KRAVTSOV, Ye.P.

ANDROS, I.P., inzh.; ASSONOV, V.A., kand. tekhn. nauk.; BERNSHTEYN, S.A., inzh.; BOKIY, B.V., prof.; BROVMAN, Ya.V., inzh. BONDARENKO, A.P., inzh.; BUCHNEV, V.K., kand. tekhn. nauk; VOLKOV, A.F., inzh.; GELESKUL, M.Z., kand. tekhn. nauk; GORODNICHEV, V.M., inzh.; DEMENT'YEV, A.Ya., inzh.; DOKUCHAYEV, M.M., inzh.; DUBNOV, L.V., kand. tekhn. nauk; YEPIFANTSEV, Yu.K., kand. tekhn. nauk.; YERASHKO, I.S., inzh.; ZHEDANOV, S.A., kand. tekhn. nauk; ZIL'BERBROD, A.F., inzh.; ZINCHENKO, E.M., inzh.; ZORI, A.S., inzh.; KAPLAN, L.B., inzh.; KATSAUROV, I.N., dots.; KITAYSKIY, E.Y., inzh.; KRAVTSOV, Ye.P., inzh.; KRIVOROG, S.A., inzh.; KRINITSKIY, L.M., kand. tekhn. nayk; LITVIN, A.Z., inzh.; MALEVICH, N.A., kand. tekhn. nauk; MAN'KOVSKIY, G.I., doktor tekhn. nauk; MATKOVSKIY, A.L., inzh.; MINDELI, E.O., kand. tekhn. nauk; NAZAROV, P.P., kand. tekhn. nauk; NASONOV, I.D., kand. tekhn. nauk; NEYYENBURG, V.Ye., kand. tekhn. nauk; POKROVSKIY, G.I., prof., doktor tekhn. nauk; PROYAVKIN, E.T., kand. tekhn. nauk; ROZENBAUM, inzh.; ROSSI, B.D., kand. tekhn. nauk; SEMEVSKIY, V.N., doktor tekhn. nauk; SKIROKLLO, O.B., inzh.; SUKHUT, A.A., inzh.; SUKHANOV, A.F., prof., doktor tekhn. nauk; TARANOV, P.Ya., kand. tekhn. nauk; TOKAROVSKIY, D.I., inzh.; TRUPAK, N.G., prof., doktor tekhn. nauk; FEDOROV, S.A., prof., doktor tekhn. nauk; FEDYUKIN, V.A., inzh.; KHOKHLOVKIN, D.M., inzh.; KHRABROV, N.I., kand. tekhn. nauk; CHEKAREV, V.A., inzh.; CHERNAVKIN, N.N., inzh.; SHREYBER, B.P., kand. tekhn. nauk; EPOV, B.A., kand. tekhn. nauk; YAKUSHIN, N.P., kand. tekhn. nauk; YANCHUR, A.M., inzh.; YAKHONTOV, A.D., inzh.; POKROVSKIY, N.M., otvetstvennyy red.; KAPLUN, Ya.G. [deceased], red.; MONIN, G.I., red.; SAVITSKIY, V.T.,

(Continued on next card)

ANDROS, I.P.---(continued) Card 2.

red.; SANOVICH, P.O., red.; VOLOVICH, M.Z., [illegible], red.; GORITSKIY, A.V., inzh., red.; POLUYANOV, V.A., inzh., red.; PADEYEV, E.I., inzh., red.; CHECHKOV, L.V., red. izd-va; PROZOROVSKAYA, V.L., tekhn. red.; NADEINSKAYA, A.A., tekhn. red.

[Mining; an encyclopaedic handbook] Gornoe delo; entsiklopedicheskii spravochnik. Glav. red. A.M. Terpigorev. Moskva, Ges. nauchno-tekhnicheskoe izd-vo lit-ry po ugol'noi promysh. Vol.5 [Mining and timbering] Provedenie i krepienie gornykh vyrabotok. Red-kollegiia toma: N.N.Fedorov[illegible]. 1958. 468 p. (MIRA 11:7)

(Mine timbering) (Mining engineering)

KRAVTSOV, Ye.P.

AGALINA, M.S., inzh.; AKUTIN, T.K., inzh.; APRESOV, A.M., inzh.; ARISTOV, S.S., kand. tekhn. nauk,; BELOSTOTSKIY, O.B., inzh.; BERLIN, A.Ye.,inzh.; BESSKIY, K.A., inzh.; BLYUM, A.M., inzh.; BRAUN, I.V., inzh.; BRODSKIY, I.A., inzh.; BURAKAS, A.I.,inzh.; VAYNMAN, I.Z., inzh.; VARSHAVSKIY, I.N.,inzh.; VASIL'YEVA, A.A.,inzh.; VORONIN, S.A.,inzh.; VOYTSEKHOVSKIY, L.K., inzh.; VRUBLEVSKIY, A.A.,inzh.; GERSHMAN, S.G., inzh.; GOLUBYATNIKOV, G.A.,inzh.; GORLIN, M.Yu., inzh.; GRAMMATIKOV, A.N., inzh.; DASHEVSKIY, A.P.,inzh.;DIDKOVSKIY, I.L., inzh.; DOBROVOL'SKIY, N.L.,inzh.; DROZDOV, P.F.,kand. tekhn. nauk,; KOZLOVSKIY,A.A.,inzh.; KIRILENKO, V.G.,inzh.; KOPELYANSKIY, G.D.,kand. tekhn. nauk,; KORETSKIY, M.M.,inzh.; KUKHARCHUK, I.N.,inzh.; KUCHER, M.G.,inzh.; MERZLYAK, M.V.,inzh.; MIRONOV, V.V.,inzh.; NOVITSKIY, G.V.,inzh.; PADUN, N.M.,inzh.; PANKRAT'YEV, N.B., inzh.; PARKHOMENKO, V.I.,kand. biol. nauk,; PINSKIY, Ye.A.,inzh.; POLLUBNYY, S.A., inzh.; PORAZHENKO, F.F.,inzh.; PUZANOV, I.G.,inzh.; REDIN, I.P.inzh.; REZNIK, I.S.,kand. tekhn. nauk,; ROGOVSKIY, L.V.,inzh.; RUDERMAN, A.G.,inzh.; RYBAL'SKIY, V.I.,inzh.; SADOVNIKOV, I.S.,inzh.; SEVER'YANOV, N.N.,kand. tekhn. nauk,; SEMESHKO, A.T.,inzh.; SIMKIN, A.Kh., inzh.; SURDUTOVICH, I.N.,inzh.; TROFIMOV, V.I.,inzh.; FEFER, M.M.,inzh.; FIALKOVSKIY, A.M.,inzh.; FRISHMAN, M.S., inzh.; CHERESHNEV, V.A., inzh.; SHESTOV, B.S., inzh.; SHIFMAN, M.I., inzh.; SHUMYATSKIY, A.F.,inzh.; SHCHERBAKOV, V.I.,inzh.; STANCHENKO, I.K., otv. red.; LISHIN, G.L. inzh.,red.; KRAVTSOV,Ye.P., inzh.,red.; GRIGOR'YEV, G.V.,red.; KAMINSKIY, D.N.,red.; KRASOVSKIY, I.P.,red.; LEYTMAN, L.Z., red.[deceased],; GUREVICH, M.S.,inzh.,red.; DANILEVSKIY, A.S.,inzh.,red.; DEMIN, A.M., inzh.,red.; KAGANOV, S.I.,inzh.,red.; KAUFMAN, B.N., kand. tekhn. nauk, red:.LISTOPADOV, N.P.,inzh.,red.; MENDELEVICH, I.R., inzh.,red.[deceased];

(continued on next card)

AGALINA, M.S.... (continued) Card 2.

PEVTKOVSKIY, N.I.,inzh.,red.; ROZENBERG, B.M.,inzh.,red.; SLAVIN, D.S., inzh.,red.; FEDOROV, M.P.,inzh.,red.; TSYMBAL, A.V.,inzh.,red.; SMIRNOV, L.V., red. izd-va.; PROZOROVSKAYA, V.L., tekhn. red.

[Mining ; an encyclopedic handbook] Gornoe delo; entsiklopedicheskii spravochnik. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po ugol'noi' promyshl. Vol. 3.[Organization of planning; Construction of surface buildings and structures] Organizatsiia proektirovaniia; Stroitel'stvo zdanii i sooruzhenii na poverkhnosti shakht. 1958. 497 p. (MIRA 11:12)
(Mining engineering)
(Building)

KRAVTSOV, Yo.P.

Building standards and rules (SNiP) applicable in mining. Shakht. stroi. no.3:1-3 '58. (MIRA 11:3)

(Mining engineering)

KRAVTSOV, Ye.P.

Boring is a progressive method of shaft sinking. Shakht.stroi. no.6:1-2 Je '59. (MIRA 12:9)
(Boring)

STANCHENKO, I.K., inzh.; KRAVTSOV, Ye.P.

"Safety engineering in coal mines" by A.S. Stugarev, IA.L.Polesin. Review by I.K. Stanchenko, E.P. Kravtsov. Shakht. stroi. 5 no. 1:31-32 Ja '61. (MIRA 14:2)
(Coal mines and mining--Safety measures)
(Stugarev, A.S.) (Polesin, IA.L.)

KRAVTSOV, Ye.P., inzh.

Organization of design and planning in the coal industry of Great Britain. Shakht.stroi. 6 no.2:28-30 F '62. (MIRA 15:2)
(Great Britain--Mining engineering)

KRAVTSOV, Ye.P., inzh.

International conference on special technological problems of mine construction in the German Democratic Republic in Freiberg. Shakht.stroi. 8 no.1:29-31 Ja '64. (MIRA 17:4)

KRAVTSOV, YE. and OSIPOV, O. A.

Physico-Chemical Study of the Interaction of Titanium Chloride and Ethyl Formate, Page 216, Sbornik statey po obshchey khimii (Collection of Papers on General Chemistry), Vol I, Moscow-Leningrad, 1953, pages 762-766

Rostov on Don State U

KRAVTSOV, Ye. Ye.

KRAVTSOV, Ye. Ye.: "Electroreduction and electrooxidation in solutions of the salts of the oxygen acids of sulfur, using ammonium persulfate as an example". Rostov na Donu, 19[illegible]. Rostov na Donu State U imeni V. M. Molotov, Chair of Physical and Colloid Chemistry. (Dissertation for the Degree of Candidate of Chemical Sciences)

SO: Knizhnaya Letopis', No. 40, 1 Oct 55

AUTHORS: Kletenik, Yu. B., Osipov, O. A., Kravtsov, Ye. Ye. SOV/79-29-1-4/74

TITLE: Coordination Compounds of Zirconium Tetrachloride With Esters of Monobasic Acids. XV (Koordinatsionnyye soyedineniya tetrakhlorida tsirkoniya so slozhnymi efirami odnoosnovnykh kislot. XV)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 1, pp 11-16 (USSR)

ABSTRACT: In the previous paper (Ref 1) dealing with the complex compounds of zirconium tetrachloride with esters of monobasic acids it was shown that the formation of the complexes of the type $ZrCl_4.2RCOOR_1$ is accompanied by an intensification of the polar properties. In such complex compounds zirconium has the coordination number 6 which is characteristic of this element. According to Sidgwick (Ref 2) it shows coordination numbers of the order 5, 6, 7 and 8 in its complex compounds. It is the aim of the present paper to investigate the presence of complexes where zirconium has the minimum coordination number five. Therefore, compounds of the composition $ZrCl_4.RCOOR_1$ were investigated in benzene solution as prepara-

Coordination Compounds of Zirconium Tetrachloride With Esters of Monobasic Acids. XV

SOV/79-29-1-4/74

tive method, and with respect to the polar and cryoscopic properties. The determination method of the dipole moments, molecular weights and the purification of the used products had already been described in an earlier paper (Refs 1, 3, 4). The following complexes were separated and analyzed: $ZrCl_4 \cdot HCOOC_2H_5$, $ZrCl_4 \cdot HCOOC_3H_7$, $ZrCl_4 \cdot CH_3COOC_2H_5$, $ZrCl_4 \cdot CH_3COOC_3H_7$ and $ZrCl_4 \cdot C_3H_7COOC_2H_5$. Their dipole moments were determined in benzene. It was found that with increasing partial weight of the acid radical in ether the dipole moment of the complex decreases. The molecular weights of the above-mentioned complexes were determined according to the cryoscopic method. The cause for the tendency of the complexes towards association was explained. The triple complexes $ZrCl_4 \cdot HCOOC_2H_5 \cdot C_6H_6$ and $ZrCl_4 \cdot HCOOC_2H_5 \cdot C_6H_5CH_3$ were also separated and analyzed. There are 12 tables and 8 references, 4 of which are Soviet.

ASSOCIATION: Rostovskiy gosudarstvennyy universitet (Rostov State University)

Card 2/3

KRAVTSOV, Ye. Ye.

1.1800 2408

S/081/61/000/025/016/061
B158/B101

AUTHORS: Kovalenko, P. N., Rozin, G. N., Osipov, O. A., Yevstifeyev, M. M., Kravtsov, Ye. Ye.

TITLE: Anodizing in the presence of chloride ions, and the quality control of oxide films on the alloy A16T (D16T)

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1961, 328, abstract 23K154 (Sb. "Fiz.-khim. metody analiza i kontrolya proiz-va", Rostov-na-Donu, Rostovsk. un-t, 1961, 97-102)

TEXT: An investigation is made of the effect of the presence of Cl^- (0.5 g/liter) in the tank, on the potential, depth of oxide film and drop test time in the alloy D16T in the process of anodizing in 20 % H_2SO_4.

It is found to improve the potential of the anodizing alloy, producing more porous oxide films without affecting the depth or rate of growth. It is suggested that clad sheet D16T Duralumin could be anodized in the presence of <0.5 g/liter Cl^-. Optimum conditions for anodizing, with or without chlorides, have been found to be D_a 2 a/dm^2 and 30 mins.
[Abstracter's note: Complete translation.]

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KRAVTSOV, YE. YE.

31970
S/081/61/000/023/037/061
B138/B101

11800 2406

AUTHORS: Kovalenko, P. N., Rozin, G. N., Ogipov, O. A., Yevstifeyev, M. M., Kravtsov, Ye. Ye.

TITLE: Filling and quality control of the anodised alloy Д16 Т (D16T) in the presence of chloride and sulphate ions. II information

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 23, 1961, 328-329, abstract 23K155 (Sb. "Fiz.-khim. metody analiza i kontrolya proiz-va Rostov-na-Donu, Rostovsk. un-t, 1961, 103-114)

TEXT: A study has been made of the effect of the presence of Cl^- and SO_4^- on the process of the filling of oxide films on the alloy D16T in a solution of $K_2Cr_2O_3$ (50 g/liter) at a temperature of 90 to 95°C. The dependence of the quality of the film (drop test and depth of film) on the concentration of the mixed ions is explained. The SO_4^{2-} is found to suppress the adsorption of chromate ions, and this is the reason for the lighter colour of the films. It is recommended that films which are formed at high D_a values should undergo a longer period of filling. It is quite possible to increase the permissible impurity maximum in the filling tank from 1.5 to 3 and from 3 to 6 g/liter of chloride and sulphate ions respectively.
[Abstracter's note: Complete translation.]

S/137/62/000/001/202/237
A154/A101

AUTHOR: Kravtsov, Ye. Ye.

TITLE: On the influence of Fe^{2+} and Fe^{3+} sulfates on the process of sulfuric-acid pickling

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 1, 1962, 88, abstract 1I621 ("Nauchn. zap. Luganskogo s.-kh. in-ta", 1960 [1961], no. 7, 193-202)

TEXT: The pH of H_2SO_4 solutions with additions of Fe^{2+} and Fe^{3+} sulfates was measured. The non-additivity of the combined action of ferrous and ferric sulfates on the pH was shown. Steel was pickled in H_2SO_4 solutions, and an equation was proposed for calculating the corrosion losses of Fe. The process of pickling steel in H_2SO_4 with additions of ferrous sulfate was studied. $FeSO_4$ somewhat retards the solution of Fe at low acid concentrations. The rate of the pickling process as a whole is retarded. Raising the temperature is recommended for accelerating the pickling. The effect of an addition of ferric sulfate on the steel-pickling process was studied. It was established that $Fe_2(SO_4)_3$ in sufficient concentrations has an accelerating effect on the

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S/137/62/000/001/202/237
A154/A101

On the influence of Fe^{2+} and Fe^{3+} ...

solution of Fe. A hypothesis for explaining the mechanism of this effect was put forward. Several recommendations for suppressing it were given. There are 9 references.

Author's summary

[Abstracter's note: Complete translation]

Card 2/2

LYSENKO, Yu.A.; OSIPOV, O.A., KRAVTSOV, Ye.Ye.

On the existence of titanium etherates. Zhur.neorg.khim. no.3:663-667 Mr '63. (MIRA 16:4)

1. Luganskiy sel'skokhozyaystvennyy institut, kafedra obshchey khimii.
(Titanium compounds) (Esters)

22277

S/109/61/006/005/024/027
D201/D303

9,2572

AUTHOR: Kravtsov, Yu.A.

TITLE: Evaluation of combined frequencies in systems with a periodically varying reactance

PERIODICAL: Radiotekhnika i elektronika, v. 6, no. 5, 1961, 841 - 843

TEXT: The steady state response of a linear system with periodically varying parameters to a harmonic signal

$$i(t) = I\, e^{i\omega t} \qquad (1)$$

is given by the Fourier series of harmonics of the fundamental of the pump frequency :

$$u(t) = \left(\sum_{-\infty}^{+\infty} k_n(\omega)\, e^{in\Omega t}\right) I\, e^{i\omega t}. \qquad (2)$$

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Evaluation of combined ...

In systems with high selectivity as in expression (2) only those combined frequencies which are within the pass-band of the system have to be taken into account. Thus, in a single circuit parametric and in a double circuit regenerative amplifiers, it is enough to retain terms with indices n = 0 and - 1 and n = 0 and n = + 1 respectively. In the present article, the author evaluates the amplitudes of all combined frequencies as expressed by Eq. (2) for a system with one periodically varying capacitance only (Fig. 1)

Fig. 1.

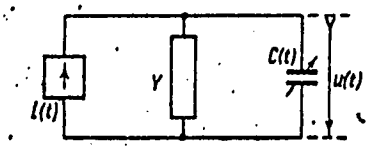

Fig. 1

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Evaluation of combined ...

for which the voltage u(t) at the capacitor and current i(t) are related to each other by

$$Y[u(t)] + \frac{d}{dt}[C(t)\,u(t)] = i(t), \tag{3}$$

where c(t) - the periodically varying capacitance

$$C(t) = \overline{C} + 2\overline{C}\cos\Omega t, \tag{4}$$

and Y - a linear operator of the conductance of the part of the circuit which has constant parameters. Substituting (1) (2) and (4) into (3) and equating to each other the coefficients of $e^{i(\omega t + n\Omega)}$ in the LHS and RHS the coefficients $k_n(\omega)$ will be given by the system of

$$Y_n k_n(\omega) + y_n[k_{n-1}(\omega) + k_{n+1}(\omega)] = \begin{cases} 1, & n = 0, \\ 0, & n \neq 0, \end{cases} \tag{5}$$

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where

$$Y_n = Y(\omega_n) + i\omega_n C; \quad y_n = i\omega_n C;$$
$$\omega_n = \omega + n\Omega \quad (n = 0, \pm 1, \pm 2, \ldots).$$

The solution of (5), which can be found first for a finite number of unknowns ($-N \leqslant n < N$) and then extended on to $N = \infty$, has the form of

$$k_0(\omega) = \frac{1}{\hat{Y}_0},$$
$$k_n(\omega) = -\frac{y_n}{\hat{Y}_n} k_{n-1}(\omega), \quad n > 0, \tag{6}$$
$$k_n(\omega) = -\frac{y_n}{\hat{Y}_n} k_{n+1}(\omega), \quad n < 0,$$

where

$$\hat{Y}_0 = Y_0 - \frac{y_0 y_1}{\hat{Y}_1} - \frac{y_0 y_{-1}}{\hat{Y}_{-1}}; \tag{7}$$

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Evaluating of combined ...

$$\hat{Y}_n = Y_n - \cfrac{y_n y_{n+1}}{Y_{n+1} - \cfrac{y_{n+1}y_{n+2}}{Y_{n+2} - \ddots}}, \quad n > 0;$$

$$\hat{Y}_n = Y_n - \cfrac{y_n y_{n-1}}{Y_{n-1} - \cfrac{y_{n-1}y_{n-2}}{Y_{n-2} - \ddots}}, \quad n < 0. \qquad (7)$$

In a single circuit parametric amplifier (Fig. 2)

Fig. 2.

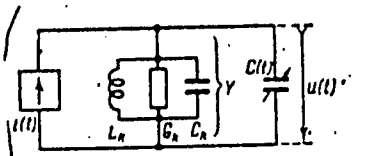

Рис. 2
Fig.

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Evaluating of combined ...

Eqs. (6) and (7) reduce in practice to

$$\hat{Y}_0 \simeq Y_0 - \frac{y_0 y_{-1}}{Y_{-1}}, \quad \hat{Y}_{-1} \simeq Y_{-1},$$

$$k_0(\omega) \simeq \frac{1}{Y_0 - \frac{y_0 y_{-1}}{Y_{-1}}}, \quad k_{-1}(\omega) = -\frac{y_{-1}}{Y_{-1}} k_0(\omega).$$

The system of Fig. 1 can be made more complex by connecting the source of force to the branch of conductance Y. Expressions (1) - (7) will remain in force provided the current i(t) is replaced by $i'(t) = \frac{i(t)}{1 + \frac{Y_1}{Y_2}}$ and the conductance Y replaced by $\frac{Y_1 Y_2}{Y_1 + Y_2}$. The results obtained for the circuit of Fig. 1 may, of course, be transposed onto a system with periodically varying inductance. The author acknowledges the help of S.M. Rytov. There are 4 figures.
[Abstractor's note: This is essentially a complete translation].
SUBMITTED: August 20, 1960
Card 6/6

S/141/62/005/001/015/024
E039/E135

9,2572

AUTHORS: Akhmanov, S.A., and Kravtsov, Yu.A.

TITLE: A two-circuit generator with a nonlinear capacity

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiofizika, v.5, no.1, 1962, 144-154

TEXT: The characteristics of a two-circuit parametric oscillator containing a nonlinear capacity as a control reactance are investigated. The parametric resonance curves, the form of the unstable regions, and the amplitude characteristics are calculated on the assumption that the limitation of a stationary amplitude is caused by the nonlinear capacity. Special attention is paid to the factors determining the frequency of the instabilities, in particular to the nonlinear correction to the frequency. The regimes where the nonlinear corrections have little influence on the frequency stability are indicated, and the stable phases of the output oscillations are discussed. Experiments were carried out on a two-circuit oscillator using a germanium diode, with a p—n transition, as the control capacity

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A two-circuit generator with a ... S/141/62/005/001/015/024
E039/E135

at frequencies of 12-13 mc/s. It is shown that the limitation of a stationary amplitude in such an oscillator is mainly accounted for by the nonlinear capacity of the diode. Graphs are given showing the resonance curves for the oscillator at a feed frequency near to 13 mc/s. The observed deviation from a linear dependence is due to higher order terms in the characteristic of the nonlinear capacity. Graphs are also presented showing the dependence of the nonlinear correction to frequency on the amplitude of the feed frequency for a number of conditions. Good agreement is obtained between these experimental results and the theory presented in the first part of the paper. There are 6 figures.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet
(Moscow State University)

SUBMITTED: July 7, 1961

Card 2/2

34035

S/109/62/007/001/013/027
D201/D301

9.2580 (1040, 1159, 1163)

AUTHOR: Kravtsov, Yu.A.

TITLE: An oscillator with a parametric feedback

PERIODICAL: Radiotekhnika i elektronika, v. 7, no. 1, 1962, 113 - 119

TEXT: The principle of the parametric feedback has been suggested by S.M. Rytov and in the present article the author considers the two-circuit oscillator with such a feedback, analyzes the stability of its steady state of operation and gives the results of experimental oscillator investigation. The circuit diagram of the oscillator is given. The principle of operation is based on two resonant circuits coupled with each other by a non-linear capacitance C and a non-linear conductance g. When oscillating, currents and voltages in the two circuits have frequencies ω_1 and ω_2 which differ slightly from the resonant frequencies of the system Ω_1 and $\Omega_2 (\Omega_1 \neq \Omega_2)$:

$$\omega_1 = \Omega_1 + \Delta\omega_1, \quad \omega_2 = \Omega_2 + \Delta\omega_2. \qquad (1)$$

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An oscillator with a parametric ...

The oscillations are passed through filters Φ_1 and Φ_2 tuned to ω_1 and ω_2 and applied to a mixer which, by means of filter Φ_3, isolates the voltage at a frequency $\Omega = \omega_1 + \omega_2$ (all filters are designed in such a manner that they may be considered ideal for given frequency bands). After the mixer the pump frequency voltage is applied to an amplifier and a phase shifter and then to the non-linear capacitance c, so that the feedback loop contains a varying reactive parameter. The capacitance C with conductance g consist of those of a p-n junction of a biased junction diode. As a result of modulation of the capacitance at frequency Ω, nearly equal to the sum of resonant frequency of resonant circuits, the system goes into oscillations. With the increase of oscillation amplitude the diode becomes conducting, the losses sharply increase, the rise in amplitude of oscillations is stopped and eventually a steady state of oscillation is obtained. The analysis of the steady state shows that the oscillator is not isochronous because the frequency of oscillations depends on the feedback factor, and that the oscillator may be excited either by applying an oscillating voltage to one of the

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resonant circuits or parametrically, by applying a voltage at frequency Ω to the feedback capacitor C. The experimental oscillator, excited by an external sinusoidal e.m.f. was operating satisfactorily with both types of excitation. The external e.m.f. had frequency F = 3300 kc/s, f_1 = 920 and f_2 = 2380 kc/s, filters Φ_1 and Φ_2 were tuned to f_1 and f_2 respectively, with filter Φ_3 tuned to $f_1 + f_2$ = 3300 kc/s. The HF amplifier had gain k = 0 - 150. The phase shifter used was in the form of a delay line with time delay τ = 0 - 0.3 μ sec. so that the phase shift of u_3 could be varied from 0 to 2π. The parametric feedback element used was diode ДГЦ -27 (DGTs-27). The experiment proved the possibility for a practical design of a parametric feedback sharply oscillating oscillator, and that the experimental results are in qualitative agreement with its theory. The author acknowledges the setting of the problem and supervision by S.M. Petrov. There are 6 figures and 3 references: 2 Soviet-bloc and 1 non-Soviet-bloc. The reference to the English-language publication reads as follows: D. Macov, Novel circuit for a variable frequency oscillator, Proc. IRE, 1956, 44, 8, 1031.

SUBMITTED: February 9, 1961
Card 3/3

KRAVTSOV, Yu.A.

Excitation regions and energy relationships in a two-stage transistor diode parametric oscillator. Radiotekh. i elektron. 8 no.10:1685-1691 O '63. (MIRA 16:10)

BOGACHEV, V.M.; KRAVTSOV, Yu.A.

Harmonic effect on a two-circuit system coupled with nonlinear capacitance. Izv.vys. uchob.zav.; radiofiz. 6 no.6:1202-1215 '63. (MIRA 17:4)

1. Moskovskiy energeticheskiy institut.

SHISHLYAKOV, A.B., kand.tekhn.nauk; MIKHAYLOV, A.F., inzh.; KRAVTSOV, Yu.A., inzh.

Schematic of a pulse track circuit using rails with concrete ties. Avtom., telem. i sviaz' 7 no.2:5-7 F '63. (MIRA 16:3)
(Railroads—Signaling)

SHISHLYAKOV, A.V., kand. tekhn. nauk; MIKHAYLOV, A.F., inzh.;
KRAVTSOV, Yu.A., inzh.; OKORKOV, V.A., inzh.; REMESH, V.V., inzh.

Operation of pulse-type track circuits on tracks with reinforced concrete ties. Avtom., telem. i sviaz' 7 no.7:4-7 Jl '63.
(MIRA 16:10)

KRAVTSOV, Yu.A.

Saturation power of some types of amplifiers with nonlinear capacitance. Radiotekh. i elektron. 8 no.9:1545-1551 S '63. (MIRA 16:9)
(Amplifiers (Electronics))

SHELYAKOV, A.V., kand.tekhn.nauk; MIKHAYLOV, A.F., inzh.; KRAVTSOV, Yu. A., aspirant

Analysis of the track circuit in case of a damaged rail. Vest. TSNII MPS 22 no.8:45-48 '63. (MIRA 17:2)

KRAVTSOV, Yu.A., inzh.

Method for designing track circuits taking into account electromechanical effects. Trudy MIIT no.170:149-161 '63.
(MIRA 17:6)

L 15182-65 EWT(1)/T/EEC(b)-2 IJP(c)
ACCESSION NR: AP4048261 S/0141/64/007/004/0664/0673

AUTHOR: Kravtsov, Yu. A.

TITLE: Concerning one modification of the method of geometric optics

SOURCE: IVUZ. Radiofizika, v. 7, no. 4, 1964, 664-673

TOPIC TAGS: wave analysis, ray optics, geometric optics, caustic surface

ABSTRACT: In order to extend the applicability of geometrical optics to the vicinity of a caustic surface, the solution of the scalar wave equation is sought in the form of a product of an exponential function and the sum of the Airy function and its derivative with specially chosen multipliers to adapt the solution to the description of the field near the caustic surface. With such a solution, the eikonal equation holds true near the caustic as well as away from the caustic, except that it applies not to the phase of

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the wave but to some function of the arguments of the exponential and the Airy function. This function approaches the phase of the wave asymptotically with increasing distance from the caustic (apart from a constant). In addition to providing an intuitive ray treatment, this approach makes the solution of the wave equation near the caustic no more complicated than other existing methods. The method makes it possible to calculate the fluctuations of the phase and intensity of the wave passing near the caustic in the presence of large scale statistical inhomogeneities in the medium, such as obtained in the ionosphere. Although the procedure applies to the case when there is only one caustic surface without singularities, more complicated cases can be treated by using more complicated functions. "The author thanks S. M. Ry*tov for guidance and B. Ye. Kinber for valuable comments." Orig. art. has: 2 figures and 25 formulas.

ASSOCIATION: Radiotekhnicheskiy institut AN SSSR (Radio Institute

L 15182-65
ACCESSION NR: AP4048261

AN SSSR)

SUBMITTED: 17Oct63

SUB CODE: OP

NR REF SOV: 010

ENCL: 00

OTHER: 000

Card 3/3

L 38104-65 EWT(1)/T/EEC(b)-2 Pq-4/Pi-4 IJP(c)
ACCESSION NR: AP5006017 S/0141/64/007/006/1049/1056

AUTHOR: Kravtsov, Yu. A.

TITLE: Asymptotic solution of Maxwell's equations near a caustic

SOURCE: IVUZ. Radiofizika, v. 7, no. 6, 1964, 1049-1056

TOPIC TAGS: Maxwell equation, wave equation, geometrical optics, wave propagation, polarization

ABSTRACT: This is a continuation of an earlier paper (Izv. vysah. uch. zav. - Radiofizika v. 7, 664, 1964) in which the usual method of geometrical optics, as applied to the scalar wave equation, was modified in order to eliminate the divergence of the zeroth approximation on the caustic, retaining at the same time the ray picture. In the present article, a similar technique is used to obtain an asymptotic solution of Maxwell's equations near the caustic produced when waves propagate in an inhomogeneous medium. The modification of the geometrical-optics method consists in the fact that the solution is represented in the form of a combination of the exponential function and the Airy function (and its derivative).

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L 38104-65
ACCESSION NR: AP5006017

Equations are obtained for the amplitudes of the electric and magnetic fields and for the angle of rotation of the plane of polarization. The connection between these equations and the ordinary equations of the method of geometrical optics is indicated. It is shown that the passage of a wave near the caustic does not result in additional rotation of the plane of polarization. It is also shown that the method may be applicable in some particular cases under assumptions more general than made in the article. "The author thanks S. M. Rytov for help and continuous interest and V. P. Yakovlev and L. L. Goryshnik for useful discussion." Orig. art. has: 28 formulas.

ASSOCIATION: Radiotekhnicheskiy institut AN SSSR (Radiotechnical Institute, AN SSSR)

SUBMITTED: 02Mar64 ENCL: 00 SUB CODE: EM
NR REF SOV: 004 OTHER: 000

Card 2/2

GORYSHNIK, L.L.; KRAVTSOV, Yu.A.

Second All-Union Interuniversity Conference on the Theory and Methods for Calculating Nonlinear Electrical Circuits. Radiotekh. i elektron. 9 no.4:763-766 Ap '64. (MIRA 17:7)

ACCESSION NR: AP4043686 S/0109/64/009/008/1513/1516

AUTHOR: Kraytsov, Yu. A.

TITLE: Two-circuit parametric oscillator with a strong static coupling between the circuits

SOURCE: Radiotekhnika i elektronika, v. 9, no. 8, 1964, 1513-1516

TOPIC TAGS: electronic oscillator, parametric oscillator, two circuit parametric oscillator

ABSTRACT: A generalization of the theory of a two-circuit parametric oscillator with a weak coupling, also intended to cover the cases of a strong coupling, is attempted. A system (see Enclosure 1) consisting of an arbitrary linear admittance Y and a nonlinear capacitance characterized by $q(u) = \text{const} + C_0 u + \tilde{q}(u)$ and excited by a pumping oscillator $i(t) = I \sin \omega_1 t$ is considered. General equations describing the operation of the parametric oscillator are set

Card 1/3

ACCESSION NR: AP4043686

up. "The author wishes to thank ... M. Ry*tov for his attention to the work, and S. A. Akhmanov for discussing the results." Orig. art. has: 1 figures and 24 formulas.

ASSOCIATION: none

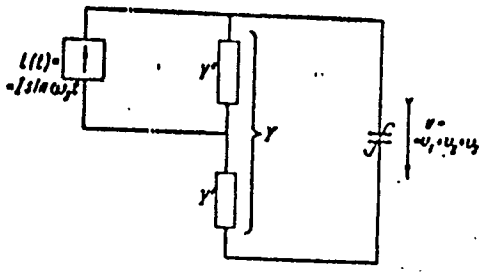
SUBMITTED: 03Jul63 ENCL: 01

SUB CODE: EC NO REF SOV: 005 OTHER: 000

Card 2/3

ACCESSION NR: AP4043686

ENCLOSURE: 01



Circuit diagram of a generalized parametric oscillator with an arbitrary coupling between its two circuits

Card 3/3

L 58798-65 EWT(1)/EEC(b)-2/EWA(h) Pm-4/P1-4/PJ-4/P1-4/Peb

ACCESSION NR: AP5017810 UR/0286/65/000/011/0041/0041
621.385.9.9

AUTHOR: Kravtsov, Yu. A.; Osipov, G. I. 41 B

TITLE: A parametric amplifier. Class 21, No. 171440 25

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 11, 1965, 41

TOPIC TAGS: parametric amplifier, feedback amplifier

ABSTRACT: This Author Certificate introduces a parametric amplifier (see Fig. 1 of the Enclosure) with a semiconductor diode as the nonlinear reactance. The mu-pass-band product is increased by making the wide band delayed feedback circuit in the form of a section of coaxial line or a waveguide segment. A rectifier or circulator is connected to the delayed feedback circuit to provide unidirectional feedback in a wide frequency range. Orig. art. has: 1 figure. [14]

ASSOCIATION: Predpriyatiye gosudarstvennogo komiteta po radioelektronike SSSR (Enterprise of the State Committee for Radio Electronics, SSSR)

SUBMITTED: 12May64 ENCL: 01 SUB CODE: EC
NO REF SOV: 000 OTHER: 000 ATD PRESS: 4054
Card 1/2

L 58798-65

ACCESSION NR: AP5017810

ENCLOSURE: 01

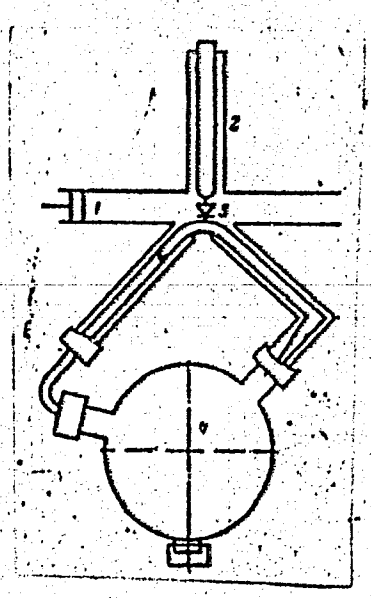


Fig. 1. Parametric amplifier

1 - Wide band delayed feedback; 2 - coaxial line; 3 - parametric diode; 4 - circulator.

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L 00560-66 EWT(1)/FCC/EWA(h) GW

ACCESSION NR: AP5021006 UR/0203/65/005/004/0762/0766
550.388.2:621.391.81

AUTHORS: Gringauz, K. I.; Kravtsov, Yu. A.; Rudakov, V. A.; Rytov, S. M.

TITLE: On the possibility of determining local electron concentrations using the dispersion method with the help of artificial satellites and on a new ionization maximum in the ionosphere

SOURCE: Geomagnetizm i aeronomiya, v. 5, no. 4, 1965, 762-766

TOPIC TAGS: electron concentration, ionization, artificial satellite, ionosphere, Doppler shift, F layer

ABSTRACT: In order to determine whether dispersion methods for measuring N_e in the ionosphere by means of artificial satellites are valid, the various gradient terms $\partial N/\partial x$, $\partial N/\partial y$, and $\partial N/\partial t$ must be investigated to determine if they are significant in comparison with N_0. These various gradient terms that appear in the expression for the difference in Doppler shift between frequencies ω_1 and ω_2 are given by

$$[N_R] = \frac{1}{z_s}\int_0^{z_s} N\,dz, \quad \left[\frac{\partial N}{\partial x}\right] = \frac{1}{z_s \cos\varphi_0 \sin\varphi_0}\int_0^{z_s}\frac{\partial N}{\partial x}\,dz \quad \left[\frac{\partial N}{\partial y}\right] = \frac{1}{z_s \cos\varphi_0}\int_0^{z_s}\frac{\partial N}{\partial y}\,dz.$$

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L 00560-66
ACCESSION NR: AP5021006

A detailed analysis is made to show that the terms $[\partial N/\partial y]y_0$, $[\partial N/\partial x](t_0 + z_0/\cos\varphi_0)$ $\int_0^{z_0}(\partial N/\partial t)dS$ are not necessarily small in comparison to $N_0 z_0/\cos\varphi_0$. A similar statement, with even more assurance, can be made about the unsteady term $\int_0^{z_0}(\partial N/\partial t)ds$.

To demonstrate this, an altitude versus density curve (see Fig. 1 on the Enclosure) is shown. Here the maximum in N is above the maximum region of the F-layer if one bases the data on the local dispersion method, neglecting the gradient terms (solid curve in Fig. 1). Radio-probe methods, on the other hand, support only the lower curve (dotted curve on Fig. 1). For this reason and because dispersion measurements far from the earth are unreliable, the authors do not agree with the local concentration data reported by previous authors (e.g., Ya. L. Al'pert. Geomagn. i aeronomiya, 1964, 4, No. 3, 479). Orig. art. has: 4 formulas and 2 figures.

ASSOCIATION: Radiotekhnicheskiy institut, AN SSSR (Radio Technology Institute, AN SSSR)

SUBMITTED: 01Feb65 ENCL: 01 SUB CODE: GP, ES

NO REF SOV: 013 OTHER: 011

Card 2/3

L 00560-66

ACCESSION NR: AP5021006

ENCLOSURE: 01

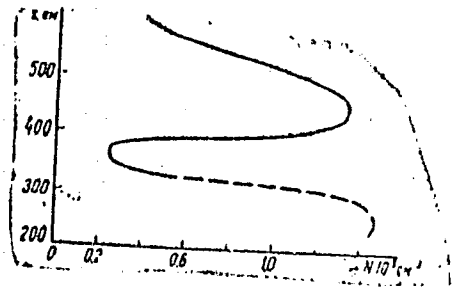

Fig. 1.

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[redacted], Yu.A.

Modified method of geometric optics for a wave penetrating through a caustic. Izv. vys. uchab. zav., radiofiz. 8 no.4:659-667 '65. (MIRA 18:9)

1. Politekhnicheskiy institut [redacted].

L 6309-66 EWT(d)/EEC(k)-2 RB/WS-2
ACC NR: AP5026702 SOURCE CODE: UR/0141/65/008/005/0876/0885

AUTHOR: Kravtsov, Yu. A. 43
39

ORG: Radio Engineering Institute, AN SSSR (Radiotekhnicheskiy Institut AN SSSR)

TITLE: Application of the method of smooth perturbations to the problem of wave scattering in the vicinity of the reflection point

SOURCE: IVUZ. Radiofizika, v. 8, no. 5, 1965, 876-885

TOPIC TAGS: electromagnetic wave scattering, perturbation method, permittivity, electromagnetic wave reflection

ABSTRACT: The method of smooth perturbations was used to solve the problem of scattering of a scalar wave in the vicinity of the reflection point. Regions in the vicinity of points where the mean permittivity $\bar{\varepsilon}$ becomes zero are considered, and the zero approximation used is the unidimensional Langer-Fock solution, which in contrast to the approximation of geometrical optics has no singularity at such points. Expressions are obtained for spectra of phase and wave-level fluctuations. A number of qualitative conclusions are reached with regard to the role of the inhomogeneities

Card 1/2 UDC: 621.371.18

L 6309-66
ACC NR: AP5026702

4

located in the reflection zone. "The author expresses his deep appreciation to S. M. Rytov for supervising the work, and to M. L. Levin, L. L. Goryshkin, and V. P. Yakovlev for a useful discussion." Orig. art. has: 2 figures and 21 formulas.

SUB CODE: EC/ SUBM DATE: 28Dec64/ ORIG REF: 009/ OTH REF: 001

Card 2/2

L 04445-67 EWT(1)/FCC GW

ACC NR: AP6018922 SOURCE CODE: UR/0203/66/006/003/0568/0580

AUTHOR: Gringauz, K. I.; Kravtsov, Yu. A.; Rudakov, V. A.; Rytov, S. M. 63 B

ORG: Radioengineering Institute, AN SSSR (Radiotekhnicheskiy institut AN SSSR)

TITLE: Once more about the feasibility of local electron concentration determination by the dispersion method using artificial Earth satellites and about the new ionization maxima in the ionosphere

SOURCE: Geomagnetizm i aeronomiya, v. 6, no. 3, 1966, 568-580

TOPIC TAGS: ionospheric electron density, ionospheric physics, ionospheric disturbance, ionospheric radio wave, satellite data analysis, geophysic rocket

ABSTRACT: This is the continuation of an earlier debate between the present authors and Ya. L. Al'pert et al. (see, e.g., Geomagn. i aeronomiya, 1 1965, 5, No 4, 766) concerning the feasibility of local electron concentration determination by the dispersion method using artificial Earth's satellites. The authors show once more that the electron concentration determination using such a method leads to inaccurate results because of the presence within the ionosphere of horizontal ionization gradients as well as because of the nonstationary character

Card 1/2 UDC: 550.388:629.198.3

L 04445-67

ACC NR: AP6018922

of the ionosphere. In addition, the unreliability of the results of Al'pert et al. is caused also by an inaccurate method used during the processing of experimental data. [Publishing Editor's note: no further articles concerning this discussion will be published.] Orig. art. has: 9 formulas and 4 tables.

SUB CODE: 08/ SUBM DATE: 27Oct65/ ORIG REF: 023/ OTH REF: 015

Card 2/2

ACC NR: AP6033282 SOURCE CODE: UR/0141/66/009/005/0888/0899

AUTHOR: Kravtsov, Yu. A.; Feyzulin, Z. I.

ORG: Radio Engineering Institute, AN SSSR (Radiotekhnicheskiy institut AN SSSR)

TITLE: Resolution of antennas in a turbulent medium

SOURCE: IVUZ. Radiofizika, v. 9, no. 5, 1966, 888-899

TOPIC TAGS: parabolic antenna, atmospheric turbulence, antenna radiation pattern, radio telescope antenna

ABSTACT: The resolution of antennas in a turbulent medium was investigated for the case when a flat turbulent layer is located entirely within the antenna wave zone between an axially symmetrical antenna and the point of observation. Special attention was paid to radioastronomical antennas with a large circular aperture. The investigation was made on the basis of a sequential-diffraction examination by the method of linear measurement of the resolving power. Formulas are given for the radius of the illuminated zone behind the turbulent layer for an arbitrary radiation pattern and arbitrary statistical properties of complex phase fluctuations at the layer output. The case of a Gaussian antenna pattern and a turbulent model of reflection coefficient fluctuations in the layer were examined in detail assuming statistical homogeneity of complex phase fluctuations. The authors thank S. M. Rytov for the supervision of the work, and V. I. Tatarskiy and N. G. Denisov for

Card 1/2 UDC: 621.396.671

ACC NR: AP6033282

their useful advice and permission to consult unpublished doctoral material.
Orig. art. has: 6 figures and 41 formulas.

SUB CODE: 09/ SUBM DATE: 20Jan66/ ORIG REF: 006/ OTH REF: 003

Card 2/2

CHUDESOV, I.D.; BORISOV, A.M.; ZAYTSEVA, S.I.; [illegible], N.L.; KRAVTSOV, Yu.I.; VOLK, P.I.

[Technology of the repair of tires of motor vehicles, tractors and agricultural machinery] Tekhnologiia remonta shin avtomobilei, traktorov i sel'skokhoziaistvennykh mashin. Moskva, 1963. 200 p. (MIRA 18:5)

1. Perovo. Gosudarstvennyy vsesoyuznyy nauchno-issledovatel'skiy tekhnologicheskiy institut remonta i ekspluatatsii mashinno-traktornogo parka.

GILLER, F.; KRAVTSOVA, A.

Quality of the pancreas. Mias. ind. SSSR 34 no.4:56-58 '63.
(MIRA 16:10)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut myasnoy promyshlennosti.

KHAYTSOVA, A. I.

ZAPOROZHTSEVA, A.S.; KHAYTSOVA, A.I.

Hydrogoethite-leptochlorite-kaolinite rocks of middle Triassic in the northern part of the Anabar and Khatanga interfluvial area. Trudy Nauch.-issl. inst. geol. Arkt. 89:178-188 '56. (MIRA 11:1)
(Anabar Valley--Rocks, Sedimentary)
(Khatanga Valley--Rocks, Sedimentary)

YEMEL'YANTSEV, T.M.; KRAVTSOVA, A.I.

Brief information concerning recent data on the stratigraphy of marine Mesozoic deposits in the lower Lena Valley. Sbor. st. po paleont. i biostrat. no.13:28-34 '59. (MIRA 13:3)
(Lena Valley--Geology, Stratigraphic)

YEMEL'YANTSEV, T.M.; KRAVTSOVA, A.I.

Some data on the results of studies of Paleozoic sediments on the left bank of the lower Lena Valley. Inform.biul.NIIGA no.14:19-24 '59. (MIRA 13:7)

(Lena Valley--Geology, Stratigraphic)

YEMEL'YANTSEV, Tikhon Matveyevich; KRAVTSOVA, Aleksandra Ivanovna; PUK, Pinkhos Solomonovich; GRAMBERG, I.S., nauchnyy red.; DAYEV, G.A., vedushchiy red.; YASHCHURZHINSKAYA, A.B., tekhn.red.

[Geology, and oil and gas potentials of the lower Lena Valley] Geologiia i perspektivy neftegazanosnosti nizov'ev r. Leny. Leningrad. Gos.nauchn.-tekhn. izd-vo nefti i gorno-toplivnoi lit-ry. Leningr. otd-nie, 1960. 143 p. (Leningrad. Nauchno-issledovatel'skii institut geologii Arktiki. Trudy, vol. 108)
(Lena Valley--Petroleum geology) (Lena Valley--Gas, Natural--Geology) (MIRA 13:2)

KRAVTSOVA, A.K. (Kopeysk, Chelyabinskoy oblasti)

Methodological work at day nurseries. Med. sestra no.11:21-23 N '55.
(NURSERY SCHOOLS) (MLRA 9:3)

UCHASTKIN, Petr Vasil'yevich. Prinimali *uchastiye: MATELENOK*, D.A., *nauchnyy sotrudnik*; KRAVTSOVA, A.S., *nauchnyy sotrudnik*; TRYAPKIN, M.P., nauchnyy sotrudnik. *TETERKVNIKOV, V.N.*, kand. tekhn.nauk, spetsred.; DENISOVA, I.S., red.; RAKOV, S.I., tekhn.red.

[Air conditioning units for hot working shops] Ustanovki iskusstvennogo klimata v goriachikh tsekhakh. Izd-vo VTsSPS Profizdat, 1958. 270 p. (MIRA 12:5)
(Metallurgical plants--Air conditioning)

L 10088-67 EWT(1) JK
ACC NR: AT6026365 (A) SOURCE CODE: UR/3209/66/000/001/0042/0050

AUTHOR: Belen'kiy, N. G. (Academician); Zayas, Yu. F. (Candidate of technical sciences); Orlova, T. N. (Engineer); Kravtsova, A. V. (Engineer)

ORG: none

TITLE: The effect of ultrasonics on the process of extraction of biologically active substances

SOURCE: Ukraine. Ministerstvo vysshego i srednego spetsial'nogo obrazovaniya. Mezhvedomstvennyy respublikanskiy nauchno-tekhnicheskiy sbornik, 1966. Akustika i ul'trazvuk (Acoustics and ultrasonics), no. 1, 42-50

TOPIC TAGS: ultrasonic vibration, ultrasonic effect, cavitation, electrochemical analysis, medicine

ABSTRACT: A literature survey of the effects of ultrasonic vibration on biological substances is presented. The chief effect is that of cavitation. Ultrasonic chemical processes are the result of mechanical forces due to cavitation and electrochemical and photochemical effects due to large electrical forces occurring in cavitation recesses. If air is present in aqueous solutions, the ultrasonic vibrations form the active radicals OH, H, and the peroxide H_2O_2. The oxidizing action of ultrasonics disappears upon boiling the liquid, increasing external pressure or adding a protective sub-

Card 1/2

L 10085-67

ACC NR: AT6026365

stance to the solution. In order to prevent the oxidation of insulin, butyloxyanisol is used. In the extraction of biologically active substances by ultrasonics, instantaneous decomposition occurs in cavitation recesses; Harvey and Loomis have shown that a time interval of 1/1200 sec is needed to decompose cells. Auler and Woite applied ultrasonic vibrations to cancerous cells *in vitro* and showed that initially the cell nuclei were destroyed, the fragments penetrating into the cytoplasm. Among other works discussed were: Tarnochi--the effect of ultrasonics on diffusion acceleration in organic layers, Katte and Specht--the extraction of difficult nuclei by ultrasonics, Shropshire--extraction of oils from fish materials, Kusano--the effect of ultrasonics on the pharmacological properties of hormones and vegetative nuclei, and Wolf and El'piner--the effect of ultrasonics on the purity of insulin preparation. Some experimental work done on the extraction of insulin from pancreas by ultrasonics was described. Here the use of ultrasonics resulted in a greater insulin output, eliminated the need for secondary extraction, shortened the extraction time to a few minutes, and allowed the insulin to preserve its biological activity during acidification. Orig. art. has: 1 figure, 1 table.

SUB CODE: 06,07/ SUBM DATE: none/ ORIG REF: 007

Card 2/2 hp

1. RACHINSKIY, V. V., KNYAZYATOVA, Ye. I., KRAVTSOVA, B. Ye.

2. USSR (600)

4. Chromatographic Analysis

7. Method of preparation and of qualitive analysis of paper chromatograms of sugars. Biokhimiia 17, no. 5, 1952.

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

1. KRAVTSOVA, B. YE.

2. USSR (600)

4. Wheat

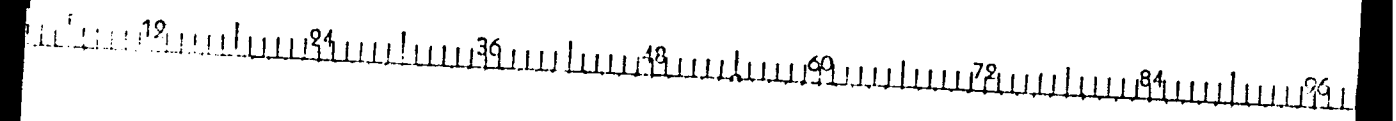
7. Feeding wheat germ on endosperms of various genera and species of the grass family. Dokl. AN SSSR 87, No. 2, 1952.

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

RACHINSKIY, V.V; KNYAZYATOVA, E.I.; KRAVTSOVA, B.E.

Analysis of sugars in plants by paper chromatography. Biokhimiya 18, 19-23 '53. (MLRA 6:1)
(CA 47 no.15:7578 '53)

1. K.A. Timiryazev Agr. Acad., Moscow.



YAKUSHKINA, M.I.; KRAVTSOVA, B.Ye.

The effect of continuous illumination on growth and fruit formation in the tomato. Doklady Akad. Nauk S.S.S.R. 91, 425-8 '53. (MLRA 6:6)
(CA 47 no.21:11361 '53)

Kravtsova, G. Ye.

Chem Abs

U 48 25 Jan 54

Botany

(3)

Effect of temperature on growth and movement of substances in tomatoes N. I. Yakushkina, B. E. Kravtsova, and G. A. Novoselova. *Doklady Akad. Nauk S.S.S.R.* 91, 969-72(1953).—Expts. were made with tomato plants exposed to 23°, 23° in daytime and 15° at night, and 23° in daytime and 8° at night. Low night temp. aids growth of side-runners and total root system. Night temp. of 15° gave the best crop yield, 56% higher than that from const. 23° exposure. Lower night temp. failed to change the photosynthetic activity, but aided the transport of carbohydrates from the leaves and the degradation of starch into sugars.

G. M. Kosolapoff

KRAVTSOVA, B.E.

The effect of light intensity on the phosphorus metabolism of summer wheat in different periods of ontogenesis. V. V. Rachinskii, B. E. Kravtsova, and E. I. Kayzerman (K. A. Timiryazev Agr. Acad., Moscow). *Biokhimiya* 19, 513-20 (1954).—Light intensity does not influence the appearance of labeled P in the roots of the wheat plant, nor does it have an effect upon the character of P distribution in different fractions, organs, or parts of the plant. This is equally true in the stage of vernalization (1–2 leaves); the content of labeled P and the intensity of its metabolic processes are of the same degree under different conditions of light intensity. In the light stage (3–4 leaves) of development the appearance of labeled P and the intensity of its metabolism are somewhat lowered in the leaves only when the light intensity is 10% or less of its max. value. The influence of light intensity on P metabolism becomes more marked in the leaves at the beginning of stalk formation; the intensity exerts a strong influence at the end of stalk formation. In the older leaves this phenomenon is not as pronounced. Under conditions of water culture in 2–3 days most of the labeled P is concd. in the roots. The intensity of P metabolism in the roots generally exceeds that of the leaves. A small but lower quantity of P enters into the wheat spike, as has been noted in expts. with other plants. In the stage of vernalization, in the light stage, and in the stage of stalk formation the greatest amt. of P enters into the water-sol. compds., less into the phospholipides and acid-sol. phosphates, and the smallest amt. into the nucleoproteins. The same is true of the intensity of metabolism of individual fractions. The level of labeled P appearance and of its metabolic intensity in the leaves of the wheat plant, unlike that of the roots, varies with the stage of development, being rather high in the vernalization stage, increasing in the light stage, and reaching a max. in the phase of stalk formation. Immediately after the latter stage an abatement sets in which continues throughout the period of spike formation.

B. S. Levine

KRAVTSOVA, B. Ye. Cand Biol Sci -- (diss) "Formation of the wheat ear in relation to the growth of vegetative organs of spring wheat". Mos,1957. 20 pp with ~~diagrams~~ graphs 22 cm. (Mos Order of Lenin and Order of Labor Red Banner State Univ im M.V. Lomonosov). 120 copies. (KL, 23-57, 110).

-34-

Country : USSR
Category : Plant Physiology. Photosynthesis. I

Abs Jour. : Ref. Zhur.-Biologiya No. 11, 1958. No. 48494

Author : Kravtsova, E. Ya.
Institute : Moscow University
Title : Leaf Surface Area and Its Functional Productivity

Orig. Pub.: Vestn. s.-kh. nauki, 1957, No. 4, 73-82.

Abstract : Proportionate to the spacing of summer wheat sowing (from 150 to 50 and 10 grains per running meter, with the flattened spaces between the rows 20 cm in width), it was found in Moskovskaya Oblast in 1954 and 1955 that leaf blade area of the primary shoots increased, attaining its maximum at spiking. This increase was due to the larger size of the upper leaves (beginning with the fifth), to an augmented number of leaves forming on the shoot (up to 7, instead of 6), and

Card: 1/3

Country : USSR I
Category : Plant Physiology. Photosynthesis.

Abs. Jour.: Ref. Zhur.-Biologiya No. 11, 1958, No. 48494

Author :
Institute :
Title :

Orig. Pub.:

Abstract : to the lower layers perishing in thinned sowings later on. The Lutescens 62 variety had larger leaf surface areas than the Garnet variety, especially in the upper tiers of leaves. The thinned-out sowings also differed according to the year of cultivation, which was not the case in thick planting. The unit productivity of the leaf surface during the entire vegetative period was higher in plants of the thinned sowings than in dense

Card: 2/3

Country : USSR
Category : Plant Physiology. Photosynthesis. I

Abs Jour. : Ref. Zhur.-Biologiya No. 11, 1958. No 48494

Author :
Institute :
Title :

Orig. Pub.:

Abstract : plantings, and higher in Lutescens 62 than in the Garnet variety. The spike's accumulation of dry matter, as well as the amount of its productive elements were found to be in direct correlation to the leaf surface area and its operational capacity. This project was conducted at Moscow University. The bibliography lists 19 titles.
--B.Ye. Kravtsova

Card: 3/3

KRAVTSOVA, B. Ye.

YAKUSHKINA, N.I., kandidat biologicheskikh nauk.;KRAVTSOVA, B.Ye.

Effect of growth stimulants on the yield and quality of some vegetable crops. Dokl. Akad. sel'khoz. 22 no.2:15-17 '57. (MLRA 10:5)

1. Moskovskaya ordena Lenina sel'skokhozyaystvennaya akademiya imeni K. A. Timiryazeva. Predstavlena akademikom I. Ye. Glushchenko.
(Growth promoting substances) (Vegetable gardening)

KRAVTSOVA, B.Ye.

Nature of the ripening of the spring wheat grain as related to differences in the size of aboveground organs. Dokl. Akad. sel'khoz. 22 no.6:13-17 '57. (MIRA 10:9)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova. Predstavlena akademikom I.V. Yakushkinym.
(Wheat)

KRAVTSOVA, B. YE.

AUTHOR KRAVTSOVA B.Ie. 20-5-61/67

TITLE On the Intensity of Assimilation Product Supply to the Seed,as Affected By the Density of Sowing in Spring Wheat.
(Ob intensivnosti ottoka produktov assimilyatsii v zerno pri raznoy gustote poseva yarovoy pshenitsy -Russian)

PERIODICAL Doklady Akademii Nauk SSSR,1957,Vol 113,Nr 5,pp 1163-1164(U.S.S.R.)

Received 7/1957 Reviewed 8/1957

ABSTRACT Published data can be found about the obstructed removal of plastic substances in the plants when shadowed.This will explain the reduced seed formation in the dense stand of grass.The author's aim was to study manner in which the seed is supplied by assimilation products at field conditions in the case of different sowing densities.For the experiment the variety "Lutescens 62" was chosen. The density used was 1o and 15o seeds per meter, the spacing between the rows was 2oo mm. By the method of marked atomes of C^{14} the author studied the radiation intensity of seed preparations after a 24 hours' exposure of the leaves at different stem heights in an atmosphere of CO_2 containing C^{14}. The results given in table 1 show that the lower leaves hardly play any part in supplying assimilation products to the seed during its growth. This confirms the data found in other publications, according to which the uppermost leaves are of greatest importance in this respect. Furthermore,these results prove that the assimilation products move intensely from the upper leaves into the seeds inspite of a double or tripple density of plant stand.Other experimental data show, however,that the action of the upper leaves in an open stand is

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On the Intensity of Assimilation Products Supply to the Seed, as Affected By the Density of Sowing in Spring Wheat. 20-5-61/67

able to supply agreater number of seeds than in a dense stand. (With 1 table, 8 Slavic references).

ASSOCIATION Moscow State University "M.V.Lomonosov"
PRESENTED BY KURSANOV A.L., Member of the Academy
SUBMITTED 5.10.1956
AVAILABLE Library of Congress
Card 2/2

AUTHOR: Kravtsova, B. Ye. 20-4-54/60

TITLE: On the Rôle of Leaves of Different Storeys in the Formation of Fructification Organs in Spring Wheat (Issledovaniye roli list'yev otdel'nykh yarusov v formirovanii organov plodonosheniya u yarovoy pshenitsy).

PERIODICAL: Doklady Akademii Nauk, 1957, Vol. 115, Nr 4, pp. 822-823 (USSR).

ABSTRACT: At present a number of authors stated the great importance of the two uppermost leaves for the supplying of the corn ears with assimilates during the time of the ripening of the grains. The works deal with the role of the leaves of different storeys in the harvest in the course of the individual periods of development, however, they are rare. The present work aimed at the following. study of the direction of the lowing off of the assimilate from the leaves of different storeys in the course of the growing season. Spring wheat Lutescens-62 was chosen for this experiment. The method of the marked atoms was chosen. For 2o minutes the leaves of individual storeys were exposed to a CO_2 - atmosphere marked with C^{14}. Under the condition that on the occasion of the photosynthesis C^{14} is absorbed by the leaf as well as C^{12} and distributed in the plant, it is possible to judge from the distribution of radioactivity above the direction of the

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flowing out. After 24 hours from the time of the "feeding" of the plants with marked $C^{14}O_2$ autophotograms were taken after a fixation in a hot press. The thus obtained series demonstrates that leaves of all storeys take actively part in the supplying of young growing plant organs mainly of the leaves in the early stages of the development. The marked carbon absorbed by the leaves of the second and third storey rises to those in the fourth storey, on the occasion of the "feeding", of leaves of the fourth and the fifth storey the assimilates remain at the same place. The blackened photo plate at the place of the ears indicates that in this period leaves of all storeys take actively part in the supplying of the ears with organics. The secondary shoots are partly supplied by the leaves of the main shoots and are selfsufficient after having reached their complete shape. The negative rôle of the spring wheat can be explained by the fact that the lateral shoot are only little fertile. The fourth leaf shows special activity. It supplied mainly the young leaves of the fifth and sixth storey as well as the ears. The fifth leaf shows the greatest activity by supplying the growing organs with organics even after completed growth. The differences between the work of the leaves of the individual storeys are still more distinct in the stage

of the 6 leaves. The assimilates of the second leaf do not penetrate into the overground organs but only to a little extent into the roots. Neither the third nor the fourth leaf supply the overground parts as soon as all leaves are fully developed. On the occasion of "feeding" of the upper leaves with $C^{14}O_2$, C^{14} concentrates in the ears, in the straw knots and the root system. At the beginning of the growing of the ears the assimilates flow more actively to the reproductive organs also from the lower leaves. The main suppliers for the ear and the stalk are, however, the upper leaves. During the period of the growing of the ears the flowing off of the assimilates is mainly directed into the reproductive organs. The lowest leaves then, although still green, totally cease to supply assimilates. The higher the leaf, the more important is its rôle in the ripening of the grains. There is no doubt that a direct connection exists between the activity of the processes occurring in the leaf and the faculty of supplying the reproductive organs with assimilates of the leaf.

Card 3/4

There are two figures, and 8 Slavic references.

On the Rôle of Leaves of Different Storeys in the Formation of Fructification Organs in Spring Wheat. 20-4-54/60

ASSOCIATION: Moscow State University imeni M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova).

PRESENTED: By A. L. Kursanov, Academician, April 29, 1957

SUBMITTED: October 26, 1956.

AVAILABLE: Library of Congress.

Card 4/4

LYUBARSKIY, L., doktor sel'skokhoz.nauk; KRAVTSOVA, B., kand.biolog.nauk

Principles of using natural qualitative features of wheat in dividing it into separate batches upon delivery to grain procurement stations. Muk.-elev. prom. 27 no.7:7-8 Jl '61. (MIRA 14:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki.

(Wheat--Grading)

KRAVTSOVA, B.Ye., kand.biolog.nauk; AVERKIYEVA, N.N., nauchnyy sotrudnik

Reproduction of the actual quality of wheat in average daily samples. Soob. i ref. VNIIZ no.4:24-26 '61. (MIRA 16:5)
(Wheat—Analysis and chemistry)

LYUBARSKIY, L.N.; KRAVTSOVA, B.Ye.

Technological significance of wheat subtypes in standards.
Standartizatsiia 27 no.1:35-39 Ja '63. (MIRA 17:4)

BLYAKHEROVA, R.M.; PISARENKO, G.S.; SIDORENKO, M.S.; PRUTSKOVA, M.G.; SAMSONOV, M.M.; KRAVTSOVA, B.Ye.; LYUBARSKIY, L.I.; SUDNOV, P.Ye.; PAYKIN, D.N.; KHYLAYEVA, O.A., red.

[Recommendations for the production of strong and durum wheat] Rekomendatsii po proizvodstvu zerna sil'nykh i tverdykh pshenits. Moskva, Izd-vo "Kolos," 1964. 63 p.
(MIRA 17:6)

1. Russia (1923- U.S.S.R.) Ministerstvo sel'skogo khozyaystva. Upravleniye nauki, propagandy i vnedreniya peredovogo opyta. 2. Ministerstvo sel'skogo khozyaystva SSSR (for Blyakherova, Pisarenko, Sidorenko). 3. Gosudarstvennaya komissiya po sortoispytaniyu sel'skokhozyaystvennykh kul'tur pri Ministerstve sel'skogo khozyaystva SSSR (for Prutskova, Samsonov). 4. Vsesoyuznyy nauchno-issledovatel'skiy institut zerna i produktov yego pererabotki (for Kravtsova, Lyubarskiy, Sudnov). 5. Vsesoyuznyy institut zashchity rasteniy (for Paykin).

KRAVTSOVA, E.A.

Adsorption chromatography method used in the study of the composition of heavy pyrolysis tar. Azerb.khim.zhur. no.6:27-32 '60. (MIRA 14:8)

(Petroleum products) (Tar)

KRAVTSOVA, E. Ye.

KRAVTSOVA, E. Ye. Cand Med Sci --(diss) "Malignant neoplasms tumors of the organ of vision according to data of the eye clinic of the Minsk State Med Inst for ten years (1945-1954)." Minsk, 1958. 12 pp (Minsk State Med Ins t). 230 copies (KL, 20-58,101)

GOLIK, M., doktor sel'skokhoz.nauk; KRAVTSOVA, G., inzh.

Estimate more precisely the mechanical damage of seed corn.
Muk.-elev. prom. 29 no.12:15-16 D '63. (MIRA 17:3)

1. Vsesoyuznyy zaochnyy institut pishchevoy promyshlennosti.

KEYLIN, S.L., prof.; KRAVTSOVA, G.B.; LEYTAN, V.I.

Protein and carbohydrate content in the amniotic fluid during labor. Akush.i gin. no.5:55-59 '61. (MIRA 15:1)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. S.L. Keylin) Novosibirskogo meditsinskogo instituta.
(AMNIOTIC LIQUID) (PROTEINS) (CARBOHYDRATES)
(LABOR (OBSTETRICS))

L 12721-63 EPR/EPF(c)/EWP(j)/EWT(m)/BDS ASD Pr-4/Ps-4/Pc-4 RM/WW
ACCESSION NR: AP3002295 S/0062/63/000/006/1114/1117

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AUTHOR: Yegorov, Yu. P.; Leytes, L. A.; Kravtsova, I. D.; Meronov, V. F.

TITLE: Effect of the nature of silyl and germyl groups on the Raman spectra of allyl silanes and allyl germanes

SOURCE: AN SSSR. Izv. Otdeleniye khimicheskikh nauk , no. 6, 1963, 1114-1117

TOPIC TAGS: Raman spectra, allyl silanes, allyl germanes, F, Cl, Br

ABSTRACT: The effect of the nature of the halogen in compounds of the formula X sub 3 M - CH sub 2 - CH = CH sub 2 where M is Si or Ge and X is F, Cl or Br, on the frequency and intensity of the Raman lines was investigated. Frequency increased with the series CH sub 3 is less than Br is less than Cl is less than F, and intensity increased in the series F is less than Cl is less than CH sub 3 is less than Br. The "barrier effect" concept of Si and Ge atoms in the investigated compounds is discussed. Orig. art. has: 2 figures and 2 tables.

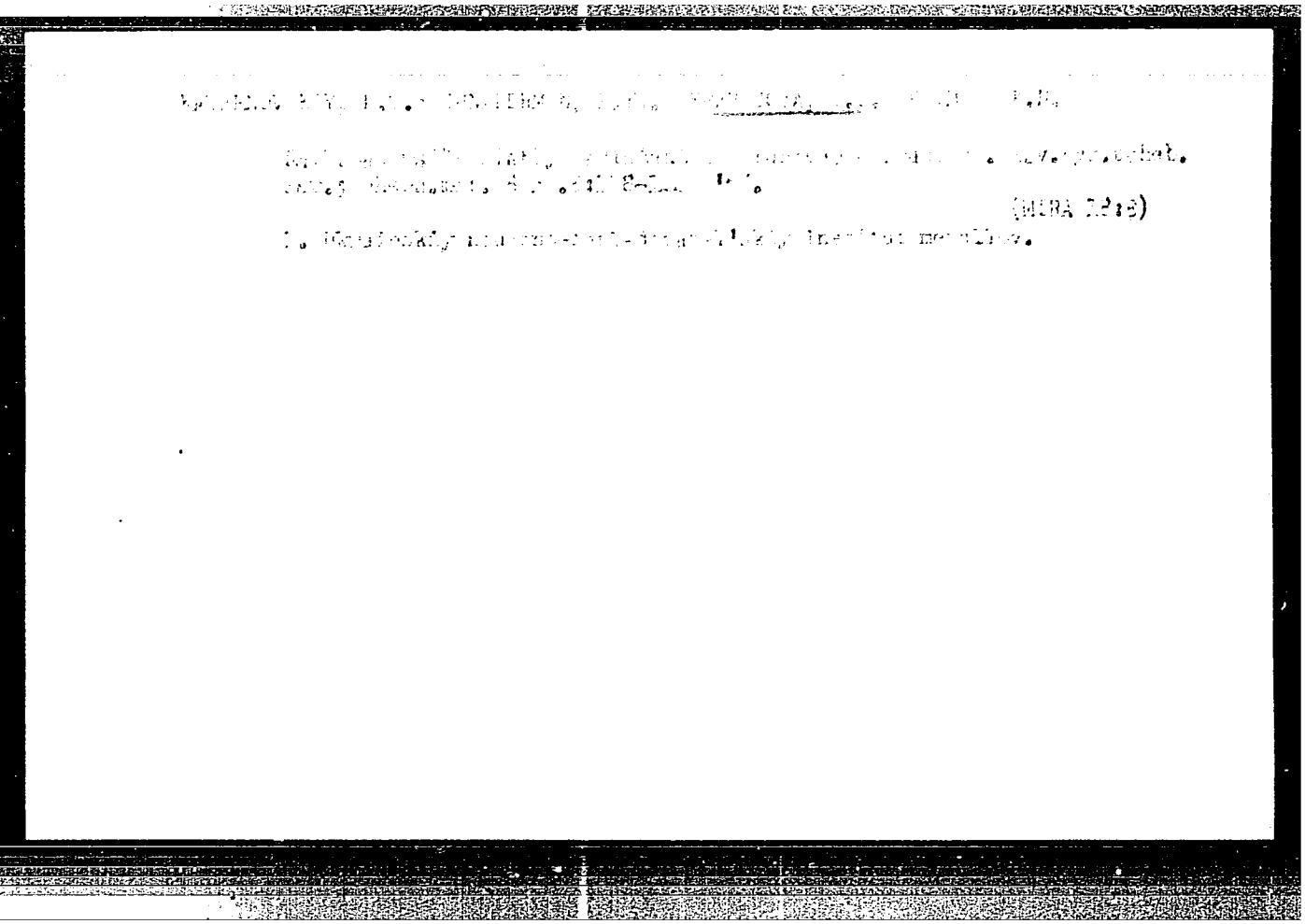
ASSOCIATION: Institut organicheskoy khimii im N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry, Academy of Sciences, SSSR)

Card 1/2

KAZARNOVSKIY, D.S.; DYUBIN, N.P.; GERSHGORN, M.A.; KRAVTSOVA, I.P.; KLIMOV, K.N.; RUDOL'SKIY, N.L.; FRADIN, M.D.; SVIRIDENKO, F.F.; FRADINA, M.G.; ZANNES, A.N.; CHERNOVA, A.V.

Experimental railroad rails made of chromium-nickel native alloy steel. Stal' 22 no.6:548-550 Je '62. (MIRA 16:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut metallov i zavod "Azovstal'".
(Chromium-nickel steel)
(Railroads--Rails)



POSTOL, G.S.; CHERNYKH, Ye.F.; KRAVTSOVA, K.K.; GLUSHKOVA, V.S.

Dynamics of rheumatic fever incidence in children in Khabarovsk Territory according to hospital data for five years. Vop.okh. mat. i det. 7 no.12:79 D'62. (MIRA 16:7)

1. Iz kliniki detskikh bolezney Khabarovskogo meditsinskogo instituta i Khabarovskogo krayevogo otdela zdravookhraneniya.
(CHILDREN--DISEASES) (GYNECOLOGY)

VILENSKIY, A.M.; KRAVTSOVA, L.I.

Structure of certain trappean instrusions in the northwestern part of the Siberian Platform. Inform. biul. NIIGA no.17:5-12 '59. (MIRA 13:11)

(Siberian Platform--Geology, Structural)

SHTEYNBERG, D.S.; KRAVTSOVA, L.I.; VARLAKOV, A.S.

Basic geological features of the Kusinskiy gabbroic intrusion and its ore deposits. Trudy Gor.-geol. inst. UFAN SSSR no.40:13-40 '59. (MIRA 13:11)

(Kusinskiy region--Geology, Structural)
(Ore deposits)

VILENSKIY, A.M.; KAVARDIN, G.I.; KRAVTSOVA, L.I.; STARITSYNA, G.N.

Recent data on ore-bearing trap intrusions of the Siberian Platform. Dokl. AN SSSR 148 no.1:183-186 Ja '63. (MIRA 16:2)

1. Nauchno-issledovatel'skiy institut geologii Arktiki. Predstavleno akademikom D.S. Korzhinskim.
(Siberian Platform--Ore deposits)