

344/1  
S/106/60/000/005/004/C12  
A055/A133

9, 3280

AUTHOR:

Shpakov, V. I.

TITLE:

Calculation of an electronic relay

PERIODICAL:

Elektrosvyaz', no. 6, 1960, 18 - 23

TEXT: When calculating the parameters of a symmetrical electronic relay (shown schematically in fig. 1), it is usually assumed that the anode load resistance  $R_a$  is considerably smaller than the resistance  $R_{ag} + R_g$  of the divider. ("delitel' syazi") In the case of high-speed relays, however, it is necessary that the resistance of the divider should be small, since (the capacitances of the circuit being constant) these resistances, when they are commensurable with the anode load, exert a substantial influence upon the operating conditions of the relay and upon the magnitude of the output pulses. The object of the present article is to give a comparatively simple method of calculating the parameters of the relay in the case of commensurable resistance of the anode circuit and the grid circuit. As shown by L. A. Meyerovich and L. G. Zelichenko ("Impulse Technique" edited by "Sovietskoye Radio", 1953), the transfer characteristic, determining

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Calculation of an electronic relay

S/106/60/000/006/004/013  
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the high-speed properties of the relay, depends, for given capacitances, on the resultant resistances of the anode circuit  $R_{as} = \frac{R_a R_{lo}}{R_a + R_{lo}}$  and of the grid circuit  $R_{gs} = \frac{R_{ag} R_g}{R_{ag} + R_g}$ , where  $R_{lo}$  is the d-c. resistance of the tube. The required duration of the front of the transfer characteristic of the output circuit is

$$\tau_\phi = \frac{R_a R_{lo}}{R_a + R_{lo}} C' \quad (1)$$

and the time separating two controlling pulses is:

$$T = 2,3C'' \frac{R_{ag} R_g}{R_{ag} + R_g} \quad (2)$$

where  $C'$  comprises the output capacitance of the tube, the capacitance of the wiring and the capacitance of the load connected to the output circuit, whereas  $C''$  comprises the input capacitance of the tube, the capacitance of the wiring, the capacitance of the source of the controlling pulses and the capacitance on parallel with  $R_{ag}$ . Using these formulae and the equivalent circuits of Fig. 2 [a) for the blocked tube and b) for the unblocked tube], the author first states the con-

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Calculation of an electronic relay

S/100/00/000/0004/01:  
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ditions under which the operation of the relay will be stable. These conditions are:  $|U_g(+)| \geq 0$  (fig. 2a) and  $|U_g(-)| \geq U_{bl}$  (fig. 2b), where  $U_{bl}$  is the tube blocking voltage [Abstracter's note: subscript "bl" (blocking) is the translation of the original "з" ("zapiranie")]. On the basis of these conditions, the author obtains a formula giving  $R_{ag} + R_g$ :

$$R_{ag} + R_g = \frac{U_a R_{10} (E_1 + E_2) + E_2^2 K_a^2}{E_1 E_2 K_a - U_a (E_1 + E_2) (R_a + R_{10})}. \quad (8)$$

He then deduces two other formulae giving respectively the limit-value of  $E_2$  and the value of  $E_1$  for which  $R_{ag} + R_g$  tends towards infinity. The set of formulae obtained by the author allows to determine the values of  $E_2$  and of  $R_{ag} + R_g$  ensuring a stable operation of the relay. An algebraic solution of the involved equations being difficult, the author resorts to a graphical solution. He recalls next that the choice of the relay parameters depends on the manner in which  $E_1$  and  $E_2$  vary. Three cases are possible: 1)  $E_1$  and  $E_2$  vary proportionally in the same direction; 2) they vary in the same direction, but  $E_1$  varies quicker than  $E_2$ ; 3) they vary in the same direction, but  $E_1$  varies slower than  $E_2$ . The author shows how either of these three cases affect the choice of the parameters of the relay. At the end of the article, the author's formulae are applied to a

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21105  
S/089/61/011/006/008/014  
B102/B138

21100

AUTHORS: Shpakov, V. I., Petrzhak, K. A., Bak, M. A., Kovalenko, S. S.,  
Kostochkin, O. I.

TITLE: Delayed-neutron yields in  $\text{Pu}^{239}$  and  $\text{Th}^{232}$  fissions induced  
by 14.5-Mev neutrons

PERIODICAL: Atomnaya energiya, v. 11, no. 6, 1961, 539 - 540

TEXT: From theoretical considerations and analyses of experimental data  
a slight decrease in delayed-neutron yields is expected with increasing  
excitation energy. So far it has only been measured for 14.5 Mev  
thermal fission neutrons from  $\text{U}^{235}$ . The authors measured the delayed-  
neutron yield of 14.5-Mev neutron-induced  $\text{Pu}^{239}$  fission and, for compari-  
son, that of  $\text{Th}^{232}$  fission. It was determined as the ratio between number  
of fission events and the number of delayed neutrons produced per second  
in the sample of fissile matter. The Pu or Th sample was cadmium coated  
and bombarded with 14.5-Mev neutrons from  $\text{T}(\text{d},\text{n})\text{He}^4$  reactions, with a  
target just behind it being irradiated simultaneously. The steel backing  
of the target was one electrode of the ionization chamber. To measure   
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Delayed-neutron yields in...

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B102/B138

the number of delayed neutrons emitted, about 0.2 sec; after irradiation had ceased the sample was dipped into a neutron detector 1.5 m from the neutron source. The detector consisted of 17 boron counters of the CHM-5A (SNM-5A) type contained in a paraffin block. The end of neutron bombardment which coincided with removal of the sample was established cinematographically with an accuracy of 0.02 sec. As neutron counting started 0.2 sec after the end of bombardment, this caused a loss in neutrons with a delay of 0.16 sec. Special measurements were made to determine this error, which was not above the experimental level. The total number of delayed neutrons could thus be determined by extrapolating the neutron number - versus - time curve to the instant when bombardment ceased. The following results were found: total delayed-neutron yield per decay event:  $0.0130 \pm 0.0015$  for  $\text{Pu}^{239}$ , and  $0.075 \pm 0.007$  for  $\text{Th}^{232}$ . The  $\text{Pu}^{239}$  yield is twice as high as when fission is induced by thermal or fission neutrons. This result is explained by assuming that neutron emission probability increases with increasing excitation energy. There are 1 figure and 4 references: 3 Soviet and 1 non-Soviet. The two references to English-language publications read as follows: G. Keepin et al., Phys. Rev. 107, 1044 (1957); J. Nucl. Energy, 6, 1 (1957); K. Sun et al., Phys. Rev. 79, 3, 1950.

Card 2/3

Delayed-neutron yields in...

21405  
S/089/61/011/006/008/014  
B102/B138

SUBMITTED: July 18, 1961

X

Card 3/3

SHTUKOV, V.I.

Me. nine errors in heat transmission simulation equation. Izv.  
vys. ucheb. zav., neft' i gaz 6 no.7,101-107 '63.  
(MIRA 1748)

2. Azerbaydzhan'skiy politekhnicheskiy institut.

KOSTOCHKIN, O.I.; PETRZHAK, K.A.; SOKOLOV, A.M.; SHPAKOV, V.I.

A 4- $\pi$  counter for measuring the radioactivity of gaseous  
products. Prib. i tekhn. eksp. 9 no.3:52-55 My-Je '64  
(MIRA 18:1)

SIEPAKOV, V.I.; KOSTOCHKIN, O.I.; PETRZHAK, K.A.; ARON, F.M.

Yields of  $^{87}\text{Br}$ ,  $^{88}\text{Br}$ ,  $^{89}\text{Br}$ ,  $^{137}\text{I}$ ,  $^{138}\text{I}$  precursors of delayed neutrons in the fission of  $^{238}\text{U}$  and  $^{232}\text{Th}$  with an energy of 14.5 Mev. Radiokhimiia 7 no.1:96-103 '65. (MIRA 18:6)

KRISYUK, I.T.; SHPAKOV, V.I.

Calculation of partial and total fission yields. Radichimiia  
7 no. 6:608-703 '65. (NPA 19:1)

L 34614-66 EWT(m)

ACC NR: AP6026574

SOURCE CODE: UR/0186/65/007/006/0692/0703

AUTHOR: Krisyuk, I. T.; Shpakov, V. I.

ORG: none

19

27  
B

TITLE: Calculation of partial and total fission fragment yields

SOURCE: Radiokhimiya, v. 7, no. 6, 1965, 692-703

TOPIC TAGS: nuclear fission, isotope, fission product

ABSTRACT: Experiments undertaken by the authors have shown that calculating partial and total yields of fission fragments requires that a large number of factors be taken into account, capable of affecting the ultimate activity of the isotope in question. If a precise calculation of the corrections to be made is complex, then at least an evaluation of possible secondary processes must be carried out. In calculating total yields it is necessary also to estimate a correction for the yield of subsequent chain members and the noninstantaneous decay of precursors. By calculating yields according to given formulas with allowance for all the corrections specified in the article, yield values can be obtained that are close to actual values. Orig. art. has: 4 tables and 29 formulas. [JFRS: 36,455]

SUB CODE: 20 / SUBM DATE: 12Jun64 / ORIG REF: 006 / OTH REF: 004

Card 1/1 10 UDC: 539.173.8

9,3280

25756

S/024/61/000/001/010/014  
E061/E128

AUTHORS: Ginzburg, M.Ya., and Shpakov, V.L. (Sumgait)

TITLE: A Contribution to the Problem of the Construction of  
Electronic Delay CircuitsPERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh  
nauk, Energetika i avtomatika, 1961, No. 1, pp.164-165TEXT: An electronic circuit giving a pure time delay, which  
can be simply varied, is described. The circuit uses operational  
amplifiers and is designed to utilize the full permissible range  
of amplifier voltages. The circuit is shown in the diagram. The  
circuit parameters are given by:

$$K_{11} = \frac{1}{R_{11}C_1} = \frac{12}{C_{21}C_{31}\tau} ; \quad K_{12} = \frac{1}{R_{12}C_1} = \frac{72}{C_{41}C_{21}\tau}$$

$$K_{13} = \frac{1}{R_{13}C_1} = 6\tau^{-1} ; \quad K_{21} = \frac{1}{R_{21}C_2} = C_{21}\tau^{-1}$$

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S/024/61/000/001/010/014  
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A Contribution to the Problem of the Construction of Electronic  
Delay Circuits

$$K_{22} = \frac{1}{R_{22}C_2} = \frac{12}{C_{41}\tau}; \quad K_{31} = \frac{R_{oc3}}{R_{31}} = C_{31} \leq 1$$

$$K_{41} = \frac{R_{oc4}}{R_{41}} = C_{41} \geq 2; \quad K_{42} = \frac{R_{oc4}}{R_{42}} = 1$$

$$C_{21} \geq \frac{24}{C_{41}}$$

$\tau$  is the delay time; the K terms denote gains;  $C_{41}$ ,  $C_{31}$ ,  $C_{21}$  are constants. The highest pulsation in the frequency spectrum of the input must be less than  $\pi/\tau$ . The circuit represents a convenient method of simulating systems in which the delay time is a function of other variables.  
There are 1 figure and 2 Soviet references.

SUBMITTED: April 11, 1960

Card 2/3

KAPLAN, A.L.; SHPAKOV, V.L.

Calculating sections of equal discharge for the PUR sampler. Transp. i  
khran. nefti i nefteprod. no. 11:20-22 '64.

(MIRA 18:1)

1. Nauchno-issledovatel'skiy i proyektnyy institut po kompleksnoy  
avtomatizatsii proizvodstvennykh protsessov v neftyanoy i khimicheskoy  
promshlennosti.

ACC NR: AP7006131

SOURCE CODE: UR/0056/67/052/001/0103/0111

AUTHOR: Kaminskiy A. A.; Shpakov, V. N.

ORG: Institute of Crystallography, Academy of Sciences SSSR (Institut  
krystallografii Akademii nauk SSSR)

TITLE: Investigation of new crystals in Q-switched lasers

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 52, no. 1,  
1967, 103-111TOPIC TAGS: laser, solid state laser, laser optic material, mixed  
crystal, activated crystal

**ABSTRACT:** An investigation was made of the possibility of producing a Q-switched laser based on a series of crystals operating at 300°K. The crystals consisted of mixed fluoride systems  $\text{CaF}_2\text{-YF}_3\text{-Nd}^{3+}$ ,  $\text{CaF}_2\text{-CeF}_3\text{-Nd}^{3+}$ ,  $\text{BaF}_2\text{-LaF}_3\text{-Nd}^{3+}$ , types I and II  $\text{CaF}_2\text{-Nd}^{3+}$  crystals, and garnet crystals ( $\text{Y}_3\text{Al}_5\text{O}_{12}$ ), scheelite crystals ( $\text{CaWO}_4$ ), and glasses activated with  $\text{Nd}^{3+}$  ions. A study was also made of the relationship between the numerous optical centers which are present in mixed fluoride crystals in the free-running and Q-switched modes. The threshold values of excitation energy in the investigated modes were

UDC: none

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ACC NR: AP7006131

comparatively low. These values increase slightly as the Q-switched mode is approached. All of the active media investigated can be divided into two groups, according to the variety of optical activator centers. The first group includes crystals which produce a small quantity of centers (1 to 7) at the activator concentration used in lasers (0.5-5%). This group includes types I and II  $\text{CaF}_2-\text{Nd}^{3+}$ , as well as  $\text{Y}_3\text{Al}_5\text{O}_{12}-\text{Nd}^{3+}$  and  $\text{CaWO}_4-\text{Nd}^{3+}$ . The second group includes mixed fluoride crystals in which the number of optical centers can reach 100. In the crystals of the first group only one type of optical centers participates in the generation at 300°K. In the crystals of the second group, which are characterized by a variety of optical centers, energy transfer between centers takes place. In addition, a sharp narrowing of the generation line is observed. The authors thank V. V. Osiko for fluoride crystals, V. S. Zuyev for discussing the results, and G. A. Bogomolova for help in carrying out the experiments. [JA]

Orig. art. has: 4 figures and 1 table.

SUB CODE: 20/ SUBM DATE: 15Aug66/ ORIG REF: 001/ OTH REF: 003/  
ATD PRESS: 5117

Card 2/2

L 25558-66 (N) EWT(d)/EWT(m)/EWP(h)/EWP(l) TT/WE

ACC NR: AM6004767

Monograph

UR/

Knoring, Semen Davydovich; Pavlinova, YEvgeniya Alekseyevna; Filippov, Maksim Valentinovich; Shpakov, Vladimir Stepanovich, Shtumof, Valentin Mikhaylovich

Floating flexible vessels for the transportation of petroleum products; problems of durability and hydrodynamics, and theory and methods of calculation (Plavuchiye elastichnyye yemkosti dlya transportirovki nefteproduktov; voprosy prochnosti i gidrodinamiki, teoriya i metody rascheta) Leningrad, Izd-vo "Sudostroyeniye", 1965. 223 p. illus., biblio. 1,250 copies printed

TOPIC TAGS: ocean transportation, inland vessel data, merchant vessel data, cargo ship, solid statics, hydrodynamics

PURPOSE AND COVERAGE: The book presents the results of investigations of the strength and speed of new means of transportation--floating elastic vessels, intended for the transportation of petroleum products and other liquid loads on sea and inland waterways. Experience and design of manufacture of such vessels, accumulated in Soviet and foreign shipbuilding is described. Practical methods for calculating the strength and speed of floating elastic vessels under all principal operating conditions are given. Recommendations on the design and construction of such vessels are presented. The bulk of the investigations reported were made by the authors and are published for the first time. The book is intended for engineering-technical workers in design offices and in the shipbuilding industry, and can also be used by students of shipbuilding institutes and faculties. Authors thank N. P. Sytov, A. L. Koshevoy, B. I.

Card 1/2

UDC: 629.12.011.17

L 25558-66

ACC NR: AM6004767

5

Golod, R. V. Pvatyshev, and V. YA. Aleksandrov and also Yu. F. Ryabkov for useful remarks, and N. V. Alekseyeva for great help in the calculations and the reduction of the experimental data. The sections of the book devoted to shell strength were written by S. D. Knoring, YE. A. Pavlinova, and M. V. Fillipeo, and the hydromechanic sections were written by V. M. Shtumpf and V. S. Shpakov.

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SUB CODE: 13/ SUBM DATE: 17Sep65/ ORIG REF: 041/ OTH REF: 009

Card 2/2 FW

NOGID, Lev Markovich; GIRS, I.V., kand.tekhn.nauk, retsenzent;  
SHPAKOV, V.S., kand.tekhn.nauk, retsenzent; DORIN, V.S.,  
nauchnyy red.; SHAKHOVA, V.M., red.; SHISHKOVA, L.M.;  
tekhn. red.

[Planning the shape of a ship and preparing preliminary draw-  
ings] Proektirovanie formy sudna i postroenie teoreticheskogo  
chertezha. Leningrad, Sudpromgiz, 1962. 242 p.  
(MIRA 15:8)

(Hulls (Naval architecture))

DUBROVSKII, V.A., inzh.; VENKOV, V.N., inzh.; SHAKOV, V.S., kand. tekhn. nauk

Studying the seaworthiness and strength of catamarans. Sudostroenie  
30 no.7:63-65 (Jl '64) (MIRA 18:9)

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001549920012-8

PERIODIC REPORTS ON THE STATE OF SEAGOING  
SHIPS AND SHIPBUILDING IN INDIA, PAKISTAN, AND TURKMENIA.

DISSEMINATED BY THE INDIAN NAVY FOR THE USE OF MILITARY AND POLITICAL  
AGENCIES. DATED 20 SEPTEMBER 1971. APPROVED BY AP 145.

(MIRA 18:8)

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001549920012-8"

SHPAKOV, Ye.

20970 Shpakov, Ye. i Vinogradov, V. Sul'fidnyi vypryamitel' dlya zaryadki Starteknykh Akkumulyatornykh batarey. Automobil', 1949, No. 6, s. 22-23.

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

NOVIKOV, Mikhail Petrovich; SHPAKOVA, A.P., otv. za vypusk.; OVSYANNIKOV, M.F., dote., kand. filosofskikh nauk, red.; FURMAN, G.V., tekhn. red.

[Inconsistencies in the socialist system of production and how to overcome them] Protivorechiia v sotsialisticheskem sposobe proizvodstva i ikh preodolenie. Moskva, Ob-vo po rasprostraneniu polit. i nauchn. znanii RSFSR, 1958. 31 p. (MIRA 11:12)

1. Zav. otdelom filosofii, pedagogiki, literatury i iskusstva Pravleniya Obshchestva po rasprostraneniyu politicheskikh i nauchnykh znanii RSFSR(for Shpakova).

(Industry)

USSR / Cultivated Plants. Grains.

N-3

Abs Jour: Ref Zhur-Biol., 1958, No 16, 72927.

Author : Dombrovskaya, M. V.; Shpakova, B. M.

Inst : Odessa University.

Title : Increase in Harvest Yield of Corn by Means of  
Additional Carbon Feeding Through the Roots.

Orig Pub: Nauchn. yezhegodnik, Odessk. un-t, 1956, Odessa,  
1957, 202-203.

Abstract: No abstract.

Card 1/1

CHERNYSHEV, M.P.; ROZHKOVA, L.P.; SHUL'GINA, Ye.F.; IGNATOVICH, A.F.;  
LABUNSKAYA, L.S.; FOMINA, T.V.; CHERNYAKOVA, A.P.; SHPAKOVA,  
L.N.; TARASOVA, M.K.; ANFILATOVA, A.I.; SLAVIN, L.B.;  
BARYSHEVSKAYA, G.I.; DERIGLAZOVA, N.V.; MATUSHEVSKIY, G.V.;  
AL'TMAN, E.N.; KROPACHEV, L.N.; CHEREDILOV, B.F.; POTAPOV,  
A.T.; DUDCHIK, M.K.; REGENTOVSKIY, V.S.; YERMAKOVA, L.F.;  
SEMENOVA, Ye.A.; KULIKOVSKIY, I.I.; KIRYUKHIN, V.G.; AKSENOV,  
A.A., red.; NEDOSHIVINA, T.G., red.; SERGEYEV, A.N., tekhn.  
red.; BRAYNINA, M.I., tekhn. red.

[Hydrometeorological handbook of the Sea of Azov] Gidrometeoro-  
logicheskii spravochnik Azovskogo moria. Pod red. A.A. Aksanova.  
Leningrad, Gidrometeoizdat, 1962. 855 p. (MIRA 16:7)

1. Gidrometeorologicheskaya observatoriya Chernogo i Azovskogo  
morey.  
(Azov, Sea of--Hydrometeorology)

L 54531-65 EWT(1)/FCC GW

ACCESSION NR: AR5014444

UR/0169/65/000/005/B106/B106  
551.575 (262.54)

15  
B

SOURCE: Ref. zh. Geofizika, Abs. 5B592

AUTHOR: Shpakova, L.N.

TITLE: Fogs on the Sea of Azov

CITED SOURCE: Sb. rabot Gidrometeorol. observ. Chern. i Azovsk. morey, vyp. 2, 1964,  
93-99

TOPIC TAGS: climatology, fog, advective fog, radiation fog

TRANSLATION: All cases of fogs for a 10-year period for 13 stations representative of all the coastal regions of the Sea of Azov were considered. In addition, observational data for 10 vessels for a 5-year period were used, as well as data from aircraft reconnaissance for a 9-year period. Fogs occur on the Sea of Azov during the entire year and have a well-expressed seasonal variation. The maximum number of days with fog occurs in winter (20-23 days) and the minimum in summer (2 days). Fogs with a continuous duration of 12 hours predominate. Fogs are formed when there are weak winds (from 1 to 5 m/sec). In winter, advective fogs occur which cover not only the coast but also the open part of the sea and these are quite persistent. In spring, summer and autumn there is a predominance of

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L 54531-65

ACCESSION NR: AR5014444

radiation fogs; these are observed at several coastal stations but are almost never observed in the open part of the sea. T. Terent'yeva

SUB CODE: ES

ENCL: 00

Card 2/2

*Problems of*  
SHPAKOVA, N.A. Cand Agr Sci -- (diss) "Questions on agricultural  
engineering of corn under ~~the~~ conditions of Vitebskaya Oblast  
~~The Vitebsk area of~~ BSSR." Mos, 1957. 17 pp. (Mos Order of Lenin  
Agr Acad im Academician K.A. Timiryazev). 110 copies.  
(KL, 8-58, 107)

SHPAKOVA, N.R., inzh.

Blocking of disconnectors and cutouts. Energetik 12 no.12±15-16  
D 164 (MIRA 18±2)

8(2,6)

SOV/91-59-5-11/27

AUTHORS: Shpakova, N.R., Engineer and Preyverk, Eh.Kh.,  
Technician

TITLE: Blocking-Up the Switches With Disconnectors (Blo-  
kirovka vyklyuchateley s raz"yedinitelyami)

PERIODICAL: Energetik, 1959, Nr 5, pp 21-23 (USSR)

ABSTRACT: This article describes the construction and func-  
tioning of the blocking of the oil breakers of a  
complex distribution device KRU 3 kv with dis-  
connectors of two feed lines KRU, sectional dis-  
connector KRU and interbusbar 3 kv RU, worked  
out by the electric laboratory of the Tallin  
power plant. It consists of four intermediate  
relays EP-101-A, one intermediate relay EP-103,  
block contacts of section disconnectors I and  
II KRU switched up to block busbars 1ShB-I, 2  
ShB-II, 1ShB-II, 2ShB-II, block contacts and dis-  
connection locks R, 2R, 3R (Figure 2). A peculiar

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SGV/91-59-5-11/27

Blocking-Up the Switches With Disconnectors

feature of this scheme consists of the use of intermediate relays. There are 2 schemes.

Card 2/2

ЛУЧИК, П.В., заведующий лабораторией; СИМКОВА, Н.Р., младший научный  
стажерник

Collective farm is mobilizing hitherto unused resources. Zemledelie  
7 no. 5:17-20 Mv '90. (MIRA 12:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut ekonomiki sel'skogo  
khozyaystva.  
(Mogilev Province--Agriculture)

L 01946-67 EWP(k)/EWT(d)/EWT(m)/EWP(w)/EWP(v) IJP(c) EM/WW

ACC NR: AR6021882 (N) SOURCE CODE: UR/0124/66/000/003/V015/V015

27  
B

AUTHOR: Protsenko, O. P.; Shpakova, S. G.

TITLE: The stability of a cylindrical shell with an initial bend under dynamic loading

24

SOURCE: Ref. zh. Mekhanika, Abs. 3V103

REF SOURCE: Sb. Dinamika sistem tverdykh i zhidkikh tel. Kiyev, 1965, 107-114

TOPIC TAGS: cylindric shell structure, cylindric shell, cylindric shell stability, dynamic loading, bending stress, compression force, axial compression

ABSTRACT: A comparison was made between two methods of calculating the effect of an initial bend on the stability of a closed cylindrical shell subjected to aperiodic axial compression forces. The first method, which is commonly used for studying the stability of a cylindrical shell, is based on the assumption that the bending of the shell consists of an initial bend and an elastic bending resulting from the application of a load. In the second method, changes in the curvature of the initial bend in the shell is taken into consideration so that

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L 01946-67

ACC NR: AR6021882

the cylindrical surface is transformed into a quasicylindrical surface of a variable dual curvature. Bending of such a shell is understood to mean only elastic bending. A numerical study showed that according to the second method, which considers the effect of the initial bend, the bend increases more sharply and the magnitude of bending is significantly higher during the loss of stability. The average value of the critical dynamic load obtained by the second method is 10% higher than the corresponding magnitude found by the first method. [Translation of abstract.]

[FM]

SUB CODE: 20/

Card 2/2 gd

AUTHORS: Shul'ga, P. L. and Shpakova, V. B. 21-58-5-23/28

TITLE: New Geological Section of the Paleozoic Deposits in the North-Western Part of Volyn' (Novyy geologicheskiy razrez paleozoyskikh otlozhennyi v severo-zapadnoy chasti Volyni)

PERIODICALS: Dopovidi Akademii nauk Ukrains'koi RSR, 1958, Nr 5, pp 558-561 (USSR)

ABSTRACT: The article describes the geological section of a prospecting hole drilled in 1957 on the right bank of the Zapadnyy Bug river in the village Berezhtsy, Lyuboml' district, Volyn' Oblast'. This hole crossed the following deposits: Quaternary ~ 16.5 m, Upper Cretaceous - 321.40 m, Jurassic ~ 7.50 m, Lower Carboniferous ~ 13.55 m, Upper Cambrian ~ 285.25 m, Middle Cambrian ~ 136.45 m, Lower Cambrian ~ 125.45 m, and Ripheus - 340.55 m, of which 109.2 m in the upper part correspond to the Baltic laminaritic and Gdov formations, and 231.35 m in the lower part are represented by sedimentary effusive rocks. The authors correlate the Upper Cambrian deposits in the section under consideration, with the horizon of obolus sandstones and dictyonema slates. There is a transgressive overlap of the Lower Cambrian deposit over the Ripheus ones.

Card 1/2

21-58-5-23/28

New Geological Section of the Paleozoic Deposits in the North-Western Part of Volyn'

The laminaritic-Gdpy formation in this section is correlated with the lower strata of the Podolian Ushitsa series. There are 4 Soviet references.

ASSOCIATION: Institut geologicheskikh nauk AN UkrSSR (Institute of Geological Sciences of the AS UkrSSR)

PRESENTED: By Member of the AS UkrSSR, V.G. Bondarchuk

SUBMITTED: October 17, 1958

NOTE: Russian title and Russian names of the individuals and institutions appearing in this article have been used in the transliteration.

1. Geology--USSR

Card 2/2

SHAPOSHNIKOVA, L.A.; SHPAKOVA, V.M.

Use of pollen in the metallurgical industry. Bot. zhur. 48  
no.6:843-844 Je '63. (MIRA 17:1)

1. Odesskiy gosudarstvennyy universitet imeni I.I. Mechnikova.

SHPAKOVICH, A.D.

Automatic machine for printing labels on bottles. Med. prom. 10  
no.1:20-23 Ja-Mr '56. (MLRA 9:6)

1. Kiyevskiy zavod meditianskikh preparatov.  
(LABELING MACHINES)

SHPAKOVICH, A.V., inzh.sluzhby puti

Snow protection of tracks in tundra regions. Put' i put.khoz. 4  
no.9:22-23 S '60. (MIRA 13:9)

1. Kombinat "Vorkutaugol", g.Vorkuta.  
(Pechora Basin--Railroads--Snow protection and removal)

SHFAKOVICH, V.M., kapitan meditsinskoy sluzhby

Experience in the sanitary bacteriological inspection of bread.  
Voen. med. zhur. no.2 57-58 '63. (MIA 17:9)

POLAND / Chemical Technology. Processing of Solid Fuels

H-22

Abs Jour : Ref Zhur - Khim., No 12, 1958, No 40934

Author : Shpakovskaya

Inst : Not given

Title : Gas Supply in Bordeaux, France

Orig Pub : Gaz. woda, techn. sanit., 1957, 31, No 10, 383-387

Abstract : A modern gas supply system in Bordeaux, France, is described. It is based on the production of natural gas from the dry distillations carried on in the coal and petroleum refineries. Technical installations are described, as well as the properties of the installations of the catalytic cracking process of natural gas, the production of propane -- air gas, and also the mixing of these prepared gases in order to prepare standard city gas.

Cerd 1/1

SHPAKOVICH, E.Ya., inzh.

Use of radioactive isotopes for investigating the wear process  
of coal pulverizer balls. Teploenergetika 9 no.10:10-13 O  
'62. (MIRA 15:9)

1. Yuzhnoye otdeleniye Gosudarstvennogo tresta po organizatsii  
i ratsionalizatsii rayonnykh elektrostantsiy i setey.  
(Coal, Pulverized)  
(Radioisotopes--Industrial applications)

L 13814-66 EWT(m)/EWP(j)/T RPL WW/DJ/RM

ACC NR: AP6002486

(A)

SOURCE CODE: UR/0191/66/000/001/0060/0063

AUTHORS: Shcherbak, P. N., Shpakovskaya, G. B.

ORG: none

TITLE: Dielectric strength of films made of polytetrafluoroethylene (Teflon),  
polystyrene, and styrene copolymer--CAM

SOURCE: Plasticheskiye massy, no. 1, 1966, 60-63

TOPIC TAGS: polymer dielectric, dielectric breakdown, dielectric layer, statistic analysis, statistic distribution

ABSTRACT: Dielectric strength of thin Teflon, polystyrene, and styrene copolymer films in heterogeneous and homogeneous electrical fields was investigated. The study of the breakdown phenomenon is complicated for such films since the structural heterogeneity, impurities, etc. at small thicknesses become more pronounced, as was observed by P. N. Shcherbak (Plast. massy, No. 9, 40-43 (1963); ibid. No. 3, 60-64 (1951); ibid., No. 10, 51-57 (1962)). This results in a wide spread of values for dielectric strength from several hundreds of kw/mm to a few kw/mm or "zero" values. From a study of 4880 breakdowns in the above materials the following conclusions were reached: 1) for an objective evaluation of dielectric strength of films less than 0.03 mm thick, exposure of weak spots, and selection of the optimal number of

Card 1/2

UDC: 678.743.746.22.13-537

L 13814-66

ACC NR: AP6002486

film layers, it is necessary to plot the differential and integral distribution curves E; 2) dielectric strength of such films has to be determined in not less than 2 layers. Orig. art. has: 4 figures and 1 formula.

SUB CODE: 11, 20 / SUBM DATE: none / ORIG REF: 012

PC  
Card 2/2

L 12976-66

EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l)

IJP(c)

BB/GG

ACC NR: AP6001521

SOURCE CODE: UR/0302/65/000/004/0064/0066

AUTHOR: Sud'bin, B. A.; Shpakovskaya, D. V.

63  
B

ORG: None

TITLE: A duodirectional pulse converter for changing angle of shaft rotation to  
discrete code 16c, 44

SOURCE: Avtomatika i priborostroyeniye, no. 4, 1965, 64-66

TOPIC TAGS: analog digital converter, pulse coding, shaft, mining machinery

ABSTRACT: The article is a report on a computing device developed at the Institute of Automation of the State Committee on Instrument Building, Means of Automation and Control Systems, State Planning Committee SSSR (Institut avtomatiki Gosudarstvennogo komiteta po priborostroyeniyu, sredstvam avtomatizatsii i sistemam upravleniya pri Gosplane SSSR) for use in the controller for the direction of motion of shaft-sinking combines. The device uses a pulse converter for changing angle of shaft rotation to discrete code (D. V. Nizovkina, B. A. Sud'bin, Soviet patent No. 145463). The unit has two independent outputs with pulses which differ in sign depending on the change in direction of rotation. The unit may be used for a wide range of shaft rotation rates and has a high signal to noise ratio. The angle of shaft rotation is converted to a pulse train by a disk mounted on the shaft and a readout head. The disk is made of a material with high magnetic permeability and has a number of teeth around the edge. The diameter of the disk may be increased or the pitch of

UDC: 62-50-502

Card 1/2

L 12976-66

ACC NR: AP6001521

the teeth reduced to increase the accuracy of the angle reading. The readout head consists of a differential transformer with a magnetic circuit made up of two ferrite rings. The magnetic circuit should be thinner than the width of the teeth on the disk. Air gaps are cut in the ferrite rings to take the teeth on the disk. The electrical circuit of the converter is shown and an explanation of its operation is given. Tests show that the device works reliably at shaft rotation speeds of 0.025 mm/sec to 300 rpm. Orig. art. has: 2 figures.

SUB CODE: 09, 13 / SUHM DATE: none /

Card 2/2

SOKOLOV, P.K., inzhener, retsenzent; PIVTSOV, N.P., inzhener, retsenzent;  
PARAMONOV, G.A., inzhener, redaktor; SHPAKOVSKAYA, L.I., redaktor;  
LISINA, V.M., tekhnicheskiy redaktor

[Construction foreman's manual for general construction work]  
Spravochnik mastera-stroitelia po proizvodstvu obshchestroitel'-  
nykh rabot. Novosibirsk, Novosibirskoe knizhnoe izd-vo, 1957.  
653 p.  
(Construction industry)

BORISOVA, V.D. Prinimali uchastiye: BATURINA, Ye.A.; PESHKova, F.G.;  
ALENTOV, Ye.P.; LEVUSHKINA, V.Ye.; PETROVA, N.I.; SABLINA, O.F.;  
SLYADNEV, A.P.; TEVEROVSKAYA, Kh.A.; CHIZHIKOVA, N.M. SHPAKOVSKAYA,  
L.I., red.; POTOTSKAYA, N.M., tekhn.red.

[Districts of Novosibirsk Province; physicogeographical features]  
Raiony Novosibirskoi oblasti; prirodo-ekonomicheskaya kharakteristika.  
Novosibirsk, Novosibirskoe knizhnoe izd-vo, 1959. 367 p.

(MIRA 13:9)

(Novosibirsk Province--Economic geography)

MINAYEVA, Valentina Gevrilovna; SHPAKOVSKAYA, L.I., red.; POTOTS'KAYA,  
N.M., tekhn.red.

[Medicinal plants of Siberia] Lekarstvennye rasteniia Sibiri.  
Izd.3., ispr. i dop. Novosibirsk, Novosibirskoe knizhnoe izd-vo,  
1960. 145 p. (MIRA 13:11)  
(SIBERIA--BOTANY, MEDICAL)

VOZNYUK, Vladislav Vladimirovich; SHPAKOVSKAYA, L.I., red.; SUBBOTINA,  
G.M., tekhn. red.

[Amateur radio designs] Radioliubitel'skie konstruktsii. Novo-  
sibirsk, Novosibirskoe knizhnoe izd-vo, 1961. 133 p.  
(MIRA 15:2)  
(Radio circuits)

SHMITKOVA, A.S.; SHPAKOVSKAYA, L.I., red.; GOSTISHCHEVA, Ye.M., tekhn.  
red.

[Health resorts, sanatoriums, and rest homes of Siberia] Ku-  
rorty, sanatorii i doma otdykhha Sibir. Novosibirsk, Novosi-  
birskoe knizhnoe izd-vo, 1961. 148 p. (MIRA 15:1)

1. Glavnnyy vrach Novosibirskogo kurortnogo Upravleniya (for  
Shmitkova).

(SIBERIA--HEALTH RESORTS, WATERING PLACES, ETC.)

PARAMONOV, G.A., inzh.; PICHUGIN, A.A., kand.tekhn.nauk; VANEYEV, V.A.,  
inzh.; KUZ'MINSKIY, A.G., inzh.; CHUYKO, A.V., kand.tekhn.nauk;  
VRUBLEVSKIY, L.Ye., inzh.; FURMAN, A.Ya., inzh. [deceased];  
PEGANOV, G.N., inzh.; SHEFANOV, A.S., inzh.; DMITRIYEV, P.A.,  
kand.tekhn.nauk; IVANOV, I.A., kand.tekhn.nauk; TEMKO, Yu.P.,  
dotsent; SOKOLOV, P.K., dotsent; KANYUKA, N.S., kand.tekhn.nauk;  
SHPAKOVSKAYA, L.I., red.; GOSTISHCHEVA, Ye.M., tekhn.red.

[Handbook for the master builder on the technology of general  
building operations] Spravochnik mastera-stroitelia po tekhnologii  
proizvodstva obshchestroitel'nykh rabot. 2. izd.perer. i dop.  
Novosibirsk, Novosibirskoe knizhnoe izd-vo, 1961. 713 p.

(MIRA 15:2)

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VOZNYUK, Vladislav Vladimirovich; SHPAKOVSKAYA, L. I., red.; SUBBOTINA, G.M., tekhn. red.

[Radio amateur designs] Radioliubitel'skie konstruktsii. Novosibirsk, Novosibirkoe knizhnoe izd-vo, 1961. 133 p.  
(MIRA 16:3)  
(Radio--Equipment and supplies)

IOGANZEN, B.G., otv. red.; PETKEVICH, A.N., otv. red.; SAMARIN,  
V.P., red.; SHPAKOVSKAYA, L.I., red.

[Development of pond fish culture in Siberia; materials of  
the Seventh Plenum of the Western Siberian Branch of the  
Ichthyological Commission of the State Planning Committee of  
the Council of Ministers of the U.S.S.R. held in Kemerovo on  
September 11-12, 1961] Razvitie prudovogo rybolovstva v Sibi-  
ri; materialy VII Plenuma Zapadno-Sibirskogo otdeleniya  
Ikhtiolicheskoi komissii Gosplana SSSR, provedennogo v  
Kemerove 11-12 sentiabria 1961 g. Novosibirsk, 1962. 95 p.  
(MIRA 16:1)

1. Russia (1923- U.S.S.R.) Gosudarstvennaya planovaya komis-  
siya. Ikhtiolicheskaya komissiya. Zapadno-Sibirskoye ot-  
deleniye. 2. Tomskiy universitet (for Iogansen). 3. Gosudar-  
stvennyy nauchno-issledovatel'skiy institut ozernogo i rech-  
nogo rybnogo khozyaystva (for Petkevich).

(Siberia, Western--Fish culture--Congresses)

AFANAS'YEV, S.P.; SHIFMANOVICH, N.M.[deceased]; SHPAKOVSKAYA, L.I.,  
red.; SUBBOTINA, G.M., tekhn. red.

[Handbook on tolerances, threads and gages] Spravochnik po  
dopuskam, rez'bam i kalibriram [By] S.P.Afanas'ev, N.M.Shifmanovich,  
Izd.3., perer. Novosibirsk, Novosibirskoe knizhnoe izd-vo, 1962.  
406 p.

1. Novosibirskiy instrumental'nyy zavod, Novosibirsk.  
(Mechanical engineering--Handbooks, manuals, etc.)

GIK, Leonid Davidovich; KARANDEYEV, Konstantin Borisovich;  
SHPAKOVSKAYA, L.I., red.; YELISTRATOVA, Ye.M., tekhn.  
red.

[Electric correction of vibration measuring equipment] Elek-  
tricheskaiia korreksiia vibroizmeritel'noi apparatury. No-  
vosibirsk, Izd-vo Sibirskogo otd-niya AN SSSR, 1962. 127 p.  
(MIRA 16:5)

(Vibration—Measurement)

KUTATELADZE, Samson Semenovich; LEONT'YEVA, Aleksandr Ivanovich;  
SHPAKOVSKAYA, L.I., red.; OVCHINNIKOVA, T.K., tekhn. red.

[Turbulent boundary layer of compressible gas] Turbulentnyi  
pogranichnyi sloi szhimaemogo gaza. Novosibirsk, Izd-vo  
Sibirsogo otd-niya AN SSSR, 1962. 179 p. (MIRA 16:6)  
(Boundary layer) (Fluid dynamics)

KAZARINOV, V.P., otv. red.; BGATOV, V.I., red.; KAZANSKIY, Yu.P.,  
red.; KRASHENINNIKOV, G.F., red.; SAKS, V.N., red.;  
YAHLOKOV, V.S., red.; SHPAKOVSKAYA, L.I., red.

[Methods for compiling lithological facies and paleo-  
geographic maps; transactions] Metody sostavleniya li-  
tologofatsial'nykh i paleogeograficheskikh kart; trudy.  
Novosibirsk, Izd-vo Sibirskego otd-nia AN SSSR.  
Vol.1. 1963. 174 p. (MIRA 18:1)

1. Vsesoyuznoye litologicheskoye soveshchaniye. 5th.  
Novosibirsk, 1961.

KOPTYUG, V.A.; VOROZHTSOV, N.N. (mladshiy), red.; SHPAKOVSKAYA, L.I.,  
red.; OVCHINNIKOVA, T.K., tekhn. red.

[Isomerization of aromatic compounds] Izomerizatsiya aro-  
maticsikh soedinenii. Pod red. N.N.Vorozhtsova. Novo-  
sibirsk, Izd-vo Sibirskogo otd-nia AN SSSR, 1963. 175 p.  
(MIRA 17:3)

1. Chlen-korrespondent AN SSSR (for Vorozhtsov).

YAVOROVSKIY, I...., doktor tekhnicheskikh naук; ALAYEV, G.P.; GRENBALKH,  
E.L.; YALOCHIN, V.I.; ANTONOVSKAYA, L.I., red.

[Effect of the structure of mineral coals on their combustion]  
Vliyanie strukturnykh iskopaemykh uglei na ikh gorenie.  
(By: I.I. Yavorskii i dr. Novosibirsk, Izd-vo Sibirsogo  
gosp-va Nauki, 1963. 175 p.) (MIRA 17:8)

YERMOLOV, Viktor Veniaminovich; TROITSKIY, S.L., otv. red.;  
SHPAKOVSKAYA, L.I., red.

[Genetically homogeneous surfaces in geomorphological mapping] Geneticheski odnorodnye poverkhnosti v geomorfologicheskem kartirovani, Otv. red. S.L.Troitskii. Novosibirsk, Red. izdatel'skii otdel Sibirskogo otd-niaia AN SSSR, 1964.  
36 p. (MIRA 17:9)

BOROVKOV, A.A.; MARKOVA, N.P.; SYCHEVA, N.N.; SHPAKOVSKAYA, L.I.,  
red.

[Tables for N.V.Smirnov's criteria of the uniformity of  
two samples] Tablitsy dlia kriteriev N.V.Smirnova odno-  
rodnosti dvukh vyborok. Novosibirsk, Redaktsionno-izd.  
otdel Sibirskogo otd-niya AN SSSR, 1964. 139 p.  
(MIRA 17:6)

KOSYGIN, Yu.A.; BASHARIN, A.K.; BERZIN, N.A.; VOLONTEE, G.M.;  
VOTAKH, O.A.; KRASIL'NIKOV, B.N.; PARFENOV, L.M.;  
SHPAKOVSKAYA, L.I., red.

[Pre-Cambrian tectonics of Siberia] Dokembriiskaia tek-tonika Sibiri. Novosibirsk, Red.i zi. otdel Sibirskogo  
otd-niia AN SSSR, 1964. 124 p. (MIRA 18:1)

1. Akademiya nauk SSSR. Sibirskeye otdeleniye. Institut  
geologii i geofiziki. 2. Chlen-korrespondent AN SSSR  
(for Kosygin).

KUTATELADZE, S.S.; LEONT'YEV, A.I.; RUBTSOV, N.A.; GOL'DSHTIK,  
M.A.; VOLCHKOV, E.P.; DAVYDOVA, N.V.; DRUZHININ, S.A.;  
KIRILLOVA, N.N.; MALENKOV, I.G.; MOSKVICHIEVA, V.N.;  
MIROKOV, B.P.; MUKHIN, V.A.; MUKHINA, N.V.; REEROV, A.K.;  
FEDOROV, V.K.; KHABAKHPASHEVA, Ye.M.; SHTOKOLOV, L.S.;  
SHPAKOVSKAYA, L.I., red.

[Heat and mass transfer and friction in a turbulent  
boundary layer] Teplomassoobmen i trenie v turbulentnom  
pogranichnom sloe. Novosibirsk, Red.-izd. otdel Sibir-  
skogo otd-niya AN SSSR, 1964. 206 p. (MIRA 18:1)

KHOMENTOVSKIY, A.S., nauchn. red.; SHPAKOVSKAYA, L.I., red.

[Geology and conditions governing sedimentation in the Suchan coal basin] Geologicheskoe stroenie i usloviia osadkonakopleniya na territorii Suchanskogo kamennougol'nogo basseina. Novosibirsk, Red.-izd. otdel Sibirskogo otd-niya AN SSSR, 1964. 231 p. (MIRA 18:1)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. 2. Chlen-korrespondent AN SSSR (for Khomentovskiy).

BELOUS, I.Kh., st, nauchn. sotr.; KAZANSKIY, Yu.P.; VDOVIN, V.V.;  
KLYAROVSKIY, V.M.; KUZNETSOV, V.P.; NIKOLAYEVA, I.V.;  
NOVOZHILOV, V.I.; SENDEZHON, E.M.; AKAYEV, M.S.; BABIN,  
A.A.; BERDNIKOV, A.P.; GORYUKHIN, Ye.Ya.; NAGORSKIY, M.P.;  
PIVEN', N.M.; BAKANOV, G.Ye.; GEBLER, I.V.; SMOLYANINOV,  
N.M.; SMOLYANIMOVA, S.I.; YUSHIN, V.I.; D'YAKONOV, N.D.;  
REZAPOV, N.M.; KASHTAMOV, V.A.; COL'BENT, A.V.; SIDOROV,  
A.P.; GARMASH, A.A.; BYKOV, M.S.; BORODIN, L.V.; RYCHKOV,  
L.F.; KUCHIN, M.I.; SHAKHOV, F.N., glav. red.; SHFAKOVSKAYA,  
L.I.; red.

[West Siberian iron ore basin] Zapadno-Sibirskii zhelezorudnyi bassein. Novosibirsk, Red.-izu. otdel Sibirskogo otdnia AN SSSR, 1964. 447 p. (MIRA 17:12)

1. Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut geologii i geofiziki. 2. Institut geologii i geofiziki Sibirskogo otdeleniya AN SSSR (for Belous, Kazanskiy, Vdovin, Klyarovskiy, Kuznetsov, Nikolayeva, Novozhilov, Senderzon). 3. Institut gornogo dela (for Akayev). 4. Novosibirskoye geologicheskoye upravleniye Ministerstva geologii i okhrany nedor SSSR (for Babin, Berdnikov, Goryukhin, Nagorskiy, Piven').

(Continued on next card)

BELOUS, N.Kh.---(continued). Card 2.

Tomskiy politekhnicheskiy institut (for Bakanov, Gebler, Smolyaninov, Smolyaninova). 5. Sibirskiy nauchno-issledovatel'skiy institut geologii, geofiziki i mineral'nogo syr'ya (for Yushin, D'yakonova, Rezapov, Kashtanov, Gol'bert). 6. Institut ekonomiki sel'skogo khozyaystva (for Garmash). 7. Sibirskiy metallurgicheskiy institut (for Bykov, Borodin, Ryshkov). 8. Tomskiy inzhenerno-stroitel'nyy institut (for Kuchin). 9. Chlen-korrespondent AN SSSR (for Shakhov).

KAZARINOV, V.P., otv. red.; BGATOV, V.I., red.; KAZANSKIY,  
Yu.P., red.; KRASHENINNIKOV, G.F., red.; SAKS, V.N.,  
red.; YABLOKOV, V.S., red.; SHPAKOVSKAYA, L.I., red.

[Sedimentary formations of Siberia; transactions] Osadochnye formatsii Sibiri; trudy. Novosibirsk, Red.-izd. otdel Sibirskogo otd-niya AN SSSR. Vol.2. 1964.  
162 p. (MIRA 18:6)

1. Vsesoyuznoye litologicheskoye soveshchaniye. 5th,  
Novosibirsk.

Branford

Shpakovskaya, L.I.

L 51475-65 EWP(m)/EPF(c)/EPF(n)-2/EPR/EWT(1)/FCS(k)/EWU(m)/EWA(l) Pd-l/Pr-l/  
Pe-l/Pu-l/Pl-l N

AM5012942

BOOK EXPLOITATION

S/

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8+1

Kutateladze, S. S., ed.

Heat and mass transfer and friction in a turbulent boundary layer (Teplomassoobmen i treniye v turbulentnom pogranichnom sloye) Novosibirsk, Redizdat Sib. otd. AN SSSR, 1964. 206 pl illus., biblio. Errata slip inserted. 1000 copies printed. (At head of title: Akademiya nauk SSSR. Sibirskoye otdeleniye. Institut teplofiziki) Editor: L. I. Shpakovskaya; Technical editor: Ye. G. Shmakova; Proofreader: L. I. Korshunova

TOPIC TAGS: boundary layer flow, detached flow, friction, heat transfer, incompressible fluid, mass transfer, nonisothermal flow, radiation effect, turbulent boundary layer

PURPOSE AND COVERAGE: This book is a continuation of the monograph by S. S. Kutateladze and A. I. Leont'yev, published in 1962, in which certain properties of the limiting laws of friction and heat transfer in the turbulent boundary layer on a solid were formulated and specific applications of these laws were analyzed. The basic portion of the book was written by Kutateladze and A. I. Leont'yev.

Card 1/3

L 51475-65

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16

N. A. Rubtsov was mainly responsible for the development of problems of the interaction of the turbulent boundary layer with radiation. The theory of the flow structure beyond the region of detachment was developed by M. A. Gol'dshtik. Others who helped prepare the book were N. N. Kirillova, B. P. Mironov, V. A. Mukhin, N. V. Mukhina, A. K. Rebrov, V. K. Fedorov, M. V. Davydova, S. A. Druzhinin, E. P. Volchkov, Ye. M. Khabakhpasheva, I. G. Malenkov, V. N. Moskvicheva, and L. S. Shtokolov. Professor D. B. Spalding helped in the analysis of certain interesting questions.

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Ch. 2. Flow of a nonisothermal gas stream around an impenetrable surface -- 24
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AM5012942

- Ch. 6. Detached flow of an incompressible liquid -- 153  
Ch. 7. The question of the effect of nonisothermicity on hydraulic resistance in  
the case of turbulent flow of dripping liquid in tubes -- 177  
Ch. 8. Heat-transfer crisis at high liquid flow rates -- 187

SUB CODE: ME

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NR REF Sov: 049

OTHER: 070

DATE ACQ: 11/70

Card 3/3 MB

TSUKERMAN Viktor Grigor'yevich; VAYNSTEYN, Emmanuil Yefimovich;  
SHPAKOVSKAYA, L.I., red.

[Photoconductors in X-ray dosimetry] Fotoprovodniki v dozi-metrii rentgenovskogo izlucheniia. Novosibirsk, Red.-izd. otdel Sibirskogo otd-nija AN SSSR, 1965. 52 p.  
(MIRA 18:3)

24751  
3/10/61/000/007/001/C10  
B101/B215

158510

AUTHORS: Ratner, S. P., Stinskas, A. V., Shpakovskaya, Ye. I.

TITLE: Long-time strength of plastics

PERIODICAL: Plasticheskaya massa, no. 7, 1961, 50-65

TEXT: This is a review of publications on the long-time strength of plastics. The equation by S. N. Zhurkov et al. (Ref. 1: ZHTF, 25, no. 10 (1953). Ref. 2: ibid., 25, no. 1 (1955)) is given:

$$\tau = \tau_0 \exp[(U_0 - \gamma\sigma)/RT] \quad (1)$$

where  $\tau$  is the long-time strength;  $\tau_0$  a constant almost independent of the material and approximately equal to the vibration period of the atoms in the molecule ( $\tau_0 \approx 10^{-12}$  sec);  $U_0$  a constant almost equal to the activation energy of thermochemical destruction; and  $\gamma$  a constant depending on the structure of material, which becomes smaller as the orientation increases, and larger on plasticizing. Results of other scientists are presented,

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S/19/61/000/007/009/010  
B101/B215

Long-time strength of plastics

especially data on glass-reinforced plastics. The difference between short-time and long-time tests is mentioned. In glass-reinforced plastics, the long-time strength after 1000 hr averages 70% of the short-time strength, and 1/2 in non-reinforced plastics. Papers by A. W. Thompson (see below), B. Pusey (see below), and R. C. Hooper (see below) on glass-reinforced epoxy resins are mentioned. Simplification of the complicated long-time test by extrapolation or, according to S. Goldfein (see below), by temperature increase according to the equation  $T = (20 + \log t) = \text{const}$  (5) is discussed. Comparison of long-time strength and fatigue strength (by cyclic loading) shows that in the latter case, the strength is considerably reduced probably due to local heating. Under all test conditions, reinforced plastics generally show higher values than non-reinforced plastics. A. P. Aleksandrov, Tomashevskiy, and a report made by Yu. S. Lazurkin at the Conference on the Strength of Polymers and Polymer Materials, Moscow, May 16-18, 1960, are mentioned. The authors thank T. N. Kryuchenko and D. I. Verizhnikova for compiling publications on glass-reinforced plastics. There are 5 figures, 3 tables, and 24 references: 11 Soviet-bloc and 13 non-Soviet-bloc. The most important references to English-language publications read as follows: A. W. Thompson,

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Long-time strength of plastics

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Reinforced Plastics, no. 11 (1957); B. B. Pusey, R. H. Carey, Modern Plastics, 32, no. 7, (1955); R. C. Hooper, Plastics Technology, 3, no. 8 (1957); S. Goldfein, A. S. T. M. Bulletin, no. 224 (1957).

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39639  
S/191/62/000/008/010/013  
B124/B180

AUTHORS: L'vov, B. S., Koltunov, M. A., Kuznetsov, V. N.,  
Shpakovskaya, Ye. I.

TITLE: Physicomechanical characteristics of glass-reinforced  
plastics based on polyester resin. Elasticity constants of  
glass-reinforced plastics

PERIODICAL: Plasticheskiye massy, no. 8, 1962, 38-40

TEXT: Experimental results in determining the elasticity constants and  
the effect of loading and deformation rates on the stress-strain diagram  
of glass-reinforced plastics based on TH-1 (PN-1) polyester resin and  
T-1 (T-1) glass fabric have been obtained in the laboratoriya  
stekloplastikov NIIPM (Laboratory of Glass-reinforced Plastics of NIIPM)  
and the problemnaya laboratoriya fiziko-mekhanicheskikh svoystv  
polimerov Moskovskogo universiteta (Special Research Laboratory for the  
Physicomechanical Properties of Polymers, Moscow State University).  
Isopropyl benzene hydroperoxide and cobalt naphthenate were used as  
hardeners at room temperature. Test specimens were cut out from the

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X

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B124/B180

## Physicomechanical characteristics ...

fabric with their axes at angles  $\psi$  to the warp of 0, 15, 30, 45, 60, 75, and  $90^\circ$ . They were kept at  $80^\circ\text{C}$  for 12 hrs. Loading and unloading were done in steps of 100 kg each, and measured with an accuracy of  $\pm 1\%$ . Fig. 1 shows the circuit diagram of the extensometer pickups which measured with 5% accuracy. Their readings were recorded on a static tensometer sensitivity  $1 \cdot 10^{-5}$ . Total error of the system did not exceed 3%. The stress-strain diagram is linear up to a deformation of  $\sim 3 \cdot 10^{-3}$ . Worst results are with  $\psi = 45^\circ$ . The fabric has three symmetry axes. The glass-reinforced plastic investigated is orthotropic.

$E_\psi/E_0 = \frac{\lambda}{\lambda \cdot \cos^4 \psi + B \sin^2 \psi \cdot \cos^2 \psi + \sin^4 \psi}$ , where  $\psi$  is the angle between the warp and the direction of tensile stress and  $E$  = the elasticity modulus in the same direction.  $\lambda = \frac{E_{90}}{E_0}$  and  $2B = 4 \frac{E_{90}}{E_{45}} (1 + \lambda)$ . The elasticity

modulus values calculated from these equations are in satisfactory agreement with experimental data. There are 5 figures.

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S/191/62/000/009/004/012  
B101/B144

AUTHORS:

L'vov, B. S., Panferov, K. V., Romanenkov, I. G.,  
Shpekovskaya, Ya. I.

TITLE:

Changes in the physicomechanical properties of glass-reinforced  
polyester plastics due to water

PERIODICAL: Plasticheskiye massy, no. 9, 1962, 16 - 18

TEXT: Longer immersion in water had the following effect on the physicomechanical properties of glass-reinforced plastics (GRP) which contained 35-40% NH-1 (PN-1) polyester resin as binder: (1) Reduction of tensile strength and bending strength depended on the type of glass filler. After 6 months' immersion in water, the tensile strength (in % of the initial value) for GRP with rope glass fiber was 62.5, with T-1 (T-1) plain weave glass fabric 68.0, with staple glass fiber 55.9; the bending strength dropped to 44.0, 66.5, and 35.1, respectively. (2) When T-1 glass fabric was treated with the organosilicon ГВС-9 (GVS-9) preparation after 40 days' immersion in water dropped by only 7.6, the bending strength by 15.6%, while the corresponding values for GRP with

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VASIL'YEV, Ye.F.; L'VOV, S.S.; STEPANYCHEV, Ye.I.; SHPAKOVSKAYA, Ye.I.

Methods of static tests for tensile strength of glass plastics  
obtained by cold setting. Plast. massy no.6:57-60 '63.  
(MIRA 16:10)

ACCESSION NR: AP4039947

S/0191/64/000/006/0039/0040

AUTHOR: Voloshenko-Klimovitskiy, Yu. Ya.; Belyayev, Yu. A.; L'vov, B. S.; Shpakovskaya, Ye. I.

TITLE: Impact tensile strength at +20 and -196 C of glass reinforced plastics based on PN-1 binder cured at low temperatures

SOURCE: Plasticheskiye massy\*, no. 6, 1964, 39-40

TOPIC TAGS: glass reinforced plastic, glass fabric T-1, polyester resin PN-1, impact tensile test, static tensile test

ABSTRACT: The authors have developed at the Laboratory of the Strength of Materials for Machine Building of the IMASH GKA i M a method for impact tensile tests of glass reinforced plastics (GRP). This method makes it possible to determine the tensile strength in uniaxial stretching and can be used for calculating mechanical strength. It was applied to T-1 glass fabric-reinforced unsaturated polyesters resin PN-1. The GRP were subjected to static and impact tests. The results, which are given in Fig. 1 of the enclosure, show that PN-1-based GRP possess a good "dynamic strength reserve" both at +20 and -196 C. Orig. art. has 1 figure and 1 table.

ACCESSION NR: AP4039947

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 24Jun64 ENCL: 01  
SUB CODE: MT NO REF SOV: 002 OTHER: 000

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ACCESSION NR: AP4039947

ENCLOSURE: 01

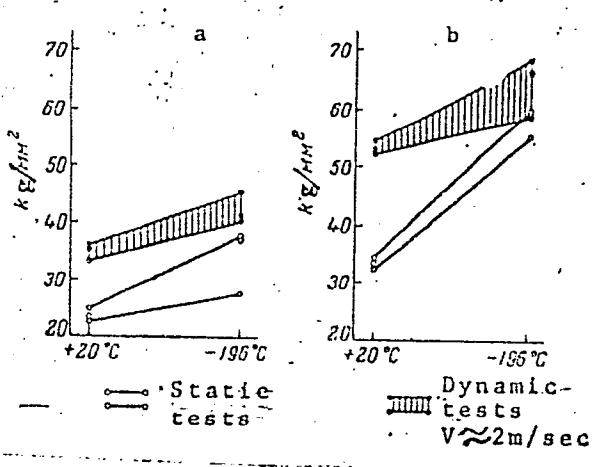


Fig. 1. Results of static and dynamic tensile tests of PN-1-based glass-reinforced plastics at  $+20$  and  $-196^\circ\text{C}$ .

a - Along the woof; b - along the warp.

VOVOSHENKO, LMOVITSKIY, Yu.Ya.; BELYAYEV, Yu.A.; L'VOV, B.S.; SHIAKOVSKAYA,  
Yu. I.

Strength of cold cured PNL bonded glass plastics under the con-  
ditions of impact tension at normal (+20°C) and low (-196°C)  
temperatures. Plast.masye no.6:39-40 '64.

(MIRA 18:4)

POPOV, Ye.I.; SUTAKOVSKAYA, Ye.I.

First all-Union scientific technical conference on the  
production of glass reinforced plastics. Plast. massy no.11  
70-71 '65. (NIFA 18:12)

BLOKHINA, A.; TERENT'YEV, M.; SHPAKOVSKIY, A.

Repairing semi-axle sleeves with a metal drawing process. Avt.  
transp. 35 no.1:30-31 Ja '57. (MLRA 10:3)  
(Axles)

USSR / General Problems of Pathology. Immunity.

U

Abs Jour: Ref Zhur-Biol., No 11, 1958, 51495.

Author : Shpakovskiy, A. A.

Inst : Vitebsk Veterinary Institute.

Title : On the Mechanism of Passive Immunity Against Erysipelas in White Mice.

Orig Pub: Ych. zap. Vitebskogo vet. in-ta, 1956, 14,  
No 2, 80-85.

Abstract: No abstract.

Card 1/1

9

APPROVED FOR RELEASE: 08/09/2001 CIA-RDP86-00513R001549920012-8

ORIG. PUB. : Uch. Zap. Vitebskogo Vet. In-ta,

51-56

ABSTRACT : In rabbits and young pigs immunized against swine erysipelas, studies were made of the changes in phagocytosis (P) and the phagocyte count (PC) upon the administration subcutaneously in rabbits of 1% solution of caffeine in a dose of 1 ml/kg, and in pigs of a 20% solution in a dose of 5 ml/kg; or of NaBr to rabbits in a dose of 1 ml/kg or to pigs in a dose of 2 g each. In the injection of caffeine in rabbits, the P increased by 11 to 42%, and in pigs by 10 to 50%; the PC also rose. With NaBr, the P declined 1- to 2% and the PC also went down. - N.N...

CARD:

1/1

SHPAKOVSKIY, A. V.

The reactions between sugars and boric acid. F. Ya. Berenshtain and A. V. Shpakovskiy. *Ukrain. Khem. Zhurn.* 11, 631-641 (in German 444 8) (1930); cf. C. A. 29, 2484. The reactions between  $H_3BO_3$  and  $Na_2B_4O_7$  and mannose, xylose, arabinose, dulcitol, amygdalin, and other glucosides were investigated. The degree of disacchar. of  $H_3BO_3$  is not affected by amygdalin but is raised by dulcitol, mannose, xylose, and arabinose.  $H_3BO_3$  may be titrated to the end with alkali and phenolphthalein in the presence of at least 2 mols. of dulcitol or 8 mols. of arabinose per mol. of  $H_3BO_3$ .  $H_3BO_3$  has no effect upon the degree of rotation of sugars or upon the speed of mutarotation.  $Na_2B_4O_7$  increases the speed of mutarotation of glucose, arabinose, and galactose considerably, but that of fructose shows no appreciable changes. In the pres-

ence of  $Na_2B_4O_7$ , the angle of rotation of monosaccharides decreases greatly. Thus for arabinose, glucose, galactose, and fructose the drop is considerable, while for some galactose salts, having a  $Na_2B_4O_7$  concn. of 0.10 and 0.60 mols. per l., the change is to the left provided the sugar concn. is not over 1.8 and 0.45%, resp.  $Na_2B_4O_7$  has little effect upon the optical properties of disaccharides. Thus for maltose the angle of rotation does not change; for sucrose it decreases slightly, and for lactose it increases a little. Neither  $H_3BO_3$  nor  $Na_2B_4O_7$  have any effect upon the process of formation or properties of osazones. B. Z. Kamich

## ANALYSIS OF METALLURGICAL LITERATURE CLASSIFICATION

"APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001549920012-8

SHPAKOVSKIY, A. Yu.

37566. Kvoprosy o Vliyanii Soley Kadmiya na Uglevodnyy Obmen. "chen. Zapiski  
Vitebsk. Vet. In-Ta, T. IX, 1949, S. 94-99--Bibliogr: 10 Nazv.

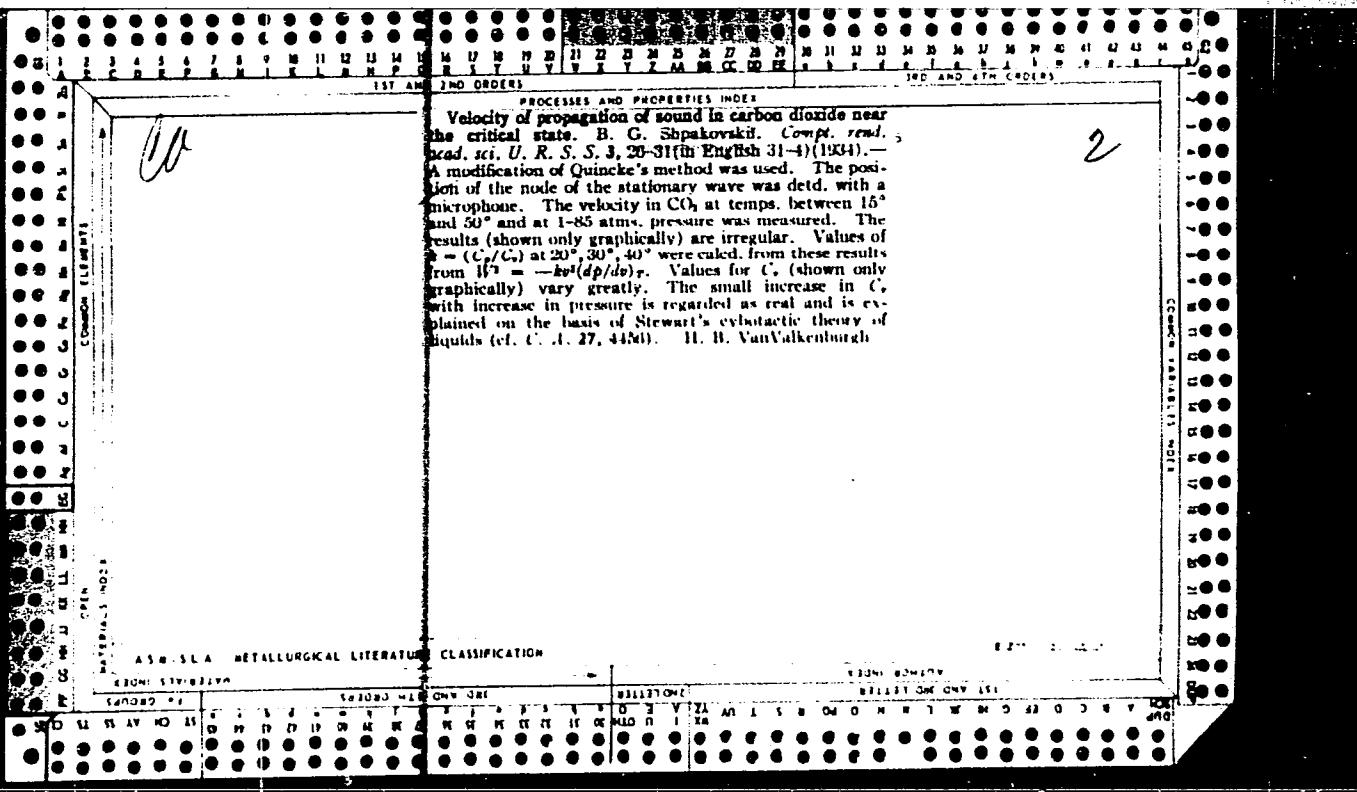
SO: Letopis' Zhurnal'nykh Statey, Vol. 37, 1949

APPROVED FOR RELEASE: 08/09/2001

CIA-RDP86-00513R001549920012-8"

SHPAKOVSKIY, A. U.

✓ Further investigations of the effect of cadmium salts on carbohydrate metabolism. A. U. Shpakovskiy. *Uchenye Zapiski Vitebsk. Vel. Inst.* 12, 99-113(1953). *Referat. Zhur. Khim.* 1954, No. 41474.—Subcutaneous injection of CdCl<sub>2</sub> or Cd(OAc)<sub>2</sub> to rabbits or dogs in the amounts of 0.2-10 mg./kg. body wt. increases the amylolytic and glycolytic activities in blood and decreases the glycogen content of the blood. It is concluded that the hyperglycemia, which occurs very often after an injection of Cd salts, may be due to increased breakdown of glycogen rather than to decreased processes of glycolysis. E. Wierbicka



[REDACTED]  
SHPAKOVSKIY, B. G.

CA: 28-7C94/9

SHPAKOVSKIY, B. G.  
Uspekhi Fiz. Nauk (USSR) 14, 283-97 (1934)  
Dispersion and selective absorption of ultrasonic waves in  
polyatomic gases.

1ST AND 2ND ORDERS  
PROCESSES AND PROPERTIES INDEX

Propagation of supersonic waves in liquids. I. Dispersion in some pure liquids and aqueous solutions. R. G. Shapkovskii. *Compl. rend. acad. sci. U. R. S. S.* 18, 109-73 (1938) (in English).—No marked dispersion of supersonic waves over a wide range of frequencies was observed in  $\text{Am}$  and  $\text{Et}_2\text{O}$  acetates and  $\text{Et}_2\text{Br}$ . Dispersion in water shows a slight dispersion, while satd. solns. of  $\text{KBr}$  and  $\text{KI}$  show quite different velocities at low and high frequencies. II. Dispersion in acetic acid. *Ibid.* 173-6; cf. *C. A.* 31, 8874.—The velocity of propagation of sound in  $\text{AcOH}$  at 18-33° is ca. 0.1% lower at frequencies of 220-270 kilohertz than at 2400-3400. The possible causes of this dispersion are discussed. It is suggested that dispersion sets in when the period of the supersonic waves is comparable to the time for the establishment of equilibrium between  $\text{AcOH}$  and  $(\text{AcO})_2$ . R. O. Wilg

2

## ASH-SLA METALLURGICAL LITERATURE CLASSIFICATION

SHPAKOVSKIY, B.G.

Noise control. Priroda 45 no.8:112 Ag '56. (MIRA 9:9)

1.Komissiya po akustike Akademii nauk SSSR.  
(Noise)

SUPAKOVSKIY, G.G.

Preliminary processing of tomatoes in the area of their  
cultivation. Kons.i ov.prom. 15 no.2:7-9 F '60.  
(MIRA 13:5)

1. Vinnitskiy sovnarkhoz.  
(Vinitza Economic Region--Tomatoes)

MAL'TSEV, M.N., kand.tekhn.nauk; SHPAKOVSKIY, I.N., kand.geograf.nauk

A new low-pressure hydrogen generator for use in expeditions. Inform.  
biul. Sov. antark. eksp. no.20:29-32 '60. (MIRA 13:9)

1. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut.  
(Hydrogen) (Antarctic regions--Gas producers)

SHPAKOVSKIY, M.A.

PHASE I BOOK EXPLOITATION SOV/3662

Pikus, Meyer Yudelevich, Grigoriy Sofronovich Talako, and Mikhail Antonovich Shpakovskiy

Protvazhnyye avtomaty i poluavtomaty (Automatic and Semiautomatic Broaching Machines) Minsk, Gos. izd-vo BSSR, 1959. 213 p.  
Errata slip inserted. 3,000 copies printed.

Ed.: A. Molochkov; Tech. Ed.: N. Stepanova.

PURPOSE: This book is intended for technical personnel.

COVERAGE: The book deals with basic constructions of automatic and semiautomatic broaching machines manufactured in the Soviet Union. Detailed descriptions of the characteristics and technical specifications of types of general- and special-purpose machines are given. Hydraulic, electric, and manually operated auxiliary equipment is also described. The principal manufacturers of these machines are the Minskiy stankostroitel'nyy zavod imeni Kirova (Minsk Machine-Tool Plant imeni Kirov) the "Stankokonstruktsiya" Plant, and the Kolomenskiy zavod tyazhelogo stankostroyeniya (Kolomna Heavy Machine-Tool Plant). No personalities are men-

Card 1/8

ANBINDER, Ya.Ye. [Anbinder, IA.IE.]; SHPAKOVSKIY, N.Ye. [Shpakovs'kyi, N.E.]; DARBINIAN, S.A.; KOMAROV, V.V.; KOMAROVA, T.V.; KOZLOV, Yu.A.; KONOKOTIN, L.P.; ZEREKIDZE, V.M.; SHULYATITSKIY, S.M. [Shyliatyts'kyi, S.M.]; KHODURSKIY, Ye.A. [Khodurs'kyi, IE.A.]; OBUSHINSKIY, Ye.I. [Obushyns'kyi, IE.I.]; GVOZDIK, A.A. [Hvozdyk, A.A.]; NIKITINA, M.A.; LUPASHKG, N.F.; BE SKROVNYY, M.N.; TSIMBLER, M.Ye. [TSymbler, M.IE.]; ILYN, A.N.; TOTADZE, P.M.; ZHIGURS, Kh.Yu.; ZAKREVSKIY, Ye.S. [Zakrevs'kyi, IE.S.]; FEDOROVICH, A.G. [Fedorovych, A.H.]; CHALENKO, D.K.; KHOMUTOV, D.A.; SKURIKHIN, I.M.; NILOV, V.I.; YEFIMOV, B.N. [IEfimov, B.N.]; KAZANOVSKIY, V.S. [Kazanovs'kyi, V.S.]; ZOTIKOV, L.S.; KCCHURENKO, M.A.

Soviet certificates of invention. Khar. prom. no.2:57-59 Ap-Je '65.  
(MIRA 18:5)

SHPAKOVSKIY, V. A.

Pigeon Pea

Pigeon pea as a new feed crop. Korm. baza 3 no. 6, 1952.

Monthly List of Russian Accessions. Library of Congress, September 1952. UNCLASSIFIED.

1. SHPAKOVSKIY, V. A.
2. SSSR (600)
4. Uzbekistan-Legumes
7. "Kaian" is a new subtropical leguminous crop for Uzbekistan.  
Dost. sel'khoz. No. 10, 1952
9. Monthly List of Russian Accessions, Library of Congress, February 1953. Unclassified.

MALBIYEV, Rafael' Isaakovich; SHPAKOVSKIY, V.I., red.; FEDOTOVA, M.I.,  
ved.red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

[Dockside structures of tank farms] Prichal'nye sooruzheniya  
neftobaz. Leningrad, Gos. nauchno-tekhn.izd-vo neft. i gorno-  
toplivnoi lit-ry, Leningr. otd-nie, 1958. 165 p. (MIRA 12:1)  
(Wharves) (Tank vessels)