BERNSHTEYN, A. V. kand. tekhn. nauk; BARZAM, V. I., insh.

Electrokinetic properties of granite and the adherence of bitumens. Avt. dor. 25 no.10:15-16 0 '62. (MIRA 15:10)

(Granite-Electric properties) (Bitumen)

YEGOROV, Sergey Viktorovich; NASHIVANKO, Yelena Mikhaylovna; BERNSHTEYN, Aleksandr Veniaminovich; KOVRYZHNYKH, L.P., red.; GALAKTIONOVA, Ye.N., tekhn. red.

[Pavements made with emulsions and a cation-active additive]Pokrytiia s primeneniem emul'sii i kationoaktivnoi dobavki. Moskva, Avtotransizdat, 1962. 25 p. (MIRA 16:2) (Pavements)

BERNSHTEYN, A.V., kand.khim.nauk

Formation of black pavements. Avt.dor. 26 no.9:31 S '63. (MIRA 16:10)

## BERNSHTEYN, A.V.; BARZAM, V.I.

Effect of the electrokinetic properties of granite on the adhesion of bitumens. Ukr. khim. zhur. 29 no.8:824-826 [63. (MIRA 16:11)

1. Ukrainskiy doroshno-transportnyy nauchno-issledovatel'skiy institut.

BERNSHTEYN, A.V., kand.khim.nauk; NASHIVANKO, Ye.M., inzh.; KUCHMA, M.I., inzh.

Effect of fatty acids on the emulsification capacity of
bitumens. Avt.dor.i dor.stroi. no.1:170-177

(MIRA 18:11)

BERNSHTEYN, A.V.; KUCHMA, M.I.

Chemical emulsification of bitumens. Ukr. khim. zhur. 31 no.9:986-992 '65. (MIRA 18:11)

1. Ukrainskiy dorozhno-transportnyy nauchno-issledovatel'skiy institut.

BERNSHTEYN, B.A., podpolkovnik meditsinskoy sluzhby; RABINOVICH, D.A., inzh.-podpolkovnik

Cutaneous doses received by patients exposed to various examinations in X-ray diagnosis. Voen.-med.zhur. nv.11:72-74 \*64. (MIRA 18:5)

BERNSHTEYH, B.B., insh.; RODOV, E.S., insh.

Economic advantages of using fused slags in making mineral wool products. Stroi.mat. 5 no.12:6-7 D 159. (MIRA 13:3)
(Mineral wool) (Slag)

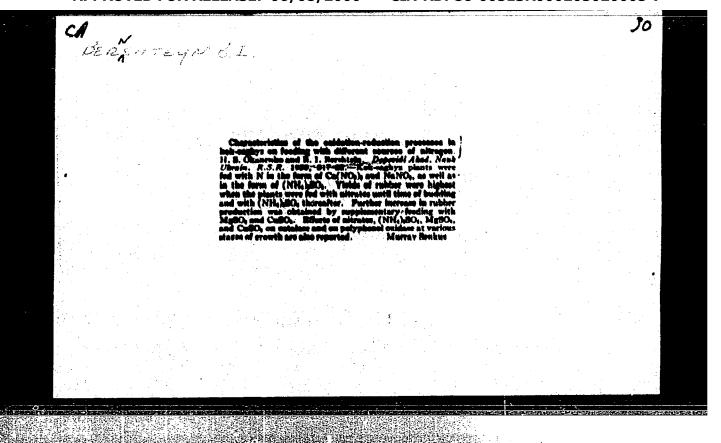
BERNSHTEYN, B. I.

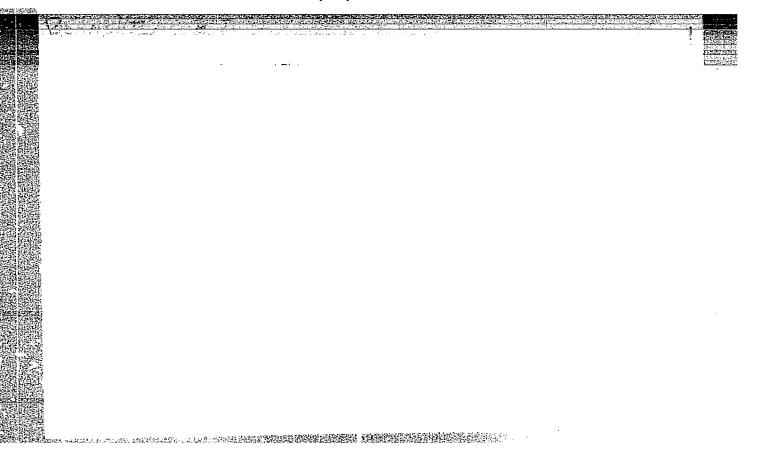
Bernshteyn, B. I. -- "Shell fragment injuries of the eyes," (Based on the material of the N. evacuation hospital), Oftalmol. zhurnal, 1949, No.2, p. 74-79

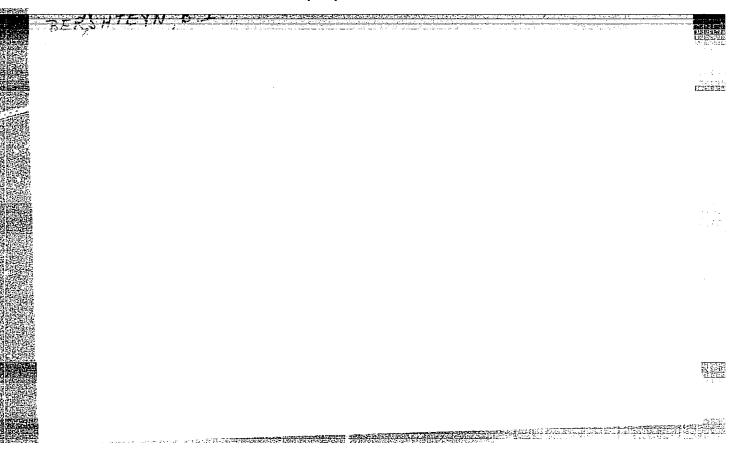
SO: u-5241, 17 December 1953, (Letopis 'zhurnal 'nykh Statey, No. 26, 1949).

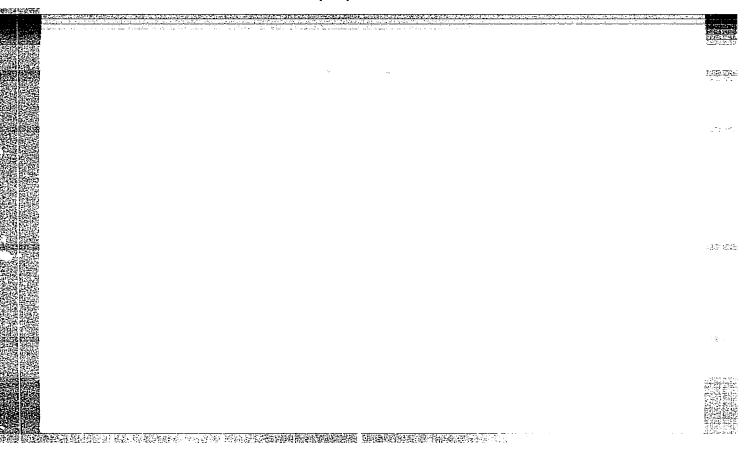
OKANENKO, A.S.; BERNSHTEYN, B.I.

Proteins of wart excrescences in potatoes infected with Synchytrium endobioticum. Dokl. AN SSSR 134 no.3:727-730 S '60. (MIRA 13:9)









80V/75-14-3-18/29 5(2)

Pavlinova, A. V., Bernshteyn, B. I. AUTHORS:

Titrimetric Determination of Mobile Aluminum in Soils TITLE: (Titrimetricheskoye opredeleniye podvizhnogo alyuminiya v

pochvakh)

Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 3, pp 356-357 PERIODICAL:

(USSR)

The method of A. V. Sokolov hitherto applied: titration of ABSTRACT:

the sum of free acid and aluminum with lye, titration of the free acid alone after binding of aluminum with sodium fluoride and determination of the aluminum from the difference,

had certain disadvantages. Basic salts could be formed which involve a greater consumption of lye, besides, the endpoint of the titration was difficult to recognize. in the turbid solution. It is suggested to bind the aluminum with potassium tartrate in which connection the equivalent amount of acid is liberated, and can be titrated in clear solution with phenolphthaleine. A figure shows the influence

exercised by alkali and alkaline-earth salts upon the analysis, a table gives the results of the analysis. There are 1 figure,

Card 1/2

SOV/75-14-3-18/29

Titrimetric Determination of Mobile Aluminum in Soils

1 table, and 3 Soviet references.

ASSOCIATION: Chernovitskiy gosudarstvennyy universitet (Chernovity State University)

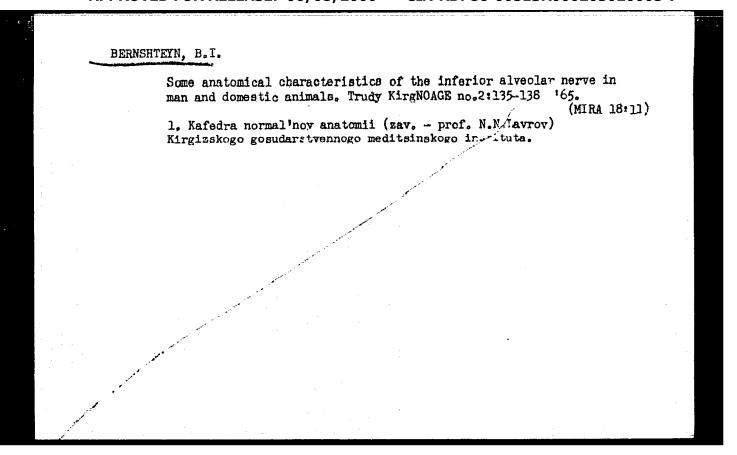
January 2, 1957 SUBMITTED:

Card 2/2

# BERNSHTEYN, I.N.

A set swept by a straight line segment. Dokl. AN SSSR 146 no.1:11-13 S '62. (MIRA 15:9)

1. Predstavleno akademikom I.G. Petrovskim. (Aggregates)



BERNSHTEYN, D.A.

PHASE I BOOK EXPLOITATION SOV/5592

Vsesoyuznoye soveshchaniye po vnedreniyu radioaktivnykh izotopov i yadernykh izlucheniy v narodnom khozyaystve SSSR. Riga, 1960.

Radioaktivnyye izotopy i yadernyye izlucheniya v narodnom khozyaystve SSSR; trudy Vsesoyuznogo soveshchaniya 12 - 16 aprelya 1960 g. g. Riga, v 4 tomakh. t. 4: Poiski, razvedka i razrabotka poleznykh iskopayemykh (Radioactive Isotopes and Nuclear Radiation in the National Economy of the USSR; Transactions on the Symposium Held in Riga, April 12 - 16, 1960; in 4 volumes. v. 4: Prospecting, Surveying, and Mining of Mineral Deposits) Moscow, Gostoptekhizdat, 1961. 284 p. 3,640 copies printed.

Sponsoring Agency: Gosudarstvennyy nauchno-tekhnicheskiy komitet Soveta Ministrov SSSR. Gosudarstvennyy komitet Soveta Ministrov SSSR po ispol'zovaniyu atomnoy energii

Eds. (Title page): N. A. Petrov, L. I. Petrenko, and P. S. Savitskiy; ed. of this volume: N. A. Speranskiy; Scientific ed.: M. A. Speranskiy; Executive Eds.: N. N. Kuz'mina and A. G. Ionel'; Card 1/11

.102

Radioactive Isotopes and Nuclear (Cont.)

sov/5592

Tech. Ed.: A. S. Polosina.

PURPOSE: The book is intended for engineers and technicians dealing with the problems involved in the application of radioactive isotopes and nuclear radiation.

COVERAGE: This collection of 39 articles is Vol. 4 of the Transictions of the All-Union Conference of the Introduction of Radioactive Isotopes and Nuclear Reactions in the National Economy of the USSR. The Conference was called by the Gozudarstvennyy nauchno-tekhnicheskiy komitet Sovet Ministrov SSSR (State Scientific-Technical Committee of the Council of Ministers of the USSR), Academy of Sciences USSR, Gosplan SSSR (State Planning Committee of the Council of Ministers of the USSR), Gosudarstvennyy komitet Soveta Ministrov SSSR po avtomatizatsii i mashinostroyeniyu (State Committee of the Council of Ministers of the USSR for Automation and Machine Building), and the Council of Ministers of the Latvian SSR. The reports summarized in this publication 'deal with the advantages, prospects, and

Card 2/11

10%

Radioactive Isotopes and Nuclear (Cont.)

30V/5592

development of radioactive methods used in prospecting, surveying, and mining of ores. Individual reports present the results of the latest scientific research on the development and improvement of the theory, methodology, and technology of radiometric investigations. Application of radioactive methods in the field of engineering geology, hydrology, and the control of ore enrichment processes is analyzed. No personalities are mentioned. There are no references. are mentioned. There are no references.

#### TABLE OF CONTENTS:

Alekseyev, F. A. Present State and Future Prospects of Applying the Methods of Nuclear Geophysics in Prospecting, Surveying, and Mining of Minerals

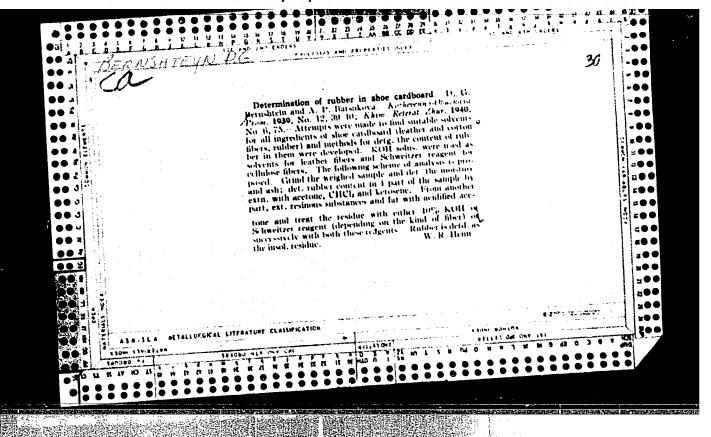
Bulashevich, Yu. P., G. M. Voskoboynikov, and L. V. Muzyukin. Neutron and Gamma-Ray Logging at Ore and Coal Deposits

19

Gordeyev, Yu. I., A. A. Mukher, and D. M. Srebrodol'skiy. The

Card 3/11

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Radioactive Isotopes and Nuclear (Cont.) S07/5592	
Fel'dman, B. Ye., and L. Z. Tslav. Determining the Location of the Contact Zone of Oil-Bearing and Water-Bearing Carbonaceous Beds by the Induced Activity Method	r 203
Zhuvagin, I. G., and Yu. A. Akchas yanov. Use of Radioactive Isotopes in a New Method for Controlling the Results of a Hydraulic Rupture of the Bed	109
Gulin, Yu. A., D. A. Bernshteyn, and Yu. I. Sokolov. New Methods and Equipment for the Investigation of the Cement Distribution Behind the Column in the Reinforced Boreholes	116
Vasil'yeva, N. A., E. V. Sokolovskiy, and V. N. Maydebor. Use of Radioactive Hydrogen-Tritium Isotope in Exploration and Exploitation of Oil Deposits for Control of Water Movement Along the Bed	•
Soyfer, V. N. Method for Determining the Natural Tritium as a Means of Solving Hydrogeological and Hydroengineering	
Card 6/11	• • • • • • • • • • • • • • • • • • • •



BERNSHTEYN, D.G., inzh.; NEMIROVSKIY, L.R., inzh.

Using a chromatic pyrometer to measure the temperature of the clinkering zone. TSement 31 no.1:11-13 Ja-F 165.

(MIRA 18:4)

1. Institut Giprostromavtomatizatsiya.

BERNSHTEYN, D. L.

UESER/Mathematics - Matrices

"On an Interpolation Process of Academician S. N.
Bernshteyn," D. L. Bernshteyn, 4 pp

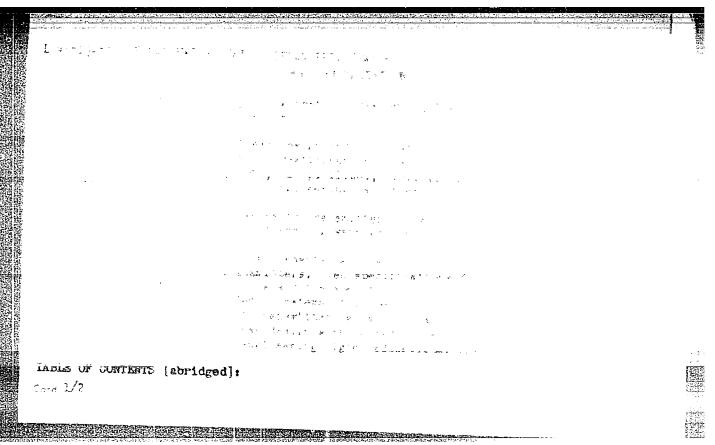
"Dok Ak Nauk SSSR" Vol II, No 3

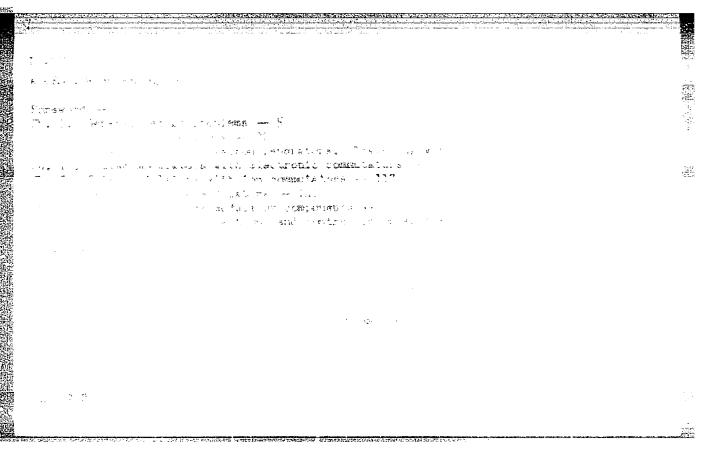
Explains method whereby Bernshteyn's process can be expanded and applied to wide class of nodule matrices. Submitted by Acad V. I. Smirnov 27 Feb

1948.

LABETS, K.S.; KHAVIN, M.L.; BERNSHTEYN, E.A.; RUDYACHENKO, N.K.; BATENIN, Ye.S.

Some problems of teaching special technical courses by means of teaching machines. Izv. vys. ucheb. zav.; radiotekh. 6 (MIRA 16:11)





BERNSHTEYN, H.S., inshener; TSYRLIN, D.Sh., inzhener.

#limination of oil leakage from steam turbine bearings. Energetik 4 no.6:19-21 Je '56. (MLRA 9:8)

(Bearings (Machinery))

BERNSHTEYN, E.S.

Automatic indexing. NTI no.10:22-25 163. (MIRA 17:1)

BERNSHTEYN, E.S.; LAKHUTI, D.G.; CHERNYAVSKIY, V.S.

Designing descriptor information retrieval systems. NTI no.1:31-33 '63. (MIRA 16:8)

BERNSHTEYN, E.S.

Formalized language and the criterion of semantic conformaty in the "Fusto-Nepusto-4" information retrievel system.

NTI no.12:31-39 '63. (NIE: 17:6)

BERNSHTEYN, E.S.; LAKHUTI, D.G.; CHERNYAVSKIY, V.S.

Criteria for evaluating information searching systems. NTI no.3: 22-32 164. (MIRA 17:9)

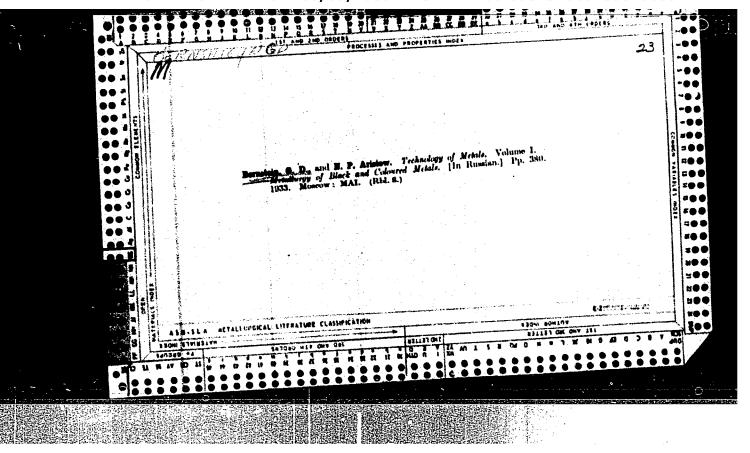
	agglutinated by equine blood sera uding the subject's own serum. At Ma borate to human blood serum in thinating capacity.	In the animal organism, boron compdivith glucose, riboflavin, pyridoxin, acid. codehydrogenase I, codehydrogand adrenalin. Na borate affects ometabolism: it reduces the glucose in the blood of rabbits, and enhance glycemic effect of insulin. B derivs with redox systems (riboflavin, asconincrease the activity of catalase in factorytes suspended in MaCl soln	USSR/Biology - Boron, Trace El "The Biochemistry of Boron," "Priroda" No 4, pp 62-64
	plood sera of all serum. Addn of No	ism, boron compds interact flavin, pyridoxin, ascorbic nase I, codehydrogenase II. Is borate affects carbohydrate uces the glucose content ibbits, and enhances the hypoinsulin. B derivs form addn compds (riboflavin, ascorbic acid) and ty of catalase in blood. Horse in MaCl soln plus Na borate	Elements Apr 5

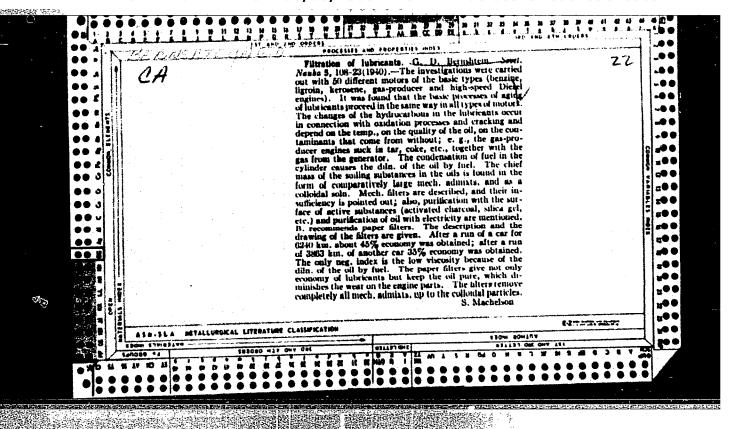
BERNSHTEYN, F.Ya. [Beranshtein, F.IA.], prof.

Diciogical role of some trace elements as related to their place in D.I. Mendeleey's periodical system of elements. Vestsi AN BSSR. Ser. bital. nav. no.1:95-103 '59. (MIRA 12:7)

1. Kafedra biokhimii Vitebskogo veterinarnogo instituta. (Trace elements)

"APPROVED FOR RELEASE: 06/08/2000 CIA-RDP86-00513R000205020005-7





BERNSHTEYN, G. D.

Fuel, lubricants and water
Dopushcheno v kachestve uchebnika dlia teknikumov mekhanizatsii seliskogo
khoziaistva. Moskva, Selikhozgiz, 1948. 318 p. (Uchebniki i uchebnye posobiia dlia
seliskokhoziaistvennykh tekhnikumov) (49-52267)

S760.R9B47

BERNSHTEYN, Grigoriy Davidovich; PESTRYAKOVA, S.V., redaktor; PAVLOVA, M.M., tekhnicheskiy redaktor

[Fuel and lubricants] Toplivo i smasochnye materialy. Izd. 2-oe, perer. Moskva, Gos. izd-vo selkhos. lit-ry, 1956. 294 p. (MIRA 9:10) (Fuel) (Lubrication and lubricants)

BERNSHTEYN, G.D., kand. tekhn. nauk; KOLOMYTSEV, I.V.; SURKO, V.I.; KOLOMOR, S.A.

Causes of inadequate oil purification in motor-vehicle engines.

Avt. prom. 31 no.3:15-18 Mr '65. (MIRA 18:7)

1. Kazakhskiy gosudarstvennyy sel'skokhozyaystvennyy institut.

ACC NR: AP7002580

(A,N)

SOURCE CODE: UR/0413/66/000/023/0077/0077

INVENTORS: Anisimova, L. I.; Bernshteyn, G. L.; Gutskin, V. M.; Potov, P. A.; Karapetov, K. K.; Kovalev, G. N.; Rapoport, M. B.; Spasibukhov, O. I.

ORG: none

TITLE: Device for converting seismograms into variable height recordings. Class 42,

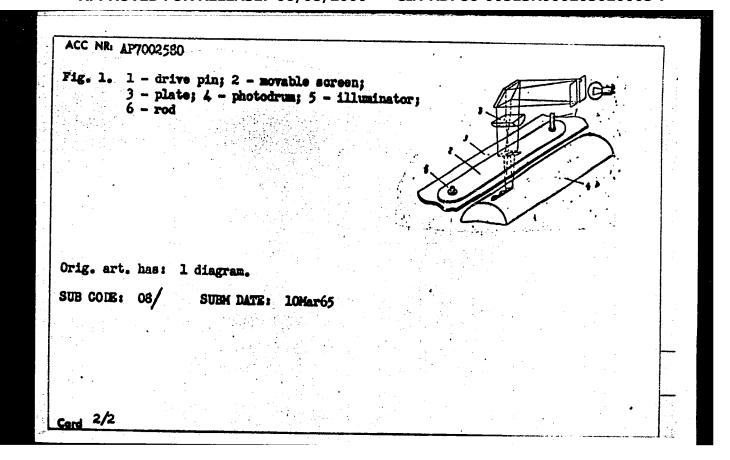
SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 77

TOPIC TAGS: seismograph, seismologic instrument

ABSTRACT: This Author Certificate presents a device for converting seismograms into variable height recordings, which contains a pantograph, an illuminator, and a photodrum. To increase the rate of processing seismograms, a drive pin coupled with a movable screen is mounted in the pencil socket of the pantograph (see Fig. 1). The illuminator and a rod which is the axle of rotation of the movable screen are mounted on a plate which can be moved along the generatrix of the photodrum.

Card 1/2

UDG: 550.340.8



8/193/63/000/002/006/007 A004/A101

UTHORS:

Azarevich, G. M., Candidate of Technical Sciences, Bernshteyn,

Automatic machine tool for finishing and hardening shaft-type

components

PERIODICAL: Byulleten tekhniko-ekonomicheskoy informatsii, no. 2, 1963, 44 - 46

The new automatic has been developed by NIItraktorosel khozmash and is intended for finishing and hardening of shafts from 6 - 20 mm in diameter and up to 320 mm in length, such as piston rods of hydraulic and pneumatic cylinders, telescopic shock-absorber rods, oil pump shafts of tractor and automobile engines, etc., by burnishing the outer surface of these parts. By slightly modifying the design, the automatic may be used for working components of larger diameters as well, and also stepped shafts, valves, etc. The authors point out that similar designs do not exist, neither in the Soviet Union nor abroad. The tool is a multiple-roller burnishing head with fitted separator. The working procedure on the automatic consists in a plastic deformation of the surface roughness resulting from the roughing operations. In one operation, the surface finish of components made of steel with a hardness not exceeding 32 HRC is improved from class 7 Card 1/2

Automatic machine tool for ...

S/193/63/000/002/006/007 A004/A101

to class 11, that of steel parts of 32 - 45 HRC from class 7 to class 10 (FOCT [GOST] 2789-59) inclusively. Also cast-iron, nonferrous metal and alloy parts can be worked on this machine, a detailed description of whose design, main units and operation is given by the authors. The capacity of the automatic in working shock-absorber rods of the "Moskvich" car amounts to 210 pieces/hour of rear shock-absorber rods 270 mm in length and to 250 pieces/hour of front shock-absorber rods 231 mm in length. The respective operating cycles are 9 and 17 sec for the former and 7 and 14 sec for the latter. In 1962 this automatic was set up at the Moskovskiy karbyuratornyy zavod (Moscow Carburetor Plant). Annual savings in using this automatic amount to some 20,000 rubles. There is 1 figure.

Card 2/2

BIRECKA, H.; SKUPINSKA, J.; BERNSTEIN, I.

Photosynthesis, translocation and accumulation of assimilates in cereals during grain development. Pt.5. Acta soc botan Pol 33 no.3:601-618 '64.

1. Department of Plant Physiology, Central College of Agriculture, Warsaw, and Department of Plant Physiology, Institute of Cultivation, Fertilization and Soil Sciences, Warsaw.

BER	NSHTEYN, I.
	Reimbursement for marketing costs. Den.i kred. 18 no.1:63 Ja 60. (HIRA 13:1)
	· L

ZUYEV, V.P.; GILYAZETDINOV, L.P.; GYUL'MISARYAN, T.G.; BERNSHTEYN, I.D.; SAULINA, V.V.; MAGARIL, R.Z.; SEREBRYAKOV, K.F.; BORSHCHEV, B.S.

Extracts of catalytic gas oils as raw stock for the production of furnace black. Khim. i tekh. topl. i masel 9 no.12:6-11 D '64.

1. Nauchno-issledovatel'skiy institut shinnoy promyshlennosti, Omskiy naucho-issledovatel'skiy konstruktorskogo-tekhnologicheskiy institut shinnoy promyshlennosti, Omskiy sazhevyy zavod 1 Kudinovskiy sazhevyy zavod.

ZUYEV, V.P.; GILYAZETDINOV, L.P.; GYUL'MISARYAN, T.G.; SAFRONOV, N.Ya.;
BERNSHTEYN, I.D.; GLAGOLEV, V.I.; TSYGANKOVA, E.I.; SOKOLOVA, V.V.;
BYSTROV. K.M.; KHOKHLOV. B.P.

Some characteristics of the production of PM 70 carbon black in cyclone reactors with the use of thermogas oil. Kauch. i rez. 24 no.6x19-24 Je 165. (MIRA 18:7)

1. Nauchno-issledovatel skiy institut shinnoy promyshlennosti i Nove-Yaroslavskiy saghevyy zavod.

GILYAZETSINOV, L.P.; ZUYEV, V.P.; BERNSHTEYN, I.D.; SUYETENKO, L.P.

Production of active chimney soot from mixtures of petroleum and coal-tar oils. Kauch.i rez. 21 no.1:5-6 Ja '62. (MRA 15:1)

1. Nauchno-issledovatel'skiy institut shinnoy promyshlenmosti. (Carbon black)

S/138/62/000/001/002/009 A051/A126

AUTHORS:

Gilyazetdinov, L.P.; Zuyev, V.P.; Bernshteyn, I.D.; Suyetenko,

L.P.

TITLE:

The production of active furnace carbon blacks from mixtures of pe-

troleum and coal oils

PERIODICAL: Kauchuk i rezina, no. 1, 1962, 5 - 6

TEXT: Tests were carried out to determine the optimum composition of petroleum and coal oil mixtures and the production of active furnace carbon blacks. The experiments were made in a single-chamber cylindrical reactor with an internal diameter of 500 mm and 3.5 m in length. The reactor capacity was 25 kg/h. The experimental carbon blacks were analyzed according to physico-chemical methods and tested in vulcanizates based on CKC-30 AM (SKS-30 AM) (standard composition). Experimental results showed that the active furnace carbon black output, the total air consumption and the process temperature corresponded to the aromatization factor. The obtained relation points to the expediency of a wide introduction of the aromatization factor for characterizing the raw material and for correcting the production methods of the active furnace carbon blacks. Pe-

Card 1/2

\$/138/62/000/001/002/009

The production of active furnace carbon blacks .... A

A051/A126

troleum and coal oil mixtures are recommended. There is 1 table and 1 figure.

ASSOCIATION: Nauchno-issledovatel'skiy institut shinnoy promyshlennosti (Scientific Research Institute of the Tire Industry)

Card 2/2

BERNSHTEYN, I.D., FEL'DMIN, V.M.; GILYAZETDINOV, I.F.

Effect of the coking characteristics of the raw materials on the properties of furnace black. Kauch. 1 raw. 22 no.12s 35-36 D 163. (MESA 17:9)

1. Nauchno-issledovatel skiy institut shinnoy promyshlennosti.

BERNSHTEYN, I. L., RUKAVISHNIKOV, V. I., and V. F. PARYSHEV.

Skorostnoe tochenie stalei v. podshipnikovom proizvodstve (Opyt raboty 1 GPZ im. Kaganovicha). Moskva, Mashgiz, 1950

High speed steel grinding for the production of bearings.

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of Congress, 1950,

BERNSHTEYN, I. L. and BELENKO, I. S.

"Cutting Tool in High-Speed Machining of Bearing Rings on Multiple-Tool Semi-Automatic and Automatic Lathes," Podshipnik, No.4, 1952

BERSHTEYN, I.L. and BELENKO, I.S.

"Efficient Machining of Bearing Rings on Multiple-Tool Automatic Lathes and Semi-Automatic Machines," Podshipnik, No.7, 1952

- 1. BERNSHTEYN, I.I.
- 2. USSR (600)
- 4. ROLLER BEARINGS
- New method for turning external rings of tapered roller bearings. Podshipnik no. 10 1952

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

BAYKOV, S.P., kand. tekhn. nauk; HELLENKO, I.S., kand. tekhn. nauk;

HELKOV, S.F., Inzh.; HELYANCHIKOV, M.P., inzh.; HERNSHTEYN,

I.L., inzh.; BOCGRODITSKIY, D.D., inzh.; BOLGNOVA, Ye.V.,

KANd. tekhn. nauk; HROZGOL', I.M., kand. tekhn.nauk;

VIADIMIROV, V.B., inzh.; VOLKOV, P.D., kand. tekhn. nauk;

GERASIMOVA, N.N., inzh.; ZHUKHOVITSKIY, A.F., inzh.;

KABANOV, M.F., inzh.; KANEVTSOV, V.M., kand. tekhn. nauk;

KOLOTENKOV, I.V., inzh.; KONDRAT'YEV, I.M., inzh.;

KUZNETSOV, I.P., kand. tekhn. nauk; L'VOV, D.S., kand.

tekhn. nauk; IYSENKO, I.Ya., kand. tekhn. nauk; MAKAROV,

L.M., inzh.; OLEYNIK, N.D., inzh.; RABINER, Ye.G., inzh.;

ROZHDESTVENSKIY, XM.L., kand. tekhn. nauk; SAKHON'KO, I.M.,

kand. tekhn. nauk; SIDOROV, P.N., inzh.; SPITSYN, N.A., prof.,

doktor tekhn. nauk; SPRISHEVSKIY, A.I., kand. tekhn. nauk;

CHIRIKOV, V.T., kand. tekhn.nauk; SHEYN, A.S., kand. tekhn.

nauk; NIHERG, N.Ya., nauchnyy red.; BLAGOSKLONOVA, N.Yu., inzh.,

red. izd-va; SOKOLOVA, T.F., tekhn. red.

[Antifriction bearings; manual] Podshipniki kacheniia; spravochnoe posobie. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 828 p. (MIRA 15:2) (Bearings (Machinery))

BERNSHTEYN, I. L., DRYAGIN, YU. A. (NIRFI, Gor'kiy)

"The Application of a Molecular Generator as a Stable Frequency Reference Signal for Phase Automatic Frequency Control of a High-Power Generator".

They describe an experimental unit operating in such a way that the eighth harmonic of the klystron oscillations coinincides with the oscillation of the molecular generator. The relative frequency stability of the output signal is in this case equal to the relative molecular generator stability.

report presented at the All-Union Conference on Statistical Radio Physics, Gor'kiy, 13-18 October 1958. (Izv. vyssh uchev zaved-Radiotekh., vol. 2, No. 1, pp 121-127) COMPLETE card under SIFOROV, V. I.)

BERNSHTEYN

SOV/142-2-1-21/22

AUTHOR:  $P^{.3}$ , Suchkin, G.L.

TITLE:

The First All-Union Conference on Statistical Radio Physics (Pervaya Vsesoyuznaya konferentsiya po

statisticheskoy radiofizike)

PERIODICAL:

Izvestiya vysehikh uchebnykh zavedeniy - radiotekh-

nika, 1959, Vol 2, Nr 1, pp 121-127 (USSR)

ABSTRACT:

The first All-Union Conference on Statistical Radio Physics took place in Gor'kiy from 13 to 18 October 1958. The Conference was organized and conducted by the Nauchno-issledovatel'skiy radiofizicheskiy institut pri Gor'kovskom gosudarstvennom universitete imeni N.I. Lobachevskogo (Scientific Research Institute of Radio Physics at the Gor'kiy State University imeni N.I. Lobachevskiy - NIRFI) by order of the USSR Ministry of Higher Eduction, AS USSR, VNTOR and E imeni A.S. Popov. A number of wellknown specialists participated at the Conference, among them S.M. Rytov, M.L. Levin, I.L. Bernshteyn and others. Further, there were representatives of

Card 1/22

507/142-2-1-21/22

The First All-Union Conference on Statistical Radio Physics

the majority of leading scientific research instituts of radio physics, radio engineering organizations and of the vuzes. The work of the Conference was conducted in three sections. On 13 October 1958, the plenary session was opened by Professor S.M. Rytov (FIAN Moscow). He describes statistical radio physics as a branch of modern radio physics, dealing with the investigation of random processes (among them fluctuation processes). He outlined the importance of statistical radio physics for radio engineering. The USSR has a leading position in the field of statistical radio physics. The initial work in this field was performed by L.I. Mandel'shtam and A.A. Andronov, its development was continued by G.S. Gorelik, I.L. Bernshteyn and V.S. Troitskiy, working in Gor'kiy. Professor Rytov outlined the importance of statistical radio physics in quantum radio engineering. Statistical radio physics is also important in the investigation of noises, and here only the theory of thermal noises

Card 2/22

The First All-Union Conference on Statistical Radio Physics

is on a satisfactory level. Concerning the latter problem, there is a lack of scientific papers, and the number of reports dealing with this subject, was inadequate, even at this Conference. The Conference participants heard with great interest the latest research results in the field of the statistical theory of communication (theory of information) contained in the report "The Theory of Radio Communication Channels Having Parameters Changing at Random" by V.I. Siforov, Associate of AS USSR, which was delivered at the plenary session. I.L. Bernshteyn (NIRFI, Gor'kiy) reviewed the development of statistical radio physics in his report, titled "Fluctuation Phenomena in Self-Oscillator Networks". Already in the mid-thirties, by suggestion and under supervision of A.A. Andronov, the author analyzed and calculated processes in an ordinary vacuum tube oscillator, considering the fluctuation influence of the shot effect in the tube and the thermal effect in the network. Later,

Card 3/ 22

SOV/142-2-1-21/22 The First All-Union Conference on Statistical Radio Physics

the problem of oscillator fluctuations became important, when receivers fon the cm-wave range were built. In 1949, experimental investigations of the oscillation fluctuation of an ordinary tube oscillator were conducted at GIFTI (Gor'kiy). Recently, a large number of papers were published on this subject and the author mentioned in this connection G.S. Gorelik, S.M. Rytov, D. Middleton (USA), V.S. Troitskiy, A.N. Malakhova, M.Ye. Zhabotinskiy and P.Ye. Zil'berman. S.M. Rytov delivered the last report at the plenary session, titled "The Fluctuation Theory in Strictly Non-Linear Self-Oscillator Networks". In this report, self-oscillating networks were considered, permitting a piece-linear approximation of non-linear characteristics. Random forces were assumed as being small and shortly correlated. For simplicity, the theory was developed for the special case of a system with only one degree of freedom. The phase space of the system under consideration is a plane, divided into

Card 4/22

The First All-Union Conference on Statistical Radio Physics

two semiplanes which are infinitely straight. Using the point transformation method, small fluctuations investigated in the neighborhood of a stable limit cycle. The statistical characteristic and the diffusion coefficient of the "phase" were obtained. Disregarding the "amplitude" fluctuation, the self-oscillation spectrum was obtained. The author showed that the width of the lines at half the intensity level is propertional to the square of the harmonic number, and also their integral intensity, which is also the case during the absence of fluctuations. As an example, the author discussed a tube oscillator with an anode network and inductive feedback. The work of the three conference sections was conducted from 14 to 17 October 1958. The section "Fluctuations in Self-Oscillator, Radio Measuring and Amplifier Networks" was headed by I.L. Bernshteyn and S.M. Rytov. A.N. Malakhov (NIRFI, Gor'-kiy) delivered a report on "The Spectral Line Width of Oscillators and the Parameter Fluctuation".

Card 5/22

The First All-Union Conference on Statistical Radio Physics

Here, a self-oscillator network was considered, which was described by a n-th order differential equation. The author showed that the enlargement of the oscillator lines was caused by slow (compared to the oscillation period) and fast parameter fluctuations, whose spectrum is located near the frequency multiples to the self-oscillation frequency. In the report of Yu.M. Romanovskiy and R.L. Stratonovich (MGU, Moscow), "The Parametric Effect of a Random Force on Linear and Non-Linear Oscillator Networks", the problem was solved by using shortened equations for second order equations. The conditions for parametric excitation were found for linear networks in the presence of a wide and narrow fluctuation spectrum (compared to the bandwidth of the network). The author determined the borders of the main parametric resonance field with simultaneous parametric influence of the harmonic force and wide-band noise. The laws of probability distribution for amplitudes and phases

Card-6/22

The First All-Union Conference on Statistical Radio Physics

were found for the non-linear case. A great number of reports dealt with the investigation of slow fluctuations. V.S. Troitskiy (NIRFI, Gor'kiy) de-livered a report on "The Spectral Width of Tube Oscillator Lines and Flicker Noise". He explains a method for calculating the influence of slow fluctuations on the frequency and amplitude of selfoscillator oscillations. The author showed that tube flicker noise may influence the amplitude and frequency fluctuation of the oscillations, whereby the line contour appears in the Doppler shape, while its width exceeds the natural line width by some orders. Yu.A. Dryagin (NIRFI, Gor'kiy), "An Investigation of Technical Frequency Drifts of Tube Oscillators", explained a measuring method and presented measuring results obtained with oscillators in the range of 20-200 mc. He showed experimentally that the spectral density of the frequency changes as 1/f. He suggested an oscillator circuit providing a greater frequency stability than the conven-

Card 7/22

SOV/142-2-1-21/22 The First All-Union Conference on Statistical Radio Physics

> tional networks, because of the new way of coupling the tube with the network. A.I. Chikin (NIRFI. Gor'kiy) reported on "Flicker Noise in Modern Électron Tubes". He presented measuring results of the low frequency noise spectrums of vacuum tubes (allmetal tubes, miniature tubes and tubes with a tungsten cathode). The author showed that recently produced vacuum tubes have a considerably low flicker noise level. The report by M.Ye. Zhabotin-skiy and P.Ye. Zil'berman (IREAN, Moscow), "The Fluctuations in Quartz Oscillators", was devoted to the analysis of three circuits, taking into consideration shot and thermal noise influences. results obtained by the investigators showed that the natural line width of such an oscillator is smaller by approximately two orders compared to an ordinary oscillator. A number of reports dealt with investigations of fluctuations in reflex klystrons. S.A. Akhmanov and G.F. Antonov (MGU, Moscow) reported on "The Fluctuations in a Super-high

Card 8/22

The First All-Union Conference on Statistical Radio Physics

Frequency Radio Pulse Oscillator With a Reflex Klystron". They investigated the fluctuation effects, appearing as settling time fluctuations of the stationary amplitude and phase and as phase and amplitude fluctuations duning a radio pulse. The author presented the results of theoretical and experimental investigations. The report of S.A. Akhmanov "Slow Frequency and Amplitude Fluctuations in a Reflex Klystron", dealt with a method and the results of an experimental investigation of spectral densities of frequency and amplitude fluctuations in a 3-cm wave reflex klystron within the range of 100 cps to 5 kc. The author showed that the spectral density of the klystron frequency fluctuations changed within the indicated range as 1/f, when all electrodes were fed from batteries, and that the phase dispersion during the time of 10<sup>-3</sup>-10<sup>-4</sup> seconds was principally determined by slow fluctuations. Ye.N. Bazarov and M.Ye. Zhabotinskiy (IREAN, Moscow), "Fluctuations in a

Card 9/22

SOV/142-2-1-21/22 The First All-Union Conference on Statistical Radio Physics

Reflex Klystron", investigated theoretically the fluctuations during synchronized operation with second order resonance and overtone synchronization. They also investigated self-oscillator fluctuations at an arbitrary transit angle. V. N. Nikonov (GGU, Gor'kiy) in his report "The Investigation of Oscillation Fluctuation of a Klystron Oscillator" considered random amplitude and phase modulation of klystron oscillations, caused by random processes connected with the electron flow. Experimental measurements of oscillation parameter fluctuations showed a coincidence with the theory first developed by I.L. Bernshteyn. The reports, "Spectral Peculiarities of LBV and Gas Discharge Noise Tubes" by G.P. Apushinskiy (Leningrad); "The Fluctuation Correlation of a One-Dimensional Multi-Speed Electron Flow in Drift Space" by B.V. Berdavtsev (Moscow Oblast'); "The Theory of Oscillations and Noises in Multi-Speed Electron Flows" by A.A. Nikolayev (Moscow Oblast'), dealt with investigations

Card 10/22

BERSHTEYN, I.L.; GERTSENSHTEYN, M.Ye.

Possibility of measuring the propagation velocity of gravitation in laboratory conditions. Zhur.eksp.i teor.fiz. 37 no.6:1832-1833 D '59. (MIRA 14:10)

(Gravitation)

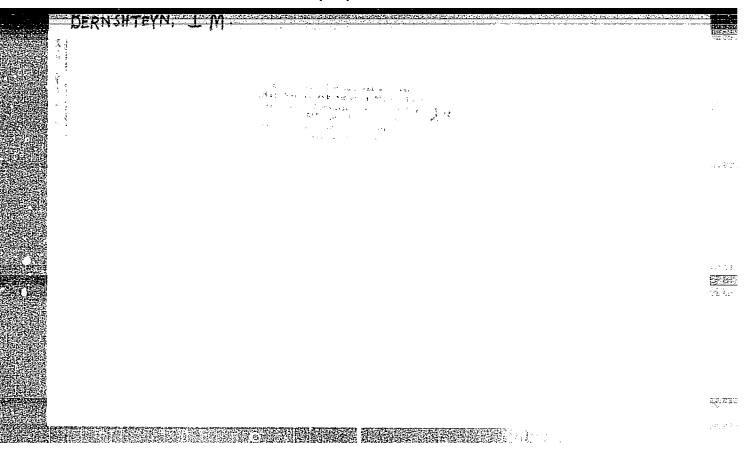
KORYAKIN, Sergey Fedorovich, kand. ekon. nauk, dots.; BERNSHTEYN, Iosif L'vovich, kand. ekon. nauk, dots.; Prinimal uchastiye: ELLINSKIY, Yu.F., st. prep.; SHRABSHTEYN, Ye.A., dots., retsenzent; CHERKASOV-TSIBIZOV, A.A., st. prepod., retsenzent; MILYUKOV, M.A., st. prepod., retsenzent; MOZHAROV, N.D., kand. ekon. nauk, retsenzent; MAKAL'SKIY, I.I., kand. ekon. nauk, retsenzent; KREMER, B.A., inzh., retsenzent; PETRUCHIK, V.A., kand. ekon. nauk, red.; GUBERMAN R.L., kand. ekon. nauk, red.; RODIN, Ye.D., kand. ekon. nauk, red.; DUBCHAK, V.Kh., inzh., red.; MARTIROSOV, A.Ye., inzh., red.; PALYUSHKIN, V.A., inzh., red.; BELOV, M.I., doktor geogr. nauk, red.; SINITSYN, M.T., inzh., red.; KOLESNIKOV, V.G., kand. tekhn. nauk, red.; ZAMAKHOVSKIYA, A.G., kand. ekon. nauk, red.; KUZ'MIN, T.P., inzh., red.; NEMCHIKOV, V.I., kand. tekhn. nauk, red.; GEKHTBARG, Ye.A., inzh., red.; FILIPPOV, K.D., red.; KRUGLOVA, Ye.M., red.

[Economics of the merchant marine] Ekonomika morskogo transporta. Izd.2., perer. i dop. Moskva, Transport, 1964.
527 p. (MIRA 18:1)

BUROVOY, I.A.; BERNSHTEYN, I.M.

Continuous automatic batching of moist concentrates. TSvet. met. 29 no.7:47-53 J1 '56. (MLRA 9:10)

1. Gintsvetmet.
(Weighing machines) (Automatic control)



Automation of the fluidized-bed roasting of zinc concentrates.

of the charging rate did not exceed 4 4%, the temperature fluctuations of the bed being kept within 15-20 °C. During testing and use of the temperature regulating system it was found that a change in the desired value of the charging regulator in the range + 5% corresponds to a bed-temperature change of + 15-20% for a mean temperature of 950 °C, the mean period of temperature fluctuation (and charging) within the range indicated amounting to 2 - 2.5 hours. The whole control and measuring system is shown diagrammatically and consists of seven main sections: concentrate-charging regulation; hed-temperature regulation; pressure regulation; measurement and regulation of blast; automatic thermal control; process signalisation; and control of motors and furnace feed mechanisms. There are three Slavic references. There are 2 figures.

Card 2/2

ASSOCIATION: Gintsvetmet and Elektrotsink Works.

AVAILABLE:

Me Tallor (For BUROUSY + BERNSHTEYN)

2. Zavod "Elektrotsink" (For StreyingART)

s/119/60/000/010/002/014/x BO12/BO63

AUTHORS:

Bernshteyn, I. M., Engineer, Golant, A. I., Engineer

TITLE:

Generation of a Control Pulse According to the First Derivative With the Help of the Mass-produced Controller

NP-130 (IR-130)

PERIODICAL:

Priborostroyeniye, 1960, No. 10, pp. 4 - 7

TEXT: At present, PI controllers of the NP-130 (IR-130) type are used in industry to control processes with different dynamic properties. However, if a particularly high quality of control is required, these controllers must be replaced by others. The authors note that these controllers allow to attain a higher quality by generating control pulses according to the first derivative. The principle of the generation of such pulses is explained, and the following is shown: If the static member of the controller is changed into a proportional one, the voltage at the output of the thermal bridge becomes proportional to the current in the corresponding control circuit and, thus, also to  $dx_{input}/dt$ .

Card 1/3

Generation of a Control Pulse According to the S/119/60/000/010/002/014/X First Derivative With the Help of the Mass- B012/B063 produced Controller MP-130 (IR-130)

Figs. 1 and 2 show the two types of IR-130 controllers. If the voltage generated in the thermal bridge by means of the supply current of the motor is applied to one of the windings of the input transformer, the output of the controller receives a signal that is proportional to the first derivative of the input signal. The change of the circuit diagram of the IR-130 controller may be seen from Fig. 2. Thus, the IR-130 controller is changed into a PD controller. It is noted that, besides the change of the circuit diagram, it is also necessary to add two resistors. Fig. 4 shows the scheme of a linear PD controller. Formulas (5) are derived for calculating the modulus and the phase of the amplitude-frequency and phase-frequency characteristics. Experimental and calculated characteristics of the PD controller are shown in Fig. 5. For the modulus, the results converge in the range of +3% to the corresponding limit and for the phase in the range of  $\pm 4\%$ . If a PID controller is necessary to guarantee a sufficient control quality, the PD controller described here may be supplemented by a mass-produced IR-130 controller. The PID controller described was introduced by the factory "Elektrotsink" in

Card 2/3

Generation of a Control Pulse According to the First Derivative With the Help of the B012/B063 B012/B063

March 1959. It guarantees a sufficient control quality and is very reliable. The present work was carried out by the author jointly with N. I. Kabachkov. There are 6 figures and 2 Soviet references.

Card 3/3

PROSPERI. Franco.; KHINKIS, V.A., [translator], BERNSHTEYN, I.M., [translator]

[On the Comoro Islands] Na Lunnykh ostrovakh. [Perevod s ital'ianskogo. Moskva, Gos. izd-vo geogr. lit-ry, 1958. 220 p.

(MIRA 11:10)

(Comoro Islands)

BE	RN'S	hTi	AUTHOR: 01'skiy, Tu.Ta. BOV/136-59-3-18/21 TITE: Conference on Finitised-bed Rossing (Sovesbchaniye po	PRIODICAL: Evertagys Meating, 1959, Mr 3, pp 79 - 80 (UBSR) ABSTRACT: The author Date; with some examples; the wide use being sade in the Boriet non-ferrous sates industry of fluidised-bed treating processes. To facilitate exchange of operating experience and processe the further application est such processes a conference the further application	The solutions was corrected by the Hauthor-telahatches was the following by the telahatty for the solution of the following by the telahatty Bronnic Council). Assor the reports heard by the contract was an absence was the following. A.M. Termorating and A.M. Bales (Winter), analyzing the operation of flaidised reagers in the chancel influency; Tu. 1. Sabchic and A.M. A.M. Telahatches was the flaidised trapiers in the chancel influency; Tu. 1. Sabchic books and A.M. Telahatches was the flaid (Vehicles to the Total Combins) on best utilisation in pyrites resating; by L.A. Burovoy, I.V. Bernahaten	and G.Ya. Exinharmity (Ginesvenet) on the study and istroduction of subcasio. Tididised-casts: control and con-plan-automatica notations in y 4.0. Amelia. (MINIT) on Production of Sulpunric Acid from SilpEnd of Ores the Parallelle amperisons of Studies of SilpEnd of Ores the Amelia of Parallelle amperisons of fluidised rossing, noted scouses effected through its introduction and recommised lines of research and improved operating methods. Attention was drawn to shortconings in the development of the fluidised to the fluidised to the second recommendating process in the USSR. The conference was defaulted process in the USSR. The conference process. The process of the stable of the stable amelia	Tablesantations at the conference of the research and planning organisations of the aluminium industry. The proceedings of the conference are due to be published by Card2/2 be Society.	
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18(3)

SOV/105-59-3-16/27

AUTHORS:

Bernshteyn, I. Ya., Engineer, Leytes, L. V., Engineer

TITLE:

On the Calculation of Transformers With a Movable Short-circuited Winding (K raschetu transformatorov s peredvizhnoy

korotkozamknutoy obmotkoy)

PERIODICAL:

Elektrichestvo, 1959, Nr 3, pp 72 - 77 (USSR)

ABSTRACT:

This is a presentation of a method of electromagnetical computation and of the fundamental principles of an economic planning of transformers with a movable shortcircuited winding. The operational principle of this type of transformer has already been described, at least to a certain extent, in other publications (Refs 1,2,3,4,5,6,7). The transformer is provided with 5 windings: two ganged primary windings, usually with an equal number of turns, producing a magnetic

flux, which finds its closed path across the gap between the core and the lateral yokes; two ganged secondary windings,

which produce parallel magnetic fluxes and which are

arranged concentrically to the primary windings, the movable shortcircuited winding is located at the outside. If it is in a medium position, one half of the magnetic flux passes

Card 1/3

On the Calculation of Transformers With a Movable Short-circuited Winding

SOV/105-59-3-16/27

through the lower yoke, and the other half through the upper yoke. Thus emf's with an opposing phase are produced in the secondary windings. The total secondary emf is at any arbitrary position of the movable winding equal to the sum of the emf's of the individual secondary windings. If they have an equal number of turns, the total secondary emf is zero, if the movable winding is in its medium position. If this winding has been removed to one of the end positions (down, for example) the greater part of the magnetic flux passes through the upper yoke and the total secondary emf varies accordingly. A number of assumptions have been made to obtain formulas suited for practical work. The calculation of the magnetizing current and of the iron losses is presented and the formilas required for this purpose are deduced. The emf's and the currents, the short-circuit voltage and the copper losses are investigated and the formulas required for the calculation are presented. The choice of the ratio of parameters is studied and the pertinent procedure is advanced. Of particular importance is a correct choice of the ratio between idling current and

Card 2/3

On the Calculation of Transformers With a Movable Short-circuited Winding

sov/105-59-3-16/27

short-circuit voltage. The calculations were checked in the calculation of a three-phase transformer with a power of 100 kva according to the method presented. The results differed only little from the experimental values. There are 5 figures and 9 references, 5 of which are Soviet.

SUBMITTED:

October 14, 1958

Card 3/3

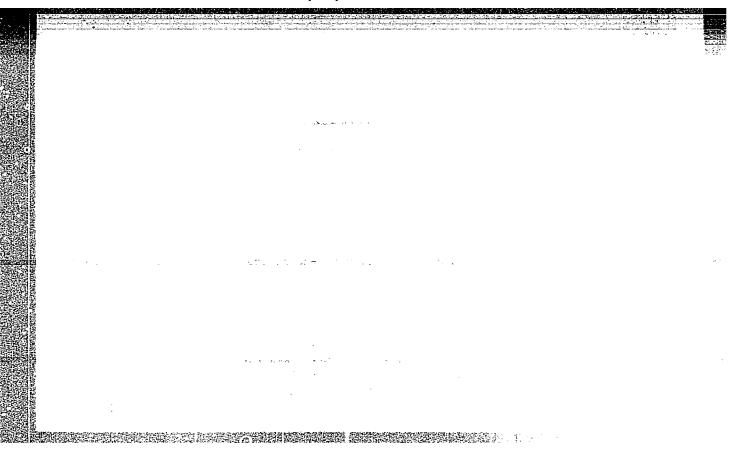
BERNSHTEYN, I.Ya., inzh.; POLIVANOVSKAYA, K.V., inzh.

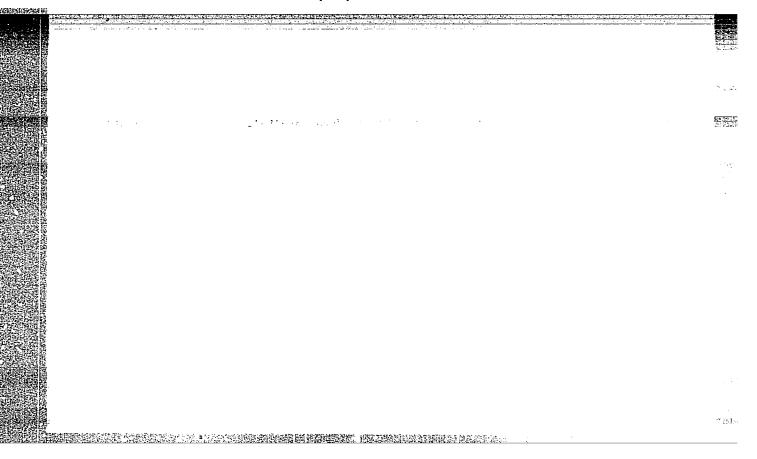
Ionic converters of decreased frequency. Vest. elektroprom. 33 no.10:11-15 0 '62. (MIRA 15:9) (Electric current converters)

(Frequency changers)
(Electric machinery—Alternating current)

BERNSHTEYN, I.Ya., insh.

Frequency converter without a d.c. link. Elektrotekhnika 36 no.6238-42 Je 165. (MIRA 18:7)





L 20934-66 EVT(1)/EWA(h) ACC NR: AP6002523 SOURCE CODE: UR/0286/65/000/023/0031/0031 AUTHORS: Ettinger, Ye. L.; Bernshteyn, I. Ya. 33 B ORG: none TITLE: A noncontact switching device, Class 21, No. 176627 SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 31 TOPIC TAGS: switching circuit, circuit reliability ABSTRACT: This Author Certificate presents a noncontact switching device for a frequency converter using transistors. The transistors are connected in an antiparallel or cross circuit. The device is made with semiconductor triodes controlled from current detectors. To simplify the circuit and to increase its reliability, the device is made in the form of a balanced trigger with a delay line connected to the output of the trigger. This delay line is made with translators. The control of the trigger is provided by the current detectors which are saturated transformers with cores of material with a rectangular hysteresis loop. SUB CODE: 09/ SUBM DATE: 26Mar64 Card 1/1 FU UDC: 621.314.27.066.63

USSR / Human and Animal Physiology (Normal and Pathological). Blood. Blood Pressure. Hypertonia

Abs Jour: Ref Zhur Biologiya, No 21, 1958, 97550

Author: Bernshteyn, I. Z.

: Rostov n/D Medical Institute Inst

Title : Materials on the Question of Cortico-Visceral

Pathogenesis of Hypertension

Orig Pub: Tr. Otchetn. nauchn. konferentsii (Rostovsk n/D med. in-t) za 1956 grams Rostov-na-Donu, 1957, 381-383

Abstract: No abstract

Card 1/1

## BERNSHTEYN, I.Z.; SIMAKOVA, V.S. (Rostov-na-Donu)

Case of acute asthma in bronchial sarcoma. Klin.med. 36 no.10: 117-118 0 160. (MIRA 13:11)

l. Iz kafedry gospital noy terapii (zav. - prof. N.M. Ivanov)
Rostovskogo meditsinskogo instituta (dir. - prof. P.P. Kovalenko)
1 2-go terapevticheskogo otdeleniya l-y Gorodskoy bol nitsy
(glavny vrach A.V. Goreshnyak).

(BRONCHI—TUMORS) (ASTHMA)

BERNSHTEYN, Kh.B., inshener.

Improving the design and the technology of stamped driving chain production. Vest. mash. 36 no.8:56-58 '56. (MLRA 9:10)

1. Belorusskiy lesotekhnicheskiy institut imeni S.M. Kirova (Chains)

BERNSHTEYN, Kh.B. dots.

Ways of economising metal in producing plates of stamped driving chains. Shor.nauch.trud.BLTI no.10:440-443 157. (MIRA 11:12) (Chains)

BERNSHTEYN, L., kand. tekhn. nauk

Lunar energy in the service of mankind. Tekh. mol. 28 no. 3:32-33 '60. (MIRA 14:4)

BERNSHTEYN, L.A.

USSR Chemical Technology. Chemical Products and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31550

Author: Syrkin Ya. M., Bernshteyn L.A., Kiseleva K.M.

: Use of Vacuum Filters for Dehydration of Ceramic Title

Slips

Orig Pub: Steklo i keramika, 1956, No 10, 22-26

Abstract:

Presentation of the results of laboratory and semi-industrial scale experiments on filtration, using a continuous operation filter, of ceramic slips made from clays of Nokolayevskoye, Chasov-Yarskoye and Artemovskoye deposits. It was

found that the output capacity of the filter

Card 1/4

USSR /Chemical Technology. Chemical Products and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31550

increases with increasing temperature of the slip, increased vacuum and on addition of coagulant in the form of CaO. Thus the output of a vacuum filter on filtration of a slip of Chasov-Yarskoye clay having the temperature of 20 and 60° increased from 6 to 20 kg/cm² hour. On preliminary drying of the clay, output of the filter is lowered, depending on duration of the drying. Thus on drying of Chasov-Yarskoye clay for 360 and 720 seconds the output dropped from 18 to 12 kg/cm² hour. It should be noted that on addition of coagulant the moisture content

Card 2/4

USSR /Chemical Technology. Chemical Products and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31550

prising an after drying of "sukhar'" on a steam-heated drum drier.

Card 4/4

BERUSHTEYN, L.A., inshener; FEREIS, N.I., inshener; GRODZINSKIY, Ya.Yu., inshener.

Vacuum filters for the dehydration of slurry. TSement 22 no.6: 4-8 H-D '56. (MLRA 10:2) (Cement industries) (Filters and filtration)

BERNSHTEYN, Leonid Abramowich; DANYUSHEVSKIY, S.I., kand. tekhn. nauk, nauchn. red.

[New developments in the technology of working and transporting raw materials in the cement industry] Novoe v tekhnologii pererabotki i transportirovaniia syr'ia v tsementnoi promyshlennosti. Moskva, Stroiizdat, 1965. 191 p. (MIRA 18:6)

15(6)

# PHASE I BOOK EXPLOITATION

sov/2521

Bernshteyn, Leonid Abramovich, and Mikhail Borisovich Frenkel'

Granulyatsiya tsementnykh syr'yevykh smesey pri sukhom i mokrom sposobakh podgotovki (Granulation of Raw Cement Mixes by Dry-and-Wet-Frocessing Methods) Moscow, Gosstroyizdat, 1959. 98 p. 2,200 copies printed.

Ed. of Publishing House: M.S. Tyutyunik; Tech. Ed.: T.M. Prusakova.

PURPOSE: This book is intended for engineering and technical personnel engaged in cement production.

COVERAGE: The authors discuss the theoretical and practical aspects of the granulation of cement raw materials by dry and wet methods. The concluding section deals with quality control. A.F. Lebedev, A.M. Vasil'yev, P.A. Rebinder, Academician, B.V. Deryagin, A.M. Parfenov, N.A. Nechiporenko, S.M. Meyerov, S.T. Rostovtsev, Ye.I. Khodorov, B.A. Petroy, and V.A. Nelidov are mentioned for their contributions in the field. There are 55 references: 52 Soviet, 2 German, and 1 English.

Card 1/3

ntroduction  PART I GRANDIATION OF RAW CEMENT MARKED BY METHOD  h. 1. Theoretical Principles of Granulation  h. 2. Granulation by the Dry Method	3 7 7	
PART I CRANGIATION OF RAW CEMENT MARKED BY THE DATA BELLOW		•
h. 1. Theoretical Principles of Granulation		•
	7	
h. 2. Granulation by the Dry Method		
	22	•
h. 3. Characteristics of Roasting Granules in Furnaces of Different Types	32	
PART II. GRANULATION OF RAW MATERIALS PREPARED BY THE WET MET	HOD 47	
h. 4. Theoretical Principles of the Filtration Process	48	
ard 2/3		

Granulation of Raw Cement Mixes (Cont.)	
Ch. 5. Physicochemical Basis for Intensification of the File Process	SOV/2521
Process.	tration
Ch. 6. Filtration of the Slurry, Pulverization of the Dry Re and Granulation of the Latter in the Wet Method of Pr Raw Materials	54
	63
PART III. PRODUCTION CONTROL, Bibliography	92
AVAILABLE: Library of Congress	96
	,
Card 3/3	GO/gmp 10-29-59

