The stability of plasma.

$$\frac{\partial}{\partial t}\left\{\varrho\left(\frac{v^2}{2}+c_vT\right)+\frac{H^2}{8\pi}\right\}=$$
$$=-\operatorname{div}\left\{\varrho v\left(\frac{v^2}{2}+c_pT\right)+\frac{c}{4\pi}[E,\,H]-(v\hat{\sigma}')-\varkappa\nabla T\right\}. \qquad (3.4a)$$

где

$$\sigma'_{ik}=\eta\left(\frac{\partial v_i}{\partial x_k}+\frac{\partial v_k}{\partial x_i}-\frac{2}{3}\delta_{ik}\frac{\partial v_l}{\partial x_l}\right)+\zeta\delta_{ik}\frac{\partial v_l}{\partial x_l},$$

where $\varkappa$ denotes the heat conductivity. In the case of a homogeneous or almost homogeneous background one obtains:

$$\left.\begin{aligned}&\frac{\partial f}{\partial t}+(v\nabla)f+\left\{\frac{eE}{m}+\frac{e}{mc}[v,H]\right\}\frac{\partial f}{\partial v}=0,\\ &\operatorname{div}E=4\pi e\left(\int f_i\,dv-\int f_e\,dv\right),\quad \operatorname{div}H=0,\\ &\operatorname{rot}H=\frac{4\pi}{c}e\left(\int f_i v\,dv-\int f_e v\,dv\right)+\frac{1}{c}\frac{\partial E}{\partial t},\quad \operatorname{rot}E=-\frac{1}{c}\frac{\partial H}{\partial t}.\end{aligned}\right\} \qquad (3.1);$$

this system is also based upon the kinetic equations without taking account of collisions. In the "drift" approximation, $f_{dr}(v_\parallel, \mu, \vec{r}, t)$ can be introduced instead of the distribution function $f(\vec{v}, \vec{r}, t)$. The corresponding

22293
S/053/61/073/004/006/007
B125/B201

The stability of plasma

kinetic equation has the form

$$\frac{\partial f_{\lambda p}}{\partial t} + \operatorname{div}_r\left(\frac{dr}{dt} \cdot f_{\lambda p}\right) + \frac{\partial}{\partial v_{\parallel}} \frac{\partial v_{\parallel}}{\partial t} f_{\lambda p} = 0. \qquad (3.11).$$

II. Aperiodic plasma instability: 4. Ideal plasma. 4a. Energy principle; a slight displacement of the plasma from the position of equilibrium satisfies the equation of motion (4a,1). Here, ξ denotes the displacement from position of equilibrium. 4b. Stability of the plasma boundary (reference is made to an instability indicated by L. A. Artsimovich), convective instability, stability of a cylindrical pinch, stability of a rotating inhomogeneous plasma in a magnetic field, aperiodic instability of a non-Maxwellian plasma, stability of a plasma kept back by the pressure of a high-frequency electromagnetic field, aperiodic instability of a plasma taking dissipative processes into account, stability of the rotation of a plasma, stability of a pinch. III. Oscillation instability of a plasma. Instability of beams in the plasma, instability of two beams, absolute and "drift instability" of beams, stability of ion beams in a plasma, effect of a magnetic field upon the instability of beams, macroscopic instability of a "non-Maxwellian" plasma, cyclotron resonance,

Card 5/7

S/053/61/073/004/006/007
B125/B201

The stability of plasma

mistuning (raskachka) of oscillations in a plasma in the presence of a relative motion of ions and electrons, microscopic instabilities of an inhomogeneous plasma, stability of plasma flows in a magnetic field, stability of plane flows, stability of flows in perpendicular to the field, stability of a rotating plasma, "oscillation convection" in a plasma, instability of the positive column of a gas discharge in a magnetic field. IV. Problems of the nonlinear theory of instability. This chapter deals with the quasilinear treatment of the "supercritical" state of the plasma, which is then used to study the behavior of the plasma near the limit of stability, the steady convection in a plasma and the "anomalous diffusion", the quasilinear approximation in the study of oscillation instabilities in a diluted plasma, the developed instability. Appendix I deals with the stability of the beams in a plasma, appendix II with the stability of a rotating plasma, namely, the homogeneous rotation of a plasma and the rotation of a plasma under the action of an electric field in a cylindrical condenser, appendix III with the stability of the positive column, and appendix IV with the ionic sound in an inhomogeneous plasma. There are 32 figures, 1 table, and 50 references: 30 Soviet-bloc. The two references to English-language publications read as follows:

Card 6/7

22293

S/053/61/073/004/006/007
B125/B201

The stability of plasma

B. B. Kadomtsev, A. Nedospasov, J. Plasma Phys. (1961) (being printed);
Y. Nakagava, Phys. Fluids, 3, 62, 87 (1960).

X

Card 7/7

S/089/62/012/002/001/013
B102/B138

AUTHORS: Kuznetsov, E. I., Velikhov, Ye.P.

TITLE: The International Conference on Plasma Physics and Controlled Thermonuclear Reactions

PERIODICAL: Atomnaya energiya, v. 12, no. 2, 1962, 101 - 110

TEXT: The International Conference on Plasma Physics and Controlled Thermonuclear Reactions was held at Salzburg (Austria) from September 4 to 9, 1961. It was organized by the MAGATE and attended by 508 delegates from 29 countries and 6 international organizations. Of the 250 papers presented 111 were read. The full text of all lectures and discussions will be published in the journal "Yadernyy sintez". The present article summarizes the results of the Conference. Lectures by the following Soviet scientists are mentioned and discussed in brief: I. F. Kvartskhava et al., new data on self-sustained discharges. Investigations on current distribution in a θ-pinch, plasma concentrations of $10^{17}cm^{-3}$ achieved for some μsec at several hundred ev. T. I. Filippova et al., dense high-

S/089/62/012/002/001/013
B102/B138

The International Conference on ...

temperature plasma in the region of non-cylindrical cumulation of a θ-pinch; densities 10^{18} cm^{-3} at above 500 ev. N. V. Fedorenko et al., investigation of the atomic particle flow emitted from the plasma machine "Альфа" ("Al'fa"). The ion energy was found to be approximately proportional to charge and almost independent of mass. A. I. Karchevskiy et al. high-current gas discharge in weak magnetic fields; confirmation of the results obtained with the "Zeta" machine. Soviet reports on experiments with the "Токамак-II" ("Tokamak-II") machine; Joulian plasma heating in strong magnetic fields; study on impurity influence on ionization and heating of deuterium plasma. In "Tokamak-II" no collective processes, such as macroscopic particle motion, were observed. B. B. Kadomtsev is mentioned in this connection. K. D. Sinel'nikov et al., investigations on ionic cyclotron waves in plasma heating. V. M. Glagolev et al., Study of interaction between plasma and the high-frequency electromagnetic field of a cavity. V. G. Andreyev et al. and R. A. Demirkhanov et al., plasma confinement by travelling waves. Soviet reports on "Огра" ("Ogra") experiments with "hot" plasma, 10^{7} cm^{-3}, H_2-ions with 160 kev. M. S. Ioffe

Card 2/3

et al., Plasma instability investigations in the magnetic mirror machine "Ionic magnetron"; fast ion concentrations 10^9-10^{10} cm^{-3} retained in an ordinary mirror trap for 100 μsec. S. Yu. Luk'yanov et al., I. M. Podgornyy et al., results of plasma trapping in mirror machines. V. D. Fedorchenko et al. are mentioned. V. P. Silin, kinetic plasma theory; I. M. Golovin and D. P. Panov, Stabilization of oscillations in the "Ogra" machine; B. B. Kadomtsev, theory of plasma instability. L. I. Rudakov, R. Z. Sagdeyev, investigation of instabilities caused by particle drift in inhomogeneous plasma. B. B. Kadomtsev, A. V. Nedospasov, explanation of anomalous diffusion in the positive column by current-convective instabilities. A. A. Vedenov, et al., kinetic quasilinear theory of plasma instabilities. Ye. K. Zavoyskiy et al., I. F. Kharchenko, theoretical descriptions of processes taking place in strongly instable plasma. Academician L. A. Artsimovich read the final paper.

SUBMITTED: November 27, 1961

Card 3/3

40425

S/056/62/043/003/034/063
B108/B102

24, 2120

AUTHORS: Vedenov, A. A., Velikhov, Ye. P.

TITLE: Quasilinear approximation in the kinetics of a rarefied plasma

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 43, no. 3(9), 1962, 963 - 967

TEXT: The processes in a real plasma can be divided into fast and slow. By averaging over the fast oscillations it is possible to write equations which describe the slow changes occurring in the mean quantities. This method can be applied only if the resonance interaction between waves and particles is slower than the variation of the self-consistent field acting on the particles. The processes in a uniform electron plasma without a magnetic field are investigated by this method. Wave-wave and particle-particle interactions are neglected. For describing relaxation processes the linear theory has to be supplemented by terms accounting for the effect of the waves on the particle distribution in phase space. These conditions in a rarefied plasma lead to the following quasilinear set of equations:

Card 1/2

$$\frac{1}{\varepsilon_k}\frac{d\varepsilon_k}{dt} = \pi\frac{\omega_p^2}{k^2}\int k\frac{\partial f_0}{\partial v}\delta(\omega_p - kv)\,dv. \qquad (9),$$

$$\frac{\partial f_0}{\partial t} = \frac{\partial}{\partial v}\frac{8\pi e^2}{m^2}\sum_k \varepsilon_k\delta(\omega_p - kv)\frac{\partial f_0}{\partial v}. \qquad (11).$$

$\varepsilon_k = |E_k|^2$. f_0 is the slowly varying part of the particle distribution function. These equations hold for sufficiently great t. Eq. (9) accounts for rise and attenuation of plasma waves, Eq. (11) for the diffusion of particles in velocity space owing to these waves. Neither of these equations, however, is suited for studying instabilities of a monoenergetic beam in a plasma.

SUBMITTED: Maroh 24, 1962

VEDENOV, A.A.; VELIKHOV, Ye.P.

Instability of the drift of carriers in solids and coherent phonon radiation. Zhur. eksp. i teor. fiz. 43 no.3:1110-1112 '62. (MIRA 15:10)
(Electrons) (Ultrasonic waves) (Crystal lattices)

VEDENOV, A.A.; VELIKHOV, Ye.P.

Development of the electrostatic instability of a plasma in a high magnetic field. Dokl. AN SSSR 146 no.1:65-68 S '62. (MIRA 15:9)

1. Predstavleno akademikom M.A. Leontovichem.
(Plasma (Ionized gases)) (Magnetic fields)

L 10676-63
EWG(k)/EWT(1)/BDS/EEC(b)-2/EWA(c)-2--AFFTC/ASD/ESD-3/AFWL/SSD--IJP(c)/Pab-4/Pz-4/Po-4--AT
ACCESSION NR: AP3002263 S/0089/63/014/006/0573/0574

AUTHOR: Velikhov, Ye. P. 77

TITLE: The rotation of plasma

SOURCE: Atomnaya energiya, v. 14, no. 6, 1963, 573-574

TOPIC TAGS: plasma rotation, plasma instability

ABSTRACT: The purpose of the paper is to explain the observed rotation in the Theta pinches by proving that in a rather dense plasma, any radial plasma motion in a magnetic field results in a nonuniform rotation. For simplicity, a flat plasma layer in a magnetic field is considered. The equation of the plasma motion in the hydrodynamic approximation is set up, together with the continuity equation. The solution of the equation indicates that the radial motion of the plasma leads to a nonuniform rotation. Orig. art. has: 6 equations.

ASSOCIATION: none

SUBMITTED: 25Aug62 DATE ACQ: 12Jul63 ENCL: 00

SUB CODE: 00 NO REF SOV: 000 OTHER: 003

Card 1/1 kes/00

VELIKHOVA, N.A.

Growth of cobalt oxide single crystals by Verneuil's method.
Kristalografiia 8 no.5:804-808 S-O '63. (MIRA 16:10)

1. Institut kristallografii AN SSSR.

VELIKIC, D.

SURNAME (in caps); Given Names

Country: Yugoslavia

Academic Degrees: Dr

Affiliation: The House of National Health (Dom narodnog zdravlja) "Crnomerac", Zagreb

Source: Belgrade, Narodno Zdravlje, Vol XVII, No 6, June 1961, pp 181-184

Data: "The Role, Position and Responsibilities of General Practitioners."

L 33251-66 EWT(1) GW

ACC NR: AT6012784 (N) SOURCE CODE: UR/3175/66/000/027/0023/0042

AUTHOR: Bulgakov, Yu.I.; Velikin, A.B.

ORG: VITR

TITLE: Transient processes method in the electric inductive prospecting with common transmitter and receiver

SOURCE: USSR. Gosudarstvennyy geologicheskiy komitet. Osobore konstruktorskoye byuro. Geofizicheskaya apparatura, no. 27, 1966, 23-42

TOPIC TAGS: mining engineering, prospecting, geophysic instrument

ABSTRACT: This paper presents the apparatus, methodology and results of prospecting with an inductive type prospecting system. The system comprises multiconductor cable loops, controllable DC power supply with pulsing capabilities, and appropriate sensors and recorders. The loops, which can be selected for dimensions between 5 x 5 m and 200 x 200 m, serve both as transmitters of the magnetic field pulse and receivers of the transient return signal of the currents decaying in the conductive bodies. By repeating the tranmitted pulses at each ground profile station (e.g. up to 100 times), and recording the cumulative received voltage signal with a capacitive circuit, the sensitivity and fidelity of the system are improved, the latter due to substantial cancellation and attenuation of spurious signals and noise. Graphs of signal returns,

Card 1/2

L 33251-66
ACC NR: AT6012784 O

in form of the ratio received voltage /transmitted current amperage as a function of time - e(t)/I; and graphs of returns plotted over the prospected ground line, are shown over various known deposits, for various sizes of the exploring loops and for various current pulse durations. Special tests showed an adequate data repeatability. Fig. 1 shows a record of the voltage/current ratio over a section of the ground line.

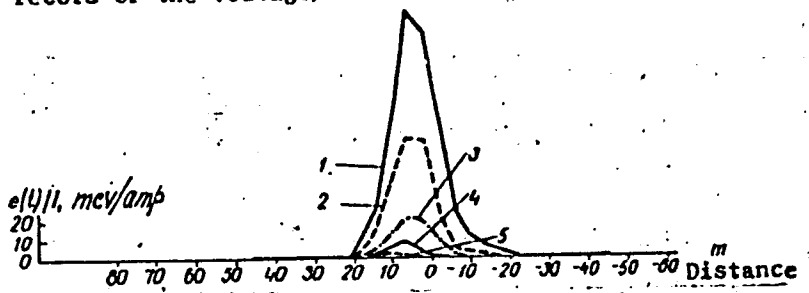


Fig. 1. Graph of e(t)/I for various current pulse durations over a profile (meters) at Kumus-Tyube for a 40x40 m loop. 1 - T=.8 millisec.; 2 - 1.25 msec; 3 - 2.0 msec. 4 - 3.2 msec; 5 - 4.0 msec.

The developed methodology and instrumentation permit the locating of highly conductive mineral bodies at depths of up to 100 meters, with practical absence of anomalies due to soft deposits, tectonics or relief. Orig. art. has 12 figures.

SUB CODE: 08/ SUBM DATE: 00/ ORIG REF: 009/ OTHE REF: 001

Card 2/2

VELIKIN, A.B.; FRANTOV, G.S.; SHEYNMAN, S.M.

Interpretation in multifrequency inductive electric prospecting. (MIRA 15:3)
Prikl. geofiz. no.31:165-178 '61.
(Electromagnetic prospecting)

VELIKIN, Aleksandr Borisovich; FRANTOV, Grigoriy Sergeyevich; SHEYNMANN, S.M., nauchnyy red.; SAFRONOVA, I.M., tekhn. red.

[Electromagnetic fields used in induction methods of electric prospecting; review of foreign literature] Elektromagnitnye polia, primeniaemye v induktsionnykh metodakh elektrorazvedki; obzor zarubezhnoi literatury. Leningrad, Gostoptekhizdat, 1962. 351 p. (MIRA 15:7)

(Electromagnetic prospecting)

VELIKIY A. S.

The prospecting and exploration for minerals Leningrad, 1949. 57 p. (50-22958)

TN270.V4

VELIKIN, B.

Petersburg-Moscow; history of the Oktiabrskaia Railroad Leningrad Istoriia fabrik i zavodov, 1934. 141 p.

Yudin HE3140.N5V4

VELIKIN, B.

Petersburg-Moscow; construction of the railroad, 1842-1851 2. izd., Leningrad, Istoriia fabrik i zavodov, 1935- (Oktiabr'skaia zheleznaia doroga, vyp. 1.)

Yudin HE3140.N5V4 1935

SOV/131-59-8-6/14

15 (2), 18 (0)
AUTHOR: Velikin, B. A.

TITLE: Application of Gunite to the Lining of Metallurgical Furnaces

PERIODICAL: Ogneupory, 1959, Nr 8, pp 354-360 (USSR)

ABSTRACT: This process serves for a prolongation of the furnace operation time between repair intervals and was applied for the first time to copper refining furnaces of the Noril'sk Kombinat. It is based on the fact that a refractory mass in the form of an aqueous suspension is applied to the defective place of the refractory furnace lining. For this purpose the gunite plant of the Gintsvetmet (Gosudarstvennyy institut po tsvetnym metallam = State Institute of Nonferrous Metals) is used, which is shown in figure 1 and subsequently described in detail. Figure 2 represents the pulp atomizer of this plant. The composition of the gunite mass may be seen from table 1. On the basis of laboratory investigations carried out by K. V. Koval'skaya (Footnote 1) gunite masses are recommended as are indicated in table 2. Practical tests were made in the furnaces of the Moscow Copper Foundry and Pyshma Plant for Copper Electrolytes. At the former Plant the gunite mass was produced from broken and ground chrome-magnesite bricks (Table 3) and at the Pyshma Plant from mortar

Card 1/2

of the Pyshma Plant for Refractory Products (Table 4). Figure 3 illustrates the vault and walls of an anode furnace, namely, on the left hand side those coated with gunite and on the right hand side those without gunite. Conclusions: On the basis of experiments the application of gunite to the furnace lining of metallurgical furnaces was worked out and gunite plants were built which no longer could be missed in up-to date equipment of metallurgical plant departments. By systematic renewal of the applied layer of gunite masses the working period of refractory linings can be extended considerably. The campaign of anode furnaces of the Noril'sk Kombinat increased for about the 3-fold. For coating the Dinas lining with gunite, a mass of broken Dinas bricks with an addition of unburnt quartz is recommended. In metallurgical plants of iron industry this prccedure should be introduced primarily in open-hearth furnaces and converters. There are 3 figures, 4 tables, and 8 references, 3 of which are Soviet.

ASSOCIATION: Gintsvetmet

VELIKIN, B.A.; AKOPOV, G.A.; KOVAL'SKAYA, K.V.

Guniting slag zones of copper refining furnaces. Ogneupory 25 no.7:316-319 '60. (MIRA 13:8)

1. Gintsvetmet.
(Copper--Heat treatment)
(Furnaces--Maintenance and repair)

VELIKIN, B.A.; AKOPOV, F.A.; KOVAL'SKAYA, K.V.

Repair of hot furnaces by guniting and introducing the method to copper refining furnaces. Sbor. nauch. trud. Gintsvetmeta no.19:493-503 '62. (MIRA 16:7)

(Metallurgical furnaces--Maintenance and repair)
(Gunite)

KRONROD, A.A.; VELIKIN, O.M.

"Rovnoe" Rock Products Plant. Prom.stroi. 37 no.12:18-21 D '59. (MIRA 13:4)

1. Trest No. 20 Glavleningradstroya (for Kronrod). 2. Institut Gipronemetrud (for Velikin).
(Priozersk District--Sand and gravel plants)

FD-2226

USSR/Electronics - Piezoelectric Filters

Card 1/1 Pub 90-6/12

Author : *Velikin, Ya. I., *Gel'mont, Z. Ya., *Zelyakh, E. V.

Title : High-pass piezoelectric filter

Periodical : Radiotekhnika, 10, 41-49, Mar 1955

Abstract : Theory and methods of calculation of a certain type of high-pass piezoelectric filter are presented in this article. Analysis of the filter circuit, determination of the characteristic parameters of the filter, derivation of formulas for calculation of resonant frequencies and operating attenuations are explained in detail. The calculated values of the high-pass piezoelectric filter characteristics were checked experimentally, and were found to be in good agreement. Two USSR references cited. Formulas; graphs.

Institution: *Active members of the All-Union Scientific and Technical Society of Radio Engineering and Electric Communications imeni A. S. Popov, Moscow

Submitted : 22 Apr 1954

AID P - 4555

Subject : USSR/Electronics

Card 1/1 Pub. 90 - 9/11

Authors : Velikin, Ya. I., Z. Ya. Gelmont, and E. V. Zelyakh

Title : Piezoelectric filter of low frequencies.

Periodical : Radiotekhnika, 4, 59-66, Ap 1956

Abstract : The article follows an earlier one by these authors (this journal, No. 3, 1955), "Piezoelectric filter of high frequencies". The authors present connection diagrams for a single and a double section piezoelectric filter of low frequencies, find their characteristics, and develop formulas for the calculation of their elements. Special attention is devoted to the calculation of resonant and antiresonant frequencies of such filters and of their operational attenuation. An experimental attenuation characteristic of a two-sectional filter is presented. Five diagrams, 2 Soviet references (1946, 1955).

ZELYAKH, E.V.; VELIKIN, Ya.I.

Narrow band piezoelectric filters. Elektrosviaz' 10 no.8:39-51 Ag '56. (Electric filters) (MLRA 9:9)

Velikin, Ya. I.

CIRCUITS

"Electric Filters with Resonators of Synthetic Crystals" by Ya. I. Velikin and E. V. Zelyakh, Elektrosvyaz', No 11, November 1957, pp 89-100.

Somewhat obsolete article (delivered at the First All-Union Conference on Piezoelectricity on November 27, 1952, on the development of electric filters for 12-channel carrier telephone system, in which synthetic crystals replace the quartz in the piezoelectric resonators.

Card: 1/1 -3-

L 35854-66 EWT(1)

ACC NR: AP6010785 SOURCE CODE: UR/0106/66/000/002/0001/0008

AUTHOR: Velikin, Ya. I.; Zelyakh, E. V.; Ivanova, A. I.

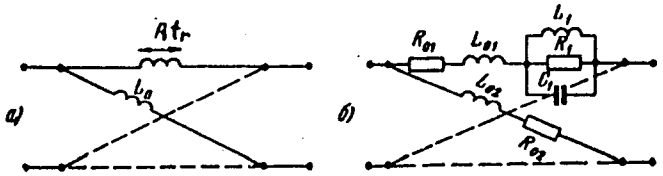
ORG: none

TITLE: Narrow-band magnetostriction filters

SOURCE: Elektrosvyaz', no. 2, 1966, 1-8

TOPIC TAGS: electric filter, magnetostriction filter

ABSTRACT: A method is developed for calculating single- and two-section magnetostriction filters (MF) that have a bridge circuit and include one two-winding magnetostriction resonator and one doubly-wound inductance coil (see figure). Theoretical plots of characteristic impedance and attenuation of MF arms are shown. Formulas for the effective attenuation of single- and two-section MF's



Actual Magnetostriction-filter circuit — Equivalent circuit

Card 1/2

UDC: 621.372.542.22

L 35854-66

ACC NR: AP6010785

are developed. A 78-kc experimental two-section filter was tested; its attenuation characteristics are very close to those estimated by the authors' formulas. Orig. art. has: 10 figures, 30 formulas, and 1 table.

SUB CODE: 09 / SUBM DATE: 08Jul65 / ORIG REF: 005

Card 2/2

VELIKIN, Ya.I.; ZELYAKH, E.V.; IVANOVA, A.I.

Wide-band magnetostrictive filters. Elektrosviaz 17 no.10:1-9 O '63. (MIRA 17:1)

VELIKIN, Ya.I.; ZELYAKH, E.V.; IVANOVA, A.I.

Single-link narrow-band magnetostriction filters. Elektrosviaz' 16 no.2:51-59 F '62. (MIRA 15:2)
(Electric filters)

36087 S/106/62/000/004/007/010
A055/A101

9.2186

AUTHORS: Velikin, Ya.I., Zelyakh, E.V.; Ivanova, A.I.

TITLE: Rejection magnetostrictive filters

PERIODICAL: Elektrosvyaz', no. 4, 1962, 48 - 54

TEXT: A method for calculating bridge-type rejection filters consisting of magnetostrictive resonators and condensers is described. The rejection magnetostrictive filter is shown schematically in Figure 1, the resonator being replaced by its equivalent circuit (the losses in the filter elements are neglected). The impedances of the arms are:

$$Z_1 = i\,2\pi f L_o \frac{f_2^2 - f^2}{f_1^2 - f^2}; \quad Z_2 = \frac{1}{i\,2\pi f C_2}, \tag{1}$$

where f_1 and f_2 are, respectively, the antiresonant and the resonant frequency of the resonator. The filter characteristic impedances Z_{co} and $Z_{c\infty}$ (at $f = 0$ and $f \to \infty$, respectively) being but little different, the rated impedance of the filter is taken equal to

Card 1/4

Rejection magnetostrictive filters

$$Z_m = \sqrt{\frac{L_0}{C_2}} = \frac{R_0}{\alpha}, \qquad (3)$$

R_0 being the load resistance and α the matching coefficient. The graphs showing the frequency-dependence of Z_1, Z_2, b_c (characteristic attenuation) and Z_c reveal that the examined circuit is a rejection filter whose characteristic rejection band is situated between the frequencies f_1 and f_2. Within this band (at f_∞), occurs the attenuation pole, f_∞ being deduced from formula:

$$f_\infty^2 (f_2^2 - f_\infty^2) = F_0^2 (f_\infty^2 - f_1^2), \qquad (4)$$

where

$$F_0 = \frac{1}{2\pi\sqrt{L_0 C_2}}. \qquad (5)$$

The formulae permitting the calculation of the filter elements are:

$$L_0 = \frac{Z_m}{2\pi F_0}, \quad L_1 \approx L_0 \frac{2\Delta}{f_1}, \quad C_1 = \frac{1}{4\pi^2 f_1^2 L_1}, \quad C_2 = \frac{1}{2\pi F_0 Z_m}, \qquad (6)$$

Card 2/4

Rejection magnetostrictive filters

$$F_0 = f_\infty \sqrt{\frac{f_2^2 - f_\infty^2}{f_\infty^2 - f_1^2}} \approx f_\infty \sqrt{\frac{f_2 - f_\infty}{f_\infty - f_1}} . \qquad (7)$$

$\Delta = f_2 - f_1$ being the width of the characteristic rejection band. The maximum width of the rejection band is:

$$\Delta_{max} = \frac{1}{2} K^2 f_1 \qquad (8)$$

K being the electromechanical coupling coefficient. The author next considers the case when two rejection bands are necessary (two series-connected magnetostrictive resonators being used) and deduces a formula giving Δ_{max} for this case. He calculates then the working attenuation of the single-mesh filter. This attenuation is:

$$b_{work} = \ln \sqrt{1 + \frac{1 - t^2}{4} \frac{\left[(\alpha - \frac{1}{\alpha})\eta + \alpha + \frac{1}{\alpha}\right]^2}{(\eta - t)^2}} , \qquad (16)$$

where $t = \frac{\Delta_\infty}{\Delta}$, $\Delta_\infty = 2(f_\infty - f_a)$, $f_a = \frac{1}{2}(f_1 + f_2)$, $\eta = \frac{2(f - f_a)}{\Delta}$. An

Card 3/4

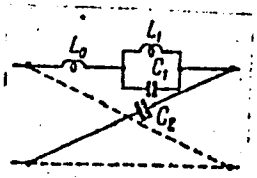
Rejection magnetostrictive filters

S/106/62/000/004/007/010
A055/A101

analogous formula is also deduced for the working attenuation of the two-mesh filter. Some results of a practical application of the above formulae are given at the end of the article. The Soviet personalities mentioned in the article are: D.G. Yatsenko, T.M. Novikova, N.D. Bosyy. There are 9 figures and 4 references: 3 Soviet-bloc and 1 non-Soviet-bloc.

SUBMITTED: October 28, 1961

Figure 1b



Card 4/4

S/106/62/000/002/008/010
A055/A101

9,2186

AUTHORS: Velikin, Ya. I., Zelyakh, E. V., Ivanova, A. I.

TITLE: Single-mesh narrow-band magnetostrictive filters

PERIODICAL: Elektrosvyaz', no. 2, 1962, 51 - 59

TEXT: In the present article are described some of the results of the study of magnetostrictive ferrite-core resonators and of filters composed of such resonators, undertaken by the authors. Only single-mesh narrow-band filters are examined in this article, by the analytical method already described by two of the authors (Zelyakh and Velikin, Radiotekhnika, no. 7 - 8, 1946). The schematic diagram of these filters is shown in Fig. 1a, Fig. 1b being its equivalent circuit. Neglecting, as a first approximation, the losses in the filter elements, the authors derive expressions permitting the calculation of the filter elements L_{01}, L_{02}, L_1, L_2, C_1 and C_2 (or the elements L_0, L, C_1 and C_2 when $L_1 = L_2 = L$ and $L_{01} = L_{02} = L_0$). They next calculate the components of the magnetostrictive resonator impedance $Z = R + iX$. Formulae are deduced, first for R_1 and X_1 and then for R_2 and X_2, i.e. for the resistance and reactance of the resonators forming the first and the second arm of the filter, respectively. Ex-

Card 1/2

perimental checks proved that the values of the resistances and reactances calculated with the aid of these formulae are sufficiently correct. In the third chapter of the article, the authors determine the working attenuation of the examined filters in two cases: 1) without taking into account the losses in the resonators, 2) account taken of these losses. The results of an experimental investigation of some magnetostrictive filters designed according to the described method are reproduced at the end of the article. There are 10 figures and 5 references: 4 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: Burgt. Piezomagnetic ferrites. Electronic Technology, 1960, v. 37, no. 9. The Soviet authors or scientists mentioned in the article are: S. S. Kogan, N. D. Bosyy.

SUBMITTED: June 23, 1961

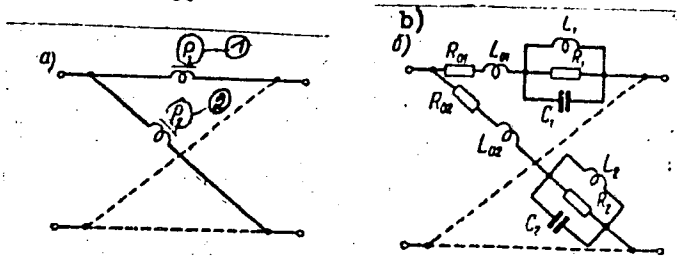


Figure 1.
Legend: 1 - Res_1
2 - Res_2

9.2186 (1063, 1159)
9.3230 (1132, 1040)

29587
S/108/61/016/011/003/007
D201/D304

AUTHORS: Velikin, Ya.I., Gel'mont, Z.Ya., and Zelakh E.V., Members of the Society

TITLE: Narrow-band lattice crystal filters

PERIODICAL: Radiotekhnika, v. [illegible], no. 11, 1961, 26 - 33

TEXT: In the present article design formulae are derived for lattice filters consisting of a piezoelectric crystal and a capacitor and forming a single, two-, three and four-section networks. The analysis of the filters is made using basic Π- and T-sections, as shown in Figs. 1a and 2a. Although design formulae for the above configuration are given in literature, for narrow pass-band filters, in which the ratio of the pass-band to its center frequency is smaller than e.g. 0.05, simpler approximate formulae may be used obtained by the method similar to that given by E.V. Zelakh (Ref. 6: Metod rascheta ekvivalentnykh skhem (Method of Designing Equivalent Circuits), Nauchno-tekhn. sb. po elektrosvyazi Leningr. in-ta svyazi no. 6, 1946). These formulae are as follows: for Π-section

Card 1/6

Narrow-band lattice crystal filters

$$C_1 \approx \frac{1 - m^2}{4\pi\, m f_a R_{nom}} \qquad (1)$$

$$C_2 \approx \frac{m}{2\pi\, f_a R_{nom}} \qquad (2)$$

$$C_q \approx \frac{\Delta}{2\pi\, m f_a^2 R_{nom}}, \qquad L_q \approx \frac{m R_{nom}}{2\pi\Delta};$$

for T-section

$$C_1 \approx \frac{m}{2\pi\, f_a R_{nom}}, \qquad C_2 \approx \frac{\quad}{\pi (m^2 - 1)\, f_a R_{nom}},$$

$$C_q \approx \frac{2m^3 \Delta}{\pi (m^2 - 1)^2 f_a R_{nom}}, \qquad L_q \approx \frac{(m^2 - 1)^2 R_{nom}}{8\pi m^3 \Delta}.$$

Card 2/6

Narrow-band lattice crystal filters

For both cases

$$m = \sqrt{\frac{f_2^2 - f_\infty^2}{f_1^2 - f_\infty^2}} \qquad (3)$$

and $$\Delta = f_2 - f_1, \; f_a = \frac{1}{2}(f_1 + f_2) \qquad (4)$$

where f_1 and f_2 cut-off frequencies, f_∞ - frequences of the attenuation band, R_{nom} - characteristic filter impedance at freqeuncy f_a. For narrow-band filters, as frequencies near f_a

$$m \approx \sqrt{\frac{f_2 - f_\infty}{f_1 - f_\infty}} \qquad (5)$$

may be assumed and hence, introducing

$$\Delta_\infty = 2(f_\infty - f_a), \quad t = \frac{\Delta_\infty}{\Delta} \qquad (6)$$

Card 3/6

Narrow-band lattice crystal filters

the approximate expression for m is obtained as

$$m \approx \sqrt{\frac{t-1}{t+1}}, \qquad (7)$$

which is the generalized equation (does not contain frequency). The attenuation of the single section filter is derived as

$$N \approx \frac{1}{2}\sqrt{t^2-1}\;\frac{\frac{1}{\alpha}-\alpha+(\frac{1}{\alpha}+\alpha)\eta}{\eta-\tau} \qquad (22)$$

where $\alpha = \frac{R_o}{R_{nom}}$, and η given by

$$\eta = \frac{f-f_a}{\frac{1}{2}\Delta} \qquad (19)$$

- the normalized frequency (Ref. 6: Op. cit.). For the two-section filter the anntenuation is derived as

Card 4/6

Narrow-band lattice crystal filters

$$N \approx \sqrt{t^2 - 1}\ \frac{[\frac{1}{\alpha} - \alpha + (\frac{1}{\alpha} + \alpha)\eta](\eta t - 1)}{(\eta - t)^2}, \qquad (27)$$

for three-section

$$N \approx \frac{1}{2}\sqrt{t^2 - 1}\ [\frac{1}{\alpha} - \alpha + (\frac{1}{\alpha} + \alpha)\eta]\ \frac{4(\eta t - 1)^2 - (t - \eta)^2}{(t - \eta)^3} \qquad (35)$$

and four-section as

$$N \sim 2\sqrt{t^2 - 1}\ [\frac{1}{\alpha} - \alpha + (\alpha + \frac{1}{\alpha})\eta](\eta t - 1)\ \frac{2(\eta t - 1)^2 - (\eta - t)^2}{(\eta - t)^4};$$

Each of tehm simplifies according to the values of load and the respectiv values of η and t. The above filter circuits may, in particular be used for crystal filters at frequencies above 1 mc/s, with transverse oscillating crystals of AT and BT cut. Experimental two- and three-Π-section filters operating at the center pass-band frequency of 1364 kc/s had a pass band of 800 c/s. There are 8 figures and 7 references: 4 Soviet-bloc and 3 non-Soviet-bloc. The

Card 5/6

29587 S/108/61/016/011/003/007
D201/D304

Narrow-band lattice crystal filters

reference to the English-language publication reads as follows: R. A. Sykes, IRE National Convention; part 2, 1958.

ASSOCIATION: Nauchno-tekhnicheskoye obshchestvo radiotekhniki i elektrosvyazi im. A.S. Popova (Scientific and Technical Communication im. A.S. Popov) [Abstractor's note: Name of Association taken from 1st page of journal]

SUBMITTED: April 29, 1960 (initially)
July 7, 1961 (after revision)

Fig. 1.

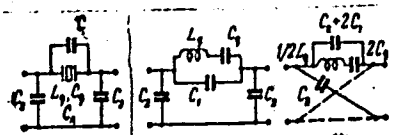


Fig 1a

Рис. 1

Fig. 2.

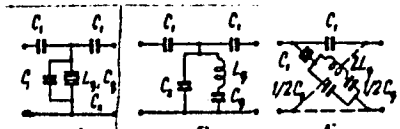


Fig 2a

Рис. 2

Card 6/6

S/106/60/000/011/004/010
A055/A033

9.2550

AUTHORS: Velikin, Ya.I., Gel'mont, Z.Ya., and Zelyakh, E.V.

TITLE: A Piezoelectric Band-Elimination Filter Circuit.

PERIODICAL: Elektrosvyaz', 1960, No.11, pp. 34-39

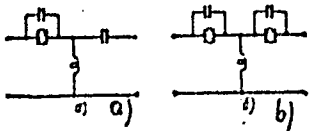
TEXT: The band-elimination quartz filters have usually a comparatively low impedance in the region of the suppressed frequencies. In some practical cases, it is sometimes necessary, however, for the filter to have a considerable impedance in the suppressed band. Two such filter circuits, containing one and two piezoelectric resonators respectively (see Fig. 1a and 1b) are described in the present article. These filter circuits have really two suppression bands: a wide one and a narrow one. The narrow band, in the region of the antiresonance frequency of the resonator (shunted by a capacitance), is the principal one and is used for the suppression of currents of given frequencies. Its width is somewhat larger in the circuit containing two resonators. Using equivalent circuits for his discussion, the author calculates the effective attenuation in the suppression band. He establishes first a general formula for the case of the filter circuit con-

Card 1/2

A Piezoelectric Band-Elimination Filter Circuit.

taining two resonators, and then applies this formula to the filter circuit with one resonator. He then works out a corresponding formula for the effective attenuation in the transmission band of the filters. Formulae are also given allowing to calculate the input impedance of the filter circuit (containing two resonators) in the case of the suppressed band and in the case of the pass-band (simplified approximate formulae being used in this latter case). At the end of the article, some general recommendations are given as to the calculation of the filter circuits and the choice of the piezoelectric resonators. There are 7 figures and 6 references: 5 Soviet and 1 non-Soviet.

SUBMITTED: May 3, 1960



Puc. 1

Card 2/2

VELIKINA, M.TS.; MITINA, S.I.

Practice of using operating and technical sections in servicing wire broadcasting and communication systems. Vest. sviazi 25 no.3:15-16 Mr '65. (MIRA 18:5)

1. Starshiye inzhenery-ekonomisty Otdela truda i zarabotnoy platy Ministerstva svyazi SSSR.

ACCESSION NR: AP4012344 S/0199/64/005/001/0034/0038

AUTHOR: Velikiy, A. P.

TITLE: A representation of the solutions of differential-difference equations with constant coefficients

SOURCE: Sibirskiy matematicheskiy zhurnal, v. 5, no. 1, 1964, 34-38

TOPIC TAGS: difference equation, differential equation, differential-difference equation

ABSTRACT: This paper shows that the solutions of a certain class of differential-difference equations can be represented in the form of a sum of two terms, the first of which is the solution of a certain difference equation, while the second is the sum of the solutions of a certain recurrent system of differential equations. This representation allows us to find an exact solution of the differential-difference equation without determining the roots of the corresponding transcendental characteristic equation. If we consider the linear differential-difference equation with constant coefficients

$$\sum_{i=1}^{n} a_i^0 U^{(i)}(x) + \sum_{j=1}^{m}\sum_{i=1}^{n-1} a_i^j U^{(i)}(x-j) + a_0 U(x) + \sum_{j=1}^{m} b_j U(x-j) = 1 \qquad (1)$$

Card 1/3

with the boundary conditions

$$\overline{U}(x) = U_0 = \text{const}, \quad -m \leqslant x \leqslant 0 \tag{2}$$

and also consider the difference equation

$$a_0\overline{U}(x) + \sum_{j=1}^{m} b_j\overline{U}(x-j) = 1 \tag{3}$$

with the boundary conditions

$$\overline{U}(x) = U_0, \quad -m \leqslant x < 0 \tag{4}$$

and the recurrent system of differential equations

$$\sum_{i=1}^{n} a_i^* V_r^{(i)}(x) + a_0 V_r(x) = -\sum_{j=1}^{m}\sum_{i=1}^{n-1} a_i^j V_{r-j}^{(i)}(x-j) - \sum_{j=1}^{m} b_j V_{r-j}(x-j) \tag{5}$$

$$(r = 0, 1, 2, \ldots, [x])$$

with the boundary conditions

$$V_r(r) = \overline{U}(r-0) - \overline{U}(r), \quad V_r^{(i)}(r) = 0 \ (i = 1, 2, \ldots n-1), \tag{6}$$

Card 2/3

ACCESSION NR: AP4012344

then the main result is the following theorem: The solution of equation (1) under conditions (2) can be represented in the form

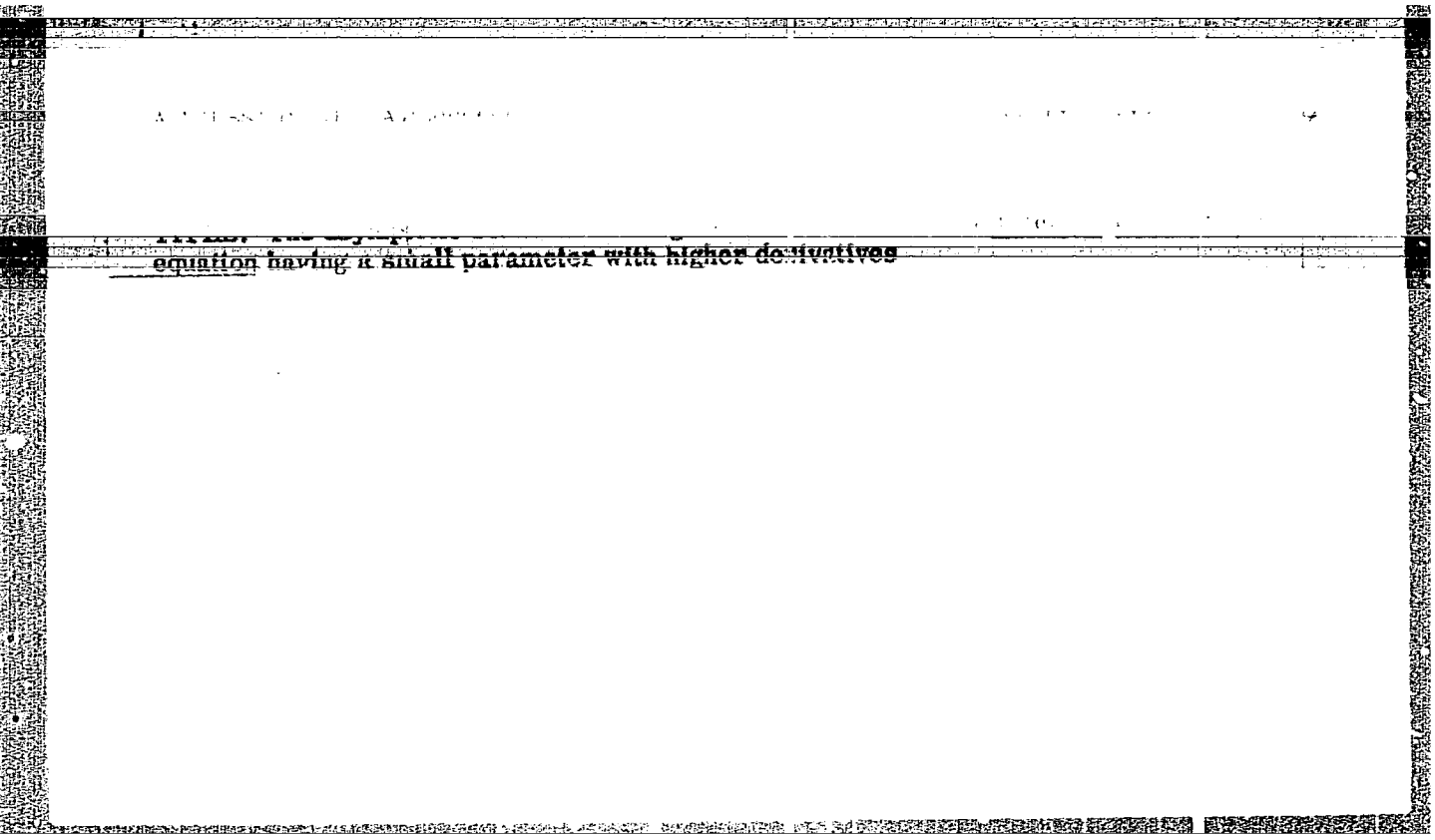
$$U(x) = \tilde{U}(x) + \sum_{r=0}^{[x]} V_r(x), \quad x \geq 0 \qquad (7)$$

where $\tilde{U}(x)$ is the solution of equation (3) under conditions (4), and $V_r(x)$ is the solution of equation (5) under conditions (6). A simple illustrative example is presented at the end of the paper. "The author would like to thank V. S. Korolyuk for suggesting the problem and for guidance during the work." Orig. art. has: 22 numbered equations.

ASSOCIATION: none

SUBMITTED: 03Sep62	DATE ACQ: 26Feb64	ENCL: 00
SUB CODE: MM	NO REF SOV: 006	OTHER: 000

Card 3/3



APPROVED FOR RELEASE: 09/01/2001 CIA-RDP86-00513R001859320004-9"

VELIKIY, A.P. [Velykyi, A.P.]

Asymptotic behavior of generalized solutions to differential difference equations containing a small parameter at the higher derivatives. Dop. AN URSR no.11:1419-1423 '64. (MIRA 18:1)

1. Institut avtomatiki Gosplana SSSR. Predstavleno akademikom AN UkrSSR Yu.A. Mitropol'skim [Mytropol's'kyi, IU.O.].

VELIKIY, A.P.

Representation of the solutions to differential-difference equations with constant coefficients. Sib. mat. zhur. 5 no.1: 34-38 Ja-F '64. (MIRA 17:7)

VELIKIY, A.S.

Tectonic conditions and stages in the formation of the structure of ore deposits in folded areas. Vest.LGU 16 no.12:56-60 '61. (MIRA 14:6)

(Ore deposits)

VELIKIY, A.S.

In memory of Professor Konstantin Nikolaevich Ozerov. Uch. zap. LGU no.154:3-12 '52. (MIRA 11:3)
(Ozerov, Konstantin Nikolaevich, 1899-1949)

VELIKIY, A.S.; KUMPAN, A.S.

Some regularities in the occurrence of polymetallic deposits in the interior of the Dzungarian-Balkhash structure. Inform.sbor.VSEGEI no.2:53-56 '55. (MLRA 9:11)

(Balkhash region--Ore deposits)

VELIKIY, A.S.

Theoretical requisites and observable signs in geological prospecting.
Vest.Len.un.9 no.1:209-217 Ja '54. (MLRA 9:7)
(Prospecting)

VELIKIY, A.S.

Chemical influence of the rock beds on ore deposition. Uch. zap. LGU no.154:93-99 '52. (MIRA 11:3)

(Ores)

VELIKIY, Aleksandr Semenovich; KULAGINA, T.I., red.; VODOLAGINA, S.D., tekhn. red.

[Structure of ore deposits in folded areas] Struktury rudnykh polei (v skladchatykh oblastiakh. Leningrad, Izd-vo Leningr. univ., 1961. 274 p. (MIRA 15:1)
(Ore deposits) (Folds (Geology))

VELIKIY, A.S.; KNYAZEV, I.I.; KUMPAN, A.S.

Distribution of complex metal deposits in the Sarysu-Balkhash-Nura watershed. Trudy VSEGEI 32:129-203 '60. (MIRA 13:11)
(Kazakhstan—Ore deposits)

VELIKIY, B.G., inzh.; BYKOV, V.V., inzh.

Equipment for the automotization of mine drainage. Ugol' Ukr. 4 no.5:34 My '60. (MIRA 13:8)
(Mine drainage)
(Automatic control)

VELIKIY, F.L.

Rare anomaly in the development of the spine. Podiatriia 42 no.1:66 Ja'63. (MIRA 16:10)

1. Iz 3-y Vinnitskoy gorodskoy bol'nitsy (glavnyy vrach Ya.Z. Levchuk)
(SPINE—ABNORMITIES AND DEFORMITIES)

VELIKIY, F.L.

Some peculiarities in the clinical and reontgenological course of myelomatosis. Vrach.delo no.7:751 Jl '57. (MLRA 10:8)

1. Kurs rentgenologii i radiologii (zav. - kandidat meditsinskikh nauk V.V.Novikov) Vinnitskogo meditsinskogo instituta
(BONES--TUMORS)

VELIKIY, F.I.

Cranial level. Vest.rent. i rad. 33 no.5:87-88 S-O '58 (MIRA 11:11)

1. Iz Vinnitskogo meditsinskogo instituta (dir. - dotsent S.I. Korkhov) kurs rentgenologii i radiologii (zav.kand.med.nauk V.V. Novikov).
(X RAYS--EQUIPMENT AND SUPPLIES)

VELIKIY, G.

An important stage in the development of Soviet-Indian economic relations. Vnesh.torg. 29 no.2:14-16 '59. (MIRA 12:4)
(Russia--Commerce--India)
(India--Commerce--Russia)

VELIKIY, G.G.

Reducing the industrial noise. Put' i put.khoz. 8 no.3:35 '64. (MIRA 17:3)

1. Nachal'nik otdela promyshlennykh predpriyatiy sluzhby puti Yuzhnoy dorogi, Khar'kov.

VELIKIY, G.G.; RESHETNYAK, I.D.

Semiautomatic control of conveyers. Put' i put. khoz. 5 no. 1:27 Ja '61. (MIRA 14:5)

1. Nachal'nik otdela shchebzavodov i kar'yerov sluzhby puti, g. Khar'kov (for Velikiy). 2. Direktor Redutskogo shchebzavoda (for Peshetnyak).

(Conveying machinery) (Automatic control)

VELIKIY, G.G.

Defects in the design of stone-crushing machines. Put' i put. khoz. 5 no.3:17 Mr '61. (MIRA 14:3)

1. Nachal'nik otdela shchebenochnykh zavodov i kar'yerov, g. Khar'kov.
(Crushing machinery)

GRIBANOV, V.G.; VELIKIY, G.G.

Kriukovo crushed stone. Put' i put.khoz. no.11:40-41
N '59. (MIRA 13:4)

1. Nachal'nik sluzhby puti, zdaniy i sooruzheniy, Khar'kov, Yuzhnaya doroga (for Gribanov). 2. Nachal'nik otdela zavodov i kar'yerov, Khar'kov (for Velikiy).
(Kryukov--Stone, Crushed)

VELIKIY, G.G. (Khar'kov); IL'YASHENKO, G.R. (Khar'kov)

New screens. Put' i put.khoz. 4 no.6:31 Je '60. (MIRA 13:7)
(Stone, Crushed) (Screens (Mining))

VELIKIY, G.G. (Kharkov)

"Singing" sands. Priroda no.6:82 Je '60. (MIRA 13:6)

(Dnieper Valley--Singing sands)

VELIKIY, G.G., inzhener (Khar'kov); IL'YASHENKO, G.R., inzhener (Khar'kov).

Urgent problems in organizing the production of crushed stone for track reinforcement. Zhel.dor.transp. 37 no.4:70-73 Ap '56. (MLRA 9:7)
(Ballast)

VELIKIY, G.G.; RESHETNYAK, I.D.

Improving the planning of stone crushing plants. Put' i mut.khoz. 4 no.8:33 Ag '60. (MIRA 13:7)

1. Nachal'nik otdela shchebenochnykh zavodov i kar'yerov, stantsiya Reduty, Yuzhnoy dorogi (for Velikiy). 2. Nachal'nik Redutskogo shchebenochnogo zavoda, stantsiya Reduty, Yuzhnoy dorogi (for Reshetnyak).
(Stone industry)

15-57-3-3743

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 3, p 182 (USSR)

AUTHOR: Velikiy, G. G.

TITLE: The Firming of Soils by an Electrochemical Method (Electrical Drainage) /Zakrepleniye gruntov elektrokhimicheskim metodom (Elektrodrenazh)/

PERIODICAL: Uch. zap. Khar'kovsk. un-ta, 1955, Nr 57, pp 163-175

ABSTRACT: An earthen railroad bed, built on oversaturated brown clay, was deformed, with the result that soil was squeezed into the drainage ditch. Weak pumping of the ground prevented the application of common drainage systems. Laboratory studies have shown the effectiveness of using electrical drainage. A high content of water-soluble salts (in particular $CaCl_2$) made it possible to use the method without adding chemicals. The area to be firmed was divided up into three sections 17.00, 16.25, and 14.50 m long, and 272 electrodes were

Card 1/2

The Firming of Soils (Cont.)

driven into the ground; these were iron pipes 1.6 m and 1.85 m long with internal diameters of 35 to 50 mm. The spacing was determined by calculation from values obtained at one cm with a voltage of one v. The voltage amounted to 180 to 200 v. By using electrical drainage the plasticity of the ground decreased 25 to 40 percent, and the tendency of soil to swell was greatly decreased.

Card 2/2

L. I. L.

L 7891-66 EWT(m)/EWP(j)/T RM

ACC NR: AP5024959 SOURCE CODE: UR/0286/65/000/016/0021/0021

AUTHORS: Demin, M. N.; Velikiy, G. I.; Fridman, I. N.

ORG: none

TITLE: Method for producing nonwoven cloth. Class 8, No. 173707

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 21

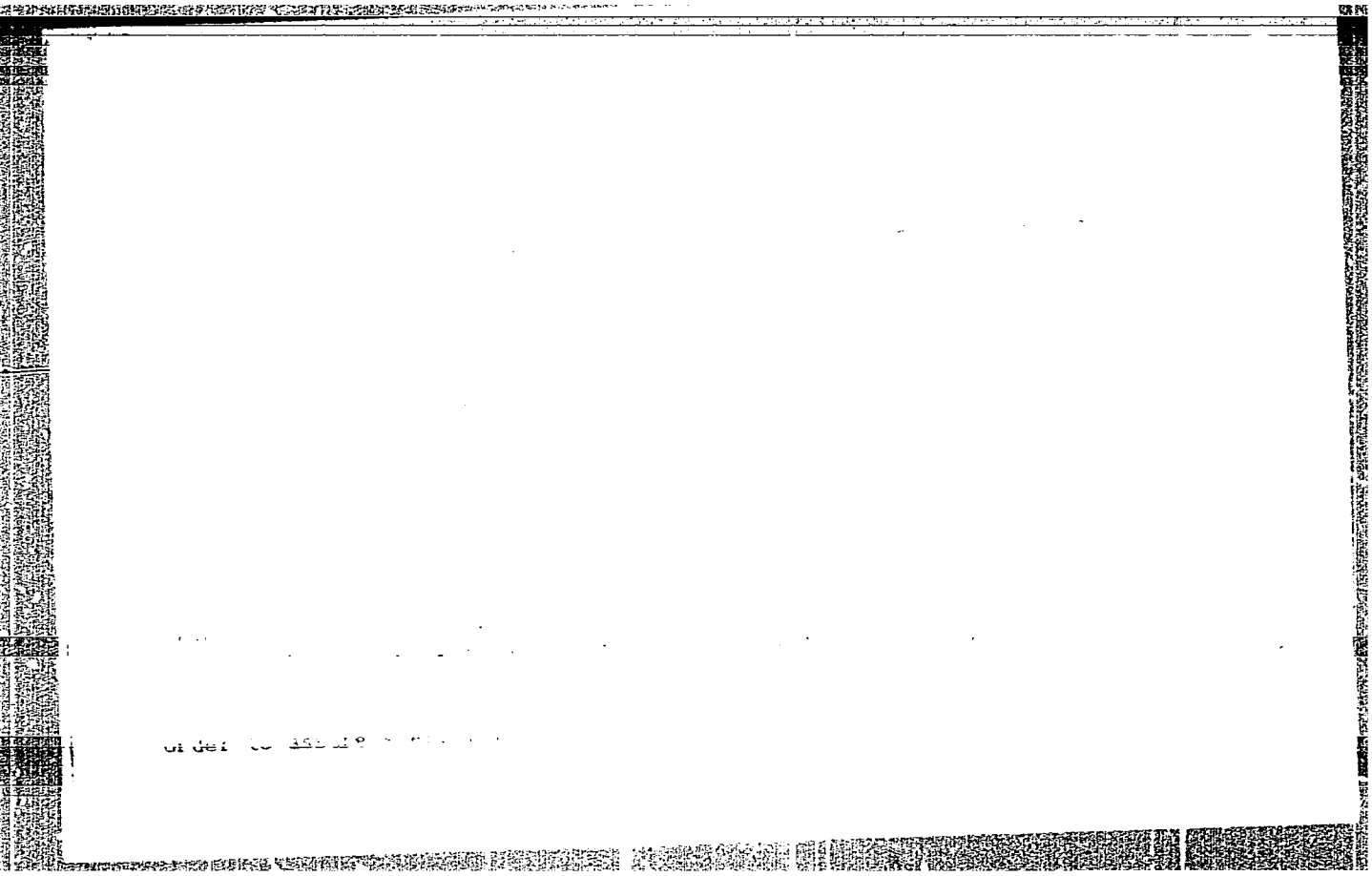
TOPIC TAGS: polyurethane, synthetic fiber, polymer, textile

ABSTRACT: This Author Certificate presents a method for producing nonwoven cloth from stiched or bound foam-polyurethane. To improve the quality of the cloth, the foam-polyurethane is glazed prior to stitching and mercerized after stitching.

SUB CODE: OC,MT SUBM DATE: 26May64

nw

Card 1/1 UDC: 677.862.352:677.494.664



VELIKIY, I.G., inzh.; NOVIKOV, N.V., inzh.

Driving inclines in gas-bearing rocks. Shakht. stroi. no.12:18-20 D '59. (MIRA 13:3)

1.Trest Kadiyevshakhtostroy.
(Mining engineering) (Mine gases)

VELIKIY, I.G., inzh.; NOVIKOV, N.V., inzh.; SOKOLOV, A.Kh.; SIRCHENKO, I.P.

I.S. Rod'kin's book "Ventilation in the course of mine building." Shakht. stroi. 5 no.8:30 Ag '61. (MIRA 16:7)

1. Trest Kadiyevpodzemshakhtostroy (for Velikiy, Novikov). 2. Shakhta Mariya-Glubokaya (for Sokolov). 3. Shakhta Krasnopol'ye-Glubokaya (for Sirchenko).
(Mine ventilation)

VELIKIY, I.G., inzh.; NOVIKOV, N.V., inzh.

Rapid sinking of ship shafts in the Mel'nikov No. 7 Mine. Shakht. stroi. 6 no.3:23-24 Mr '62. (MIRA 15:3)

1. Trest Kadiyevpodzemshakhtostroy.
(Shaft sinking)

VELIKIY, I.G., inzh.; NOVIKOV, N.V., inzh.; VEREMEYEVA, L.V., inzh.

Operating the BU-1 drill. Shakht. stroi. 6 no.5:28-29 My '62. (MIRA 15:7)

1. Trest Kadiyevpodzemshakhtostroy.
(Boring machinery)

VELIKIY, I. G., inzh.; NOVIKOV, N. V., inzh.

Experience in the work with explosive charges with an increased diameter. Ugol' 37 no.10:30 O '62. (MIRA 15:10)

1. Trest Kadiyevpodzemshakhtostroy.

(Donets Basin—Coal mines and mining—Explosives)

RYBALKIN, G.I., inzh.; SHARAPOV, V.A., inzh.; VELIKIY, I.G., inzh.; MALIOVANOV, D.I., doktor tekh. nauk; PRUZHNIER, V.L., inzh.; KONDORSKIY, R.L., inzh.; TUMANOV, V.Ya., inzh.; POGORELOV, A.K., kand. tekhn. nauk

The BUKS-I equipment is an important step in the accomplishment of overall mechanization of shaft sinking. Shakht. stroi. 9 no.2: 1-3 F '65. (MIRA 18:4)

1. Kombinat Luganskshakhtostroy (for Rybalkin, Sharapov, Velikiy). 2. TSentral'nyy nauchno-issledovatel'skiy i proyektno-konstruktorskiy institut podzemnogo i shakhtnogo stroitel'stva (for Maliovanov, Pruzhnier, Kondorskiy, Tumanov, Pogorelov).

VELIKIY, M.I., inzh.; YAGUPOV, A.V., kand. tekhn. nauk

Jet piercing of holes and using portable oxygen equipment in strip mine construction. Shakht. stroi. 9 no.2:28-29 F '65. (MIRA 18:4)

1. Gosudarstvennyy institut po proyektirovaniyu oborudovaniya po dobyche i obogashcheniyu rud (for Velikiy). 2. Krivorozhskiy gorno rudnyy institut (for Yagupov).

VELIKIY, M.I.

From our experiences in operating TE3 diesel locomotives.
Elek.i tepl.tiaga 3 no.11:43 N '59. (MIRA 13:3)

1. Mashinist-instruktor, depo Liski, Yugo-Vostochnoy dorogi.
(Diesel locomotives)

TSIREL', Ya.A., inzh. (Leningrad); VELIKIY, N.A., inzh. (Leningrad)

More about the grounding of single-pole reinforced concrete power transmission line towers. Energetik 13 no.6:21-23 Je '65. (MIRA 18:7)

TSIREL', Ya.A., inzh.; VELIKIY, N.A., inzh.

Grounding of single-pole reinforced concrete power transmission line poles. Energetik 11 no. 12:4-8 D '63. (MIRA 17:5)

VELIKIY, N.V., inzh.; NOVIKOV, N.V., inzh.

Experiment in using explosive cartridges with a larger diameter. Shakht.stroi. 6 no.1:25-26 Ja '62. (MIRA 14:12)

1. Trest Kadiyevpodzemshakhtostroy.
(Coal mines and mining—Explosives)

VELIKIY, S.Ye., inzh.

Cropping of steel casting risers with natural gas. Svar. proizv. no.6:39-40 Je '62. (MIRA 15:6)

1. Volgogradskiy nauchno-issledovatel'skiy institut tekhnologii mashinostroyeniya.
(Gas welding and cutting)
(Risers (Founding))

VELIKIY, Ye.

Large-panel housing construction in Volgograd. Zhil. stroi. no.9:4-8 '62. (MIRA 16:2)

1. Glavnyy inzhener Upravleniya stroitel'stva Volgogradskogo soveta narodnogo khozyaystva.
(Volgograd--Precast concrete construction)

ACC NR: AP6032541 (A) SOURCE CODE: UR/0413/66/000/017/0153/0153

INVENTOR: Fomenko, L. A.; Abramov, N. G.; Vasilenko, P. F.; Velikodnyy, V. G.; Demchenko, O. G.; Usenko, V. Ya.; Eydel'man, V. S.

ORG: none

TITLE: Arrangement for packing explosive cartridges. Class 72, No. 185726

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 17, 1966, 153

TOPIC TAGS: packing technique, paper, explosive, packing machinery, cartridge packing

ABSTRACT: An Author Certificate has been issued describing an arrangement for packing explosive cartridges. It consists of a mechanism for unwinding the paper, applying glue and a stencilled pattern on the paper and cutting the paper to specification. There are mechanisms for aligning and collecting the cartridges and shaping bundles, a rotary mechanism, mechanisms for covering packets and unloading prepared packets, and an automatic interlocking system. To increase the efficiency in shaping cartridge packets, the arrangement has a mechanism for shaping packets, made in the form of rectangular flaps hinged with two levers,

Card 1/2 UDC: 623.457.621.798.4:622.242

L 09129-67

ACC NR: AP6032541

secured on a coupling rod, and folding during lifting ten cartridges, shaping them into a packet in rows of five. To hold the packet of cartridges during packing, the rotary mechanism is equipped with cassettes, containing a frame, a piston with a rod, and clamping levers (see Figs 1 and 2). Orig. art. has: 2 figures. [Translation]

Fig. 1

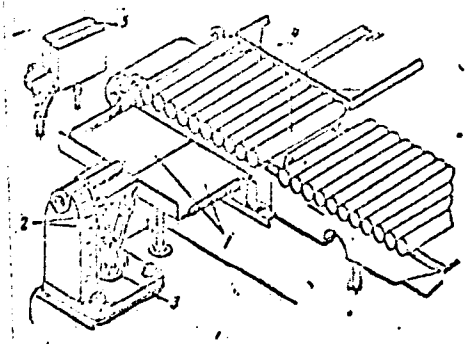


Fig. 2

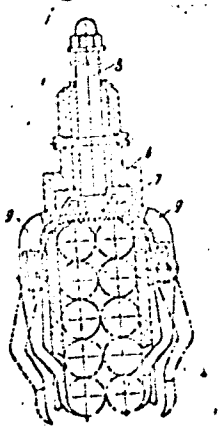


Fig. 1 and 2. Arrangement for packing explosive cartridges.
1--Flaps;
2--levers;
3--coupling rod;
4--ten cartridges;
5--packet of cartridges;
6--body;
7--piston;
8--rod [of piston];
9--levers

SUB CODE: 13/ SUBM DATE: 29Mar65/

2/2

NEBOGIN, I.Z.; monter, VELIKODNYY, V.P., elektromekhanik; MILYAYEV, I.N., starshiy elektromekhanik; LAZAREVICH, G.P., elektromekhanik; OSIPOV, P.P., elektromekhanik

Suggestions of efficiency experts. Avtom.telm.i sviaz' 4 no.8: 30-31 Ag '60. (MIRA 13:8)

1. Elektricheskaya tsentralizatsiya stantsii Bezymyanka Kuybyshevskoy dorogi (for Nebogin). 2. Voroshbyanskaya distantsiyasignalizatsii i svyazi Yugo-Zapadnoy dorogi (for Velikodnyy). 3. Deminskaya distantsiya signalizatsii i svyazi Kuybyshevskoy dorogi (for Milyayev) 4. Orskaya distantsiya signalizatsii i svyazi Kuybyshevskoy dorogi (for Lazarevich). 5. Vereshchaginskaya distantsiya signalizatsii i svyazi Sverdlovskoy dorogi (for Osipov).
(Railroads--Electric equipment)
(Railroads--Signaling)

USSR / Human and Animal Physiology. Metabolism. T-2

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 3133

Author : Velikodvorskaya, G. A.
Inst : Not given
Title : Disturbances of Tryptophan Metabolism in the Liver of Rats in States of Protein-Deficiency

Orig Pub : Vopr. med-khimii, 1957, 3, No 4, 292-300

Abstract : Rats of 100 - 140 gm weight that were kept on a low protein diet were destroyed when symptoms of protein deficiency appeared and the serum protein level decreased. Microscopic slices and homogenates of the liver were incubated with tryptophan or kinurenin at 38 C for 2 hours. In the livers of the protein-deficient rats, the activity of tryptophanperoxidase and kinureninase was considerably smaller than in the livers of the control animals. Following transfer of the rats from a protein-

Card 1/2

Abs Jour : Ref Zhur - Biologiya, No 1, 1959, No. 3133

deficient to a full-value diet, the activity of tryptophanperoxidase was rapidly restored, while the restoration of the kinureninase activity occurred at a much slower tempo. When tryptophan, 1 mg/gm, was administered twice to the protein-deficient rats, the activity of tryptophanperoxidase in the liver rose markedly. However, when tryptophan was added to the liver slices of these animals, the tryptophanperoxidase activity somewhat decreased. Following intraperitoneal administration of cortisone, only a partial restoration of tryptophanperoxidase activity in the liver was noted. When tryptophan, 1 mg/gm, was given to both protein-deficient and control animals, there was in the first group a considerably higher urinary output of unchanged tryptophan, kinurenin, xanthurenic acid methylnicotinamide than in the second group. -- S. D. Gurovich

GREBENNIK, L.I.; GNEVKOVSKAYA, T.V.; VELIKODVORSKAYA, G.A.

Comparative data on the metabolism of nicotinic and isonicotinic acids in the rat organism. Farm. i toks. 23 no. 5:436-439 S-O '60. (MIRA 13:12)

1. Otdel khimioterapii (zav. - prof. G.N. Pershin) Vsesoyuznogo nauchno-issledovatel'skogo khimiko-farmatsevticheskogo instituta imeni S. Ordzhonikidze.

(NICOTINIC ACID) (ISONICOTINIC ACID)

TIKHONENKO, T.I.; VELIKODVORSKAYA, G.A.; ZEMTSOVA, E.V.

Chemical and biological properties of c_d bacteriophage. Biokhimiia 27 no.4:726-733 Jl-Ag '62. (MIRA 15:11)

1. Institute of Radiation and Physico-Chemical Biology, Academy of Sciences of the U.S.S.R., and Institute of Microbiology and Epidemiology, Academy of Medical Sciences of the U.S.S.R., Moscow.
(BACTERIOPHAGE)