Bipolar flow in a particular magnetic field

$$k = \left(\frac{a}{d_0}\right)^2 = \left[\frac{\sqrt{\pi}}{2} \quad \frac{\sqrt{n}}{s} \quad \frac{\Gamma\left(\frac{3n + 1}{4}\right)}{\Gamma\left(\frac{3n + 3}{4}\right)}\right]^2$$

is obtained for the ion beam, where d_0 is the parameter characterizing ion flow. When $s^2 \ll 1$, the asymptotic estimate

$$k \approx \frac{1}{s^2} \quad (s^2 \ll 1)$$

is obtained. Thus, the quality of the given accelerating gap can be made as great as desired. This fact, which seems paradoxical at first sight, is explained by the compensation of the volume charge of the ion beam by an electron-volume charge throughout the accelerating gap $(0 < x < a)$. Without respect to the fact that the ratio $\frac{n_-^0}{n_+^0} = s$ is small (with $s^2 \ll 1$), the actual electron density in the flow n_- remains comparable with the ion density n_+ throughout the accelerating gap a. In fact, when the asymptotic formulas for small values of a are used, it can be shown that

Card 2/3

8/658/62/000/010/003/008
A059/A126

Bipolar flow in a particular magnetic field

$$n_- = n_-^0 \bar{n}_- = \frac{n_+^0 s}{\sqrt{u - \varphi}} \approx \frac{n_+^0}{t^{s^2}(1 - t)},$$

$$n_+ = n_+^0 \frac{1}{\sqrt{1 - u}} = \frac{n_+^0}{t^{s^2}},$$

$$\frac{n_-}{n_+} = \frac{1}{1 - t}.$$

Hence, the ratio n_-/n_+ is, in the flow pattern given, independent of the parameter s and, therefore, n_- and n_+ are comparable values throughout the range $0 < x < a$. Chebyshev is mentioned. There are 9 figures and 1 table.

Card 3/3

DANILOV, V.N.

s/658/62/000/010/004/008
A059/A126

AUTHOR: Danilov, V.N.

TITLE: On the neutralization of an ion beam by electrons in a magnetic
             field

SOURCE: Moscow. Fiziko-tekhnicheskiy institut. Trudy, no. 10, 1962. Is-
             sledovaniya po fizike i radiotekhnike. 80 - 86

TEXT: With respect to the fact that the thermal velocities of electrons
were not taken into consideration, only qualitative conclusions can be made on the
behavior of neutralizing waves in the presence of a slowly decreasing weak mag-
netic field. In the presence of a magnetic field, a condition necessary for the
neutralization of an ion beam by electrons is

$$\frac{e}{m_- c}(A_{\infty} - A_g) < \sqrt{\frac{2e}{m_-}} \, u_0 , \tag{8}$$

where A_g is the magnetic potential of the neutralizing grid, m_- is the mass of an
electron, u_0 the characteristic potential difference, and A_{∞} the value to which

Card 1/2

On the neutralization of an ion beam by ....

$s/658/62/000/010/004/008$
$A059/A126$

the magnetic potential converges when $x \to 0$. The potential of the flow can be represented in the form:

$$u = \frac{1}{2} \frac{e}{m_e c^2} (A - A_g)^2 + \psi,$$

where ψ is the wave portion of the potential; the low-amplitude function $\psi_m \ll \ll u_0$. The neutralizing-wave length in the magnetic field is of the same order as the neutralizing-wave length obtained in the absence of the magnetic field. The amplitude of the neutralizing waves ψ_m is related to the wave amplitude φ_m in the absence of the magnetic field by the expression:

$$\psi_m = \varphi_m \left\{ 1 - \frac{\left[\frac{e}{m_e c} (A - A_g)\right]^2}{2 \frac{e}{m_e} u_0} \right\},$$

which slowly decreases with the passed distance in proportion to the decrease of the magnetic potential

$$A\big|_{x \to \infty} \xrightarrow{1} A_\infty \big| .$$

Card 2/2

ACCESSION NR: AR4014766   S/0058/63/000/012/E044/E044

SOURCE: RZh. Fizika, Abs. 12E379

AUTHORS: Danilov, V. N.; Slovikovskiy, G. F.

TITLE: Display of dislocation in crystals of dielectrics

CITED SOURCE: Izv. Kiyevsk. politekhn. in-ta, no. 40, 1962, 126-131

TOPIC TAGS: dielectric, dielectric crystals, dislocation, chemical etching, thermal etching, etching, etch pits, Cottrell atmosphere, excess vacancies

TRANSLATION: Dislocations in single crystals of KCl, NaCl, and LiF were displayed by chemical and thermal etching. It was observed that in incandescent crystals the regular form of the etch pits becomes violated; this phenomenon is attributed to the formation around the dislocations of Cottrell atmospheres made up of excess

Card 1/2

ACCESSION NR: AR4014766

vacancies. It is found that the dislocation density increases sharply following electrical breakdown of the dielectric. Yu. Fishman.

DATE ACQ: 24Jan64 .   SUB CODE: PH   ENCL: 00

Card 2/2

DANILOV, V.N.

Generalized Brillouin mode of electron streams. Radiotekh.
i elektron. 8 no.11:1892-1900 N '63.   (MIRA 17:1)

DANILOV, V.N.

Brillouin state of a two-dimensional electron flow. Radiotekh. i
elektron. 8 no.12:2046-2054 D '63.   (MIRA 16:12)

BENDERSKIY, L.S.; BYSTROV, A.M.; VASIL'YEV, N.V.; GORELIKOV, V.L.
DANILOV, V.N.; LIVINSKIY, Yu.L.; YERMOLAYEV, V.A.; KOVALOV, V.M.;
FEDOROV, V.V.

Producing quality casting of magnesium alloys by means of
liquid metal filtration. Lit. proizv. no.11: 37-39 N '64.
                                        (MIRA 18:8)

ACCESSION NR: AP4043673   S/0109/64/009/008/1399/1404

AUTHOR: Danilov, V. N.

TITLE: Near-critical behavior of a magnetron

SOURCE: Radiotekhnika i elektronika, v. 9, no. 8, 1964, 1399-1404

TOPIC TAGS: magnetron, magnetron theory

ABSTRACT: The behavior of a real static magnetron during cutoff is theoreti-
cally investigated. Neglecting the thermal velocities of electrons, the solutions
are considered as a function of the cutoff current which is regarded as a
continuous variable. A set of multistream and single-stream states corresponds
to the cutoff conditions in a magnetron; these states permit establishing a
connection between the pre-cutoff Braude solutions and post-cutoff Brillouin
solutions. The exact solutions for a plane-parallel magnetron are obtained. A
wide class of single-stream states of a 3-dimensional magnetron for small cutoff

Card 1/2

ACCESSION NR: AP4043673

currents is found. With a decreasing anode current, these undulating states change into a generalized Brillouin mode of motion of the electron cloud. Orig. art. has: 31 formulas.

ASSOCIATION: none

SUBMITTED: 11May63   ENCL: 00

SUB CODE: EC   NO REF SOV: 003   OTHER: 002

Card 2/2

L 13930-65   MT(l)/EPA(w)-2/EEC(t)/EEC(b)-2   Pab-10

ACCESSION NR: AP5000455   S/0109/64/009/012/2140/2146

AUTHOR: Danilov, V. N.

TITLE: Role of point canonical transformations in electron hydrodynamics

SOURCE: Radiotekhnika i elektronika, v. 9, no. 12, 1964, 2140-2146

TOPIC TAGS: electron hydrodynamics

ABSTRACT: By applying the Lagrange theorem to an electron beam, D. Gabor (Proc. IRE, 1945, 30, 11, 792) obtained a condition of noncircuital field of a generalized electron-beam impulse. The present article tries a similar approach to the general problem of nonrelativistic electron hydrodynamics, without meeting the Gabor condition but assuming that the field of electron-beam velocities is single-valued. The point canonical transformations (12, 13) with certain restrictions (8, 8') are applicable to any hydromechanics in which generalized forces acting upon a fluid particle having a fixed mass permit a generalized

Card 1/2

L 19030-65
ACCESSION NR: AP5000455

potential of these forces. Canonical equations of nonrelativistic electron hydro-
dynamics are set up, as well as a Hamilton-Jacobi equation for a nonrelativistic
electron beam. Approximate methods for estimating the intrinsic field of an
electron beam are indicated. Orig. art. has: 40 formulas.

ASSOCIATION: none

SUBMITTED: 17Jul63   ENCL: 00

SUB CODE: EC, NP   NO REF SOV: 005   OTHER: 001

Card 2/2

L 14431-66   EWT(m)/T/EWP(t)/EWP(z)/EWP(b)   IJP(c)   JD/EW

ACC NR: AP6002647   (N)   SOURCE CODE: UR/0021/65/000/011/1465/1467

AUTHOR: Danylov, V. N. -- Danilov, V. N.; Slovikovs'kyy, H. F. -- Slovikovskiy, G. F.; Shklyaruk, L. I.

ORG: Kiev Institute of Technology (Kyyirs'kyy tekhnologichnyy instytut); Kiev Polytechnic Institute (Kyyirs'kyy politekhnichnyy instytut)

TITLE: A study of metal regression after hardening

SOURCE: AN UkrRSR. Dopovidi, no. 11, 1965, 1465-1467

TOPIC TAGS: hardness, electric conductivity, annealing, silver, nickel

ABSTRACT: The authors investigated metal regression after hardening on technically pure nickel and 99.99% pure silver. Electrical resistivity and microhardness measurements are used to show that in the case of technically pure metals the regression curve after annealing hardening has at room temperature a maximum which is absent in pure and deformed metals. This microhardness maximum can be explained by interactions of frozen vacancies with dislocations. The maximum on the electrical conductivity regression curve can be explained

Card 1/2

L 14431-66

ACC NR: AP6002647

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by mutual interactions among vacancies and their interactions with impurities and dis-
locations. The paper was presented by Academician B. E. Paton, Member of AN UkrSSR.
Orig. art. has: 5 figures.

SUB CODE: 11 / SUBM DATE: 28May64 / ORIG REF: 003 / OTH REF: 007

Card 2/2

PRIDANTSEV, M.V.; KAZARNOVSKIY, D.S.; DANILOV, V.N.; VEKSER, N.A.;
        NIKONOV, A.G.; BYKOV, N.F.

    Isothermal treatment of rails. Stal' 25 no.4:358-361 Ap '65.
                                                    (MIRA 18:11)

DANILOV, V.N., doktor tekhnicheskikh nauk.

Problems and methods of investigation. Trudy TSNII MPS no.111:
5-8 '55.   (MLRA 9:5)
(Railroads--Rails)

DANILOV, V.N., doktor tekhnicheskikh nauk.

Cross sections of experimental rails. Trudy TSNII MPS no.111:
8-22 '55.   (MLRA 9:5)
                    (Railroads--Rails)

DANILOV, V.N., doktor tekhnicheskikh nauk.

Stress in experimental rails. Trudy TSNII MPS no.111:83-93 '55.
(MLRA 9:5)

(Railroads--Rails)

DANILOV, V.N., doktor tekhnicheskikh nauk.

Operational tests of experimental rails on the Tomsk Railroad.
Trudy TSNII MPS no.111:94-124 '55.   (MLhA 9:5)
(Railroads--Rails)

DANILOV, V.M., doktor tekhnicheskikh nauk.

General conclusions. Trudy TSNII MPS no.111: .87-190 '55.
(MLRA 9:5)

(Railroads--Rails)

BROMBERG, Ye.M., kandidat tekhnicheskikh nauk; VERIGO, M.F., professor;
DANILOV, V.N., professor; FRISHMAN, M.A., profe sor; SOROKIN, N.N.,
inzhener, redaktor; KHITROV, P.A., tekhnicheskiy redaktor

[Interrelation of track and railroad rolling stock] Vzaimodeistvie
puti i podvizhnogo sostava. Pod obshchei red. M.A.Frishmana. Moskva,
Gos.transp.zhel-dor. izd-vo, 1956. 279 p.   (MLRA 9:11)
              (Railroads--Track)

132-58-4-7069

Translation from: Referativnyy zhurnal Metallurgiya 1958 Nr 4 p 110 (USSR)

AUTHOR: Danilov, V. N.

TITLE: Groove Designing as One of the Means of Improving the Quality
            of Rails (Okalibrovke kak odin iz metodov uluchsheniya
            kachestva rel'sov)

PERIODICAL: V sb Ratsionalizatsiya proizvodstva prokata Moscow Pretizdat
            1956 pp 181-184

ABSTRACT: It is noted that the groove design for rails (R) affects the wear
            resistance and fatigue strength of the rails substantially as do
            alloying and heat treatment. Thus R rolled from the same bil-
            let but having head widths of 66 62 mm and 70-71 mm exhibit a
            σ_b 195 and 91 kg mm respectively. In service they show
            20-30 percent higher resistance to wear. R of the Azovstal'
            Plant made from a groove design providing a greater degree of
            reduction are superior to R produced at the KMK. It is asserted
            that a camber of R which constitutes a rolling and straight-
            ening defect having a magnitude of about 1 mm per running meter
            reduces service life by one-half or more. It is noted that in this
            country, full heat treatment of R is not yet practiced.   V. F.

Card 1-1

            1 Rolling mills   2 Rolls--Design   3 Rails--Applications

DANILOV, V.N., prefesser, dekter tekhnicheskikh nauk.

Werk en rail tracks ef the heavy type. Zhel.der.transp.37 ne.4:
59-65 Ap '56.   (MLRA 9:7)
                    (Railreads--Ra:ls)

AUTHOR: Danilov, V. N.   130-5-9/22

TITLE: The Quality of Railway Rails (O kachestvye zhelezno-
             dorozhnykh rel'sov).

PERIODICAL: "Metallurg" (Metallurgist)1957, No.5, pp.19 - 21,
             (USSR).

ABSTRACT: Type P-43, P-50 and P-65 rails, weighing 43, 50 and 65
             kg. respectively, are at present rolled for Soviet
             railways. Preparations are being made for rolling
             Type P-75 rails. In this article rail quality is con-
             sidered with special reference to the size of the rail.
             It is to be expected that heavier rails will have a
             longer service life, and calculations have shown that
             the additional initial expense is soon recouped. Safety
             is also increased with larger rails. Tests with P-65
             rails have shown that they wear by only 1.8 mm on the
             inside and by 1.1 mm on the outside of a sharp curve
             over which 170 million tons of freight have passed.
             For Type P-50 rails, rolled at the Kuznetskiy metall-
             urgical combine the number of rails rolled in 1949,

Card 1/3   1950, 1951, 1952, 1953, 1954 which had to be replaced
             per 100 km of track was 97.1, 67.6, 30.2, 26.2, 6.9
             and 3.5, respectively. A considerable increase in the

The Quality of Railway Rails. (Cont.)   130-5-9/22

number of rail breakages on increasing the mean values
of active loads can be explained by the fact that the
stresses produced under many wheels exceed the endur-
ance limit of the rail steel. Comparing the behaviour
of rails produced at different works, it is found that
great differences exist between works for some types
of rails but not others. Tests on a stretch of the
Tomsk line have shown that rails with a smaller head
(which cooled more rapidly) had a resistance to wear
25-35% greater than those with a broader head. This
indicates that intensification of cooling should im-
prove rail performance. It appears that the contact-
surface strength of rail heads is insufficient for
modern conditions. Laminations are frequently en-
countered, originating at zones rich in non-metallic
inclusions. (An editorial note points out that only
rarely are non-metallic inclusions found in the lam-
inated zones, the cause of lamination evidently being
excessive contact stresses). Cleaner metal is thus
Card 2/3   required for better rails. Defects are especially
liable to appear in rails in the winter months, as
shown by relative figures for different periods. Where

The Quality of Railway Rails. (Cont.)   130-5-9/22

cavities have been produced on the rail no deficiencies
in the metal have been observed, and this form of de-
fect is attributed to excessive residual deformations
of the metal for the available resistance to high con-
tact stresses: a higher yield point would help to
avoid this defect, but an experimental batch of rails
with hardened heads have not given good service. Dan-
gerous forms of defects have been very considerably
reduced in recent years by rail makers, but further
efforts on the detection of hairline cracks is necess-
ary.

ASSOCIATION: All-Union Research Institute of Rail Transport.
(Vsesoyuznyy nauchno-issledovatel'skiy institut
zheleznodorozhnogo transporta).

AVAILABLE:

Card 3/3

DANILOV, V.N., prof.

From the 18-pound rail to the R75. Put' i put.khoz. no.11:8-10
N '57.   (MIRA 10:11)
                                    (Railroads--Rails)

DANILOV, V.N., prof., doktor tekhn.nauk

Why is it impossible to increase only the rai. cap? Put' i put.khoz.
no.10:40-41 O '58.   (MIRA 11:12)
                (Railroads--Rails)

DANILOV, V.N., doktor tekhn.nauk prof.

Calculating the accumulation of residual deformations in
railroad beds. Vest. TSNII MPS [17] no.3:37-41 My '58.   (MIRA 11:6)
                (Railroads--Track)

DANILOV, V.N., doktor tekhn.nauk, prof.

Interaction of cars and switches in countercurrent traffic on side tracks. Vest.TSNII MPS 18   no.3:20-22 My '59.

(MIRA 12:8)

(Railroads--Cars) (Railroads--Switches)

DANILOV, V.N., doktor tekhn.nauk

Ways to lengthen the life of heavy rails. Zhel.dor.transp. 42
no.3:37-41 Mr '60.   (MIRA 13:6)
                    (Railroads--Rails)

DANILOV, Vladimir Nikolayevich, doktor tekhn. nauk; KOROLEV, K.P., prof.,
retsenzent; YAKOVLEV, V.F., kand. tekhn. nauk, retsenzent; SER-
GEYEVA, A.I., inzh., red.; BOBROVA, Ye.N., tekhn. red.

[Railroad track and its interaction with the rolling stock]
Zheleznodorozhnyi put' i ego vzaimodeistvie s podvizhnym sostavom.
Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshche-
niia, 1961. 110 p.   (MIRA 14:8)
                              (Railroads—Track)

DANILOV, V.N.

Methods for evaluating the resistance of rail steel to
destruction under the impact of repeated plastic deformations.
Zav.lab. 28 no.10:1248-1250 '62.   (MIRA 15:10)

1. Moskovskiy institut inzhenerov zheleznodoroshnogo transporta.
(Railroads—Rails)   (Steel—Testing)

BERNDT, N.V., inzh.; DANILOV, V.I., inzh.; SOKOLOVA, I.N., inzh.;
VASIL'YEVA, N.N., tekhn. red.

[Production and financial plan of a railroad division] Pro-
izvodstvenno-finansovyi plan otdeleniia zheleznoi dorogi.
Moskva, Transzheldorizdat, 1963. 146 p.   (MIRA 16:8)
(Railroads--Management)

DANILOV, V.I., inzh.

Design of a new 6D70 diesel for use in switch engines. Elek.
i tepl. tiaga 7 no.3:25 Mr '63.   (MIRA 16:6)

(Diesel locomotives)

DANILOV, V.N. dokter tekhn. nauk, prof., YAKOVLEV, V.F., kand. tekhn. nauk; SEMENOV I.I., inzh.

Dynamic characteristics of the rail support. Vest. TSNII MPS 23 no.7:16-17 '64. (MIRA 18:3)

1. Moskovskiy i Leningradskiy instituty inzhenerov zheleznodorozhnogo transporta

L 33950-65   EPA(s)-2/EWT(m)/EPF(n)-2/EWA(d)/EPR/EWP(t)/EWP(b) Ps-4/Pt-10/Pu-4
IJP(c)   MJW/JD/MW/JG

ACCESSION NR: AP4049500   S/0128/64/000/011/0037/0039

AUTHOR: Benderskiy, L. S. (Engineer); Bystrov, A. M.; Vasil'yev, N. V.;
Gorelikov, V. D.; Danilov, V. M.; Divinskiy, Yu. L.; Yermolayev, V. A. (Engineer);
Kosyakov, V. M.; Fedorov, V. V. (Engineer)

TITLE: Obtaining high-grade castings from magnesium alloys by filtering the
liquid metal

SOURCE: Liteynoye proizvodstvo, no. 11, 1964, 37-39

TOPIC TAGS: magnesium alloy, magnesium base alloy, foundry technology, alloy cast-
ing, metal filtration

ABSTRACT: A method of obtaining high-grade castings from magnesium alloys by
filtering the liquid metal was investigated. The effectiveness of filtering liquid
alloy ML5 and the effect of filtration on the chemical composition, mechanical
properties and structure of the alloy were determined. The investigations showed
that there are no flux and slag inclusions in the fractures. The author concludes
that defects from flux and slag inclusions are reduced by a factor of 12-15, and
final flow is reduced by a factor of 7-8. The optimum ratio between the total area
of grid openings and the total area of the cross section of the risers should be no
less than 5:1. The recommended height of the filter is 60-80mm. Orig. art. has: 7
Card 1/2 figures and 1 table.

DANILOV, V.N.

Behavior of a magnetron near its critical mode. Radiotekh. i elektron.
9 no.8:1399-1404 Ag '64.   (MIRA 17:10)

PANLOV, V.N.

Compensation of an ion space charge by electrons in a magnetic field.
Radiotekh. i elektron. 9 no.8 1530-1531 '63.   (MIRA 17:10)

DANILOV, V.P., kand. ist. nauk; GUDKCVA, N., red.; SEMENCVA, C.,
tekhn. red.

[Studies on the history of the collectivization of agri-
culture in the Union Republics] Ocherki istorii kollektivi-
zatsii sel'skogo khoziaistva v soiuznykh respublikakh. Mo-
skva, Gospolitizdat, 1963.   558 p.   (MIRA 16:11)
                        (Collective farms)

ACC NR: AP6036350   SOURCE CODE: UR/0301/66/000/004/0091/0093

AUTHORS: Arustamov, G. A.; Malyshko, I. M.; Danilov, V. P.; Shapovalov, P. F.

ORG: VNIINK, Kishinev

TITLE: New ultrasonic defectoscopes DUK-11IM and DUK-13IM for quality control of welded joints

SOURCE: Defektoskopiya, no. 4, 1966, 91-93

TOPIC TAGS: weld defect, ultrasonic inspection, ultrasonic flaw detection, defectoscope/ DUK-11IM defectoscope, DUK-13IM defectoscope

ABSTRACT: Defectoscope models DUK-11IM and DUK-13IM, developed by VNIINK for either portable or production operation in quality control of welded joints, are described. The model 11 is packaged in one unit (197 x 278 x 330 mm, 9.8 kg), while the model 13 consists of three interconnected units (the defectoscope - 110 x 233 x 174 mm, 4 kg; the power supply and the accumulator power supply - unspecified size). Both models operate at 1.8 and 2.5 Mc, have a minimum sensitivity of 2 mm^2 (equivalent area of defect), and have straight and slanted detector heads (to introduce waves at 30, 40, and 50°). The model 11 has a maximum penetration of 750 mm (in steel) and the model 13 has 600 mm. Both are equipped with electronic depth meters to pinpoint the defect coordinates. Schematic diagrams of the operational blocks of the defectoscopes are presented, and prices of the defectoscopes are given. Orig. art. has: 4 figures and 1 table.

SUB CODE: 13/   SUBM DATE: 14Mar66

Card 1/1   UDC: 620.179.16

DANILCV, V. P.

DANILCV, V. P. "Stem Nematode in Strawberries, " Sad i Ogorod, nr. 9, 1949
rr. 38-39. 90 Sal3

SC: SIRA -SI - 90-53, 15 Dec. 1953

DANILOV, V. P.

Strawberries - Diseases and Pests

Control of the strawberry stem eelworm, Sad i og., nc. 7, 1952.

9. **Monthly List of Russian Accessions**, Library of Congress, _____1953. Unclassified.

U. S.

... & ... ... Harmful Insects
of ...es.

... (...-Biology 2 7072

... : Beasley, V.P.

... : Not given

... : A New Method ... control ... sta... ...n
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... : kh. Kubani... Institu... Inst., 1962, No.1,
... ...

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57

AMINOVA, R.Kh., kand ist nauk; TETENEVA .G., kand. ist nauk; ALIMOV, I.A ; DMITRIYEV, G.L.; DZHAMALOV, .B., doktor ekon. nauk. redaktor , DZHURAYEVA, T , kand ist nauk, red., ATFENYUK, S.Ya , red ; DANILOV V.P , glav. red.; BELOV, G.A., red , GRIGOR YAN, I L., red ; IBRAGIMOV, Z.I., red ; IVNITSKIY, N.A. red ; IL YASOV, S.I., red.; KAKABAYEV, S.D., red ; KAMENSKAYA, N.V , red ; KRAYEV, M.A red.; KULIYEV, O.K., red ; MAKHARADZE, N.B.. red ; OBICHKIN, G.D., red.; PLESHAKOV, S T , red.; RADZHAP V, Z.I., red.; SELEZNEV, M.S., red.; TURSUNBAYEV, A.B. red., FEDOROV, A.G red ; SHEPELEVA, T.V , red ; PATLAKH, B. red.; MASHARIPOVA. D., red.; BULATOVA, R., red., GOR KOVAYA, Z.P ; tekhn red.; KARABAYEVA Kh.U , tekhn. red.

[Socialist reorganization of agriculture in Uzbekistan] Sotsialisticheskoe pereustroistvo sel skogo khoziaistva v Uz- bekistane, 1917-1926 gg Pod red E.B.Dzhamalova. Tashkent, Izd-vo Akad nauk UzSSR. Vol.1. 1962. 792 p   (MIRA 16:5)

1. Akademiya nauk Uzbekskoy SSR. Tashkent Institut istorii i arkheologii.
                    (Uzbekistan--Agriculture)

V, V.I.

Controlling fr.. t a w.. l ies. ser .. .. Ku.. .
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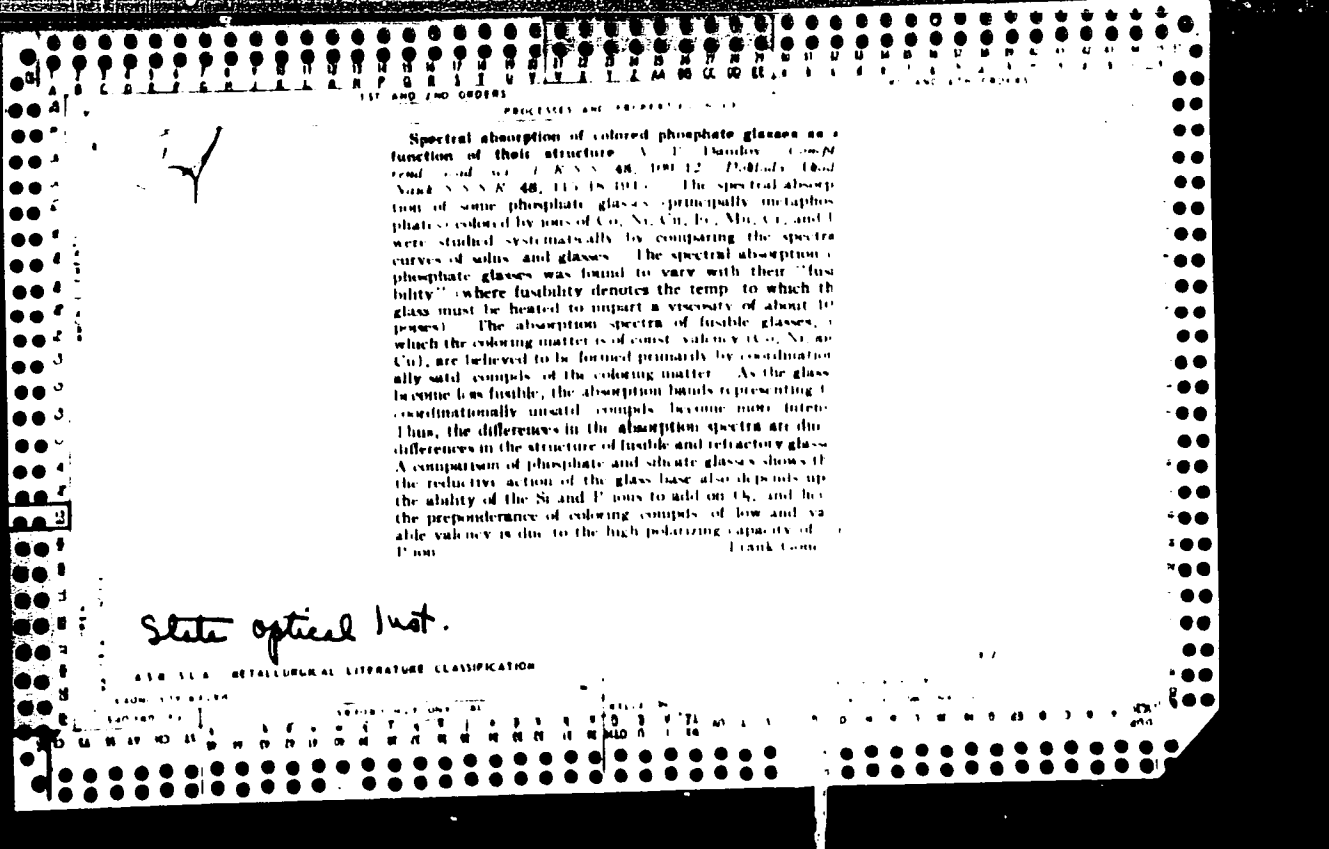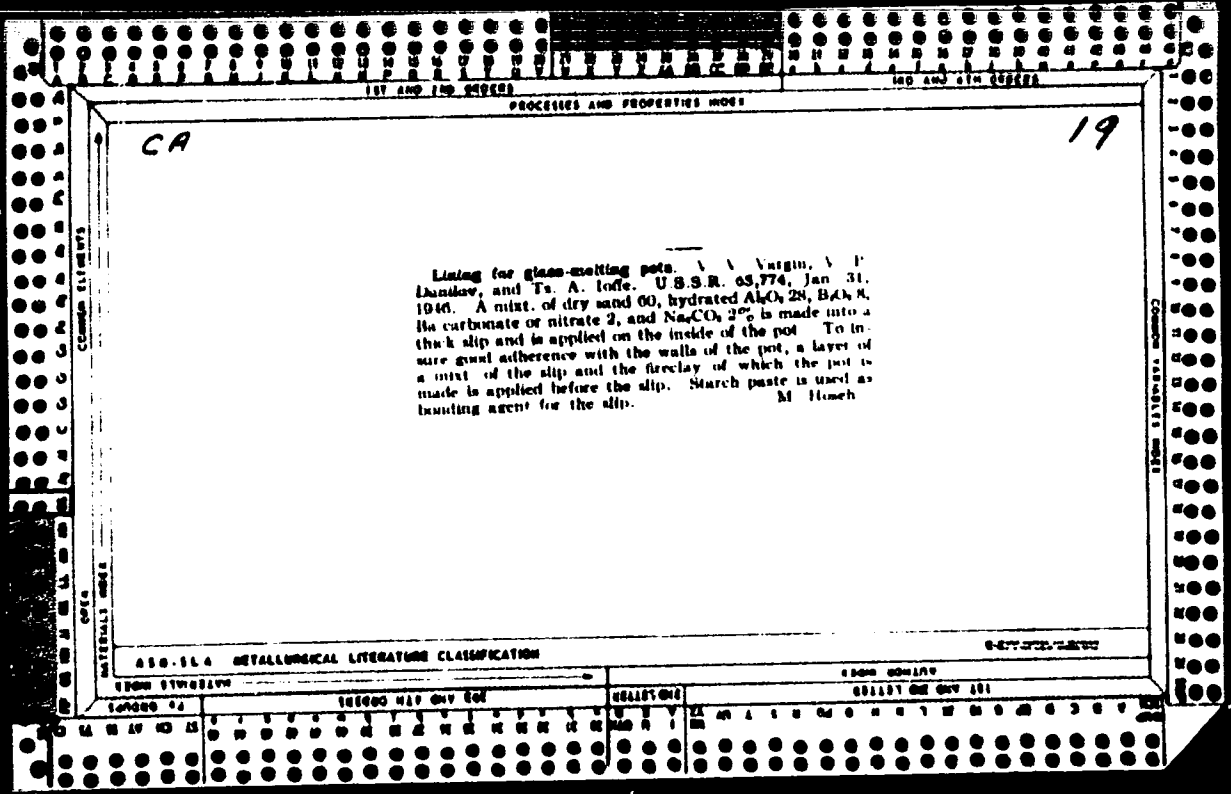.. ko .. o kr .. y .. .

A.C.S.

Uviol borate glass for bactericidal lamps. V. P. Dani-
lov and Z. A. Jureva. Compt. Rend. Acad. Sci. U.R.S.S.
39 [8] 214-30 (1943).—The characteristic property of a
bactericidal lamp is its transmission of the Hg line of wave
length 254 mµ. Such glass should at the same time al-
most entirely absorb the shorter waves of the spectrum be-
cause they adversely affect human organism. The purpose
of this investigation was to find the composition of such
glass that could be prepared from materials requiring no
special preparation. This eliminated all the silicate and
borosilicate uviol glasses, because these require a highly
purified sand, and also phosphate glass known its
fluence of ultraviolet irradiation, phosphate glass
transparency and becomes unfit for use. Furthermore,
many of the phosphate glasses can be joined neither to
metal used in making the lamp nor to nonphosphate glass.
The raw material used in preparing the desired glass was
H_2O, $BaCO_3$, hydrated Al_2O_3, and Na_2CO_3. The raw ma-
terial contained a minimum of Fe_2O_3, which did not exceed
0.01%. In compounding the glass it was required that its
coefficient of expansion differ only slightly from that of the
lead-in and that the glass be sufficiently chemically re-
sistant when used in closed rooms. Two compositions
were finally chosen, (1) B_2O_3 85, Al_2O_3 17.5, BaO 20.0, and
Na_2O 7.5%, and (2) B_2O_3 60, Al_2O_3 18.0, and BaO 25.0%,
Na_2O 7.5%. The glasses were much alike. The fusion was carried out
at 1140°, both were "long glasses" and were worked at
850° to 900°. They crystallized slower than Fourcault
window glass. The glasses studied, including these two,
show a tendency to cloud when worked in a glass blower's
burner. The clouding is apparently due to gases dissolved
in the glass. This is particularly bothersome in making
the ends of the bulbs. It can be overcome by using for
the ends glass No. 23 from the Druzhnaya Gorka plant.

Of the two glasses chosen, the first is somewhat more
chemically resistant, but the second is better handled in a
burner. The effect of B_2O_3 was studied by varying its
content from 40 to 60%. Raising the B_2O_3 content lowers
the chemical resistance of the glass but has a favorable
effect on the other properties. It extends the softening
interval, diminishes the tendency of the glass to crystallize,
and increases the resistance to "solarisation." In addi-
tion, B_2O_3 is relatively free of Fe_2O_3, and if it should be
contaminated with the Fe_2O_3, this can be easily removed.
Raising the B_2O_3 content above 60% is inadvisable be-
cause the chemical resistance of the glass drops consider-
ably. The BaO content was varied from 20 to 40%.
BaO raises the chemical resistance. It was chosen in
preference to other alkaline earth oxides since it is least
contaminated with Fe_2O_3. Increasing the BaO content
beyond 40% renders the glass too "short." Al_2O_3 is in-
corporated in the glass to increase its chemical resistance
and extend its softening interval. Increasing the Al_2O_3
content above 20% increases the tendency of the glass to
crystallize. In addition, during the fusion of mixes rich
in Al_2O_3 a pellicle is formed on the surface of the melt which
is apparently a high melting boro-aluminate glass. It is
preferable to use hydrated Al_2O_3 in the batch since Al_2O_3
dissolves with difficulty in B_2O_3. Al_2O_3 also frequently
contains Fe_2O_3, which is hard to remove. The primary
purpose of Na_2O is to inhibit crystallisation in glasses con-
taining considerable quantities of Al_2O_3. The optimum
Na_2O content does not exceed 7.5%. In industrial prac-
tice, a suitable lining must be provided for the melting pots
to prevent Fe from the lining from contaminating the
glass. Samples of glass tested in lamps transmitted 3%
of λ = 254 mµ, whereas tested samples of U.S. lamps trans-
mitted only 30%.   M Ho

Colored Glass Lab, State Optical Inst.

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES

Spectral absorption of colored phosphate glasses as a function of their structure. V. P. Barzakovskii. Comp. rend. acad. sci. U.R.S.S. 48, 1941 12. *Doklady Akad. Nauk S.S.S.R.* 48, 115-18 1945. The spectral absorption of some phosphate glasses, principally metaphosphates colored by ions of Co, Ni, Cu, Fe, Mn, Cr, and U were studied systematically by comparing the spectral absorption curves of solns. and glasses. The spectral absorption of phosphate glasses was found to vary with their "fusibility" where fusibility denotes the temp. to which the glass must be heated to impart a viscosity of about 10 poises. The absorption spectra of fusible glasses, in which the coloring matter is of const. valency (Co, Ni and Cu), are believed to be formed primarily by coordinationally satd. compds. of the coloring matter. As the glass becomes less fusible, the absorption bands representing the coordinationally unsatd. compds. become more intense. Thus, the differences in the absorption spectra are due to differences in the structure of fusible and refractory glasses. A comparison of phosphate and silicate glasses shows that the reductive action of the glass base also depends upon the ability of the Si and P ions to add on O, and that the preponderance of coloring compds. of low and variable valency is due to the high polarizing capacity of P ion. Frank Getz

State optical Inst.

ASM SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

19

Lining for glass-melting pots. \ \ Vargin, \ P. Danilov, and Ts. A. Ioffe. U.S.S.R. 63,774, Jan 31. 1946. A mixt. of dry sand 60, hydrated Al_2O_3 28, $BaCl_2$ 8, Ba carbonate or nitrate 2, and Na_2CO_3 2% is made into a thick slip and is applied on the inside of the pot. To insure good adherence with the walls of the pot, a layer of a mixt. of the slip and the fireclay of which the pot is made is applied before the slip. Starch paste is used as bonding agent for the slip.   M Hosch

DANT'OV, V. P.

PA 60T110

USSR/Physics
Spectra, Absorption
Glass

Dec 1947

"Law Concerning the Change of the Absorption Spectra of Glasses Colored With Neodymium," V. P. Danilov, State Optical Inst, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVIII, No 7

Singularity of spectral properties in a given case is that, in distinction from other inorganic dyes, neodymium compounds in glass produce narrow strips of absorption. This property is especially valuable for theoretical study since, with narrow absorption strips, it becomes possible to observe

USSR/Physics (Contd)

Dec 1947

smallest changes resulting from changes in composition of medium surrounding ion of the dye. Continued research on use of neodymium as an "index" of structural changes in glass. Submitted by Academician I. I. Chernyaev, 26 Apr 1947.

60T110

SO: Monthly List of Russian Accessions, Library of Congress, _____1953, Uncl.

DANILOV, VP

USSR/Physics-Luminiscence, for defectoscopy

FD-1235

Card 1/1   Pub. 153-19/22

Author   : Vaynberg, B. I., Danilov, V. P. and Pekerman F. M.

Title   : Luminescent lamp for analysis of luminiscence

Periodical   : Zhur. tekh. fiz., 24, 1707-1710, Sep 1954

Abstract   : A source of luminiscence excitation for the analysis of materials is described. The source consists of a luminescent vacuum tube made of glass transparent in the near ultraviolet up to 360 millimicrons and absorbing in visual light (glass UFS-4). This lamp is considered advantageous in comparison with other. Indebted to P. P. Feofilov and S. I. Levikov. Three references including one US.

Institution   :

Submitted   : January 1954

DANILOV, V.P.

Spectral absorption of some simple-composition glasses subjected
to gamma-ray and X-ray radiation. Opt.-mekh. prom. 25 no. 2:45-47
F '58.   (MIRA 11:7)

(Glass research)
(Absorption spectra)
(Nuclear physics)

S/081/6?, ULC/010/010/085
B138/B101

AUTHORS: L......tova, Ye. A., Bereznikova, I. A., P......va, N. I.,
             Den.l v, V. P.

TITLE: C.........on st.t.es of calcium, stron..u. .nd .aris. uran.te
             prec.p.t.t....., ormed at i.fferent pH v ..es of the .olut.on

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 10, 19.2, ..?, abstract
             10V17 (Sb. "Issled. v obl. khimii urana". M., Mosk. un-t, 1.6.
             17. - 1.1)

TEXT: The composition of Ca, Sr and Ba uran.tes f.rm.d at different .olu-
t.on pH values has been investigated. By means of X-ray .iffract.. an..l-
ysis it was found that only a few hydrolysed mono-uranate and di-uran.t.
of Ca could be precipitated from the solution. When sediments got at pH
..5 - 6.6 were calcined a solid solution was formed on U_3C_8 base. Chemical
analysis of the precipitated Sr uranates obtained at pH values corresponding
to inflection points on the potentiometric titration curves showed the
formation of mono-, di-, tri- and hexa-uranates of Sr. Most of them were
heavily hydrolysed. The composition of the precipitated uranates depends
Card 1/2

Composition studies of calcium, ...

S/081/62/000/010/010/085
3138/3101

on the order in which the reagent solutions are mixed. If a $UO_2(NO_3)_2$ solution is poured into an alkaline solution, orange-colored and partially hydrolysed mono-uranates (Sr) or di-uranates (Ca, Ba) are formed. If the alkali is added to a $UO_2(NO_3)_2$ solution the precipitates are yellow and the more acid uranates are formed. The method of precipitating U in the form of the Ca uranate was checked by the action of the alkali in the presence of $CaCl_2$. Using radioactive isotopes Ca^{45} and Na^{24} it was found that if NaOH was introduced into the reaction mixture the Ca uranate is formed, the Na^+ ions being only absorbed by the precipitate. In the presence of $CaCl_2$ the uranium is precipitated more fully. [Abstracter's note: Complete translation.]

Card 2/2

ARUTYUNYAN, Yuriy Vartanovich; DANILOV, V.P., otv.red.; KIND, T.B.,
     red.izd-va; DOROKHINA, I.N., tekhn.red.

[Operators of agricultural machinery in the U.S.S.R. from 1929 to
1957: training personnel with broad qualifications] Mekhaniza-
tory sel'skogo khoziaistva SSSR v 1929-1957 gg; formirovanie kadrov
massovykh kvalifikatsii. Moskva, Izd-vo Akad.nauk SSSR, 1960.
339 p.   (MIRA 13:3)
                    (Farm mechanization)

BORISOV, Yuriy Stepanovich; DANILOV, V.P., otv.red.; KIND, T.B., red.
izd-va; VOLKOVA, V.V., tekhn.red.

[Preparation of Soviet agricultural specialists in the
reconstruction period] Podgotovka proizvodstvennykh kadrov
sel'skogo khoziaistva SSSR v rekonstruktivnyi period. Moskva,
Izd-vo Akad.nauk SSSR, 1960. 286 p.   (MIRA 14:2)
   (Agriculture, Cooperative) (Agricultural education)

KIM, M.P., glav. red.; ARUTYUNYAN, Yu.V., red.; GUSEV, K.V., red.;
DANILOV, V.P., red p SHARAPOV, G.V , red.; IVANOVA, R.S.,
red.; KACHURINA, A.V., red.; RATNER, V.I., red.; NAUMOV,
K.M., tekhn. red.

[Alliance between the working class and peasantry at the
present-day stage]Soiuz rabochego klassa i krest'ianstva
na sovremennom etape. Moskva, Izd-vo VPSh i AON, 1962.
358 p.   (MIRA 15:9)

1. Moscow. Akademiya obshchestvennykh nauk.
                    (Agricultural policy)

TKACHENKO, N.N.; CHIZHOV, S.T.; MESHCHEROV, E.T.; TKACHEV, R.Ya.;
DANILOV, V.P.; KURZINA, I.A., red.; PROKOF'YEVA, L.M.,
tekhn. red.

[Cucumbers] Ogurtsy. [B]N.N.Tkachenko i dr.   Moskva, Sel'-
khozizdat, 1963.   205 p.   (MIRA 16:5)
                        (Cucumbers)

DANILOV, Viktor Petrovich; KIM, M.P., d-r istoricheskikh nauk, otvetstvennyy
red.; IVNITSKIY, N.A., red. izd-va; KASHINA, P.S., tekhn.red.;
NOVICHKOVA, I.D., tekhn.red.

[Creating the material and technical basis for collective
farming in the U.S.S.R.] Sozdanie material'no-tekhnicheskikh
predposylok kollektivizatsii sel'skogo khoziaistva v SSSR.
Moskva, Izd-vo Akad.nauk SSSR, 1957. 451 p.   (MIRA 11:1)
                       (Collective farms)

S/181 62/004/005/045/055
B159/B162

AUTHORS: Deryugin, I. A., Danilov, V. N., and Danilov, V. V.

TITLE: Visualization of dislocations in hexagonal ferrite single
              crystals

PERIODICAL: Fizika tverdogo tela, v. 4, no. 5, 1962, 1364-66

TEXT: The effect of impurities in ferromagnetic resonance in ferrite
single crystals of garnet structure has already been investigated by
P. Dillon and J. Nielsen (Phys. Rev. Lett. 3, 3, 1959, and 120, 105, 1960),
it fewer data are available for the effect of crystal lattice defects,
as there is no suitable method of visualizing these. The present authors
investigated the (001) faces of $BaFe_{12}O_{19}$ and Fe_2O_3 single crystals,
grown from an emulsification of ferrite-forming components in PbO.
Specimens of about 10 mm size were washed in H_2SO_4 and then etched in
an microfluoric acid for 40 hrs. An MMM-8 (MMM-8) metallographic
microscope of 20th-fold magnification was used for observation and
photographing. The etch pits on the micrograph of the Fe_2O_3 crystal
Card 1/2

Visualization of dislocations ...

... of ... shape and randomly distributed over the whole area of the ... ... also shows hexagonal etch ..., but often these ... along ... boundaries. The hexagonal shape of the etch pits indicates that they are positioned where "pure" dislocations (without impurities) emerge at the surface. For cubic crystals (ferromagnetic ... and yttrium garnet) no suitable corrosive to visualize dislocations has hitherto been discovered. There are 5 figures.

ASSOCIATION: Kiyevskiy gosudarstvennyy universitet im. T. G. Shevchenko
                (Kiyev State University imeni T. G. Shevchenko)

SUBMITTED: January 23, 1962

NEDESHEVA, Lyudmila Pavlovna; DANILOV, V.V., red.; SHURYGINA, A.I.,
     red. izd-va; ROMANOVA, V.V., tekhn. red.

     [Tables for calculating distances measured with DNT, DNT-2,
     and DNB-2 range finding attachments] Tablitsy dlia vychisle-
     niia rasstoianii, izmerennykh dal'nomernymi nasadkami DNT,
     DNT-2 i DNB-2. Moskva, Gosgeoltekhizdat, 1962. 57 p.
                                              (MIRA 16:5)
               (Distances--Measurement)

news.

ANTIMONY, ALEXANDER M, V.V.

Effect of crystal defects on the width of the paramagnetic resonance line in ferrites. Fiz. tver. tel. 7 no. 11 3562-3590 D '65   (MIRA 19:1)

1. Leningradskiy gosudarstvennyy universitet imeni

DANILOV, I. V.   and   KRASOVSKIY, F. N.

"Handbook on Higher Geodesy", Part I, Nos. 1/2, M., 1941-42,

DANILOV, V.V., KRASOVSKIY, F.N., and CHEBOTAREV, A.S.

Course in Higher Geodesy, Parts I and II. Geodezizdat, Moscow (1938-1939)

1. BE:...SEV, V. V., DANILOV, V. V., Authors

2. USSR (600

"Proceedings of the Conference on Methods of Study of Movements and
Deformations of the Earth's Crust. ... Moscow 1964. ... Edited by Professor
V. V. Beousev and V. V. Danilov. Geophtical Press, Moscow, ...
263 pages with illustrations. (Academy of Sciences ... , Geophysical
Institute AGK).

4. Meteorlogiya i Gidrologiya, No. ..., ...
 Report P-2551. 30 et 62

DANILOV, V. V.

Danilov, V. V. - "Feodosiy Nikolayevich Krasovskiy", (The head of an engineer,
1878-1948), Sbornik nauchn.-tekhn. i proizvod. statey po geod., kartografii,
topografii, aeros"yemke i gravimetrii, Issue 2, 19__, p. 19-__, - Bibliog:
"A list of published works of Professor Doctor F. N. Krasovskiy", 103 items.

Tsa-hill, 17 July 49, (Letopis' Zhurnal'nykh Statey, No. 17, 1949).

DANILOV, . .

Danilov, .. /. - "Errors in transfer: ... ...
'tree' polynom... ... processes", ...
... ...-vil, k... ...fil, topo... ...fil, ...,
19.., p. 7..-. .

... t-4110, 1' July .., (L.t .is ... ... , N.. 1.., 1....

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or... tal us is ... ... art. 'h ... ...quake i..
...e ... ...s r...t, ...n,   e... er ., l... ... ...
.o 12, (1...): ...1. 1...u.

DANILOV, V.V.

[Precise polygonometry] Tochnaia poligonometriia. 2.ispr.izd. M,
Geodezizdat, 1953. 230 p.   (MLRA 8:5)
        (Geodesy) (Polygons)

DANILOV, V.V.

Chelyabinsk mines in 1919-1921. Ugol' 33 no.8:46-48 Ag '58.
(MIRA 12:1)

(Chelyabinsk Province—Coal mines and mining)

BILEMAN, N.N.; DANILOV, V.V.

Calculating the yield of linear intakes of underground waters. Vod.
i san. tekh. no.1:9-11 Ja '61.   (MIRA 14:9)

(Water-supply engineering)

BULANOV, Aleksandr Ivanovich; DANILOV, Vladimir Vladimirovich; ZAKATOV,
Petr Sergeyevich; YERMOLOV, Boris Pavlovich[deceased];
PAVLOV,Vitaliy Fedorovich; TROITSKIY, Boris Vladimirovich;
SLOBODCHIKOVA, D.A., red.; VASIL'YEVA, V.I., red. izd-va;
ROMANOVA,V.V., tekhn. red.

[Geodesy]Geodeziia. [By]A.I.Bulanov i dr. Pod obshchei red.
D.A.Slobodchikova. Moskva, Izd-vo geodez. lit-ry. Pt.1. 1962
315 p.   (MIRA 16:1)
            (Geodesy)

KOCHERGIN, S.M., VYACHESLEVA, G.Ya.; ... nauk, retsenzent; DANILOVA, ..., red.

[Electrodeposition of metals in ultrasonic fields. Elektrosazhdenie metallov v ul'trazvukovom pole. Moskvu, Vysshaia shkola, 1964.

DANILOV, V.V.

Universal attachment. Mashinostr itel no.8:24   Ag '62.

(MIRA 17:10)

DANILOV, V.V.

Device for checking the parallelism of planes. Mashinostroitel'
no.12:14 D '64.   (MIRA 18:2)

L 32677-66

ACC NR: AT6013442   (N., A)   SOURCE CODE: UR/0000/65/000/000/0075/0081

AUTHORS: Levchenko, B. A.; Danilov, V. V.; Shekhovtsov, A. F.; Petikov, N. F.

ORG: Khar'kov Polytechnic Institute (Khar'khovskiy politekhnicheskiy institut)

TITLE: Effect of the water flow character in a cooling system of a tractor engine block on the temperature field of its lower plate

SOURCE: Dvigateli vnutrennego sgoraniya (Internal combustion engines), no. 1, Kharkov, Izd-vo Khar'k. univ., 1965, 75-81

TOPIC TAGS: diesel engine, thermodynamics, cooling system, engine cooling/ SMD-7 engine, SMD-14 engine

ABSTRACT: A transparent model of the block and cylinder head of an SMD engine was created for the purpose of establishing the nature of the flow of water in the cooling system. The head parts and water jacket of the engine were designed to be separable. This permitted the study of the effect of the construction of elements of the water jacket on the thermal condition of the block. A combined method of visual and photographic observations was used in studying the nature of the water flow. Thermometric instrumentation and methods were those of B. A. Levchenko (Temperaturnoye sostayaniye golovki dvigatelya SMD-7. Trudy KhPI, t. 40, vyp. 2, Izd-vo KhGU, 1962). System loads were defined in terms of the water circulation cycling rate. Test

Card 1/2

L 32677-66

ACC NR: AT6013442   0

measurements included the variation of the thermal state of the engine block and
cylinder head with the system load, temperature drop along the perimeter of the
valve seats, as well as the block temperature variation as a function of the
efficiency of the water pump. Three diesel engines, the S.D-7 test model, an SMD-7
production model, and an SMD-14 model, are compared in a relatively wide operating
range. Certain recommendations for improving cooling system effectiveness are
included. Orig. art. has: 5 figures, 1 table, and 2 equations.

SUB CODE: 21/   SUBM DATE: 20Apr65/   ORIG REF: 001

Card 2/2 PLG

L 36208-65   EWT(1)/EPA(s)-2/EEC(t)/EEC(b)-2   Pt-10/Pi-4   IJP(c)   GG
ACCESSION NR: AP5007104   S/0109/65/010/003/0558/0559

AUTHOR: Deryugin, I. A.; Danilov, V. V.

TITLE: Induction method of recording the ferromagnetic resonance absorption

SOURCE: Radiotekhnika i elektronika, v. 10, no. 3, 1965, 558-559

TOPIC TAGS: ferromagnetic resonance

ABSTRACT: The induction method recently introduced for measuring the width of
the ferromagnetic-resonance-absorption line (J. I. Masters, et al., IRE Trans.,
1960, MTT-8, 5, 565) may also be employed for obtaining the entire curve of
ferromagnetic resonance absorption. By recording the power of the signal
induced in the receiving loop as a function of the external magnetic field, the
curve $\chi_x''(H)$ can be obtained. An improved measurement hookup is illustrated.
Orig. art. has: 1 figure and 5 formulas.

ASSOCIATION: none

SUBMITTED: 23Mar64   ENCL: 00   SUB CODE: EC

NO REF SOV: 002   OTHER: 001

Card 1/1 JD

L 14144-66   EWT(1)/EWT(m)/T/EWP(t)/EWP(b)   IJP(c)   JD/WW/GG

ACC NR: AP6000859   SOURCE CODE: UR/0181/65/007/012/3588/3590

AUTHORS: Deryugin, I. A.; Danilov, V. V.

4/

ORG: Kiev State University im. T. G. Shevchenko (Kiyevskiy gosudarstvenyy universitet)

TITLE: Influence of crystal defects on the line width of ferro-magnetic resonance in ferrites

SOURCE: Fizika tverdogo tela, v. 7, no. 12, 1965, 3588-3590

TOPIC TAGS: crystal defect, ferromagnetic resonance, ferrite, line width, surface, property

ABSTRACT: The purpose of the investigation was to check on the hypothesis that mechanical finishing of crystals (grinding and polishing) leads to noticeable deformation of the near-surface layer, to the depth of 10 μ and more, so that the contribution made to the ferromagnetic resonance line width ΔH due to surface inhomogeneities is brought about not only by the roughness of the finish, but also by defects in the distorted surface layer. To check on this hypothesis

Card   1/2

2

L 14144-66

ACC NR: AP6000859   O

the authors investigated the line widths of ferromagnetic resonance
of spherical samples of yttrium iron garnet with different degrees of
surface finish, before and after annealing at 800C for one hour. The
measurements were made in the 3 cm band at room temperature on samples
0.4 -- 0.6 mm in diameter. The results showed that ΔH is determined
not only by the geometry of the surface roughness but also by defects
under the surface. Annealing decreases the line width of polishing
samples by 15 -- 20 per cent. The anisotropy of ΔH for coarsely fin-
ished samples is determined by the contribution of the disoriented
fragments on the surface of the sample. Defects produced as a result
of grinding do not exert a decisive influence on the anisotropy of
ΔH. ΔH increased in samples annealed after grinding. The decrease in
the line width observed after annealing of polished samples shows that
the structure of the surface layer, which was weakly deformed during
the polishing process, has improved. Orig. art. has: 3 figures and
1 formula.

SUB CODE: 20/ SUBM DATE: 06May65/ ORIG REF: 005/ OTH REF: 001

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     FW

Card   2/2

L 34098-66   EWT(m)/EWP(w)/T/EWP(t)/ETI   IJP(c)   JD/JG/GD

ACC NR: AT6013831   SOURCE CODE: UR/0000/65/000/000/0065/0069

AUTHOR: Deryugin, I. A.; Danilov, V. V.

ORG: Kiev State University im. T. G. Shevchenko (Kiyevskiy gosudarstvennyy universitet)

TITLE: Ferromagnetic resonance study of defects arising in ferrite single crystals during mechanical and thermal treatments

SOURCE: AN UkrSSR. Issledovaniye nesovershenstv kristallicheskogo stroyeniya (Study of imperfections in crystal structure). Kiev, Naukova dumka 1965, 65-69

TOPIC TAGS: ferrite, ferromagnetic resonance, grinding, metal polishing, ANNEALING, METAL SURFACE, CRYSTAL DEFECT

ABSTRACT: A ferromagnetic resonance study of yttrium ferrite garnet spheres (0.4—0.6 mm in diameter) subjected to grinding, polishing, and annealing showed that in specimens treated with abrasives having a grain size of 60 and 40 μ the thickness of the distorted surface layer is increased by annealing. This result agrees with data obtained by other methods both for ionic crystals and metals. In polished specimens (abrasive with grain size less than 14μ), the thickness of the distorted surface layer decreases as a result of annealing. Thus, defects of the surface layer are thermally less stable during polishing than during grinding. Repeated quenching causes an increase in Δ H (line width of ferromagnetic resonance absorption), due to the development of fatigue cracks on the surface of the specimens. This effect

Card 1/2

L 34098-66
ACC NR: AT6013831   O

is most manifest in coarsely finished spheres at high quenching temperatures. Orig. art.
has: 2 figures and 2 formulas.

SUB CODE: 11   / SUBM DATE: 21Nov64 / ORIG REF: 005 / OTH REF: 002

Card 2/2   vmb

_____ ____   ___.(_,/ ___(_,//____,/___: ___(_,   ___, . .

_ _ ___. __ ___   ___.__. ____: __./___./__/_._/___/___/___

_ _ __ _ . __ ___, I. A.; ___lov, V. V.
_____   _____ ___

. . . .____.

_____: ___ __ __ ___ __ __ ____ __ ___ __ ___ ferromagnetic resonance line in
. ____ _ ___, ___-Union Conference on the Physics of Ferro- and Antiferromagnet-
___ ___ __ __ ___ in Sverdlov__/

_____: ___ ____. Izvestiya. Seriya fizicheskaya, v. 30, no. 6, 1966, 1011

. ___ ____ . __ ___ resonance, line width, single crystal, yttrium compound,
___, ___, ___, crystal lattice defect

_____: spherical single crystal specimens of yttrium iron garnet were annealed
___ ___ ___ ___ 700° C in water. This treatment had no effect on the width
of the ferromagnetic resonance (FMR). From this it is concluded that point defects
(____ ___ interstitial atoms) do not contribute significantly to the width of
the FMR line. Samples of the same material were annealed at 700° and ground with
___ to 60 micron abrasive grains. This treatment increased the width of the FMR line.
This is ascribed to increase in the depth of the distorted surface layer. Polishing
the ground samples and annealing then reduced the width of the FMR line by 10-15 %.
This is ascribed to reduction of the density of dislocations in the deformed surface

Card 1/2

L 08755-67

ACC NR: AP0029122

L... ... Although reduction of the dislocation density reduced the width of the FMR line, it did not alter the form of the dependence of the line width on the sample orientation, i.e., the anisotropy of the FMR line width. Experimental curves (not shown) giving the width of the FMR line as a function of the orientation angle of polished single crystal yttrium iron garnet samples were similar in shape to the curves giving the derivative of the resonance field with respect to the orientation angle of the corresponding samples. From this it is concluded that the anisotropy of the FMR line width in these samples is due to separation of the surface layer into differently oriented blocks by a network of dislocations. ⁄

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C... 2/2   bc

ACC NR: AR7004308   SOURCE CODE: UR/0271/66/000/011/A037/A037

AUTHOR: Yerosh, I. L.; Danilov, V. V.

TITLE: Modulo check used for detecting and correcting design failures in counters

SOURCE: Ref. zh. Avtomat. telemekh. i vychisl. tekhn., Abs. 11A290

REF SOURCE: Izv. Leningr. elektrotekhn. in-ta, ch. 2, vyp. 56, 1966, 94-98

TOPIC TAGS: signal detecting code, signal correcting code, counter check trigger circuit, electronic feedback, ferrite, coding, circuit failure

ABSTRACT: Various elements that have specific type of failures have been used for counters: triggers, feedback trigger groups, ring ferrite-triode and ferrite-diode circuits, and storage units. Triggers are mostly characterized by zero-type failures (no output signal) and one-type failures (the trigger operates as an amplifier relaying its input signal to its output); the feedback triggers are characterized by one-type failures which change the group scaling factor. Feedback breaks are also possible. For detecting and correcting such failures, codes are proposed which structurally resemble the arithmetic codes used in computer checking operations. Two figures. B. U. [Translation of abstract]

SUB CODE: 09

Card 1/1   UDC: 621.374.32

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Presents results of observations on flying personnel.
Tendency to early hypoxemic collapse can be detected
by barochamber or V-shaped manometer tests.

31/49T16

TsN⸱⸱⸱ — C⸱⸱⸱ ⸱⸱⸱ f ⸱⸱⸱ ⸱⸱ ⸱⸱ ⸱⸱ ⸱ 9

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Translation D 493094

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