RUNOV, V.K., kand.tekhn.nauk, dotsent; SHCHUROV, A.F., kand.tekhn.nauk,
    dotsent; SHERONOV, V.I., inzh.

    Sectional reinforced structures of lime concrete. Trudy GISI
    no.43:65-71 '63.   (MIRA 17:4)

SHERONOV, V.I., inzh.

Calculating the composition of concrete to be processed
in curing chambers. Trudy GISI no.47:63-70 '64.

(MIRA 18:11)

67536

9.1200

AUTHORS: Talanov, V.I. and Sheronova, N.M.   SOV/141-2-3-13/26

TITLE: The Influence of Random Errors in the Distribution of
Sources on the Radiation Patterns of Travelling-wave
Aerials

ABSTRACT: Expressions are obtained for the deviation of the mean
diagram from its nominal value caused by random
perturbations in amplitude, phase and phase velocity of
the current waves in the aerial. It is shown that errors
in phase velocity limit the possibilities of obtaining
highly-directive patterns by increasing dimensions.
The analogous problem for lenses and mirror aerials has
been treated earlier (Refs 1-5). In a progressive-wave
aerial the pattern is influenced by errors in the feeder
and in the radiating elements themselves. The effects
are more serious than in lenses and mirrors since the
influence is not merely local but can affect even those
parts of the structure which are otherwise perfect. The

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The Influence of Random Errors in the $\overset{\text{SOV/141-2-3-13/26}}{\text{Distribution}}$ of Sources on the Radiation Patterns of Travelling-wave Aerials

example is taken of a linear aerial whose parameters are slowly varying functions of the coordinate z , the source distribution being Eq (1). The radiation pattern (in power) of an aerial of length $2L$, with this distribution, is given in Eq (2). The deviation in the pattern caused by random errors in current distribution is given by Φ_{pac} , the "scattered power", in Eq (6) where $K(z,z')$ is the autocorrelation function. It is reckoned that the dimensions of the irregularities in the feeder are large compared with the wavelength. The amplitude and phase components of error are given by Eqs (8) and (9), respectively. The latter equation may be considered in two forms, referring to local phase errors, Eq (10), and non-local phase errors, Eq (11). The effects of these errors on the diagram are calculated on the assumption that they are uncorrelated. The relevant correlation functions are Eqs (12), (13) and (14). For amplitude errors the scattered power is Eq (15), where the function $f(t, \xi)$ is given in

Card 2/4 Figure 1. For a given length and mean dispersion the

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SOV/141-2-5-13/26

The Influence of Random Errors in the Distribution of Sources on
the Radiation Patterns of Travelling-wave Aerials

scattered power and the directivity increase with the radius
of correlation. The diagram remains symmetrical. The
relative distortion of the diagram is inversely proportional
to L for a fixed error. The corresponding equation for
local phase error is Eq (16) and the conclusions are
similar. For non-local phase error the scattered power is
Eq (20), the associated function being plotted in Figure 2,
in two parts. One part, $f_1(\xi)$, is negative and thus
adversely affects the pattern. The scattered power is a
cubic function of L and thus increases faster than the
nominal power in the diagram. There would therefore seem
to be a maximum useful size of aerial limited by errors in
phase velocity. The limiting length $L_{\text{прет}}$ is given on
p 429. A lugger aerial has a poorer performance. At
X-band frequencies, with 0.05 mm tolerances and correlation
radius of $10\lambda_c$, the maximum aerial size (for this form of
aerial) would be ~35 m.

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67536

SOV/141-2-3-13/26
The Influence of Random Errors in the Distribution of Sources on
the Radiation Patterns of Travelling-wave Aerials

There are 2 figures and 8 references, 4 of which are Soviet,
2 English, 1 French and 1 Italian.

ASSOCIATION: Issledovatel'skiy radiofizicheskiy institut pri
Gor'kovskom universitete(Radiophysics Research Institute
of Gor'kiy University)

SUBMITTED: March 2, 1959

Card 4/4

L 23323-66   EWT(l)/EWA(h)

ACC NR: AP6011456   SOURCE CODE: UR/0109/66/011/004/0750/0752

AUTHOR: Averbakh, V. S.; Vlasov, S. N.; Popova, E. M.; Sheronova, N. M.

ORG: none   3/

TITLE: Experimental study of a mirror-type beam waveguide   /3

SOURCE: Radiotekhnika i elektronika, v. 11, no. 4, 1966, 750-752

TOPIC TAGS: beam waveguide, waveguide mirror, millimeter wave propagation

ABSTRACT: A study has been made of the characteristics of a mirror-type waveguide
consisting of reflectors in the form of 150 x 210 mm sections shaped as ellipsoids of
revolution.   The principal radii of curvature were R_x = 50 cm and R_y = 100 cm.   The
mirror reflectors were made by deposition of a layer of silver on an epoxy base.   They
were mounted parallel to each other at a distance of 50 cm and spaced in such a way
that the center of each mirror coincided with the focal points of the preceding and
succeeding mirrors.   The angle of incidence was 45°.   The array consisted of eight
mirrors with rectangular aperture masks which when shifted could vary the Fresnel
parameter c.   The transmission coefficient of the waveguide was determined by the
effectiveness of excitation and reception and the value of the energy loss during
reflection.   Theoretical calculations indicated that the upper limit of the excitation
coefficient for the primary power mode of a waveguide with a rectangular radiating
horn was 0.91 for c = 3.5 and 0.84 for c = ∞ .   Three types of radiators operating at

Card   1/2   UDC: 621.372.833.1.01

L 23323-66

ACC NR: AP6011456

8 mm with c = 3.5 were tested. The results are shown in the table. The ohmic loss per one mirror was 0.3%, which exceeded the value of 0.06% expected for the skin-

Table 1. Test results

No.	Radiating horn type	Radius of curvature of wave front at horn output, mm	Principal mode excitation factor
1	Circular horn, 100 mm in diameter, TE_{11} mode	500	0.7
2	Square horn, 100 mm^2, TE_{10} mode	500	0.75
3	Rectangular horn, 120 x 85 mm, TE_{10} mode	750	0.8

effect, and may be attributed to imperfections in the silver reflecting layer. Horn-type no. 3 (see Table 1), whose dimensions were optimum, excited the primary mode with a loss of only 1 db. Total losses were 3.2 db. The tests indicate that the losses in mirror-type arrays are less than in arrays using lens reflectors. Orig. art. has: 2 figures and 1 table.   [BD]

SUB CODE: 09/ SUBM DATE: 21Apr65/ ORIG REF: 004/ OTH REF: 003/ ATD PRESS: 4232

Card 2/2

$SHERONOVA, S.M.$

GRINGAUZ, K.I., BEZRUKIKH, V.V., MUSATOV, L.S., RYBCHINSKIY, R.YE.,
SHERONOVA, S.M.

Measurement made in the Earth's Magnetosphere by means of Charged Particle
traps aboard the Mars 1 Probe.

Report to be submitted for the 4th International Space Science Symposium
(COSPAR) Warsaw, 2-12 June 63

USSR/Human and Animal Morphology - Normal and Pathological.   S
      Circulatory System.

Abs Jour : Ref Zhur Biol., No 11, 1958, 50262

Author : Sherov, A.I.

Inst   : Kirgiz Medical Institute

Title : Branches of the Blood Vessels of the Arch of Aorta and
     Arterial Blood Supply of the Cervical Muscles.

Orig Pub : Tr. Kirg. med. in-t, 1956, 8, 15-24

Abstract : A study of the sources of the blood supply of the cervi-
     cal muscles in 35 cadavers was made by the method of dis-
     section of preliminarily filled blood vessels. A detai-
     led description of the blood vessels of the cervical mus-
     cles and of the frequency of participation of individual
     arteries in their blood supply is given. The cervical
     muscles receive blood from various sources, so that

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9(4)   SOV/112-59-3-5939

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 3, p 241 (USSR)

AUTHOR: Sherov-Ignat'yev, G. P.

TITLE: Selection of Supply for Type SID Transistors That Amplify Weak Signals (Vybor rezhima pitaniya poluprovodnikovykh triodov tipa SID pri usilenii malykh signalov)

PERIODICAL: V sb.: Poluprovodnik, pribory i ikh primeneniye. Nr 2, M., "Sov. radio," 1957, pp 223-241

ABSTRACT: The characteristics $r_{11}(I_e)_{I_k}$, $r_{12}(I_k)_{I_e}$, $r_{21}(I_e)_{I_k}$, and $r_{22}(I_k)_{I_e}$ estimated from averaged voltage-current characteristics of the CID transistor are presented. They show that with $v_e > 0$ the resistance r_{11} lies within 80-1,700 ohms; r_{12} with $I_e > 50$ microamp, varies within 30-160 ohms; r_{21} often changes from 450 ohms to 50 kohms; r_{22} lies within 200 ohms to 15 kohms. The family of current-amplification-factor characteristics $\alpha(I_e)_{I_k}$ estimated from the characteristics $r_{21}(I_e)$ and $r_{22}(I_k)$ permits

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SOV/112-59-3-5939

Selection of Supply for Type S1D Transistors That Amplify Weak Signals

determining the region where $\alpha > 1$. The line of maximum values of α lies within the range of I_e values from 20-60 microamp, and shifts toward higher values of I_e when I_k increases. Stability is determined by the expression $\delta = \alpha \, \alpha_{ob} \leqslant 1$, where α_{ob} is the reverse-direction amplification factor. Stable operation of the amplifier is ensured with $I_k < 3$ ma. Various transistors show a wide spread. The circuit stability can be easily designed on the basis of the reduced curves of r_{ik} and α. By analyzing the current amplification factor K_i, power amplification factor K_p, and voltage-amplification factor K_u, it can be found that $\delta_{maks} \approx 0.6-0.7$ which corresponds to the optimum conditions for K_i, K_p, and K_u. Transistor rejection can be easily done on the basis of four-point measurements.

M.S.V.

Card 2/2

AUTHOR: Sherov-Ignatyev, G...r.,   Member of   SOV/108-13-10-8/13
            the Society

TITLE: Nomographic Calculation of the High-Frequency Parameters
            of Semiconductor Triodes by the Method of Junction
            Characteristics (Nomograficheskiy raschet vysokochastotnykh
            parametrov poluprovodnikovykh triodov po metodu perekhodnykh
            kharakteristik)

PERIODICAL: Radiotekhnika, 1958, Vol 13, Nr 10, pp 45 - 50 (USSR)

ABSTRACT: This is a presentation of a method of determining the
            parameters of an approximating function of the junction-
            characteristics of semiconductor triodes, directly
            using these characteristics. For the calculation of the
            cutoff frequency f_{c}, . of the phase shift of the cutoff
            frequency ψ and of the high-frequency parameters of
            the equivalent triode circuit diagram nomograms were
            compiled in this work according to the data obtained.
            In order to illustrate the method advanced in this paper
            the results of the investigation of a C1,D.-triode are
Card 1/2   presented. A comparison of the values of i_{α} and of ψ_{α}

Homographic Calculation of the High-Frequency Para-   SOV/108-13-10-8/13
meters of Semiconductor Triodes by the Method of Junction Characteristics

which were obtained from the junction characteristics
furnished a good agreement with the experimental ex-
perience gained from measurements carried out with
signal generators and phase-measuring devices. The im-
portance of carrying out investigations of the high-
frequency properties of junction-type triodes in a
common-emitter circuit is underlined. There are 6 figures
and 2 references, 2 of which are Soviet.

ASSOCIATION: Vsesoyuznoye nauchno-tekhnicheskoye obshchestvo radiotekhniki i
elektrosvyazi im. A.S. Popova (All-Union Scientific and Technical
Society of Radio and Communications Engineering im. A.S. Popov)

SUBMITTED: July 30, 1957

Card 2/2

9,2520 (2902,1024,1161)
6.6000

S/187/60/000/001/002/003
A189/A026

AUTHOR: Sherov-Ignat'yev, G.P.

TITLE: Transistorized Amplifiers in Television Engineering

PERIODICAL: Tekhnika kino i televideniya, 1960, No. 1, pp. 37 - 43

TEXT: This is the first part of an article concerned with Soviet and
foreign developments on transistorized TV amplifiers, in which the author reviews
transistorized amplifiers for TV transmitters. The second part of this article,
concerned with the transistorized amplifiers of TV receivers, will be published
in a future issue of this periodical. Figure 1 shows the circuit diagram of a
transistorized preamplifier for the vidicon camera tube. It is assembled on a
645 Б (6ZH5B) tube and 4 transistors. Figure 2 shows the circuit diagram of the
first preamplifier stage for the superorthicon camera tube, assembled on a П403
(P403) transistor. Figure 3 shows first stages and the resistance-capacitance
divider circuit of the intermediate video amplifier, assembled on four П403 (P403)
transistors. Figure 4 shows a circuit for restoring the constant component of
the video signal and for injecting blanking pulses. It is assembled on two П403
(P403) and four П402 (P402) transistors. Figure 5 shows the amplifier output

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Transistorized Amplifiers in Television Engineering

S/187/60/000/001/002/003
A189/A026

stage of the pulse divider, assembled on Π603 (P603) transistor. There are 5 circuit diagrams and 14 references: 10 English, 3 Soviet, and 1 German.

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Transistorized Amplifiers in Television Engineering

Figure 1:

Circuit diagram of transis-
terized preamplifier for
vidicon camera tube

Рис. (1) Схема предварительного усилителя дл

Card 3/8

Transistorized Amplifiers in Television Engineering

S/187/60/000/001/002/003
A189/A026

Figure 1 cont'd:

Circuit diagram of transis-
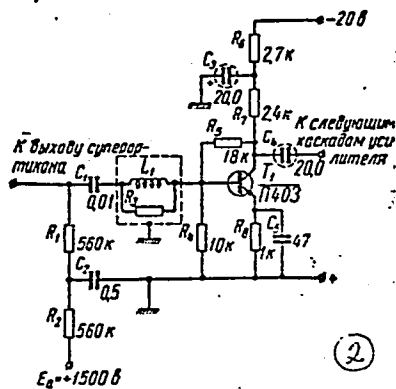torized preamplifier for
vidicon camera tube
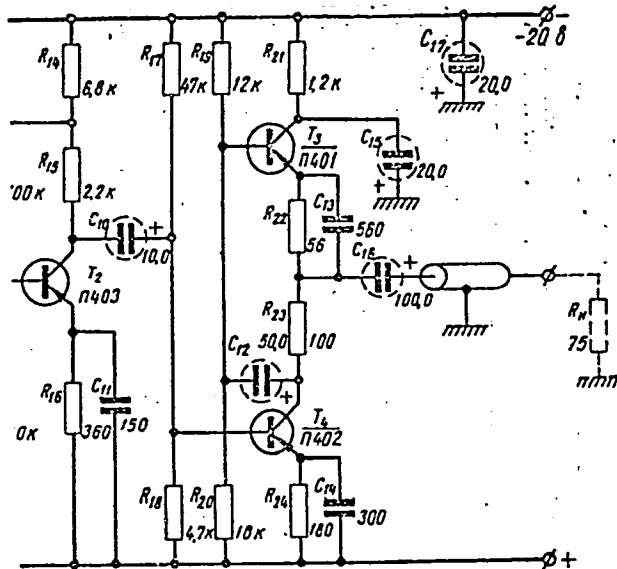
Card 4/8

Transistorized Amplifiers in Television Engineering

S/187/60/000/001/002/003
A189/A026

Figure 2:

Circuit diagram of 1st preamplifier stage
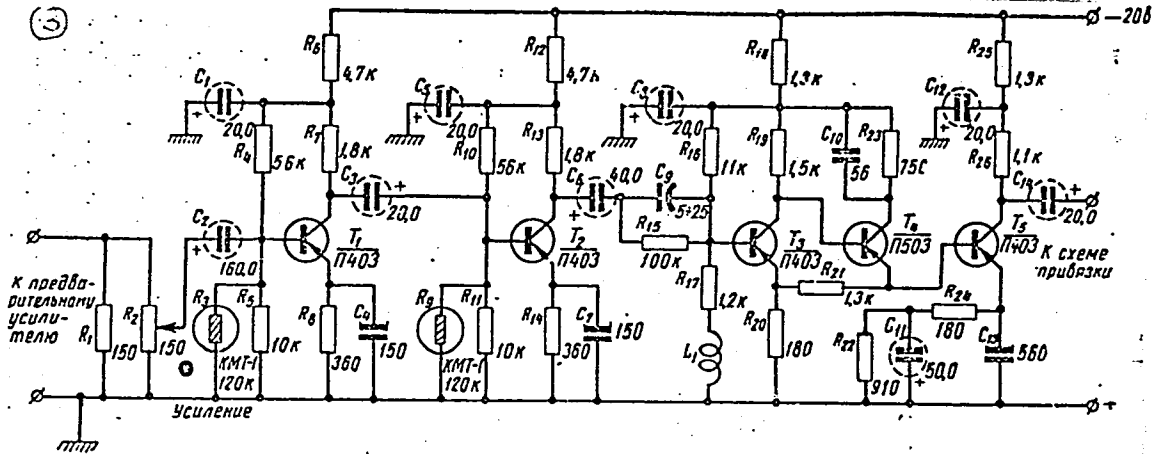for superorthicon camera tube

Card 5/8

Transistorized Amplifiers in Television Engineering

S/187/60/000/001/002/003
A189/A026

Figure 3:

First stages and resistance capacitance divider circuit of intermediate video amplifier
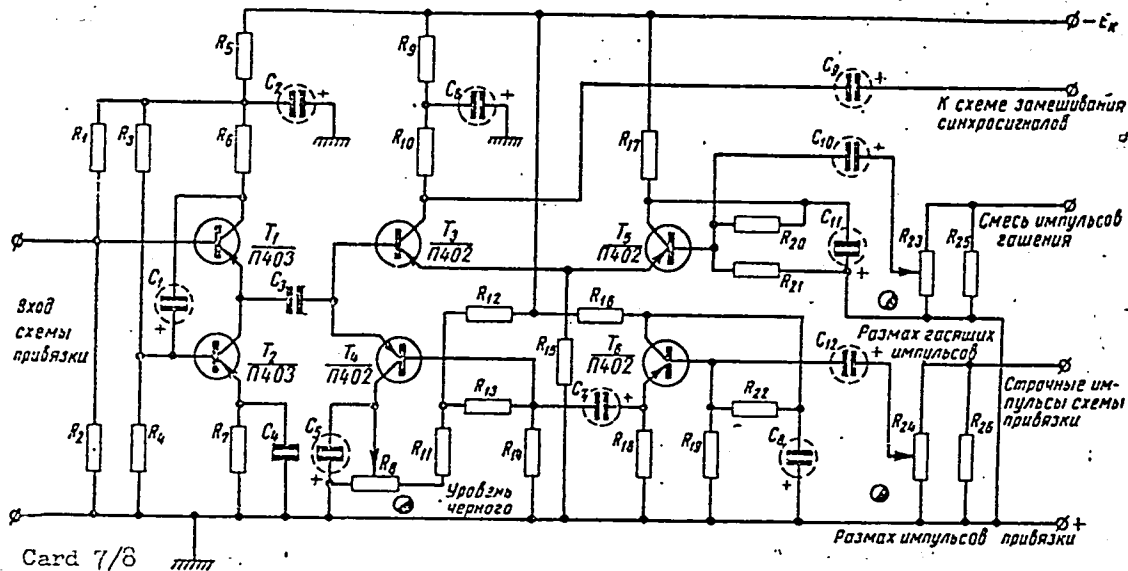

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Transistorized Amplifiers in Television Engineering   S/187/60/000/001/002/003
                                                        A189/A026

Figure 4: Circuit for restoring constant component of video signal and for in-
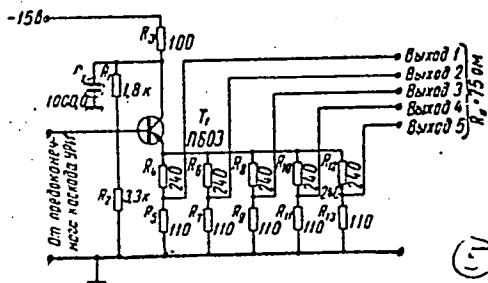jecting blanking pulses

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A189/A026

Transistorized Amplifiers in Television Engineering

Figure 5:

Amplifier output stage of
pulse divider

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6.6000
9.2520 (2902, 1024, 1161)

S/187/60/000/003/001/002
A189/A026

AUTHOR: Sherov-Ignat'yev, G. P.

TITLE: Transistorized Amplifiers in TV Engineering

PERIODICAL: Tekhnika kino i televideniya, 1960, No. 3, pp. 42 - 48

TEXT: This is the second part of this article. The first part, devoted
to the transistorized amplifiers of transmitting devices, was published in this
periodical, No. 1, 1960. The author describes and gives circuit diagrams of
transistorized units of a TV-receiver. Figure 1 shows a high-frequency amplifier
of a TV-receiver. In this single-stage amplifier, the transistor has a common-
emitter connection. Figure 2 shows a basic heterodyne circuit with a П411 (P411)
transistor. The circuit has good operational indices in a frequency interval
not exceeding 150 Mc. Figure 3 shows mixer and intermediate-frequency amplifier
circuit. Figure 4 shows a circuit diagram of the output phase-inverting video
amplifier with emitter coupling; Figure 5 a video amplifier circuit with a po-
tentiometric collector coupling. Figure 6 shows a circuit diagram of the final
video amplifier with conductance-coupled stages. In conclusion, the author
states that a partial conversion of tube circuits into transistorized ones in a

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Transistorized Amplifiers in TV Engineering   S/187/60/000/003/001/002
A189/A026

TV-receiver is not practicable in most cases. However, a complex conversion of all (or most) units of the receiver would bring a considerable advantage due to lower power consumption. There are 6 circuit diagrams and 12 references: 7 English, 3 Soviet, 1 French and 1 Italian.
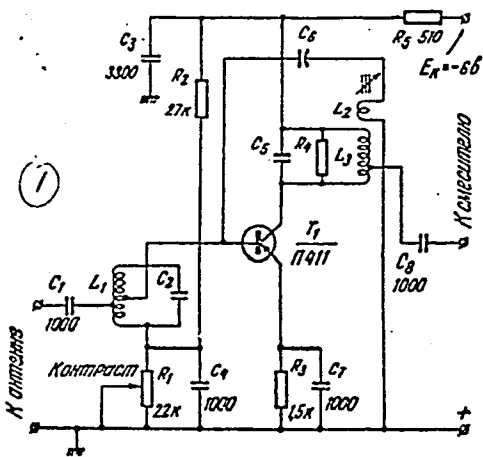
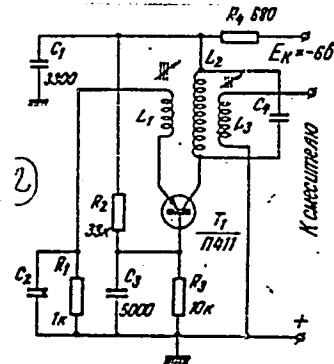Figure 1: High-frequency amplifier of TV receiver.

Figure 2: Basic heterodyne circuit.

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S/187/60/000/003/001/002
A189/A026

Transistorized Am-
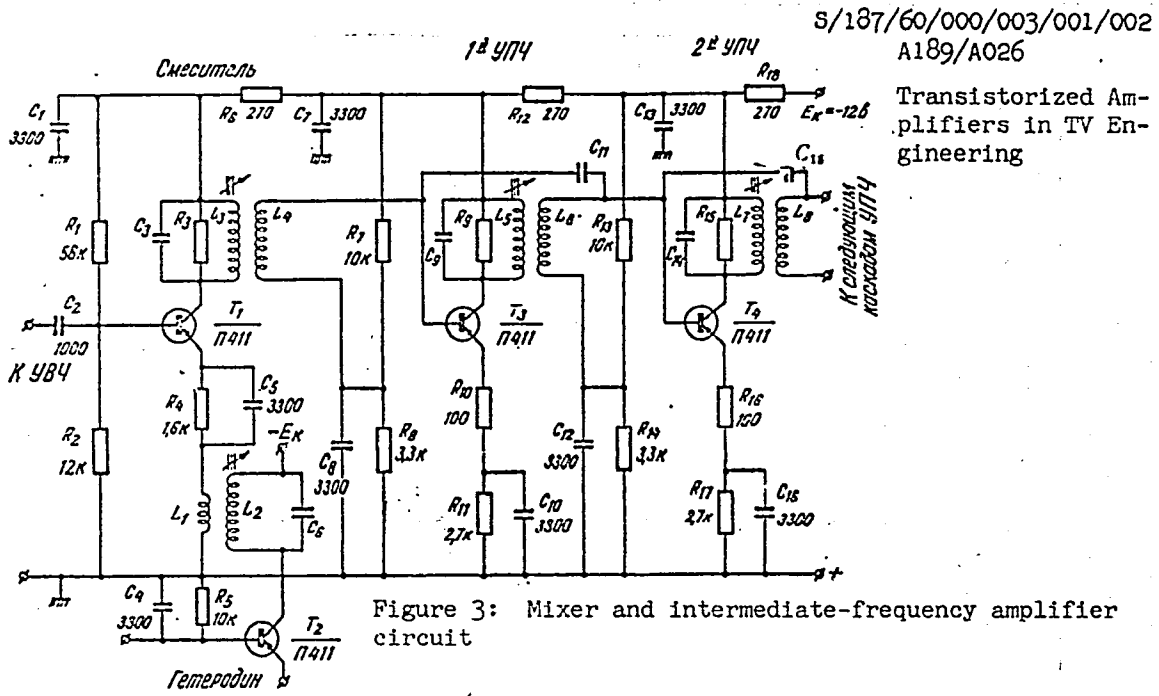.plifiers in TV En-
gineering

Figure 3: Mixer and intermediate-frequency amplifier
circuit

Card 3/5

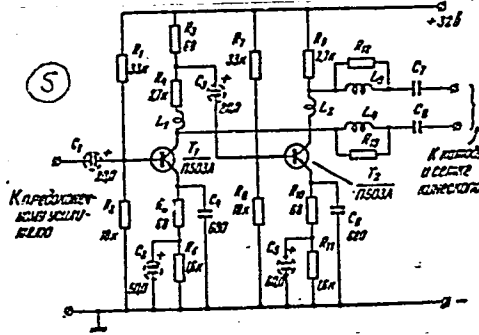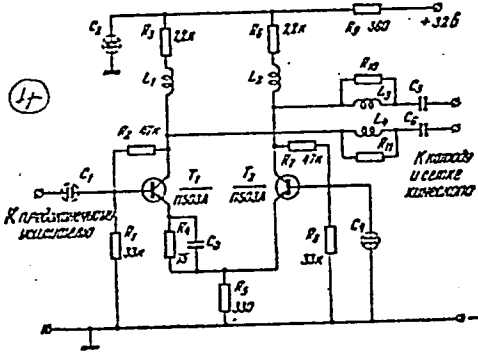Transistorized Amplifiers in TV Engineering

S/187/60/000/003/001/002
A189/A026

Figure 4: Circuit diagram of output
phase-inverting video amplifier with
emitter coupling.

Figure 5: Video amplifier circuit
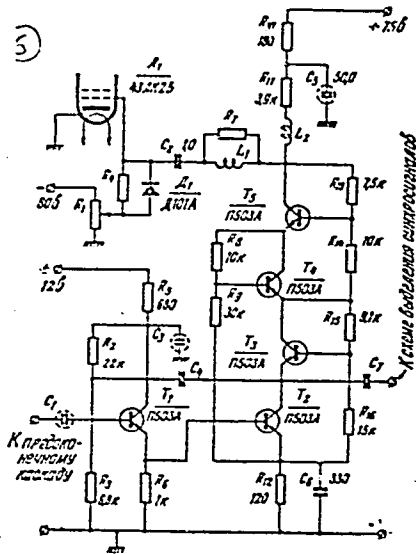with potentiometric collector cou-
pling.

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Transistorized Amplifiers in TV Engineering

Figure 6: Circuit diagram of final video amplifier with conductance-coupled stages

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S/194/61/000/001/010/038
D216/D304

9,4310

AUTHOR: Sherov-Ignat'yev, G.P.

TITLE: Stability and gain of point-contact transistors in
               common-emitter and common-collector configurations

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika,
               no. 1, 1961, 19, abstract 1 D137 (V. Sb. Poluprov-
               odnik. pribory i ikh primeneniye, no. 4, M., Sov.
               Radio, 1960, 224-239)

TEXT: Because of various interpretations by several authors of
the operation and application possibilities of point-contact tran-
sistors in common-emitter and common-collector configurations, the
conditions for stability of the above transistor connections are
analyzed. It was both from the theory and experiment that the
stable regions of amplification coincided for all three connections.
The stable state regions are reduced, however, with the increase of
the additional resistance R_b in the base circuit and increase with
the increase of additional resistances R_e in the emitter and R_c in

Card 1/2

Stability and gain...

S/194/61/000/001/010/038
D216/D304

the collector circuit. The conditions of no self-excitation can
be obtained in the common-base configuration for a large, and for
all other configurations for a small, internal source resistance.
Erroneous results of the stability criteria analysis are pointed
out as obtained for common-emitter and collector connections (see
editor R.F. Shi: Poluprovodnikovyye triody i ikh primeneniye (Semi-
conductor Triodes and their Applications) Translated from English.
Gosenergoizdat, 1957). It is shown that the increase of stability
of a transistor amplifier with current gain > 1 can be achieved by
the simultaneous use of different transistor configurations. Form-
ulae are derived for evaluating the stability, power, current and
voltage gains, and numerical examples are given. 10 figures. 7
references.

Card 2/2

LUR'YE,O.B. Prinimali uchastiye: SHEROV-IGANT'YEV, G.P.; GAMBURG,
R.A.; ENTINA, Ye.I.; YANKEL'SON, I.S., red.; ZABOLOTSKIY,
N.G., red.; SVESHNIKOV, A.A., tekhn. red.

[Video frequency amplifiers] Usiliteli videochastoty. Izd.2.,
perer. i dop. Moskva, Izd-vo "Sovetskoe radio," 1961. 675 p.
                                        (MIRA 15:2)

        (Amplifiers (Electronics))

MIKHAYLENKO; Nikolay Sergeyevich; NOVOPASHENNYY, G.N., kand.
tekhn. nauk, dots., retsenzent; SHEREN-ILCHEYEV, G.P.,
nauchn. red.; PARKHOMENKO, L.M., red.; RADICHOVA, V.N.,
inzh., red.

[Design of transistor amplifiers for measuring instruments]
Proektirovanie tranzistornykh usilitelei izmeritel'nykh
ustroistv. Moskva, Energiia, 1965.   347 p.   (MIRA 18:11)

SHEROVEROVA, L. P.; SAPOZHNIKOVA, L. V.; YEGORSHINA, L. A.; EBERTS, V. L.

"Change With Age of the Immunological Reactivity in Children Suffering From Dysentery," Trudy 2-y Pavlovskoy Konferentsii Tomskogo Meditsinskogo Instituta, Tomsk, 1952, pp 215-217.

22369

S/031/61/000/003/001/001
A161/A133

24.7900

AUTHORS: Shernovey, A. L.; Arkhangel'skiy, A. A.; Latyshev, G. D., Member of
the Academy of Sciences KazSSR

TITLE: The practice of using nuclear resonance in magnetic flaw detection

PERIODICAL: Akademiya nauk Kazakhskoy SSR. Vestnik, no. 3, 1961, 105 - 107

TEXT: Brief information is given on preliminary experiments with a new
magnetic flaw detection method developed at the authors' laboratory. The method's
principle is measurement by nutation. It is said to be the only method rendering
possible the measurement of weak and nonuniform magnetic fields, which cannot be
done by two other existing methods - "nuclear induction" (G. Bloch, W. W. Hansen,
M. E. Packard, 1946) and "adsorption method" (E. M. Purkell, N. C. Gorrey, R. U.
Round, 1946). There are several different types of magnetic probes used for mag-
netic flaw detection. The sensitive element in the described method is a nuclear
magnetic resonance pickup. The experiment unit is illustrated in a block diagram.
Water from the mains is driven through a container placed in a strong magnetic
field produced by a magnet and flows through a pipe. The coil of the nuclear re-
sonance pickup is set on the pipe end and connected to a detector.   It is desir-

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S/031/61/000/003/001/001
A161/A133

The practice of using nuclear resonance ....

able that the magnetic field surrounding the coil be 30 oe with not more than 0.5 oe/cm nonuniformity. A miniature radio-frequency coil can be placed at any spot on the pipe. The force lines of the coil must penetrate the entire cross section area of the pipe. The water volume under the simultaneous effect of a radio-frequency field produced by the coil presents the effective volume in which the mean field intensity is measured, i.e., it is the work volume of the magnetic probe. This volume can practically be reduced to only 0.01 cm^3. The radio-frequency field in the coil is produced by a generator. The water passing the container obtains a polarization vector that depends on the time during which the water was in the magnetizing field (τ) and the field intensity ($H_{поля}$).

$$M = X_0 H_{поля} (1 - e^{-\frac{\tau}{T_1}}),$$

where $X_0 = 3 \cdot 10^{-10}$; τ – longitudinal relaxation time (for nonpurified water $T_1 \simeq$ 2.3 sec). The polarized water flows over a pickup, and the nuclear resonance signal produced in it has an amplitude proportional to M. If the intensity of any nonuniform field is required the field pickup is placed into it. When the frequency of the field of the coil (i.e., the frequency from the generator) becomes equal to the frequency of nuclear precession in the mean field of the nutation

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S/031/61/000/003/001/001
A161/A133

The practice of using nuclear resonance ...

pickup, the polarization vector of water flowing through this volume will change.
It can disappear, or change the pole. The nuclear resonance signal in the circuit
will correspondingly disappear or change the pole. The intensity of field being
measured can be determined by reading the generator frequency (ω) on the scale:

$H = \frac{\omega}{\gamma}$, where $\gamma = 4250 \cdot 2\pi \frac{1}{oe - sec}$. In the test unit the measurement ac-
curacy was determined by the frequency measurement accuracy and amounted to 0.004
oersted. The major advantage of the method is that the sensitive element always
shows the mean field intensity, regardless of how it is directed. The small size
of the sensitive element and absolute measurement units are the other advantage.
Measurements are possible at a very small distance from the workpiece surface (be-
low 1 mm), which is impossible with the existing permalloy pickups even of best
designs. In experiments the probe was clamped in a special holder and moved along
the surface of the test specimens. The probe displacement is shown in millimeters
on the horizontal axis in three included graphs, and the field intensity in oer-
sted on the vertical. Data are presented obtained on a specimen with one simulat-
ed crack under a 3-mm thick steel plate and from a specimen with two simulated
cracks at close distance. The specimens were ground steel bars and plates connect-
ed in the circuit of a small electromagnet. The field intensity at 5 mm from the
specimen was about 1 oe. Cracks were imitated by putting the plates together.
There are 4 figures.

Card 3/3

SHERPUTOVSKAYA, K.Ye.

Morphological changes in the skin of a free flap transplanted
to the face. Kar., Med. Zhur. no.6:29-31 '62.   (MIRA 17:5)

1. Kafedra khirurgicheskoy stomatologii i chelyustno-litsevoy
khirurgii (zav. - prof. Ye.A. Domracheva) i kafedra gistologii
(zav. - prof. G.I. Zabusov) Kazanskogo meditsinskogo instituta.

L 41277-65   EWP(e)/EPF(s)-2/EWT(m)/EPF(c)/EWG(v)/EPR/EPA(w)-2/EWP(j)/T/
EWP(t)/EWP(k)/EWP(z)/EWP(b)   Pc-4/Pab-10/Pe-5/Pf-4/Pr-4/Ps-4/Pt-10   JD/JW/
                                            S/0286/65/000/006/0113/0113 RM
ACCESSION NR: AP5008578

AUTHOR: Petrov, Yu. M.; Sherr, A. S.

TITLE: Heat-insulating design for aircraft. Class 62, No. 169408

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 6, 1965, 113

TOPIC TAGS: heat insulating design, aircraft, heat insulation

ABSTRACT: This Author Certificate is for an aircraft heat-insulating design (see
Fig. 1 of the Enclosure) consisting of an inner and an outer wall with a porous
screen between. The porous screen is fixed to the inner wall by an absorbing
material. Channels are provided for the circulation of the cooling agent. By
this arrangement the penetration of heat into the inner compartments of the air-
craft is prevented, and the volume of cooling agent required is reduced. Orig.
art. has: 1 figure.   [AC]

ASSOCIATION: none

SUBMITTED: 12Jul63   ENCL: 01   SUB CODE: AC

NO REF SOV: 000   OTHER: 000   ATD PRESS: 3223

Card 1/2

L 41277-65

ENCLOSURE: 01
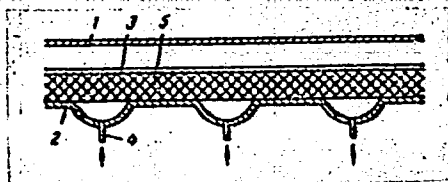
Fig. 1. Heat insulating design

1 - Outer wall; 2 - inner wall;
3 - porous screen; 4 - channel;
5 - absorbing material.

Card 2/2

ACC NR: AP6025679   SOURCE CODE: UR/0413/66/000/013/0146/0146

INVENTORS: Petrov, Yu. M.; Goguyev, S. V.; Naumov, N. F.; Khokhin, V. I.; Sherr, A. S.

ORG: none

TITLE: A pneumatic relay. Class 62, No. 183605

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 146

TOPIC TAGS: pneumatic device, pneumatic control, valve

ABSTRACT: This Author Certificate presents a pneumatic relay for switching in the duct and the ejector. The casing of the relay contains inlet and outlet pipes and valves (see Fig. 1). To reduce the hydraulic resistance and to improve the productivity, the valves are elastic and have the form of petal-like sectors mounted on saddles fixed in the casing.

UDC: 629.13.01/06 614.894

Card 1/2

ACC NR: AP6025679

Fig. 1. 1 — valve; 2 — saddle
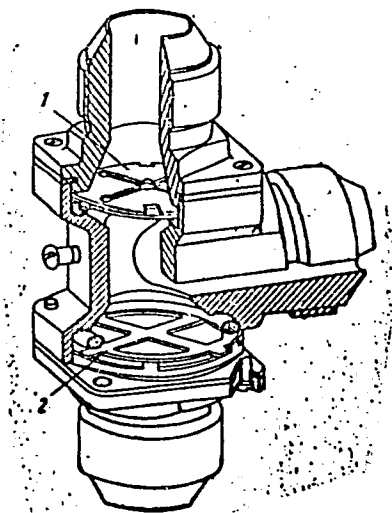
Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 18Jun65

Card 2/2

SHER, S. A.   .R92979

RAZVITIYE KORABLESTROYENIYA V ROSSII. MOSKVA, IZD-VO ZNANIYA, 1952. 31 p.
(VSESOYUZNOYE OBSHCHESTVO PO RASPROSTRANENIYU POLITICHESKIKH I NAUCHNYKH
ZNANIY. 1952, SERIYA 2, NO. 26) BIBLIOGRAPHICAL FOOTNOTES.

SHERR, S.A., inzhener-polkovnik.

[Aleksei Nikolaevich Krylov; an outstanding Russian ship builder] Vydaiu-
shchiisia russkii korablestroitel' Aleksei Nikolaevich Krylov. Moskva, Izd-
vo "Znanie," 1953. 38 p.   (MLRA 6:10)
                        (Krylov, Aleksei Nikolaevich, 1863-1945)

SHERR, S.A.; LUPACH, V.S., redaktor; MYASHIKOVA, T.F., tekhnicheskiy
redaktor.

[Ships of the ocean depths] Korabli morskikh glubin. Moskva, Voen.
izd-vo Ministerstva obor. SSSR, 1955. 302 p.   (MLRA 8:11)
(Submarine boats)

SHERR, S.A.

    A.S. Shil'der's activity in the field of submarine building.
    Trudy Inst.ist.est.i tekh.13:123-153 '56.   (MIRA 10:1)
                (Shil'der, Aleksandr Andreevich, d.1785)
                (Submarine boats--History)

SHERR, S.A.

History of the use of engines to propel ships. Trudy Inst.ist.est.
i tekh. 29:264-327 '60.   (MIRA 13:6)
            (Ship propulsion)

SHERR, Sergey Aleksandrovich; LUPACH, V.S., red.; KOKINA, N.N., tekhn. red.

[Ships for the ocean depths] Korabli morskikh glubin. Izd.3., ispr. i dop. Moskva, Voenizdat, 1964. 325 p.
(MIRA 17:2)

ACCESSION NR AM 4044424   BOOK EXPLOITATION   S/

Sherr, Sergey Aleksandrovich   /3+ /

Submarines (Korabli morskikh glubin) 3d ed., rev. and enl. , Moscow,
    Voyenizdat M-va obor. SSSR, 1964, 325 p. illus., biblio. 30,000 copies printed.

TOPIC TAGS: submarine

PURPOSE AND COVERAGE: This book tells of the basic stages in the development of
submarine design, of certain outstanding inventors of early underwater
vessels, on the equipment of modern submarines, and the heroic actions of Soviet
submariners in World War II. The book is intended for a wide audience.

TABLE OF CONTENTS [abridged]:

              SUBMITTED : 3 DEC. '63

Card 1/2

SHERSHACHEVA, L.I.; VDOVENKO, K.G.; MUZYUKINA, T.M.

Comparative evaluation of various methods for taking material to
be tested for dysentery. Lab.delo 2 no.2:25-26 Mr-Ap '56. (MLRA 9:10)

1. Iz bakteriologicheskogo otdela Kuybyshevskoy gorodskoy sanitarno-
epidemiologicheskoy stantsii.
      (DYSENTERY)

ZINOV'YEVA, I.S.; SHERSHACHEVA, L.I.; IZRAILEVA, L.M.; SHPAGINA, M.K.

Drug resistance of dysentery bacilli. Antibiotiki 4 no.6:88-92
N-D '59.   (MIRA 13:3)

1. Kuybyshevskiy institut epidemiologii, mikrobiologii i gigiyeny.
         (SHIGELLA pharmacol.)
         (ANTIBIOTICS pharmacol.)

SHERSHAKOV, N. B.

Dissertation: "The Conditions for Irreversibility of Ion-Exchange Sorption on
Synthetic Resins." Cand Chem Sci, Inst of Physical Chemistry, Acad Sci USSR,
22 Jun 54. (Vechernyaya Moskva, Moscow, 14 Jun 54)

SO: SUM 318, 23 Dec 1954

ROZINSKIY, Yu.B., kand.med.nauk; SHERSHAKOV, V.P.

　　Memory. Zdorov'e 6 no.6:4-6 Je '60.　　　　　　(MIRA 13:7)
　　　　　　　　　　　(MEMORY)

ROZINSKIY, Yu.B., kand.med.nauk; SHERSHAKOV, V.P.

Laziness. Zdorov'e 7 no. 5:20-21 My '61.   (MIRA 14:4)
                    (LAZINESS)

PRAKHIN, M.Yo., kandidat khimicheskikh nauk; SHERSHAKOVA, A.M.

Detoxication of cottonseed cake and meal in the oil plant. Trudy
VNIIK 3:325-339 '56.   (MIRA 10:4)
    (Cottonseed meal)   (Gossypol)

KANTOR, L.Ya., kand.tekhn.nauk; SHERSHAKOVA, A.V., inzhenor; ZASLAVSKIY, S.A., inzh.

Multiprogram group-type receiver for operation in wire broadcasting networks. Vest. sviazi 24 no.2:3-5 F '64.   (MIRA 17:4)

SHERSHAKOVA, T.N., aspirant

Condition of the oral cavity in thyrotoxicosis and in Itsenko-Cushing disease [with summary in English, p.126]. Probl.endok. i gorm. 3 no.4:81-86 Jl-Ag '57.   (MIRA 10:12)

1. Iz kafedry terapevticheskoy stomatologii (zav. - prof. Ye.Ye. Platonov) Moskovskogo meditsinskogo stomatologicheskogo instituta (dir. - dotsent G.N.Beletskiy) i Vsesoyuznogo instituta eksperimental'noy endokrinologii (dir. - prof. Ye.A.Vasyukova) Ministerstva zdravookhraneniya SSSR.
           (CUSHING SYNDROME, manifestations,
              mouth (Rus))
           (HYPERTHYROIDISM, manifestations,
              mouth (Rus))
           (MOUTH, in var. dis.
              hyperthyroidism & Cushing synd. (Rus))

SHERSHANOVSKAYA, I.A.

Dissertations. Teploenergetika 4 no.8:96 Ag '57.   (MIRA 10:10)
(Electric engineering)

SHERSHAVKIN, Nikolay Dmitriyevich, stalevar; TESLENKO, M. redaktor;
    IGNAT'YEVA, A., tekhnicheskiy redaktor

[We are smelting new steels] Plavim stal' novykh marok. [Moskva]
Moskovskii rabochii, 1956. 47 p.   (MIRA 10:1)
        (Steel)

SHEREMETEVA, S. S.

"History of the Chair of Criminal Medicine at Moscow University in the 18th and 19th Centuries." Thesis for degree of Cand. Medical Sci. Sub. 30 May 42, First Moscow Order of Lenin Medical Inst.

Summary 66, 15 Dec 52, Dissertations Presented for Degrees in Science and Engineering in Moscow in 1942. From Vechernyaya Moskva, Jan-Dec 1949.

CHERVAKOV, Vasiliy Fedorovich; MATOVA, Yevgeniya Yevgen'yevna; SHER-
    SHAVKIN, Sergey Vladimirovich; RYABOV,G.Z., redaktor; BEL'-
    CHIKOVA,Yu.S., tekhnicheskiy redaktor

[Hundred and fiftieth anniversary of the Forensic Medicine
Department of the First Moscow Institute of Medicine (order
of Lenin)] 150 let kafedry sudebnoi meditsiny i Moskovskogo
ordena Lenina meditsinskogo instituta. Moskva, Gos.izd-ro
med. lit-ry, 1955. 161 p.   (MLRA 9:3)
        (MEDICAL JURISPRUDENCE) (MEDICAL COLLEGES)

Name: SHERSHAVKIN, Sergey Vladimirovich

Dissertation: History of the Russian Forensic Med Service(17th to 19th Centuries)

Degree: Doc Med Sci

Affiliation: Stalinabad State Med Inst imeni Avitsenna

Defense Date, Place: 16 Jan 56, Council of 1st Moscow Order of Lenin Med Inst imeni Sechenov

Certification Date: 27 Oct 56

Source: BMVO 6/57

SHERSHAVKIN, S.V., dotsent

    Reorganization of the Pharmaceutical Bureau. Sov.zdrav. 17 no.2:
    56-58 F '58.   (MIRA 13:1)

    1. Iz Stalinabadskogo meditsinskogo instituta imeni Avitsenny.
            (PHARMACY, hist.
                in Russia (Rus))

SHEICHAN: I, B.M., prof.

Review of I.M. Garburg's "Development of the medicolegal science and expertise". Sud.-med. ekspert. 7 no.3:57-58 Jl-S '64.

(MIRA 18:10)

SHERSHAVKIN, S.V., prof.

"Public health in Yaroslavl in the past and present" by V.I.
Beliaev. Reviewed by S.V.Sherashavkin. Sov.zdrav. 21 no.7:80-81
'62.   (MIRA 15:8)
                    (YAROSLAVL---PUBLIC HEALTH)

YEGORSHIN, N.A.; SHERSHEN', E.M.; SMIRNOV, A.N.; GORBUNOV, A.D.;
    YEGOROV, V.P.; VASIL'YEV, A.V.; KOLOMEYTSEV, K.N.; KOLEGOV,
    V.A.; KASATKINA, N.P., red.

[Mechanisms for lumbering camps; from work practices of the
construction office of the Chusovskoye Logging Camp] Mekhaniz-
my dlia lesozagotovok; iz opyta raboty konstruktorskogo biuro,
Chusovskogo lespromkhoza. Moskva, TSentr.nauchno-issl.in-t
informatsii i tekhniko-ekon.issledovanii po lesnoi, tselliu-
lozno-bumazhnoi, derevoobrabatyvaiushchei promyshl. i lesno-
mu khoz. 1963. 21 p.   (MIRA 17:4)

SHERSHEN', L., kand. tekhn. nauk; TITOV, A.; ZUBOV, A.; SOLOMONOV, S.

Opinions of the leaders of the economic councils and special
industrial designers bureaus. Tekh. est. 2 no.7:4-6 Jl '65.
                                           (MIRA 18:8)
1. Predsedatel' Tekhniko-ekonomicheskogo soveta Leningradskogo
soveta narodnogo khozyaystva (for Shershen'). 2. Nachal'nik
Spetsial'nogo khudozhestvenno-konstruktorskogo byuro Leningrad-
skogo soveta narodnogo khozyaystva (for Titov). 3. Zamestitel'
predsedatelya Leningradskogo soveta narodnogo khozyaystva (for
Zubov). 4. Glavnyy inzh. Spetsial'nogo khudozhestvenno-kon-
struktorskogo byuro Leningradskogo soveta narodnogo khozyaystva
(for Solomonov).

25(5)   SOV/117-59-2-5/27
AUTHOR: Shershen', L.G., Chief of Technical Administration
               of the Lensovnarkhoz

TITLE: The Industry of Leningrad is Widely Introducing Group
               Production of Machines and Instruments (Leningrad-   ·
               skaya promyshlennost' shiroko vnedryayet gruppovoye
               prcizvodstvo mashin i priborov)

PERIODICAL: Mashinostroitel', 1959, Nr 2, pp 6-8 (USSR)

ABSTRACT: This article is a general account of the introduc-
               tion of the group machining method in plants of the
               Leningrad Sovnarkhoz, such as "Krasnaya Zarya",
               "Vibrator", "Lenpoligrafmash", "Vulkan", "GOMZ", plant
               imeni Kozitskiy, Mebel'naya Fabrika (Furniture Factory)
               imeni Khalturin, "Radist", "Lenteplobridor", "Elektrik",
               "Krasnogvardeyets", plant imeni Sverdlov, plant imeni
               Karl Marx, "Krasnaya Vagranka". By now, the produc-
               tion of 62,000 various items, subdivided into 1,045
               technological groups, has been converted to the group

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SOV/117-59-2-5/27

The Industry of Leningrad Is Widely Introducing Group Production
of Machines and Instruments

machining method. The author indicates the rates
of increase of production, reduction of cost, eco-
nomy of metals and other factors affected by in-
troduction of the group machining method.

ASSOCIATION: Lensovnarkhoz (Leningrad Council of National Eco-
nomy)

Card 2/2

SHERSHEN', L. G.

Development of technical offices in enterprises of the Leningrad
Economic Council. Biul.tekh.-ekon.inform. no.11:71-72 '60.
(MIRA 13:11)

(Leningrad--Economic councils)

SHERSHEN', L.G.

Experience of machinery and instrument plants of the Leningard
Economic Council in introducing multiple machining techniques.
Biul. tekh.-ekon.inform. no.3:73-76 '61.   (MIRA 14:3)
   (Leningrad—Machinery industry)(Leningrad—Instrument industry)

SHERSHENEVA, Ye. F. (Moskva)

Speech training of children in nurseries and children's homes.
Med. sestra 18 no.3:30-34 Mar '59.   (MIRA 12:3)
          (CHILDREN--LANGUAGE)

17(1)

AUTHOR: Shersheneva, Ye. N.   SOV/20-125-2-53/64

TITLE: The Development of the Appendix Vermiformis and its Innervation
                (Razvitiye cherveobraznogo otrostka i yego innervatsii)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 2, pp 424-427
                (USSR)

ABSTRACT: The morphology of the vermiform appendix and its innervation
                cannot be regarded as investigated. After a survey of publica-
                tions the author tries to solve the following problems:
                1) Do the elements of the nervous system of the appendix devel-
                op additionally during the erbryonic life and after the birth
                by transformation of its entodermal or mesodermal cells?
                2) What are the particularities of its vegetative nerve ele-
                ments and of its sensible innervation? 3) What nature has the
                interaction between the differentiating nerve elements and
                the appendix membranes? The author studied appendices of
                embryos 15-290 mm long, new-borns, as well as 4-7-month-old
                and 1-74-year-old persons. The vermiform appendix appears in
                embryos 20 mm long on the transition point of the small
                intestine to the large intestine. The author then describes
Card 1/3   its development in the aforesaid age groups (Figs 1-4).

The Development of the Appendix Vermiformis and its   SGV/20-125-2-53/64
Innervation

This description permits the conclusion that the vermiform
appendix is no rudimentary organ but an independent section
of the digestive tract. It fulfills a protective function. The
appendix appears in the earliest stages of development and
retains throughout the life a certain structure that varies
in details. The structure of its wall is gradually complicated
in the course of the whole embryonic and postembryonic stage,
which holds also for the structure of its vegetative nervous
system. In contrast with publications (Refs 3,6,9), the author
never found a partition of the nerve elements by mitosis or
amitosis. Nor has she concluded therefrom a removal by
gemmiparity of argentophilic cells with neutron formation. It
is not produced from connective tissue in situ as yet. From
all that the author concludes that the elements of the vegeta-
tive nervous system are formed together with the central
nervous system and emigrate to the organ in very early stages
(Refs 2,11,12). There are 4 figures and 16 references, 10 of
which are Soviet.

Card 2/3

The Development of the Appendix Vermiformis and its   SOV/20-125-2-53/64
Innervation

PRESENTED: October 15, 1958, by L. A. Orbeli, Academician

SUBMITTED: October 11, 1958

Card 3/3

SHERSHER, E., inzhener-podpolkovnik

How to prevent an engine from cutting-off. Av.i kosm. 45

(MIRA 15:8)

no.8:65-69 '62.

(Airplanes--Engines)

SHERSHER, E., inzh.-podpolkovnik; KOROVKIN, Yu., inzh.-podpolkovnik

In case of a takeoff boost failure. Av. i kosm. 47 no.4:66-71
Ap '65.
(MIRA 18:4)

LEVINA, M.Ye. [Levina, M.E.]; SHERSHEV, B.S. [Shershov, B.S.]

Phase diagram of the system $KBeF_3 - KPO_3$. Dop. AN URSR no.7: (MIRA 17:9)
942-945 '64.

1. Moskovskiy gosudarstvennyy universitet. Predstavleno akademikom
AN UkrSSR Ye.A.Shilovym [Shylov, IF.O.].

LEVINA, M.Ye.; SHERGHEV, B.S. [Shersnov, B.S.]

Transmission spectra of glasses in the systems $NaBeF_3 - Na_2O_3$
and $KBeF_3 - KPO_3$. Dop. AN URSR no.1:70-73 '65.
(MIRA 18:2)

1. Moskovskiy gosudarstvennyy universitet. Predstavleno akademikom
AN UkrSSR Ye.A. Shilovym [Shylov, E.O.].

L 00030-66   EWT(m)/EWP(t)/EWP(b)   IJP(c)   JD/JG

ACCESSION NR: AP5020309   UR/0186/65/007/004/0480/0482

AUTHOR: Levina, M. Ye.; Shershev, B. S.; Zaborenko, K. B.

TITLE: Emanation study of the sodium beryllium trifluoride-sodium metaphosphate system

SOURCE: Radiokhimiya, v. 7, no. 4, 1965, 480-482

TOPIC TAGS: sodium compound, radioactivity measurement, phase diagram

ABSTRACT: The purpose of this investigation was to determine more accurately the phase diagram of $NaBeF_3$-$NaPO_3$ system, which was previously studied by means of thermal analysis, and to investigate chemical reactions of mixtures in solid state which would give additional data concerning this system. The phase diagram of the $NaBeF_3$-$NaPO_3$ system consists of a continuous series of solid solutions (Fig. 1 of the Enclosure). The methods and the apparatus for measurement of the emanation of pure compounds during heating are described in *Radiokhimiya*, 5, 360 (1963). Radiothorium chloride was introduced as an alcoholic solution into finely ground $NaBeF_3$ powder which was then thoroughly mixed and dried. The active $NaBeF_3$ was mixed in appropriate molar ratios with $NaPO_3$. The mixture was placed into a Pt crucible and

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L 00030-66
ACCESSION NR: AP5020309

heated in the metal block of an electric furnace. The temperature was measured
with a Pt-Pt/Rh thermocouple. The ionization chamber was used for measuring the α-
activity of thoron. The experimental data obtained by the emanation method verify
the existence of a liquidus curve of the continuous series of solid solutions in
the investigated system. Orig. art. has: 4 figures.

ASSOCIATION: none

SUBMITTED: 10Jul64   ENCL: 01   SUB CODE: IC, OC

NO REF SOV: 004   OTHER: 002

Card 2/3

L 00030-66
ACCESSION NR: AP5020309

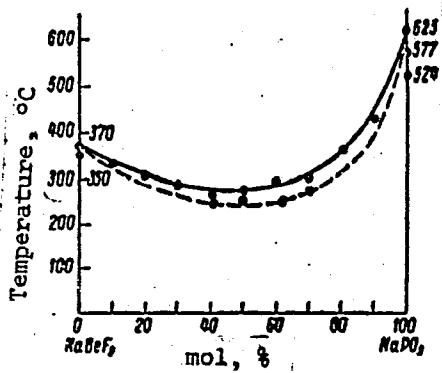ENCLOSURE: 01

Fig. 1. Phase diagram of NaBeF₃-NaPO₃ system

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L 20992-66   EWP(e)/EWT(m)/T   IIAAP   WH

ACCESSION NR: AP5020310   UR/0186/65/007/004/0483/0486
                    541.123.2:546.45'32'161+546.32'185:546.296'543.226

AUTHOR: Levina, M. Ye.; Shershev, B. S.; Zaborenko, K. B. $3\,2$

TITLE: Study of the $KBeF_3$-KPO_3 system by the radioactive emission method B 19

SOURCE: Radiokhimiya, v. 7, no. 4, 1965, 483-486

TOPIC TAGS: fluoroberyllium glass, phosphate glass, optical glass, infrared glass filter, fluoroberyllate phosphate system, phase diagram, radioactive emission method

ABSTRACT: The phase diagram and solid-state chemical reactions of the $KBeF_3$-KPO_3 system have been studied by the radioactive emission method with emphasis on the region of the diagram in the 10—40 mol% KPO_3 range, the study of which had not been completed previously. The beryllium glasses formed in this region are the most transparent in ultraviolet or infrared spectral regions, and the most weatherproof of all the glasses in the system studied, and therefore may find application as new optical glassy materials. The curves of emissive power versus temperature of the sample indicated that a chemical reaction in the solid state started at 200—220C. Earlier DTA data obtained by the authors were confirmed, indicating the formation of a $KBeF_3$-KPO_3 compound with a melting point of 495—500C, which formed two eutectics

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L 20992-66

ACCESSION NR: AP5020310

with the pure components of the system. The peaks of the emission curves from the eutectic mixtures containing 20—35 mol% KPO_3 indicated that the melting begins at 295—300C for all these mixtures and ends at a temperature varying with the composition. The latter temperature data coincided with data determined earlier from the liquidus curve extrapolated because it was impossible to obtain experimental DTA data for this part of the phase diagram. Orig. art. has: 5 figures.   [JK]

ASSOCIATION: none

SUBMITTED: 10Jul64   ENCL: 00   SUB CODE: MT, NP

NO REF SOV: 002   OTHER: 008   ATD PRESS: 4069

Card 2/2

L 20679-66   EWP(e)/EWT(m)/EPF(n)-2/T/EWP(t)   IJP(c)   JD/WW/JW/JG/WH

ACC NR: AP6010832   SOURCE CODE: UR/0073/66/032/003/0253/0255

AUTHOR: Levina, M. Ye.; Shershev, B. S.

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Phase diagram of the $NaBeF_3$-$NaPO_3$ system

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 32, no. 3, 1966, 253-255

TOPIC TAGS: fluoroberyllate glass, phosphate glass, optical glass, infrared glass filter, metafluoroberyllate metaphosphate system, phase diagram

ABSTRACT: The phase diagram of the $NaBeF_3$-$NaPO_3$ system has been established by differential thermal analysis of the molten, slow cooled mixtures of pure components of the system to determine the conditions of formation of fluoroberyllate glasses. The formation of such glasses was reported in the literature. A rapid (30—40C per min) cooling of the $NaBeF_3$-$NaPO_3$ melts produced transparent, moisture resistant glasses over the entire range of concentrations of the components. Quality of the glasses was improved by pouring the melt on a platinum sheet. The phase diagram of the system was typical for a continuous series of solid solutions with a minimum melting point at 40 mol% $NaPO_3$. Composition dependence of dielectric losses, tg δ and of refractive indices of the glossy samples confirmed formation of continuous solid solutions. The glasses formed by rapid cooling of the melts had low melting points ($\sim$240—625C) and were partially transparent in the ultraviolet and infrared

Card 1/2   UDC: 536.7

L 20679-66

ACC NR: AP6010832

spectral regions. They do not crystallize by annealing and may be used in industry. Crystallized glasses of the $NaBeF_3-NaPO_3$ system were obtained by a slow cooling of the melts of any composition within the system. Orig. art. has: 4 figures.   [JK]

SUB CODE: 11/ SUBM DATE: 11Jul64/ ORIG REF: 007/ OTH REF: 003/ ATD PRESS:
4223

Card 2/2 BK

/EXP(v)/EWA;d)/GXO(m)/EPF(n)-2/EPR/EWP(k)/

ACCESSION NR: AT5003932   S/3065/61/000/036/0101/0119

AUTHOR: Shershnev, S. T. (Engineer)

TITLE: Calculation of protective shells of nuclear reactors

SOURCE: Moscow. Inzhenerno-stroitel'nyy institut. Sbornik trudov, no. 36, 1961, Kafedra stroitel'stva yadernykh ustanovok (Department for the construction of nuclear engineering installations), 101-119

TOPIC TAGS: structural analysis, radiation protection, shell theory

ABSTRACT: The general theory of shells is reviewed for the purpose of providing a computational guide in the solution of structural problems involved in nuclear reactor shield construction. The problem variables are expressed in terms of the forces (T) and moments (M) of the three-dimensional coordinate system shown in Fig. 1 on the Enclosures. Consideration of the equilibrium state of a shell element yields three equations of force equilibrium

$$\frac{1}{AB}\left(\frac{\partial BT_1}{\partial \alpha} + \frac{\partial AT_{21}}{\partial \beta} + \frac{\partial A}{\partial \beta}T_{12} - \frac{\partial B}{\partial \alpha}T_2\right) + \frac{N_1}{R_1} + q_\alpha = 0;$$

$$\frac{1}{AB}\left(\frac{\partial BT_{12}}{\partial \alpha} + \frac{\partial AT_2}{\partial \beta} + \frac{\partial B}{\partial \alpha}T_{21} - \frac{\partial A}{\partial \beta}T_1\right) + \frac{N_2}{R_2} + q_\beta = 0;$$

$$\frac{1}{AB}\left(\frac{\partial BN_1}{\partial \alpha} + \frac{\partial AN_2}{\partial \beta}\right) - \frac{T_1}{R_1} - \frac{T_2}{R_2} + q_\gamma = 0.$$

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L 32712-65

ACCESSION NR: AT5003932

and three more equations of moment equilibrium

$$\frac{1}{AB}\left(\frac{\partial BM_1}{\partial a}+\frac{\partial AM_{11}}{\partial \beta}+\frac{\partial A}{\partial \beta}M_{12}-\frac{\partial B}{\partial a}M_2\right)-N_1=0;$$
$$\frac{1}{AB}\left(\frac{\partial BM_{12}}{\partial a}+\frac{\partial AM_2}{\partial \beta}+\frac{\partial B}{\partial a}M_{21}-\frac{\partial A}{\partial \beta}M_1\right)-N_2=0;$$
$$T_{12}-T_{21}+\frac{M_{12}}{R_1}-\frac{M_{21}}{R_2}=0.$$

Here A,B, are coefficients of the first quadratic form, q_α, q_β, q_γ are components of the surface load along the coordinate axes, and R_1, R_2 are principal radii of curvature for the given coordinate system. Substitution of variables describing deformation characteristics and elasticity relationships and introduction of complex variable forms proposed by V. V. Novozhilov (Novyy metod rascheta tonkikh obolochek, Izv. AN SSSR, OTN, 1946, No. 1) result in further reduction of the equilibrium equations. An exponential stress function, written in complex form, is introduced, and after a series of operations and reductions, the solution set

$$\frac{d^4\tilde{\phi}}{da^4}=\tilde{C}_1 e^{-(1-i)\gamma}+\tilde{C}_4 e^{(1-i)\gamma};$$

$$\gamma=\frac{1}{\sqrt{2}}\int_{a_0}^{a}\frac{R_1}{\sqrt{cR_1}}\,da$$

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obtains, where $\tilde{\phi}$ is the complex stress state function, and $\tilde{C}_1$, $\tilde{C}_2$ are complex constants of integration. The solution

$$T_2 = (C_1 \cos v - C_2 \sin v) e^{-v};$$

$$M_1 = -c(C_2 \cos v + C_1 \sin v) e^{-v};$$

$$N_1 = -\frac{1}{\sqrt{2}} \sqrt{\frac{c}{R_2}} [(C_2 - C_1) \cos v + (C_1 + C_2) \sin v] e^{-v};$$

$$M_2 = \mu M_1$$

was given as a general solution for original problem variables. A summary is given showing the formulas for solving all of the problem variables (forces and moments) and for the boundary conditions

$$C_1 = -\frac{3}{8} R q_1; \quad C_2 = 0.$$

Solutions given in Table 1 on the Enclosures obtain. Orig. art. has: 47 equations, 2 figures, and 1 table.

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ACCESSION NR: AT5003932

ASSOCIATION: Moscow.Inzhenerno-stroitel'nyy institut (Moscow Engineering Construc-
tion Institute)

SUBMITTED: 00   ENCL: 02   SUB CODE: NP, PH

NO REF SOV: 004   OTHER: 000

Card 4/6
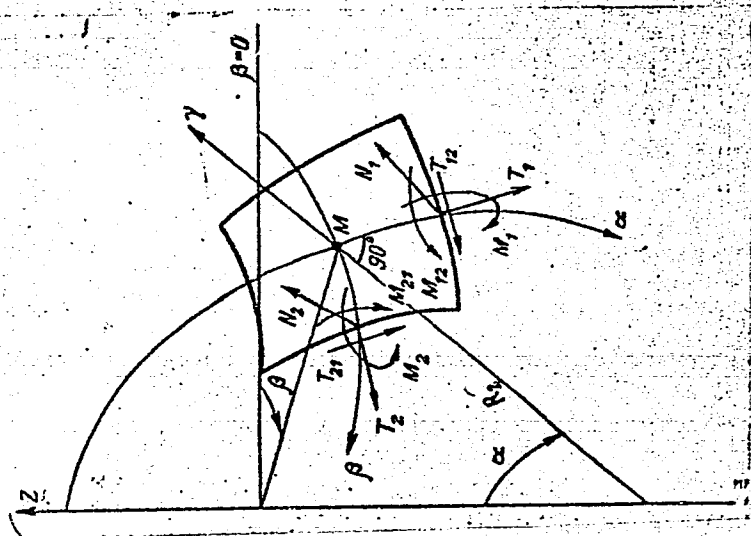
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Fig. 1.

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TABLE 1

α	s	v	T_1	T_2	M_1	M_2	N_1	ω, см
90°00'	0,000	0,000	280	70,0	0,000	0,000	3,99	0,000
89°50'	0,048	0,078	280	86,2	0,180	0,045	3,39	0,033
89°40'	0,096	0,155	280	102,5	0,330	0,082	2,85	0,065
89°20'	0,187	0,302	280	131,9	0,550	0,138	1,94	0,124
89°00'	0,280	0,452	280	160,6	0,695	0,174	1,17	0,180
88°30'	0,420	0,678	280	196,8	0,797	0,199	0,31	0,254
88°00'	0,557	0,900	280	224,3	0,795	0,199	—0,26	0,314
87°00'	0,832	1,346	280	267,7	0,635	0,159	—0,78	0,396
85°00'	1,395	2,255	280	294,0	0,202	0,050	—0,59	0,448
75°00'	4,184	6,760	280	279,7	0,000	0,000	0,00	0,420
55°00'	9,780	15,820	280	289,0	0,000	0,000	0,00	0,420

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L 33508-65   EPF(c)/EWT(m)/EWP(j)/T   Pc-4/Pr-4   RM

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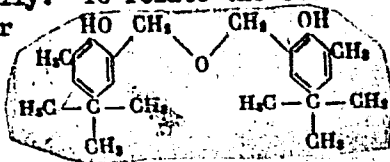
ACCESSION NR: AP5003828

AUTHORS: Ginzburg, L. V.; Shershnev, V. A.; Pshenitsyna, V. P.; Dogadkin, B. A.

TITLE: Reaction of unsaturated elastomers with phenolformaldehyde derivatives under vulcanizing conditions

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 7, no. 1, 1965, 55-62

TOPIC TAGS: butyl rubber, vulcanization, IR analysis/ IKS 14 IR apparatus, I 800 IR apparatus

ABSTRACT: An IR study (700-2000 cm^{-1} on an IKS-14 apparatus, 2000-4000 cm^{-1} on an I-800 apparatus) was conducted on the reaction products of unsaturated rubbers (SKD) and of butyl rubbers with 2.6-dimethylol-4-tert.-butylphenol (DMF), with and without $SnCl_2 2H_2O$. The IR spectra of SKD and butyl rubber containing 12 parts (by weight) of DMF are shown graphically. To relate the structural kinetics to the consumption of ester groups, the ester   was introduced into the

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rubbers (dissolved in CCl_4). It was found that the degree of structurization could be expressed as

$$N_c = -3,5 \cdot 10^{16} \lg \frac{c}{0,3} \, cm^{-3}$$

$$N_c = -2,0 \cdot 10^{16} \lg \frac{c}{0,3} \, cm^{-3}$$ (where c = ester group concentration, mol/l)

for initial DMF concentration of 12 and 6 parts by weight respectively. To show that the radical processes, which develop during structurization, end when an equilibrium degree of structurization is reached, a free radical acceptor (2-mercaptobenzothiazole, MBT) was added to the rubbers. During the initial stages, MBT decreased the degree of structurization, but had no effect after equilibrium was reached. The addition of $SnCl_2 \cdot 2H_2O$ significantly increased the vulcanization rate (at temperatures above 160C by orders of magnitude), but no esters could be found, and the concentration of phenolic hydroxyl decreased by 50% after 15 minutes at 160C. This indicates the possibility of chromanic structures as well as an interaction of DMF with α-methylene hydrogen from the rubber. Orig. art. has: 3 figures.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im. M. B. Lomonosova (Moscow Institute of Fine Chemical Technology)

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L 33508-65
ACCESSION NR: AP5003828

SUBMITTED: 03Mar64   ENCL: 00   SUB CODE: OC

NO REF SOV: 002   OTHER: 009

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P/044/62/000/012/002/002
D002/D101

AUTHOR: Shershev, Ye., Lt. Colonel, Engineer

TITLE: How to prevent engine flameout during flight

PERIODICAL: Wojskowy przegląd lotniczy, no. 12, 1962, 27-32

TEXT: This is a translation of a Russian-language article published
in the periodical "Aviyatsiya i kosmonavtika", no. 8/62, and constitutes a
narrative account of likely causes of engine flameout during flight and
appropriate precautions. Specific mention is made of the following: Proper
overpressure in fuel tanks; fuel pump performance; temperature control in
afterburner operation; how and when to turn on the afterburner; avoiding
the use of hydraulically operated equipment when afterburner is on or being
turned off to prevent pressure fall in the hydraulic system; watch of tem-
perature during afterburner-assisted climb; proper timing of iris nozzle
movement; mechanical check of iris nozzle; lean-mixture engine speed; and
acceleration pick-up test. The following engine parts affecting flameout
are mentioned: 495A pump, CN-9 pump, NRA-11A feed pump, KPM-1A coil, and
DSD-2 differential pressure indicator. There are 2 figures.

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SHERSHEVER, S.M. (Vil'nius)

Use of chlorethyl block in certain diseases. Sov.med. 18 no.6:
31-32 Je '54.   (MLRA 7:6)
                (ANESTHESIA, REGIONAL, in various diseases
                 *ethyl chloride block)
                (ETHYL CHLORIDE, therapeutic use)
                 *

USSR/Human and Animal Physiology (Normal and Pathological)   T-13
            Effect of Physical Factors. Ionizing Radiation.

Abs Jour   : Ref Zhur - Biol., No 16, 1958, 75286

Author   : Shershever, S.M.
Inst   :
Title   : On the Problem of Infection of the Brain During Radiation
              Sickness (Experimental Investigation).

Orig Pub   : Zh. nevropatol. i psikhiatrii, 1957, 57, No 3, 393-401

Abstract   : Results are described of histological investigation of
              the brain in 3 dogs, sacrificed in 29-43 days after a sin-
              gle roentgen exposure of the head to 1000 or 1500 r, and
              in 9 dogs that died in 7-96 days after the same exposure
              of the head a two-fold (with an interval of 2-3 days) ex-
              posure to doses of 510 r 3-4 field 20:20 cm along the spi-
              ne. On a basis of radiation sickness more or less expres-
              sed encephalopathic reaction was found with signs of hypo-
              xy, with predominant infection of the nerve cells of the

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17(13)   SOV/177-58-11-17/50

AUTHOR: Shershever, S.M., Docent, Colonel of the Medical Corps

TITLE: Treatment of Myositis, Acute Neuralgia, Mononeuritis
                and Radiculitis With Iodine Paste

PERIODICAL: Voyenno-meditsinskiy zhurnal, 1958, Nr 11, pp 53 -
                55 (USSR)

ABSTRACT: The article deals with the treatment of various ner--
                vous diseases with iodine paste. The author stresses
                the good results obtained with iodine paste of Pro-
                fessor S.K. Rozental' which was described in "Herald
                of Experimental Medicine" in 1945   (Nr. 4). . The
                paste is composed of iodine - 0.3, chloroform -
                150.0, ethyl alcohol - 20.0 and paraffin wax - 30.3.
                In his monograph "Ishias" (Medgiz, 1954), D.A. Sham-
                burov emphasized the rapid calming of pains due to
                this paste. A.I. Ponizovskaya wrote in the journal
                "Neuropathology and Psychiatry" (Ed. 5, 1957) on good
Card 1/2   results in treating 624 patients suffering from di-

SOV/1 77-58-11-17/50

Treatment of Myositis, Acute Neuralgia, Mononeuritis and Radiculi-
tis With Iodine Paste

              seases of the peripheric nervous system with Rozen-
              tal''s iodine paste. Because of the painful ness
              at the moment of application and pruriginous derma-
              titis, the author modified the composition of the
              iodine paste as follows: iodine - 3,0, menthol - 6.0,
              anesthesin- 15.0, alcohol - 20.0 - paraffin - 30.0,
              chloroform - 150.0. On aggravation of the chronic
              disease, khimanestesin is applied, combined with
              hygienic sports and drugs.

Card 2/2

PETRUSENKO, A.V., polkovnik med.sluzhby; SHERSHEVER, S.M., polkovnik med.
        sluzhby

    Result of the work of a military medical society of a district hospital.
    Voen.-med.zhur. no.10:53-55 O '59.   (MIRA 13:3)
                (SOCIETIES, MEDICAL)
                (MILITARY MEDICINE)

TEYTEL'BAUM, M.M., polkovnik med.sluzhby, kand.med.nauk; SHERSHEVER, S.M.,
    polkovnik meditsinskoy sluzhby, kand.med.nauk; KRYLOVA, L.P.

Symptomatology of gastric and duodenal ulcer in young subjects.
Voen.-med.zhur. no.2:77-79 F '60.   (MIRA 13:5)
            (PEPTIC ULCER)