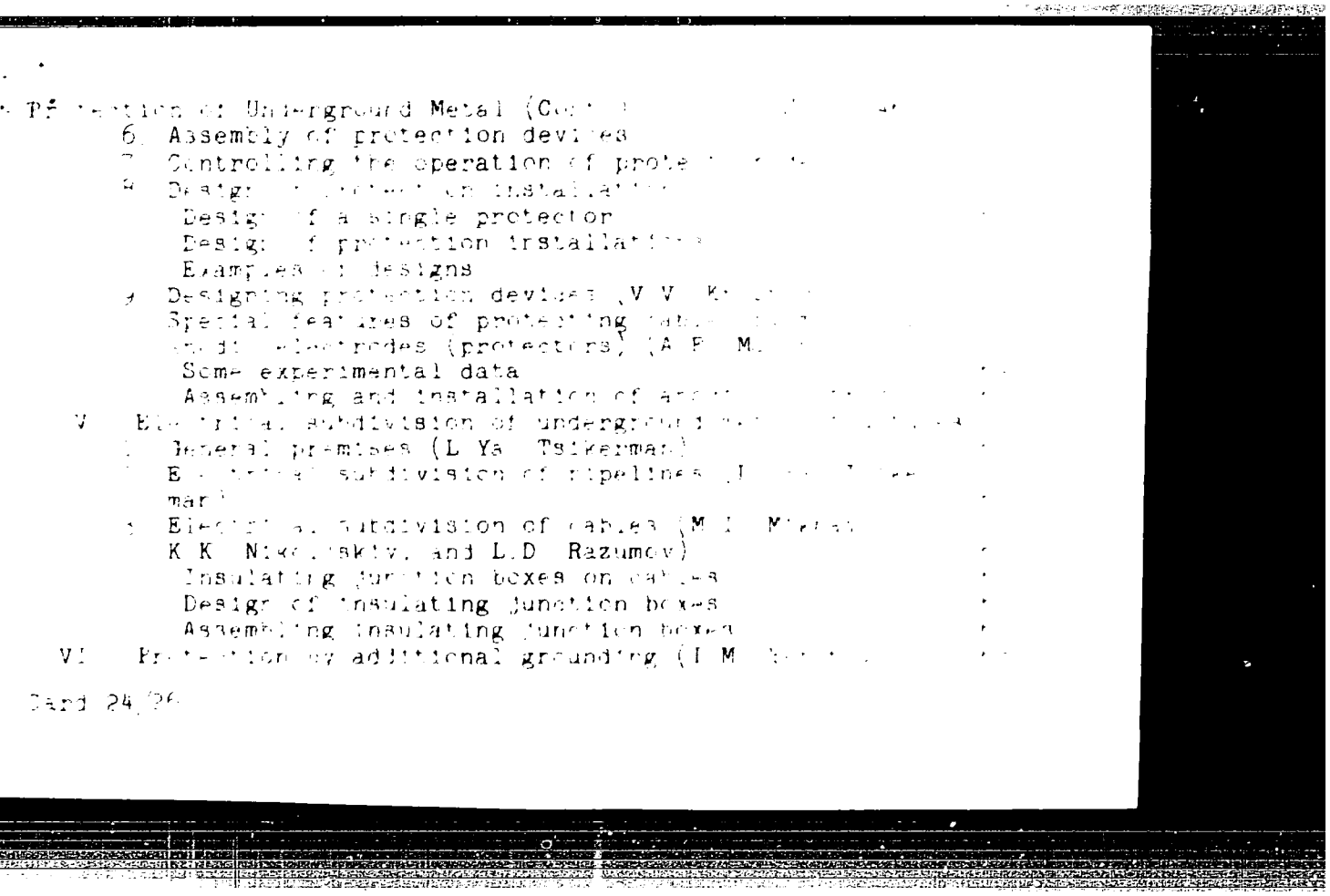
Zashchita podzemnykh metallicheskikh sooruzheniy ot korrozii; sbornik. (Protection of Underground Metal Structures From Corrosion; Manual) Moscow, Izd-vo M-va kommunal'nogo khoz. RSFSR, 1959. 743 p. Errata slip inserted. 6,000 copies printed.

Ed.: B.I. Rybakov; Ed. of Publishing House: V.G. Akatova; Tech. Ed.: Ye. S. Petrovskaya.

PURPOSE: This collection of articles is intended as a manual on corrosion protection of underground metal structures.

COVERAGE: The book is divided into four parts. The first part gives information on the characteristics of underground metal structures and sources of stray currents. The second part deals with the theory of soil corrosion of metals and the theory of corrosion of metals by stray current. The third part deals with the problem of combating leakage from sources of stray current, methods and devices for investigating corrosion and the fundamentals of planning corrosion prevention. The fourth part explains measures for preventing corrosion of underground metal structures and gives the basic operating principles of equipment involved. No personalities are mentioned. References follow

Card 1/26



Card 24/26

SOV/106-59-2-9/11

AUTHORS: Mikhaylov, M.I. and Nikol'skiy, K.K.

TITLE: Use of Graphitised Rods for Earthing of Equipment (Primeneniye grafitirovannykh sterzhney dlya ustroystva zazemleniy)

PERIODICAL: Elektrosvyaz', 1959, Nr 2, pp 72 - 77 (USSR)

ABSTRACT: Assuming that the loss of material from an earthing rod is proportional to the quantity of electricity which has flowed through it, then calculations show that for steel rods the loss due to electrolytic action may amount to 9 kg or more per year per ampere, depending on the nature of the surrounding earth. This reduces the protection and increases the energy loss. The authors therefore investigated the possibilities of using materials other than steel, in particular, carbon and graphite. Cylindrical samples, 19 mm diameter and 94 mm long, were placed in damp, NaCl-salted sand in a metallic tank, which acted as the cathode. Current was passed through the electrode for 9 hours per day, the mean current density being 0.62 mA/cm^2. The losses in weight (per ampere per hour and per ampere per year) are tabulated in Table 1. Table 1 shows that the loss from graphitised rods is 31 times less than from steel and from

Card1/2

a carbon electrode - 13 times less.
Experience with commercially produced graphitised rods showed that reinforcement was necessary and this was incorporated with the lead-in contact (Figures 1 and 2).
The effectiveness of the electrodes is very much increased by a layer of activator. The results of the laboratory trials using activators, ground coke, gypsum, wood carbon, etc. are given in Table 1
The author then gives formulae (Eqs 1 and 2) for calculation of the earth resistance in water and ground, respectively.
The construction of earthing apparatus for remotely supplied amplifiers and cathodic protection is described and, finally, the economics of using graphitised electrodes instead of steel ones are discussed. Graphitised electrodes are considered 8 - 9 times more economical than steel.
There are 5 figures and 2 tables.

SUBMITTED: September 6, 1958

MIKHAYLOV, M.I., doktor tekhn. nauk; RAZUMOV, L.D., kand. tekhn. nauk

Operation of overhead communication lines along a.c. electric railroad tracks. Zhel. dor. transp. 41 no.10:41-44 O '59.
(MIRA 13:2)

(Railroads--Communication systems)
(Electric railroads)

MIKHAYLOV, M.I.

Corrosion protection of metals is an important objective of the national economy. Biul.tekh.-ekon.inform. no.5:65-66 '60.
(MIRA 14:3)

(Corrosion and anti-corrosives)

MIKHAYLOV, M.I., doktor.tekh.nauk; RAZUMOV, L.D., kand.tekhn.nauk

Protecting telephone lines entering a district of high voltage substations from dangerous voltages. Elek.sta. 31 no.7:71-76 Jl '60. (MIRA 13:8)

(Telephone) (Shielding (Electricity))

MIKHAYLOV, Mikhail Ivanovich; RAZUMOV, Aleksandr Sergeyevich; KHOROV, Leonid Davydovich; BALAKIREV, A.F., red.; ROMANOVA, S.F., tekhn.red.

[Protection of wire communications lines from the electromagnetic effect of high-voltage power transmission lines] Zashchita ustroistv provodnoi sviazi ot elektromagnitnogo vliianiia linii vysokogo napriazheniia. Moskva, Gos.izd-vo lit-ry po voprosam sviazi i radio, 1961. 70 p. (MIRA 14:12)

1. TSentral'nyy nauchno-issledovatel'skiy institut svyazi Ministerstva svyazi SSSR (for Mikhaylov, Razumov, Khorov).
(Telephone lines--Overhead) (Shielding (Electricity))
(Telegraph lines)

S/106/61/000/012/008/010
A055/A127

7000

ORS: Mikhaylev, M. I., Razim..., D. I., Mark..., M. V.

E: Calculation method f[illegible] ... railway interferences in communication lines

ODICAL: Elektrosvyaz' ... 12 ...

: Harmonics 13 ... 23 ... being taken into consideration (according to the ...) in the case of double-k railways the following ...

$$U_{...} = \sqrt{\sum_{k=13}^{23} (p_k \, U_k)^2} \qquad (1)$$

e p_k is the ... at the frequency of the k-th har... and U_{n_k} is the ... between ... wires ... wire communication cir... induced by the k-th harmonic ... current. After reproducing formulae giving U_{n_k} for ... and for short lines respectively, ... harmonic component of the

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/106/61/000/012/008/010
A055/A127

...lation method for ...

...fering current ... approximate method of calculation, ... the interfering ... assumed ... equivalent current at 800 cps ... working ... with all its harmonics. ... recommended by the International Telephone and Telegraph ... for the calculation of ... equivalent current is ... psophometric value of ... interfering current:

$$I'_{psoph.} = \sqrt{\sum_{k=1}^{34} (p_k I_k)^2} \quad amp. \qquad (6)$$

...t be considered as expressing the equivalent interfering current, because it ... not take into account some ... magnitudes that enter into the ...ula giving U_{r_k}, i.e., ω, γ (propagation constant), η (coefficient of sensitiv... interference ...), M (average mutual induction ...ficient), ... these magnitudes ... frequency. ... multiply I'_{psoph} by a cor... factor. This ...

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$$k_{corr} = \frac{U_{T\ harm}}{U_{T\ 800}} \qquad (8)$$

$$I_{equiv} = k_{corr} I_{psophom.} \qquad (10)$$

e are some of the conclusions drawn by the authors: For overhead communication es, all the harmonic components must be taken into account in the calculation. cable lines, formula (1) can be used. The correction factor varies but slightly whatever the conditions might be; it differs but slightly from unity. In an rwhelming majority of cases, it varies between 0.9 and 1.2. When the distance ween the railway and the communication line is below 500 meters, k_{corr} can be en equal to 1.15; for distances $\geq$ 500 meters, $k_{corr} = 1$. The importance of frequency characteristic of the sensitivity coefficient of the line to interas must be stressed; the greater is the frequency-dependence of the sensiity coefficient, the greater will be the correction factor. There are 4 figs, 1 table and 1 Soviet-bloc refere e.

TED: February 6, 1961

d 3/3

MIKHAYLOV, M.I., doktor tekhn.nauk; SOKOLOV, S.A.

Methods for lowering the cost of the protection of underground communication cables from overvoltage caused by lightning. Vest. sviazi 21 no.5:11-12 My '61. (MIRA 14:6)

1. Nachal'nik laboratorii TSentral'nogo nauchno-issledovatel'skogo instituta svyazi (for Mikhaylov). 2. Starshiy inzhener laboratorii TSentral'nogo nauchno-issledovatel'skogo instituta svyazi (for Sokolov).

(Electric lines--Underground)
(Lightning protection)

MIKHAYLOV, M.I., doktor tekhn.nauk; RAZUMOV, L.D., kand.tekhn.nauk

Overvoltage protection of main cable lines. Vest. sviazi 21 no.12:9-11 D '61. (MIRA 14:12)
(Telephone lines) (Electric protection)

MIKHAYLOV, M.I., prof., doktor tekhn. nauk; RAZUMOV, L.D., kand. tekhn. nauk

Electromagnetic effect of high-tension lines on metal pipelines and methods of protecting them. Trudy VNIIST no.13:96-198 '62. (MIRA 16:11)

MIKHAYLOV, M.I., doktor tekhn.nauk; SOKOLOV, S.A., inzh.

Damage of a telephone cable network resulting due to single-phase short-circuiting of a 110 kv. power transmission line. Elek. sta. 33 no.8:58-59 Ag '62. (MIRA 15:8)
(Telephone lines) (Electric power distribution)
(Electric lines--Underground)

11210-63

CCESSION NR: AP3001627 S/0105/63/000/005/0060/0064 44

UTHOR: Mikhaylov, M. I. (Dr. of technical sciences, Professor); Razumov, L. D. Candidate of technical sciences)

ITLE: Electric parameters of underground metal pipelines

URCE: Elektrichestvo, no. 5, 1963, 60-64

PIC TAGS: underground pipeline electric parameters

STRACT: Dangerous voltages can be set up in the pipelines when they run along e electric railways and high-voltage lines. On the other hand, the pipelines shield the nearby communication lines. Hence, pipeline electric parameters important. Resistance, inductance, and impedance of pipelines are estimated the article by means of elementary engineering formulas. The pipe-earth istance is described by the formulas allowing for the effects of pipe protec- e proofing and for earth resistivity. It is stated that this resistance is ctically independent of frequency (within 50-800 cps). The resistance of uminous proofing is 3-5.5 x 10 sup 5 ohms sq. m. for newly laid pipes, and ps to 2,000-100 ohms sq. m. for old pipes. Orig. art. has: 5 figures and 23 mulas.

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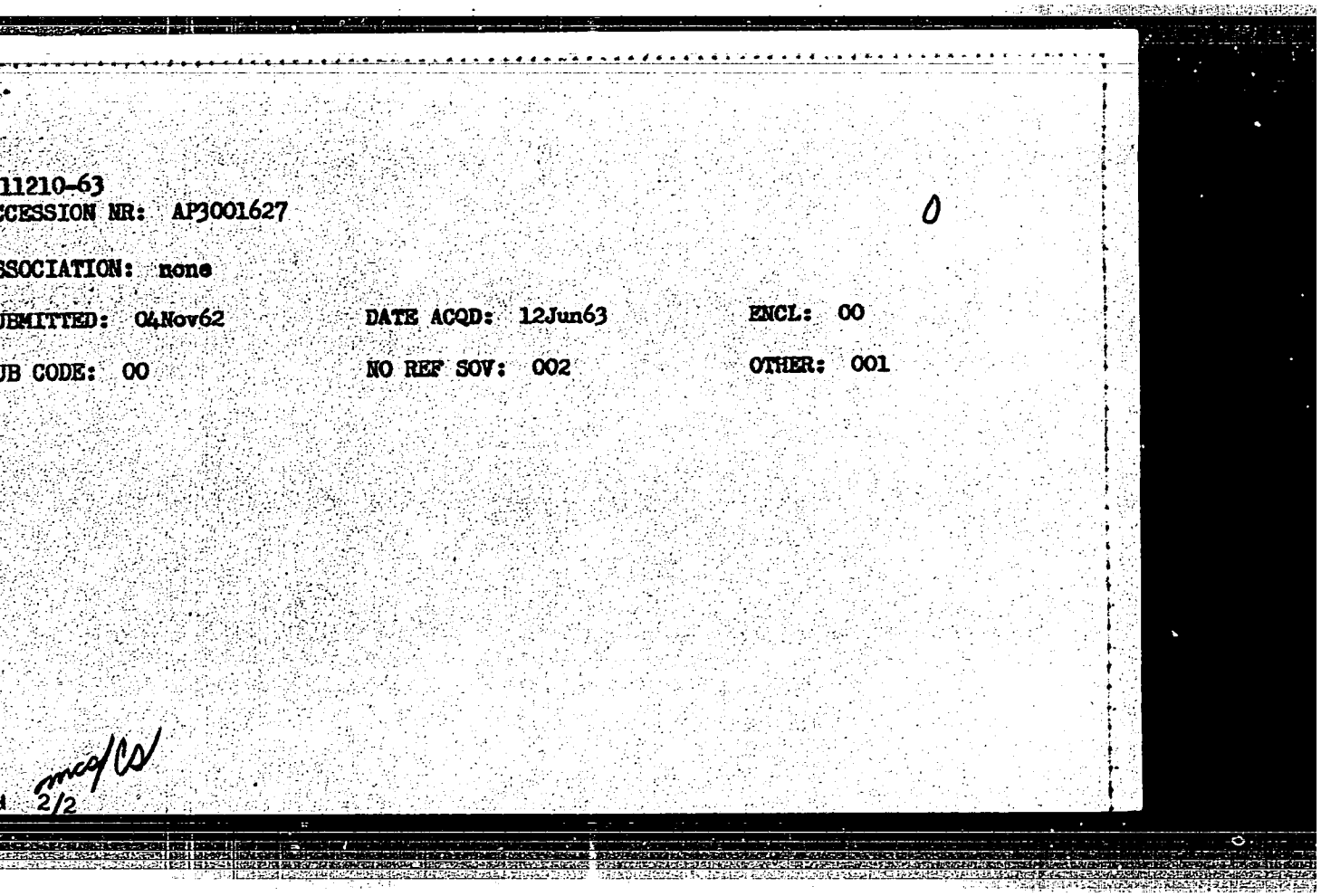

11210-63
CCESSION NR: AP3001627

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SSOCIATION: none

UBMITTED: 04Nov62 DATE ACQD: 12Jun63 ENCL: 00

UB CODE: 00 NO REF SOV: 002 OTHER: 001

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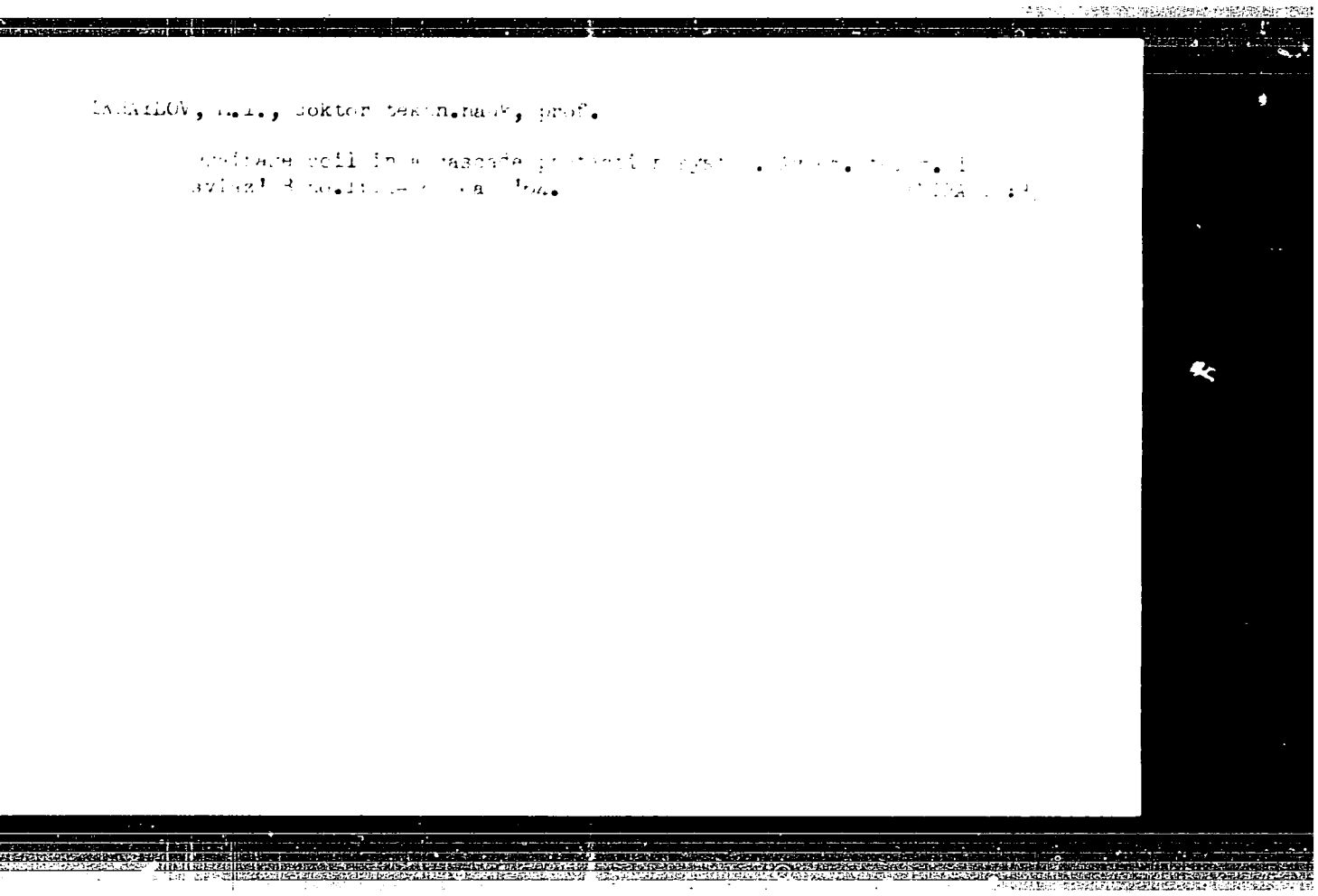

MIKHAYLOV, M.I. (Moskva); RAZUMOV, L.D. (Moskva)

Increase in the frequency of commercial a.c. and determination of its optimal value in the electrification of the U.S.S.R. Elektrichestvo no.4:82-84 Ap '64. (MIRA 17:4)

MIKHAYLOV, M.I.

Permissible voltage and current magnitudes in the human body touching communication lines subject to inductive coupling with electric power transmission lines. Elektrosvaz' 18 no.9:56-62 S '64. (MIRA 17:12)

L 55217-65 EWT(d)/FSS-2/EEC-4/EEC(t) Pn-4/Pp-4/Pac-4

ACCESSION NR: AP5015248 UR/0286/65/000/009/0033/0034

AUTHORS: Kalyushnyy, V. P.; Mikhaylov, M. I.; Frolov, P. A.; Klimov, M. A.; Kashutin, A. A.

TITLE: Device for suppressing external electromagnetic effects in symmetric circuits of communication lines. Class 21, No. 170549

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 9, 1965, 33-34

TOPIC TAGS: This Author Certificate presents a device for suppressing external electromagnetic effects in symmetric circuits of communication lines, using the inductive noise currents induced in the single or double lead compensation circuits. For maximal compensation of the noise emf on the portion exposed to the effect and for the simultaneous preservation of the noise protection of the circuits exposed to the effect, for resistance coupling between the latter and the compensation circuit, pads are connected in series with an amplifier and phase-shift circuits (see Fig. 1 on the Enclosure). The alternate design uses phase-shift circuit sections with band filters to neutralize noise of various frequencies. Orig. art. has: 1 diagram.

ASSOCIATION: none

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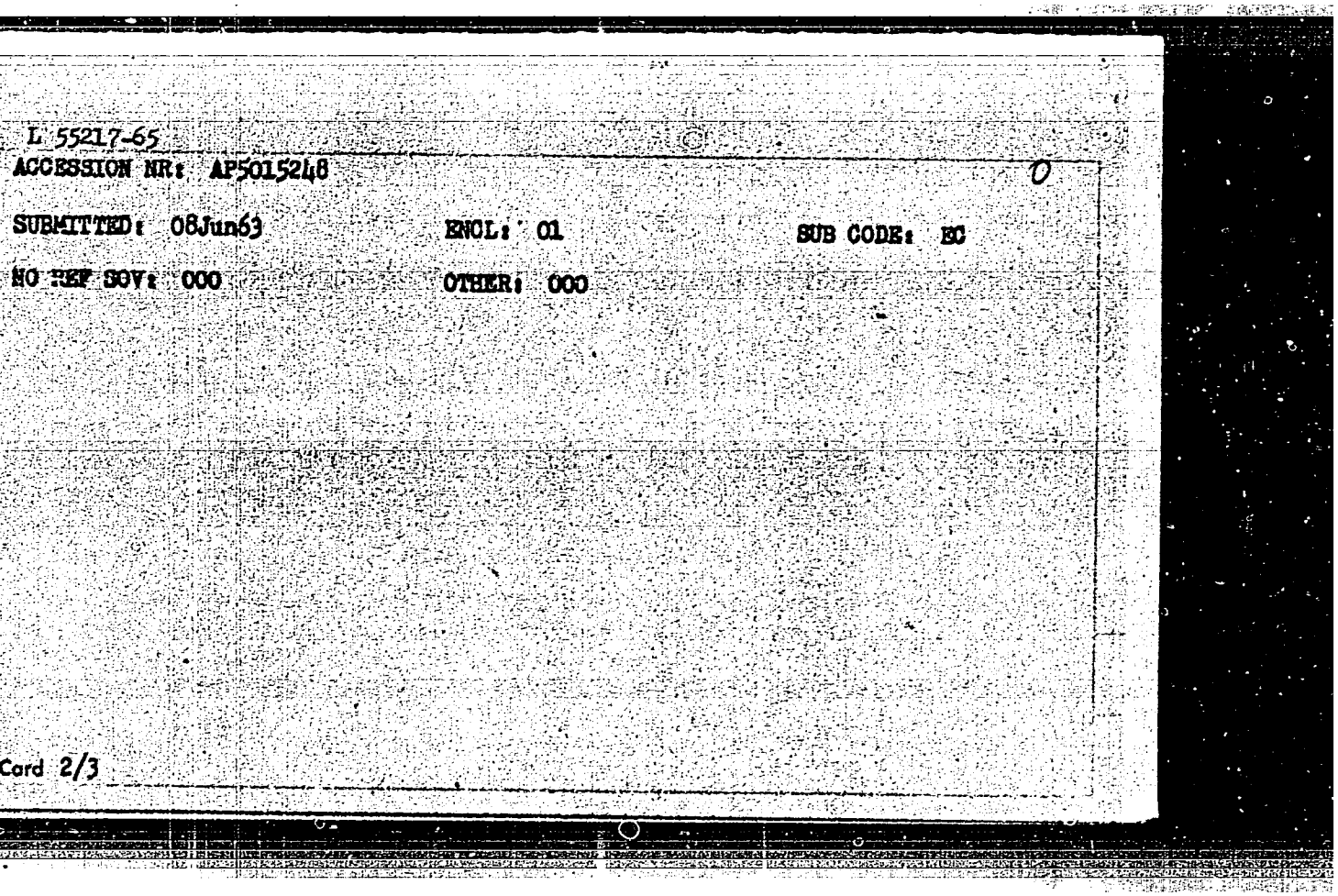


L 55217-65
ACCESSION NR: AP5015248

SUBMITTED: 08Jun63 ENCL: 01 SUB CODE: EC

NO REF SOV: 000 OTHER: 000

Card 2/3

MIKHAYLOV, M.I.; SOKOLOV, S.A.

Lowering of the costs of the protection systems of cable lines from direct lightning strokes. Elektrosviaz' 19 no.6:66-69 Je '65. (MIRA 18:6)

TROFIMOV, S.S., kand. sel'khoz.nauk, st. nauchn. sotr.; BRYLEV, V.K.; KOCHERGIN, A.Ye., kand. sel'khoz. nauk; KUZNETSOVA, L.Z.; KORLYAKOV, O.I., kand. sel'khoz. nauk, st. nauchn. sotr.; KOSTROMITIN, V.B.; MIKHAYLOV, M.I.; POPOV, P.D., red.

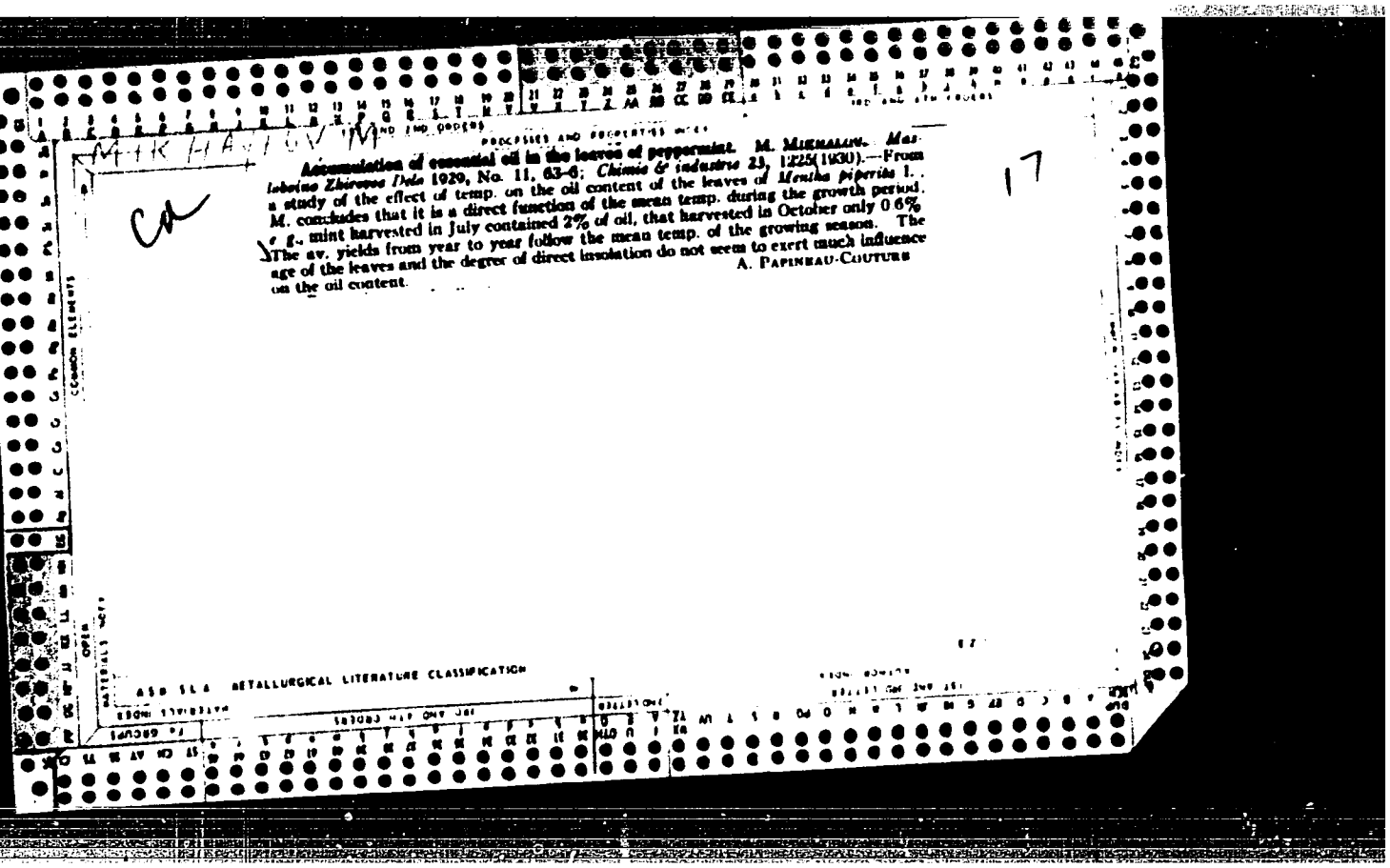
[Soils of the Kuznetsk Basin, a map as the face of a field, laboratory of fertility, vitamins of the earth, protectors of crops, enrichment of feed] Pochvy Kuzbassa, karta - litso polei, laboratoriia plodorodiia, vitaminy zemli, zashchitniki posevov, obogashchenie korma. Kemerovo, Kemerovskoe knizhnoe izd-vo, 1964. 92 p. (MIRA 18:5)

1. Biologicheskiy institut Sibirskogo otdeleniya AN SSSR (for Trofimov). 2. Zaveduyushchiy laboratoriyey zashchity rasteniy Kemerovskoy sel'skokhozyaystvennoy opytnoy stantsii (for Kostromitin). 3. Zaveduyushchiy otdelom zhivotnovodstva Kemerovskoy sel'skokhozyaystvennoy opytnoy stantsii (for Mikhaylov). 4. Zaveduyushchiy agrokhimicheskoy laboratoriyey Sibirskogo nauchno-issledovatel'skogo instituta sel'skogo khozyaystva (for Kochergin). 5. Zaveduyushchaya agrokhimicheskoy laboratoriyey Kemerovskoy sel'skokhozyaystvennoy opytnoy stantsii (for Kuznetsova). 6. Kemerovskaya sel'skokhozyaystvennaya opytnaya stantsiya (for Korlyakov).

MIKHAYLOV, N.I., red.

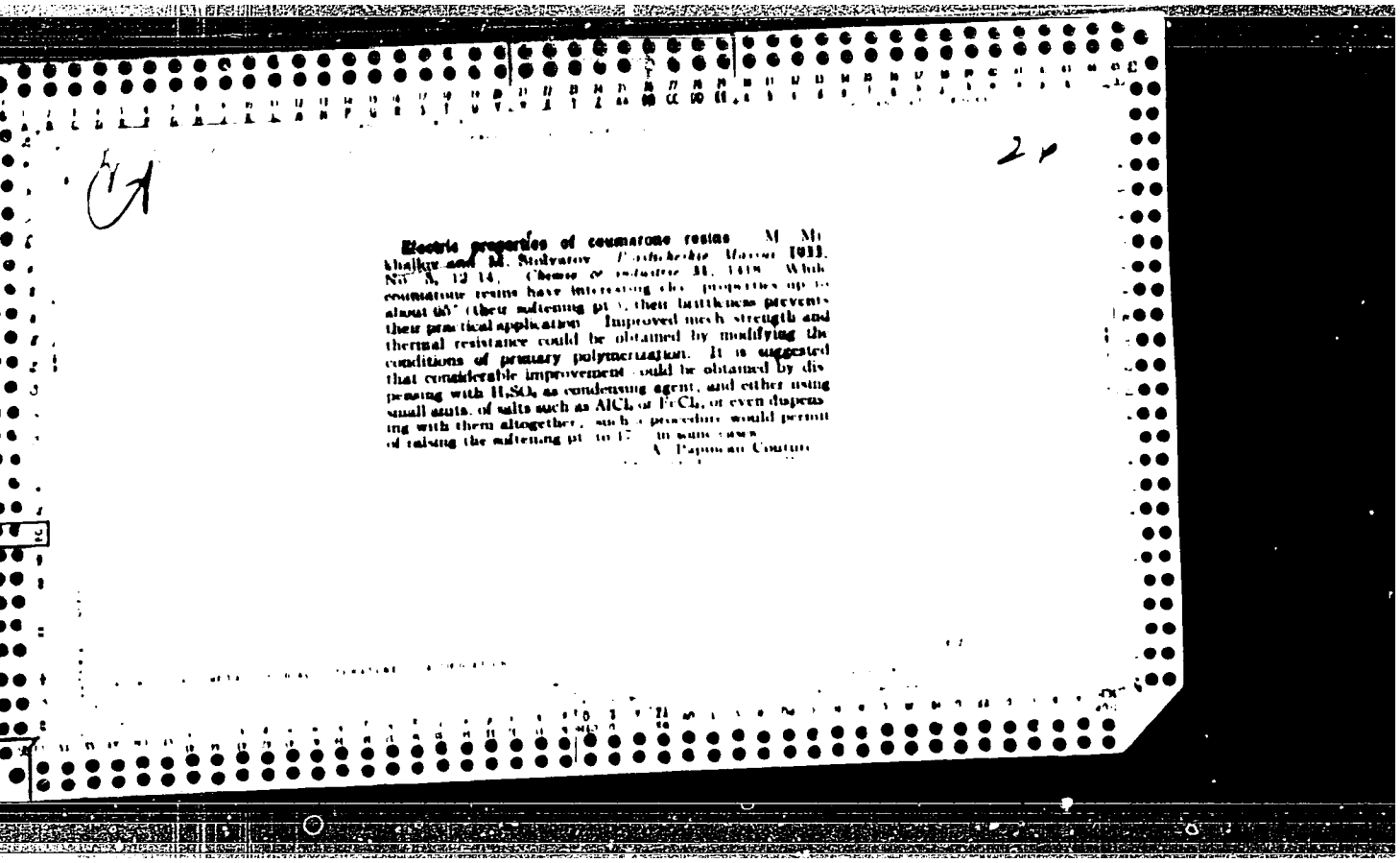
[Automation of technological processes in hydrolysis plants; materials of a seminar on exchange of experiences] Avtomatizatsiia tekhnologicheskikh protsessov na gidrolizynykh zavodakh; materialy seminara po obmenu opytom. Moskva, 1963. 27 p. (MIRA 17:9)

1. Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut informatsii i tekhniko-ekonomicheskikh issledovaniy po lesnoy, tsellyulozno-bumazhnoy, derevoobrabatyvayushchey promyshlennosti i lesnomu khozyaystvu.

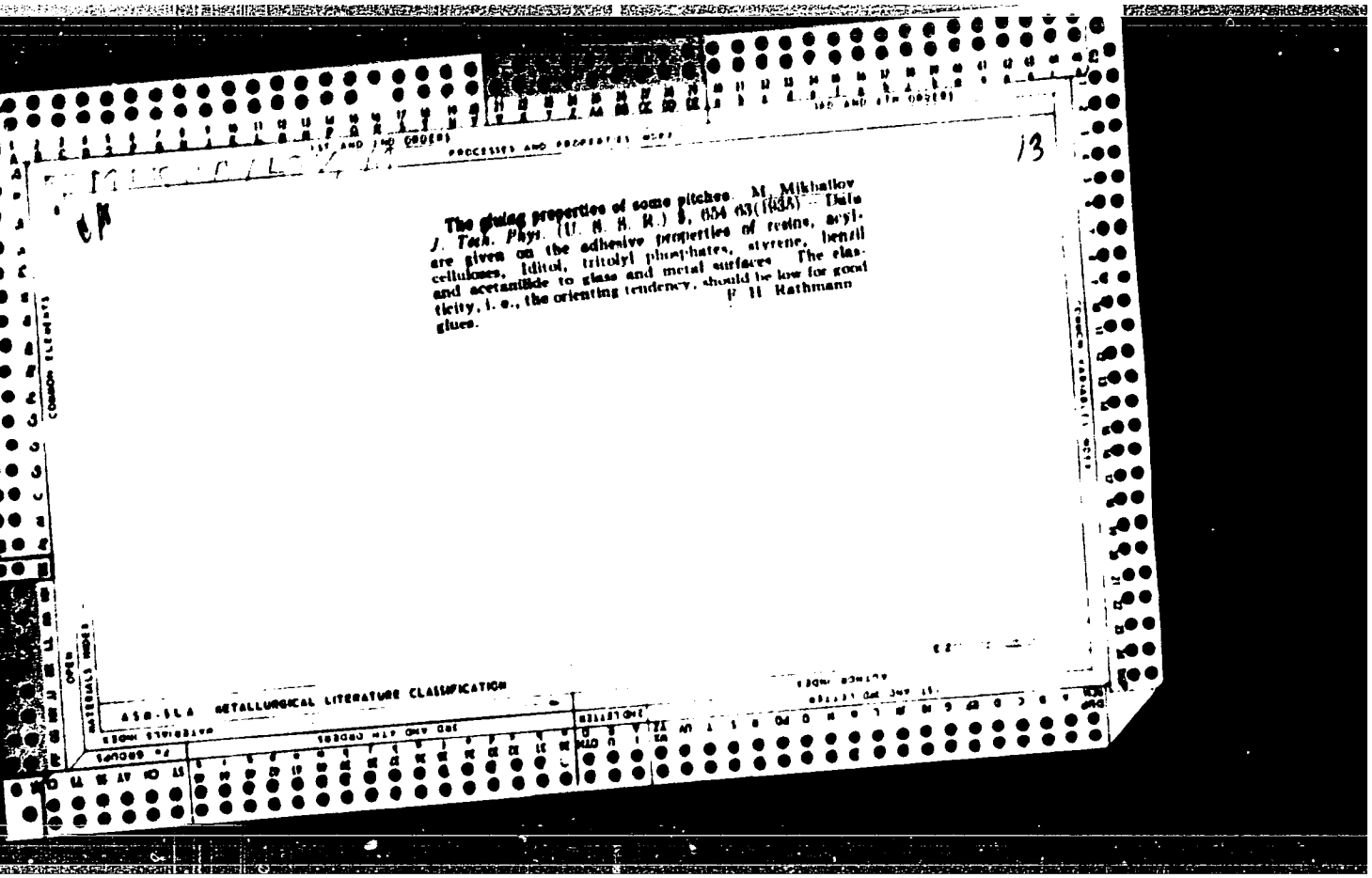


Accumulation of essential oil in the leaves of peppermint. M. Mignallon. *Mas-loboino Zhirovoe Delo* 1929, No. 11, 63-6; *Chimie & industrie* 23, 1225(1930).—From a study of the effect of temp. on the oil content of the leaves of *Mentha piperita* L., M. concludes that it is a direct function of the mean temp. during the growth period. A g. mint harvested in July contained 2% of oil, that harvested in October only 0.6%. The av. yields from year to year follow the mean temp. of the growing season. The age of the leaves and the degree of direct insolation do not seem to exert much influence on the oil content.

A. Papineau-Couture



Electric properties of coumarone resins. M. M. Khaikin and M. Stolyarov. *Zashchitn. Materialy* [1933], No. 8, 12-14. *Chem. & Industry* 51, 1418. While coumarone resins have interesting elec. properties up to about 60° (their softening pt.), their brittleness prevents their practical application. Improved mech. strength and thermal resistance could be obtained by modifying the conditions of primary polymerization. It is suggested that considerable improvement could be obtained by dispensing with H_2SO_4 as condensing agent, and either using small amts. of salts such as $AlCl_3$ or $FeCl_3$, or even dispensing with them altogether; such a procedure would permit of raising the softening pt. to 1[illegible] in some cases.
A. Papineau-Couture



GEL'TSER, F.; GENDINA, S.; MIKHAYLOV, M.

Development of the mycorhiza of pine trees. Nauka i pered. op v sel'khoz 9 no.5:59-60 My '59. (MIRA 12:8)

1.Moskovskoye otdeleniye Vsesoyuznogo nauchno-issledovatel'skogo instituta sel'skokhozyaystvennoy mikrobiologii.
(Mycorhiza) (Pine)

MIKHAYLOV, M.I.

Conference on the improvement of production of alcohol sulfonated lignin, and fodder yeasts from sulfite liquors. Gidroliz.i lesokhim.prom. 12 no.6:31 '59. (MIRA 13:2)

1. Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov RSFSR.
(Wood-using industries--Congresses)
(Sulfite liquor)

MIKHAYLOV, M.I.

Basic trends in the development of new techniques in the hydrolysis and alcohol industries using sulfite liquors. Gidroliz.i lesokhim. prom. 12 no.8:1-4 '59. (MIRA 13:4)

1. Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta ministrov RSFSR.
(Hydrolysis) (Alcohol) (Sulfite liquor)

MIKHAYLOV, Mikhail Ivanovich; YASINSKIY, Boris Nikolayevich; KHLYZOV, A.N., red.; MIKHAYLOVA, L.G., red. izd-va; PARAKHINA, N.L., tekhn. red.

[Prospects for the growth of the hydrolysis and wood chemistry industry] Perspektivy razvitiia lesokhimicheskoi i gidrolizmoi promyshlennosti. Moskva, Goslesbumizdat, 1960. 54 p. (MIRA 14:7)
(Wood--Chemistry) (Hydrolysis)

MIKHAYLOV, M. I.

Interfactory school for the exchange of modern methods. Gidrolis.i lesokhim.prom. 13 no.1:29 '60. (MIRA 13:5)

1. Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov RSFSR.
(Wood-using industries--Study and teaching)

MIKHAYLOV, M.I.

Expand in every way the production of sulfite distilling wash concentrates. Gidroliz i lesokhim.prom. 13 no.2:1-4 '60. (MIRA 13:6)

1. Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta ministrov RSFSR.

(Woodpulp industry--By-products)

MIKHAYLOV, M.I.

Efficient utilization of hydrolytic lignin. Gidroliz. i lesokhim. prom. 14 no. 1:1-2 '61. (MIRA 14:1)

1. Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov RSFSR.

(Lignin)

MIKHAYLOV, M.I.

Refining of hydrolyzates for yeast production. Gidroliz. i lesokhim.prom. 16 no.3:4-7 '63. (MIRA 16:5)

1. Gosudarstvennyy komitet po lesnoy, tsellyulozno-bumazhnoy, derevoobrabatyvayushchey promyshlennosti i lesnomu khozyzystvu pri Gosplane SSSR.

(Yeast) (Hydrolysis)

KLEBANOV, O.B.; MIKHAYLOV, M.; BALTOV, R.

Flotation reagents by S.V.Dudenkov. TSvet. met. 38 no.9:94 S '65. (MIRA 18:[illegible])

SAPOTNITSKIY, Solomon Abramovich; MIKHAYLOV, M.I., red.

[Use of sulfite liquors] Ispol'zovanie sul'fitnykh shchelokov. Moskva, Lesnaia promyshlennost', 1965. 282 p. (MIRA 18:12)

HAYLOV, M.K. DECEASED C' 1961 1962/6

SEE ILC

ACCO

USSR/Forestry - Forest Economy. J-3

Abs Jour : Referat Zhur - Biologiya, No 16, 25 Aug 1957, 69092

Author : Mikhailov, M.M.
Inst :
Title : Distribution of Self-Sown Oaks Under the Canopy of Wood Stands.

Orig Pub : Sb. tr. Povolzhsk. lesotekhn. in-ta, 1956, No 51, 23-29

Abstract : Experiments conducted in September 1953, in Kazan mountain groves (Chuvash ASSR) proved that in the projections of oak treetops of both the older (220-250 years old) and of younger (120-140) generations there isa sufficient amount for oak selfseeding for a successful renewal of fellings of the main species. Beyond the limits of projections a satisfactory amount of acorns is present only on the first and second meters. One oak at the age of 140-250 years provides renewal on an area of 284 m^2; therefore 35 trees to 1 hectare are sufficient when they

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USSR/Forestry - Forest Economy. J-3

Abs Jour : Referat Zhur - Biologiya, No .6, 25 Aug 1957, 69092

are equally distributed in the area. In practice, because these trees are unequally distributed in a large portion of a felling, the renewal is not attained.
To create fully valuable young oaks, it is necessary either to sow or plant an oak in windows exceeding a diameter of 10 m. In ripe and overripe oak forests it is necessary to account for the closeness of the first tier, the area of windows (with diameters exceeding 10 m) in percentages of the total area of development.

Card 2/2 - 21 -

: USSR
: Forestry. Forest Management K

[illegible]

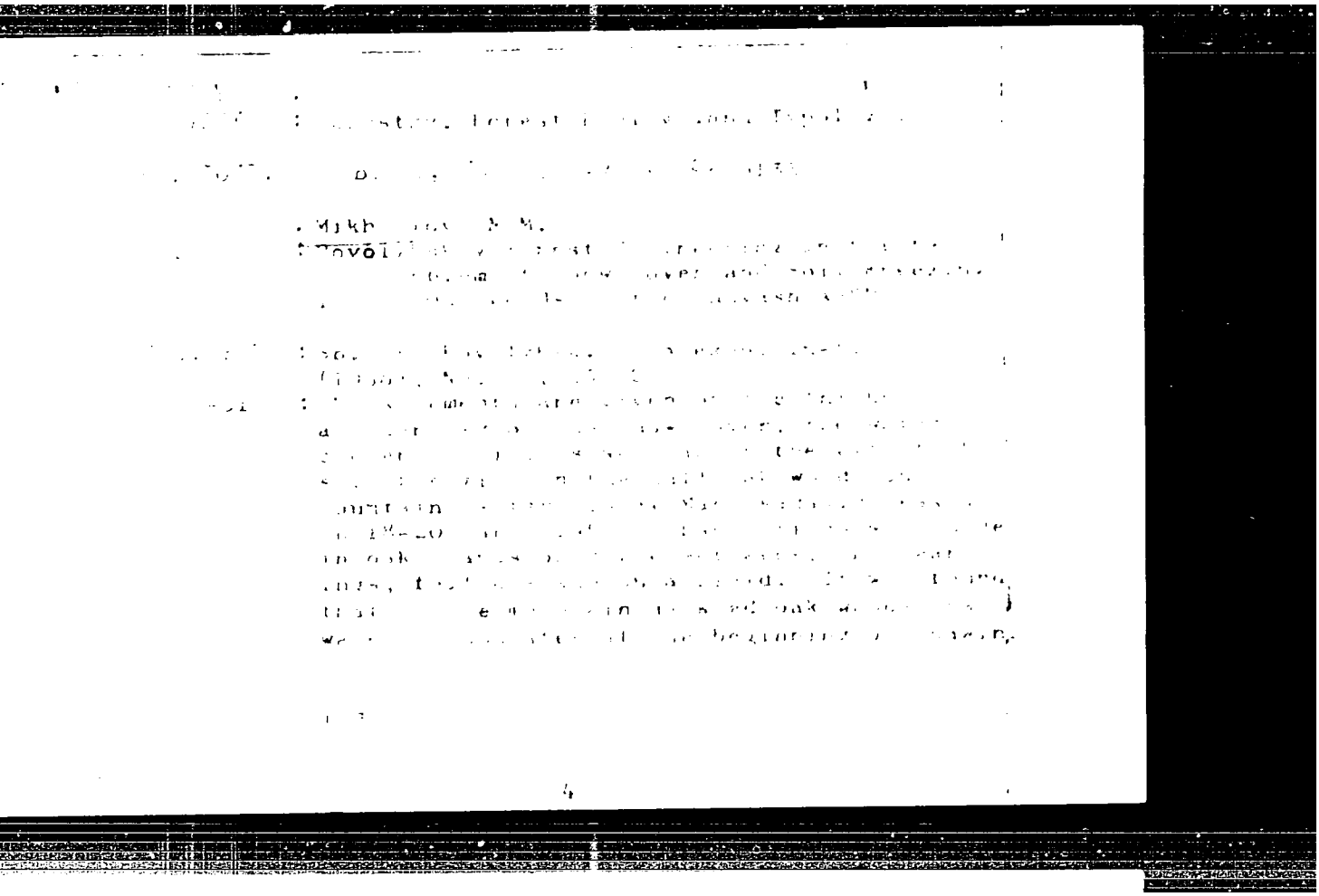
[illegible]ov, M. A.

: [illegible]
: Evaluation of the Condition of Old Oak Trees and Stands

[illegible]. Zh-v. 1957, No. 12, 13-14

The great importance of diagnosing the qualitative condition of old trees and stands in special purpose forests (group I) is pointed out. The practical necessity of evaluating the stability of trees is noted in old upland seed oak stands of the Chuvash ASSR. On the basis of studying 280 old oaks in the Marposadskiy Tree Farm, five classes were chosen to evaluate the condition of trees by the conjunction of such indicators as degree of breakage and desiccation of principal branches, foliation of the crown, and also presence of symptoms of fungus diseases. Periods of time for leaving trees standing are proposed which depend on which class they belong to.--L. V. Nesmelov

1/1



USSR / Forestry. Forest Economy. K

Abs Jour : Ref Zhur - Biologiya, No 22, 1958, No. 100160

Author : Mikhaylov, M. M.
Inst : Not given
Title : The Most Favorable Ages and Sizes for the Felling of Trees in Mountainous Deep Leafy Forests of the Forbidden Zone of the Volga River in Chuvashskaya ASSR

Orig Pub : Izv. vyssh. uchebn. zavedeniy. Lesn. zh., 1958, No 1, 56-60

Abstract : No abstract given

Card 1/1

MIKHAYLOV, M.M., agronom

Corn is a good crop to precede winter wheat. Zemledelie 8 no.7: 58 Jl '60. (MIRA 13:9)

1. Kolkhoz "Krasnoye znamya", Krasnogorodskogo rayona, Pskovskoy oblasti.
(Corn (Maize)) (Wheat)

MIKHAYLOV, M.M., dots., red.; KATINA, A.M., kand. med. nauk, red.; POPOVA, L.I., kand. med. nauk, red.; PETROPOL'SKAYA, O.A., red.; ORLOVA, N.I., tekhn. red.

[Materials of the Fourth Voronezh Province Scientific Conference of Roentgenologists and Radiologists] Materialy Voronezhskoi oblastnoi nauchnoi konferentsii rentgenologov i radiologov. 4th, 1963. Voronezh, Voronezhskoe knizhnoe izd-vo, 1963. 71 p. (MIRA 17:4)

1. Voronezhskaya oblastnaya nauchnaya konferentsiya rentgenologov i radiologov. 4th, 1963. 2. Kafedra rentgenologii s meditsinskoy radiologiyey Voronezhskogo meditsinskogo instituta (for Mikhaylov, Katina, Popova).

MIKHAYLOV, M.M.; PLATONOVA, V.A.

Changes in the bronchial tree in chronic nonspecific pneumonia in children; clinicobronchographic comparisons. Sov. med. 26 no.4:91-94 Ap '63. (MIRA 17:2)

1. Iz kafedry gospital'noy pediatrii (zav. - kand. med. nauk V.P. Sitnikova) i kafedry rentgenologii s meditsinskoy radiologiyey (zav. - dotsent M.M. Mikhaylov) Voronezhskogo meditsinskogo instituta.

BAYANDIN, P.A. (Murmansk); SHVETSOV, I.M.; TIMOFEYEVA, N.V.; KOVAL', V.P.; KOZLOVA, E.Z.; TRET'YAKOV, N.I. (Kaliningrad); MAMEDOV, E.Sh. (Poselok Martuni, AzerSSR); BOROVYY, Ye.M.; DULAYEV, S.G. (Grodno); GERASIMOV, B.A. (Lugansk); MEL'NIK, L.A. (Chernovtsy) ; MIGAL',L.A.; GUBANOV, A.G.; GOROVENKO, G.G. (Kiyev); SHAROV, B.K. (Chelyabinsk); SHUVALOVA, Z.A. (Sverdlovsk) NEYMARK, I.I.; ARYAYEV, L.N. (Odessa); KABANOV, A.N.; KONOVALOV, Yu.S.; ZAK, V.I. (Orenburg);MIKHAYLOV, M.M.; SEZ'KO, A.D. (Voronezh); SHALAYEV, M.I.; DONIN, V.I. (Saratov).

Abstracts. Grudn. khir. 5 no.3:110-126 My-Je'63 (MIRA 17:1)

1. Iz kafedry normal'noy anatomii Ryazanskogo meditsinskogo instituta imeni akademika I.P.Pavlova (for Shevtsov). 2. Iz Sochinskogo nauchno-issledovatel'skogo instituta kurortologii i fizioterapii Ministerstva zdravookhraneniya RSFSR (for Timofeyeva). 3. Iz khirurgicheskogo otdeleniya Ternopol'skoy klinicheskoy gorodskoy bol'nitsy (for Koval'). 4. Iz kafedry topograficheskoy anatomii i operativnoy khirurgii (zav. - prof. A.P. Sokolov). Permskogo meditsinskogo instituta (for Kozlova). 5. Iz khirurgicheskogo otdeleniya (zav. - Ye. M. Borovyy) Rovenskoy oblastnoy bol'nitsy (glavnyy vrach - UkrSSR V.M. Vel'skiy) (for Borovyy).

(Continued on next card)

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R001034010019-2"

BAYANDIN, P.A.— (continued) Card 2.

6.Iz fakul'tetskoy khirurgicheskoy kliniki (dir. - prof. I.M. Popov'yan) i gospital noy terapevticheskoy kliniki (dir. - prof. L.S.Shvarts) lechebnogo fakul'teta Saratovskogo meditsinskogo instituta (for Migal'). 7. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. I.I.Neymark) Altayskogo meditsinskogo instituta (for Neymark). 8. Iz Novosibirskogo gorodskogo protivotuberkuleznogo dispansera (for Kabanov). 9. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. I.A.Ivanov) Permskogo meditsinskogo instituta (for Shalayev).

S/123/59/000/010/006/068
A004/A001

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1960, No. 10, p. 22, # 37347

AUTHORS: Mikhaylov, M.M., Aleksandrova, L.I., Erlikh, I.M.

TITLE: The Effects of Moisture on the Properties of Some Plastics

PERIODICAL: Radiotekhn. proiz-vo, 1957, No. 10, pp. 31-33

TEXT: The authors describe changes in properties of plastics, which are used as insulation materials, under the effect of moisture, particularly during operation in the open air. Polyethylene and polystyrene absorb only an extremely small quantity of moisture. Specimens of 100 mm diameter and 2 mm thickness absorbed 0.002-0.003 grams of moisture during 5 months in a medium of 98% relative atmospheric humidity. Such a quantity of moisture shows practically no effect on the electric properties of the material. Polymethylmethacrylate absorbed 0.3-0.4 grams of moisture. Also this deteriorated the electric characteristics only insignificantly. The properties of thermosetting phenolaldehyde plastics depend on the fillers and also on the pressing conditions (temperature, holding, pres-

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The Effects of Moisture on the Properties of Some Plastics

sure). With a quartz and micaceous powder filler[15] the specimen absorbed within 100 days only 0.09 grams and its volumetric resistivity decreased only by one order, from $1 \cdot 10^{14}$ ohm-cm to $1 \cdot 10^{13}$ ohm-cm. During the same period, a specimen with a wood-dust filler absorbed 1.9 gram of moisture and its volumetric resistivity decreased by 6 orders from $4 \cdot 10^{14}$ ohm-cm to $5 \cdot 10^{8}$ ohm-cm. The laminated dielectrics Tekstolit and Getinaks lose their dielectric properties even quicker. Besides, moisture absorption causes intolerable changes of the geometric dimensions and mechanical properties of these materials. Thus, Getinaks components change their dimensions up to 6%. There are 5 figures and 2 tables.

N.M.Ya

Translator's note This is the full translation of the original Russian abstract.

Card 2/2

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3/123/59/[illegible]/006 [illegible]/028
A005/A001

18.6200 2308, 2808 [illegible]

Translation from: Referativnyy zhurnal, Mashinostroyeniye, 1959, No [illegible], p. [illegible]
20932

AUTHORS: Mikhaylov, M. M., Uspenskiy, Ya. V., Frolov, N. P

TITLE: Obtaining High-Speed Steel by the Method of Powder-Metallurgy

PERIODICAL: Tekhnol. avtomobilestroyeniya, 1958, No. 1, pp. 25-26

TEXT: The processes are investigated of obtaining high-speed steel from powders of its individual components. The best homogeneity of the alloy was attained when preparing the charge not from metallic powders but from fine-dispersed, easily reducible metal oxides. The components of the powder charge were subjected to pulverization in the ball mill in a liquid medium. Scale, ferrochrome, ferrovanadium, and tungsten reduced by hydrogen were taken in such a measure that the following composition (in %) was obtained after the reduction of the alloy scale: W 17-19; V 1-1.5; Cr 4-5; C 0.7-0.8; Fe the rest. The charge was reduced by a hydrogen nitrogen mixture at 850-900°C. The spongy light-gray loosely sintered substance obtained was ground in the ball mill in gasoline. The powder formed having a high dispersion degree (the size of the particles was

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A005/A001

Obtaining High-Speed Steel by the Methods of Powder-Metallurgy

not larger than 1-3 micron) was pressed at 1,250 kg/cm^2 to briquets of 9 x 9 mm cross section. Carbon in the alloy having the homogeneous solid solution structure of composition (in %): W 18, V 1, Cr 4, C 0.12, Fe the rest, burnt out at further sintering of the briquets in the hydrogen-nitrogen mixture atmosphere at 1,360°C. The intermediate products were subjected to additional sintering in a carbonizing medium in order to obtain the necessary quantity of carbon (the same quantity as in the steel of the brand P18 (R18), (the specimens were packed into a carbonizer consisting of 95% activated carbon and 5% $BaCO_3$) under the following conditions: heating up to 950°C, soaking 1 hour, further heating up to 1,280°C, soaking 2 hours, cooling in the furnace cooler. Independently of the compression direction, the microstructure of the steel obtained included austenite grains, a small quantity of martensite and carbides. The porosity of the steel determined in hydrostatical way amounted to about 3 - 4%. The shrinkage of the briquets at sintering was uniform and did not exceed on the average 25%. The thermal treatment was performed under the following conditions: oil quenching from 1,280°C and annealing repeated 3 times at 580°C. The microstructure of steel after such a treatment differed in no manner from that of the usual high-

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Obtaining High-Speed Steel by the Methods of Powder-Metallurgy

speed steel subjected to hardening and annealing. The mechanical properties of the powder metallurgical steel were as follows: specific gravity 8.16 g/cm^3, hardness after sintering R_C 54 - 56; hardness after thermal treatment R_C 61 - 62, bending strength 240 kg/mm^2. The cutting properties determined on turning-along cutters with tips of powder-metallurgical steel were as follows: when machining steel of the brand 45 with 1.5-mm depth of cut, 0.2 mm per revolution feed, and 56 m/min cutting speed, the cutters had stood for one hour. Moreover, processes were investigated of obtaining steels from a charge of an other composition. As a result of the investigations performed, the production technique of powder metallurgical high-speed steels was developed. There are 1 figure and 4 references.

P. G. L.

Translator's note: This is the full translation of the original Russian abstract.

Card 3/3

S/112/59/000/012/018/020
A052/A001

Translation from Referativnyy zhurnal, Elektrotekhnika, 1959, No. 12, p. 5, # 54973

AUTHORS: Mikhaylov, M. M., Renne, V. T.

TITLE: Principal Directions and Results of Activity of the Department of Electric Insulation and Cable Technique by the 40th Anniversary of the Great October Revolution

PERIODICAL: Nauchno-tekhn. inform. byul. Leningr. politekhn. in-t, 1958, No. , pp. 3-15

TEXT: A review of the development since 1925 of scientific-research problems of the Department is presented; a scheme of the gradual expansion of the subjects of researches and their interconnection is given. The scientific work of the Department develops in three directions: the study of the moisture-resistance, heat-resistance and aging (under action of electric field) of electric insulation with the practical application of the results of research conducted to the fields of cable technique, capacitor engineering and insulation of electrical machines. There are 24 references. V. T. R.

Translator's note: This is the full translation of the original Russian abstract.

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SOV/112-59-22-45362

slation from: Referativnyy zhurnal, Elektrotekhnika, 1959, Nr 22, p 10 (USSR)

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ORS: Mikhaylov, M.M., Vazhnova, G.S.

E: The Influence of Temperature on Moisture Characteristics (P, D and h) of Film Materials

ODICAL: Nauchno-tekhn. inform. buyl. Leningr. politekhn. in-t, 1958, Nr 7, pp 22 - 30

RACT: Evaluation of the behavior of a material in a moist surrounding from an increase in the weight of samples during 24 - 48 hours is obsolete. A correct choice of moisture protecting materials, as well as a choice of the electric insulation itself is possible only when the three main moisture characteristics of the material are known: moisture permeability constant of the material P (g/cm · mm Hg · hour), which characterizes the total amount of moisture passing through the given material; solubility coefficient h (g/cm^3 · mm Hg) which determines the amount of moisture absorbed by the material in the saturation state, and the diffusion coefficient D (cm^2/hour.) These coefficients are connected by the relation P = hD. Therefore for a complete characteristic of the

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Influence of Temperature on Moisture Characteristics (P, D and h) of Film Materials

vior of a material in a moist medium, it is sufficient to know any two of them. The acteristics P, D and h of various films were determined by the method of the pressure ge. Also was studied the influence of temperature on characteristics of various rials. The dependence of P on the absolute temperature according to the law: $P_0 \cdot \exp(-E/RT)$, where E is activation energy; R is a gas constant. When E is n, the change of P with the change of temperature can be determined. Values of E the tested films (aceto-butyrate and triacetate of cellulose, polystyrene, escapone, ishes 13 and 47, polymethylmethacrylate, light varnish fabric) are given. All these rials have not high moisture protective properties. The minimum P have polystyrene, ishes 13 and 47. The maximum P has triacetate of cellulose, which is probably ex- ned by its higher polarity as compared with the other tested materials. The emperature has practically no influence on the value of P; only for triacetate of ulose and varnish fabric an insignificant decrease in P with an increase in temperature observed. At the same time the change of temperature in each individual case led to change in the speed of the moisture permeability through the same material. The er the temperature, the quicker the state of equilibrium is reached. The value of h the tested materials is reduced by a half order or even by an order of magnitude at change of temperature from 20°C to 60°C. The decrease in h with the temperatu[illegible]

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Influence of Temperature on Moisture Characteristics (P, D and h) of Film Materials

reat practical importance for the calculation of the service time or of the time of ctiveness of moisture protection of an object. This time is determined by the formula

$$\tau = - \frac{hVd}{PS} \ln (1 - p_k/p_o),$$

e V is volume of insulation protected against moisture; d is thickness of the ture protecting layer; S is area of insulation exposed to moisture; p_k is the ical pressure of water vapors. Thus, τ, other conditions being equal, is pro- ional to h/p; the greater this relation the longer the lifetime of the object. temperature will strongly influence the changes of τ, as with an increase in the erature P practically does not change, but h decreases sharply. The knowledge of es of P and h and their temperature relations is necessary for the correct solution he problem of the choice of a proper moisture protecting material and of the field ts application. 3 references.

A.O.M.

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PHASE I BOOK EXPLOITATION SOV/5006

Mikhaylov, Mikhail Mikhaylovich

Vlagopronitsayemost' organicheskikh dielektrikov (Moisture Penetrability of Organic Dielectrics) Moscow, Gosenegoizdat, 1960. 162 p. Errata slip inserted. 5,000 copies printed.

Ed.: V. T. Renne, Professor, Doctor of Technical Sciences; Tech. Ed.: O. S. Zhitnikova.

PURPOSE: This book is intended for technical personnel in cable and radio engineering industries, and also for persons concerned with research in the field of dielectrics.

COVERAGE: The book briefly reviews modern theoretical concepts on the mechanism of moisture absorption and moisture penetration of organic insulating materials and studies the effect of various forms of moisture distribution in a dielectric on its electrical characteristics. Methods of measuring moisture characteristics are described. The book is based on the work carried on in recent years at the laboratory of dielectric testing of the

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Leningradskiy politekhnicheskiy institut im. M. I. Kalinina (Leningrad Polytechnical Institute imeni M. I. Kalinin) under the direction of M. M. Mikhaylov. The book was written, under the supervision and with the direct participation of M. M. Mikhaylov, by a group of his collaborators. The co-authors and the chapters on which each worked are as follows: L. I. Aleksandrova, Candidate of Technical Sciences, Ch. III; A. V. Tolvinskaya, Candidate of Technical Sciences, Ch. II; S. A. Ivashchenko, Candidate of Technical Sciences, Chs. I, III, and IV; N. N. Melent'yeva, Engineer, Ch. I; N. A. Radionova, Engineer, Ch. II; and Ye. V. Fogel'gezang, Engineer, Chs. I, III, and IV. There are 39 references: 24 Soviet (including 2 translations) and 15 English.

TABLE OF CONTENTS:

AVAILABLE: Library of Congress (TK3401.M48)

JP/dfk/os
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S/081/62/000/002/101/107
B110/B101

AUTHOR: Mikhaylov, Mikh.

TITLE: Plastics in machine construction

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 2, 1962, 571, abstract 2P75 (Kozhi, obuvki, kauchuk, plastmasi, v. 1, no. 4, 1961, 20 - 23)

TEXT: The basic operational properties of plastics based on phenol formaldehyde-, carbamide-, polyester epoxy resins, polyamides, polyurethanes, polycarbonates, polyethylene and polypropylene, fluorine-containing resins polystyrene, polyacrylates, PVC, and silicates used in machine construction have been investigated. (9 references.) [Abstracter's note: Complete translation.]

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22327

S/167/61/000/001/004/004
A104/A133

18820 abs 1583, 1416

AUTHORS: Mukhamedov, A.A.; Mikhaylov, M.M.

TITLE: Selecting an expedient sulfidization method

PERIODICAL: Izvestiya Akademii nauk. UzSSR. Seriya tekhnicheskikh nauk, no. 1, 1961, 67 - 73

TEXT: The authors reviewing investigations carried out on this problem cite Ref. 1 (V.V. Kostkin, P.I. Gorezko, P.A. Mishin and Ya.S. Buraya: "Sulfidization of Friction Surfaces", ITEIN AS USSR, 13, M., 1954); Reference 2 (A.G. Livshits, F.Z. Skvortsov and A.V. Tiratsuyan, "Sel'khozmashinostroyeniye", 1958, 7); Reference 4 (D.A. Draygor, "Vestnik mashinostroyeniya", 1958, 2); and Reference 5 (L.Yu. Pruzhanskiy, "Vestnik mashinostroyeniya", 1958, 9) according to which sulfidization increases mainly the antifriction properties of the friction surfaces, whereas according to Reference 3 [Sh.I. Preygerzon, N.Y. Yanchenko and A.P. Voytikova, "Mashinostroitel' Belorussii, 1 (2), Minsk, 1956], the wear-resistance remains the same or decreases according to Reference 9 (Ye.P. Nadeinskaya, "Machines and Instruments", 1955, 2). The purpose of this study is to investigate the wear-resistance and antifriction properties of sulfidized surfaces by elucidating their properties and the effect of acids on the basic material

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S/167/61/000/001/004/004
A104/A133

Selecting an expedient sulfidization method

Tests of sulfide coatings carried out with pure ferrous sulfide or mixed with 10% potassium ferrocyanide at 800°C showed high antifriction properties, whereas the wear-resistance did not increase. Sulfidization of steels and cast irons of pearlitic structure showed a higher wear-resistance and sulfidization in cyanide media increased the strength of the sulfide coatings and the antifriction characteristics. Tests were performed by V.A. Mirbayev on sintered and calibrated carbide specimens of 40 mm in diameter and 23.8 - 24.6% porosity. One group was sulfidized as described above and the second group was annealed in the same furnace in cast iron shavings. The annealed specimens were used to eliminate the effect of structural changes at 800°C on the test results. The second part of the friction couple was a bush made of "50" steel subjected to low hardening (R_c = 55 - 57) at a pressure of 10 kg/cm^2 and a sliding velocity of 0.608 m/sec. The tests showed that the abrasion of sulfidized carbide surfaces, caused by dry friction, is analogous to that of calibrated and annealed surfaces. This is a proof that sulfide coatings show antifriction properties only if the basic material has antifriction properties, e.g., in the case of ferro-graphite ceramets. For some tests kerosene was used as lubricant and the sliding velocity was increased to 0.985 m/sec. The abrasion of sulfidized and non-sulfidized surfaces proved almost identical. As most media contain a considerable quantity of cyanide components, the

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process should be appropriately called sulfocyaniding. It has been stated by L. Marshall and S. I. Mansell (Ref. 11, "Reduction of Friction and Wear of Steels by Surface Sulfidization", Mashinostroyeniye, Collection of translation and reviews of foreign news, 1957, 1) that the effectiveness of this method is based on the dual character of the coating. This theory was investigated in the course of developing sulfocyaniding conditions in solid media. Specimens of 45Kh (45 KhN) steel were processed for 4 hours in a mixture of 40% ferrous sulfide, 36% carburizer, and 24% potassium ferrocyanide at 850°C. Control specimens were processed in a mixture of 60% carburizer and 40% potassium ferrocyanide, at the same pressure and sliding velocity as in previous test. The carburizer contained 80% charcoal and 20% barium carbonate. Specimens of pearlitic structure showed good results. Sulfur possesses a very low solubility in iron and produces brittle FeS and FeS_2 compounds. Sulfur saturated carbon steel shows a reduced amount of carbon along the periphery. Tests with these or other carbon compounds were carried out at 800, 930 and 1,000°C for 3 - 4 hours. Sulfocementation proved impossible because sulfur pinches the γ-zone which reduces the solubility of carbon in the iron and explains its displacement at high temperatures. For these reasons substances containing nitrogen are added. Compounds of 40% ferrous sulfide, 50% carburizer and 10% potassium ferrocyanide revealed at 800 - 900°C a hypoeutectoid

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electing an...

arbonitride layer. Another compound consisting of 40% ferrous sulfide, 30% carurizer and 24% potassium ferrocyanide developed an eutectoid layer of considerable hickness. Despite the high temperature and long processing none of these tests produced a cyanized layer with carbc - nitride inclusions. Most sulfidization baths and media contair nitrogen and carbon components, i.e. French SATS bath, containing 55% NaCN. The authors' conclusion is that sulfide surfaces possess good running-in properties and resistance to galling but have a low wear-resistance. The high antifriction properties of sulfidized surfaces are due to the solid sulfide coating, which however, is quickly worn away by friction. Simultaneous saturation of steel with carbon and sulfur and the formation of strong sulfidized and sintered layers proved impossible because of the reduced solubility of carbon in iron in the presence of sulfur. The addition of substances containing nitrogen produce strong sulfidized and cyanized layers. In this case the solid lubrication of the sulfide layer on a strong cyanide sub-layer increases the running-in ability, resistance to galling and wear-resistance. Medium temperature sulfocyaniding ensures an adequate saturation of steel and cast iron by nitrogen and carbon and the formation of a sulfide film on the surface and is therefore considered the most suitable method. In this case the sulfide coating is reinforced by carbonitride inclusions without undue increase of brittleness. Cyanide containing com-

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ponents prevent oxidation and accelerate the sulfidization but do not increase the wear-resistance. There are 4 figures and 12 Soviet-bloc references.

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S/137/62/000/003/066/191
A006/A101

/ 1606

AUTHORS: Mikhay..v, M. M., Uspenskiy, Ya. V., Frolova, N. P.

TITLE: On the structure of some cermet carbides

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 3, 1962, 41, abstract 3G298 ("Tr. Sredneaz. politekhn. in-ta", 1961, no. 15, 71 - 77)

TEXT: The authors studied processes of obtaining multi-component cermet carbides with a homogeneous structure from high-dispersity (2 - 3 μ) powders of the separate components. The composition of the carbides investigated is (in %): W 18 - 20%; Cr 4 - 4.5; C 0.12 - 1.3; V 1 - 1.5; the rest Fe. The carbides were sintered for 2 - 3 hours at 1,280 - 1,360°C in a N_2 and H_2 mixture and in a solid carbonizer; some of them were subjected to case hardening, oil quenching and tempering at 550°C. All the carbides had after sintering a porosity of about 4%. The high uniformity of the structure of the carbides formed is explained by the use of fine powders; and the low porosity by the possible formation (on account of the non-uniform distribution of components) of carbide areas with a melting point below the sintering temperature. As an example the authors present the

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A006/A101

On the structure of some cermet carbides

Isothermic section (1,200°C) of the constitution diagram for Fe - W - Fe_3C carbides; according to this diagram the liquid phase is formed at a content of 1% C and 5% W.

A. Epik

[Abstracter's note: Complete translation]

Card 2/2

S/137/62/000/005/131/153
A160/A101

AUTHORS: Mikhaylov, M. M., Fedorenko, L. I., Myshak, N. V., Galanin, V. A.

TITLE: The welding of the stainless 1Kh18N9T (1Kh18N9T) steel with a tungsten electrode in a nitrogen atmosphere

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 5, 1962, 15, abstract 5 I 77 ("Tr. Sredneaz. politekhn. in-ta", 1961, no. 15, 107 - 114)

TEXT: A process of welding stainless steels in N_2 atmosphere was worked out, securing not only high mechanical properties of joints, but also eliminating intercrystalline corrosion. All test pieces were butt-welded with the help of a NIAM AP+3B (NIAM AR+3B) torch. The experiments yielded the following results: 1) the main difficulties during the arc-welding in N_2 with a W-electrode, such as the bubbling of the bath, seam porosity and the high consumption of electrodes, are not caused by the disintegration of unstable W-nitrides, but by the presence of O_2 in the arc burning zone. 2) The arc-welding in N_2 with a W-electrode takes a normal course and secures a high-quality seam in case N_2 does not contain more than 0.2% O_2. 3) A waste of C is noted during the arc-welding in

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A160/A101

The welding of...

...with a W-electrode. This is a decisive factor for decreasing the tendency of the seam to intercrystalline corrosion. +) The arc-welding in N_2 increases the efficiency of the process by 30% and decreases labor costs 15 times - ... in comparison to argon arc-welding. The arc-welding in N_2 does not deteriorate the qualities of the products.

V. Tarisova

[Abstracter's note: Complete translation]

Card 2/2

MIKHAYLOV, M.M.; MUKHAMEDOV, A.A.; RUDYUK, S.I.; ALIMOV, S.U.

High-temperature treatment as a means for increasing the productivity of thermal and chemical heat treatment processes. Izv.AN Uz.SSR.Ser.tekh.nauk 7 no.2:55-63 '63. (MIRA 16:4)

1. Tashkentskiy politekhnicheskiy institut.
(Steel—Heat treatment)

GOFMAN, Irina Petrovna; MIKHAYLOV, M.M., otv. red.; KOROTKOVA, A.V., red.

[Technology of metals and structural materials. Program (on the basis of an 8- and 11-year secondary school of 95 hours): Methodological instructions and test assignments for students] Tekhnologiia 8 i 11 klassov srednei shkoly, ob"em 95 chasov): Metodicheskie ukazaniia i kontrol'nye zadaniia dlia uchashchikhsia metallurgicheskikh spetsial'nostei zaochnykh srednikh spetsial'nykh uchebnykh zavedenii. Moskva, Vysshaia shkola, 1964. 71 p. (MIRA 18:5)

1. Russia (1923- U.S.S.R.) Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya. Tsentral'nyy metodicheskiy kabinet po srednemu spetsial'nomu obrazovaniyu.

ACC NR: AT7005781 SOURCE CODE: BU/2506/66/009/000/0127/0134

AUTHOR: Ilev, Nikola; Mikhaylov, Mikhail

ORG: none

TITLE: An instrument for discrete measurements of elastic body wave propagation velocity

SOURCE: Bulgarska akademiya na naukite. Geofizichniya institut. Izvestiya, v. 9, 1966, 127-134

TOPIC TAGS: seismic MODELING, elastic wave ~~propagation~~, earth crust, earthquake, ~~forecasting~~ WAVE PROPAGATION, LONGITUDINAL WAVE, SEISMOLOGIC INSTRUMENT

ABSTRACT: Schematic diagrams and a description of an instrument designed to measure longitudinal elastic wave velocities are given. Discrete measurements are made that count the number of pulses leaving one generator with a constant repetition frequency and pass through a counter in the time that the elastic wave covers the distance between two observation points. This velocity can be measured with the necessary precision by selecting a suitable base between the observation points and a suitable generator frequency. Owing to its small size and portability, the instrument is well suited for rapidly determining soil layer thickness, investigating low-velocity zones in seismic prospecting and rock pressure in mining operation, geologic mapping, and monitoring changes in the state of the earth's layers in connection with earthquake forecasting. [WA-79-67-4]

SUB CODE: 08/ SUBM DATE: 02Dec65 ORIG REF: 006/ UDC: none

Card 1/1

MIKHAYLOV, M.N., prof.

Natural slate is the best roofing material. Trudy Zap.-Sib. fil.ASiA no.3:72-80 '60. (MIRA 15:2)

1. Chlen-korrespondent Akademii stroitel'stva i arkhitektury SSSR.
(Roofing, Slate)

TSYDZIK, Petr Vladimirovich; MIKHAYLOV, N.D., dots., retsenzent; MIKHAYLOV, M.N., retsenzent; RYABTSEVA, I.L., red.; BARANOVSKAYA, K.P., tekhn. red.

[Contact stresses] Kontaktnye napriazheniia; uchebnoe posobie. Moskva, Mosk. aviatsionnyi in-t im. Sergo Ordzhonikidze, 1962. 15 p. (MIRA 17:4)

KONOMOV, V. I., IKHAYLOV, M. N.

KONOMOV, V. I., MIKHAYLOV, M. N.

Horse Breeding

Appearance of heat in mares. Konovodstvo, 32,
No. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952.

KHAYLOV, M. N.

"Experiences Pertaining to Major Repairs of Main Petroleum Lines and Water Lines." page 55 of the book Petroleum Bases and Pipe Lines, Gostoptekhizdat, 1956.

MIKHAYLOV, Mikhail Nikolayevich, zasl. deyatel' nauki i tekhniki RSFSR, prof.; CHERKINSKAYA, N.L., red.

[Gypsum binders and wall products from lake gypsum of the Dzhirinsk deposit and their use in housing construction in the Kulunda Steppe of the Altai Territory] Gipsovye viazhushchie i stenovye izdeliia iz ozernogo gipsa Dzhirinskogo mestorozhdeniia i primenenie ikh v zhilishchnom stroitel'stve v Kulundinskoi stepi Altaiskogo kraia. Moskva, Stroiizdat, 1964. 56 p. (MIRA 17:12)

KALININ, Vladimir Konstantinovich, kand. tekhn. nauk; MIKHAYLOV, Nikolay Mikhaylovich, kand. tekhn. nauk; DURANDIN, G.B., inzh., retsenzent; ROGOVA, Ye.N., inzh., retsenzent; KRASKOVSKAYA, S.N., inzh., retsenzent; DUBROVSKIY, Z.M., inzh., retsenzent; KALIKHOVICH, V.N., inzh., retsenzent; KAKOV, V.A., red.

[Rolling stock of electric railroads] Elektro-podvizhnoi sostav zheleznykh dorog. Izd.2., perer. Moskva, Transport, 1964. 498 p. (MIRA 18:1)

A[illegible]LOV, M. N.

cultural technology of irrigated crops in the trans-Volga region. Moskva, Sel'khozgiz,
. 115 p.

n S613.M5

[redacted]

[redacted], M.N.

Vozdelyvanie oroshaemykh kul'tur
v Povolzh'e (Cultivation of irrigated crops in the
Povolzh'e). 2 izd. Moskva, Sel'khozgiz, 19[redacted]. 19[redacted] s.

SO: Monthly List of Russian Accessions, Vol. 6, No. 1, April 19[redacted]

1. MIKHAYLOV, M. N.

2. USSR (600)

4. Irrigation Farming - Rostov Province

7. Standards and periods for irrigating farm crops in Rostov Province (recommendations for 1952). Dost. sel'khoz. No. 5, 1952.

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[The accumulation and the retention of moisture by soils] Nakoplenie i sokhranenie vlagi v pochve. Izd. 2-oe, ispr. i dop. Moskva, Gos. izd-vo selkhoz. lit-ry, 1956. 173 p. (MLRA 9:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidrotekhniki i melioratsii (for Bityukov, Mikhaylov, Popova)
(Soil moisture)

MIKHAYLOV, M.N., prof.; TATSKI, L.N., inzh.

Synthetic and facade paints and their use. Stroi. mat. 10 no.2:6-7 F '64. (MIRA 17:6)

MIKHAYLOV, M. N., Cand Med Sci -- (diss) "Clinical Picture of Sialolithic Disease." Len, 1957. 10 pp (Len State Order of Lenin Inst for the Advanced Training of Physicians im S. M. Kirov) (KL, 50-57, 120)

MIKHAYLOV, M.N.

Chemical composition of salivary calculi. Stomatologiia 36 no.3: 43-46 My-Je '57. (MLRA 10:9)

1. Iz kafedry khirurgicheskoy stomatologii (zav. - dotsent P.V. Naumov) Kalininskogo meditsinskogo instituta (dir. - prof. R.I. Gavrilov)
(CALCULI) (SALIVARY GLANDS--DISEASES)

MIKHAYLOV, M.N.

Late results of treating salivary calculi. Stomatologiia 37 no.1: 48-49 Ja-F '58. (MIRA 11:3)

1. Iz kafedry khirurgicheskoy stomatologii (zav. - dotsent P.V.Naumov) Klininskogo meditsinskogo instituta (dir. - prof. R.I.Gavrilov)
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