

MAKHOVETSKAYA, R.B., starshiy nauchnyy sotrudnik; SOBOLEV, G.A.;  
TIMOSHOV, V.A.

Using the VAKT-3 apparatus for dyeing "lavsan" polyester  
fibers. Tekst.prom. 23 no.1:65-68 Ja '63. (MIRA 16:2)

1. Sentral'nogo nauchno-issledovatel'skogo instituta shelkovoy  
promyshlennosti (TSNIIShelka) (for Makhnovetskaya).
2. Nachal'nik krasil'nogo tsekha kombinata imeni Shcherbakova  
(for Sobolev).
3. Krasil'nyy tsekh kombinata imeni  
Shcherbakova (for Timoshov).  
(Dyes and dyeing Apparatus)  
(Textile fibers, Synthetic)

D 7885-66 EWT(m)/ETC/EWG(m) DS/RM

ACC NR: AP5025040

SOURCE CODE: UR/0286/65/000/016/0085/0085

AUTHORS: <sup>44.55</sup> Eliashberg, M. G.; <sup>44.55</sup> Tsyapkina, M. N.; <sup>44.55</sup> Makhnovetskaya, G. I.; Boyarskaya, R. K.; Sergeyeva, V. V.

ORG: none

TITLE: Method for obtaining cation exchange resin from waste solutions of the sulfite cellulose industry. Class 39, No. 173952

SOURCE: Byulleten izobreteniy i tovarnykh znakov, no. 16, 1965, 85

TOPIC TAGS: cation exchange, resin, sulfite waste liquor, cellulose

ABSTRACT: This Author Certificate presents a method for obtaining cation exchange resin from waste liquor of the sulfite cellulose industry (alcoholic sulfite, malt, and yeast brew). To reduce the cost of manufacture, the waste malt solutions are freed from the base by cationation and concentrated by evaporation at a temperature of 90-100C until the dry materials content reaches 50%. The mixture is heated to dryness and condensed at the same temperature until the resin gains the desired degree of swelling.

SUB CODE: 07, 11/

SUBM DATE: 01Mar61

Card 1/1

UDC: 541.183.123.2:678.557

TSYPKINA, M.N.; MAKHNOVETSKAYA, G.I.; SERGEYEVA, V.V.

"Active" and "inactive" sulfur of cation exchangers. Zhur.prikl.khim.  
35 no.11:2440-2444 N '62. (MIRA 15:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut tsellyuloznoy i  
bumazhnoy promyshlennosti. (Sulfur) (Ion exchange resins)

MAKHOVA, Ye.A., agronom po zashchite rasteniy; KALENOVA, M.P.

Word of the people of the Kuban is dependable. Zashch. rast. ot  
vred. i bol. 8 no.11:6-7 N '63. (MIRA 17:3)

1. Ust'labinskoye proizvodstvennoye upravleniye i kolkhoz "Kuban"  
(for Makhova). 2. Ust'labinskoye proizvodstvennoye upravleniye,  
nachal'nik uchastka Krasnodarskoy stantsii zashchity rasteniy (for  
Kalenova).



KOGAN, Kiva Izrailevich; MAKHNOVA, Vera Ivanovna; CHERNOV, Ye.,  
red.; POKHLEBKINA, M., tekhn. red.

[Business accounting of the workshop and work sector] Khoz-  
raschet tsekha i uchestka. Moskva, Mosk. rabochii, 1963.  
87 p. (MIRA 16:6)

(Machinery industry--Accounting)

MAKHNOVA, Vera Ivanovna; TRUSIKHIN, Nikolay Pavlovich; CHERNOV, Ye.,  
red.; KUZNETSOVA, A., tekhn. red.

[Improve production administration; practice in improving the structure of administration in the enterprises of food, leather and shoe industries of the Moscow Economic Council] So-  
vershenstvovat' upravlenie proizvodstvom; opyt uluchsheniia  
struktury upravleniia na predpriatiiakh promyshlennosti pro-  
dovol'stvennykh tovarov i kozhevnenno-obuvnoi promyshlennosti  
Mosgorsovnarkhoza. Moskva, Moskovskii rabochii, 1961. 54 p.  
(MIRA 14:12)

(Moscow Province--Food industry)  
(Moscow Province--Shoe industry)

MAKHOVA V.I.; GURDZHIYAN, V.S.; TKACHEVA, G.G.

Creation of better economic relations between the supplying  
enterprises and the consumers. Kozh.-obuv. prom. 4 no.7:7-  
10 JI '62. (MIRA 17:1)

MAKHNOVA, V. I.

Working out standard charts for the administration of food industry enterprises. Biul. nauch. inform.: trud i zar. plata 3 no.8:28-31 '60.

(MIRA 13:9)

(Moscow--Food industry)

MAKHNOVA, R.E.

Treatment of patients with cardiosclerosis following infraction with chronic cardiac aneurysms in a suburban Moscow sanatorium. Vop. kur., fizioter. i lech. fiz. kul't. 24 no. 4:320-324 J1-Ag '59. (MIRA 13:8)

1. Iz sanatoriya "Sesnovy bar" Akademii nauk SSSR (dir. G.S. Zhitlov, nauchnyy rukovoditel' - prof. S.N. Sokolov). (HEART--DISEASES)

YEVTUSHENKO, V.A.; MAKHOVA, G.V.

Solubility of mannitol. Zhur.prikl.khim. 35 no.4:747-750  
Ap '62. (Mannitol) (Solubility) (MIRA 15:4)

L 2337-66  
ACCESSION NR: AP5022452

reconnaissance aircraft. Each mission must be planned before its launching, even to preliminary drafting of radio messages transmitted during flight. During the flight the observer must be alert for unexpected reconnaissance opportunities, and the flight must be flexible enough to cope with aggressive enemy counteraction. After the flight, the photographic material should be analyzed and related to visual observations, the ground commanders should indicate the merits and defects of an operation, the technical nature of the flight should be reviewed, and enemy defenses should be noted in order to make future reconnaissance flights more effective. Orig. art. has: 8 pictures.

ASSOCIATION: none

SUBMITTED: 00

ENCL: 00

SUB CODE: MS

NO REF SOV: 000

OTHER: 000

*leh*  
Card 2/2

L 2337-66 FSS-1/EWT(1)/T/EED-2/EED(b)-3 LJP(c) UR/0209/65/000/009/0006/0015  
ACCESSION NR: AP5022452

AUTHORS: Gurahiy, I. <sup>44,55</sup> (Guards colonel, Military pilot first class); Makhov, V. <sup>44,55</sup>  
(Guards major, Military navigator first class); Ryzhkov, A. (Guards major, Military  
navigator first class); Danilov, N. <sup>44,55</sup> (Guards captain, Military navigator first class)

TITLE: The observer over the field of battle

SOURCE: Aviatsiya i kosmonavtika, <sup>44</sup> no. 9, 1965, 6-15

TOPIC TAGS: aerial reconnaissance, combat surveillance, reconnaissance training,  
military science, military training <sup>44,55</sup>

ABSTRACT: The training requirements for aerial reconnaissance are discussed, and a complete training program is examined. World War II experience showed that combat observers must be outstanding fliers, capable of operating under adverse weather conditions and against strong enemy aircraft defenses, and must possess initiative, intelligence, and flexibility in order to overcome unforeseen obstacles in the target area. After a thorough pilot training, they must study the tactics of ground units in order to be able to analyze quickly and accurately all military situations. The observers must be familiar with all reconnaissance equipment. A particular consideration must be given to adapting observers to faster-flying

Card 1/2



MAKHNORYLOV, V.P.

Economic efficiency of automation. Avtom. i prib. no. 3:80-84  
Jl-S '64. (MIRA 18:3)

BOBROV, I.F.; KOLOMIYTSOV, M.D.; MAKHNO, Ya.Ya.; YUDIN, R.E.

Hydromechanical mining of thin steeply dipping coal seams. Ugol'  
Ukr. 6 no.11:14-15 N '62. (MIRA 15:12)

1. Leningradskiy gornyy institut.  
(Donets Basin--Hydraulic mining)

MAKHNO, Ye.Ya.

Determination of the amount of pressure of loose rocks on supports.  
Zap.LGI 44 no.1:91-97 '61. (MIRA 14:10)  
(Rock pressure)

MARKING, Ye.Ye.

Color film for the bottle, U.S. 4:01-02 1-11.

(170A 10:0)

(All items holding)

MAKHNO, Ye.Ya.

Manless mining of steep by pitching coal seams in the Donets  
Basin, with use of shields. Ugol' Ukr. 3 no.10:38-40  
O '59. (MIRA 13:2)  
(Donets Basin--Coal mines and mining--Automation)

MAKHNO, Ye. Ye.

Ways of improving the system of slice caving using flexible supports. Zap.Len.gor.inst. 36 no.1:63-78 '58. (MIRA 12:4)

(Mining engineering)

(Mine timbering)

MAKHNO, Ye.Ya., kandidat tekhnicheskikh nauk.

Improve the working of coal beds. Mekh.trud.rab. 11 no.1:17-19  
Ja '57. (MLRA 10:5)

1.Leningradskiy gornyy institut.  
(Coal mines and mining)

*MAKHNO, Yevgeniy Yakovlevich*

MAKHNO, Yevgeniy Yakovlevich; KULIKOV, A.P., otvetstvennyy red.; SHUSHKOVSKAYA, Ye.I., red.izd-va; BEKKER, O.L., tekhn.red.; ALADOVA, Ye.I., tekhn.red.

[Working steeply sloping coal seams by using shield timbering]  
Voprosy razrabotki krutopadaiushchikh plastov uglia s primeneniem  
shchitvoi krepki. Moskva, Ugletekhizdat, 1957. 229 p. (MIRA 11:2)  
(Mine timbering)



MAKHNO, Ye.Ya., dotsent, kandidat tekhnicheskikh nauk.

Loess rock pressure on timbering. Gor.zhur.no.4:14-20 Ap '56.  
(MLRA 9:7)

1.Leningradskiy goranyy institut.  
(Mining engineering) (Earth pressure)

МАКННО, YE. YA.

PA 01/19768

Apr 49

USSR/Mining Methods

"Classification of Mining Systems," Dr G. A. Tsalukidze, Prof, Active Mem, Acad Sci Georgian SSR; A. M. Alyanskiy, P. I. Gorodetskiy, H. Korobko, Ye. Ya. Makhno, H. N. Polyakov, Co-Workers of Chair of Ore Mining, Leningrad Mining Inst; V. T. Markelov, P. M. Vol'fson, A. G. Barlas, Mining Engineers; L. I. Baron, V. N. Scaevskiy, Candidates Tech Sci, 7 pp

"Gor Zhur" No 4

Proposed classification has two main divisions: mining mildly slanting deposits of small and average width, and mining steeply slanting deposits of any width and large deposits with mildly slanting walls. First division is divided into: solid, pillar, and room-pillar. Second has two main subdivisions (containing a more detailed breakdown): Mining is done without collapsing leaning rocks in early stages of extraction, and mining is done with collapsing of leaning rocks in early stages of extraction.

*makho, ya B.*

OVSIANNIKOV, V.N., inzh.; LARIN, V.N., inzh.; BELLEN'KIY, A.D., inzh.; ~~MAKHNO~~  
~~Ya. B., inzh.~~; BOGDANOV, I.D., inzh. (Ashkhabad); MANKULOV, R.G., dots.  
(Tbilisi).

Textbook on diesel locomotives ("The diesel locomotive industry."  
G.S. Ryleev and others. Reviewed by V.N. Ovsianikov and others).  
Zhel. dor. transp. 39 no.12:89-90 D '57. (MIRA 11:1)  
(Diesel locomotives) (Ryleev, G.S.)

137-58-6-11345

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 12 (USSR)

AUTHORS: Kuznetsov, G.G., Makhno, S.M.

TITLE: Tests of a Method Developed by VNII-1 for Washing Prospectors' Samples of Gold-bearing Sands (Isipyaniya razrabotannoy VNII-1 shkemy promyvki razvedochnykh prob zolotonosnykh peskov)

PERIODICAL: Tr. Vses. Magadansk. n.-i. in-ta za 1956 g. Magadan, 1957, pp 147-149

ABSTRACT: A description is offered of a method of sampling that may be employed in prospecting and in exploitative operations. The system, combining mechanical pans with a concentration table, assures adequate recovery of M and is the method best suited to the washing of prospecting samples of Au-containing sands.  
A.Sh.

1. Mining industry--Equipment    2. Gold--Production

Card 1/1

ACC NR: AP6035691 (A, N) SOURCE CODE: UR/0413/66/000/019/0034/0034

INVENTOR: Makhno, L. P.; Sheykman, A. K.; Kost, A. N.

TITLE: Preparation of 1-( $\beta$ -pyridylethyl) indoles. Class 12, No. 136484  
 [announced by Donets Branch of the All-Union Scientific Research Institute of Chemical Reagents and High Purity Chemicals (Donetskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta khimicheskikh reaktivov i osobo chistykh khimicheskikh veshchestv)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 34

TOPIC TAGS: pyridylethylindole, pyridine, indole, hexanol, *aliphatic alcohol, vacuum distillation distillation*

ABSTRACT: To simplify the technology of the preparation of 1-( $\beta$ -pyridylethyl)indoles by boiling vinylpyridines with indoles in solution in the presence of catalysts (metallic K or Na) with subsequent isolation of the final product by a known method (e.g., distillation in vacuo), high-boiling aliphatic alcohols (e.g., hexanol) are used as solvents.

[WA-50; CBE No. 14] [PS]

SUB CODE: 07/ SUBM DATE: 10Jan66

UDC: 547.753.07

Card 1/1

KALABINA, A.V.; TYUKAVKINA, N.A.; YASHINA, O.G.; MAKHNO, L.P.; FROLOV, Yu.L.

Synthesis and properties of vinyl ethers of some higher phenols.  
Izv.vys.ucheb.zav.;khim.i khim.tekh. 4 no.4:626-631 '61.  
(MIRA 15:1)

1. Irkutskiy gosudarstvennyy universitet imeni Zhdanova, kafedra  
vysokomolekulyarnykh soyedineniy i organicheskogo sinteza.  
(Phenols) (Ethers)

MAKHO, G.P.; MATVIYENKO, V.V.

Determining the radius of a spherical reservoir in rock salt deposits. Stroi. truboprov. 9 no.1:11-12 Ja '64. (MIRA 17:3)

L., Vsesoyuznyy nauchno-issledovatel'skiy institut po stroitel'stvu magistral'nykh truboprovodov.

MAKHNC, D.Ye.

Roof control during landing of aircraft with shield units  
in the central house of the main base. Sup. 10048 no. 173-77  
163, (MIRA 17:8)



SKAFA, B.F., kand.tekhn.nauk; MAKHNO, D.Ye., inzh.; STUROV, I.A., inzh.;  
GARGONOV, A.T., inzh.; BATYGIN, S.P., inzh.; BELAY, B.G., inzh.

Results of the testing of shield support units. Sbor.DonUGI  
no.20:16-38 '61. (MIRA 15:6)  
(Donets Basin--Mine timbering)

SKAFA, V.F., kand.tekhn.nauk; MAKHNO, D.Ye., inzh.

Results of observations on the behavior of rock walls in steeply dipping seams with shifting of shield supports. Ugol' 35 no.6: 17-20 Je '60. (MIRA 13:7)

1. Donetskiy ugol'nyy institut.  
(Donets Basin--Rock pressure)  
(Mine timbering)

SKATA, B.F., kand.tekhn.nauk; MAKHNO, D. Ye, inzh.

ShchK shield timbering in steeply dipping coal seams. Ugol' Ukr.  
4 no.3:38-40 Mr '60. (MIRA 13:6)

1. Donetskiy ugol'nyy institut.  
(Donets Basin--Mine timbering)

PLISS, Ya., inzh.; MAKHIN, B., inzh.

Automatic condensate discharger. Mech. transp. 21 no. 4:54 155.  
(MIRA 18:6)

1. Leningradskiy gosudarstvennyy institut proyektirovaniya na  
rechnom transporte.

MAKHIN, M.A., tekhn.

Assembling and welding line for dump truck bodies. Svar.proizv.  
no.6:29-30 Je '60. (MIRA 13:7)  
(Electric welding--Equipment and supplies)  
(Dump trucks--Welding)

~~MAKHNIBORODA, E.I.~~, inzh. (Novosibirsk); ROMASHKO, Ye.A., inzh. (Novosibirsk);  
FILIPPOVA, T.A., kand.tekhn.nauk (Novosibirsk)

Automatic load distribution between the units of a hydroelectric  
power station using a relative increment method. Elektrichestvo  
no.4:19-22 Ap '63. (MIRA 16:5)  
(Hydroelectric power stations) (Electric power distribution)

MAKHNYBORODA, E.I.

Modeling unit for regulating the useful capacity of hydroelectric power stations. Izv. Sib. otd. AN SSSR no.6:97-103 '58. (MIRA 11:9)

1Zapadno-Sibirskiy filial AN SSSR.  
(Hydroelectric power stations--Electromechanical analogies)

ACC NR: AP6036769

recommended for high production. The use of urea affects the ultrafine structure of Chlorella cells by producing a dense structural organization of the protoplast, promotes more intense cellular metabolism, and leads to accumulation of nucleic acids. As a result, the biomass yield increases. Orig. art. has: 11 figures.. [BM]

SUB CODE: 06/ SUBM DATE: 07Aug65/ ORIG REF: 005/ OTH REF: 006/  
ATD PRESS: 5109

Card 2/2



ACC NR: AP6036769 (A,N) SOURCE CODE: UR/0326/66/013/006/0958/0966

AUTHOR: Tageyeva, S. V.; Korshunova, V. S.; Mikhnevich, M. L.

ORG: Institute of Biophysics, Academy of Sciences SSSR Moscow (Institut biologicheskoy fiziki Akademii nauk SSSR)

TITLE: Effect of nitrogen nutrition and type of illumination on the growth and development of *Chlorella pyrenoidosa* Pr. 82T. cultures

SOURCE: Fiziologiya rasteniy, v. 13, no. 6, 1966, 958-966

TOPIC TAGS: *Chlorella*, photosynthesis, nitrogen nutrition, urea, photosynthetic productivity

ABSTRACT: Experiments were performed to determine the effects of various types of nitrogen nutrition and illumination of varying wavelength on Tamiya medium suspensions of *Chlorella pyrenoidosa* Pr. 82T. Potassium nitrate (5 g lℓ) and urea (1.49 g lℓ) were used as sources providing equal amounts of nitrogen. Illumination was provided by 3L-7 reflector lamps producing 60 watts/m<sup>2</sup>. Urea proved to be a more efficient source than potassium nitrate, increasing biomass by a factor of 1.5-2. Ammonia poisoning or infection by microorganisms can be reduced or prevented under conditions of intense cultivation by systematic addition of fresh nutrient medium. Under these conditions illumination remains one of the most important factors regulating the development of *Chlorella* suspensions. Illumination rich in red light can be

Card 1/2

UDC: 581.143:581.133.035:582.26

МАКНЕВИЧ, Григорий Васильевич

[Methodological textbook on estimating the accuracy in projecting triangulation and traversing] Metodicheskoe posobie po otsenke tochnosti pri proektirovani triangel'niatsii i poligonometrii. Moskva, Nedra, 1965. 62 p. (MIRA 18:11)

MAKHNEVA, Valentina Alekseyevna, referent; SHUL'TS, N., red.

[From the window of a trolleybus; guide to the trolleybus route through the mountains from Simferopol' to Yalta] Iz okna trolleibusa; putevoditel' po gornoi trolleibusnoi trasse Simferopol' - Ialta. Simferopol, Krym, 1965. 60 p. (MIRA 18:7)

1. Simferopol'skaya gorodskaya ekskursionnaya organizatsiya obshchestva "Znaniye" (for Makhneva).

TARMAKHANOVA, O.D.; MAKHNEVA, L.V., red.; IL'INA, N.N., red.;  
BAKOTSYRENOVA, D.D., tekhn. red.

[The Burjat A.S.S.R. from one congress to another, 1959-1961; list of recommended literature] Buryatskaia ASSR ot s"ezda do s"ezda, 1959-1961 gg.; rekomendatel'nyi ukazatel' literatury. Ulan-Ude, Buriatskoe knizhnoye izd-vo, 1961. 26 p.  
(MIRA 16:7)

1. Ulan-Ude. Respublikanskaya biblioteka Buryatskoy ASSR. Spravochno-bibliograficheskiy otdel.  
(Buryat A.S.S.R.--Bibliography--Economic conditions)  
(Buryat A.S.S.R.--Economic conditions)

USSR/Zooparasitology. Ticks and Insects--Vectors of G  
Causative Agents of Diseases

Abs Jour : Ref Zhur-Biol., No 13, 1958, 57965

Author : Makhneva A. N.

Inst : ~~Not given~~

Title : Data on the Duration of the Insecticidal Action  
of DDT Dust on Flies in the Conditions of Kant-  
sky Rayon Frunze Oblast

Orig Pub : Sov. zdravookhr. Kirgizii, 1957, No 1, 52-53

Abstract : The processing of surfaces with hexachloran dust  
is more effective than processing with DDT. The  
dusting should be carried out in spring and  
autumn, for during the summer the high tempera-  
tur, dry air, and ultra-violet radiation rapidly  
decompose the residue of the insecticides and  
reduce their effectiveness. The character of the

Card 1/2

4

Materials of the Third Ural Conference (Cont.)	SOV/6181
Buravlev, Yu. M., V. I. Ustinova, and G. P. Neuymina. Effect of carburization and nitriding on the results of spectral analysis of construction steels	47
Grinzayd, Ye. L., and F. D. Korobko. Effect of total com- position of alloy steels on results of silicon determina- tion	52
Shavrin, A. M., M. A. Zotin, L. A. Kozhevnikova, and Yu. A. Makhney. Dependence of the relative intensity of the zinc line on its concentration in zinc-rich alloys of the copper-zinc system	57
Fishman, I. S. Experimental investigation methods of material admission [from electrodes into the discharge zone]	60

Card 5/15

MARKHNEY, YU. A.  
SHEETS 400, YU. A.

105

PHASE I BOOK EXPLOITATION

SOV/6181

Ural'skoye soveshchaniye po spektroskopii. 3d, Sverdlovsk, 1960.  
Materialy (Materials of the Third Ural Conference on Spectroscopy) Sverdlovsk, Metallurgizdat, 1962. 197 p. Errata slip inserted. 3000 copies printed.

Sponsoring Agencies: Institut fiziki metallov Akademii nauk SSSR. Komissiya po spektroskopii; and Ural'skiy dom tekhniki VSNTO.

Eds. (Title page): G. P. Skornyakov, A. B. Shayevich, and S. G. Bogomolov; Ed.: Gennadiy Pavlovich Skornyakov; Ed. of Publishing House: M. L. Kryzhova; Tech. Ed.: N. T. Mal'kova.

PURPOSE: The book, a collection of articles, is intended for staff members of spectral analysis laboratories in industry and scientific research organizations, as well as for students of related disciplines and for technologists utilizing analytical results.

COVERAGE: The collection presents theoretical and practical problems of the application of atomic and molecular spectral analysis in controlling the chemical composition of various materials in ferrous and nonferrous metallurgy, geology, chemical industry, and medicine. The authors express their thanks to G. V. Chentsova for help in preparing the materials for the press. References follow the individual articles.

SHOGAM, S.M.; TOMICHEVA, M.V.; LEZINA, T.A.; SUKHANOVA, Ye.N.; KOROBVA, I.V.;  
MAKHNEV, Yu.A.

Introducing the kinetic method of determining gamma-isomers of hexachlorocyclohexane in dusts of hexachlorocyclohexane. [Trudy] NIUIF no.165:52-62 '59. (MIRA 13:8)

1. Predpriyatiye khimicheskoy promyshlennosti.  
(Cyclohexane)



MAKHNEV, YU. A.

PULSE I BOOK EXHIBITION			894/1979
Uralskoye soveshchaniye po spektroye			
Materialy 2 Uralskogo soveshchaniya po spektroskopii, Svetlitskiy, 1953 g. (Leningrad, 1953). <u>Moskva, Zhurnal Tekhnicheskoye Uchenye, 1953, No. 4, p. 110.</u> (Sverdlovsk, Metallurgizdat, 1959. 306 p. Kraynaya slava in- terred. 1,000 copies printed).			
Sponsored by: Uralskiy filial Akademi nauk SSSR. Koshitskiy po spektroskopii i voprosam ikh resheniya (Moscow, 1958).			
<b>PURPOSE:</b> This collection of articles is intended for general study in the field of spectroscopy in response and nonresponse analytical physics, in the laboratory preparation of the metal-working industry, geological and prospecting organizations, and similar scientific research laboratories.			
<b>COVERAGE:</b> The collection contains papers read at the Second Urals Conference on the Spectral Analysis of Ferrous and Nonferrous Metals and Alloys, held in the city of Sverdlovsk, 25-27 October 1958. The papers include articles on the analysis of various materials, including the determination of gases, ferroalloys, nonferrous and light metals and alloys, pure noble metals, etc. The present volume is intended to disseminate the latest experience of scientific research laboratories, and to report the results of scientific research of the metals working industry in the Urals.			
Editor, A. A. V. I. Ostrovskiy, Spectral Analysis of Silver and Copper Alloys			116
Editor, A. A. V. I. Ostrovskiy, and V. D. Pogorelyy, Methods of Preparing Standards for the Spectral Analysis of Spontaneous Irridium and Radium			123
Podolskaya, M. I., A. D. Ostrovskiy, M. M. Zhuravskiy, and Z. J. Kostyuchenko, Spectral Method of Analyzing Refined Iridium and Radium			126
Ostrovskiy, V. I. Spectrophotometric Analysis of High-Purity Antimony			134
Shchegolev, M. N., and Ye. V. Zheleznev, Some Problems in the Spectral Analysis of Sludge, Ores, and Agglomerates			139
* Smirnov, M. N., V. P. Valeriyev, Ye. V. Zheleznev, V. M. Shchegolev, and Ye. A. Zheleznev, Possibility of Using a Pulse Source for the Analysis of Sludge and Agglomerates			146
* Stepanov, M. I., and G. P. Pechonkova, Spectral Determination of Gold in Ironsides, Magnetite, and Calcium in Agglomerates by the Diffraction Method			154
Kabanov, M. A., and A. M. Sharypov, Determination of Titanium in Titanomagnetites and Sludge by the Diffraction Method			157
Smirnov, M. V. Spectral Analysis in the Refractories Industry			159
Plutkin, K. Z. Investigation of Certain Characteristics of Vaporization and Excitation of Elements in Assay-vacuum-arc Mixtures in the Spectral Analysis of Ores and Minerals			166
Lazarenko, Ya. B. Effect of Certain Factors on the Intensity of Spectral Lines in the Nonconducting Powdered Assays			170
Kolokolnikov, R. P., and Ye. D. Raybenok, Spectrographic Determination of Niobium and Tantalum in Products of Ore Dressing			176
Prokhorov, V. G. Application of Visual Spectroscopy Methods in the Analysis of Rocks, Ores, and Minerals			180
Shalimov, B. S. Experience in Operating the Spectral Laboratory of the Geological Prospecting Party			184
Makhovskiy, T. B., O. D. Primenko, and A. P. Kozlovskiy, Spectral Determination of Iridium and Radium in Samples of Copper-containing Sludge			186
Smolkin, S. B. Spectral Analysis of Salts and Aluminates Salts Used in the Heat Treatment of Steel Products			188
Podolskiy, P. Z. Low-voltage Pulse-Discharge Generator for Exciting Spectral Analyzers			191
* Fomenko, M. M. Method of Taking into Account Background and Impurities in Practical Work at a Plant Spectral Laboratory.			194
Recommendations of the 2nd Urals Conference on Spectroscopy			202

MAKHNEV, Yu. A.

USSR/Minerals - Spectral analysis

Card 1/1 Pub. 43 - 48/97

Authors : Makhnev, Yu. A.; Simanov, V. A.; and Shavrin, A. M.

Title : Application of the method of dilution during spectral analysis of powders

Periodical : Izv. AN SSSR. Ser. fiz. 18/2, 272-273, Mar-Apr 1954

Abstract : It was shown by one of the authors that the application of the method of diluting the analyzed sample of rocks or slags with silicon oxide makes it possible to eliminate the effect of different analyzed objects on the spectral analysis results. The results obtained with the dilution method in determining the content of Ni and Mn in various rocks and ores are briefly described. The probable error in determination was  $\pm 6.5\%$ . Two USSR references (1949 and 1950).

Institution : The A. M. Gorkiy State University, Molotov

Submitted : .....

MAKHNEV, V.S.; YUDENKOV, L.V.

Geology and hydrogeology of the Vysokaya Mountain deposit and work on  
draining it. Gor. zhur no.4:9-12 Ap '63. (MIRA 16:4)  
(Sverdlovsk Province---Mining geology)  
(Sverdlovsk Province---Mine drainage)

MAKHNEV, Vasilii Mikheylovich; PETRENKO, N.P., red.; PECHERSKAYA, T.I.,  
tekh. red.

[High-speed reaming of steel] Skorostnoe razvertyvanie stali.  
Irkutsk, Irkutskoe knizhnoe izd-vo, 1960. 175 p.  
(MIRA 14:9)

(Reamers)

(Metal cutting)

~~MAKHINOV, V.~~

Private plans for increasing labor productivity. Sov. profsoiuzy  
6 no.3:36-38 Mr '58. (MIRA 11:3)

1. Predsedatel' profkoma kuznechnogo korpusa Gor'kovskogo avtozavoda.  
(Gor'kiy--Avtomobile industry)

MAKHNEV, T.A.

DYATLOVA, V.N., inzhener; KOLOFNITSKIY, I.M., kandidat tekhnicheskikh nauk; MAKHNEV, T.A., inzhener, redakter; TIKHONOV, A.Ya., tekhnicheskii redakter; DOLLEZHAL', N.A., doktor tekhnicheskikh nauk, professor, laureat Stalinskoy premii, redakter.

[Corrosion resistant and chemically stable materials; a handbook]  
Korroziionnaya i khimicheskaya stoikost' materialov; spravochnik.  
Pod red. N.A. Dolleshalia. [Sostavili: V.N. Diatlova, I.M. Zolotnitskii] Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. i sudostroit. lit-ry, 1954. 568 p. (MIRA 7:7)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskogo mashinostroyeniya.  
(Materials) (Corrosion and anticorrosives)

MAKHNEV, S.I.

Some problems of the design of tires for road and sport bicycles.  
Kauch. i rez. 23 no.12:22-29 D '64. (MIRA 18:2)

1. Leningradskiy shinnyy zavod.

MAKHNEV, S.G.; ARGUNOV, Ye.I.

Experience of a year's use of MA-1 metal detectors in ore  
dressing plants. Nauch. trudy VNIIsbest no.3:110-115 '62.  
(MIRA 16:11)



MAKHNEV, S.G.; ARGUNOV, Ye.I.

Experience in the use of MA-1 metal detectors. TSvet.met. 36  
no.2:85-87 F '63. (MIRA 16:2)

(Metal detectors)

MAKHNEV, S.G.; ARGUNOV, Ye.I.; ISLAMKULOV, A.M.

Metal detector for the control of asbestos ores. Trudy NIIsbest  
no.2:110-116 '62. (MIRA 16:12)

TOKAREV, Mikhail Sergeevich; MAKHNEV, N.A., red.; KIMMEL', L.S.,  
red. izd-va; BACHURINA, A.M., tekhn. red.

[Multiplication tables for calculating the volumes of round  
lumber in accordance with the All-Union State Standard 2708-44]  
Mnozhitel'nye tablitsy dlia ischisleniia ob'emov kruglykh les-  
nykh materialov po GOST 2708-44. Izd.5. Moskva, Goslesbum-  
izdat, 1961. 413 p. (MIRA 16:7)  
(Lumbering--Tables and ready-reckoners)

**MAKHNEV, I.F.; BABUSHKIN, A.K.; SHTEYNDLIN, B.Ye.; OSTOLOPOVSKIY, A.N.**

Concerning N.S. Lebedev's article "Standardization of forge  
furnaces." Kuz.-shtam.proizv. 5 no.5:38-41 My '63.  
(MIRA 16:9)

MAKHNEV, Bakhni

Mgan Voltage Power Distribution System by Means of Phase Grounding  
(of the Wire, Conductor). Elektroenergiia (Electric Power), #10:15: Oct 51

MAKHNEV, A.K.

Burl birch in the Pysnna Valley forests of the wooded steppe  
trans-Ural region. Izv. SO AN SSSR no.8. Ser. biol.-med.nauk  
no.2:72-75 '65. (MIRA 18:9)

1. Ural'skiy lesotekhnicheskiy institut.

MAKHNEV, A.I.; PESTERNIKOV, A.V., red.

[Intensive fattening of cattle] Intensivnyi otkorm krupnogo rogatogo skota. Kurgan, Izd-vo gaz. "Sovetskoe Zaural'ie," 1960. 18 p. (MIRA 14:1)

1. Predsedatel' kokhoza im. S.M.Kirova Kirovskogo rayona (for Makhnev).  
(Cattle--Feeding and feeds)

KOZDOBA, L.A., kand.tekhn nauk, dotsent; MAKHNENKO, V.I., inzh.

Choice of the values of the magnitudes of thermal and physical characteristics of a material in a linearized network for solving a nonstationary heat transmission problem. Izv. vys. ucheb. zav.; energ. 6 no. 12:84-90 D '63. (MIRA 17:1)

1. Odesskiy institut inzhenerov morskogo flota. Predstavlena kafedroy sudovykh silovykh ustanovok i kafedroy tekhnologii metallov.



MAKHENKO, V.I.; MOSHNYANSKIY, A.F.

Calculation of thermal processes during weaving arc hard facing  
of cylindrical parts. Avtom. svar. 18 no.5:20-21 My '65.  
(MIRA 18:6)

1. Institut elektrosvarki im. Ye.O. Patona AN UkrSSR (for  
Makhnenko). 2. Odesskiy institut inzhenerov morskogo flota  
(for Moshnyanskiy).

L 2577-66

ACCESSION NR: AP5019295

SUBMITTED: 26Nov64

NO REF SOV: 002

ENCL: 00

SUB CODE: AS, TD

OTHER: 000

thermal stress

26

Card 2/2

L 2577-66 EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(k)/EWA(h)/ETC(m) WW/EM

ACCESSION NR: AP5019295

UR/0143/65/000/007/0106/0109  
536.403.2

52  
51  
B

AUTHOR: Kozdoba, L. A. (Doctor of technical sciences); Makhnenko, V. I.  
(Candidate of technical sciences)

TITLE: Investigation of the effect of critical thickness in locally heated shells

SOURCE: IVUZ. Energetika, no. 7, 1965, 106-109

TOPIC TAGS: heat conduction, heat transfer

ABSTRACT: A shell (or sheet) locally heated on one side and uniformly cooled on the other is theoretically considered. A lowest maximum temperature has been observed with certain "critical" thickness of the shell. Formulas for this maximum temperature depending on the heated spot geometry and some other factors are developed. Curves for the critical thickness depending on  $\alpha/\lambda$  and  $Bi = \alpha r_0/\lambda$  (where  $r_0$  is the inside radius of the shell) are presented. The latter curve was constructed according to the data obtained from an electric simulator. Orig. art. has: 5 figures and 4 formulas.

ASSOCIATION: Odesskiy institut inzhenerov morskogo flota (Odessa Marine-Engineer Institute)

Card 1/2

KOZDOBA, L.A.; MAKHNENKO, V.I.

Temperature field of a body, bounded by conical surfaces, under  
the action of an instantaneous annular heat source. Inzh.-  
fiz. zhur. 8 no.1:82-86 Ja '65. (MIRA 1843)

1. Institut inzhenerov morskogo flota, Odessa.

KOZDOBA, L.A.; MAKHMENKO, V.I.

Determining the shape, size of the molten welding pool, and  
the mobile temperature field by means of combined electric  
models. Avtom. svar. 17 no.6:19-23 3e '64 (MIRA 18:1)

1. Odeskkiy institut inzhenerov morskogo flota.

MAKHENKO, V.I.

Calculation of thermal processes in the hard facing of hollow  
cylinders cooled from the inside. Avtom. svar. 17 no.3:23-28  
Mr '64.

(MIRA 17:11)

1. Odesskiy institut inzhenerov morskogo flota.

MAKHENKO, V.I.

Calculating temperature conditions in the hard facing of a  
circular cylinder with a powerful rapidly moving source.

Avtom. svar. 16 no.11:10-16 N '63. (MIRA 17:1)

1. Odesskiy institut inzhenerov morskogo flota.

MAKHENKO, V.I., inzh.

Regulating temperature cycles in mechanized arc hard facing of  
cylindrical parts. Svar. proizv. no.2:20-25 F '63. (MIRA 16:2)

1. Odesskiy institut inzhenerov morskogo flota.  
(Hard facing) (Temperature regulators)



KOZDOBA, I. A.; MAKHENKO, V. I.

Use of electric modeling on ohmic resistance grids for the investigation of heat distribution during welding and hard facing. Avtom. svar. 15 no.11:8-15 N '62.

(MIRA 15:10)

1. Odesskiy institut inzhenerov morskogo flota.

(Welding) (Heat—Transmission)

KOZDOBA, L.A., kand.tekhn.nauk, dotsent; MAKHNENKO, V.I., inzh.

Calculation of the parameters of the resistance network of an electric model used for solving a nondimensional equation of transient heat conductance. Izv. vys. ucheb. zav.; energ. 5 no.6:98-103 Je '62.  
(MIRA 15:6)

1. Odesskiy institut inzhenerov morskogo flota. Predstavlena kafedroy termodinamiki i obshchey teplotekhniki.  
(Heat--transmission) (Thermodynamics--Electromechanical analogies)

## Solving problems of transient heat conduction ....

8/21/63/000/003/046/049  
A060/A126

the finite-difference expressions. A number of examples are cited of the application of the method to the solution of problems of transient heat conduction: heat propagation under welding or building up of bodies of arbitrary shape, the investigation of problems of transient heat conduction in the presence of hidden sources (heat sinks), the study of the influence of the heat capacity of parts upon their heating (cooling). The conclusion is drawn that the method of resistor grids may be successfully applied to the solution of many problems of transient heat conduction. A distinction of the method is the possibility of its application to research and development organizations and to production, since the capital and operating expenditures are very small. There are 4 figures and 10 references.

A. K.

[Abstracter's note: Complete translation]

Card 2/2

8/271/63/000/003/046/049  
A060/A126

**AUTHORS:** Kozdoba, L.A., Makhnenko, V.I.

**TITLE:** Solving problems of transient heat conduction with variable heat sources (sinks) with specified boundary conditions of the I - IV-th kind using electrical resistor-grid simulators

**PERIODICAL:** Referativnyy zhurnal, Avtomatika, Telemekhanika i vychislitel'naya tekhnika, no. 3, 1963, 80, abstract 3B473 (Dokl. 4-y Mezhd. konf. ferentsii po primeneniyu fiz. i matem. modelirovaniya v razlichn. otraslyakh tekhn. Sb. I, Moscow, 1962, 251 - 265)

**TEXT:** A method is cited for simulation on resistor grids. The method consists in the following: on the basis of general considerations of the theory of similarity the differential equations of heat conduction, the initial and boundary conditions are reduced to a dimensionless form. In writing these equations in terms of finite differences and in the rectangular coordinate system the analogy to the expression for Kirchoff's law is apparent if the potential at a node is appropriately set. The resistors correspond to the coefficients in

Card 1/2

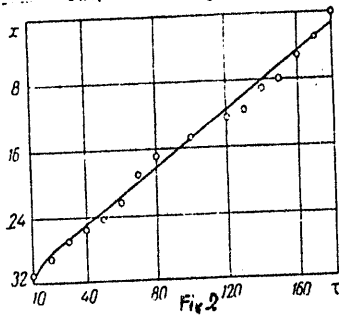
KOZDOBA, L.A.; MAKHNENKO, V.I.

Electric modeling on ohmic resistance grids of mobile temperature fields. Inzh.-fiz.zhur. 4 no.11:94-98 N '61. (MIRA 14:10)

1. Odesskiy institut inzhenerov morskogo flota.  
(Electromechanical analogies) (Heat-Conduction)

S/170/61/004/004/011/014  
B125/B203

Solution of some problems...

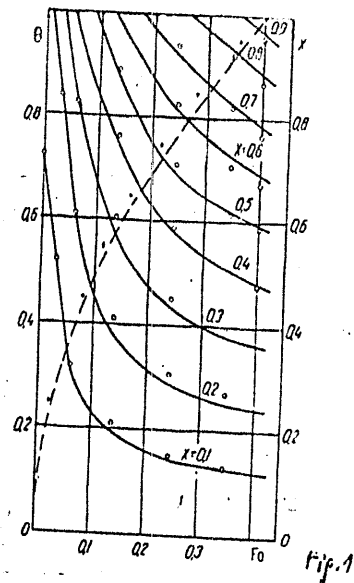


Legend to Fig. 2: Curve for the advance of the crystallization front (cm) in a 7-ton casting  $\tau$  in min.

Solution of some problems...

Legend to Fig. 1: Temperature field (solid lines) and curve for the advance of the crystallization front (broken line) in solidification of an infinite plane body at  $Q_k = 0.50$ . The dots denote the results of analytical calculation.

S/170/61/004/004/011/014  
B125/B203



Solution of some problems...

S/170/61/004/004/011/014  
B125/B203

For the problems discussed here, the method of electric simulation is accurate to 1-2%; this accuracy may be even increased by a proper choice of space and time intervals. There are 2 figures and 6 Soviet-bloc references.

ASSOCIATION: Institut inzhenerov morskogo flota, g.Odessa (Institute of Sea-going Fleet Engineers, Odessa) ✓

SUBMITTED: August 8, 1960

Card 4/6



S/170/61/004/004/011/014  
B125/B203

Solution of some problems...

ditions is, in the absence of overheating of the melt, similar to the system of equations and boundary conditions for the voltages in the ohmic resistance grid. The following assumptions were made when solving this system: (1) The heat conductivity  $\lambda$  and the specific heat  $c$  are independent of temperature. (2) Steel solidifies at constant crystallization temperature. (3) The problem is one-dimensional. The solution can be found without these restrictions by the method of electric simulation. To check the accuracy of simulation, the authors determined the temperature field and the curve for the advance of the crystallization front for a problem with exact analytical solution, namely for the crystallization of an infinite plane body at constant temperature of its surface (Stefan's problem). In Fig. 1,  $Q_k = q/c(t_k - t_0)$  denotes the dimensionless latent crystallization heat,  $t_k$  and  $t_0$  the crystallization temperature and the temperature of the body surface, respectively. Fig. 2 shows the advance of the crystallization front in a 7-ton casting, and compares the results of electric simulation with experimental results. The data of electric simulation agree satisfactorily with the data of the analytical calculation and with the experimental results, the differences not exceeding 5%.

Card 3/6

S/170/61/004/004/011/014  
B125/B203

Solution of some problems...

from the formula  $R_q = V_M K c R_\tau / q \beta$  (1), where  $V_M$  is the voltage applied to resistance  $R_q$  (it is chosen so that  $V_M \gg V_{0,n}$ ),  $K$  is the scale factor for transition from voltage to temperature,  $c$  is the specific heat in kcal/kg.deg,  $R_\tau$  is the temporary resistance depending on thermal diffusivity and on time and space integrals,  $q$  is the latent crystallization heat in kcal/kg, and  $\beta$  is a coefficient varying between 1 and 0 during the experiment. After calculating  $R_q$  from (1) at  $\beta = 1$ , the energy  $V_M$  is applied via  $R_q$  to the given sites of the grid. If the voltage in the site is higher than the voltage corresponding to the crystallization temperature,  $R_q$  is increased by reducing  $\beta$  until the voltage corresponds to the crystallization temperature. At the next instant, the resistance  $R_q = V_M K c R_\tau / q(1-\beta)$  (2) is applied to this site. By this procedure, the fact can be taken into account that not the entire elementary volume corresponding to the given site can crystallize after the time interval  $\delta\tau$ . The differential equation system describing the solidification of steel in the ingot with the respective boundary conditions

Card 2/6

S/170/61/004/004/011/014  
B125/B203

AUTHORS: Kozdoba, L. A., Makhnenko, V. I.  
TITLE: Solution of some problems of metallurgic heat engineering  
by means of an electric grid integrator

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 4, 1961, 102-104

TEXT: The authors studied temperature fields in ingots and molds by the method described in the authors' previous papers (Kozdoba, L. A., IFZh, III, no. 7, 1960; Kozdoba, L. A., Makhnenko, V. I., IFZh, III, no. 12, 1960). The method concerns the solution of problems of unsteady heat conduction with available heat sources taking account of the dependence of metallo-physical properties of the material on temperature and coordinates by electric simulation with ohmic resistance grids. The temperature field of ingots and molds was simulated by an integrator circuit of the type ЭПДА-6/53 (EGDA-6/53) (Fil'chakov, P. F., Panchishin, V. I., Integratory EGDA-6/51 i EGDA-6/53, Izd.KGU im. Shevchenko, 1955) with additionally developed voltage dividers for 100 and 200 points. The resistances simulating the heat source are determined

Card 1/6

MAKHENKO, V. I., and KOZDOBA, L. A.

"Electrical Modelling of Temperature Fields at Welding  
and Soldering of Details having Different Forms."

Report submitted for the Conference on Heat and Mass Transfer,  
Minsk, BSSR, June 1961.

88006

The Electrical Simulation of Non-steady  
Temperature Fields in the Presence of Variable Heat Sources

S/170/60/003/012/003/C15  
B019/B056

There are 3 figures and 7 references: 6 Soviet and 1 US.

ASSOCIATION: Institut inzhenerov morskogo flota, g. Odessa (Institute  
for Engineers of the Ocean Fleet, Odessa)

SUBMITTED: April 22, 1960

5

Card 2/2

88006

S/170/60/003/012/003/015  
B019/B056

11.9100

AUTHORS: Kozdoba, L. A., Makhnenko, V. I.

TITLE: The Electrical Simulation of Non-steady Temperature Fields  
in the Presence of Variable Heat Sources

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1960, Vol. 3, No. 12,  
pp. 24-28

TEXT: A survey is given of expressions for calculating the simulator parameters for the simulation of non-steady three-dimensional thermal conduction problems. First, the thermal conduction equation of a three-dimensional problem in finite differences with existence of heat sources at finite intervals in Cartesian coordinates is given, non-uniform spatial intervals being assumed. By means of the Kirchhoff laws, formulas are then obtained for the resistors of the simulator. Simulation at boundary conditions of the I, II, III, and IV kind is discussed. By means of an integrator of the type ЭПДР-6/53 (EGDA-6/53) and a resistor network worked out according to formulas obtained here, some temperature fields are calculated. Three examples are finally discussed more in detail.

Card 1/2

MAKHENKO, N.I.; SYSOYEVA, T.F.

Synthesis of sulfanilurea derivatives with hypoglycemic action.  
Trudy Ukr.nauch.-issl.inst.ekaper.endok. 18:333-335 '61.  
(MIRA 16:1)

1. Iz otdela sinteza gormonov Ukrainского instituta eksperimental'noy endokrinologii.  
(UREA) (DIABETES)

AUTHORS: Makhnenko, N.I., Sysoyeva, T.F. SOV/80-32-2-44/56

TITLE: Synthesis of N-Sulfonyl-n-Tolyl-N'-Butyl-Urea (Sintez N-sul'-  
fonil-n-tolil-N'-butilmocheviny)

PERIODICAL: Zhurnal prikladnoy khimii, 1959, Vol XXXII, Nr 2,  
pp 449-450 (USSR)

ABSTRACT: The preparation mentioned in the title and similar substances  
are used in the treatment of diabetes. An accessible method  
for laboratory and semi-industrial production is presented  
here. The different stages are: valeric acid, ethyl ether  
of this acid, its hydrazide, its azide, butylisocyanate, from  
which the mentioned substance is obtained.  
There are 8 references, 3 of which are Soviet, 3 German and  
2 English.

ASSOCIATION: Ukrainskiy institut eksperimental'noy endokrinologii (Ukrainian  
Institute of Experimental Endocrinology)

SUBMITTED: August 8, 1957

Card 1/1



SAVITSKIY, A. YA. AND MAKHLENKO, N. I.

"The Synthesis of 1-(p-Ocyphenyl)-2-(Methylamino)-Propane (Veritol)"

Zhur Obshch. Khim., 10, No. 21, 1940.

Laboratory for the Synthesis of Hormones,  
Ukrainian Central Institute of Endocrinology  
and Organotherapy, Received 26 May 1940

Report U-1612, 3 Jan. 1952

MAKHNENKO, L.A.; PAKHOMOV, V.I.; STEPANOV, K.N.

High-frequency focusing in linear accelerators. Zhur. tekhn. fiz.  
35 no.4:618-622 Ap '65. (MIRA 18:5)

100-100000-100000

100-100000-100000  
100-100000-100000  
100-100000-100000

...down a bit a long gentle wave guide. Then a wave of  
...in the waveguide, the average current increased by  
...no accelerating wave traveling down the waveguide in these  
...the 33 terahertz.

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100-100000-100000

FOUR: 00

SIB CODE: NP

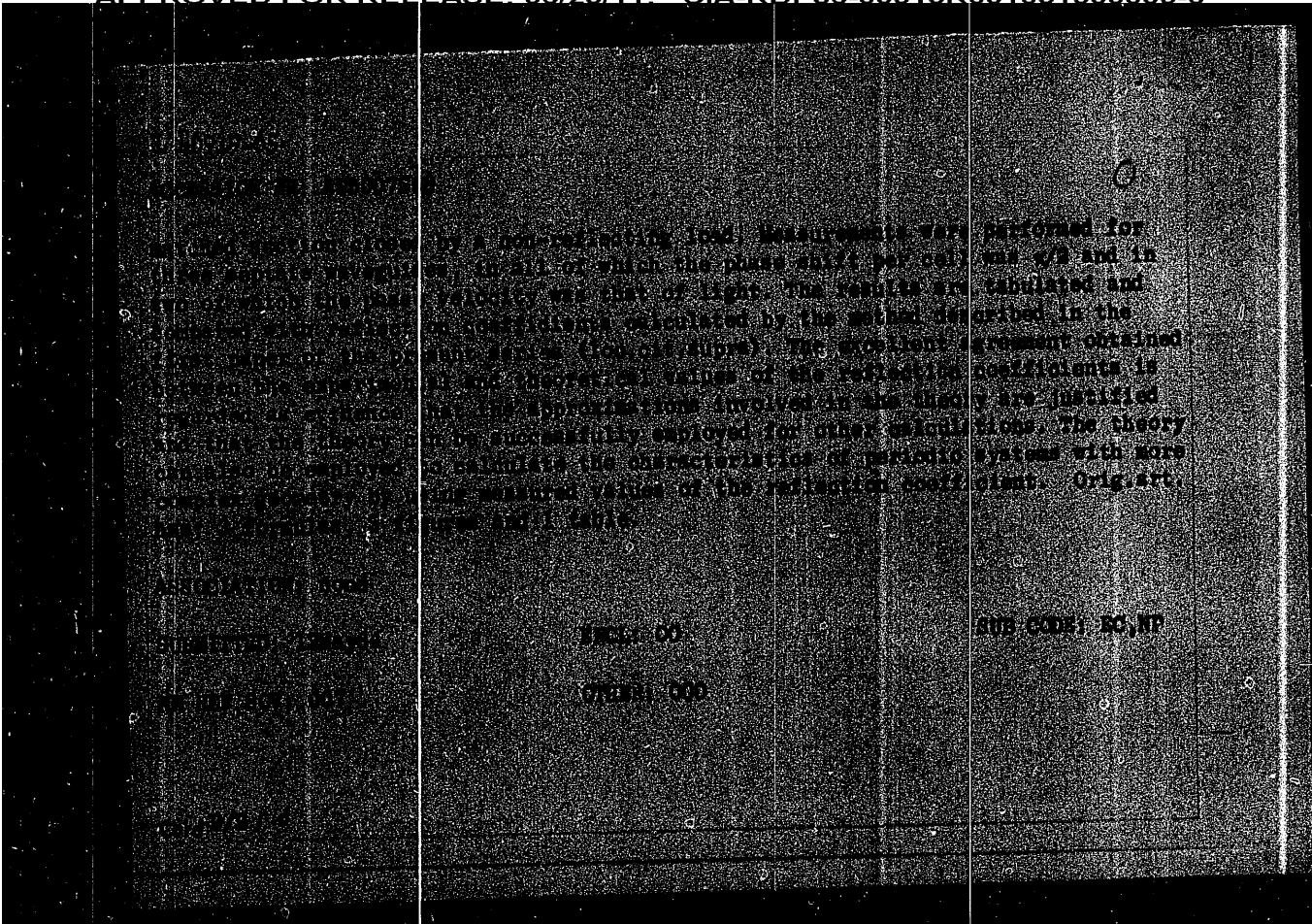
NUMBER: 002

RUSSIAN JOURNAL OF PHYSICS  
1988/04/05/004/018/022

32  
B

A.I. Pavlov, V.I. Serebryakov, N.N.  
Study of the focusing effect in a traveling wave  
linear accelerator. Zhurnal Fiziki, v. 35, no. 4, 1988, 818-822

linear accelerator, traveling wave electrostatic  
accelerator, wave stabilization  
... the focusing effect in a traveling wave linear  
... wave propagating in the opposite direction to the  
... waves is found to improve the focus both with re-  
... to radial expansion and to the improvement in phase stabil-  
... in the radial direction and to be significant in the  
... when the modulation phase is close to  $\pi/2$ . The radial  
... energy. The radial focusing effect of the backward  
... to that of a uniform longitudinal magnetic field of  
... of the wave amplitude. The radial focusing  
... by introducing a divergent wave (divergence angle



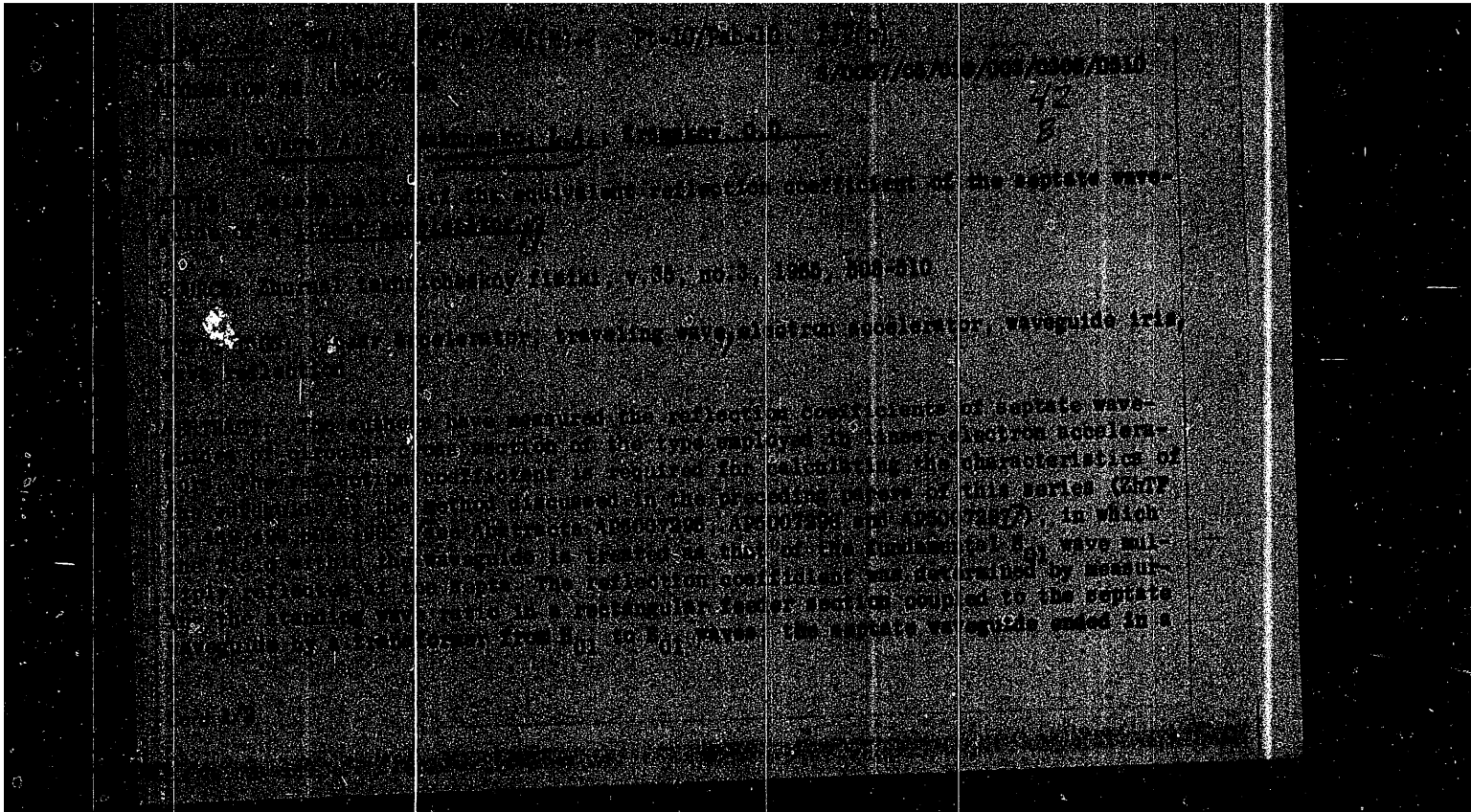
The following table shows the reflection coefficients for waves in a pipe of length  $l$  and cross-section  $S$  at the end of the pipe for a plane wave of frequency  $\omega$  and amplitude  $A$ . The reflection coefficient  $R$  is defined as the ratio of the reflected wave amplitude to the incident wave amplitude. The values of  $R$  are given for various values of the ratio  $\omega l / \pi$ .

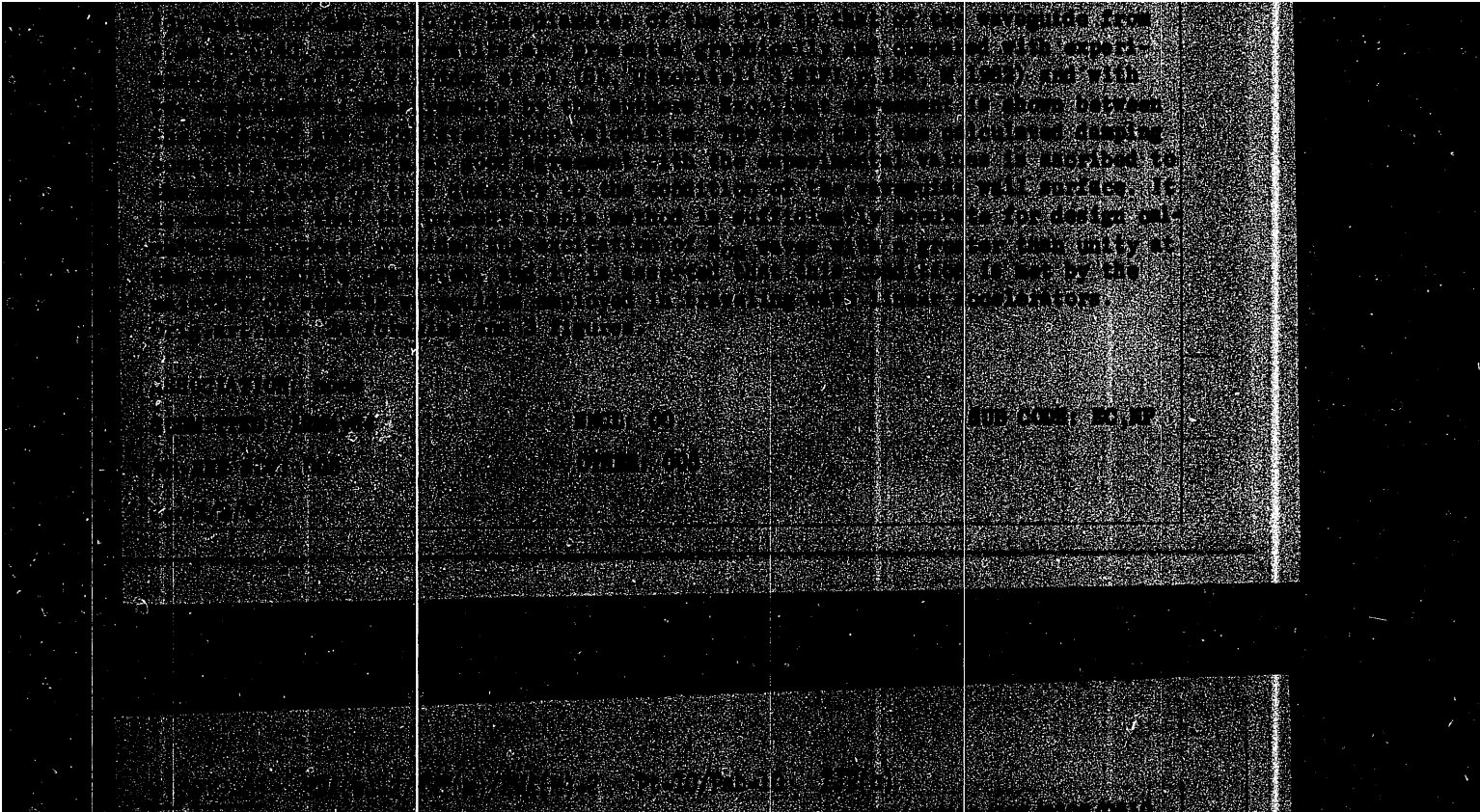
by a non-reflecting load. Measurements were performed for  $\omega l / \pi$  in the range 0 to 2.0, in all of which the phase shift per cell was that of light. The results are compared with the theoretical predictions calculated by the method described in the Introduction (see also Table II). The agreement is very good. The theoretical calculations of the reflection coefficients involved in the theory can be similarly employed for other calculations. The theory also enables the characteristics of periodic structures with more than one cell to be calculated. The measured values of the reflection coefficient are shown in Table I.

was  $\pi/2$  and in all cases the results are calculated and described in the Introduction. The agreement obtained in the experiments is very good. The theory also enables the characteristics of periodic structures with more than one cell to be calculated. The measured values of the reflection coefficient are shown in Table I. Orig. art.

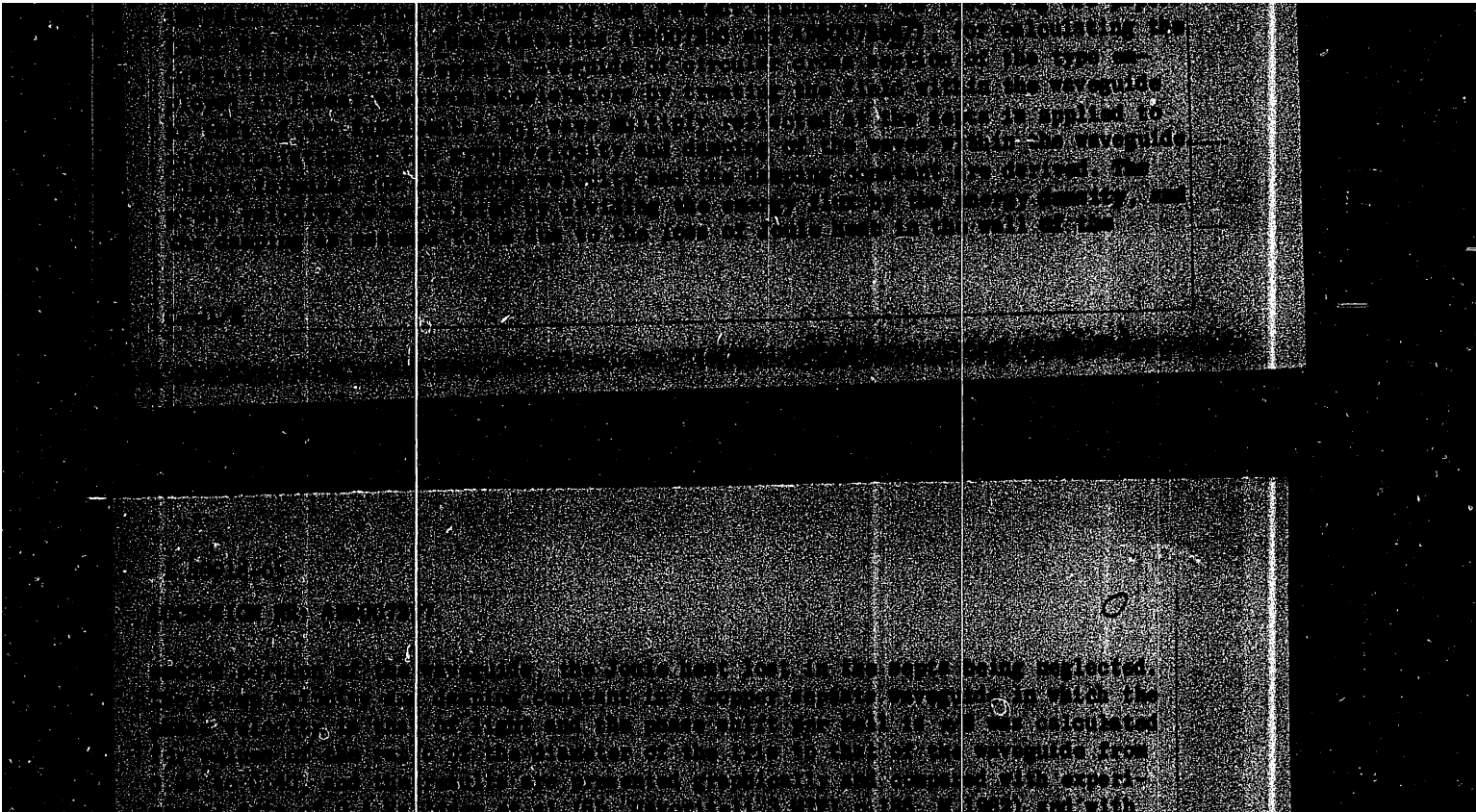
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SUB CODE; EC, NP

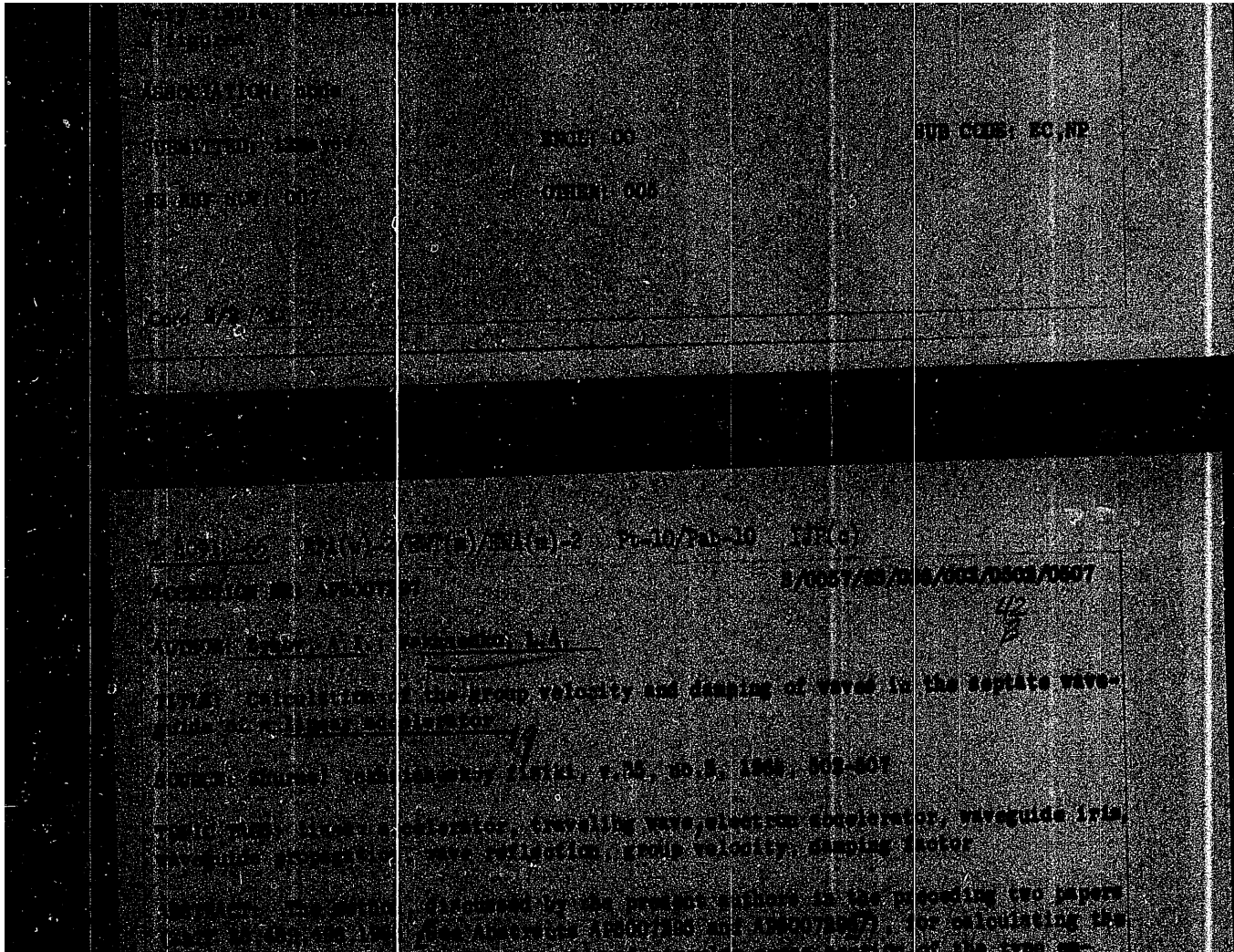


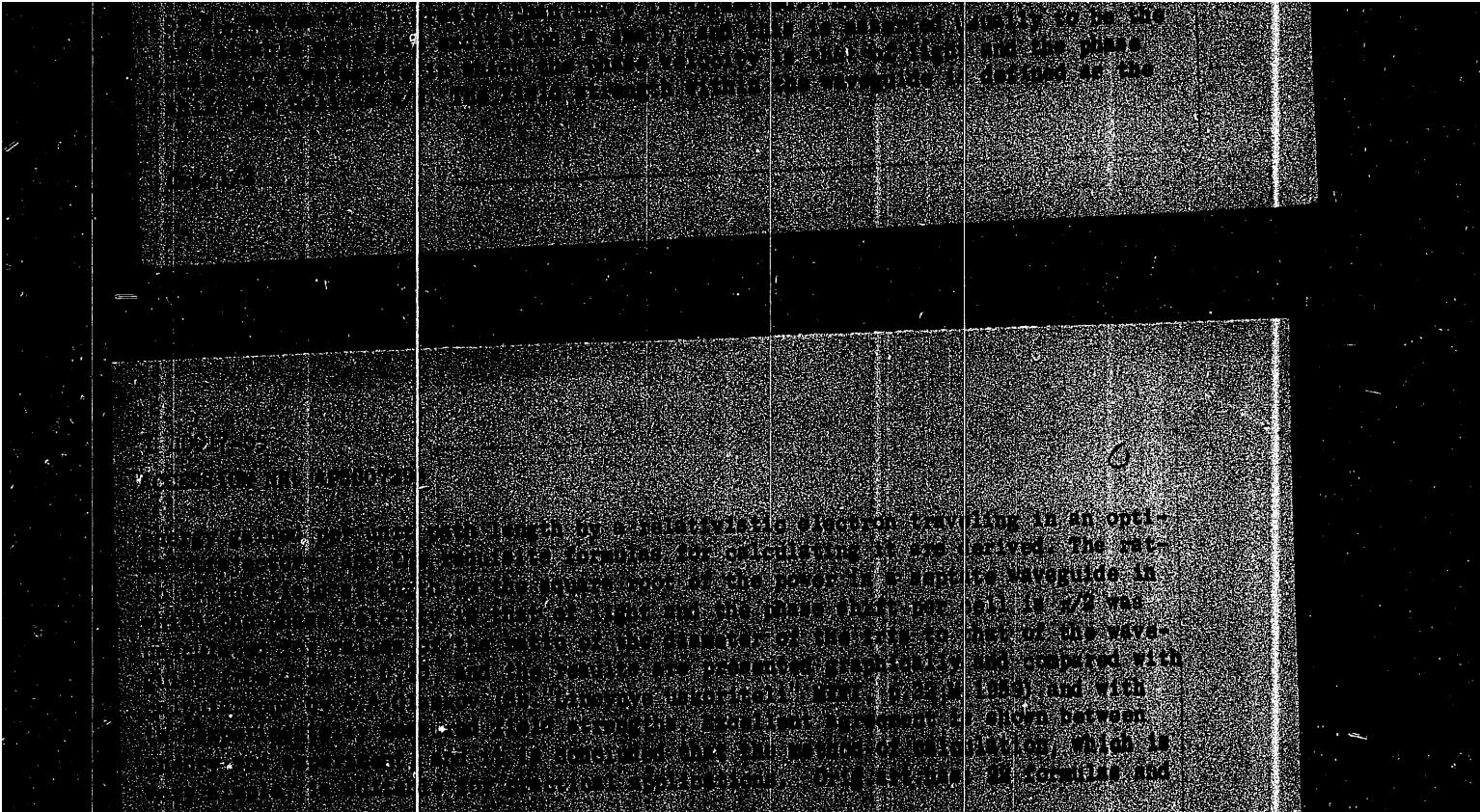


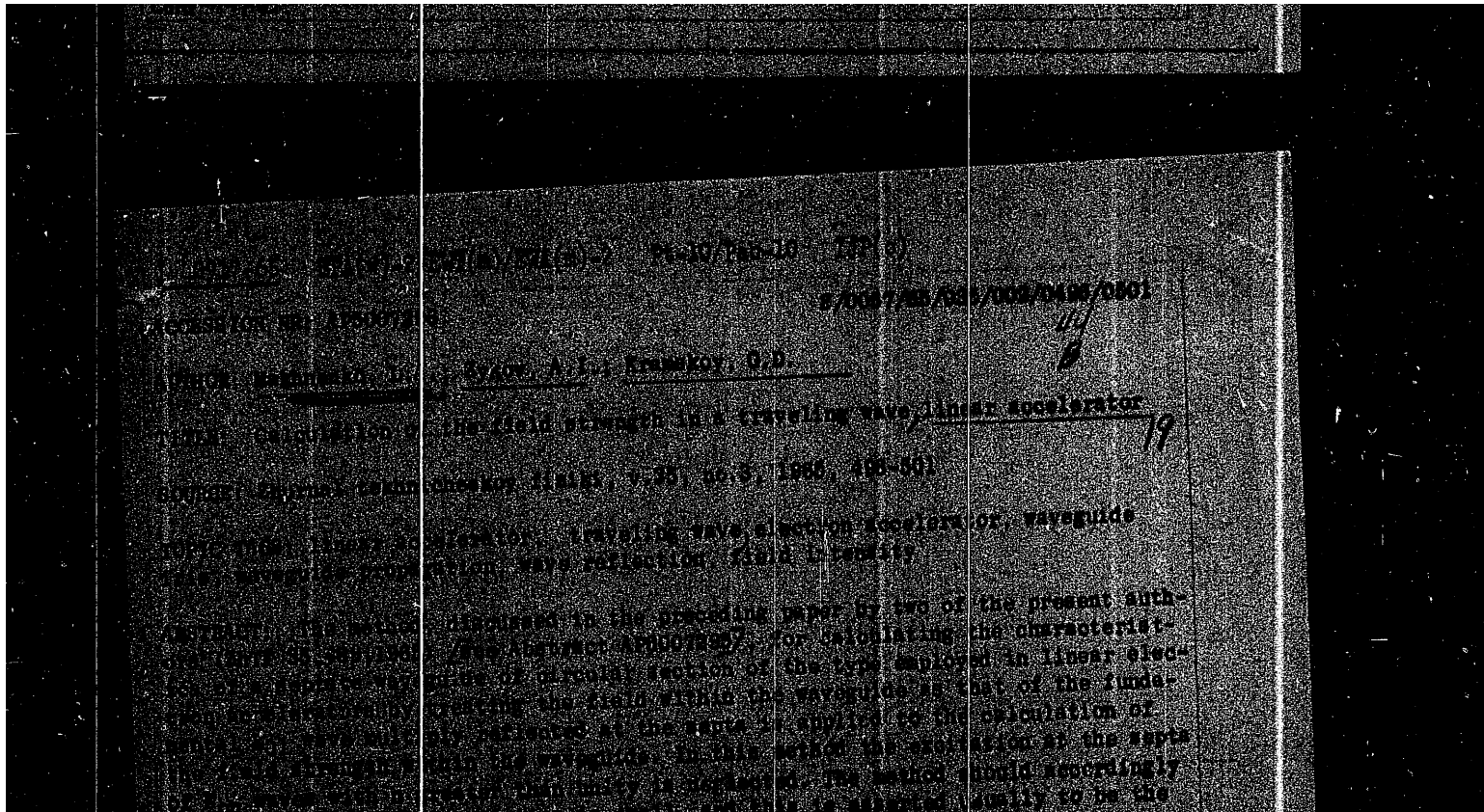












RESULTS OF THE EXPERIMENT

The results of the experiment are shown in Figure 1. The phase shift per cell increases with increasing phase shift per cell. The difference between the two lengths is 0.5, and for a 10% phase shift, the difference is 0.5. It is concluded that the proposed method is sufficiently accurate for calculations and that it is much simpler than other methods for this purpose. This was done in Figures 1 and 2 figures.

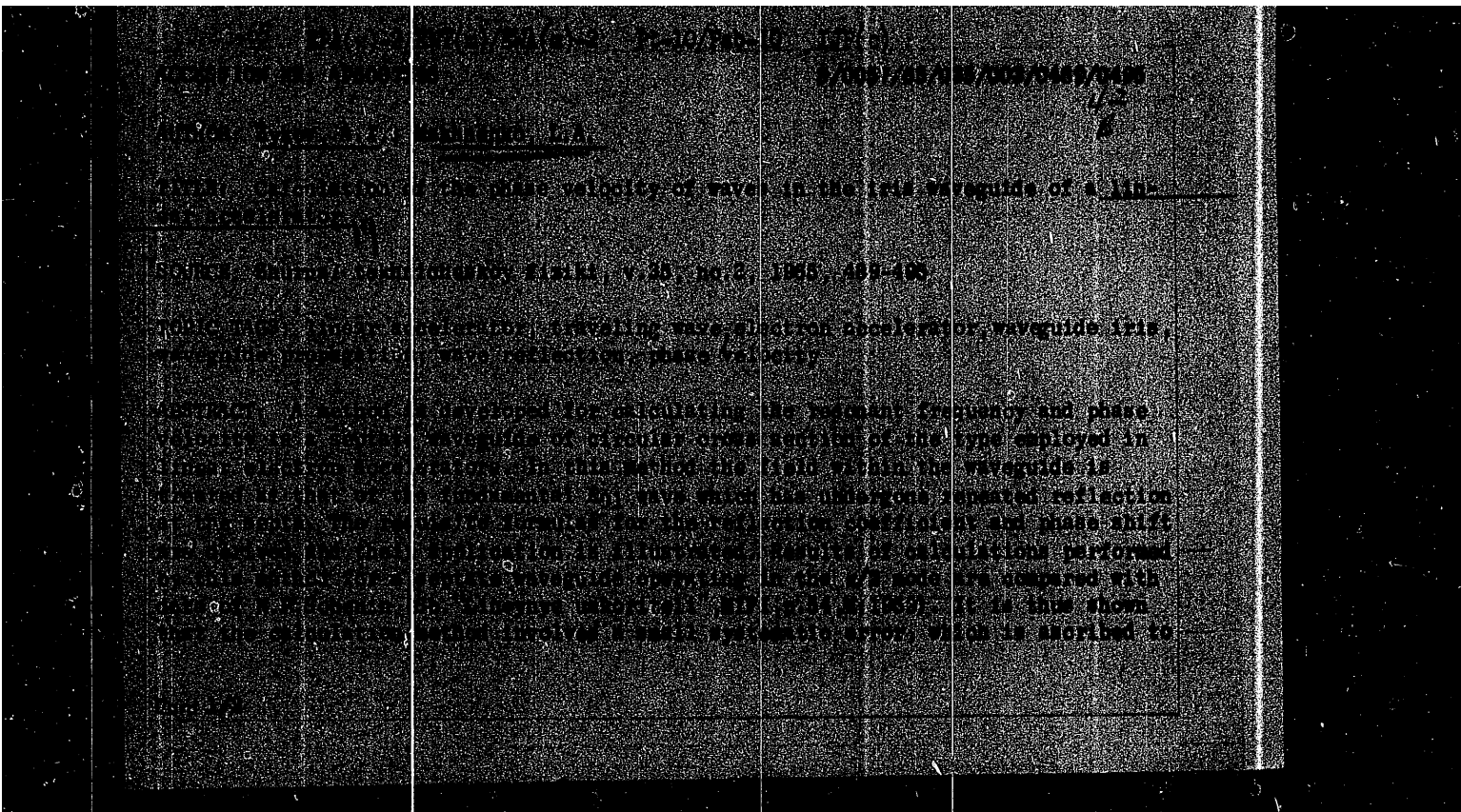
REFERENCES

1. J. J. Stoker, "The Theory of Linear Synchronous Circuits," McGraw-Hill, New York, 1959.

FIG. 1

FIG. 2

TABLE I



L 45257-65  
ACCESSION NR: AT5007932

25, 12.5, 6.25, 3.125, 1, and a single absence. (Note. The half-width is the width of the energy spectrum at a level half the current maximum.) The design and construction of the electron injector and the remaining parameters of the accelerated beam were discussed by Y. A. Vishnyakov et al. (same conference p. 440). The present report discusses matters relating to the adjustment of the accelerator: the system's electrodynamic and loaded characteristics, the accuracy of construction of the sections, their resonance frequencies, group velocity and damping, shunt resistance and partial power of the principal accelerating harmonic. Orig. art. has: 6 figures.

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Card 3/3

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gen pulse thyratron switching. A generator-amplifier having metal-ceramic triodes with quartz frequency stabilization of the master circuit is used for excitation of the klystrons. The generator signal is amplified by a separate klystron and is propagated along waveguide transmission lines by the accelerator, entering into the klystrons of the above-mentioned injector and ten accelerating sections. The power at the output of the accelerating sections is absorbed in carborundum chargers. The vacuum in the accelerator and in the high power waveguide lines is attained by means of ion-absorption pumps, which are set up at the inputs of the sections and near the vacuum-separator cones. Ridding the electron beam of secondary products and focusing at the target are carried out with two reversible magnets and five quadrupole lenses. A transformer complex and direct-current sources are used for the system's regulated power supply. The high-frequency power supply system, which consists of klystron amplifiers, waveguide and co-axial transmission lines, and automatic phasing system, and also the control, locking, and signal panels are placed in a special room. The rated accelerator parameters are: 360-Mev electron energy at spectrum maximum; 5% half-width of energy spectrum  $\Delta W/W$ ; 1  $\mu$ amp full acceleration current at output of parallel-transfer system (mean) for 5% half-width and  $N = 50/\text{sec}$ ; 0.2 cm beam diameter at output of parallel-transfer system; 1.5  $\mu\text{sec}$  current pulse; frequency (number per second  $N$ ) of bunches of current pulses - 50,

Card 2/3