SHAROYKOV, F. S.

"Comparative Living of Vykhukhol and Ondatra, Muskrats, and River Beaver," Zool. Zhur., 23, No. 4, 1970. Ebr., Kalinin Oblast Dept., All-Russian Society Natural Preservation, -c1948-.

SHAPOSHNIKOV, F.D.

Daily habits of the muskrat from the point of view of trapping. Uch.zap.
Gor'.un. no.19:121-125 '51.

(MLRA 6:6)

(Muskrats)

SHAPOSHNIKOV, F.D.

Certain data on the results of the introduction of beavers, muskrats and
desmans into the Pustynskoye preserve of the biological station of the
Gor'kiy State University. Uch.zap.Gor'.un. no.19:127-133 '51. (MLRA 6:6)
            (Pustynskoye Preserve--Fur-bearing animals)

SHAPOSHNIKOV, F.D.

Mineral intake of wile hoofed animals in the Altai mountains and taiga.
Biul.MOIP. Otd.biol. 58 no.1:3-10 '53.   (MLRA 6:5)
(Animals, Food habits of)   (Altai mountains region--Minerals in soil)

SHAPOSHNIKOV, F.D.

SHAPOSHNIKOV, F.D.

Ecology and morphology of the Altai reindeer. Zool.zhur.34 no.1:
191-207 Ja-F '55.   (MLRA 8:3)

1. Glavnoye upravleniye po zapovednikam i okhotnich yemu khozyaystvu
Ministerstva sel'skogo khozyaystva SSSR.
        (Altai Mountains--Reindeer)

SHAPOSHNIKOV, F.D.

Data on the ecology of musk deer in the northeastern Altai [with
English summary in insert]. Zool.zhur.35 no.7:1084-1093 Jl '56.
(MLRA 9:9)

1.Glavnoye upravleniye po zapovednikam i okhotnich'yemu khozyaystvu
Ministerstva sel'skogo khozyaystva SSSR.
                (Altai Mountains--Musk deer)

SHAPOSHNIKOV, F. D.

USSR/Biology - Zoology

Card 1/1   Pub. 86 - 23/42

Authors   : Shaposhnikov, F. D., Cand. Biol. Sc. (Thymen' Pedagog, Inst.)

Title   : Mountain sheep of west Tyan'-Shan'

Periodical : Priroda 45/1, 109-110, Jan 56

Abstract   : Two kinds of mountain sheep are distinguished in Central Asia -- Ovis
              ammon nigrimontana and Ovis ammon Karelini. A description is given
              of these covering their habits, habitats numbers and migrations. Two
              Sov. references (1951-1953). Illustration; map.

Institution : .....

Submitted   : .....

SHAPOSHNIKOV, F.D., kandidat biologicheskikh nauk.

   Panther in the western Tien Shan. Priroda 45 no.7:113-114 Jl '56.
                                                    (MLRA 9:9)

   1.Tyumenskiy gosudarstvennyy pedagogicheskiy institut.
            (Tien Shan--Panthers)

SHAPOSHNIKOV, F. D.

Preliminary data on the results of the acclimatization of beavers in Tyumen' Province. Trudy Inst. biol. UFAN SSSR no.18:169-184 '59.
(MIRA 13:8)

1. Zaveduyushchiy kafedroy zoologii Tyumenskogo pedagocheskogo instituta.

(Tyumen' Province--Beavers)

SHAPOSHNIKOV, Yu.G.; SHAPOSHNIKOV, G.D.(Moskva)

Single staple blood vessel suturing apparatus with a magazine.
Eksper. khir. i anest. no.2:13-16'63.   (MIRA 16:7)
       (BLOOD VESSELS—SURGERY) (STAPLERS (SURGERY))

SHAPOSHNIKOV, G., KH.,

ra. 150?0

USSR/Biology - Botany
Aphides

1 Oct 49

"Full Cyclic Alimentary Relations of Aphides of the Yezabura Family (Amphidoidea) With Grassy Vegetation," G. Kh. Shaposhnikov, 3½ pp

"Dok Ak Nauk SSSR" Vol LXVIII, No 4

A large group of Aphides of the Anuraphidae family has Pomoidea as its initial or only host. However, recent studies show that all Yezabura lappae Koch and Y. bonomii H.R.L. live on grassy plants. It is impossible to determine time of change-over. Details Y. Alzenbergi Shaposhnikov sp. nov. found in Smolensk

USSR/Biology - Botany (Contd)

1 Oct 49

cemetery, Leningrad in 1947. Submitted by Acad Ye. N. Pavlovskiy 25 Aug 49.

150T6

150T6

15016

USSR / General and Special Zoology. Insects.   P

Abs Jour: Ref Zhur-Biol., No 3, 1958, 11592

Author   : Shaposhnikov G. Kh.
Inst   : Zoological Institute of the Academy of Sciences
Title   : The Establishment of a Phylogenetic Basis of the Sys-
           tematics of Short-tailed Aphids (Anuraphidina) Con-
           sidering their Connections with Plants.

Orig Pub: Tr. Zool. in-ta AN SSSR, 1956, 23, 215-320

Abstract: This is a critical evaluation of the formal-morpho-
          logical approach to the systematics of the aphids
          and its opposition to the phylogenetic and historico-
          ecological approach, with a survey of all morpho-
          logical, and biological characteristics of the aphids
          in connection with those environmental changes in
          harmony with which they were formed in the evolution-
          are process. The Severrtsov morphobiological theory

Card 1/3

1. SHAPOSHNIKOV G. KH.

2. USSR (600)

4. Ural Mountain Region--Plant Lice

7. Dendrophilous aphids of the steppe and desert zones of the Ural foothills, Trudy Zool.inst. 11, 1952.

9. Monthly List of Russian Accessions, Library of Congress, _____April_____ 1953, Uncl.

1.   SHAPOSHNIKOV, G. KH.

2.   USSR (600)

4.   Crimea - Plant Lice

7.   Aphids (aphidoidea) f fruit trees of southern Crimea. Trudy Vses. ent. obshch. 43,
     1951.

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

SHAPOSHNIKOV, G. Kh.

A new aphid species (Homoptera, Aphididae) infesting cotoneasters.
Ent.oboz. 38 no.1:156-159 '59.   (MIRA 12:4)
(Borzhomi region--Plant lice) (Cotoneaster--Diseases and pests)

9. Monthly List of Russian Accessions, Library of Congress, _____ 1953, Uncl.

2

ARNOL'DI, L.V.; BORKHSENIUS, N.S.; GUR'YEVA, Ye.L.; DERBENEVA, N.N.;
    YEMEL'YANOV, A.F.; KERZHNER, I.M.; KUZNETSOV, V.I.; LISINA,
    L.M.; MISHCHENKO, L.L.; NARCHUK, E.P.; SHAPIRO, I.D.; SHAPOSHNI-
    KOV, G.Kh.; SHTAKEL'BERG, A.A.; PUKHAL'SKAYA, L.F., red.izd-va;
    KRUGLIKOVA, N.A., tekhn.red.

    [Insect pests of corn in the U.S.S.R.; reference book] Naseko-
    mye, vrediashchie kukuruze v SSSR; spravochnik. Moskva, 1960.
    227 p.   (MIRA 13:3)

    1. Akademiya nauk SSSR. Zoologicheskiy institut. 2. Zoologi-
    cheskiy institut AN SSSR (for Arnol'di, Borkhsenius, Gur'yeva,
    Derbeneva, Yemel'yanov, Kerzhner, Kuznetsov, Mishchenko, Narchuk,
    Shaposhnikov, Shtakel'berg). 3. Vsesoyuznyy institut zashchity
    rasteniy Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni
    V.I.Lenina (for Lisina, Shapiro).
                    (Corn (Maize)--Diseases and pests)
                    (Insects, Injurious and beneficial)

BATIASHVILI, I.D.; BEY-BIYENKO, G.Ya.; BOGDANOV-KAT'KOV, N.N.; GERASIMOV,
     B.A.; GILYAROV, M.S.; DMITRIYEV, G.V.; ZVEREZOMB-ZUBOVSKIY, Ye.V.;
     ZIMIN, L.S.; KOLOBOVA, A.N.; MEDVEDEV, S.I.; MISHCHENKO, A.I.;
     PETROV, A.I.; RYABOV, M.A.; SAVZDARG, E.E.; SELIVANOVA, S.N.;
     SKORIKOVA, O.A.; TROPKINA, M.F.; SHAPOSHNIKOV, G.Kh.; SHCHEGOLEV,
     V.N., prof., doktor sel'skokhoz.nauk; ESTERBERG, L.K.; YAKHONTOV,
     V.V.; REUTSKAYA, O.Ye., red.; CHUNAYEVA, Z.V., tekhn.red.

     [Classification of insects on the basis of damage to crops] Opre-
     delitel' nasekomykh po povrezhdeniiam kul'turnykh rastenii.   Izd.4,
     perer. i dop. Leningrad, Gos.izd-vo sel'khoz.lit-ry, 1960. 607 p.
                                             (MIRA 14:1)
          (Insects, Injurious and beneficial)

SHHPOSHNIKOV, G.K.H.

PAVLOVSKIY, Ye.N., akademik, redaktor; VINOGRADOV, B.S., redaktor;
ARNOL'DI, L.V.; BEY-BIYENKO, G.Ya.; BORKHSENIUS, N.S.; VINOGRADOV, B.S.;
GUTSEVICH, A.V.; KIRICHENKO, A.N.; KIR'YANOVA, Ye.S.; KOZHANCHIKOV, I.V.;
LEPNEVA, S.G.; LIKHAREV, I.M.; MALEVICH, I.I.; NOVIKOV, G.A.; POPOV, V.V.;
POPOVA, A.N.; SOCHAVA, V.B.; STARK, V.N.; TERENT'YEV, P.V.; KHARITONOV,
D.Ye.; CHERNOV, V.B.; SHAPOSHNIKOV, G.Kh.; SHTAKEL'BERG, A.A.; YUDIN, K.A.

[Animal life of the U.S.S.R.] Zhivotnyi mir SSSR. Vol.4 [Forest zone]
Lesnaia zona. Moskva, Izd-vo Akademii nauk SSSR, 1953. 737 p. (MLRA 7:3)
(Forest fauna) (Zoology)

SHAPOSHNIKOV, G.Kh.

Factors originating host alternation and diapause in plant lice
(Aphididae) in the process of adaptation to yearly cycles of host
plants. Ent. oboz. 38 no.3:483-504 '59.   (MIRA 13:1)

1.Zoologicheskiy institut Akademii nauk SSSR, Leningrad.
            (Plant lice)

SHAPOSHNIKOV, G.Kh.

Specificity and appearance of adaptations to new hosts in
plant lice (Homoptera, Aphidoidea) during the process of
natural selection. Ent. oboz. 40 no.4:739-762 '61.
(MIRA 17:1)

1. Zoologicheskiy institut AN SSSR, Leningrad.

NARZIKULOV, Mukhamedkul Narzikulovich; GILYAROV, M.S., retsenzent; SMIRNOV,
        Ye.S., retsenzent; SHAPOSHNIKOV, G.Kh., retsenzent; LUPPOVA, Ye.P.,
        otv.red.; VINOGRADSKAYA, S.N., red.izd-va; GELLER, S.P., tekhn.red.

[Fauna of the Tajik S.S.R. Vol. 9, no.1. Plant lice (Homoptera,
Aphididae) of Tajikistan and adjacent republics of Central Asia.]
Tli (Homoptera, Aphididae) Tadzhikistana i sopredel'nykh respub-
lik Srednei Azii. Dushanbe, 1962. 271 p. (Akademiia nauk Tadzhiks-
koi SSR. Institut zoologii i parazitologii. Trudy, vol.25. Fauna
Tadzhikskoi SSR, vol.9, no.1).   (MIRA 17:2)

SHAPOSHNIKOV, G.Kh.

      Aphids (Aphidinea) infesting Sorbus. Ent. oboz. 42 no.2:390-398
      '63.   (MIRA 16:8)

    1. Zoologicheskiy institut AN SSSR, Leningrad.
             (Plant lice) (Sorbus—Diseases and pests)

SHAPOSHNIKOV, G.Zh.

Plant life keeps real injurious to cherry plum and cherry.
Sad. i ogor. 4 no.5:74-75 '57.   (MIRA 11:6c)

1. Zoolog' ichesky institut Akademii nauk SSSR, Leningrad.

SHAPOSHNIKOV, G.Kh.

Morphological divergence and convergence in the experiment with
plant lice (Homoptera, Aphidinea). Ent. oboz. 44 no.1:3-25 '65.
(MIRA 18:7)

1. Zoologicheskiy institut AN SSSR, Leningrad.

15-57-5-8629

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5,
                   p 135 (USSR)

AUTHOR: Shaposhnikov, G. N.

TITLE: New Data on Graphite-Bearing Rocks in the Metamorphic
              Sequence in the Northwestern Part of the Sangilen
              Uplands in Tuva (Novyye dannyye o grafitonosnosti porod
              metamorficheskoy tolshchi severo-zapadnoy chasti
              nagor'ya Sangilen v Tuvinskoy avtonomnoy oblasti)

PERIODICAL: Inform. sb. Vses. n.-i. geol. in-t, 1956, Nr 3, pp 90-
              92.

ABSTRACT: Graphite schists are found in the Proterozoic meta-
              morphic gneiss-schist sequence in various places on
              the Sangilen uplands. In the middle part of the lower
              subseries (Prz_b1) occurs a 4-m to 5-m layer of banded
              ferruginous quartzite. Lenses of graphite schist and
              layers of graphite-bearing quartzite are closely
              associated spatially with the ferruginous quartzite.
Card 1/2   The author has discovered large lenses of graphite

15-57-5-6629
New Data on Graphite-Bearing Rocks in the Metamorphic (Cont.)

schist for the first time at the base of the series and not in
association with ferruginous quartzites. One of these lenses
extends along the strike for over 300 m and ranges up to 30 m in
width. The lenses are composed of dark, dull black, fine-scaly
graphite schists. The graphite is uniformly distributed in the
schists. The flakes reach a size of 1 mm to 1.5 mm. The graphite
schists of the middle series, the beds of which reach a thickness
up to 4 m or 5 m, are locally traced for 100 m to 150 m.
Card 2/2

S. P. Sh.

SHAPOSHNIKOV, G.N.

New data on graphite-bearing rocks in metamorphic strata of the
northwestern region of the Sangilen Upland in the Tuva Autonomous
Province. Inform.sbor.VSEGEI no.3:90-92 '56.   (MLRA 10:1)
                (Tuva Autonomous Province--Graphite)

SHAPOSHNIKOV, G.N.

Caselike form of tourmaline crystals. Zap.Vses.min.ob-va 88 no.3:
336-338 '59.   (MIRA 12:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy insitut,
Leningrad.
                        (Tourmaline crystals)

SHAPOSHNIKOV, G.N.; BURKOV, Yu.K.

Characteristics of Sinian sediments in th Davangra-Hugda belt
(southern Yakutia). Inform.sbor. VSEGEI no.22:3-11 '59.
(MIRA 14:12)
(Yakutia--Geology, Stratigraphic)

SHAPOSHNIKOV, G.N.; BURKOV, Yu.K.

Formation of anthr$_z$xolites in Sinian sediments of southern Yakutia.
Zap. Vses. min. ob-va 89 no.3:338-341 '60.   (MIRA 13:8)
(Yakutia--Anthraxolite)

NEMTSOVICH, V.M.; SHAPOSHNIKOV, G.N.

Basic characteristics of the titanium metallogeny in the Tuva Auton-
omous Republic. Trudy VSEGEI 60:107-120 '61.   (MIRA 15:3)
(Tuva A.S.S.R.--Titanium)

SHAPOSHNIKOV, G.N.

Blomstrandin from pegmatite veins of southern Yakutia.
Zap.Vses.min. ob-va 89 no.6:709-710 '61.   (MIRA 15:5)
                    (Yakutia--Blomstrandin)

SHAPOSHNIKOV, G.P.

Carbonization of burry wools. G. P. Shaposhnikov and
V. A. Chekmarev. Tekstil. Prom. 14, No. 6, 11-16(1954).
—Vegetable matter contaminating the wool (I) is removed
by steeping I at room temp. for 15–30 min. in 20 pts. H_2O
contg. H_2SO_4 45 g./l. and a wetting agent 2–5 g./l., centri-
fuging, drying at 60–65°, and finally carbonizing at 85–90°.
I is then dusted and washed with H_2O until 1% H_2SO_4 re-
mains on the fiber, which is neutralized by addn. of NH_4OH
2–3%.   Elisabeth Barabash

SHAPOSHNIKOV, G.P.; KOVALEV, A.Ye.

Excellent wool fibers obtained from wool waste. Tekst. prom.
20 no. 11:18-19 N '60.   (MIRA 13:12)

1. Nachal'nik tekhnologicheskogo konstruktorskogo byuro
Klintsovskoy tonkosukonnoy fabriki imeni Kominterna (for
Shaposhnikov). 2. Master ugarno-prigotovitel'nogo tsekha
Klintsovskoy tonkosukonnoy fabriki imeni Kominterna (for
Kovalev).
              (Woolen and worsted manufacture)

BUDOV, V.M.; SHAPOSHNIKOV, I.A.; LATUSHINA, E.S.

Increasing the productivity of the 4ShPS machines. Stek. i ker.
19 no.1:31-32 Ja '62.   (MIRA 15:3)

1. Irbitskiy stekol'nyy zavod.
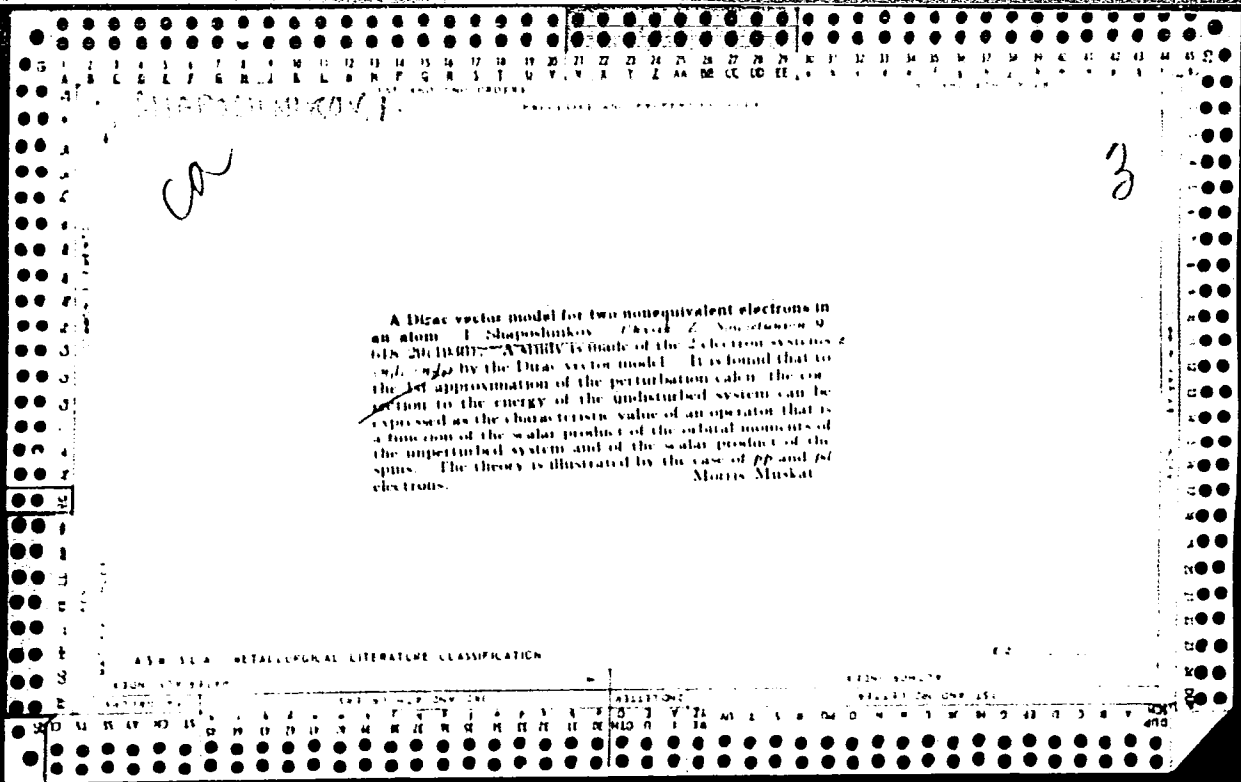   (Grinding and polishing)

BUDOV, V.M.; SHAPOSHNIKOV, I.A.

Improving the design of some units of the pot furnace. Stek.i
ker. 19 no.4:28-30 Ap '62.   (MIRA 15:8)

1. Irbitskiy stekol'nyy zavod.
                    (Glass furnaces)

PRODAYVODA, N.Ye.; BUDOV, V.M.; SHAPOSHNIKOV, I.A.

     Improved design of the working end. Stek.i ker. 19 no.5:28-29
     My '62.   (MIRA 15:5)
                  (Glass furnaces)

A Dirac vector model for two nonequivalent electrons in an atom I. Shaposhnikov. *Physik Z. Sowjetunion* 9, 616. 1936(?)—A study is made of the 2-electron systems described by the Dirac vector model. It is found that to the 1st approximation of the perturbation calcn., the correction to the energy of the undisturbed system can be expressed as the characteristic value of an operator that is a function of the scalar product of the orbital moments of the unperturbed system and of the scalar product of the spins. The theory is illustrated by the case of pp and pf electrons.

Morris Muskat

ASM 51 A   METALLURGICAL LITERATURE CLASSIFICATION

SA

A 53
H

**3732. Theory of Absorption of Sound in Solids. I. Shaposh-
nikov.** *J. of Exp. and Theor. Physics, U.S.S.R.* 9, 2, pp. 223-228, 1939. *
In Russian. An expression is obtained for the absorption coefficient of
sound in a solid, to the first order in the coefficients of viscosity and
thermal conductivity. The expression is similar to the one valid for a gas.

D. S.

Absorption and dispersion of sound in a solution of a weak electrolyte. I. G. Shaposhnikov and M. A. Leontovich. *J. Phys. Chem.* (U.S.S.R.) **13**, 781-5(1939).— The theory of absorption and dispersion is developed on similar lines to Einstein's theory for gases (cf. *C. A.* **19**, 3208). B. C. P. A.

SHAPOSHNIKOV, I.G.

Thermodynamic theory of paramagnetic absorption in weak fields. I. G. Shaposhnikov (Phys.-Tech. Inst. Kazan Branch Acad. Sci. U.S.S.R.). Zhur. Eksptl. i Teoret. Fiz. 17, 824-9(1947).—Sh. considers the thermodynamics of the paramagnetic absorption in weak const. fields, not exceeding in order of magnitude the amplitude of the alternating field, of the required spin-lattice relaxation, for cases of parallel and of perpendicular fields. It is assumed that the temp. of the spin-system remains sufficiently close to the temp. of the lattice, and that the amplitude of the alternating field is sufficiently small. It is found that a partial dependence of the absorption-energy of the alternating field, both in the parallel, as well as in the perpendicular, cases is given by means of the ordinary dispersion equations of the relaxation type with time-relaxation, independent of the field, and inversely proportional to the square of the temp. of the lattice. In the perpendicular case the absorption of energy is proportional to the 4th power of the amplitude of the alternating field; for the parallel case it is the sum of 2 terms, one of which is proportional to the 4th power of the amplitude of the alternating field, and the other the product of the square of the amplitude of the alternating field and the square of the const. field. The possibility of a thermodynamic calcn. of the internal spin-relaxation is also considered. Proposals are made as to how the theory can be subjected to exptl. verification.   F. H. Rathmann

USSR/Thermodynamics   May 1947

"The Classical Analogy of the Uncertainty Princi-
ple," I. G. Shaposhnikov, 4 pp

"Zhur Eksp Teor Fiziki" Vol XVII, No 5

Criticism of the thermodynamic analogy of the
uncertainty principle of Heisenberg, proposed by
D. A. Frank-Kamenetsky.

Jun 48

USSR/Physics
Paramagnetism
Relaxation Phenomena

"Thermodynamic Theory of Spin-Spin Relaxation in Paramagnetic Materials," I. G. Shaposhnikov, Kazan State U, 6 pp

"Zhur Eksper i Teoret Fiz" Vol XVIII, No 6

Paramagnetic relaxation is studied thermodynamically in an ideal paramagnetic substance with pure spin magnetism for case of parallel fields, with consideration of spin-lattice and also spin-spin relaxation. An expression for complex magnetic per-

USSR/Physics   (Contd)   Jun 48

meability is found, and special expression for extreme cases of large and small frequencies. Compares theoretical and experimental results.

PA 6/49 T99

6/49T99

Shaposhnikov, I.G.,   On the thermodynamic theory of paramagnetic absorption in perpen-
dicular fields. P. 225.

It is shown that in the case of perpendicular fields paramagnetic absorption is due
only to spin-spin relaxation. The expression is found for the energy absorbed by the
ideal paramagnetic with a purely spin magnetism per unit of time neutralized on the period
of the field. It proved that this value, besides the frequency of the field and the ampli-
tude of its variable component depends also partly on the constant component of the field
and partly through the spin-spin time of relaxation; however the form of dependence on the
constant of the component of the field and on the temperature remains undetermined. With
the help of experimental data on the position of the maximum of the absorption curve it is
established that the spin-spin time of relaxation increases with increase of the field.
A law is given of this increase for large and small fields. It is shown that at such a
character of dependence of the relaxation time on the field the theoretical formula
describes satisfactorily the experimental absorption curve.

<div style="text-align:right">

The Molotov State University
August 10, 1948

</div>

SO: Journal of Experimental and Theoretic Physics (USSR) 19, No. 3 (1949)

SHAPOSHNIKOV, I. G.

PA 51/49T74

USSR/Physics   Jul 49
    Susceptibility
    Magnetism

"Complex Magnetic Susceptibility of Paramagnetics
at High Frequencies," I. G. Shaposhnikov, Molotov
State U, 4 pp

"Zhur Eksper 1 Teoret Fiz" Vol XIX, No 7

Thermodynamic theory of paramagnetic relaxation
developed earlier by author is used to clarify
dependence of the real and imaginary parts of
complex magnetic susceptibility of an ideal
paramagnetic with pure spin magnetism upon the
                                51/49T74

USSR/Physics   (Contd)   Jul 49

constant field for the case of perpendicular
fields at high frequencies of the variable field,
high relative to inverse spin (spin relaxation
time). Submitted 3 Feb 49.

51/49T74

SHAPOSHNIKOV, I. G.

USSR/Physics – Sound Propagation   Sep 49
              Turbulence

"The Influence of Large-Scale Turbulence Upon the Propagation of Sound in a Turbulent
Medium," M. G. Odintsov, I. G. Shaposhnikov, Physicotech Inst, Kazan Affiliate, Acad Sci
USSR, 2 pp

"Zhur Tekh Fiz" Vol XIX, No 9

Blokhintsev's equations are used for discussion. Considers case of a stationary acoustic
field, created by a source not having directivity, and a stationary homogeneous isotropic
field of turbulent pulsations imposed on the averaged flow. By considering velocity of
motion of the medium to be low compared with velocity of sound and by disregarding com-
pressibility of the medium, authors found an expression for mean (with respect to time)
square of deviation of the value characterizing intensity of sound due to turbulence from
the value which it would have in a quiescent medium. This square of turbulent flucuation
of sound audibility increases with the third order of distance from source and decreases
when wave length of sound increases. Authors state that both this work and Krasil'nikov's
are incomplete because precise form for correlation function for a flat-topped field of
large-scale pulsations is not known.

Submitted 13 Jul 49

PA 149T101

SHAPOSHNIKOV, I.G.

"On the Thermodynamic Theory of Paramagnetic Relaxation." Thesis for degree
of Dr. Physico-Mathematical Sci. Sub 26, Jun 50, Physics Inst imeni P. N.
Lebedev, Acad. Sci USSR

Summary 71, 4 Sep 52, Dissertations Presented for Degrees in Science and Engineering
in Moscow in 1950. From Vechernyaya Moskva, Jan -Dec 1950.

SHAPOSHNIKOV, I. G.

Šapošnikov, I. G. On the computation of diffusion phe-
nomena in the equations of hydrodynamics. Akad. Nauk
SSSR. Žurnal Eksper. Teoret. Fiz. 21, 1309–1310 (1951).
(Russian)

Sleskin [Doklady Akad. Nauk SSSR 77, 205–208 (1951);
ces Rev. 13, 81] et Vallander [ibid. 78, 25–27 (1951); ces
Rev. 13, 81] ont proposé une nouvelle forme du vecteur
transport de masse au sein d'un gaz (noté classiquement ρV)
afin de tenir compte des phénomènes de la diffusion molécu-
laire et thermique. L'A. présente ici une critique des travaux
ci-dessus et conclut que les hypothèses de Sleskin et Val-
lander ne correspondent pas à la réalité physique.

J. Kravtchenko (Grenoble).

Source: Mathematical Reviews,   Vol 13 No. 9

1. SHAPOSHNIKOV, I. G.

2. USSR (600)

4. Hydrodynamics

7. Some hydrodynamic values for mixtures. Usp.fiz.nauk no. 1 1952

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

SHAPOSHNIKOV, I. G.

USSR/Physics - Heat Exchange   May 52

"Theory of Weak Convection," I. G. Shaposhnikov,
Molotov State U

"Zhur Tekh Fiz" Vol XXII, No 5, pp 826-828

Outlines method of consecutive approximations in
soln of eqs of weak, free, stationary convection
in a cavity at a specified gradient toward infinity.
Indebted to Prof G. A. Ostroumov. Received 13 Jan
52.

222T84

SHAPOSHNIKOV, I.G.; GOL'DBERG, Z.A.

Absorption of sound in binary mixtures. Zhur. eksper. teor. Fiz. 23, No. 4, 425-9 '52.   (MLRA 5:12)
(PA 56 no.668:5342 '53)

USSR/Physics - Hydrodynamics   Sep 52

"Some Hydrodynamic Quantities for a Mixture,"
I. G. Shaposhnikov

"Uspekhi Fiz Nauk" Vol 48, No 1, pp 119-122

Article has didactic purposes, i.e., to give
accurate definitions of fundamental quantities
in mixtures: density of mass, density of mass
flow, and hydrodynamic velocity. Derives formulas
defining these quantities. Cites N. A. Slezkin,
S. V. Vallander, and M. P. Yelovskikh.

236T78

SHAPOSHNIKOV, I. G.

Among the papers presented by the First All-Union Conference on
Aerohydrodynamics (1-13 Dec 1952) convened by the Institute of
Mechanics, Academy of Sciences USSR, was:

"Hydrodynamics of Convection Phenomena in Binary Mixtures" by Shaposhnikov, I. G.
(Molotov State University)

SO: Izvestiya AN USSR, Otdeleniye Tekhnicheskikh Nauk, No. 6, Moscow,
     June 1953, (W-30662, 12 July 1954)

SHAPOSHNIKOV, I. G.

USSR/Mathematics - Convection   Sep/Oct 53

"Theory of Convective Phenomena in a Binary Mixture," I. G. Shaposhnikov, Moscow, Molotov State Univ

Priklad Matem i Mekhan, Vol 17, No 5, pp 604-606

A report read at a session of the All-Union Conference on Hydroaerodynamics in the Institute of Mechanics, Acad Sci USSR, held 10 Dec 1952. Treats the interesting problem of the limiting cases of

276T88

isothermal concentrational convection where the convective phenomena are due only to the spatial inhomogeneity of the mixture's concentration. Presented 30 Jun 53.

SHAPOSHNIKOV, I. G. (Molotov)

"Phenomenological Theories of Paramagnetic Relaxation," a paper submitted at the International Conference on Physics of Mangetic Phenomena, Sverdlovsk, 23-31 May 56.

AUTHORS: Tsirulnikova, L.M. and Shaposhnikov, I.G.

TITLE: On Phenomenological Theory of Resonance Paramagnetic
                Rotation (K fenomeno logicheskoy teorii rezonansnogo
                paramagnitnogo vrashcheniya)

ABSTRACT: A phenomenological theory of paramagnetic rotation
                is proposed for the waves of cm wavelength. It is
                assumed that the paramagnetic medium is isotropic in
                electrical respect and possesses a magnetic anisotropy
                caused by an external constant magnetic field.

                A final formula shows that the angle of rotation
                depends on the frequency of the alternating field and
                on the intensity of the constant field. A graph in
Card 1/2   the article shows theoretical curves of paramagnetic

Shaposhnikov, I.G.

AUTHOR: Shaposhnikov, I.G.

TITLE: On the Conception of Spin-Spin Relaxation Time in
               Paramagnetics (O ponyatii vremeni spin-spinovoy
               relaksatsii v paramagnetikakh)

PERIODICAL: Izvestiya Akademii Nauk, Vol. XX, #11, pp 1255 - 1257
               1956, USSR, Seriya fizicheskaya

ABSTRACT: The expression of "spin-spin relaxation time" is
               applied in literature to both as an expression of τ'
               in the Gorter theory (1) and as an expression of τ_s
               in the Shaposhnikov theory (3).

               The latter quantity however should be named by more
               precise designation: the time of isothermic spin
               -spin relaxation of magnetization.

               The nature of quantity τ' is analyzed and it is
               concluded that it actually represents the time of
Card 1/2   adiabatic spin-spin relaxation of magnetization.

Shaposhnikov, I.G.

AUTHORS: Shaposhnikov, I.G. and Kuznetsov, A.S.

TITLE: On the General Theory of Relaxation Phenomena (K
                obshchey teorii relaksatsionnykh yavleniy)

PERIODICAL: Izvestiya Akademii Nauk, Vol. XX, #11, pp 1258-1261
                1956, USSR, Seriya fizicheskaya

ABSTRACT: A spin-system of dielectric paramagnetic crystal,
                isolated from the lattice, with normal spin magnet-
                ism, which interacts with an external magnetic field
                directed along the Z-axis, is considered.

                Extending the Waller theory (2), the authors derive
                equations for the magnetization ξ of a paramagnetic,
                in which χ' and χ'', real and imaginary components of
                the complex magnetic susceptibility, are represented
                by periodical functions of time.

                Actually, however, experience shows that quantities
                χ' and χ'' are independent of time.

                The authors explain this discrepancy by pointing out

Card 1/3

TITLE: On the General Theory of Relaxation Phenomena (K
          obshchey teorii relaksatsionnykh yavleniy)

          that relaxation is a specifically macroscopic pheno-
          menon. They modify the initial equations by replac-
          ing the sums by integrals and making some plausible
          assumptions as to the property of some function f,
          which ensures the existence of the integrals. These
          assumptions are the following: the function f and
          its first derivative are continuous in the region of
          their determination and the function f has a finite
          number of maxima.

          In case of correctness of the assumptions made, the
          theory leads to a conclusion, which asserts the
          existence of a relaxation phenomenon in a spin-system
          of dielectric paramagnetic crystals, isolated from
          the lattice, with normal spin magnetism, for all
          practically important spans of time.

          The bibliography lists 7 references, of which 3 are
Card 2/3 Slavic (Russian).

BELOUSOVA, N.K.; SHAPOSHNIKOV, I.G.

Phenomenological theory of paramagnetic relaxation in parallel fields [with summary in English]. Zhur. eksp. i teor. fiz. 33 no.1:238-242 Jl '57.   (MLRA 10:9)

1. Molotovskiy universitet.
                    (Magnetic fields)

AUTHOR: Tsirul'nikova, L. M.; Shaposhnikov, I. G.

TITLE: Contribution to the phenomenological theory of the complex paramagnetic susceptibility of single crystals.

SOURCE: Fizika tverdogo tela, v. 6, no. 8, 1964, 2322-2326

TOPIC TAGS: magnetic susceptibility, single crystal, powder metal, Faraday effect, paramagnetic susceptibility

ABSTRACT: The previously proposed theory of complex paramagnetic susceptibility of powders, developed by H. B. Casimir and F. K. Du Pre (Physica, 5, 507, 1938), by the authors (Izv. AN SSSR ser. phys. v. 20, 1251, 1956), and by others is extended to include single crystals. An expression is derived for the components of the magnetic susceptibility tensor along arbitrary axes for arbitrary component of the external magnetic field. This expression is

Card 1/2

ACCESSION NR: AP4043348

quite complicated, and only a scheme for deriving it is presented,
based on the kinetic equation and boundary conditions. Certain ex-
periments on paramagnetic absorption and on radio-frequency para-
magnetic rotation in single crystals are discussed in light of the
application of the proposed theory. Orig. art. has: 12 formulas.

ASSOCIATION: Permskiy gosudarstvenny*y universitet (Perm State
University)

SUBMITTED: 13Feb64   ENCL: 00

SUB CODE: SS, EM   NR REF SOV: 004   OTHER: 002

Card   2/2

KHAZAN, G.L.; VYCHEGZHANIN, A.G.; SHAPOSHNIKOV, I.I.; MIKHAYLOVSKAYA, Ye.F.;
    YATSUN, K.R.

    Improving the sanitary conditions of work with sandblasting machines.
    Lit. proizv. no. 5:42-43 My '61.   (MIRA 14:5)
                    (Founding—Hygienic aspects)

SHAPOSHNIKOV, I. V., MATOYAN, L. K.

Foundinr

Coreless casting of housing and lids for reduction gearing. Lit. proizv. No. 3, 1953.

9. <u>Monthly</u> <u>List</u> <u>of</u> <u>Russian</u> <u>Accessions</u>, Library of Congress, ___June___ 1953. Unclassified.

SHAPOSHNIKOV, K.

Popov, Dimitŭr, Shaposhnikov, K., and Vasilev, Khr.: Fizika (Physics). Sofia: Peoples Ed. Press. 1952. 150 pp.

②

VASIL'YEV, V.Z.; GEORGIYEVSKIY, N.N.; DUBYAGO,A.D.: TAUROK, V.G.; TSATSKIN,
    V.S.; SHAPOSHNIKOV, K.A.;DZHAVADYAN, G.A., redaktor; SOKOLOVA,T.F.
    tekhnicheskiy redaktor.

[Reference tables for machine parts] Spravochnye tablitsy po
detaliam mashin. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry. Pt. 2.1955. 239 p.   (MLRA 8:9)
        (Mechanical engineering--Tables, calculations, etc.)

VASIL'YEV, Vitaliy Zakharovich; GEORGIYEVSKIY, Nikolay Nikolayevich
    [deceased]; DUBYAGO, Andrey Dimitriyevich [deceased]; KOKHTEV,
    Andrey Aleksandrovich; TAUROK, Viktor Grigor'yevich [deceased];
    TSATSKIN, Vitaliy Semenovich; SHAPOSHNIKOV, Kirill Aleksandrovich;
    MUSINYAN, T.M., inzh., red.; TAIROVA, A.L., red.izd-va; TIKHANOV,
    A.Ya., tekhn.red.

    [Reference tables for machine parts] Spravochnye tablitsy po
    detaliam mashin. Izd.4, ispr. i dop. Moskva, Gos.nauchno-tekhn.
    izd-vo mashinostroit.lit-ry. Pt.1. 1960. 615 p.
                                                (MIRA 14:1)
         (Machinery--Standards)

VASIL'YEV, Vitaliy Zakharovich; GEORGIYEVSKIY, Nikolay Nikolayevich
[deceased]; DUBYAGO, Andrey Dmitriyevich [deceased]; KOKHTEV, Andrey
Aleksandrovich; TAUROK, Viktor Grigor'yevich [deceased]; TSATSKIN,
Vitaliy Semenovich; SHAPOSHNIKOV, Kirill Aleksandrovich; MUSINYAN,
T.M., inzh., red.; TAIROVA, A.L., red.izd-va; TIKHANOV, A.Ya.,
tekhn.red.

[Reference tables for machine parts] Spravochnye tablitsy po deta-
liam mashin. Izd.4., ispr. i dop. Moskva, Gos.nauchno-tekhn.izd-vo
mashinostroit.lit-ry. Pt.2. 1961. 688 p.

(MIRA 14:4)

(Machinery--Tables, calculations, etc.)

VASIL'YEV, V.Z.[deceased]; KOKHTEV, A.A.; TSATSKIN, V.S.;
    SHAPCSHNIKOV, K.A.; MUSINYAN, T.M., inzh., red.

    [Reference tables on machine parts in 2 volumes] Spra-
    vochnye tablitsy po detaliam mashin v 2-kh tomakh. Moskava,
    Mashinostroenie. Vol.1. 1965. 716 p.   (MIRA 18:8)

SHAPOSHNIKOV, ANDREY NIKITOVICH [?]

Yefimov, Aleksey Nikolayevich, Parkhuta, Andrey Nikitovich, Tilevich, Izrail' Aleksandrovich, Tuler, Lazar' Srulevich, Fel'dblyum, Boris Borisovich, and Shaposhnikov, Kas'yan Grigor'yevich

Osnovy teorii poleta samoleta (Principles of the Theory of Aircraft Flight)
Moscow, Voyen. izd-vo Min-va obor. SSSR, 1957. 443 p. No. of copies printed not given.

Ed.: Zakharov, D. M., Engineer-Col.; Tech. Ed.: Myasnikova, T. F.

PURPOSE: This book is intended as an aviation and technical text book on the secondary school level. It may also be used as a textbook in the study of the fundamentals of aircraft flight theory for the flying and technical personnel of the Air Forces and of the All-Union Voluntary Society for the Promotion of the Army, Aviation and Navy. The introduction is intended for readers who embark for the first time upon the study of the fundamentals of aviation. The text is approved as a textbook for military aviation and technical schools by the Chief of the Vuz Administration of the Military Air Force.

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Principles of the Theory (Cont.)   341

COVERAGE: The authors discuss the fundamentals of applied general and high-speed
           aerodynamics, the fundamentals of the aerodynamics of propellers, air-
           craft performance, stability, control, maneuvering flight. The book
           contains 4 tables and 360 figures. There are 29 Soviet references, 4 of
           which are translations.

TABLE OF
CONTENTS:

Card 2/17

SHAPOSHNIKCV, K.K.; SHAPOSHNIKOVA, K.I.

Tectonic regionalization of northeastern Yakutia based on geo-
physical data. Geol. i geofiz. no.3:42-47 '61.   (MIRA 14:5)

1. Yakutskiy filial Sibirskogo otdeleniya AN SSSR.
            (Yakutia—Geology, Structural)

S/169/62/000/006/003/093
D228/D304

AUTHORS: Shaposhnikov, K. K. and Shaposhnikova, K. I.

TITLE: Some questions of the tectonic zoning of north-eastern
               Yakutiya according to geophysical data

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 6, 1962, 5, ab-
               stract 6A22 (Geologiya i geofizika, no. 3, 1961,42-47)

TEXT: The results are stated for the geologic interpretation of
the data of gravimetric and magnetic investigations along a route,
laid off from the shore of the East Siberian Sea to the Okhotsk
Sea. More accurate definitions are introduced into the existing
tectonic schemes for the north-east of the USSR. Data are cited
about the depth of the Precambrian basement and the Mohorovicic
discontinuity. /Abstracter's note: Complete translation./

Card 1/1

SHAPOSHNIKOV, K.K.

Structural metallogenic zones and gravity anomalies in the
northeast of the U.S.S.R. Dokl. AN SSSR 141 no.3:701-704
N '61.   (MIRA 14:11)

1. Yakutskiy filial Sibirskogo otdeleniya AN SSSR. Predstavleno
akademikom D.I. Shcherbakovym.
            (Siberia, Eastern--Ore deposits)
                    (Gravity)

SHAPOSHNIKOV, K.K.

Relief of the crystalline basement of the Southern Verkhoyansk
synclinorium. Uch. zap. IAGU no.9:121-127 '61.   (MIRA 15:7)
(Verkhoyansk Range—Geology, Structural)

SHAPOSHNIKOV, K. K.

Crustal structure in the northeastern part of the U.S.S.R. based on geophysical data. Geol. i geofiz. no.9:100-105 '62.
(MIRA 15:10)

1. Yakutskiy filial Sibirskogo otdeleniya AN SSSR.

(Soviet Far East—Earth—Surface)

J. . . , .. K. "C. . . . . ", . . , . . . chan, . -t,
I . . 2, 19 , . . -7.

So: . - 61, 1 April , (Letopis 'Zhurnal 'nykh Statey, No. 12, 1949);

SHAPOSHNIKOV, K. N.

36572. Effekt Dopplera i Otnositel'nost' Dvizheniy. Trudy Tul. Mekhan. In-Ta,
Vyp. 3, 1949, c. 3-8.

SO: Letopis' Zhurnal'nykh Statey, Vol. 50, Moskva, 1949

SHAPOSHNIKOV, K. N,

36571. Uravneniye Energii i Drizheniye Potona. Trudy Tul. Mekhan. In - Ta,
Vyp. 3, 1949, c. 9-19

SO: Letopis' Zhurnal'nykh Statey, Vol. 50, Moskva, 1949

AUTHOR: Shaposhnikov, K.V. (Sofia, Bulgaria)   47-58-1-16/35

TITLE: The Teaching of Physics and Astronomy in Schools of the
             Bulgarian People's Republic (Prepodavaniye fiziki i astronomii
             v shkolakh narodnoy respubliki Bolgarii)

PERIODICAL: Fizika v Shkole, 1958, # 1, pp 44-48 (USSR)

ABSTRACT: In this article the author deals with the organization of
             the teaching of physics and astronomy in Bulgarian schools,
             with the preparation of school text-books, with the production
             of the necessary demonstration equipment in schools, etc.
             He finds that the Bulgarian method is similar to the Russian.
             Right after the war, Russian text-books were translated into
             the Bulgarian language. Demonstration apparatus, formerly of
             Soviet origin, are now produced in Bulgaria. In physics,
             emphasis is laid on the study of electricity and the appli-
             cation of theoretical teaching to practical questions, acquaint-
             ing pupils with the achievements of foreign scientists,
             stressing the superiority of Soviet scientists and technicians
             in many branches of science.

AVAILABLE: Library of Congress
Card 1/1

SHAPOSHNIKOV, K.Y., kand.tekhn.nauk; VOLKOV, I.N., inzh.

Radio dynamoscopy of operations of a sucker rod. Mekh.i avtom.
proizv. 14 no.11:36-38 N '60.   (MIRA 13:11)
    (Dynamometer)   (Radio in industry)   (Sucker rods)

S/112/59/000/014/045/085
A052/A001

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1959, No. 14, p. 188,
29916

AUTHORS: Shaposhnikov, K.Ya., Kovalenko, G.G., Zyablov, R.P.

TITLE: Radio Control System (For a Comprehensive Control of Industrial
                Objects)

PERIODICAL: Tr. Taganrogsk. radiotekhn. in-ta, 1958, No. 2, pp. 297-311

TEXT: A radio control system for oil wells developed by the Department
of Automation and Telemechanics of the Taganrog Radiomechanical Institute is
described. A distributing method of selection with a code consisting of sub-
carrier frequency pulses and intervals is adopted in the system. As synchronizing
pulses are used ones of 50 m sec duration with the same intervals between the
pulses; as selecting pulses and intervals are used ones prolonged up to 125 m
sec. Relays RKN and step finders ShI-11 and ShI-17 are applied in the circuits.
Frequency modulation is adopted in the radio channel. The carrier frequency is

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S/112/59/000/014/045/085
A052/A001

Radio Control System (For a Comprehensive Control of Industrial Objects)

43.7 Mc, the subcarrier frequencies are 860, 1,250, 2,000 and 3,000 cycles. The sensitivity of the radio receiver is 60 microvolts. Operating range is up to 20 km. The system is fed with 48-volt rectified current. There are 8 illustrations.

B.A.K.

Translator's note: This is the full translation of the original Russian abstract.

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3-58-4-13/34

Ways of Improving the Teaching Process.   Conditions for Scientific Re-
search Have Been Created

                    work.
                         A radiotelecontrol system has been installed in the oil
                    wells of the Kama Sea. The device can serve up to 15 wells
                    situated on 3 special bases separated from each other by
                    several kilometers. It can transmit and receive radio sig-
                    nals and carry out 12 different measurements (level, pres-
                    sure, etc.). The range of the device with directional an-
                    tennas is 20 km.
                         The system was registered at the Committee of Inventions
                    and Discoveries attached to the USSR Council of Ministers.
                    The Chair is at present preparing a radiotelecontrol device
                    for the entire oil industry and has itself the task to
                    establish a system of radiotelecontrol with semiconductors
                    and magnetic elements, and a rectangular hysteresis loop
                    for use in power systems and other branches of industry. It
                    also decided to design a device for the program control of
                    metal-cutting lathes.
ASSOCIATION: Taganrogskiy radiotekhnicheskiy institut (Taganrog Radio En-
                    gineering Institute)
AVAILABLE: Library of Congress
Card 2/2

22(1)

SOV/3-59-5-28/34

AUTHOR: Shaposhnikov, K. Ya., Candidate of Technical
             Sciences, Docent

TITLE: Introducing New Means of Automation Into Pro-
             duction

PERIODICAL: Vestnik vysshey shkoly, 1959, Nr 5, p 84 (USSR)

ABSTRACT: Introduction of complex automation and mechanization
             of technological processes in the petroleum industry
             may, within the next years, raise the labor produc-
             tivity of that industry by 30%. The first intervuz
             conference, recently convened in Baku, dealt with
             problems of an urgent development and introduction
             of new means of automation. Members of the conference
             —   representatives of the Azerbaydzhanskiy and Kuy-
             byshevskiy industrial'nyy institut (Azerbaydzhan
             and Kuybyshev Industrial Institutes), L'vovskiy poli-
             tekhnicheskiy (L'vov Polytechnical), Groznenskiy
Card 1/ 3   neftyanoy (Groznyy Petroleum) and Taganrog Radio

SOV/3-59-5-28/34

Introducing New Means of Automation Into Production

Engineering Institutes – and other technical wor-
kers discussed problems of automation of sinking
wells and of geophysical work in the petroleum in-
dustry, processes of recovery and the processing of
petroleum and gas. Candidate of Technical Sciences
S.B. Godzhayev (Azerbaydzhan Industrial Institute)
suggested that deep pumps with rods be replaced by
rope pumps, using the automat AG-40, developed at
the institute, as a basis. The new method promises
considerable saving of electric energy and will re-
duce the expenditure of ferrous metal. N.G. Tynnaya
a worker of the AS UkrSSR, devoted her address to
the system of dispatching distributed items. K.Ya.
Shaposhnikov, Docent of the Taganrog Radio Engi-
neering Institute, spoke on the complex system of
radiotelecontrol of the petroleum collecting points
and wells located in the sea. "Frequency Method of
Measuring Pressure in the Wells" was the subject
dealt with by the institute instructor A.I. Danilen-
ko. The total number of reports read was 54. The

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21354

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9.6190

S/118/60/000/011/010/014
A161/A133

AUTHORS: Shaposhnikov, K.Ya., Candidate of Technical Sciences, and
             Volkov, I.N., Engineer

TITLE: Deep-well shaft pump operation watched by radio-teledynamo-
             scope

PERIODICAL: Mekhanizatsiya i avtomatizatsiya proizvodstva, no. 11, 1960,
             36-38

TEXT: The existing tele-dynamometer systems of VNII, Groznenskiy
filial КБАТ (The Groznyy Branch of KBAT), NIPI Neftekhimavtomat and others
are using cables for communication, which is not suitable for off-shore
wells, or flooded fields, or fields with wells spaced far apart in line.
The Department of Automatics and Telemechanics of the Taganrogskiy radio-
tekhnicheskiy institut (Taganrog Radio Engineering Institute) has developed
a radio system that worked satisfactorily in tests carried out in the Kam-
skoye more (Kama sea), NPU "Polazna". An effort pickup is placed on the
top shelf of the pump jack balancer for measuring the effort on the polished
rod, and a way pickup on the rotation axis of the balancer. Both pickups

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Deep-well shaft pump operation ...

are low-frequency oscillators. The effort pickup converts the variations of effort on the polished rod into variations of the oscillator fundamental frequency, f_1, within a range of $\pm5\%$ of f_1; the way pickup converts the angular displacement of the balancer into variations f_2 of fundamental velocity, within $\pm5\%$ of f_2. Both these frequencies are fed to a reactive transmitter tube that modulates the carrier frequency F_1 emitted by the transmitter. The modulated signals are received by the receiver and demodulated. One of the output frequencies is proportional to the effort, and the other to the way. They are fed into frequency meter filters producing d.c. voltage on the output; the voltages are fed to deflectors of an electron-ray tube with a screen with strong afterglow. The ray traces on the screen a dynamogram (Fig.1) by which the pump operation can be judged. The dispatcher can connect the dynamoscope and any pickup couple to the radio channel, or switch them off. The effort pickup design is illustrated (Fig.5) and its electric circuit included (Fig.3). It is a crystal triode oscillator with a П -13Б (P-13B) triode, the fundamental frequency f_1 = 4170 cycles (varying $\pm5\%$). The frequency variation is produced by increasing and reducing the gap in the magnetic throttle circuit connected to oscillation circuit of the genera-

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A161/A133

Deep-well shaft pump operation ...

tor. Feedback and high resistance in the emitter circuit ensure stable
amplitude and frequency. As the outdoor temperature varies more than 30°C,
the circuit capacitance has to be adjusted once in three or six months. The
sensitivity and fundamental frequency can vary, the maximum sensitivity is
10 cycles/μ ; the output voltage is about 5 v. The electric part of the
pickup (Fig.5) is placed in a vertical steel cylinder (1) on a micarta plate
with the exception of the inductance coil (2) that is placed in the horizon-
tal cylinder. Rod 3, the other end of which is attached to the balancer
shelf, produces displacements (proportional to the effort) which affect the
magnetic circuit armature (4) varying the gap (5) and with it the inductance
in the resonance circuit and the oscillator frequency. The pickup is filled
with transformer oil. It is installed slightly off the rotation axis of
the balancer. The design of the way pickup differs from the effort pickup
by the magnetic circuit armature - it is a cam with very small eccentricity.
Its operation principle is identical with the effort pickup. The entire
radio-teledynamoscope is illustrated in a circuit diagram. It consists of
two frequency channels with outputs to vertical and horizontal oscilloscope
deflector plates; each channel consists of a filter and d.c. amplifier.
The current supply is from a stabilized feed unit. The input with L_2C_2

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S/118/60/000/011/010/014

Deep-well shaft pump operation ...   A161/A133

and L_1C_1 filters produces preliminary filtering of f_1 or f_2 signals from
the receiver output. The left triode, $\textit{Л}_1$, of each filter works as an ampli-
fier-debooster. The signal proceeds through phase-shifting circuit of three
equal links (C_3L_3; C_4L_4; C_5L_5) and $\textit{Л}_2$ tube. The circuit has linear charac-
teristics and a good selectivity and is used for the filtering of the fre-
quency bands as well as for frequency measurements. The signal from the
input and output of the phase-shifting circuit is fed to cathode followers
($\textit{Л}_3$) eliminating the effect of the phase meter input resistance, and from
the cathode followers to three-diode phase meter with output voltage direct-
ly proportional to the phase shift and the f_1 or f_2 frequency variation.
The voltage after the phase meter is amplified by a d.c. amplifier, and fed
to the oscilloscope deflectors. The dynamogram can have dimensions up to
120 x 120 mm. The system has been in operation since August 1959, as a com-
ponent in the overall radio-telemechanization system of the "Polazna" oil
field. There are 6 figures.

Card 4/7

GEGELASHVILI, V.K.; SHAPOSHNIKOV, L.D.

      Steel bushings and plungers. Stek.i ker. 19 no.9:32-33 S '62.
                                        (MIRA 15:9)
  1. Ordzhonikidzevskiy steklotarno-izolyatornyy zavod.
              (Glass factories--Equipment and supplies)

SiAr......iov, L. K.

"Classification of Birds on the Basis of Their Feeding."
Sub 9 Nov 51, Mosco Order of Lenin State U imeni M. V. Lomonosov.

Dissertations presented for science and engineering degrees
in Moscow during 1951.

SC: Sum. No. 480, 9 May 55

SHAPOSHNIKOV, L. K.

Snipes

Experiment in classifying birds (snipe order) according to their feeding habits, Dokl. An SSSR 84, No. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, _October_ 195$\mathbf{2}$, Uncl.

SHAPOSHNIKOV, L.K.; PAVLOV, Ye.N., akademik.

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USSR/ Meterorology

Card 1/1   Pub. 86 - 25/40

Authors   : Shaposhnikov, L. K. Cand. of Biolog. Sc., and Shchepinskiy, A. A.

Title   : Large hail

Periodical   : Priroda 3, page 109, Mar 1954

Abstract   : Brief reports are given on large hail storms (diameter of hail from 4 -
               7.5 cm), which took place in various parts of the USSR.

Institution : ....

Submitted   : ....

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USSR/Miscellaneous - Publications

Card 1/1   : Pub. 124 - 29/29

Authors   : Kabanov, N. E., and Shaposhnikov, L. K.

Title   : To report on scientific developments in agricultural publications

Periodical   : Vest. AN SSSR 6, 124-126, June 1954

Abstract   : Letter to editor urging the printing of news on scientific developments
               in the numerous agricultural and forrestry publications.

Institution : ...

Submitted   : ...

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Changes in sense organs of birds in connection with peculiarities
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1. Komissiya po zapovednikam pri Prezidiume Akademii nauk SSSR.
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                                                (Birds--Anatomy)

SHAPOSHNIKOV, L.K., kandidat biologicheskikh nauk.

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no.8:90-91 Ag. '55.   (MLRA 9:1)
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