ZONNENBERG, S.M.; LEYTES, M.Ye.

Modernized turret lathe with automatic work cycle. Stan. i instr. 25 no.7:30-31 Jl '54. (MLRA 7:8)
(Lathes)

ZONNENBERG, S. M.

ZONNENBERG, S.M.

Pneumehydraulic machine for drilling from underneath upwards.
Stan. i instr. 25 no.6:30-31 Je '54. (MLRA 7:7)
(Drilling and boring machinery)

ZONBERG, S.M.; LEBEDEV, A.S.; CHERNIAK, A.Ya., inzhener, retsenzent; VVEDENSKIY, T.A., redaktor.

[Pneumatic gripping devices] Pnevmaticheskie zazhimnye prisposobleniia. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. i sudostroit. lit-ry, 1953. 159 p. (MLRA 7:6)
(Pneumatic tools) (Machinery)

USSR/Engineering - Machine tools

Card : [illegible]

Authors : Zonnenberg, [illegible] M.

Title : [illegible]

Periodical : [illegible]

Abstract : [illegible]

Submitted : [illegible]

ZONNENBERG, S.M.

The ST-1520 and ST-1497 small machine units for machining shaft-type parts. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch. i tekh.inform. no.4:31-33 '62. (MIRA 15:7)

(Machine tools)

ZORNBERG, S. M.

USSR/Engineering - Machine tools

Card : 1/1

Authors : [illegible]

Title : [illegible]

Periodical : Stan. i Instr., Ed. 7, [illegible] - 31, July 1954

Abstract : [illegible]

Institution : ....

Submitted : ....

ZONNENBERG, S. M.

Pnevmaticheskiye zazhimnyye prisposobleniya (Pneumatic gripping devices, by) S. M. Zonnenberg (and) A. S. Lebedev. Moskva, Mashgiz, 1953.
159 p. Diagrs., tables.
"Literatura i Istochniki": P. (157)

SO: N/5
741.43
.Z8

ZONNENBERG, S.M.

The 1408-type small machine-tool unit. Biul.tekh.-ekon.inform. no.11:31-32 '58. (MIRA 11:12)
(Machine tools)

25(7) SOV/117-59-7-19/28

AUTHOR: Zonnenberg, S.M., Engineer

TITLE: A Two-Place Device for Clamping Work Pieces

PERIODICAL: Mashinostroitel', 1959, Nr 7, pp 34-35 (USSR)

ABSTRACT: In machine building many parts are produced exactly of the same type with the only difference that they can be right or left hand side ones. Generally they are machined on different machines. To increase the productivity of labor, the Avtozavod imeni Lenina (Automobile Plant Imeni Lenin) has designed and uses a special pneumatic two-place clamp. It has a multi-spindle head, and two monotypic parts (one right and the other left hand side) can be machined simultaneously. A detailed description and drawing of the machine is given. There are 2 diagrams.

Card 1/1

ZONNENBERG, S.M.

The ST-1470,St-1459 and ST-1464 small drilling and milling machines.
Biul.tekh.-ekon.inform. no.5:35-37 '61. (MIRA 14:6)
(Machine tools)

ZONNENBERG, S.M.

Carriage for a vertical multiple-spindle, semi-automatic lathe for machining spherical surfaces. Stan. i instr. 25 no.10:28 O '54. (MLRA 7:11)
(Lathes)

Zonnenberg, S. M.

Periodical : ...

Institution : ...

Submitted : ...

ZONNENBERG, S.M.

Using minor machine-tool units for multiple machining of parts.
Avt. prom. 29 no.4:39-42 Ap '63. (MIRA 16:6)

1. Moskovskiy avtozavod imeni Likhacheva.
(Metal cutting) (Machine tools)

ZORNEMBERG, S.M.

The ST-1543 small automatic machine-tool unit. Mul. tekh.-ekon. inform. Gos. nauch.-issl. inst. nauch. i tekh. inform. 17 no.6: 47-49 Je '64. (MIRA 17:11)

ZONNENBURG, Robert Iul'evich

Geografiia pochtovoi sviazi SSSR. /The geography of postal service of the USSR/. Moskva, Izdatel'stvo NKPT, 1927. 330 p. fold. maps. (Biblioteka zhurnala "zhizn' i tekhnika sviazi"). DLC: HE7052.Z6

SO: SOVIET TRANSPORTATION AND COMMUNICATIONS, A BIBLIOGRAPHY, Library of Congress Reference Department, Washington, 1952, Unclassified.

ZONNENBURG, R.R., inzh.

Automatic cooler for a jobbing mill. Mekh.i avtom. proizv. 17 no. 3:5-8 Mr '63. (MIRA 17:9)

RUMANIA/Pharmacology and Toxicology - Toxicology. V-10

Abs Jour : Ref Zhur - Biol., No 14, 1958, 66466

Author : Sommenreich, S., Kleinstein, I.

Inst : Rumanian Academy

Title : The T-Wave in Lead Poisoning.

Orig Pub : Studii si cercetari stiint. Acad. RPR Fil. Iasi, 1955, Ser 2, 6, No 1-2, 77-86.

Abstract : An ECG study of 60 workers in the lead industry revealed characteristic T-wave changes in 30%: increased strain, acute configuration and S-T interval above the base line. In 7 of 14 rabbits which received lead nitrate solution intramuscularly for 20 days in a dosage of 10 mg/kg, there were the same changes in the S-T interval and the T-wave; there was also a flattening of the T-wave and, sometimes, a negative T-wave; in addition, less pronounced changes

Card 1/2

RUMANIA/Pharmacology and Toxicology - Toxicology. V-10

Abs Jour : Ref Zhur - Biol., No 14, 1958, 66466

in the P-wave and QRS complex were found. As a rule, ECG changes in the rabbits did not last over 4 months after the poisoning. Histological studies of the rabbits revealed parenchymal degeneration of the myocardium and vascular changes; slight changes in the myocardium were also found in 6 of those 7 rabbits which did not display ECG changes. -- B.A. Katsnel'son.

Card 2/2

DEREVICH, I.; ZONNENRAYKH, K.

Influenza with mental disorders. Zhur. nevr. i psikh 59 no.3:268-274 '59. (MIRA 12:4)

1. Psikhiatricheskaya klinika Instituta usovershenstvovaniya vrachey i 14-ye otdeleniye bol'nitsy imeni G. Marinesku, Bukharest.
(INFLUENZA, compl.
ment. disord. (Rus))
(MENTAL DISORDERS, etiol. & pathogen.
influenza (Rus))

SOV/109-3-7-8/23

AUTHORS: Shteynshleyger, V. B., Zonnenshtral', G. A.

TITLE: The Fluctuation of Signals Produced by a Field of Random Reflectors in the Case of Moving Radar (Fluktuatsii signala ot mnozhestva sluchaynykh otrazhateley dlya dvizhushchegosya lokatora)

PERIODICAL: Radiotekhnika i elektronika, 1958, Vol III, Nr 7, pp 928-932 (USSR)

ABSTRACT: One of the causes of random noise in moving radar is due to the fact that the frequency of the signal received by the system from an elementary volume of the reflecting field differs from the frequency of the transmitted signal by the amount of the Doppler shift; this is equal to $\frac{2W}{\lambda}\cos\beta$, where W is the velocity of the radar, λ is the wavelength, and β is the angle between the radius vector of the elementary volume of the field and the vector $\vec{W}$. For the purpose of analysis it is assumed that β is the relative azimuthal angle of the elementary volume (see the figure on p 929). In practice, the spectrum

Card 1/4

The Fluctuation of Signals Produced by a Field of Random Reflectors in the Case of Moving Radar

of the reflected signal, received by the system, can be assumed to have a white noise structure, whose frequency characteristic is determined by the square of the directional pattern of the antenna. The envelope of the video pulses (from a given distance) at the output of the detector can be expressed by:

$$U = U_o + U_H(t) \quad , \qquad (1)$$

where U_o is a DC component and U_H is the fluctuating voltage. The envelope at the output of the averaging circuit is expressed by Eq.(2) so that its mean square value is given by Eq.(3). This can also be written as Eq.(5), in which $\rho(T)$ is the correlation function; T is the repetition frequency of the radar pulses. The correlation function of the system at the input to the detector is expressed by Eq.(6), where ω_o is the average carrier frequency and r is a slowly changing function of τ . r can be expressed either by Eq.(7) or Eq.(9) if the radio-frequency part of the system has a rectangular or Gaussian characteristic

The Fluctuation of Signals Produced by a Field of Random Reflectors in the Case of Moving Radar

respectively; F_{cn} is the bandwidth of the Gaussian characteristic at 0.5 the maximum value while, in Eq.(7), Δf denotes the bandwidth of the rectangular filter. If the radar is fitted with a square detector the correleation function $\rho(\tau)$ is given by Eq.(15) and the mean square fluctuation by Eq.(16), where Δf is defined by Eq.(13); D_r in Eq.(13) denotes the horizontal aperture of the antenna. On the other hand, the mean square output at the detector of the radar with a Gaussian characteristic is expressed by Eq.(17). Approximately, Eqs.(16) and (17) can be written as Eqs.(18) and (19) respectively. For a linear detector, in a system whose bandwidth is comparatively narrow, the ratio between the mean square fluctuation voltage and the mean square voltage at the output of the detector is expressed by Eq.(23). On the basis of the above analysis it is concluded that the degree of correlation between the amplitudes

Card 3/4

SOV/109-3-7-8/23

The Fluctuation of Signals Produced by a Field of Random Reflectors in the Case of Moving Radar

of the pulse signal received from the reflecting field during various repetition periods decreases with increasing velocity of the radar and this leads to a reduction in the suppressibility of the noise. The paper contains 1 figure and 2 Soviet references.

SUBMITTED: March 8, 1957.

1. Radar signals--Analysis 2. Radar reflectors--Performance
3. Radar antennas--Analysis 4. Mathematics

Card 4/4

ZONOV, A. I., Cand Phys-Math Sci -- (diss) "Geometry of fishing nets." Kiev, 1960. 10 pp; (Joint Academic Council of the Institutes of Physics, Mathematics, and Metallophysics of the Academy of Sciences Ukrainian SSR); 150 copies; price not given; (KL, 27-60, 147)

ZONOV, A.I. (Leningrad)

"Statistical Regularities in the Behavior of Fish"

Report presented at the 3rd Conference on the use of Mathematics in Biology, Leningrad University, 23-28 Jan. 1961.
(Primeneniye matematicheskikh Metodov v Biologii. II, Leningrad, 1963 pp 5-11)

ZORIN, A.I.

Exothermic lost heads of steel castings. Ratsionalizatsiia 13 no.1:28-29 '63.

ZONOV, A.I.; GULIN, V.V.

Statistical regularities in the behavior of fishes. Prim. mat. metod. v biol. no.2:140-145 '63. (MIRA 16:11)

ROMANOVA, A.P.; ZONOV, A.I.

Determining the production of bacterial biomass in bodies of water. Dokl. AN SSSR 155 no.1:194-196 Mr '64. (MIRA 17:4)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut ozernogo i rechnogo rybnogo khozyaystva. Predstavleno akademikom Ye.N.Pavlovskim.

ZONOV, A. I. Cand Tech Sci -- (diss) "Geometry of fishing nets." Mos, 1957. 12 pp (Mos Tech Inst of Fish Industry and Economy im A. I. Mikoyan), 150 copies (KL, 45-57, 97)

ZONOV, A.K., inzh.

Intrashop industrial traverse trucks. Der.prom. 9 no.4:24 Ap '60.
(MIRA 13:9)

(Industrial power trucks)

ZOHOV, A.V.

Sound damping attachment for F-18 mm. and F-22 mm. lenses of the "Moskva" camera. Tekh.kino i telev. 4 no.8: 70-71 Ag '60. (MIRA 13:8)

1. Sverdlovskaya kinostudiya nauchno-populyarnykh i khronikal'nykh fil'mov.
(Motion-picture cameras)

ZONOV, B.T.

25(2) PHASE I BOOK EXPLOITATION SOV/3089

Korityasskiy, Yakov Il'ich, Grigoriy Nikolayevich Zakharov, Lev Yudel'yevich Polyakovskiy, Vitaliy Konstantinovich Makarov, and Boris Tikhonovich Zonov

Pribory i ustanovki dlya issledovaniya tekstil'nykh mashin (Instruments and Installations for Investigating Textile Machinery) Moscow, Mashgiz, 1958. 278 p. 2,400 copies printed. (Series: Vsesoyuznyy nauchno-issledovatel'skiy institut tekstil'nogo i legkogo mashinostroyeniya. Sbornik trudov, No. 4)

Sponsoring Agencies: USSR. Gosudarstvennaya planovaya komissiya. Glavnoye upravleniye nauchno-issledovatel'skikh i proyektnykh organizatsiy, and Vsesoyuznyy nauchno-issledovatel'skiy institut tekstil'nogo i legkogo mashinostroyeniya.

Ed.: S.O. Dobrogurskiy, Honored Worker in Science and Technology, Doctor of Technical Sciences, Professor; Tech. Ed.: A. F. Uvarova; Managing Ed. for Literature on Machine and Instrument Construction: N.V. Pokrovskiy, Engineer.

PURPOSE: This book is intended for scientific workers, aspirants, research engineers and technicians, designers of textile machinery, and technologists in the textile industry.

Card 1/ 12

COVERAGE: The book, consisting of eight chapters, presents an account of the development and application of modern experimental methods of investigating textile machinery. The first chapter deals with general considerations of method, while the second presents information on electrical methods of measuring nonelectrical quantities, on transducers and their connecting circuits, on recording devices, and on electrical and radio equipment. Methods of determining parameters of parts being subjected to experimental study are described in Chapter III. The fourth chapter deals with the determination of displacements, speeds, and accelerations of given points in machine parts. Chapter V describes methods of measuring tension in a single thread as well as in a group of threads under varying operating conditions. Measurements of power, forces, moments, stresses, and deformations are also discussed. Ch. VI presents methods of measuring vibrations in machine parts, while Chapter VII deals with methods and equipment for dynamic balancing of rotating parts. Chapter VIII describes special stands and equipment for testing the performance of textile-machinery units. Most of the testing equipment described in the book was developed by VNIILTYeKMASh. The following organizations are presently engaged in the development of instruments and installations for investigating and testing textile machinery, parts, and subassemblies: The Moskovskiy, Leningradskiy, Ivanovskiy i Kostromskoy uchebnyye tekstil'nyye instituty (Moscow, Leningrad, Ivanovo, and Kostroma Textile Institutes of Higher Education); the TsNIKhBI,

Instruments and Installations for Investigating (Cont.) SOV/3089

AVAILABLE: Library of Congress (TS1525.M63)

VK/fal
4/14/60

Card 12/12

KORNEV, I.V.; POLYAKOVSKIY, L.Yu.; ZOKOV, B.T.; ZAKHAROV, V.A.; KORITYSSKIY, Ya.I.

Results of the investigation of Zultser looms. Tekst. prom. 19 no.6:30-35 Je '59. (MIRA 12:9)

1.Sotrudniki Vsesoyuznogo nauchno-issledovatel'skogo instituta tekstil'nogo i legkogo mashinostroyeniya.
(Looms)

ZONOV, B.T., [illegible]

KORITYSSKIY, Ya.I., kandidat tekhnicheskikh nauk; ZONOV, B.T., inzhener.

Testing an automatic bobbin changer by means of moving pictures. Tekst.prom. 14 no.6:35-38 Je '54. (MLRA 7:7)
(Textile machinery) (Moving pictures in industry)

KORITYSSKIY, Yakov Il'ich; ZAKHAROV, Grigoriy Nikolayevich; POLYAKOVSKIY, Lev Yudel'yevich; MAKAROV, Vitaliy Konstantinovich; ZOMOV, Boris Tikhonovich; DOBROGURSKIY, S.O., doktor tekhn.nauk, prof., zasluzhennyy deyatel' nauki i tekhniki, red.; UVAROVA, A.F., tekhn. red.

[Devices and equipment for research on textile machinery] Pribory i ustanovki dlia issledovaniia tekstil'nykh mashin. Moskva, Gos. nauchn.-tekhn. izd-vo mashinostroit. lit-ry, 1958. 278 p. (Pribory i ustanovki dlia issledovaniia tekstil'nykh mashin, vol.4)
(MIRA 12:7)

(Textile machinery--Testing) (Testing machines)

BUYANTUYEV, B.R.; RADNAYEV, G.Sh.; ZONOV, B.V., red.; KHOTOV, B.A., otv.red.; TUYSK, A.G., red.; BASHKUYEV, B.V., spetsred.; ZILOTIN, Yu.V., red.izd-va; AKHANOV, Ts.B., tekhn.red.

[Soviet Buryat-Mongolia; economic and geographical survey] Sovetskaia Buriat-Mongoliia; ekonomiko-geograficheskii obzor. Ulan-Ude, Buriat-Mongol'skoe knizhnoe izd-vo, 1957. 352 p. (MIRA 11:12)
(Buryat-Mongolia)

ASTRAKHANTSEV, Veniamin Ivanovich; ZONOV, B.V., otv.red.; ZAVOZIN, L.F., red.; LAUT, V.G., tekhn.red.

[Angara and its basin; outline of the hydrology] Angara i ee basseĭn; gidrologicheskii ocherk. Moskva, Izd-vo Akad. nauk SSSR. 1962. 90 p. (Akademiia nauk SSSR. Sibirskoe otdelenie. Vostochno-Sibirskii geologicheskii institut. Trudy, no.12). (MIRA 15:11)

(Angara Valley--Hydrology)

ZONOV, D.I.

SOLDATENKOV, S.V.; TUGANAYEVA, N.Kh.; ZONOV, D.I.

Effect of ecological conditions on the quantity and composition of protein in the Diamant spring wheat variety. Uch.zap.Len.un. 186: 121-128 '55. (MLRA 9:8)

(Wheat) (Proteins) (Plants, Effect of minerals on)

LAVROV, I.K.; ZENOV, G.B.

Distribution and number of the field vole Microtus agrestis in Irkutsk Province. Dokl. Irk. gos. nauch.-issl. protivochum. inst. no.5:115-116 '63 (MIRA 18:1)

ZONOV, G.B.; VODOP'YANOV, B.G.

Information on winter roosting of some birds in the Baikal Lake region. Nauch.dokl. vys. shkoly; biol. nauki no.1:34-36 '66. (MIRA 19:1)

1. Rekomendovana Irkutskim nauchno-issledovatel'skim protivochumnym institutom. Submitted April 14, 1964.

ZONOV, G.E.

Methodology of the counting and extermination of flat-skulled field voles. (Subgenus Platicranius). Dokl. Irk. gos. nauch.-issl. protivochum. inst. no.5:224-226 '63 (MIRA 18:1)

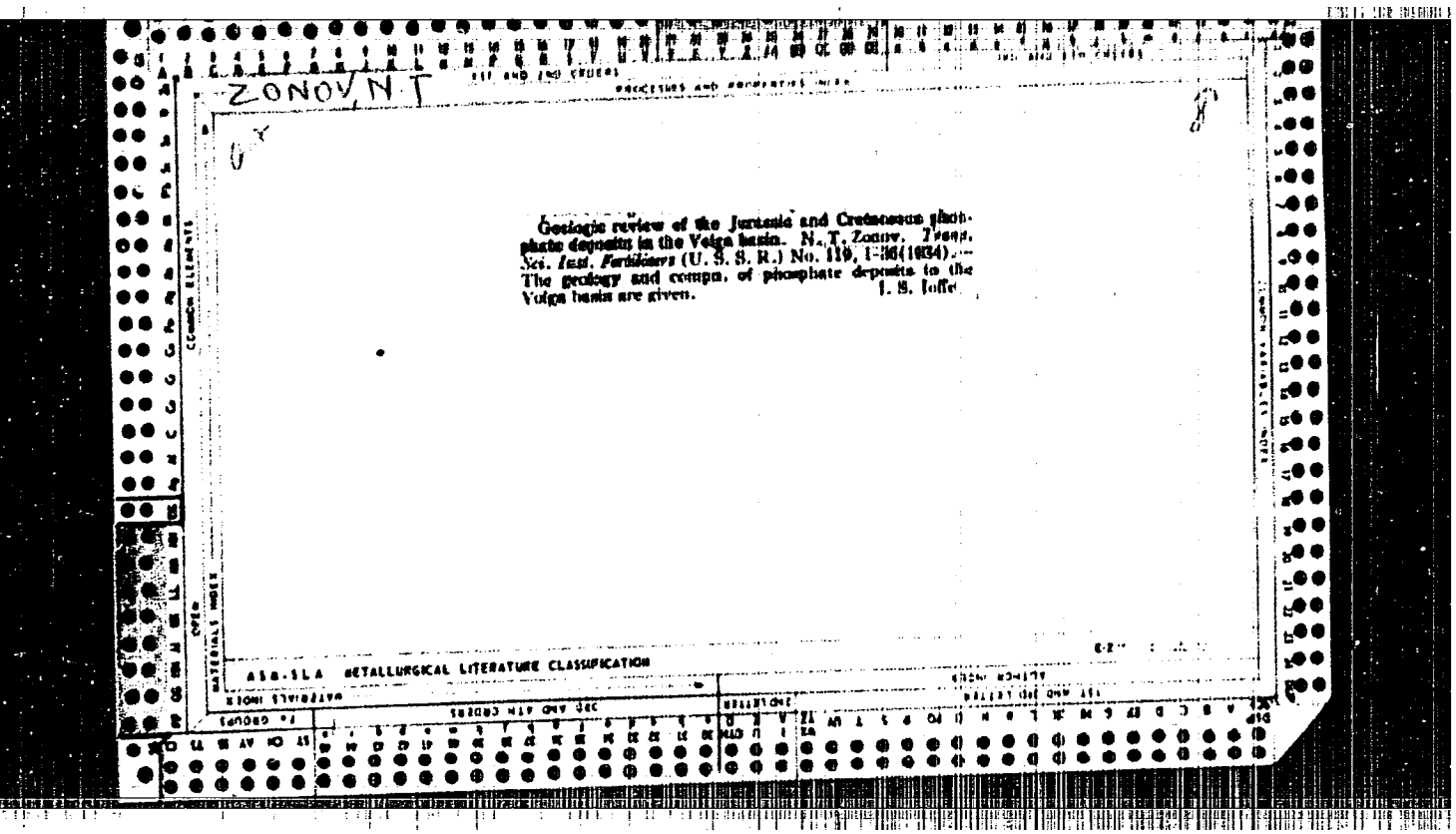
ZONOV, G.B.; VODOP'YANOV, B.G.

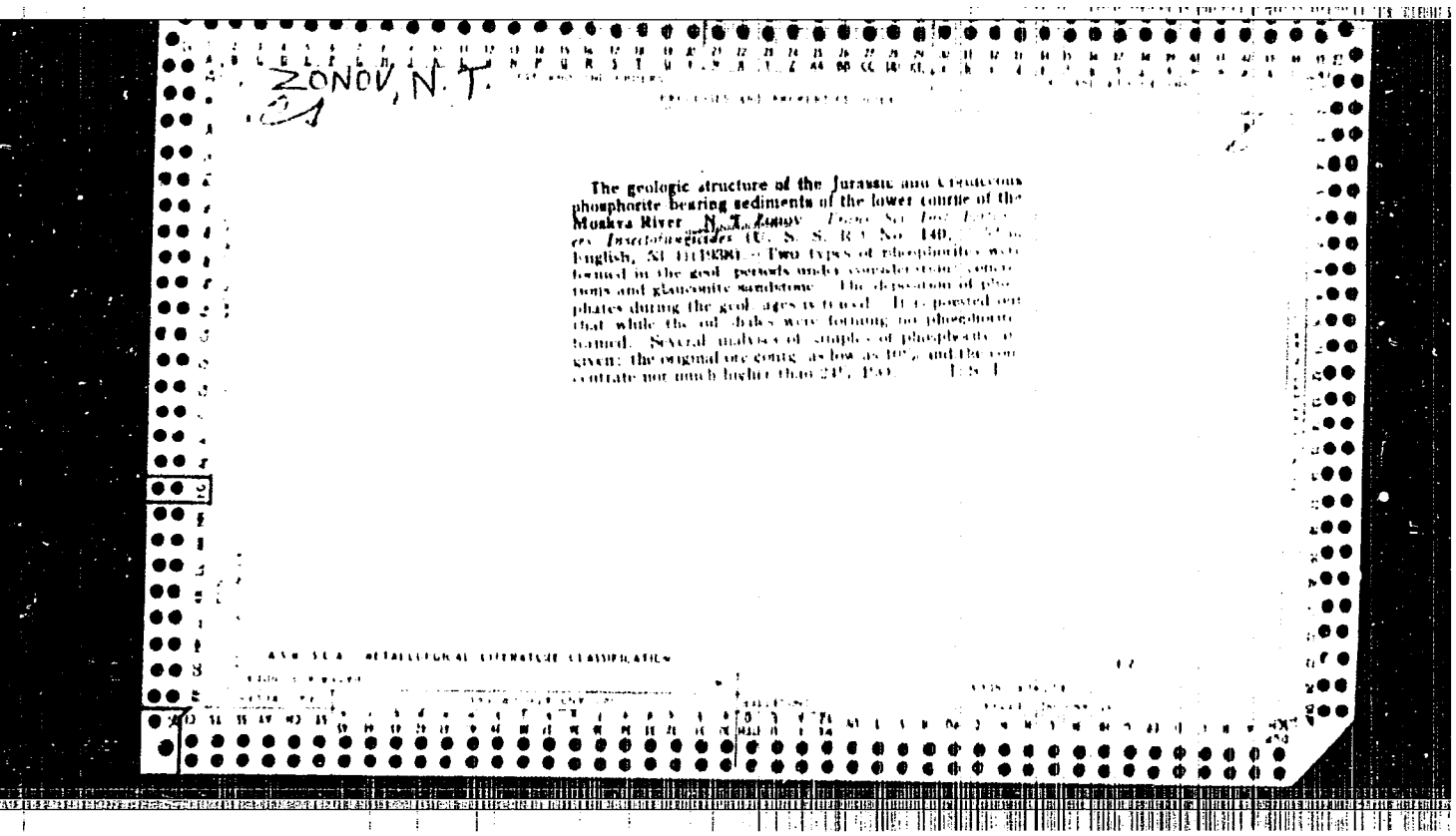
Black-capped chickadees spending winter nights in rodent burrows. Dokl. Irk. gos. nauch.-issl. protivochum. inst. no.5:153-155 '63 (MIRA 18:1)

ZONOV, I. I.

20851. Filippenko, G. I. i Zonov, I. I. Kolkhoznyye agrotekhnicheskiye laboratorii --ochagi agrokul'tury. Sots. sel. Khoz-vo Uzbekistana, 1949, No.1, s. 35-41.

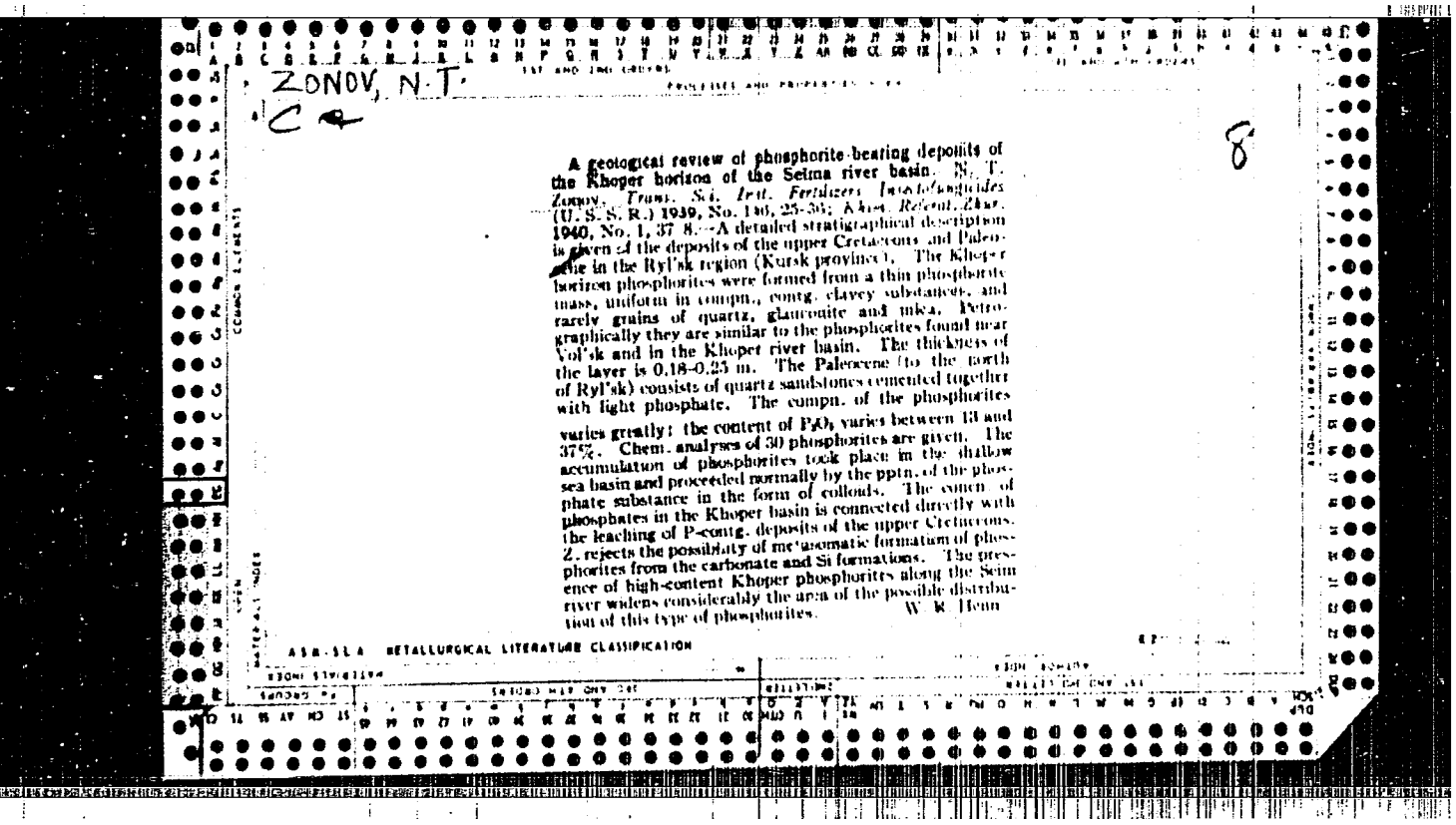
SO: LETOPIS ZHURNAL STATEY - Vol. 28, Moskva, 1949.





ZONOV, N. T.

The geologic structure of the Jurassic and Cretaceous phosphorite bearing sediments of the lower course of the Moskva River. N. T. Zonov. *Trans. Sci. Inst. Fertilizers Insectofungicides* (U. S. S. R.) No. 140, [illegible] English, [illegible]. — Two types of phosphorite were formed in the geol. periods under consideration: concretions and glauconite sandstone. The deposition of phosphates during the geol. ages is traced. It is pointed out that while the oil shales were forming no phosphorite formed. Several analyses of samples of phosphorite are given; the original ore contg. as low as 10% and the concentrate not much higher than 24%. [illegible]



ZONOV, N.T.

C

8

A geological review of phosphorite-bearing deposits of the Khoper horizon of the Selma river basin. N. T. Zonov. *Trans. Sci. Inst. Fertilizers Insectofungicides* (U. S. S. R.) 1939, No. 140, 25-36; *Khim. Referat. Zhur.* 1940, No. 1, 37-8.—A detailed stratigraphical description is given of the deposits of the upper Cretaceous and Paleocene in the Ryl'sk region (Kursk province). The Khoper horizon phosphorites were formed from a thin phosphorite mass, uniform in compn., contg. clayey substances, and rarely grains of quartz, glauconite and mica. Petrographically they are similar to the phosphorites found near Vol'sk and in the Khoper river basin. The thickness of the layer is 0.18–0.25 m. The Paleocene (to the north of Ryl'sk) consists of quartz sandstones cemented together with light phosphate. The compn. of the phosphorites varies greatly; the content of P_2O_5 varies between 13 and 37%. Chem. analyses of 30 phosphorites are given. The accumulation of phosphorites took place in the shallow sea basin and proceeded normally by the pptn. of the phosphate substance in the form of colloids. The comen. of phosphates in the Khoper basin is connected directly with the leaching of P-contg. deposits of the upper Cretaceous. Z. rejects the possibility of metasomatic formation of phosphorites from the carbonate and Si formations. The presence of high-content Khoper phosphorites along the Selm river widens considerably the area of the possible distribution of this type of phosphorites. W. R. Henn

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

POGOSYAN, Z.; PETROSYANTS, Kh.; MKRTLAKHS, M.; ZONOV, N.

Aeronautical kaleidoscope. Grazhd. av. 21 no.7:16-17 Jl '64.
(MIRA 18:4)

GLEBOV, I.A., kand.tekhn.nauk; ZONOV, S.F., inzh.

Adjusting the ionic excitation device of a hydraulic generator. Elek. sta. 30 no.1:53-56 Ja '59. (MIRA 12:3)
(Electric generators)
(Electric current rectifiers)

105-58-3-21/31

AUTHORS: Glebov, I. A. , Candidate of Technical Sciences,
Zonov, S. F. , Engineer

TITLE: Tests on the Experimental Equipment With Gas-tube Excitation for Hydro electric Generators (Ispytaniye opytnoy ustanovki ionnogo vozbuzhdeniya gidrogeneratora)

PERIODICAL: Elektrichestvo, 1958, Nr 3, pp. 77 - 80 (USSR)

ABSTRACT: From 1951 to 1955 a device for the separate electronic excitation for the hydroelectric power station Nizhne-Svir' was developed and constructed. Here, the apparatus and its testing are described. A 6 phase transformation was selected for the purpose of guaranteeing a maximum operational safety. The circuit has a common cathode potential for all tubes and permits an operation with less than all tubes at an insignificant reduction of the rectified voltage in comparison to other circuits. The transformer can operate with or without a compensation coil. The system consists of a subsidiary synchronous generator, an electronic transformer (preobrazovatel') and of control, safety and signal

Card 1/2

Tests on the Trial Electronic Exciter Equipment for Hydroelectric Generators

105-58-5-2/31

devices. The type C-15-12-6 with a power of 950 kVA is used as synchronous generator. The electronic transformer possesses 6 ignitrons from the All Union Institute for Electrical Engineering, of the type I-200 with a mean value of the rectified current of 200 A and an inverse voltage of 1300 V. Tests showed that the system of electronic excitation with soldered- in single-anode valves guarantees all demanded modes of operation (forced and suppressed excitation, operation with less than all valves etc). The tests also showed that the electronic exciter also has a very fast action (the rise time being with in the range of 0,01 sec). The here given computation method for the current is confirmed by the experimental data. There are 4 figures, 2 tables, and 1 Soviet reference.

ASSOCIATION: Institut elektromekhaniki Akademii nauk SSSR Lenenergo (Institute for Electrical and Mechanical Engineering AS USSR)

SUBMITTED: November 1, 1957

Card 2/2

GLEBOV, I.A., kand. tekhn. nauk; ZONOV, S.F., inzh.

Testing an experimental electronic exciter installation for water-wheel generators. Elektrichestvo no.3:77-80 Mr '58. (MIRA 11:5)

1. Institut elektromekhaniki Akademii nauk SSSR (for Glebov).
2. Leningradskaya elektroenergeticheskaya sistema (for Zonov).
(Electric generators)

GAVRILOVA, Kapitolina Vladimirovna; ZONOV, S.K., retsenzent;
YEL'BISINOV, S.Kh., red.; SYRCHINA, M.M., red. izd-va;
MAL'KOVA, N.T., tekhn.red.

[Business accounting in the workshops of copper smelting plants]
Vnutritsekhovoi khozraschet na medeplavil'nykh zavodakh.
Sverdlovsk, Metallurgizdat, 1963. 49 p. (MIRA 16:6)
(Copper industry—Finance)

LEBEDEV, Viktor Georgiyevich; ZONOV, S.K., retsenzent; KOCHETOV, I.M., red.izd-va; MATLYUK, R.M., tekhn. red.

[Growth potentials for labor productivity in the copper industry] Rezervy rosta proizvoditel'nosti truda v mednoi promyshlennosti. Moskva, Metallurgizdat, 1963. 110 p. (MIRA 16:7)
(Copper industry--Labor productivity)

BENUNI, Amayak Khristoforovich; ZONOV, S.K., retsenzent; VERSHININ, A.M., red.; SKOROBOGACHEVA, A.P., red. izd-va; MATIJUK, R.M., tekhn. red.

[Revealing and using the industrial potentials of nonferrous metallurgy]Vyiavlenie i ispol'zovanie proizvodstvennykh rezervov tsvetnoi metallurgii. Sverdlovsk, Metallurgizdat, 1962. 230 p. (MIRA 15:12)

(Nonferrous metal industries—Management)

BENUNI, Amayak Khristoforovich; ZONOV, S.K., retsenzent; KHYZHOVA, M.L., red. izd-va; TURKINA, Ye.D., tekhn. red.

[Reduction of industrial costs is a source for the growth of national wealth] Snizhenie sebestoimosti produktsii - istochnik rosta obshchestvennogo bogatstva. Sverdlovsk, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii. Sverdlovskoe otd-nie, 1961. 50 p. (MIRA 14:6)

(Costs, Industrial)

S/032/61/027/009/018/019
B101/B208

AUTHORS: Filippov, S., Zonov, V.

TITLE: Plant laboratories competing for the title of a Collective of Communist Labor. In the central plant laboratory of a machine - building factory

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 9, 1961, 1168 - 1170

TEXT: [Abstracter's note: It is not stated which factory is concerned. According to the institutions mentioned, it is probably located in the Urals.] It is noted that the equipment of the Central Plant Laboratory (CPL) has recently been improved. A ДФС-10 (DFS-10) quantum meter with electronic computer, ИСП-22 (ISP-22) and ИСП-28 (ISP-28) spectrographs and a УЗМ-10 (UZM-10) ultrasonic device are now available. The extent of the scientific work planned for 1961 was doubled as compared with 1958, and the budget tripled. According to investigations of the metallographic laboratory, casehardening with solid carburizing agents was replaced by gas casehardening in 1960. Parts of the workpiece that are not to be hardened, are covered with an anti-cementation paste developed by the

laboratory. The application of gas casehardening reduced the duration of the process by 25%. In cooperation with the Sverdlovskiy proyektno-tekhnologicheskiy institut (Sverdlovsk Design, Planning, and Technological Institute) casehardening was intensified by raising the temperature by 40°C beyond the temperature prescribed. In this way, the output of cementation furnaces was increased by more than one-third. Making use of results obtained by several institutes and by the Chelyabinskiy traktornyy zavod (Chelyabinsk Tractor Plant) and in cooperation with the preservation workshop, slushing oils and lubricants were replaced by volatile inhibitors. 20 t of commercial vaseline are thus saved annually. Together with the division of the chief technologist, the chemical laboratory introduced the electrolytic tinning of radiator tubes in a hydrofluosilicic electrolyte (instead of the hydrofluoboric acid electrolyte hitherto used), which means annual savings of 20,000 rubles. In this year they started repairing casting flaws on surfaces by means of epoxy resins. The chemical laboratory tests ferrous metals for Mn, Si, Ni, P, Cu, Ti, and Al on an ФЭК-М (FEK-M) colorimetric photometer. Aluminum castings are subjected to spectrum analysis only. The physical laboratory introduced physical tests methods; e.g., the thermal workshop tests of pins with coercimeters,

Plant laboratories...

and gears, shafts, and springs with a magnetic flaw detector of the Institut fiziki metallov (Institute of Physics of Metals). Machine parts made from 30ХГС (30KhGS) and 65Г (65G) steels may be easily distinguished by means of the "ТЭДС" (TEDS) device, designed by the fizicheskaya laboratoriya Ural'skogo universiteta (Physics Laboratory of the Ural University). High-nickel steels, such as 20Х2Н4А (20Kh2N4A) will be replaced by low-nickel steels, such as 25Х2ГНТА (25Kh2GNTA). Together with the Sverdlovsk plant "Promenergoavtomatika", automatic dosing devices for the carburizing agent in cementation furnaces will be introduced during the current year, and an automatic control system for the carbon potential in cementation will be developed in cooperation with the Vsesoyuznyy proyektno-tekhnologicheskiy institut (All-Union Design, Planning, and Technological Institute). The physical and the chemical laboratory, together with the kafedra liteynogo proizvodstva Ural'skogo politekhnicheskogo instituta im. S. M. Kirova (Department of Foundry Production of the Ural Polytechnic Institute imeni S. M. Kirov), deal with the introduction of automatic rapid tests for molding materials. In galvanic processes, the quality of plating is to be improved by ultrasonics. Bronze is to be partly replaced by caprone. Deficiencies:

1) The laboratories are scattered over a wide area of the town; 2) rooms do not meet fundamental requirements; 3) control tests of raw materials for which analyses are already given by the supplier, were doubled in 1960 as compared with 1958; 4) standards for the spectrum analysis of various bronzes and aluminum alloys are wanted. The Laboratoriya standartnykh obraztsov Upravleniya chernykh metallov Sverdlovskogo sovnarkhoza (Laboratory of Standard Samples of the Administration of Ferrous Metals of the Sverdlovsk sovnarkhoz) does not produce them. The CPL competes for the title of a Collective of Communist Labor.

ASSOCIATION: Tsentral'naya laboratoriya mashinostroitel'nogo zavoda (Central Laboratory of a Machine-building Factory) (S. Filippov, Head of the Laboratory); Otdel glavnogo Metallurga (Division of the Chief Metallurgist)(V. Zonov, Official)

FILIPPOV, S.; ZONOV, V.

Central Industrial Laboratory of a machinery construction plant. Zav.lab. 27 no.9:1168-1170 '61. (MIRA 14:9)

1. Nachal'nik TSentral'noy laboratorii mashinostroitel'nogo zavoda (for Filippov). 2. Otdel glavnogo metallurga Tsental'noy laboratorii mashinostroitel'nogo zavoda (for Zonov).
(Machinery--Testing)

ZONOV, V.I., inzh.

Physical processes in the power circuits of an electric locomotive with compound excitation traction motors occurring under transient conditions. Trudy Ural. elektromekh. inst. inzh. zhel. dor. transp. no.5:91-102 '62. (MIRA 17:8)

ZONOV, Ye. G.

RODIONOV, S.V., kandidat tekhnicheskikh nauk; MEKHANKIN, V.O., kandidat tekhnicheskikh nauk; ZONOV, Ye.G., kandidat tekhnicheskikh nauk.

Computing technologycal tolerances in the woodworking industry. Der. i lesokhim. prom. 3 no.12:3-7 D '54. (MLRA 8:1)

1. Leningradskaya ordena Lenina lesotekhnicheskaya akademiya im. S.M.Kirova.
(Woodworking industries)

ZONOV, Ye.G.

RADICHOV, S.V., kandidat tekhnicheskikh nauk; MIKHAKIN, N.O., kandidat tekhnicheskikh nauk; ZONOV, Ye.G., kandidat tekhnicheskikh nauk.

Planning laying-out processes. Der.prom.4 no.10:25-29 O '55.
(MLRA 9:1)

1.Leningradskaya ordena Lenina lesotekhnicheskaya akademiya imeni Kirova. (Woodworking industries)

YANTOVSKIY, A.T.; ZONOV, Ye.G.; STRELE, L.A., red.

[Drawings in descriptive geometry; a textbook] Epiury po nachertatel'noi geometrii; uchebnoe posobie. Leningrad, Leningr. Lesotekhn. akad. im. S.M.Kirova, 1964. 30 p. (MIRA 18:3)

ZOKOV, Yu.A.

Use of a high-frequency discharge for the isotopic analysis of oxygen in organic compounds. Zhur.anal.khim. 17 no.4: 502-505 Jl '62. (MIRA 15:8)

1. State Institute of Appliyed Chemistry, Leningrad.
(Organic compounds) (Oxygen--Isotopes)

5(2), 5(4)

AUTHORS: Semenov, G. A., Zonov, Yu. A. SOV/75-14-1-29/32

TITLE: On the Problem of the Mass-Spectrometric Analysis of the Isotopic Composition of Boron (K voprosu o mass-spektrometricheskom analize izotopnogo sostava bora)

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 1, pp 137-138 (USSR)

ABSTRACT: For the mass-spectrometric determination of the isotopic composition of boron boron trifluoride is generally used. When investigating the isotopic composition in B_2O_3 and in boric acid it is, however, advisable not to convert these compounds into BF_3, but immediately to investigate them by means of mass-spectrometric analysis (Ref 1). The authors used the mass spectrometers MS-1 and MS-4. Measurements were carried out by the single-beam method. The ionizing device used differs from previously described ion sources (Refs 3,4) by the fact that the band for vaporization is made from platinum and that an indentation shaped like a groove is punched into its surface. The optimum temperature for vaporization is 1000 - 1200°. In the mass spectrum of the vapors over

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boron trioxide there are the following ions: $B_2O_3^+$, $B_2O_2^+$, BO^+ and B^+ in a ratio of 19 : 3.1 : 2.2 : 1. These data agree well with data given in publications (Ref 2). Ions containing more than 2 atoms of boron were not found. The isotopic composition of boron was determined by using the ions $B_2O_3^+$ and B^+. The results (ratio B^{11} : B^{10}) are given in a table. The ratio B^{11} : B^{10} in natural boron trioxide is on the average 4.17. The isotopic composition of boron in B_2O_3 was also determined in the manner that the oxide was converted into the phenyldiazonium fluoborate (Ref 5), which was then thermally decomposed. The boron trifluoride formed was analyzed in the mass spectrometer. Also these results are given. It was found that determinations carried out according to different methods, at different times, and in different mass spectrometers (MS-1 and MS-4) are reproducible with sufficient accuracy. The method worked out was used also for analysis of boron trioxide with varied isotopic composition. The results obtained were compared with measurements which

On the Problem of the Mass-Spectrometric Analysis of the Isotopic Composition of Boron

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had been carried out with BF_3 as a working substance.

Agreement is satisfactory. As the method described is simple and furnishes sufficiently exact and reproducible results, it can be recommended for the isotope analysis of boron. There are 2 tables and 5 references, 4 of which are Soviet.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova (Leningrad State University imeni A. A. Zhdanov)

SUBMITTED: April 1, 1958

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GRAGEROV, I.P.; LEVIT, A.F.; ZONOV, Yu.A.; TURKINA, M.Ya.

Benzene oxidation mechanism studied by means of isotopes and mass spectroscopy. Dokl. AN SSSR 150 no.1:109-112 My '63. (MIRA 16:6)

1. Institut fizicheskoy khimii im. L.V.Pisarzhevskogo AN UkrSSR i Gosudarstvennyy institut prikladnoy khimii, Kiyev. Predstavleno akademikom M.I.Kabachnikom.
(Benzene) (Oxidation) (Isotopes) (Mass spectrometry)

S/075/60/015/005/004/004
B005/B064

AUTHOR: Zonov, Yu. A.

TITLE: Mass Spectrometric Analysis of the Isotopic Composition of Elementary Boron

PERIODICAL: Zhurnal analiticheskoy khimii, 1960, Vol. 15, No. 5, pp. 643-645

TEXT: The author developed a method for the isotopic analysis of elementary boron. It is based upon evaporating the sample from the band evaporator of the ion source of a mass spectrometer and subsequent ionization of the vapors produced by electrons. A mass spectrometer of the type МИ-1301 (MI-1301) was used; the measurements were made by the single-beam method. Approximately 0.1 mg of boron in the form of an alcoholic suspension was applied to the evaporator, for the production of which a tungsten foil was used instead of platinum; the amount of boron used is sufficient for a continuous operation of 5-6 hours, with the ion currents being satisfactory stable. To attain the necessary elasticity of the boron vapor in the anode box of the ion source, the temperature of the

evaporator was continuously increased until the ion current of the most intensive effective mass to be expected had been reached. This ion current was 1000-1500 mv. In the mass spectrum of vapors over the sample B^+, ions were detected which were used to calculate the isotopic composition (B^{11}/B^{10}) of the sample. Table 1 illustrates the isotopic analysis of five boron samples with natural isotopic composition. Elementary boron was obtained from boric acid by reduction with magnesium (Ref. 3). The boric acid used as initial product was also analyzed for its isotopic composition. Table 1 gives the results. Some samples of elementary boron enriched in the isotope B^{10} were analyzed by the new method. Also these results were checked by analysis of the initial products (H_3BO_3). Table 2 shows the results of seven analyses. The results obtained from determining the ratio B^{11}/B^{10} are well reproducible and agree with those of the analysis of boric acid. In the course of analysis, boron was dispersed upon individual parts of the ion source, thus effecting the accuracy of determining the next samples. To eliminate this effect, the anode box and the holder of the evaporator must be boiled in a 3% hydrogen peroxide solution and then

washed with alcohol. A figure shows the time dependence of the ratio B^{11}/B^{10} during the analysis of the boron sample. 4-5 hours after the beginning of evaporation, the ratio B^{11}/B^{10} increases considerably, which corresponds to a normal fractionation of the boron isotopes in evaporation. During the first 4-5 hours of analysis, however, this effect lies within the error limits of measurement, thus affecting the accuracy of determining the isotopic composition. With longer duration of analysis, the results obtained do no more correspond to the actual isotopic ratio in the sample investigated. There are 1 figure, 2 tables, and 3 Soviet references.

ASSOCIATION: Gosudarstvennyy institut prikladnoy khimii, Leningrad
(State Institute of Applied Chemistry, Leningrad)

SUBMITTED: October 26, 1959

PARAMONOVA, V.I.; MOSEVICH, A.N.; ZONOV, Yu.G.

Determination of the exchange constants of some anions on anion exchangers. Vest. LGU. 18 no.16:115-119 '63.
(MIRA 16:11)

KOMAROV, V.S.; POVOROZNYUK, L.I.; PLYUSHCHEVSKIY, N.I.; ZONOV, Yu.G.

Effect of acid treatment on the structure of clay minerals. Dokl. AN BSSR 9 no.7:450-453 Jl '65. (MIRA 18:9)

1. Institut obshchey i neorganicheskoy khimii AN Belorusskoy SSR.

ZOMOV, Yu.V.

Interaction of the satellite with the earth's magnetic field.
Isk. sput. zem. no.3:118-124 '59. (MIRA 12:12)
(Artificial satellites) (Magnetism, Terrestrial)

3.2300 (1121)

26659
S/560/61/000/007/003/010
E032/E114

AUTHORS: Beletskiy, V.V., and Zonov, Yu.V.

TITLE: Rotation and orientation of the third Soviet satellite

PERIODICAL: Akademiya nauk SSSR. Iskusstvennyye sputniki Zemli, No.7, Moscow, 1961, pp. 32-55

TEXT: The third Soviet artificial Earth satellite carried a "self-orientating" magnetometer whose function was to measure the Earth's magnetic field (S.Sh. Dol'inov, L.N. Zhuzgov, N.V. Pushkov, this journal, No.2, Izd-vo AN SSSR, 1958, p.50). The magnetometer incorporates a movable frame whose normal is kept parallel to the magnetic-field vector by special probes and the tracking system. The rotation of the frame relative to the body of the satellite was measured by two probes and telemetered to the earth. The motion of the satellite about its centre of mass and also its orientation in space can be determined from the time dependence of these angles. The present paper describes the method used to solve this problem and also the results obtained for the rotation and orientation of the satellite up to the 109th orbit. The rotational parameters were determined using these and later orbit data. The first part of the present paper gives an account

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of the theory of the method. The motion of a satellite about the centre of mass is affected by gravitational and aerodynamic moments (Ref.2: V.V. Beletskiy, this journal, No. 1, AN SSSR, 1958, p 25. Ref.3: V.V. Beletskiy, this journal, No. 3, izd.vo AN SSSR, 1959, p.13. Ref.4: V.V. Beletskiy, this journal, No. 6, izd-vo AN SSSR, 1961, p. 11), electromagnetic moments (Ref.5: Yu.V. Zonov, this journal, No. 3, izd-vo AN SSSR, 1959, p. 118), possible interactions between magnetic moments associated with currents within the satellite itself and the Earth's magnetic field, etc. The motion of the satellite is therefore rather complicated, although in practice the rotational kinetic energy is very much greater than the work done by the external forces so that in a finite interval of time (for example, one complete orbit) the effect of the perturbing forces is small. Hence, in the first approximation it may be assumed that within such limited interval of time the motion of the satellite about its centre of mass is identical with the motion of a free solid body upon which no external forces are acting. In particular, in the case of the third Soviet satellite which had two equal principal central moments of inertia, the motion of the centre of

mass on this approximation was found to take the form of a regular precession. The satellite's axis z', which is assumed to coincide with the dynamic symmetry axis, executed a uniform rotation with a constant precessional angular velocity $\dot{\psi}$ about the angular momentum vector $\underline{L}$ which remained fixed in absolute space (Fig.1). The nutation angle θ between z' and $\underline{L}$ was constant. Furthermore, the satellite rotated about z' with a constant angular velocity $\dot{\phi}$. In Fig.1, XYZ is the absolute cartesian frame such that the Z axis points in the direction of the earth's pole, X points towards the Spring point, ξ_0 is the angle between $\underline{L}$ and the Y axis, and γ_0 is the angle between the LY and XY planes. The problem can then be reduced to the determination of the parameters θ, $\dot{\phi}$, $\dot{\psi}$, ξ_0 and γ_0 for each orbit and also the determination of the angles γ_0 and θ_0 of rotation and precession as functions of time. The indications of the magnetometer probes can be used to provide all these parameters. Fig.2 shows the arrangement of the magnetometer frames. The axis of the outer frame coincides with the axis of the satellite, and the frame can rotate about it. The angle of rotation Δ of this system is measured from a fixed (relative to the satellite) axis x' which is

perpendicular to the satellite's symmetry axis z'. The values of this angle are telemetered to the earth by means of a probe whose indications are denoted by q_1. When $\Delta = 0$ the x' axis is normal to the outer frame. The axis of the inner frame is perpendicular to the axis of the outer frame. The normal to the inner frame is made parallel to the magnetic field $\underline{H}$ by rotating both frames through the necessary angles relative to the satellite. The angle of rotation of the inner frame is also telemetered to the Earth by a second probe, whose indications are denoted by q_2. The indications q_2 are not independent of q_1 and the independent part of q_2 is given by

$$\lambda \sim q_2 - \frac{1}{3} q_1$$

The angle λ then represents the angle between the z' axis and $\underline{H}$ (Fig.2). The angle Δ is the angle between the $z'\underline{H}$ plane and a plane fixed to the satellite and containing z'. Thus the two angles λ and Δ completely specify the orientation of the satellite relative to the magnetic field. They are functions of time, owing to the rotation of the satellite about the centre of mass and the motion of the latter along the orbit. If the direction

of $\underline{H}$ is defined by the two coordinates ρ and γ, which are defined similarly to ρ_0 and γ_0, then since the orbit of the satellite and the geomagnetic field are known, it follows that ρ and γ are also known as functions of time. In that case $\lambda(t)$ and $\Delta(t)$ are determined by the dependence of λ and Δ on the orientation and rotation parameters of the satellite, and the latter can be determined from the telemetric data on $\lambda(t)$ and $\Delta(t)$. The magnetic coordinates ρ and γ were obtained from published tabulations of the dip and declination angles D and I as functions of geographic coordinates and height above the earth's surface. For each height the values of I and D were given in steps of 10 deg (latitude) and 30 deg (longitude). Intermediate values have to be interpolated (linearly). The authors then set up trigonometric relationships connecting the various angles so that the above scheme can be carried out in quantitative form, and the angles $\lambda(t)$ and $\Delta(t)$ can be determined from the magnetometer readings. Fig.7 shows a comparison between the computed (dashed curve) results and the experimental (full curve) results for orbit No. 15. Equally good agreement was obtained for other orbits. Fig.8 shows the angular velocity $\dot{\phi}$ as a

function of the orbit number. Fig.9 shows the precession angle as a function of orbit number. Other numerical results given in this paper refer to the nutation angle, the orientation of the vector L relative to the orbit and relative to the sun. The final section is concerned with the calculation of the orientation of the satellite's instruments in space. This orientation is defined by the Eulerian angles φ, ψ and θ of the satellite relative to the fixed frame. Various relations are set up, giving
1) the orientation relative to the earth's magnetic field, and
2) the orientation of a given axis in the satellite relative to a given direction in space. The theory and the numerical calculations obtained by the present authors have shown that it is possible to determine the orientation of any instrument set up on a satellite. The precession and rotation periods of the satellite can be calculated by the methods described in this paper to within 5 sec; the angle between the satellite's axis and the precession axis, i.e. the nutation angle, can be determined to within 1 deg, and the position of the precession axis in space to within 10 deg. The calculated rotational and orientational satellite parameters provide information about the motion of the satellite about its
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Rotation and orientation of the third...

centre of mass during the first few days after its launching. It turns out that during a period corresponding to one complete orbit the motion about the centre of mass can be approximately looked upon as a regular precession. The parameters describing this precession vary slowly from orbit to orbit. The satellite rotated about the direction of the vector $\underline{L}$ so that the angle between the satellite's axis and $\underline{L}$ was near 90 deg. The departures from this were not greater than 6 deg. The precession period ("somersault" period) slowly increased from 135-140 sec (orbits numbers 1-5) to 195 sec on the 283rd orbit. In addition, the satellite slowly rotated about its own symmetry axis. The angular velocity of this rotation decreased from 0.375 deg/sec in the first orbit to zero in the 20th orbit. Thereafter the direction of the rotation changed sign and varied about an average of about 0.1 deg/sec, deviations from the average being not greater than 0.1 deg/sec. The direction of the vector $\underline{L}$, i.e. the axis about which the "somersault" motion takes place, slowly changed its position in space at an average rate of about 1 degree per orbit. This motion was such that the direction of $\underline{L}$ tended towards the velocity vector of the centre of mass at the perigee. The two

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directions become nearly identical in the 100-110th orbit. In these orbits the satellite experienced the maximum aerodynamic resistance. At the perigee and the apogee the base of the satellite turned towards the Earth with a period equal to the "somersault" period. The slow variation in the rotation and orientation parameters can be explained by aerodynamic and gravitational perturbations, the interaction between currents induced in the satellite and the Earth's field, and other effects.
Acknowledgments are expressed to O.S. Ryzhina and O.I. Rau who programmed the electronic computer used in the numerical calculations. A.I. Repnev and a number of other workers at the AS USSR took part in the analysis of the data.
There are 21 figures, 7 tables and 7 Soviet references.

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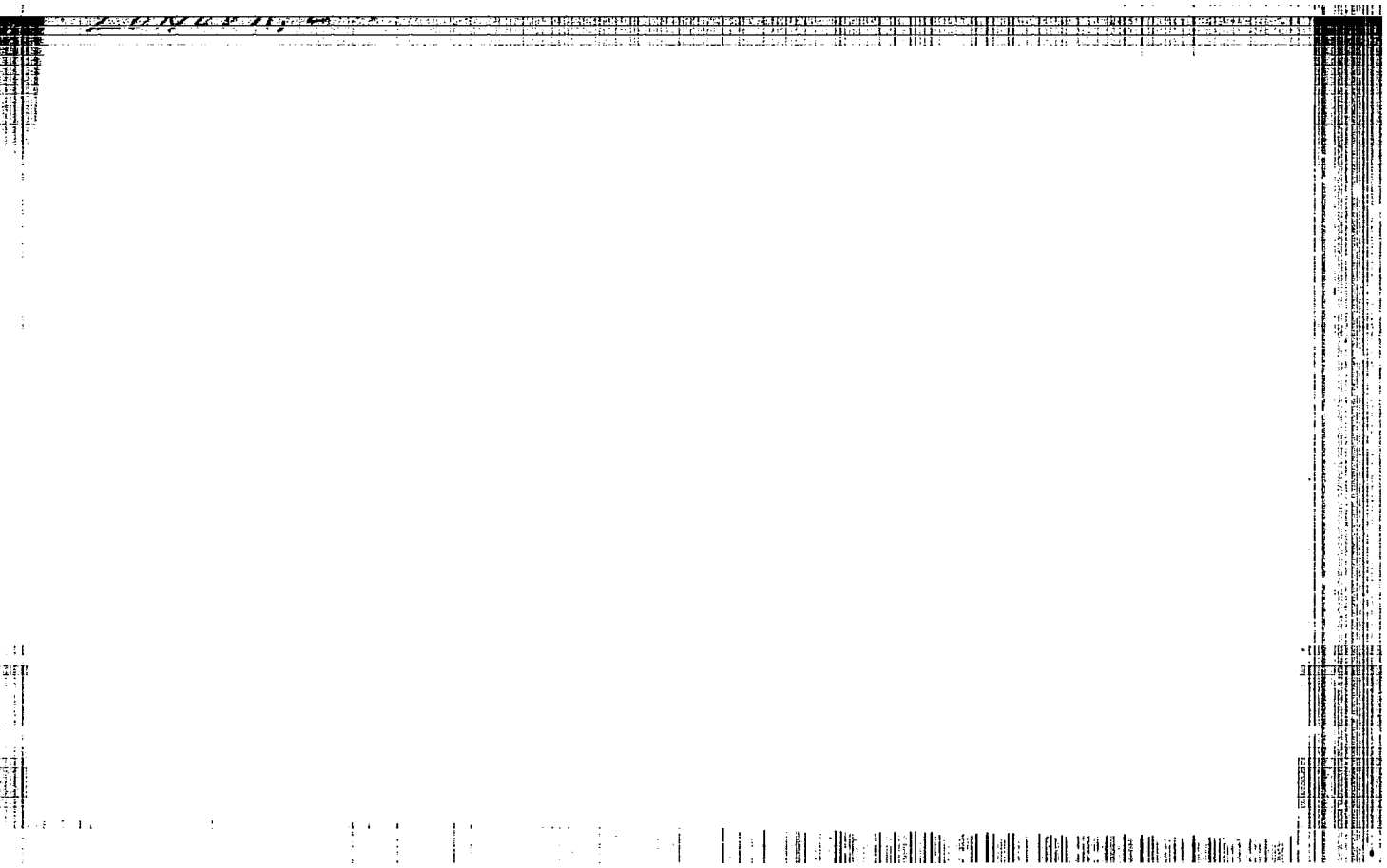
ZONOVA, A.V.

Bioelectrical activity of the retina in reactive hypertension.
Probl.fiziol.opt. 12:367-376 '58 (MIRA 11:6)
(HYPERTENSION)
(ELECTRORETINOGRAPHY)

8Г-6

Chrome mordants for printing natural silk. Z. P. Sharova and E. A. Zonova. (*Tekst. prom.*, 1950, No. 10, 31—33).—Recipes are given for use with a number of chrome dyes. Neutral chromate is generally preferred to Cr lactate, as the latter causes partial reduction of the dye during steaming.

E. B. Uvarov.



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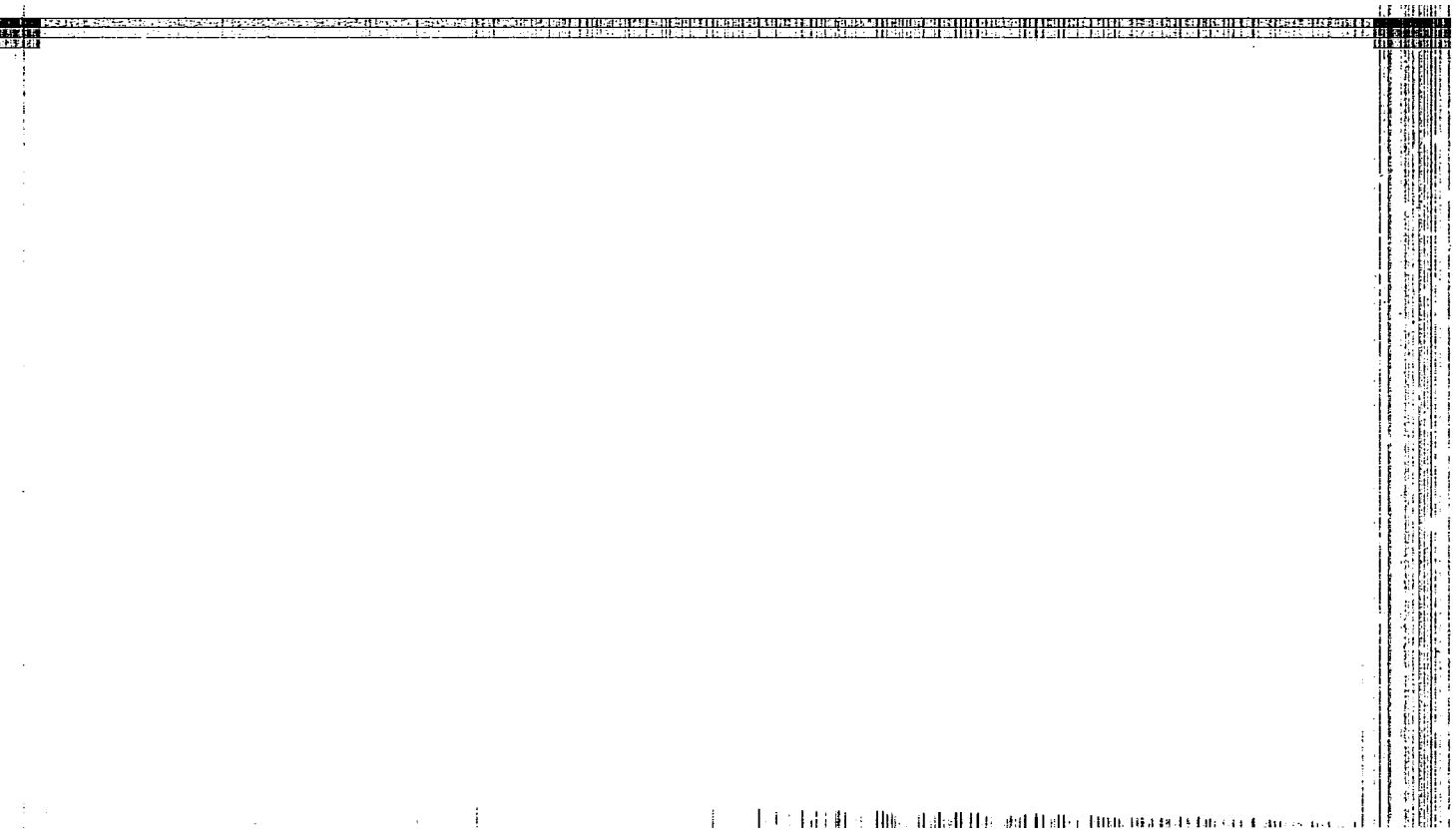

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ZONOVA, Ye.A.

Printing capron fabrics with flat white paste. Obm. tekh. opyt. [MLP] no.9:5-8 '56. (MIRA 11:10)
(Textile printing) (Nylon)

ZONOVA, Yo.A.

Use of indigosols for natural silk fabric printing. Obm. tekh. opyt. [MLP] no.9:10-13 '56. (MIRA 11:10)
(Silk printing)

ZONOVA, Ye.A.

Using direct, color fast dyestuffs for printing natural silk fabrics. Obm. tekh. opyt. [MLP] no.9:14-15 '56. (MIRA 11:10)
(Silk printing)

ZONOVA, Ya.A.

Colorfast 6V brilliant violet for printing natural silk fabrics.
Obm. tekh. opyt. [MLP] no.9:15-16 '56. (MIRA 11:10)
(Silk printing)

ZONOVA, Ye.A.

SHAROVA, Z.P.; CHERNINA, G.Ye.; ZONOVA, Ye.A.

Use of oleaster gum in silk production. Tekst.prom. 14 no.10: 50-51 O '54. (MLRA 7:10)

(Oleaster) (Dyes and dyeing--Silk)

RODIONOV, S.V.; ZONOV, Ye.G.; MAYATIN, A.A.

Holding time for the elements of the mechanics of a piano following decating under conditions of assembly line work. Nauch. trudy LTA no.97:3-9 '62. (MIRA 17:2)