

Vertical Focusing of an Electron Beam
Using Cylindrical Magnetic Lenses in a
Axially Symmetrical Radially Increasing
Magnetic Field

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SOV/57-30-2-4/13

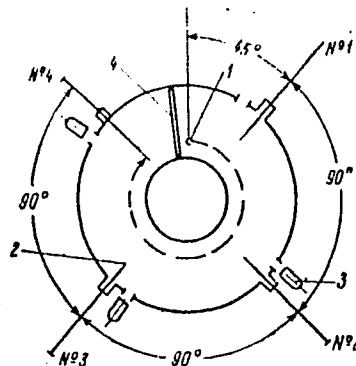
As seen, the entire system is a continuous circuit. The direction of horizontal field components of adjacent magnetic lenses is opposite. The vacuum chamber (4) has an inner radius of 17 cm and an outer of 35 cm. It is 2 cm high. The betatron injector 5 is of standard type with deflector 18 cm from the axis of the system. It could be rotated in the horizontal and vertical plane. The angle of divergence of the beam is 5° . The path of the beam was observed by means of willemite covered screens, while for intensity measurements the screens were replaced by copper plates, and the resulting inhibiting radiation was measured by means of Geiger counters through thin windows covered with thin organic glass (see Fig. 5). The injection was continuous by means of a constant 4 to 8 kv potential. In the case of the 35 cm coil of the guiding field with 8 kev electrons and 1,400

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Fig. 5. Diagram of
the distribution of
screens and end-count-
ers: (1) injector;
(2) screen; (3) counter;
(4) plate shielding
the scattered X-ray
radiation.



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ampere-turns on the coils, the authors found on the screen Nr 4 the beam to be well focused in the radial direction but completely out of focus in the vertical direction. A 300 a current in the focusing device reduced the beam to an approximate circle of 3 mm diam. The screen was at a distance of 24 cm from the axis of symmetry. The authors used the 55 cm coil to measure the average intensity at a fixed equilibrium orbit. The results are on Figs. 8 and 9. On Fig. 9, N_2 and N_4 are the counting rate intensities from

the radiations originating at the screens Nr 2 and Nr 4. One sees that while without focusing the intensity after one half of a turn drops more than 13 times; for currents of more than 300 a the ratio is of the order of unity. There are 9 figures; and 2 Soviet references.

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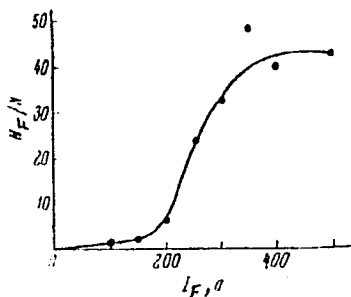


Fig. 8. Beam intensity versus current intensity in the focusing system at an angular distance of 135° from the injector. N_F = intensity of counting rate at a current I_F ; N = intensity of counting rate at $I_F = 0$.

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Vertical Focusing of an Electron Beam
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Axially Symmetrical Radially Increasing
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SOV/57-30-2-4/18

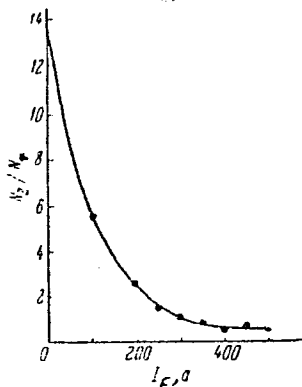


Fig. 9. N_2/N_4 ratio versus focusing current intensity $I_{F,0}$.

ASSOCIATION: Physico-Technical Institute AS USSR Leningrad
(Fiziko-tekhnicheskij Institut AN SSSR Leningrad)

SUBMITTED: August 27, 1959

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ACCESSION NR: AP4013421

S/0057/64/034/002/0321/0325

AUTHOR: Kel'man, V.M.; Levchenko, S.I.; Luzyanin, I.D.; Peregud, B.P.

TITLE: Vertical focusing of an electron beam in an axially symmetric radially increasing magnetic field by cylindrical magnetic lenses

SOURCE: Zhurnal tekhn.fiz., v.34, no.2, 1964, 321-325

TOPIC TAGS: electron beam, electron beam focusing, magnetic lens, cylindrical magnetic lens, vertical beam focusing, vertical cyclotron beam focusing, cyclotron, accelerator, continuous injection accelerator

ABSTRACT: This paper is the most recent of a series (V.M.Kel'man, B.P.Peregud, K.A.Domatova, ZhTF 28, No.5, 1055-1060, 1958; Yu.V.Vandurov, Ibid.28, No.5, 1065-1076, 1958; V.M.Kel'man, B.P.Peregud, K.A.Dolmatova, I.D.Luzyanin, Ibid.30, No.2, 153-158, 1960) devoted to discussion of a system for vertical focusing of the beam in a cyclotron or similar device. The focusing system is described in earlier papers of the series. The focusing system consists of a number of cylindrical magnetic lenses located on equally spaced radii of the acceleration chamber. The present paper reports an experimental investigation of the effectiveness of the focusing system by means of

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ACCESSION NR: AP4013421

probe measurements of beam intensity under various conditions. The apparatus (except for the probe, which presents no novel features) was described in an earlier paper. The chamber was 4 cm high and somewhat more than 32 cm in radius. A 5 keV electron beam was employed. The beam current was measured at 135° from the injection point as a function of the current in the focusing lenses. Appropriate excitation of the lenses increased the beam current by a factor of 100. The beam current was measured as a function of the radius with the lenses excited. Six peaks could be distinguished which, by their relative heights, could be correlated with the first six revolutions of the beam. The positions of the beam after each of its first five revolutions were calculated by a method developed in a previous paper. The calculated beam positions agreed very well with the locations of the five highest peaks on the current versus radius curve. The position of the beam after the sixth revolution is not discussed. The following conclusions are drawn: 1) The proposed system assures effective vertical focusing of an electron beam in a radially increasing magnetic field. 2) Formulas developed in an earlier paper can be employed to calculate the behavior of the system. 3) The system can be recommended for use with cyclotrons to increase the beam energy, and for the development of new types of continuous injection accelerators. "The authors express their gratitude to Yu.

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ACCESSION NR: AP4013421

V.Vandakurov and Yu.S.Korobochka for the interesting and valuable discussions that occurred during the course of the work." Orig.art.has: 4 formulas, 5 figures and 1 table.

ASSOCIATION: Fiziki-tekhnicheskiy institut im. A.F.Ioffe AN SSSR, Leningrad (Physical-Technical Institute, AN SSSR)

SUBMITTED: 26Dec62

DATE ACQ: 26Feb64

ENCL: 00

SUB CODE: PH, SD

NR SOV REF: 004

OTHER: 000

Card 3/3

LUZYANIN, M.D.; DVORKIND, M.M.; KORSHUNOV, V.S.

Daub for the lining of charging doors on open-hearth furnaces.
Metallurg 6 no.9:18-19 S '61. (MIRA 14:9)

1. Nizhne-Tagil'skiy metallurgicheskiy kombinat i Vostochnyy
institut ogneuporov.

(Open-hearth furnaces)
(Refractory materials)

LUZANINA, T. Ya.

1. POKOTINSKIY, I.S., KRIVSKIY, A.S., LUZANINA, T. YA.

2. USSR (600)

7. "A New Method for Studying the Development of Microbes and Bacterial Viruses in the Electron Microscope", Zhurnal Mikrobiologii, Epidemiologii i Immunobiologii, No 5, 1951 [sic], pp 19-22.

9. Mikrobiologiya, Vol XXI, Issue 1, Moscow, Jan-Feb 1952, pp 121-132. Unclassified.

LUZIANINA, T. Ya., SMORODINTSEV, A. A. and MOROZENKO, M. A.

"The Etiology and Laboratory Diagnosis of Influenza," Problema Grippa i
Ostrykh Katarrov Verkhnikh Dykhatel'nykh Putey, Moscow, pp 5-7, 1952

W-27086, 25 Jul 53

LUZYANINA, T. Ya.

"The Study of Antigenic and Biological Properties of Strains of Influenza
Virus Isolated in 1949," Problema Grippa i Ostrykh Katarrov Verkhnikh Dykhatel'nykh
Putey, Moscow, pp 10,11, 1952

W-27086, 25 Jul 53

LUZYANINA, T. Ya.

"The Change of Biological Properties of Influenza Virus Which was Injected into Mice After Having Passed Through the Organism of ~~Rats~~ White Rats," Problema Grippa i Ostrykh Katarrov Verkhnikh Dykhatel'nykh Putey, M_oscow, pp 13, 14, 1952.

W-27086, 25 Jul 53

LUZANINA, T. YA.

USSR/Medicine - Virus Diseases, Influenza,

Mar 53

"Etiology and Laboratory Diagnosis of Influenza," A. A. Smorodintsev, M. S. Klyachko, T. Ya. Luzyanina, M. A. Morozenko, Ye. S. Shikina, I. A. Yuras, V. P. Korotkova, Div of Virology, Inst of Exptl Med, Acad Med Sci USSR; Inst of Epidemiol imeni Pasteur

"Zhur Mikrobiol, Epidemiol, i Immunobiol" No 3, pp 69-78

At present, the subtype A₁ predominates in the USSR. The antigenic structure of A₁ isolated during the past few years is polymorphic: it is necessary to supplement cross-neutralization by cross-adsorption of antibodies according to a new method developed by the authors. Smorodintsev's rapid method of diagnosing influenza by the reaction of complement fixation is effective in 50% of the cases on sputum examined during the first week after infection; it is less effective on serum. The reaction of hemoagglutination is effective in 40% of the cases when carried out under proper conditions with the use of human erythrocytes of the O group. It is necessary to produce and supply diagnostic preparations [literally "diagnostica"] equally suitable for hemo-agglutination and complement fixation (dry A, A₁, and B diagnostica from eluates or infected chicken embryos); to provide dry purified anti-influenza horse sera suitable for both hemoagglutination and complement fixation; to supply from a central point through donor stations, human O-erythrocytes.

PA 244T44

LUZYANINA, T. Ya.

POKOTINSKIY, I.S.; LUZYANINA, T.Ya.

Electron microscopy of influenza virus adsorbed on erythrocytes.
Trudy, AMN SSSR 28:14-20 '53. (MLRA 7:8)

1. Iz Otdela virusologii Instituta eksperimental'noy meditsiny
AMN SSSR.

(INFLUENZA VIRUSES,
microscopy, electron)
(MICROSCOPY, ELECTRON,
of influenza virus)

LUZYANINA, T.Ya.

Data on the mechanism of serological variability of influenza virus.
Trudy AMN SSSR 28:20-38 '53. (MLRA 7:8)

1. Otdel virusologii Instituta eksperimental'noy meditsiny AMN SSSR.
(INFLUENZA VIRUSES,
*serol. variability)

LUZYANINA, T.Ya.

Studies on biological and antigenic properties of certain strains
of influenza virus A. Trudy AMN SSSR 28:158-163 '55. (MLRA 7:8)

1. Iz Otdela virusologii Instituta eksperimental'noy meditsiny
AMN SSSR.

(INFLUENZA VIRUSES,

A, antigenic & biol. characteristics)

LUZYANINA, T.Ya.

Biological modifications of properties of the murine strain of influenza virus during passage through the organism of white rats.
Trudy AMN SSSR 28:38-48 '54. (MLRA 7:8)

1. Iz Otdela virusologii Insituta eksperimental'noy meditsiny AMN SSSR.

(INFLUENZA VIRUSES,
variability of murine strain during passage through
white rats)

LUZYANINA, T.Ya.

USSR/Virology - Human and Animal Viruses.

E-3

Abs Jour : Ref Zhur - Biol., No 4, 1958, 14557

Author : Luzyanina, T.Ya., Aleksandrova, G.I.

Inst : -

Title : Conditions for Obtaining Strains of Grippe Virus with a Complex Antigenic Structure.

Orig Pub : Ezhegodnik. In-t eksperim. med. Akad. med. nauk SSSR, 1955 L., 1956, 230-235

Abstract : An effort was made to create a single polyvalent grippe virus strain with a complex antigenic structure from 2 strains markedly different from one another in their antigenic and biological properties-- strain A-32 and A¹-3711. The virus mixture was introduced into the allantoic cavity of hen embryos. After 48 hours of incubation the allantoic liquids were titrated as to RGA (hemagglutination reaction?) and then checked as to RTGA (hem.react. inhibition (?)) with 2 sera against the initial strains. Virus neutralization

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Card 2/2

LUZYANINA, T. Ya., and ALEKSANDROVA, G. A.

"Virological and Biological Characteristics of Strains of Type B Influenza Virus Isolated in 1955," by T. Ya. Luzyanina and G. A. Aleksandrova, Division of Virology, Institute of Experimental Medicine, Academy of Medical Sciences USSR, Voprosy Virusologii, Vol 1, No 5, Sep/Oct 56, pp 10-15

The etiology of an influenza outbreak in Leningrad during the winter of 1955 was studied. Strains of virus were isolated from patients and analyzed for antigenic and biological characteristics. Methods employed in the following operations are described: isolation of the virus; hemagglutination-inhibition reaction; cross exhaustion of serums with isolated strains; testing of the pathogenicity of the virus in the lungs of white mice; and determination of the toxic properties of the isolated strains.

Results of these investigations are presented in tabular form. The titles of the five tables included are as follows: (1) Cross hemagglutination-inhibition reaction with the isolated strains; (2) Cross exhaustion of immune serums with various strains; (3) Pathogenicity of isolated strains for white mice after 1-4 passages through chick embryos; (4) Death of mice within 1-2 days after the intravenous introduction of influenza virus strains to white mice; (5) Infectiosity for chick embryos and average indexes of the hemagglutination titer after culturing type B strains at varying temperatures.

On the basis of the aforementioned investigations, several conclusions were drawn:

"1. During the 1955 influenza outbreak, ten strains of influenza virus were isolated by introducing human nasal secretions and washings into the amniotic cavity of chick embryos. Seven strains belonged to type B, three to type A¹.

"2. The type B strains isolated differed sharply from old laboratory type B strains (B-Li and B-28), and were shown to be closer in antigenic relationship to strain BM8, isolated in 1952.

"3. Newly isolated type B strains not passed on chick embryos were markedly pathogenic for white mice. In proportion to passage through the lungs of the mice, the viruses lost pathogenicity for these animals. Passage of the isolated strains on chick embryos sharply decreased their pathogenicity for mice.

"4. The isolated strains were toxic for mice upon intravenous introduction.

"5. Culturing of the infected embryos at 31-32° C considerably increased the infectiosity of the virus for chick embryos and the virus titer in the hemagglutination reaction in allantoic fluid."

Sum 1239

USSR/Virology - Human and Animal Viruses.

E

Abs Jour : Ref Zhur Biol., No 1, 1958, 572

Author : Luzyanina, T.Ya., Aleksandrova, G.I.

Inst : Institute of Experimental Medicine, Academy of Medical Sciences.

Title : Antigens and Biological Properties of Strains of Type A Grippe Virus Isolated in Leningrad in 1956.

Orig Pub : Yezhegodnik. In-t eksperim. med. AMN SSSR, 1956, Vol 2 (M)., 1957, 420-427

Abstract : No abstract.

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- 9 -

LUZYANINA, T.Ya.; SELIVANOV, A.A.

Virological and serological data from a study of latent adenoviruses isolated in Leningrad. Trudy Len.inst.epid.i mikrobiol. 17:43-55 '58. (MIRA 16:2)

1. Iz otdela virusologii (zav. - chlen-korrespondent AMN SSSR prof. A.A. Smorodintsev) Instituta eksperimental'noy meditsiny AMN SSSR.

(~~LENINGRAD~~—ADENOVIRUS INFECTIONS—~~MICROBIOLOGY~~)

SMORODINTSEV, A.A.; ALEKSANDROVA, G.I.; LUZYANINA, T.Ya.; MOROZENKO, M.A.;
SELIVANOV, A.A.

Virological and serological characteristics of the influenza
pandemic of 1957. Trudy Len.inst.spid.i mikrobiol. 17:78-92
'58. (MIRA 16:2)

1. Otdel virusologii Instituta eksperimental'noy meditsiny AMN
SSSR, Leningrad.
(~~LENINGRAD~~---INFLUENZA---MICROBIOLOGY)

LUZYANINA, T.Ya., GEFT, R.A.

Presence of Sendai virus antibodies (influenza A) in the population of Leningrad. Vop.virus 3 no.4:234-235 JI-Ag '58 (MIRA 11:9)

1. Otdel virusologii Instituta eksperimental'noy meditsiny AMN SSSR, Leningrad.

(INFLUENZA VIRUSES

Sendai virus, presence of antibodies in Leningrad population (Rus))

POLYAK, R.I.; LUZYANINA, T.Ya.; SMORODINTSEV, A.A.

Biochemical investigations of influenza virus neutralizing protein fractions of sera from different animals. Acta virol. Engl. Ed., Praha 3(Supplem.):61-70 1959

1. Department of Virology, Institute of Experimental Medicine, U.S.S.R. Academy of Medical Sciences, Leningrad.
(INFLUENZA VIRUSES, imminol.)

IUZYANINA, T. YA.; SAIMINEN, A. L.; SMORODINTSEV, A. A.

Peculiarities of the interaction of thermostable inhibitors from
from normal sera with type A2 influenza viruses of the 1957 pandemic.
Acta virol. 4 no.3:137-145 My '60.

1. Department of Virology, Institute of Experimental Medicine, U.S.S.R.
Academy of Medical Sciences, Leningrad.
(INFLUENZA VIRUSES, immunology)

SMORODINTSEV, A.A.; LEZYANINA, T. Ya.; POLYAK, R.Ya.

Virus-neutralizing activity, the nature and the properties of
thermolabile substances of normal serums of different animals.
Nauch. inform. Otd. nauch. med. inform. AMN SSSR no.1:19-20
'61 (MIRA 16:11)

1. Institut eksperimental'noy meditsiny (direktor - chlen
korrespondent, AMN SSSR D.A.Biryukov) AMN SSSR, Leningrad.

*

LUZYANINA, T.Ya.

Peculiarities of the interaction of thermolabile serum inhibitors with different viruses. Acta virol. 6:498-507 '62.

1. Dept. of Virology, Institute of Experimental Medicine, U.S.S.R. Academy of Medical Sciences, Leningrad.

(MYXOVIRUS) (INFLUENZA VIRUSES) (MUMPS VIRUS)
(ECHO VIRUSES) (COXSACKIE VIRUSES) (ADENOVIRUS)

LUZYANINA, T.Ya.; SMORODINTSEV, A.A.; MIKUTSKAYA, B.A.

Immunogenic and reactogenic properties of live tissue culture anti-mumps vaccine. Acta virol. (Praha)[Eng] 7 no.6:562 '63.

1. Dept. of Virology, Institute of Experimental Medicine,
U.S.S.R. Academy of Medical Sciences, Leningrad.
(MUMPS) (VACCINATION) (ANTIBODY FORMATION)

YABOV, A.A.; JULYANINA, T.Ye.; KUMAR, R. Ya.

Activating effect of the mixed lymphocyte of a mouse strain on
specific antibodies, *Vopr. Immunol.*, 1974, 13, 111.

(1974, 11-1)

LUZYANINA, T. Ya; POLYAK, R. Ya; PIKUL, A. P.; KUDRYAVTSEVA, V. K.

Conditions for influenza virus reactivation from a neutral complex with inhibitors. Acta virol. (Praha) [Eng.] 8 no.2: 172-178 Mr'64.

1. Department of Virology, Institute of Experimental Medicine, USSR, Academy of Medical Sciences, Leningrad.

*

LUZYANINA, T.Ya.; SMORODINTSEV, A.A.

Neutralization of mumps virus in chick embryo cell cultures.
Acta virol. (Praha) [Eng.] 9 no.2:160-164 Mr'65.

1. Department of Virology, Institute of Experimental Medicine,
U.S.S.R. Academy of Medical Sciences, Leningrad.

KUZNETSOV, O.K.; LUZYANINA, T.Ya.

Protective effect of homologous and heterologous immune sera in experiments on tissue cultures. Vop. virus. 10 no.3:333-338 My-Je '65. (MIRA 18:7)

1. Otdel virusologii Instituta eksperimental'noy meditsiny AMN SSSR, Leningrad.

05/25

S/108/60/015/006/010/012/XX
B010/B070

6.4400 (2103,3203,3303,2204,1154)

AUTHORS: Ustinova, L. B., Luzyanina, Z. N.

TITLE: Correction of the Frequency Response Curve of Broad-band Amplifiers With the Help of Positive and Negative Feedback

PERIODICAL: Radiotekhnika, 1960, Vol. 15, No. 6, pp. 24-35

TEXT: The present paper supplements the papers of M. M. Ayzinov, I. A. Snelov, and L. B. Ustinova, and indicates the method of calculation of the optimal parameters of a two-stage broad-band amplifier which is frequency-corrected by the use of positive and negative feedback. Frequency correction with the help of inductance is applied for the purpose of comparison. Using the notations of Table 1, the amplification factor of the frequency-corrected circuits of the table is given by

$$K = \frac{K_0}{a_0 + a_1x + a_2x^2 + a_3x^3}$$
 . This factor may be increased in the region of high

frequencies in comparison to the medium frequencies by feeding back the frequency-dependent output signal to the input of the amplifier. Denoting Card 1/8

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Correction of the Frequency Response Curve
of Broad-band Amplifiers With the Help of
Positive and Negative Feedback

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B010/B070

the angular frequency of this amplification maximum by ω_2 , the ratio of the amplification maximum to the amplification of the medium frequencies is given by equation (8):

$$m^2 = \frac{A}{A + B\Omega_2 + C\Omega_2^2 + D\Omega_2^3}, \text{ where } A, B, C, D \text{ are}$$

to be taken from Table 1, and $\Omega_2 = (\omega_2 RC)^2$ [Abstracter's note: Correctly, $\Omega_2 = (\omega_2 RC_1)^2$. Also in Table 1, C should read C_1 at the sign *]. The quality of a broad-band amplifier is characterized by the product $K(0)f_2$, where $K(0)$ is the amplification factor for medium frequencies, and $f_2 = \omega_2/2\pi$. This product depends principally on the degree of the polynomial in the denominator of the right-hand side of equation (8), and can be calculated from it. The result is (15):

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Correction of the Frequency Response Curve
of Broad-band Amplifiers With the Help of
Positive and Negative Feedback

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$$K(0)f_2 = \sqrt[4]{3} \frac{S}{2\pi C_1} \sqrt{K(0)} \cdot \sqrt[4]{1 - \frac{1}{m^2}} \frac{1}{\sqrt[4]{C}} \sqrt[4]{\frac{\gamma}{2 - \gamma}}, \text{ where}$$

$\gamma = \frac{-1 + \sqrt{1 + 3\alpha'}}{3\alpha'}$, and $\alpha = C^2/BB$. This formula is, thus, seen to have a

structure similar to that of the formula derived by V. Elmor for inductive compensation. The quantities A, B, C, D, and the S/C ratio of the amplifier tubes, and, thus, the whole design of the circuit have to be such that $K(0)f_2$ has as large a value as possible. The relations for B, C, D given in Table 1 become very much simplified for $\gamma \approx 0.5$, where $K(0)f_2$ reaches its maximum. Then, the following relation holds for the standard case $m = 1.3$, the notations being those given in Table 1:

$\beta n \approx \frac{2}{K_0} (1 - 0.43 \sqrt{a_0})$, and analogous results are obtained for circuits 2

and 3. The process for the design of, say, circuit 1 would be as follows:

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Correction of the Frequency Response Curve
of Broad-band Amplifiers With the Help of
Positive and Negative Feedback

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B010/B070

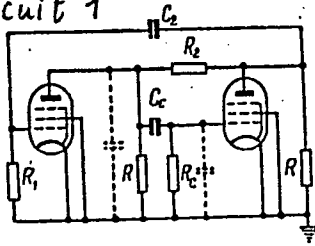
$K(0)$, m , S/C , and K_0 are assumed; the anode resistance R is obtained from the relation $R = \sqrt{\frac{K_0}{S^2}}$; the negative feedback resistance R_2 is obtained from $R_2 = \frac{1}{\alpha S}$; the value of βn is obtained for the magnitude of the positive feedback, for example, from the above-mentioned approximate formula for $m = 1.3$; from these values and the known internal resistance of the signal sources, the feedback capacitance is fixed: $C_2 = \beta n R C_1 / R_1 \cdot K(0) f_2$ and the maximum frequency are calculated from formula (15). Finally, two-stage circuits with inductance in the anode circuit and with π -filters are taken for comparison. Their equations for K contain polynomials of degree 3 and 4, and the corresponding values of $K(0) f_2$ differ but slightly. They have, however, the advantage over the circuits corrected by mixed feedback that they can be designed to be independent of the internal resistance of the signal source. There are 5 figures, 5 tables, and 4 Soviet references.

SUBMITTED: October 6, 1958
Card 4/8

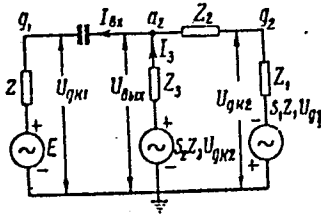
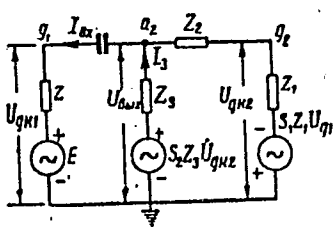
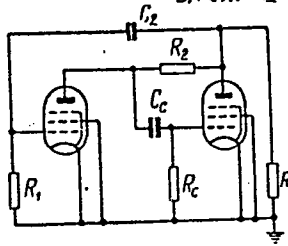
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B010/B070

Circuit 1



Circuit 2



✓

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B010/B070

$$K_E = \frac{K_0}{a_0 + a_1x + a_2x^2 + a_3x^3}$$

$$a_0 = 1 + K_0\rho$$

$$a_1 = 2 + n + \beta n (1 + K_0\rho - K_0)$$

$$a_2 = 1 + n + 2\beta n$$

$$a_3 = \beta n$$

$$M = \sqrt{\frac{A}{A + B\Omega + C\Omega^2 + D\Omega^3}}$$

$$A = a_0^2; \quad B = a_1^2 - 2a_0a_2$$

$$C = a_2^2 - 2a_1a_3; \quad D = a_3^2$$

$$K_E = \frac{K_0 - K_0\rho}{a_0 + a_1x + a_2x^2 + a_3x^3}$$

$$a_0 = \sqrt{K_0\rho} + K_0\rho$$

$$a_1 = 1 + 2\sqrt{K_0\rho} + \beta n (2K_0\rho + \sqrt{K_0\rho} - K_0)$$

$$a_2 = 1 + \beta n (2\sqrt{K_0\rho} + 1)$$

$$a_3 = \beta n$$

$$M = \sqrt{\frac{A}{A + B\Omega + C\Omega^2 + D\Omega^3}}$$

$$A = a_0^2; \quad B = a_1^2 - 2a_0a_2$$

$$C = a_2^2 - 2a_1a_3; \quad D = a_3^2$$

$$Z_1 = \frac{R}{1 + i\omega C_1 R}$$

$$Z = R_1$$

$$Z_2 = R_2$$

$$C_1 = C_{SMX} + C_{SX} + C_M$$

$$Z_3 = \frac{R}{1 + i\omega C_2 R}$$

$$Z_c = \frac{1}{i\omega C_2}$$

$$Z_1 = \frac{1}{i\omega C_1}$$

$$Z = R_1$$

$$Z_2 = R_2$$

$$C_1 = C_{SMX} + C_{SX} + C_M$$

$$Z_3 = \frac{R}{1 + i\omega C_2 R}$$

$$Z_{12} = \frac{1}{i\omega C_2}$$

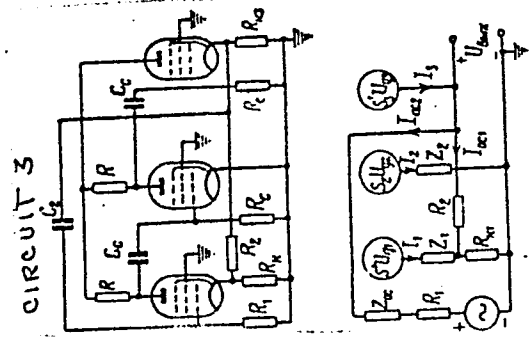
✓

Card 6/8

85725

S/108/60/015/006/010/012/XX
B010/B070

$K_0 = S^2 R^2$ $\rho = \frac{1}{SR_2}$ $x = I\omega\tau$ $ x = \omega\tau$	$n = \frac{C_2}{C_1}$ $\beta = \frac{R_1}{R}$ $\tau = RC$ *) $\Omega = (\omega\tau)^2 = x ^2$	$K_0 = S^2 R^2$ $\rho = \frac{1}{SR_2}$ $x = I\omega\tau$ $ x = \omega\tau$	$n = \frac{C_2}{C}$ *) $\beta = \frac{R_1}{R}$ $\tau = RC$ *) $\Omega = (\omega\tau)^2 = x ^2$
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Card 7/8

85725

S/108/60/015/006/010/012/XX
B010/B070

$K_B = \frac{K_0 K_2}{a_0 + a_1 x + a_2 x^2 + a_3 x^3}$ $a_0 = (1 + \sqrt{K_0 \beta_1}) + K_0 K_2 \beta_2$ $a_1 = (2 + \beta_1)(\sqrt{K_0 \beta_1} + 1) + K_0 K_2 \beta_1 (\beta_2 - 1)$ $a_2 = (1 + 2\beta_1) + (\sqrt{K_0 \beta_1} + 1)$ $a_3 = \beta_1 (1 + \sqrt{K_0 \beta_1})$ $M = \sqrt{\frac{A}{A + Bn + Cn^2 + Dn^3}}$ $A = a_0^2; B = a_1^2 - 2a_0 a_2$ $C = a_2^2 - 2a_1 a_3; D = a_3^2$	$S'_1 = \frac{S}{1 + SR_{k_1}}; Z_1 = Z_2 = \frac{R}{1 + i\omega CR}$ $S_2 = S; Z_{oc} = \frac{1}{i\omega C_2}$ $S'_3 = \frac{S}{1 + S(R_{k_1} + R_2)}$ $\text{and } S'_3 = \frac{S}{1 + SR_{k_1}}$	$\beta = \frac{R_2}{R}; \beta_1 = \frac{R_{k_1}}{R}; \beta_2 = \frac{R_{k_1}}{R_{k_1} + R_2}$ $K_0 = S^2 R^2; K_{us} = S_2 (R_2 + R_{k_1})$ $K_2 = \frac{K_{os}}{1 + K_{os}}; n = \frac{C_2}{C_1}$ $x = i\omega \tau; \omega = \frac{1}{(\omega \tau)^2}$
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Card 8/8

L'VIN, M.; TRISHNEVSKIY, Ye.

Improving the qualifications of automotive transportation
workers. Avt. transp. 41 no.3:51 Mr '63.

(MIRA 16:4)

1. Chelyabinskoye avtoopravleniye.

(Chelyabinsk--Transportation, Automotive)

L'VIN, M.

L'VIN, M.; STRUNNIKOV, N., laureat Stalinskoy premii.

Experience in operating the ZIS-5 truck. Avt.transp. 32 no.7:
23-24 JI '54. (MLBA 7:9)

1. Glavnyy inzhener Chelyabinskogo oblavtotresta (for L'vin)
2. Dotsent Chelyabinskogo politekhnicheskogo instituta (for Strunnikov)
(Motor trucks)

L'VIN, M. (Khar'kov)

Kharkov Economic Region expands production of synthetic materials.
Sov. torg. no.10:47-48 0 '58. (MIRA 11:10)
(Synthetic products)

L'VIN, M.; ZHOROV, S.

Advanced automotive transportation unit. Avt. transp. 38
no.9:7-9 S '60. (MIRA 13:9)
(Chelyabinsk Province--Transportation, Automotive)

RODIONOV, A., slesar'-sborshchik; SUKHOY, Ye.; KHOMCHIK, P.;
YEFIMOV; N., kokil'shchik; L'VIN, M.

Seven-year plan to be fulfilled in five years; materials on
the activities of the worker groups of Leningrad Fixtures
Foundry. Mest.prom.1 khud.promys. 2 no.3:3-8 Mr '61.
(MIRA 14:4)

1. Nachal'nik gal'vanicheskogo tsekha Liteyno-armaturnogo zavoda, Leningrad (for Sukhoy).
 2. Nachal'nik liteynogo tsekh Liteyno-armaturnogo zavoda, Leningrad (for Khomchik).
 3. Chlen tekhnicheskogo soveta Liteyno-armaturnogo zavoda, Leningrad (for L'vin).
- (Leningrad--Foundries--Labor productivity)

L'VIN, M., inzh.

Using metal spraying in repairing engines. Avt. transp. 42
no. 5:30-31 My '64. (MIRA 17:5)

KVITKO, Kh., kand. tekhn. nauk; L'VIN, M., inzh.; PODOLINSKIY, L., inzh.

Dispatcher control of urban bus traffic. Avt. transp. 43
no.10:16-17 O '65. (MIRA 18:10)

L'VIN, Nikolay Sergeyeovich; FITOVA, L., red.; KURMAYEVA, T., tekhn.red.

[Establishing orchards on slopes] Osvoenie sklonov pod sady.
Kishinev, Gos.izd-vo "Kartia moldoveniaske," 1961. 29 p.

(MIRA 14:6)

(Moldavia--Fruit culture)

COUNTRY : USSR
CATEGORY : Cultivated Plants - Subtropical. Tropical. M
REF. SOUR. : Zhurnal, No.14, 1958, No.69553
AUTHOR : Livin, A. S.
INST. : Institute of Fruit Growing, Viticulture and Wine Making,*
TITLE : Results of the Work on the Agricultural Technique of
Trench Cultivation of Citrus Plants Under the Conditions
of Moldavia.
ORIG. PUB. : Izv. Mold. Fil. AN USSR, 1957, No. 2-3, 85-96
ABSTRACT : As the result of 6-year work at the Institute of Fruit
Growing, Viticulture and Wine Making, agricultural techn-
ique has been developed for the trench cultivation of
lemon in Moldavia where frosts reach -32° and the vegeta-
tive period with effective temperatures is about 185 days
instead of 200 necessary for lemon. The best covering for
the trenches proved to be board panels with 20-cm layer of
sawdust protected with roofing paper. Earthenware pipes

*Moldavian Affiliate, Academy of Sciences USSR

Card: 1/2

100

COUNTRY : USSR
CATEGORY : Cultivated Plants - Subtropical. Tropical M
AUTHOR : V. B. I., No. 14, 1958, No. 63953
NUMBER :
INST. :
TITLE :
ORIG. PUB. :
ABSTRACT : were used for the soil. Intending the soil of the trenches with the residue of pressed grapes moderates in to the extremes of temperature and moisture. In summer, the trenches were shaded with cheese cloth for the period from 11 a.m. to 4 p.m. Strips between the trenches were sown with legume-cereal companion crops. The best method of irrigation proved to be the vertical-furrow method with canals of 100 cm or brushwood placed on three sides of the basin. From fertilizers, the best effect was produced by N at the rate of 30 g of active element to 1 bush together with the organic fertilizers. -- S. I. Potyayev

Card: 2/2

LVIN, S.Z.; KARAVANOV, K.V.

Reactions of sulfur and inorganic sulfides with complex compounds
of dialkytrichlorophosphines and aluminum chloride. Zhur. ob. khim.
28 no.11:2958-2960 N '58. (MIRA 12:1)
(Phosphine) (Aluminum chloride) (Sulfur)

L'VIN, Ya.B., kandidat tekhnicheskikh nauk.

Determining stresses in "zero" bars of trusses. Issl. po teor. sooruzh.
no.4:177-184 '49. (MLRA 10:8)

(Trusses)

L'VIN, Ya.B., kandidat tekhnicheskikh nauk.

Conditions of stability of multiple-boom trusses. Issl. po teor.
sooruzh. no.4:185-193 '49. (MLRA 10:8)

(Trusses)

L'VIN, YA. B.

29511

K Raschyetu Uprugikh Sistyem s Lrurnya Ykarakteristikami myetodcm Nachal'n. Yh
Paramygtrov. Inzh, Sbornik (Akad. Nauk SSSR. In-t Myekhaniki), t. V, vVP. 2,
1949, S. 96-102.

So: Letopis' No. 40

L'vin, Ya. B.

✓ 3032. L'vin, Ya. B., Calculation of cylindrical shell subject to cyclic edge effects (in Russian), *Inzhener. Sbornik, Akad. Nauk SSSR* 9, 113-130, 1951.

Author investigates a space structure of the bunker type composed of two different thin-walled shells of revolution. The upper shell is circular and is joined to the larger end of another shell having the form of a truncated cone. At the juncture of the shells is a ring which is supported by columns equally spaced on its periphery. Function of the ring is to distribute the reaction forces and reduce stress concentrations in the shell at points of support.

Starting with Vlasov's equations for shells, author achieves simplification by reducing the eighth-order partial differential equation with real coefficients to a complex one of fourth order and, because of cyclical symmetry, the equation becomes ordinary. Roots of the characteristic equation are found, but exact results are approximate, two terms in the series expansion being used.

S. Sergev, USA

1. L'VIN, YA. B.
2. USSR (600'
4. Strains and Stresses
7. Calculating cyclical peripheral reactions of a round membrane and a resilient and expandable ring, Inzh. sbor., 13, 1952.

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

✓ 3033. L'vin, Ya. B., Calculation of cylindrical shells subject
to cyclic edge effects (in Russian), *Inzhener. Sbornik, Akad.
Nauk SSSR* 17, 59-68, 1953.

Author gives exact solution to a space structure previously discussed by him. The structure is of the bunker type with a circular cylindrical shell above joined by a ring to the larger end of a truncated conical shell. The ring is supported by columns equally spaced on its periphery. The purpose of the ring is to distribute the reaction forces of the columns, thus reducing the stress concentration in the cylindrical shell.

Detailed discussion and general principles needed to solve the problem are given in author's first paper (see preceding review) which is indispensable to understanding the discussion in this work.

S. Sergeev, USA

L'VIN, Ya.B., dotsent, kandidat tekhnicheskikh nauk (Voronezh)

Settling and incline of rigid walls and columns affected by an additional lateral load on the foundation. Issledovaniia po teorii sooruzhenii. Sbornik statei no.6:547-556 '54. (MLRA 7:11)
(Structures, Theory of) (Strains and stresses) (Elastic plates and shells)

L'VIN, Ya.B. (Voronezh)

~~Calculating~~ Calculating periodical peripheral actions affecting conical shells.
Inzh. sbor. 20:109-131 '54. (MIRA 8:7)

(Elastic plates and shells)

L'VIN, Ya B.

124-11-13207

Translation from: Referativnyy Zhurnal, Mekhanika, 1957, Nr 11, p 134 (USSR)

AUTHOR: L'vin, Ya B.

TITLE: Geometric Derivation of Rebhahn's Theorem.
(Geometricheskiy vyvod teoremy Rebkhana)

PERIODICAL: V sb. : Issledovaniya po teorii sooruzheniy, Nr 7. Moscow,
Gosstroyizdat, 1957, pp 605-606

ABSTRACT: Bibliographic entry.

Card 1/1

L'VIN, Ya. B., kand. tekhn. nauk, dots.

Kinematic method of plotting influence lines (method of individual kinematic actions). Sbor. trud. VISI no. 4:101-113 '58. (MIRA 12:8)

(Girders)

L'VIN, Ya.B., kand. tekhn. nauk, dots. (Voronezh)

Efficient methods for designing multistoried frames for horizontal loads. Issl. po teor. sooruzh. no.8:245-271 '59.

(MIRA 12:12)

(Structural frames)

L'VIN, Ya.B., kand. tekhn. nauk dots (Voronezh)

Solving trinomial equations in structural mechanics. Issl. po teor.
sooruzh. no.8:575-578 '59. (MIRA 12:12)
(Structural frames)

Report presented at the 1st All-Union Congress of Theoretical and Applied Mechanics, Moscow, 27 Jan. - 3 Feb. '60.

- 146. G. D. Voino (Dnepropetrovsk): On space bending of columns in the elastoplastic range.
- 149. V. B. Lomskiy (Moscow): Vibration-creep at room temperature.
- 170. V. B. Lomskiy (Moscow): Elasticity of metals under combined loading.
- 171. A. I. Lomov (Moscow): The problem of nonstationary flow of an incompressible viscoelastic (Maxwellian) liquid.
- 172. A. I. Lomov, M. D. Makhov (Moscow): Some problems of quasi-steady flow of an incompressible viscoelastic (Maxwellian) liquid.
- 173. V. M. Lomov (Leningrad): The generalization of the torsion theory of laminated bars.
- 174. E. S. Lomov, V. V. Kuznetsov (Leningrad): The development of the theory.
- 175. P. S. Lomov (Leningrad): Plastic flow of circular plates under combined loading and bending of compression and bending.
- 176. G. O. Pshonin (Leningrad): Torsion of an anisotropic beam.
- 177. G. O. Pshonin (Leningrad): Free vibrations and stability of beams and prestressed elastic restrained beams.
- 178. G. O. Pshonin (Leningrad): Displacement of rods in a rotation.
- 179. V. I. Pshonin (Leningrad): On the application of matrix transformation to the solution of large sets of linear equations of elasticity theory.
- 180. G. I. Loshin (Leningrad): The selection of critical parameters for structures of equal stability containing of plates and corrugations.
- 181. G. I. Loshin (Moscow): Large deflections of shallow shells of non-linear elastic materials.
- 182. G. I. Loshin (Moscow): Methods for the solution of the problems of dynamic plates of stress in shells of prestressed shells.
- 183. E. A. Zakharenko (Leningrad): Analysis of an arbitrary circular elastic beam under an arbitrary load applied to a ring.
- 184. E. V. Zakharenko (Leningrad): On the experimental study of stresses in plates and shells.
- 185. E. I. Malinin (Novosibirsk): Creep strains and rupture of high polymers.
- 186. B. I. Malinin (Novosibirsk): Vibrations of an elastic cylindrical shell.
- 187. A. K. Malinin (Novosibirsk): Some problems of combined loading of quasi-anisotropic bodies.
- 188. E. A. Malinin (Leningrad): The influence of structural discontinuity in concrete on its strength.
- 189. G. O. Nosenko (Leningrad): Investigation of the state of stress in a square prism with conical cylindrical hole under internal pressure.
- 190. G. J. Mascherovskiy (Minsk): Solving the plane elastic problems of a beam with a hole by the method of the problem of linear coupling with displacement.
- 191. E. I. Mascherovskiy (Minsk): The stability of a cylindrical shell in bending.
- 192. V. M. Matveichev (Moscow): Stress and strain in naturally twisted bars.
- 193. V. I. Matveichev (Moscow): The problems of external transformation and plane elasticity for the exterior of an infinite number of holes.
- 194. A. A. Mikhlin (Moscow): The design of finite and infinite beams on elastic foundation including the effects and without coupling the hypothesis of adhesion and slippage.
- 195. A. A. Mikhlin (Moscow): The design of a curved bar in an elastic medium and an elastic support.
- 196. G. S. Matvejev (Leningrad): An experimental study of hole loading.
- 197. G. S. Matvejev (Leningrad): On statically equivalent loading.
- 198. G. S. Matvejev (Leningrad): Contribution to the theory of plastic bending of thin-walled beams.
- 199. G. S. Matvejev (Leningrad): On the bending of a simply supported rectangular plate.
- 200. E. V. Matvejev (Moscow): Evaluation of the theoretical and experimental results of the bending of a rectangular plate under constant shearing stress.

L'VIN, Ya.B., dotsent, kand.tekhn.nauk (Voronezh)

Resistance of conic shells to boundary cyclic actions. Rasch.-
prostr.konstr. no.6:249-274 '61. (MIRA 15:3)
(Elastic plates and shells)

L'VIN, Ya.B., kand.tekhn.nauk, dotsent (Voronezh)

General solution of the problem of the cyclical stress state of
revolving shells. Issl. po teor. sooruzh. no.10:170-181 '61.
(MIRA 14:8)

(Elastic plates and shells)

L'VIN, YA.B., kand.tekhn.nauk, dotsent (Voronezh)

Resistance of shells of revolution to the action of cyclic loading
along the edges. Rasch.prostr.konstr. no.7:135-161 '62.

(MIRA 15:4)

(Roofs, Shell)

KLEYN, Georgiy Konstantinovich, prof., doktor tekhn. nauk, prof.;
REKACH, Vladimir Germanovich, doktor tekhn. nauk, prof.;
ROZENBLAT, Genya Isaakovna, kand. tekhn. nauk, dots.;
SMIRNOV, A.F., prof., doktor tekhn. nauk, retsenzent;
KOSTROMIN, V.S., prof., retsenzent; L'VIN, Ya.B., dots.,
retsenzent; OSELED'KO, A.I., dots., retsenzent;
BARCHENKOV, A.G., dots., retsenzent; BYCHKOV, D.V., prof.,
doktor tekhn. nauk, red.; KOROTKOVA, A.V., red.

[Manual for conducting lessons in a special course in
structural mechanics] Rukovodstvo k provedeniiu zaniatii po
spetsial'nomu kursu stroitel'noi mekhaniki. Moskva, Vys-
shaia shkola, 1964. 295 p. (MIRA 18:3)

L'VIN, Ya.B., kand. tekhn. nauk, prof. (Voronezh)

Calculation of compound frames by the method of matrix iteration.
Issl. po teor. sooruzh. no.13:217-229 '64.

(MIRA 18:2)

LUVISHIS, L.A.; SEMINA, N.A.

Textile fabrics and yarn. Standartizatsiia 26 no.6:48 Je
'62. (MIRA 15:7)
(Textile fabrics—Standards) (Yarn—Standards)

MARGOLIN, I.S.; LUVISHIS, L.A.

Standard rapid determination of the length of washed wool in
laboratories. Standartizatsiia 26 no.8:39-42 Ag '62.
(MIRA 15:8)

(Wool--Testing)

ALEKSEYEVA, O.G.; L'VITSINA, G.M.

Effect of the season of the year on the sensitivity to antibiotics
of the intestinal microflora in dogs under the chronic influence
of Sr^{90} . Med.rad. no.3:58-61 '62. (MIRA 15:3)
(STRONTIUM--ISOTOPES) (INTESTINES--MICROBIOLOGY)
(ANTIBIOTICS) (WEATHER--MENTAL AND PHYSIOLOGICAL EFFECT)

L'VITSYN, A. F.

Pastures

Methods of utilizing winter pastures., Korm. baza., no. 11, 1951.

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

USSR/Farm Animals. - Cattle

Q-2

Abs Jour : Ref Zhur - Biol., No 6, 1958, No 26109

Author : ~~Livitsin A.F.~~

Inst : Not Given

Title : Experience in the Acclimatization of Bulls of the Snata
Gertrude Breed in the Astrakhan' Oblast' (Opyt akklumatizatsii
bykov snata gertruda v Astrakhanskoy oblasti)

Orig Pub : Zhivotnovodstvo, 1957, No 5, 76-77

Abstract : The article reports on the acclimatization of two bulls of the
Snata Gertrude breed in the region of the Il'men' steppe of
the Caspian lowland. During the first three months, the bulls
almost did not touch green fodder, but subsequently began to
get used to it and were eating all grass, even such which local
cattle did not eat. During the summer, the bulls were fed 20-
30 kg. of the green mass of sown grass, 8-10 kg. of freshly
mowed hay, and 5-6 kg. of combined feeds. At pasturing time,
the bulls were keeping together. Their state of health was
good and they were developing normally. The bulls were found

Card : 1/2

USSR / Farm Animals, Cattle

Q-2

Abs Jour : Ref Zhur-Biol., No 6, 1953, 26109

Abstract : the summer, the bulls were fed 20-30 kg. of the green mass of sown grass, 8-10 kg. of freshly mowed hay, and 5-6 kg. of combined feeds. At pasturing time, the bulls were keeping together. Their state of health was good and they were developing normally. The bulls were found very sensitive to an abrupt decrease of temperature. They were feeling well at a temperature 10°C. The description of the exterior of the bulls is given.

Card 2/2

L'VITSYN, A.F., starshiy nauchnyy sotrudnik.

Pasture fattening of cattle in arid steppe regions. Zhivotnovodstvo
20 no.5:76-79 My '58. (MIRA 11:5)

1. Astrakhanskaya sel'skokhozyaystvennaya opytnaya stantsiya.
(Astrakhan Province—Beef cattle—Feeding and feeding stuffs)
(Pastures and meadows)

LUZHNOV, G.I., kand. tekhn. nauk

Testing of a boiler shot system under pressure. Elek. sta. 34
no.5:19-23 My '63. (MIRA 16:7)

(Boilers--Testing)

L'VITSYN, A.M., inzhener (st. Poletayevo-1).

Maintaining frog curves according to depth of curvature. Zhel. dor.
transp. 38 no.8:79-80 Ag '56. (MLRA 9:10)

(Railroads--Curves and turnouts)

L'VITSYN, A.M., inzh.

How to plan track maintenance operations. Put' 1 put. khoz. no.6:
9 Je '58. (MIRA 11:6)

1. Stantsiya Poletayevo I Yuzhno-Ural'skoy dorogi.
(Railroads--Track)

L'VITSYN, A. M., inzh. (st.Poletayevo I Yuzhno-Ural'skoy dorogi)

Measurements and calculations for levelling track after
heaving. Put' put.khoz. no.9:12-14 S '59. (MIRA 12:12)
(Railroads--Track)

L'VITSYN, A.M., inzh. (stantsiya Poletayevo, Yuzhno-Ural'skoy dorogi)

Measurements in the levelling of track heavings on curves. Put'
i put.khez. no.2:11 F '60. (MIRA 13:5)
(Railroads--Curves and turnouts)

L'VITSYN, A.M. (g.Chelyabinsk); VASIL'YEV, M.A., starshiy inzh. (g.Chelyabinsk)

Green light for the introduction of equipment for rail flow
detection. Put' i put.khoz. 5 no.6:16-17 Je '61. (MIRA 14:8)

1. Glavnyy inzh. Kurganskoy distantzii puti (for L'vitsyn).
(Railroads--Rails--Defects)

L'VITSYN, A. M.

Combined track patrolling. Put' 1 put. khoz. 6 no.8:12-15 '62.
(MIRA 15:10)

1. Glavnyy inzh. Kurganskoy distantzii Yuzhno-Ural'skoy dorogi.

(Railroads--Tracks)

L'VITSYN, A. M.

Shunt expander. Put' 1 put. khoz. 7 no.3:42-43 '63.
(MIRA 16:4)

1. Glavnyy inzh. Kurganskoy distantzii puti Yuzhno-Ural'skoy
dorogi.

(Electric railroads—Equipment and supplies)

L'VITSYN, A.M.

Electric power supply to apparatus from the electric lines. Put'
i put.khoz. 7 no.12:14 '63. (MIRA 16:12)

1. Zamestitel' nachal'nika Kurganskoy distantzii Yuzhno-Ural'skoy
dorogi.

DEM'YANKOV, N., L'VITSYN, N.

Ice - Manufacture

Increasing the rate of thawing of ice forms. Khol. tekhn. 29 no. 2, Ap-Je '52.

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

POTAPOV, V.P., redaktor; KANSHIN, M.D.; L'VITSYN, N.F.; MASTERITSYN, N.N.;
NOZDRIN, A.A.; NIKITYUK, A.P.; PADNYA, V.A.; RIDEL', E.I.; FERAPON-
TOV, G.V.; SHAMAYEV, M.F.; SHATSKAYA, E.P.; GULEV, Ya.F., redaktor;
VERINA, G.P., tekhnicheskij redaktor.

[Advanced methods for workers in material handling] Peredovye metody
truda kommercheskikh rabotnikov. Moskva, Gos. transp. zhel-dor. izd-vo,
1953. 262 p. [Microfilm] (MLRA 7:11)
(Material handling)

CHISTYAKOV, Aleksey Ivanovich; L'VITSYN, N.P., redaktor; KHITROV, P.A.,
tekhnicheskii redaktor.

[Railroad transport of meat products, dairy products, and eggs]
Perevozka miasnykh, molochnykh produktov i iaits po zheleznym do-
rogam. Moskva, Gos. transp. zhel-dor. izd-vo, 1954. 114 p. (MLRA 7:11)
(Railroads--Freight) (Farm products--Transportation)

L'VITSYN, N.

GOLUBKOV, V., inzhener; L'VITSYN, N., inzhener.

Trains with cooling systems and electric heating. Khol.tekh. 31
(MIRA 7:9)
no.3:5-10 J1-S '54.
(Railroads--Cars--Heating and ventilation) (Refrigerator-cars)

LEONF'YEV, Andrey Pavlovich; L'VITSYN, N.F., redaktor; KHITROV, P.A.,
tekhnicheskij redaktor.

[Transporting perishable goods on railroads] Perevozki skoro-
portishchikhsia grusov na zheleznykh dorogakh. Moskva, Gos.transp.
shel-dor. izd-vo, 1955. 134 p. (MLRA8:11)
(Refrigerator cars)

L'VITSYN, N.F.
POTAPOV, V.P.; BARKAN, I.N.; DEM'YANKOV, N.V.; KANSHIN, M.D.; L'VITSYN, N.F.;
MASTERITSYN, N.H.; NOZDRIN, A.A.; PADNYA, V.A.; RIDEL', E.I.; FERAPON-
TOV, G.V.; SHAMAYEV, M.F.; SHATSKAYA, E.P.; SHAVKIN, G.B., inzhener,
redaktor; KHITROV, P.A., tekhnicheskiiy redaktor

[Advanced methods in shipment and commercial handling of goods]
Peredovye metody truda gruzovykh i kommercheskikh rabotnikov, Izd.
2-oe. Moskva, Gos.transp.zhel-dor. izd-vo, 1955. 286 p.

(MLRA 9:2)

(Material handling) (Transportation--Equipment and supplies)

GOLUBKOV, Vladimir Vladimirovich; L'VITSYN, Nikolay Fedorovich; SHISHLYKOV,
Ye.S., inzhener, redaktor; KHITROV, P.A., tekhnicheskiy redaktor

[Manual for workers in refrigerated transportation] Rukovodstvo
rabotnikam khladotransporta. Moskva, Gos. transp. zhel-dor. izd-vo,
1956. 455 p. (MLRA 10:1)
(Refrigerator cars)

MALAKHOV, Konstantin Nikolayevich; KOROTKOV, Valentin Nikolayevich;
L'VITSYN, Nikolay Fedorovich; RIDEL', E.I., kand.tekhn.nauk,
red.; KHITROV, P.A., tekhn.red.

[Equipment used in freight handling] Tekhnika gruzovogo
khoziaistva. Moskva, Vses.izdatel'sko-poligr.ob"edinenie M-va
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(MIRA 14:1)

(Railroads--Freight)

VINOKUROV, A.D., inzh.; DYUBKO, A.P., inzh.; LEVSHIN, B.S., inzh.;
L'VITSIN, N.F., inzh.; RESHETIN, I.S., inzh.; KHUDYAKOVSKIY,
Yu.K., inzh.; SHAPOVALENKO, M.M., inzh.; SHATSKAYA, E.P.,
inzh.; MATALASOV, S.F., kand. tekhn.nauk, retsenzent;
SHISHLYKOV, Ye.S., inzh., red.; KHITROVA, N.A., tekhn. red.

[Manual on the transportation of perishable goods] Spravochnik po perevozke skoroprotiashchikhsia gruzov. [By] A.D. Vinokurov i dr. Moskva, Transzheldorizdat, 1963. 323 p.
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(Railroads--Freight) (Refrigerator cars)

USSR/General Problems of Pathology. Immunity

U-1

Abs Jour : Ref Zhur - Biol., No 13, 1958, No 60961

Author : Klemparskaya N.N., Sosova V.F., Nemirovich-Danchanko O.R.,
L'vitsina G.M.

Inst : -

Title : The Effect of an Active Immunization Against Intestinal In-
fections and Tuberculosis on the Resistance of Animals to
Radio [Radium?].

Orig Pub : Med. radiologiya, 1957, 2, No 5, 65-72

Abstract : A study was made of a preliminary one stage immunization of mice by tetra-vaccine or by the BTsZh vaccine, on the course of radiation sickness caused by an irradiation of Roentgen Rays of 400 ch. or by the introduction of polonium (0.1 microcurie per kilogram). An immunization of this type, especially when made 2 weeks prior to exposure to Roentgen Rays, increases the animals chances of survival (irradiation) or increases their life span (polonium). A preliminary vaccination, made 4 times on rabbits who had received formalin treated

Card : 1/2

L'VITSYNA, G.I., Acad Med Sci--(disc) "Peculiarities of the develop-
ment of allergy to pathogenic ~~microorganisms~~ ^{Bacteria} under the conditions of
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EXCERPTA MEDICA Sec 14 Vol 13/4 Radiology Apr 59

390. THE EFFECT OF GAMMA RAYS ON THE CAPSULES OF FRIEDLÄNDER'S BACILLI (Russian text) - Lvitsina G. M. - MED. RADIOL. 1958, 3/5 (68-71) illus. 5

The action of massive doses of γ -rays was studied on the modification of the morphological properties of the capsule in a typical strain of Friedländer's bacilli. The change of the size of the capsules was observed in smears prepared by the Burri-Gin method. The external appearance of the irradiated cultures was also studied. It was demonstrated that irradiation of the 24-hr. culture with the dose of 600,000 r. produces a significant decrease in the size of the cell and of its capsule.

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Irradiation by γ -rays in the doses of 600,000 r. and 200,000 r. resulted in the change of external appearance of Friedländer's bacilli in the agar and broth cultures, liquefaction and loss of viscosity of the agar cultures, disappearance of the membrane and complete clearance of the broth. (XIV, 4*)