

KORNIYENKO, Z.P.; BELOVA, Ye.M.; KARIMOV, Sh.M.

Study of visceral leishmaniasis in Ashkhabad dogs. Vop.kraev.  
paraz.Turk.SSR 3:161-167 '62. (MIRA 16:4)

1. Sel'skokhozyaystvennyy institut imeni M.I.Kalinina, Institut  
epidemiologii i gigiyeny, Ashkhabad i Meditsinskiy institut,  
Ashkhabad.

(ASHKhabAD--LEISHMANIASIS) (ASHKhabAD--DOGS--DISEASES AND PESTS)

BELOVA, Ye.M.; KARAPET'YAN, A.B.

Experimental study of leptomonad cultures isolated from moth  
flies *Phlebotomus caucasicus*, Med. paraz. i paraz. bol. 32  
no.38305-306 My-Je'63 (MIRA 17:3)

1. Iz Ashkhabadskogo instituta epidemiologii i gigiyeny (dir.-  
dotsent Ye.S.Popova).

BELOVA, Ye.M.; SAF'YANOVA, V.M.

Methods of studying natural infection of moth flies with leptomonads  
in the nidi of cutaneous leishmaniasis. Zool. zhur. 42  
no.11:1729-1732 '63. (MIRA 17:2)

1. Institute of Epidemiology and Hygiene of Ashkhabad and  
Department of Diseases of Natural Nidality, Institute of  
Epidemiology and Microbiology, Academy of Medical Sciences of  
U.S.S.R., Moscow.

BELOVA, Ye.M.; SA<sup>3</sup>'YANOVA, V.M.

Isolation of leptomonad cultures from Caspian gekkos in the  
Serakhs focus of cutaneous leishmaniasis. Zdrav. Turk. 7  
no.11:26 N°63 (MIRA 17:3)

1. Iz Ashkhabadskogo instituta epidemiologii i gigiyeny (dir.-  
dotsent Ye.S.Popova) i otdela prirodnoochagovykh bolezney  
Instituta epidemiologii i mikrobiologii imeni Gamaleya AMN SSSR  
(zav. - prof. P.A. Petrishcheva).

BELOVA, Ye.M.

Leishmania obtained from leptomonads in a tissue culture of  
chick embryos. Zool. zhur. 43 no.12:1861-1862 '64  
(MIRA 18:2)

1. Ashkhabadskiy institut epidemiologii i gigyeny.

BELOVA, Ye.M.

Growth rate of leptomenas cultures from gekkes *Gymnodactylus*  
caspius Eich. Med. paraz. i paraz. bol. 34 no.3:349-351 M--  
Je '65. (MIRA 18:7)

1. Ashkhabadskiy institut epidemiologii i gigiyeny.

ACC NR: AP6021891

(A,N)

SOURCE CODE: UR/0358/66/035/003/0275/0281

AUTHOR: Dubrovskiy, Yu. A.; Belova, Ye. M.; Neronov, V. M.

ORG: Laboratory of Medical Zoology, Institute of Epidemiology and Microbiology,  
im. N. F. Gamalei, AMN SSSR (Laboratoria meditsinskoy zoologii Instituta  
epidemiologii i mikrobiologii AMN SSSR); Ashkhabad Institute of  
Epidemiology and Hygiene (Ashkhabadskiy Institut epidemiologii i gigiyeny)

TITLE: Leishmanioma as an indicator of the concentration of leishmaniasis  
epizootics in gerbil populations

SOURCE: Meditsinskaya parazitologiya i parazitarnyye bolezni, v. 35, no. 3, 1966,  
275-281

TOPIC TAGS: epidemiology, epizootic, animal disease, disease vector, gerbil,  
leishmaniasis

ABSTRACT:

Different forms of cutaneous leishmaniasis were found among gerbils in  
southeast Turkmenia. Ear lesions were both typical and atypical.

*Leishmania* were cultured from specimens prepared from tissues of apparently  
healthy ears. Where the outbreak was intense, most of the animals infected  
had typical lesions containing *Leishmania* and where less intense, few or  
no ear lesions. Orig. art. has: 2 figures and 5 tables. [W.A. 50; -CBE-No. 10]

SUB CODE: 067 SUBM DATE: 20Apr65/ ORIG REF: 008/

UDC: 591.2-932.34:616.993.162-036.1-07

Card 1/1

BELOVA, Ye.N.

CAND PHYSICOMATH SCI.

Dissertation: "Struture of Tourmaline."

11 May 49

Inst of Crystallography, Acad Sci. USSR.

SO Vecheryaya Moskva  
Sum 71



CA

8

Crystal structure of tourmaline. N. V. Belov and E. N. Belova. *Doklady Akad. Nauk S.S.S.R.* 69, 183-8 (1949).  
 cf. Hamburger and Buerger, *C.I.* 43, 8887c. — Previous x-ray measurements of the authors gave for dravite (Mg-tourmaline) the dimensions of the elementary cell:  $a_1 = 16.00 \text{ \AA}$ ;  $a_2 = 7.21 \text{ \AA}$ ;  $c/a = 0.452$ , or a rhombohedron with the edge  $a_1 = 9.52 \text{ \AA}$ ,  $\alpha = 113^\circ 40'$ , space group  $C_2^2 = R\bar{3}m$  with 1 mol.  $\text{NaR}_3\text{B}_3\text{Si}_3\text{O}_{11}\text{H}_3\text{Al}_3$  in the unit cell. For the new detn. of the structure by the authors, the structural analogy of the rings in diopside, milarite, and beryl have been highly conclusive; these crystal phases have about the same dimensions in the horizontal extension, while in the vertical direction the lengths are in the ratio 1:1:2 for the diopside, tourmaline, and milarite, resp.  $\text{Na}^+$  is situated, without parameters, in (000). By Patterson analysis the positions of the other atoms have been detd. The ditrigonal rings have a radius (Si - Si) of 3.07  $\text{ \AA}$ . in tourmaline (3.00 in beryl, 3.11 in milarite, 3.00 in diopside); they are arranged in two distinct levels, one with 6 Si, the other with 3Al + 3B. Octahedral [Mgk] units

are arranged along trigonal screw axes, in chains extending through the entire framework. The structure has 24 parameters; the comparison with the structure given by Hamburger and Buerger is best if  $\text{Na}^+$  is located not in (000) but with  $z = 0.855 \text{ \AA}$ . Seven kinds of oxygen ions are distinguished, numbered for analogy with those authors II to VIII. The polarity of the uniaxial units is evident, while the upper level is approx. hexagonal the lower level is distinctly ditrigonal, with a side length of about  $2a_2$  diams. The  $\text{Na}^+$  ions are located in wide octahedra between the double ring arrangements, these have the formula  $[\text{Na}_2\text{AlB}_2\text{O}_{11}]_2$ , with the distances Si - O varying between 1.57 and 1.78  $\text{ \AA}$ , (Al, B - O) between 1.58 and 1.76  $\text{ \AA}$ , Mg - O between 1.97 and 2.27  $\text{ \AA}$ . In details of the positions of the ions, this structure is not in agreement with Hamburger's and Buerger's detns.; there are also many contradictory at. distances given, e.g. the too large distance for Al - O. While the authors find for Mg - O, 2.53  $\text{ \AA}$ , Hamburger and Buerger give 2.10  $\text{ \AA}$ . Also in the intensity data, there are tremendous contradictions, e.g. for (1120) (101) is given 7 by Belov and Belova, 0 by H. and G.

W. Eitel

1937

C. A.  
1951

Structure of tourmaline. N. V. ...  
 Doklady Akad. Nauk S.S.S.R. 79, 817-10(1950). The  
 characteristic differences in the previously given position  
 coordinates published by the authors (C.A. 45, 547-51,  
 by Hamburger and Buerger (C.I. 43, 8087), and by  
 Donnay and Buerger (C.I. 44, 10-334) are tabulated.  
 The nearly complete agreement of the electron density  
 projections (Patterson-Harker synthesis method) and the  
 very satisfactory similarity in the intensity of the  $(hkl)$   
 interferences is detd. by the agreement in the horizontal  
 coordinates in the 3 published structure variants. The  
 chief difference, however, is the absence of Mg/Fe posi-  
 tions as given by Buerger, et al., in the structure given by  
 the authors. They correspond to the positions of Al in the  
 proposal of Patterson and Harker. (Al + B) is in their  
 structure nearly hidden by the Si ions, arranged with these  
 on the vertical axes, in a double-layered hexagonal ring,  
 with [Si<sub>2</sub>] in the upper and [Al, B<sub>2</sub>] in the lower layer.  
 The distance Na - O<sub>1</sub> = 2.21 A.; Na - O<sub>2</sub> = 2.28 (not  
 3.11 A., as given in Donnay's and Buerger's proposal);  
 Na - O<sub>3</sub> = 3.00 A.; Na - O<sub>4</sub> = 2.81 A. Of importance  
 also is the difference of the coordination for the Al<sup>3+</sup> ions:  
 [AlO<sub>4</sub>] in the structure given by the authors, [AlO<sub>6</sub>]  
 in Buerger's. In the latter, the improbable distances 2.25  
 and 2.68 A. for Al - O are calc'd. and are much higher  
 than the theoretical value 1.88 A. Of the octahedron  
 edges, two are much too short and three much too long. The  
 isomorphous replacement of Mg<sup>2+</sup> by Al<sup>3+</sup> in tourmaline  
 is emphasized by Buerger, but in the structures of the  
 authors there are not 3, but 6 Mg<sup>2+</sup> coordinates with O<sup>2-</sup>  
 in octahedra, in which Mg<sup>2+</sup> replaces Al<sup>3+</sup> but not vice  
 versa. The intensity discussion for Fe-tourmaline in  
 comparison with Mg-tourmaline must give for Fe + O a  
 stronger peak than for Si + Al + O, but such a difference  
 was not observed. The discussion chiefly concerns the  
 problem of "satellite" peak intensities in the implication of  
 electronic density distribution. Buerger's deductions would  
 be fully valid for the space group C<sub>2</sub><sup>2</sup> = K3 but not for  
 C<sub>2</sub><sup>2</sup> = R3m. The previous intensity data of the authors  
 are supplemented by a diagram of the observed and calc'd  
 intensities for (hkl) reflexes which are in excellent agree-  
 ment. W. Fritsch

Geological Chemistry  
&

BELOVA, E. N.

USSR

✓ Determination of the parameters in the structure of diethyl malonate. M. S. Belova, E. N. Belova, M. N. Andriashova, and H. A. Kabanova. *Doklady Akad. Nauk SSSR*, 31, 297-302 (1951). — A revision of the intratomic distances Si-O and Mg-O by 3-dimensional Fourier synthesis is given to correct the data of *Strukturberichte* 1, 363 (1931), which give for Si-O: 1.81 Å. (av.). This rather high distance from Bragg's and Brown's first and preliminary values (C.A. 26, 3623) is in contradiction with normally observed values varying between 1.56 and 1.70 Å., and fairly close 1.75 Å. For the distances Mg-O the corrections must not be so considerable. The revision has given the following results: The space group is  $D_{2h}^{16} = P2_12_12_1$ ; the principle of denser hexagonal packing of the  $O^{2-}$  anions which is the basis for the system of Bragg and Brown's only an approximation to the accurate data derived from the electron-d. projections on the three pinacoids. The correct distances are: Si-O I = 1.600; Si-O II = 1.620; Si-O III = 1.635; Mg-O I = 2.032; Mg-O II = 1.825; Mg-O III = 1.828; Mg-O IV = 2.275; Mg-O V = 1.827; Mg-O VI = 1.827 Å.

ACS

*Handwritten signature*

Laue patterns of synthetic corundum. E. N. BELOVA AND N. YU. IKORNIKOVA. *Doklady Akad. Nauk S.S.S.R.*, 81 [5] 820-32 (1951).—Laue patterns of mosaic corundum are compared with pictures obtained in parallel polarized light. Results confirm the supposition that the mosaic crystal is an intermediate formation between the ideal monocrystal and the polycrystalline growth. 4 illustrations. B.Z.K.

30175

S/070/61/006/006/007/008  
E132/E135

24.7500

AUTHORS: Palatnik, L.S., Kimnik, Yu.F., Belova, Ye.K., and  
Atroshchenko, L.V.

TITLE: Investigation of the triple semiconducting compounds  
containing copper and the elements of the 4th and  
6th groups

PERIODICAL: Kristallografiya, v.6, no.6, 1961, 960-964 + 1 plate

TEXT: A method is put forward for estimating the  
intensities of the superstructure lines in X-ray powder  
photographs of three component compounds and ordered phases with  
fractional numbers of "molecules" in their unit cells by choosing  
imaginary compounds with the same structure but with whole  
numbers of "molecules". In this way the compound studied lies  
between two imaginary compounds in composition. These means have  
been applied for estimating the intensities of two possible types  
of superstructure lines in X-ray powder photographs of groups of  
compounds of the type  $A_2B_3$  and the  $A_2B_3$  lattices.

$Cu_2GeS_3$ ,  $Cu_2SnS_3$ ,  $Cu_2SnSe_3$ ,  $Cu_2GeSe_3$ ,  $Cu_2GeTe_3$ ,  $Cu_2SnTe_3$ .

Card 1/2

30175

Investigation of the triple ....

S/070/61/006/006/007/008  
E132/E135

A satisfactory agreement between the observed and calculated intensities is found corresponding to long-range ordering of the "anions" C and the "cations" A and B in the diamond sub-lattices. Calculation of the superstructure lines of the other type, namely for the ordering in the "cation" lattice of the A and B atoms, gives very low intensities for the lines which are not to be found on the X-ray photographs for any of the six compounds. The lattice parameters, densities, microhardnesses and melting points have been measured for these compounds. It is found that the properties characterising the mechanical and thermal stability of these compounds (microhardness and melting point) increase regularly with decreasing lattice parameter and consequently with bond length (interatom distance). There are 2 figures, 3 tables and 4 Soviet-bloc references.

ASSOCIATION: Khar'kovskiy gosudarstvennyy universitet im. A.M. Gor'kogo (Khar'kov State University im. A.M. Gor'kiy), Nauchno-issledovatel'skiy institut osnovnoy khimii (Scientific Research Institute of Fundamental Chemistry)  
Card 2/2  
SUBMITTED: June 17, 1961

PALATNIK, L.S.; KOMNEK, Ya.E.; BEKOVA, Ye.K.; ATROSHCHENKO, L.V.

X-ray diffraction study of ordering processes in three-component semiconductor compounds. Ukr. fiz. zhur. 8 no.2:263-268 F '63.  
(MIRA 16:2)

1. Nauchno-issledovatel'skiy institut osnovnoy khimii, Khar'kov.  
(X-ray diffraction examination) (Semiconductors)

BELOVA, Ye.M.

Examination of the excrements of artificially inoculated moth flies. Vop.kraev.paraz.Turk.SSR 3:137-138 '62. (MIRA 16:4)

1. Institut epidemiologii i gigiyeny, Ashkhabad.  
(SAND FLIES AS CARRIERS OF DISEASE)



BELOVA, Ye. N.

USSR / Physical Chemistry. Crystals

B-5

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 25863

Author : N.I. Golovastikov, Ye. N. Belova, N.V. Belov  
Title : Crystalline Structure of Yeremeyevite.

Orig Pub : Dokl. AN SSSR, 1955, 104, No 1, 78-81

Abstract : The hexagonal cell of yeremeyevite (a 8.538, c 8.17, kX) contains 12  $AlBO_3$  "molecules"; ph. gr. -  $P6_3/m$ . An especially strong reflex (006) and the brightness of the 3rd and 6th layer lines of rotation on c indicated a six layer distribution of atoms in the cell. The horizontal co-ordinates of six atom pairs of Al were determined from the Patterson projection  $P_0(x,y)$ , which made it possible to construct a model with columns of Al octahedrons, the model having basically coincided with the final results. The signs of  $F_{hk0}$  were determined by Zachariassen's equation  $S_{K+H} = \frac{S(S_H \cdot S_K)}{S}$ . The projection of electron density  $\rho(xy)$

Card : 1/2

USSR /Physical Chemistry. Crystals

Abs Jour : Ref Zhur - Khimiya, No 8, 1957, 25863

B-5

Abstract : constructed with these signs confirmed the assumed model. Peaks corresponding to B atoms appeared in addition. The yermeyevite formula  $A_1B_2O_5$  was accepted in the result. The framework of the structure are vertical columns of oxygen octahedrons set on horizontal edges, by which they are linked along the c axis. The columns are linked in pairs into hands by inclined edges. Two octahedrons inhabited with Al atoms and one empty octahedron alternate in the columns. There are in empty octahedron alternate in on faces turned towards  $6_3$ . Four  $B_{(2)}$  atoms are set in two pairs on the ternary axes in the triangles of  $O_{(2)}$ . The planes of the triangles of B and  $B_{(2)}$  are mutually perpendicular. The accepted structure agrees well with the properties of yermeyevite.

Card : 2/2

• USSR/Optics - Physical Optics.

K-5

Abs Jour : Referat Zhur - Fizika, No 3, 1957, 7700

A detailed table of the physical constants of the micas is given. It is shown that there is no definite connection between these constants on the one hand and  $K$ , the transparency of the micas in the ultraviolet region and the amount of iron on the other hand.

Bibliography, 22 titles.

Card 3/3

- 32 -

BELOVA, E. N.

Structure and morphological peculiarities of fluorophlogopite and teniolite. I. I. YAMIN, V. A. TIMOFEVA, T. I. SHASHKINA, E. N. BELOVA, AND N. V. GLIKI. *Zapiski Vsesoyuz. Mineralog. Obshchestva*, 34 (4), 415-24 (1955). Two different micas were synthesized, fluorophlogopite,  $\text{KMg}_3(\text{Si}_4\text{AlO}_{10})\text{F}_2$  (I), and teniolite,  $\text{KMg}_2\text{Li}(\text{Si}_4\text{O}_{10})\text{F}_2$  (II), having the fluorophlogopite structure. The micas were obtained by slow cooling of a melt of the pure oxides and fluorides in stoichiometric proportions. Differential thermal analysis of the melts yielded melting points of  $1340 \pm 5^\circ\text{C}$ . and  $1185 \pm 5^\circ\text{C}$ . for I and II, respectively. X-ray measurement of interplane distances showed the same values as in various natural micas of the I type; values of distances  $a$ ,  $b$ ,  $c$ , and  $d$  were 5.32, 0.16, 10.0, and 10.2, respectively; the monoclinic angle was  $100^\circ$ . The micas synthesized showed no change in structure when heated from room temperature to  $1000^\circ\text{C}$ . from the powder X-ray patterns, in contrast to natural phlogopite. Optical properties measured were  $n_\gamma$ ,  $n_\beta$ , and  $n_\alpha$ , having values of 1.549, 1.548, and 1.522, respectively, for I and 1.540, 1.540, and 1.513 for II. Birefringence was 0.41 and the angle  $2V$  was nearly 0. II was transparent in the visible range above 270  $\mu$ . Morphological characteristics shown reveal the spiral growth of crystals and the presence of screw dislocations. Star formations and stepped "hills" on crystal faces were observed. 12 figures, 22 references. D.T.W.

*BELOVA, YE. N.*

USSR/Solid State Physics - Structural Crystallography, E-3

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34626

Author: Golovastikov, N. I., Belova, Ye. N., Belov, N. V.

Institution: None

Title: Crystalline Structure of Eremeyevite (Eichwaltite)

Original Periodical: Zap. Vses. Mineralog. o-va, 1955, 84, No 4, 405-414

Abstract: See Referat Zhur - Fizika, 1956, 28612

1 of 1

- 1 -

GOLOVASTIKOV, N.I.; BELOVA, Ye.N.; BELOV, N.V., akademik.

Crystal structure of eremeyevite. Dokl.AN SSSR 104 no.1:78-81  
S 155. (MIRA 9:2)

1, Institut kristallografii Akademii nauk SSSR.  
(Aluminum berate) (Crystallography)

*DETUNOV, L. N.*

1973. AN ELECTRONOGRAPHIC DETERMINATION OF  
 THE STRUCTURE OF  $Ti_3Sb_2Se_8$ . Z. G. Pinsker, S. A. Semiletov  
 and E. N. Belova  
 Dokl. Akad. Nauk SSSR, Vol. 199, No. 6, 1973, p. 1450. (in  
 Russian).

*Page 3*  
*Met*

Material was sublimed from a 50:50 alloy of Ti,Se and  
 $Sb_2Se_3$  on a cellulose film. Oblique electronograms gave 30  
 independent reflections from the textured polycrystalline struc-  
 ture and reflection electronograms were also obtained. From  
 the unit cell volume and from a powder photograph the material  
 was identified as  $Ti_3Sb_2Se_8$ . The structure is orthorhombic,  
 $a = 10.45$ ,  $b = 4.50$  and  $c = 12.69$  Å.  $Z = 4$  and the space  
 group is  $Pnma$  although approximating to  $Pnmm$ . The atomic  
 coordinates are  $Sb_1$  (0 0 0), positions (a),  $Ti_1$  (1/2 1/2 0), posi-  
 tions (b) and  $Se_1$  (0 0 1/2), (0 2/2) positions (c). This struc-  
 ture, having layers of Ti and Sb atoms separated by chains of  
 Se atoms, explains the flakiness of the crystallites.

A. L. Mackay

BELOV, N.V.; BELOVA, Ye.N.

Mosaics for 46 plane (Shubnikov's) antisymmetry groups and  
15 (Pedorov's) color groups. Kristallografiia 2 no.1:21-22 '57.  
(MIRA 10:7)

1. Institut kristallografii Akademii nauk SSSR.  
(Crystallography) (Crystals--Models)



AUTHORS: Belov, N.V., ~~Belova, Ye.N.~~ SOV/70-3-5-15/24 and Tarkhova, T.N.  
TITLE: Further on the Colour Symmetry Groups (Yeshche o gruppakh tsvetnoy simmetrii)  
PERIODICAL: Kristallogafiya, 1958, Vol 3, Nr 5, pp 618-620 (USSR)  
ABSTRACT: Diagrams of the 15-colour symmetry groups which were given in Kristallogafiya, 1957, Vol 2, p 21 can be improved slightly. The designation of the group  $I 4_1$  is altered to  $I 4_1(4_3)$  and its relationship to the packing of squares, each of symmetry  $P 4_1$ , is illustrated. New diagrams are given showing the symmetries of the groups  $I 4_1md$  and  $Fdd2$  better than those published previously. There are 18 figures and 5 Soviet references.  
ASSOCIATION: Institut kristallografii AN SSSR  
(Institute of Crystallography of the Ac.Sc.USSR)  
SUBMITTED: July 11, 1958  
Card 1/1

GINZBURG, I.V.; BELOVA, Ye.N.

Hastingsite with an acute axial angle. Dokl. AN SSSR 134 no.3:666-669  
S '60. (MIRA 13:9)

1. Mineralogicheskiy muzey im. A.Ye. Fersmana Akademii nauk SSSR i  
Institut kristallografii Akademii nauk SSSR. Predstavleno akad.  
N.V. Belovym.

(Hastingsite)

DeLava, Ye.P.

TABLE I BOOK EXTRACTS 807/3940

Moscow. *Izvestiya Vsesoyuznogo Nauchno-Issledovatel'skogo Instituta Chernoy Metallurgii*. Institut prestizhnykh splavov

*Prezitsionnyye splavy (Precision Alloys)* Moscow, Metallurgizdat, 1959. 268 p. (Series: Itz; Shoruk trudy, v. 22) 2,150 copies printed.

Additional Sponsoring Agency: USSR. Gosdostavtruy planovyy kuznetsov  
Ed.: D. I. Chiriyalov; Ed. of Publishing House: Ye. I. Levitskiy; Tech. Ed.: P. G. Tolstoyev.

**PURPOSE:** This collection of articles is intended for technical personnel and scientific workers in the metallurgy, instrument-manufacturing, and electrical-equipment-manufacturing industries. It may also be useful to students of schools of higher technical education.

**CONTENTS:** This collection of articles presents the results of studies of precision alloys made in recent years by the Institute's research and development departments. The articles are devoted to the research work on the properties of (cerium metallurgy). Properties of metal alloys which can be used for making springs with glass and ceramic materials and alloys used for making springs are discussed. Anomalies of electrical resistance and the expansion and the effect of irradiation on properties of alloy are considered. Problems connected with the determination of mechanical properties of alloys rolled of bimetallic strips are reviewed. A responsibility and with in manufacturing high-temperature transducers and strain gauges is presented. No personalities are mentioned. References follow several of the articles.

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BELOVA, YE. P.

Preparation and use of organic-mineral granular fertilizers on state farms.  
Sov. agron. 10 no. 9, 1952



BELOVA, Ye. P.

"The Effectiveness of Applying natural Fertilizers in Rows to the Chernozems of the Chkalov Region." Cand Agr Sci, All-Union Sci-Res Inst of Fertilizers, Agricultural Engineering, and Soil Science. (VM, 14 Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)  
SO: Sum. No. 556, 24 Jun 55

BELOVA, Ye. V.

"Biological Characteristics of the Flowering and Fruit-Bearing of the Peanut." Cand Biol Sci, All-Union Acad of Agricultural Sci Imeni Lenin (VASKhNIL), Leningrad, 1953. (RZhBiol, No 1, Sep 54)

SO: Sum 432, 29 Mar 55

ASINOVSKAYA, G.A., insh.; BELOVA, Ye.V., insh.; ZELIKOVSKAYA, N.M., insh.

Brass surfacing of ferrous metals with flux gas techniques.  
Svar. proizv. no.2:28-31 F '59. (MIRA 12:1)  
(Hard facing) (Brass) (Flux (Metallurgy))



SPEKTOR, O.Sh., inzh.; ASINOVSKAYA, G.A., inzh.; Prinsipalni uchastiyev:  
BELOVA, Ye.V., inzh.; SEMENOVA, A.S., inzh.

Studying the nature and conditions of changes in the structure  
and chemical composition of St.3 steel at the surface of a cut.  
Trudy VNIIAvtogen no.9:19-32 '63. (MIRA 16:12)

GRINSHPUN, S.I.; FISHERMAN, M.B.; BELOVA, Yu.M.

Determining iron, zinc, nickel and iron, zinc and manganese  
when present together. Prom. khim. reak. i osobo chist. veshch.  
no.1:24-25 '63. (MIRA 17:2)

BELOVA, Z.F.

Vertical velocities of pilot balloons loaded with a rotating flashlight.  
Trudy TSAO no.60x65-75 '64. (MIRA 18:5)

BELOVA, Z.H.; SOLOV'YEVA, Yu. V. (Cand. of Med. Sci.)

"Mycerin (Mitserin),"

p. 207 Ministry of Health USSR Proceedings of the Second All-Union Conference on Antibiotics, 31 May - 9 June 1957. p. 405, Moscow, Medgiz, 1957.

B.LOVA, Z. I.

"Concerning the Reaction of Calcium Nitrate With the Nitrates and Certain Nitrites of Group I and Group II Metals in Fusions." Cand Chem Sci, Rostov-na-Donu State U, Chair of General and Inorganic Chemistry, Rostov-na-Donu, 1954. (KL, No 8, Feb 55)

SO: Sum. No. 631, 26 Aug 55-Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (14).

Belova, Z. I.

chem

U.S.S.R.

7731\* Interaction of Fused Nitrates and Nitrites of First and Second Group Metals, O vzaimodeistvii nitratov i nitritov metallov pervoi i vtoroi grupp periodicheskoi sistemy D. I. Mendeleeva v rasplavakh. XVI. The Ternary System of Cesium, Thallium, and Cadmium Nitrates. Issledovanie troinnoi sistemy iz nitratov tselia, tal'liia i kadmiia. XVII. The Ternary System of Rubidium, Cesium, and Calcium Nitrates. Issledovanie troinnoi sistemy iz nitratov rubidliia, tselia i kal'tsiia. (Russian.) P. I. Protchenko, Z. I. Belova, and V. V. Rubleva. Zhurnal Obshchei Khimii, v. 25, no. 2, Feb. 1955, p. 238-249.

Includes graphs, tables, phase diagrams. 14 ref.

18-24

Rostov-on-Don State U.

BELOVA, Z.I.

PROTSENKO, P.I.; BELOVA, Z.I.

Binary systems of nitrates of metals from the first and second group with calcium nitrate. Zhur. neorg. khim. 2 no.11:2617-2620 N '57. (MIRA 11:3)

1. Rostovskiy gosudarstvennyy universitet.  
(Systems (Chemistry)) (Nitrates)

8(2)

AUTHORS: Gnusin, N. P., Belova, Z. I.

SOV/32-25-5-23/56

TITLE: Measurement of the Specific Electrical Conductivity of Electrolytes with the Aid of Direct Current (Izmereniye udel'noy elektroprovodnosti elektrolitov s pomoshch'yu postoyannogo toka)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 5, pp 584-586 (USSR)

ABSTRACT: The method under review is based on the determination of the potential difference between probes introduced into the electrolytic cell which is filled with the electrolyte to be investigated. The cell features special current supply electrodes for the generation of an electric field in the electrolyte. As compared to other (Ref 1) cell constructions suggested for the same purpose, the present cell is of a simple design. It consists essentially of a fork-shaped container (Fig 1) connected with the electrodes by two small tubes, while other two small tubes terminating as capillaries, are the probes. The electric circuit diagram for the measurement of the specific electrical conductivity (Fig 2) consists of an operating and a measuring diagram. The former contains the direct current source, electrolyte cell, a standard resistor, a milliamperemeter and a rheostat. The measuring circuit

Card 1/2



80V/32-25-5-23/56  
Measurement of the Specific Electrical Conductivity of Electrolytes by the  
Aid of Direct Current

diagram establishes the connection of the probes with the potentiometer. Before determining the specific electrical conductivity, the cell constant must be found (Table 2 for two cells). Measurements of the influence exerted by a reversal of the current direction (Table 1) showed, as was observed by other authors, that there is no influence upon the measuring results. There are 2 figures, 2 tables, and 1 reference.

ASSOCIATION: Belorusskiy institut inzhenerov zheleznodorozhnogo transporta  
(Belorussian Institute of Railroad Engineers)

Card 2/2

BELOVA, Z.M. (Moscow).

Result of therapy of angina pectoris with adenosintriphosphoric acid. Klin.med. 31 no.12:61-64 D '53. (MLRA 7:1)

1. Iz gospital'noy terapevticheskoy kliniki (zaveduyushchiy - deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR professor A.L.Myasnikov) I Moskovskogo ordena Lenina meditsinskogo instituta. (Adenylpyrophosphoric acid--Therapeutic use)  
(Angina pectoris)

GNUSIN, N.P.; BELOVA, Z.I.

Copper plating of steel parts in oxalate electrolytes. Zhur.  
prikl.khim. 34 no.9:2038-2043 S '61. (MIRA 14:9)  
(Copper plating)

GNUSIN, N.P.; ZOLOTOVITSKIY, Ya.M.; BELOVA, Z.I.; NIKONOVICH, N.I.

Concentrated ammonium chloride electrolytes for zinc  
plating. Zhur. prikl. khim. 37 no.2:330-337 F '64.

(MIRA 17:9)

BELOVA, Z.M.

New method of diagnosing disorders of potassium and sodium metabolism by the method of labeled atoms. Med.rad. no.5154-59 '61. (MIRA 14:11)

1. Iz gospi'tal'noy terapevticheskoy kliniki I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.  
(POTASSIUM METABOLISM) (SODIUM METABOLISM) (RADIOACTIVE TRACERS)

BELOVA, Z. M.

Study of the rate of potassium and sodium metabolism in the erythrocytes in cardiac insufficiency by means of labeled atoms.  
Med. rad. no.4:30-35 '62. (MIRA 15:6)

1. Iz gosital'noy terapevticheskoy kliniki I Moskovskogo ordena Lenina meditsinskogo instituta imeni I. M. Sechenova.

(HEART FAILURE) (POTASSIUM METABOLISM)  
(SODIUM METABOLISM) (ERYTHROCYTES)

*BELOVA, Z. N.*

USSR/Microbiology - Antibiosis and Symbiosis, Antibiotics.

F-2

Abs Jour : Ref Zhur - Biol., No 4, 1958, 14718

Author : Solov'eva, Yu.V., Belova, Z.N.

Inst : -

Title : Mycerin.

Orig Pub : V sb.: Antibiotiki, Eksperim.-klinich. izuch. M., 1956,  
207-213

Abstract : A new antibiotic, mycerin, represents a polypeptide and contains reducing substances in its molecule. It does not lose its activity in the presence of serum, possesses a wide spectrum of antibacterial activity, and low toxicity (150 mg/kg in intramuscular injections and 1.5 g in oral application). It exerts no cumulative effect (when introduced 100 mg/kg for a period of 5 days). After intramuscular injection in doses of 200 and 100 mg/kg this antibiotic is found after 24 hours in blood serum, while after the first 6 hours its concentration is respectively

Card 1/2

*BELOVA Z. N.*

GONCHAROVA, V.I., BELOVA, Z.N., BUDNITSKAYA, P.Z., MUSHKATBLAT, S.M.,  
PYATYKHINA, D.P.

Production of vitamin B<sub>12</sub> from propionibacteria [with summary  
in English]. Mikrobiologiya 27 no.2:226-228 Mr-Apr '58 (MIRA 11:5)

1. Institut epidemiologii i mikrobiologii im. Gamaleya AMN SSSR,  
(VITAMIN B 12  
optimum medium for production from propionibacteria (Rus))  
(PROPIONIBACTERIUM, culture  
optimum medium for cultivation in production of vitamin  
B 12 (Rus))



BELOVA, Z.N.

The antibiotic aurantin, its production and some [of its] properties. Antibiotiki 6 no.7:594-597 J1 '61. (MIRA 15:6)

1. Otdel infektsionnoy patologii i eksperimental'noy terapii infektsiy (zav. - chlen-korrespondent AMN SSSR prof. Kh.Kh. Flanel'skiy) Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei AMN SSSR.

(ANTIBIOTICS)

SEMENKOVA, A.V.; BELOVA, Z.N.; MEL'NIKOVA, A.I.

Discussion of M.A.Shvechikov's article "Let us improve economic planning." Vest. svyazi 23 no.10:27-29 O '63. (MIRA 16:12)

1. Nachal'nik planovo-finansovogo otdela Ministerstva svyazi AzerSSR (for Semenкова).
2. Nachal'nik planovogo otdela Saratovskogo pochtamta (for Belova).
3. Starshiy ekonomist Dzhankoyskogo uzla svyazi Krymskoy oblasti (for Mel'nikova).

BELOVA, Z.P.

2210 BELOVA, Z.P. AND ARTEM'YEV. A. S.

Opyt Polucheniya Bysokikh Urozhayev Pomidorov I Pertsy. (Moldav. SSR).  
Kishinev, Moldavgiz, 1954. 28s. s Ill. 20sm. (Glav. Upr. s.-Kh. Propagandy  
M-Va Sel'skogo Khozyaystva MSSR). 3.000 EKZ. 30k. - Na Moldav. Yaz.-  
(54-56054) 635.64st+633.841st(47.75)

*BELOVA, Z.P.*

USSR/Cultivated Plants. Potatoes. Vegetables. Melons

M-5

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 1596

Author : Z.P. Belova  
Inst : Not Given  
Title : The Scheme of Square-Nidus Tomato Planting

Orig Pub : Tr. Mold. ovoshche-kartof. orosit. opyt. st., Kishinev,  
Gosizdat Moldavii, 1956, 147-159

Abstract : On the Moldavian testing station in the years 1952-1955, by comparing various methods of planting tomatoes, it has been established that the square-nidus method of planting, according to the scheme of 70 x 70 cm, permits the mechanization of planting and redistribution of the necessary quantity of plants over an area. In addition, the square-plantings, according to the scheme  $(100+30) \times 70$  cm and  $(120 \div 30) \times 70$  cm, permit the mechanization of the cultivation between furrows and irrigation during the entire period of vegetation and partly, also, the mechanization of the fruit harvesting. These methods can be recommended in the irrigated areas of the upper terraces and in the bottom lands for the Brekoday, Mayak and other

Card : 1/2

MARTYNOVA, O.I., doktor tekhn.nauk, prof.; BELOVA, Z.S., inzh., dissertant;  
GOLUBEV, B.P., kand. tekhn. nauk; SAMOYLOV, Yu.F., kand. tekhn. nauk

Study of the electrolytic properties of water solutions of some  
electrolytes at high parameters. Teploenergetika 12 no.7:69-72  
Jl '65. (MIRA 18:7)

1. Moskovskiy energeticheskiy institut.

MARTYNOVA, O.I., kand. tekhn. nauk; SIMANOVSKAYA, B.N., inzh.; BELOVA, Z.S.,  
assistant

Removal of soluble products of ion-exchanger materials from de-  
salted water. Trudy MEI no.48:201-210 '63. (MIRA 17:6)

BELOVA, Z.S., inzh.; GOLUBEV, B.P., kand. tekhn. nauk; MARTYNOVA, O.I., kand. tekhn. nauk; SAMOYLOV, Yu.F., kand. tekhn. nauk

Study of the electrolytic properties of NaCl and KCl solutions in water vapor with high and supercritical parameters using an electric conductivity measurement technique. Trudy MEI no.48:211-218 '63. (MIRA 17:6)

STYRIKOVICH, M.A., akademik; MARTYNOVA, O.I.; BELOVA, Z.S.

Use of the method of electroconductivity measurement in studying the mechanism underlying the distribution of salt between water and saturated water vapor. Dokl. AN SSSR 162 no.4:806-809 Je '65.  
(MIRA 18:5)



BELOVA, Z.V.

A new standard for steel marking is needed. Standartizatsiia  
29 no.4:52 Ap '65. (MIRA 18:7)

ZAYEV, Petr Petrovich, prof.; ZHEZHEL', Aleksandr Aleksandrovich, prof.; KOROTKOV, Aleksandr Aleksandrovich, dots.; FEDOSEYEVA, Marianna Petrovna, dots.; BELOVA, Zoya Vasil'yevna, prepodavatel'; GOKHNER, L.M., red.; BARANOVA, L.G., tekhn. red.

[General agriculture and soil science] Obshchee zemledelie s pochvovedeniem. [By] P.P.Zaev i dr. Moskva, Sel'khozizdat, 1963. 620 p. (MIRA 17:1)

1. Anapskiy sel'skokhozyaystvennyy tekhnikum (for Belova).

BELOVA, Z.V., inzh.; POLOSINA, G.V., inzh.

All-Russian conference. Mekh.i avtom.proizv. 17 no.9:58-60 .S  
'63. (MIRA 16:10)

BELOVA, Z.V.

Feeding habits of the tadpoles of *Rana ribibunda* Pall. in the Volga  
Delta. Zool. zhur. 43 no.8:1188-1192 '64. (MIRA 17:11)

1. Moskovskiy gosudarstvennyy pedagogicheskiy institut imeni Lenina.

BELGVA, Z.V.

Feeding habits of tadpoles of *Rana ridibunda* Pall. in various zones  
of the Volga Delta. *Biul. MOIP. Otd. biol.* 69 no.6:4C-46 S-0 '64.  
(MIRA 17:11)

BELOVASHINA, N.M.

In memory of N.I.Shakhanin. Bot.zhur. 41 no.9:1402-1403 S '56.  
(MLRA 9:11)

1. Yaroslavskiy gosudarstvennyy pedagogicheskiy institut imeni  
K.A.Ushinskogo.  
(Shakhanin, Nikolai Ivanovich, 1890-1955)

BOGACHEV, V.K.; BELOVASHINA, N.M.; ZEMIT, V.E.

Yaroslavl section of the All-Union Botanical Society. Bot. zhur.  
43 no.9:1380-1381 S '58. (MIRA 11:10)

1. Yaroslavskiy pedagogicheskiy institut i Yaroslavskiy sel'sko-  
khozaystvennyy institut.  
(Yaroslavl--Botanical research)

BELOVASHINA, N.M.; GORBUNOVA, G.S.

Some evolutionary views of M.V.Lomonosov. Dokl. na nauch. konf.  
1 no.4:29-33 '62. (MIRA 16:8)  
(Lomonosov, Mikhail Vasil'evich, 1711-1765) (Evolution)



BELOVASHINA, N.M.

Parks in Yaroslavl Province. Dokl. na nauch. konf. 1 no.4:  
34-40 '62. (MIRA 16:8)

(Yaroslavl Province--Parks)

BOGACHEV, V.K.; BELOVASHINA, N.M.; DUBROVINA, A.V.; OSTRYAKOVA, G.A.

Some new species of plants in Yaroslavl Province. Bot.zhur.  
47 no.11:1666-1669 N '62. (MIRA 16:1)

1. Yaroslavskiy gosudarstvennyy pedagogicheskiy institut.  
(Yaroslavl Province--Botany)

YUNAKOV, A.A.; BOBROVSKIY, S.I.; ALIYEV, R.A.; BELOVASHINA, N.M.; KALININ,  
S.D.; YEFYKIN, A.K.

In the Botanical Society of the U.S.S.R. Bot.zhur. 50  
no.10:1505-1506 0 '65. (MIRA 18:12)

1. Vsesoyuznoye botanicheskoye obshchestvo, Leningrad (for  
Yefeykin).

VOROSHILOV, V.N.; DAYEVA, O.V.; YEVTYUKHOVA, M.A.; YEGOROVA, Ye.M.;  
KUZNETSOV, V.M.; KUL'TIASOV, H.V.; NEKRASOV, A.A.; SUROVA,  
V.P.; TARASOVA, T.L. Prinimali uchastiye BELOVAYA, Yu.N.;  
KHRYCHEVA, G.P.; TSITSIN, N.V., akademik, otv. red.;  
ASTROV, A.V., red. izd-va; LAUT, V.G., tekhn.red.

[Native plants of the U.S.S.R.; brief summary of introduction  
work in the Main Botanical Garden of the Academy of Sciences of  
the U.S.S.R.] Rasteniia prirodnoi flory SSSR; kratkie itogi  
introduktsii v Glavnom botanicheskom sadu Akademii nauk SSSR.  
Moskva, Izd-vo Akad. nauk SSSR, 1961. 359 p. (MIRA 15:3)

1. Moscow. Glavnyy botanicheskiy sad.  
(Plant introduction) (Moscow--Botanical gardens)

P.A. BELOVELSKIY, G. Ye.

*Industrial & Scientific  
Applications of Photography*

222

778.3 : 523.16 : 771.535.1

Fading of the Latent Image of Nuclear Tracks. G. E. BELOVELSKIY and L. V. SUKHOV. *Doklady Akad. Nauk S.S.S.R.*, 1948, 61, 243; *S. et I.P.*, 1950, 21, 373.—The tracks of protons and  $\alpha$  particles in thick nuclear emulsions disappear after storage for 24 hours at 30° or after 3 days at 17° in a humid atmosphere, while the latent image is conserved after one month storage in a desiccator over calcium chloride. The effect is also reduced by storage at low pressures (ca. 1 mm. mercury). Plates exposed for one month to cosmic rays at various heights show more tracks when the exposure is made in *vacuo* than those exposed at atmospheric pressure. Storage in a humid atmosphere followed by desiccation removes tracks always present in the photographic plates without lowering their sensitivity to protons and  $\alpha$  particles. A.J.L.

1952

NIFANT'YEV, E.Ye.; BELOVENTSEV, M.A.; LEVITAN, L.P.

Synthesis and some properties of cellulose acid phosphites.  
Vysokom. soed. 7 no.3:513-516 Mr '65. (MIRA 18:7)

LEVINA, S.S.; BELOVENTSEVA, G.N., redaktor

Ivan Vladimirovich Michurin. Moskva, 1955. 10 p.

(MLRA 9:11)

1. Moscow. Publichnaya biblioteka.

(Bibliography--Michurin, Ivan Vladimirovich, 1855-1935)

~~DIMOV~~  
BELOVEZHDOV, G.

BULGARIA / Chemical Technology. Chemical Products and Their J-10  
Application - Wood chemistry products. Hydrolysis industry

Abs Jour : Referat Zhur - Khimiya, No 2, 1958, 6020

Author : Dimov Kiril, Belovezhdov G.

Inst : Not given

Title : Effect of Hydromodulus of Hydrochloric Acid Prehydrolysis  
on the Composition of Wheat Straw

Orig Pub : Khimiya i industriya, 1957, 29, No 4, 24-25

Abstract : No abstract.

Card 1/1



BELOVEZHDOV, N.;CHUKANOVA, I.

"Fine Initiative." p. 4,  
(ZDRAVEN FRONT, No. 49, Dec. 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4  
No. 5, May 1955, Uncl.

BELOVICKY, Zdenek

CZECHOSLOVAKIA

Author: KADLEC, Roman, Engr. and BELOVICKY, Zdenek, Engr.

Title: "Nonvacuum Impregnation of Communications Type Transformers in Insulating Varnishes."

Source: Prague, Stalovaci technika, Vol IX, No 3, 1961, pp 282-283.

Abstract: This short article describes the general purpose of nonvacuum impregnation, which is to improve dielectric characteristics under normal climatic conditions, to improve the stabilization of dielectric characteristics during working climatic conditions, and to improve the mechanical strength of winding. The process itself consists of (1) drying to eliminate about 5 percent of the water so as to increase insulation resistance; this is done in an oven at 100 degrees centigrade for 6 hours or 115 degrees for 3 hours; (2) impregnation itself--see code GSI 35 803; of the Czechoslovak Standards; and (3) hardening. Every manu-

1/2

CZECHOSLOVANIA

Source: Průmysl, Strojnická technika, Vol IX, No 8, 1961,  
pp 282-283.

factory is introducing a certain hardening temperatures  
(around 10 degrees centigrade), and the hardening time is  
2 to 4 hours depending on the size and type of transformer.

2/2

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BELOVICLY, Zdenek, inz.

Vacuum impregnation of weak-current transformers. Sdel tech 10  
no.1:13-14 Ja '62

BELOVIDOV, Boris Sergeyevich.

Novocherkass Polytechnic Inst imeni Ordzhonikidze. Academic degree of Doctor of Technical Sciences, based on his defense, 16 March 1955, in the Council of Leningrad Order of Lenin and Order of Labor Red Banner Mining Institute, of his dissertation entitled: "Automatization of Underground Electric-Locomotive Cars (Totkatka')."

Academic degree and/or title: Doctor of Sciences

SO: Decisions of VAK, List no. 15, 25 June 55, Byulleten' MVO SSSR, No. 15, Aug 56, Moscow, pp. 5-24, Uncl. JPRS/NY-537

BELOVIDOV, B.S., dotsent, doktor tekhnicheskikh nauk.

Comparison of the economic aspects of direct and alternating  
current locomotives. Nauch. trudy NPI 32:39-46 '55. (MLRA 10:2)

(Electric locomotives)

~~BELOVIDOV, B.S.~~

Ways for the further development of mine haulage by electric  
locomotives. Trudy NPI 115:3-12 '61. (MIRA 15:4)  
(Mine railroads) (Automatic control)

BELOVIDOV, B.S., prof.

Ways of achieving automatic control of electric locomotives in  
mine haulage. Izv. vys. uch. zav.; gor. zhur. 5 no.6:162-165  
'62. (MIRA 15:9)

1. Novecherkasskiy ordena Trudovogo Krasnogo Znameni  
politekhnicheskiy institut imeni S.Ordzhonikidze. Rekomendovana  
kafedroy gornoy elektrotehniki.  
(Mine railroads) (Automatic control)

*Leath*

*base*

*France*



AMATUNI, Napoleon Leonovich, dots.; BARDINSKIY, Sergey Ivanovich, dots.; DREVS, Georgiy Vyacheslavovich, dots.; IL'IN, Boris Vladimirovich, dots.; KNORRING, Gleb Mikhaylovich, kand. tekhn.nauk; PASECHNIK, Stepan Yakovlevich, prof.; PREOBRAZHENSKIY, Aleksey Alekseyevich, dots.; ROZENBERGER, Boris Fedorovich, dots.; SOLOV'YEV, Vladimir Ivanovich, dots.; YASTREBOV, Petr Parfen'yevich, prof.; BELOVIDOV, B.S., doktor tekhn.nauk, prof., retsenzent; ARTEMOVA, T.I., red. izd-va; TUPITSYNA, L.A., red.izd-va; SHVETSOV, S.V., tekhn. red.

[Electrical engineering and electric equipment] Elektrotekh-  
nika i elektrooborudovanie; obshchii kurs. [By] N.L.Amatuni  
i dr. Moskva, Rosvuzizdat, 1963. 646 p. (MIRA 16:9)

1. Novocheerkasskiy politekhnicheskii institut (for Belovidov).  
(Electric engineering--Handbooks, manuals, etc.)  
(Electric apparatus and appliances--Handbooks, manuals, etc.)

KIKLEVICH, N.A., kand.tekhn.nauk (Donetsk); BELOVIDOV, B.S., doktor  
tekhn.nauk, prof. (Novocherkassk); IVANOV, A.A., doktor tekhn.  
nauk (Dnepropetrovsk)

Electric drives and automatic control in the mining industry.  
Elektrichestvo no.1:84-91 Ja '63. (MIRA 16:2)

1. Institut gornogo dela AN UkrSSR (for Kiklevich).  
(Mining machinery--Electric driving)

BELOVIDOV, Boris Sergeevich, doktor tekhn. nauk, prof.

Electric drives of the basic mechanisms in coal mining. Izv.  
vys. ucheb. zav.; elektromekh. 8 no.4:450-455 '65.

(MIRA 18:5)

1. Zaveduyushchiy kafedroy gornoy elektromekhaniki Novocherkas-  
skogo politekhnicheskogo instituta.

BELOVIDOV, I.D.

DECEASED

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c 1960

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BELOVIDOV V.S.

p. 2

6

AUTHOR: Sergeyev, A.S., Docent 105-58-5-24/28

TITLE: Dissertations (Dissertatsii)

PERIODICAL: Elektrichestvo, 1958, Nr 5, pp. 91-91 (USSR)

ABSTRACT: For the Degree of Candidate of Technical Sciences.  
At the Leningrad Institute for Economic Engineering (Leningradskiy inzhenerno-ekonomicheskii institut)  
L.F.Sheykman on April 27, 1954 "Selection of a Rational System for the Electric Equipment of Industrial Plants". Official opponents: V.V.Bolotov, Professor, Doctor of Technical Sciences and V.S.Ravdonin, Docent, Candidate of Technical Sciences.  
At the Leningrad Electrotechnical Institute for Signal- and Telecommunication Engineers (Leningradskiy elektrotekhnicheskii institut inzhenerov signalizatsii i svyazi)  
M.I.Radovskiy on May 10, 1946 "Werner Siemens and the Discovery of the Principle of Self-Excitation". Official opponents: M.A.Shatelen, Professor, Corresponding Member AS USSR, V.F.Mitkevich, Member AS USSR, and D.I.Kargin, Professor, Doctor of Technical Sciences.

Card 1/4

Dissertations

105-58-5-24/28

At the All-Union Scientific Research Institute for Metrology imeni Mendeleev (Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. Mendeleeva)

M.S.Kayander on June 9, 1950 "Studying the Conditions for the Increase of the Accuracy of Electrodynamic Equipments at Higher Frequencies". Official opponents: A.D.Kratirov, Professor, Doctor of Technical Sciences and I.G.Rusakov, Docent, Candidate of Technical Sciences.

A.D.Sokolov on May 7, 1954 "Experience Gathered with Respect to the Control of the Electromagnetic Properties of Dynamo- and Transformer Steel". Official opponents: N.N.Razumovskiy, Professor, Doctor of Technical Sciences and N.G.Chernysheva, Candidate of Technical Sciences.

At the Leningrad Institute of Mining imeni Plekhanov (Leningradskiy gornyy institut im. Plekhanova)

V.S.Belovidov on June 30, 1953 "On the Selection of an Electric Drive for Pit Ventilators". Official opponents: F.N.Shklyarskiy, Professor and A.V.Rys'yev, Docent, Candidate of Technical Sciences.

At the Leningrad Institute for Railroad Engineers imeni Obraztsov (Leningradskiy institut inzhenerov zheleznodorozhnogo transporta im. Obraztsova):

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Dissertations

105-58-5-24/28

N.V.Bokov on July 1, 1948 "Means and Ways of Reducing Costs for the Contact Network of Electric Railroads". Official opponents: A.Ye.Kaplyanskiy, Professor, Doctor of Technical Sciences and V.A.Belyakov, Docent, Candidate of Technical Sciences.

V.A.Glebov on July 5, 1950 "Dynamical Maximum Loads in Systems with Transportable Railroad Electric Power Plants of Low Power Output". Official opponents: N.P. Yermolin, Professor, Doctor of Technical Sciences and Yu.A.Reyngol'dt, Docent, Candidate of Technical Sciences.

K.K.Sheleshkov on July 5, 1950 "On the Problem of the Experimental Investigation of Non-Steady Processes in Power Current Circuits of D.C.Locomotives". Official opponents: A.Ye.Kaplyanskiy, Professor, Doctor of Technical Sciences and Y.D.Levashov, Engineer.

L.K.Sveshnikova on July 5, 1950 "The Supplying of Railroad Depots of Electrified Lines with Electric Power from the D.C.Contact Network" Official opponents: D.A.Zavalishin, Professor, Doctor of Technical Sciences and V.I.Drozdo, Docent, Candidate of Technical Sciences.

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Dissertations

105-58-5-24/28

G.A.Ansberg on March 5, 1953 "The Protection of Power Current Circuits in D.C. Locomotives Against Excessive Loads and Short Circuits". Official opponents: M.A.Petrov, Professor, Doctor of Technical Sciences and N.D.Treymund, Docent, Candidate of Technical Sciences.

S.V.Milyutin on January 23, 1954 "On the Application of Electric Resistance Braking on Self-Propelled Rail Car Sections". Official opponents: V.Ye.Rozenfel'd, Professor, Doctor of Technical Sciences and V.F.Tabachinskiy, Docent, Candidate of Technical Sciences.

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**B**ELOVIDOV, V. S.

112-1-877

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957, Nr 1, p. 140 (USSR)

AUTHOR: Belovidov, V. S.

TITLE: Problem of Applying a "Motor-Generator" System as a Drive for Heavy Duty Shaft Ventilators (K voprosu o primenenií sistemy "generator-dvigatel'" dlya privoda shakhtnykh ventilyatorov bol'shoy moshchnosti)

PERIODICAL: Tr. Severo-Kavkazsk. gorno-metallurg, in-ta, 1956, Nr 12, pp. 112-127

ABSTRACT: Requirements for an electric drive of a centrifugal shaft ventilator (V) are briefly enumerated. Deficiencies of an induction electric V-drive are indicated, as well as the advantages of an electric drive with a synchronous motor. Various alternatives of the V-drive are discussed (induction motor, cascade unit, synchronous motor with a notching mechanical gear, synchronous motor with a d-c electric transmission of the  $\Gamma$ - $\Delta$  system), and a comparison is made (on an actual example of one of the Donbass shafts of all these alternatives by technical and economical indexes. The use of hydraulic couplings and of asynchronous sliding couplings for the control of V speed is considered unsuitable because

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112-1-877

Problem of Applying a "Motor-Generator" System as a Drive for Heavy Duty Shaft Ventilators. (Cont.)

of heavy losses in the couplings when operating on regulating characteristics. It is emphasized that with a V capacity of from 400 to 1000 kw, a drive of the  $\Gamma$ - $\Delta$  system appears to be most efficient because it satisfies all requirements on the electric drives of shaft ventilators.

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Card 2/2

L 4235-66 EWT(m)/EPA(w)-2/EWA(m)-2 IJP(c) GS

ACCESSION NR: AT5007977

S/0000/64/000/000/1056/1060

AUTHOR: Belovintsev, K. A.; Belyak, A. Ya.; Vorontsov, S. B.; Cherenkov, P. A.

TITLE: Strong-current microtron-injector

SOURCE: International Conference on High Energy Accelerators, Dubna, 1963.  
Trudy. Moscow, Atomizdat, 1964, 1056-1060

TOPIC TAGS: low energy accelerator, magnetron, electron beam

ABSTRACT: By analyzing the characteristics of various low-energy accelerators (Van-de-Graaf generator, cascade generator, pulse transformer, microtron, linear accelerator, etc.) from the viewpoint of their utilization as an injector for the synchrotron, the authors found the application of the microtron for this purpose very promising. The determining motives of their selection were the simplicity of design and construction, high monoenergetic character, good geometric beam parameters, ease of output of a large part of the accelerated electrons, and compactness of this accelerator. In order to experimentally verify the theoretical assumptions, and also to study new possibilities, mainly concerned with the enhancement of the intensity, a 7-Mev microtron was erected and put into operation (October 1961) in the Photomeson Processes Laboratory, Physics Institute im. P. N.

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ACCESSION NR: AT5007977

Lebedev, Academy of Sciences SSSR. The present report discusses the principal characteristics of the microtron. This accelerator was described in detail in another work (Belovintsev, K. A., Belyak, A. Ya., Gromov, A. M., Moroz, Ye. M., Cherenkov, P. A. *Atomnaya energiya* 14, 359 (1963)). The magnet of the microtron (total weight of the iron and windings--2 tons) ensures the creation of homogeneous (not worse than 0.3%) field in the circular region 50 cm in diameter for a gap of 12 cm between the pole terminals 60 cm in diameter. The maximum value of the homogeneous field in the gap is 4000 oersteds. The magnet's power supply is stabilized with an accuracy of 0.05%, and the power consumed in the operational state (around 1000 oersteds) amounts to 450 watts. The magnet poles are the covering of the vacuum chamber, realized in the form of a brass ring with nine soldered outlet pipes. The vacuum exhaust system consists of a mechanical fore-vacuum and para-oil pumps. A vacuum of  $10^{-6}$  mm of mercury in the chamber's working volume is reached in 1.3 hours after it is attached. The microtron high-frequency system includes the following elements: (a) magnetron generator of 10 cm range operating in the pulse state at a frequency of repetition 50 or 100 hertz and pulse duration of 3 microseconds; (b) waveguide track with cross-section 72 x 44 mm operating in the fundamental wave mode  $H_{01}$ ; (c) plane cylindrical resonator in which oscillations of

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the type  $E_{010}$  are excited (Kapitsa, S. P.; Bykov, V. P.; Melekhin, V. N. *ZhETF* 41, 368 1961)). Works on the study and improvement of the characteristics of the microtron as a strong-current injector are continuing. Especially interesting is the study of the possibility of the microtron as an injector of positrons for various storage devices (Belovintsev, K. A.; Denisov, F. P. *Atomnaya energiya* (in print)). "In conclusion the authors thank their associates at the Photomeson Laboratory, A. M. Gromov, A. V. Borisov, and V. S. Malofeyev, for their participation in the individual experiments and developments." Orig. art. has: 5 figures.

ASSOCIATION: Fizicheskiy institut imeni P. N. Lebedeva AN SSSR (Physics Institute, AN SSSR)

SUBMITTED: 26May64

ENCL: 00

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L 4236-66 EWT(m)/EPA(w)-2/EWA(m)-2 IJP(c) OS

ACCESSION NR: AT5007978

S/0000/64/000/000/1061/1064

AUTHOR: Belovintsev, K. A.; Cherenkov, P. A.

TITLE: Positron microtron 19

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963.  
Trudy. Moscow, Atomizdat, 1964, 1061-1064

TOPIC TAGS: high energy accelerator, positron, electron positron pair, storage device

ABSTRACT: The enhanced interest which has been recently shown by wide circles of physicists in the various ideas of particle storage is based mainly upon the tremendous possibilities which have been uncovered by the realization of collisions of electron-positron beams. Detailed study of the problem of storage shows that the principal cause of the large number of technical difficulties which have arisen during the development of this or another scheme of electron-positron storage device is the absence in nature of sufficiently powerful sources of positrons. The standard schemes for obtaining positron beams for storage rings of the types: electron beam of synchrotron  $\rightarrow$  gamma-quantum beam  $\rightarrow$   $e^+$  from accumulator target and electron beam from linear accelerator  $\rightarrow$   $e^+$  from accumulator target give comparative-

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ly lower coefficients of conservation for given interval of angles and energies that are determined by the design of the storage device. Thus the initial beam of electrons must possess energies at least equal to the energy of the accumulator storage device. Extensive approaches to progress in storage techniques were opened in connection with the development of the idea of the conversion of any synchrotron into a storage device, which was proposed in 1961 by Yu. M. Ado (*Atomnaya energiya* 12, 54 (1962)). Here one drops the necessity for storage rings as accessories added to the accelerator, but the energy of injection is limited to the "usual" interval of 5 to 10 Mev. In view of the practical realization of this method the authors have considered the possibility of the utilization of the microtron as a universal injector for the synchrotron-accumulator. The problem of the injection of electrons from the microtron into the synchrotron has been discussed in detail in another work (Belovintsev, K. A.; Belyak, A. Ya.; Gromov, A. M.; Moroz, Ye. M.; Cherenkov, P. A. *Atomnaya energiya* 14, 359 (1963)). In the present work the authors limit themselves only to procedures for obtaining, accelerating, and exiting the positrons from the microtron (also discussed by Belovintsev, K. A.; Denisov, F. P. *Atomnaya energiya*, in print). It is concluded that the proposed alternative of the universal injector is clearly shown to be advantageous over two separate injector-accelerators from the viewpoints of techniques, exploitation, and economy (Melekhin,

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V. P. Dissertation, Institute of Physical Problems, AN SSSR 1963). For an intensity of around 100 milliamperes per pulse attained by the microtron in question, about  $10^7$  positrons per pulse are obtained. As for the electron source, cathodes of lanthanum boride ( $\text{LaB}_6$ ) are used for injection, emitting surface  $1.5 \times 1.5$  mm (microtron at Institute of Physical Problems) and  $1.5 \times 9$  mm (Physics Institute im. F. N. Lebedev). As for the optical characteristics of the external beam, the total angular divergence of the beam at output of the microtron at the Lebedev Physics Institute amounts to  $1.5 \times 10^{-3}$  along vertical and  $1.5 \times 10^{-2}$  along the horizontal; the beam height is 1-2 mm depending upon the phase of the oscillations and the radial dimensional is of the order of 3-4 mm depending upon the phase of the radial oscillations. Orig. art. has: 4 figures.

ASSOCIATION: Fizicheskiy institut imeni P. N. Lebedeva AN SSSR (Physics Institute, AN SSSR)

SUBMITTED: 26May64

ENCL: 00

SUB CODE: NP

NO REF SOV: 004

OTHER: 000

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Card 3/3



SOV/120-59-2-3/50

AUTHORS: ~~Belovintsev~~, K.A., and Yablokov, B.N.

TITLE: Measurement of the Particle Distribution as a Function of the Amplitudes of Radial-Phase Oscillations (Izmereniye raspredeleniya chastits po amplitudam radial'no-fazovykh kolebaniy)

PERIODICAL: Priboiy i tekhnika eksperimenta, 1959, Nr 2, pp 12-15 (USSR)

ABSTRACT: It is shown, using the adiabatic invariance method, that this distribution can be determined by measuring the intensity distribution in an expanded  $\gamma$ -ray pulse and, simultaneously, the high frequency voltage on the resonator. The corresponding experiment was carried out on the 280 Mev synchrotron of the Physical Institute of the Academy of Sciences of the USSR (FIAN). The  $\gamma$ -ray intensity was measured by means of a single channel time analyzer as described in Ref 6. The resonator voltage was measured by the voltmeter described in Ref 7. The circuit of this tube voltmeter is shown in Fig 3. A typical electron distribution over the amplitudes of radial-phase oscillations is shown in Fig 4. Fig 5 shows the angular half-width of a bunch (in radians) as a function of energy, and Fig 6 the dependence of this

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Measurement of the Particle Distribution as a Function of the Amplitudes of Radial-phase Oscillations

half-width on the time of application of the high frequency voltage. Fig 4 was used to compute the form of the resonator voltage which gives a uniform distribution in an expanded  $\gamma$ -ray pulse. The form of the voltage that will do this is shown in Fig 7. This form of the resonator voltage fall-off is used in the above machine. V.I. Kotov, L.L. Sobsovich and I.S. Danilkin are thanked for valuable discussions. There are 7 figures and 8 Soviet references.

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ASSOCIATION: Fizicheskiy institut AN SSSR (Physical Institute of the AS USSR)

SUBMITTED: March 31, 1958

SOV/120-59-2-4/50

AUTHORS: ~~Belovintsev, K.A.~~, Karpukhin, O.A., Kutsenko, A.V.,  
Shapkin, A.A., and Yablokov, B.N.

TITLE: An Apparatus for Measuring the Intensity Distribution in  
an Expanded  $\gamma$ -Ray Pulse from a Synchrotron (Pribor dlya  
izmereniya raspredeleniya intensivnosti v rastyanutom  
impul'se gamma-izlucheniya sinkhrotrona)

PERIODICAL: Pribory i tekhnika eksperimenta, 1959, Nr 2, pp 15-18  
(USSR)

ABSTRACT: In most cases the 280 Mev  $\gamma$ -ray pulse from the FIAN  
synchrotron is expanded to 2-2.5  $\mu$  sec (Ref 1). When  
this is done, it is necessary to know the intensity  
distribution within the  $\gamma$ -ray pulse. It is further  
desirable to be able to determine this intensity distri-  
bution continuously in order to obtain the average form  
of the pulse during experiments. Such measurements can  
be carried out using a multichannel time analyser working  
with a suitable probe whose count is proportional to the  
instantaneous intensity (e.g. a scintillation counter).  
However, such equipment is expensive and bulky and its  
use is not always justified. Instead, a single channel  
analyser may be used for this purpose. The  $\gamma$ -ray pulse  
passes through the "window" of the analyser which looks

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An Apparatus for Measuring the Intensity Distribution in an Expanded  $\gamma$ -Ray Pulse from a Synchrotron

at a definite part of the pulse at a time and records it with an appropriate counter. The particular part of the pulse must then be related to the total intensity of the expanded pulse. The device described in the present paper can carry out this operation using a step-by-step switch. A NaI(Tl) crystal working in conjunction with a FEU-19 photomultiplier is used as the  $\gamma$ -ray detector. The amplitude of the pulse at the photomultiplier load is proportional to the instantaneous value of the intensity of the expanded  $\gamma$ -ray pulse. The output from the photomultiplier is fed into two channels. The first channel (integral) sums up all the pulses fed into it and is in fact simply a monitor, and the counts recorded by it are proportional to the integral intensity of the synchrotron. The second channel is a differential one and will pass only the part of the pulse defined by the analyser "window", and the counts recorded through this channel are proportional to the intensity at the given instant of time. The width of the "window" can be either 50 or 100  $\mu$  sec. The "window" may be moved along

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