"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUNETTI, B.Ye.; KOVTUN, A.A.; KUZNETSOV, N.S.; RASPOPOV, O.M.; CHICHERINA, N.D.; YANOVSKIY, B.M.

Studying the structure of the Central Russian Depression by the magnetotelluric method. Uch. zap. LGU no.324:3-16 '64. (MIRA 18:4)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

L 36360-66 EWT(1) GW/JT

ACC NR: AP6005330 SOURCE CODE: UR/0413/66/000/001/0068/0068

INVENTOR: Alekseyev, A. M.; Berdichevskiy, M. N.; Boltalin, A. P.; Bryunelli, B. Ye.; Lantsov, A. Ye. 56

ORG: none

TITLE: Device for simultaneous registration of variations of 5 components of the earth's natural electromagnetic field. Class 21, No. 177561 [announced by the All-Union Scientific Research Institute for Geophysical Methods of Prospecting (Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki) and Mytishchino Instrument Manufacturing Plant (Mytishchinskiy priborostroitel'nyy zavod)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 68

TOPIC TAGS: earth magnetic field, electromagnetic field, ~~electro-magnetic variation registrator~~ potentiometer, geophysic instrument

ABSTRACT: An Author Certificate has been issued describing a device for simultaneous registration of variations of 5 components of the earth's natural electromagnetic field, using the magnetotelluric method.

Card 1/2 UDC: 621.389.550.837.6

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ACC NR: AP6005330 O

For more precise measurement, the device is equipped with a precision potentiometer feeding calibrated pulses into the electric and magnetic channels of the system and identifying them. The magnetometers are designed in the form of photoelectric converters with magnetostatic data units and negative feedback. The device is equipped with a general photorecorder for simultaneous remote registration on ordinary photographic film of the variations in the observed fields (see fig. 1). [LD]

Orig art. has: 1 figures.

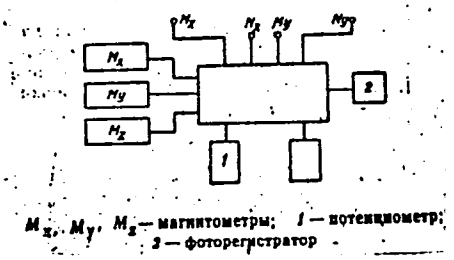

Fig. 1. Device for simultaneous registration of variation of 5 components of the earth's natural electromagnetic field. M_x, M_y, M_z — magnetometers; 1—potentiometer; 2—photorecorder

SUB CODE: 08/ SUBM DATE 08Mar63/

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

ACC NR: AT6016063 (N) SOURCE CODE: UR/3174/66/000/057/0107/0119

AUTHOR: Bryunelli, B. Ye. (Doctor of physico-mathematical sciences)

ORG: Leningrad State University (Leningradskiy gosudarstvennyy universitet)

TITLE: Basic results of geophysical investigations in the high latitudes

SOURCE: Sovetskaya antarkticheskaya ekspeditsiya, 1955. Informatsionnyy byulleten', no. 57, 1966, 107-119

TOPIC TAGS: geomagnetic field, geomagnetic disturbance, Antarctic climate, solar wind, magnetic storm, magnetosphere

ABSTRACT: Geomagnetic activity in Antarctica is surveyed on the basis of Soviet and foreign literature published in 1958-1964. Maps of magnetic activity as a function of blackouts (Ben'kova and Yudovich, 1961) are presented. The author also discusses the distribution of magnetic field variation (S_q^P) (Nagata, et al, 1963), the motion of negative charges in the magnetosphere (Axford and Hines, 1961), and the shifting of equal f_0F_2 lines in the current area of the S_q^P system. The review shows that 1) the geophysical events observed on the earth's surface are connected with cosmic processes and thus, can serve as an aid in understanding cosmic processes; 2) high latitude geo-

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L 13682-66

ACC NR: AT6016063

magnetic storms serve as a means of studying solar winds; and 3) geomagnetic pulsations, ionospheric variations, and magnetic field variations at high latitudes serve as a guide for determining circulation characteristics in the magnetosphere. Orig. art. has: 6 figures.

SUB CODE: 04,08/ SUBM DATE: 03Jul65/ ORIG REF: 016/ OTH REF: 012

Card 2/2 mjs

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUNETKIN, M.G.; DOBROKHOTOV, A.A.

Increasing the durability of open-hearth furnace crowns.
Metallurg 6 no.11:13-17 N '61. (MIRA 14:11)

1. Chelyabinskiy metallurgicheskiy zavod.
(Open-hearth furnaces--Design and construction)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUNETKIN, M.G.; GISS, A.N.; KICHA, I.N.; SHOTIN, V.S.; KROPACHEV, V.F.

Using ground powders in the repair of open-hearth furnace hearth bottoms. Metallurg 8 no.4:27-28 Ap '63. (MIRA 16:3)
(Open-hearth furances--Maintenance and repair)
(Refractory materials)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

DOBROKHOTOV, A.A., inzh.; PANCHENKO, A.G., inzh.; SAVEL'YEV, D.N., inzh.; KOPLENKO, Ye.A., inzh.; BRYUNETKIN, M.G., inzh.; KRAVTSOV, N.F., inzh.; TIMOFEYEVA, R.G., inzh.

Improving the performance of open-hearth furnaces. Stal' 23 no.4: 304-308 Ap '63. (MIRA 16:4)
(Open-hearth furnaces)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUNETKIN, M.G.; VORONTSOV, S.P.

Increasing the durability of open-hearth furnace roofs.
Metallurg 10 no.1:18-19 Ja '65. (MIRA 18:4

1. Chelyabinskiy metallurgicheskiy zavod.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

KHOROSHAVIN, L.B.; PEREPELITSYN, V.A.; ZHUKOV, A.V.; MOROKOV, P.K.; MAKRUSHIN, V.V.; BARTOLISH, D.M.; BRYUNETKIN, M.G.; VAYNSHTEYN, O.Ya.; GISS, A.N.; SHLL'KIN, M.A.; SHOTIN, V.S.

Use of metallurgical magnesite powder burned at low temperature. Stal' 25 no.12:1086-1088 D '65.
(MIRA 18:12)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

ACCESSION NR: AP4031757 S/0301/64/010/002/0179/0184

AUTHOR: Budnitskaya, Ye. V.; Bryunfo, M.; Errera, M.

TITLE: Effect of radiation on RNA and RNA metabolism in human cancerous tumor cells

SOURCE: Voprosy* meditsinskoy khimii, v. 10, no. 2, 1964, 179-184

TOPIC TAGS: X-irradiation effect, RNA radiosensitivity, RNA metabolism, cancerous tumor cell, HeLa cell, tritium labelled cell, cytidine-H3 incubation, radioautographic method, cell nucleolus, cell protoplasm, inhibited RNA synthesis, RNA synthesis restoration

ABSTRACT: The effects of X-irradiation on RNA radiosensitivity and metabolism were investigated in labelled cancerous tumor cells (HeLa cells) in two experimental series. In the first series, groups of HeLa cells were incubated for 10 min, 60 min, and 24 hrs in a medium containing cytidine-H3 (360 microcuries/mM) before X-irradiation with single 100, 300, and 900 r doses. After X-irradiation the cells were fixed and prepared for radioautographic investigation to determine RNA radiosensitivity by the number of granules in the nucleolus,

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ACCESSION NR: AP4031757

nonnucleolus part of the nucleus, and the cytoplasm, and the total number of granules in a cell (30 cells counted in each sample). In the second series, groups of HeLa cells were first X-irradiated with single 100, 300, and 900 r doses and then incubated for 10 min, 60 min, and 4 hrs in a medium containing cytidine-H^3. Radiosensitivity and migration of labelled RNA from the nucleolus into the cytoplasm of the cell were determined by radioautographic investigation as in the first series. Results show that RNA is radiosensitive immediately after formation and nucleolar RNA is more sensitive than the rest of the nucleus. Depressed RNA radioactivity in irradiated cells incubated in a cytidine-H^3 medium for a short period indicates that injury of the RNA synthesis mechanism is restorable. Migration of labelled RNA from the nucleus into the cytoplasm is inhibited in cells incubated in a cytidine-H^3 medium before irradiation and then transferred to a nonradioactive medium. RNA synthesis and related processes appear to be radiosensitive and restorable, but the inhibiting and restoring mechanisms of RNA synthesis are difficult to explain at this time. Orig. art. has: 3 tables.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

ACCESSION NR: AP4031757.

ASSOCIATION: Laboratoriya biofiziki i radiobiologii Bryusel'skogo universiteta, Belgium (Biophysics and Radiobiology Laboratory of Brussels University) ; Institut biokhimii im. A. N. Bakha AN SSSR, Moscow (Biochemistry Institute AN SSSR)

SUBMITTED: 15May63 ENCL: 00 SUB CODE: LS

NR REF SOV: 000 OTHER: 010

Card 3/3

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

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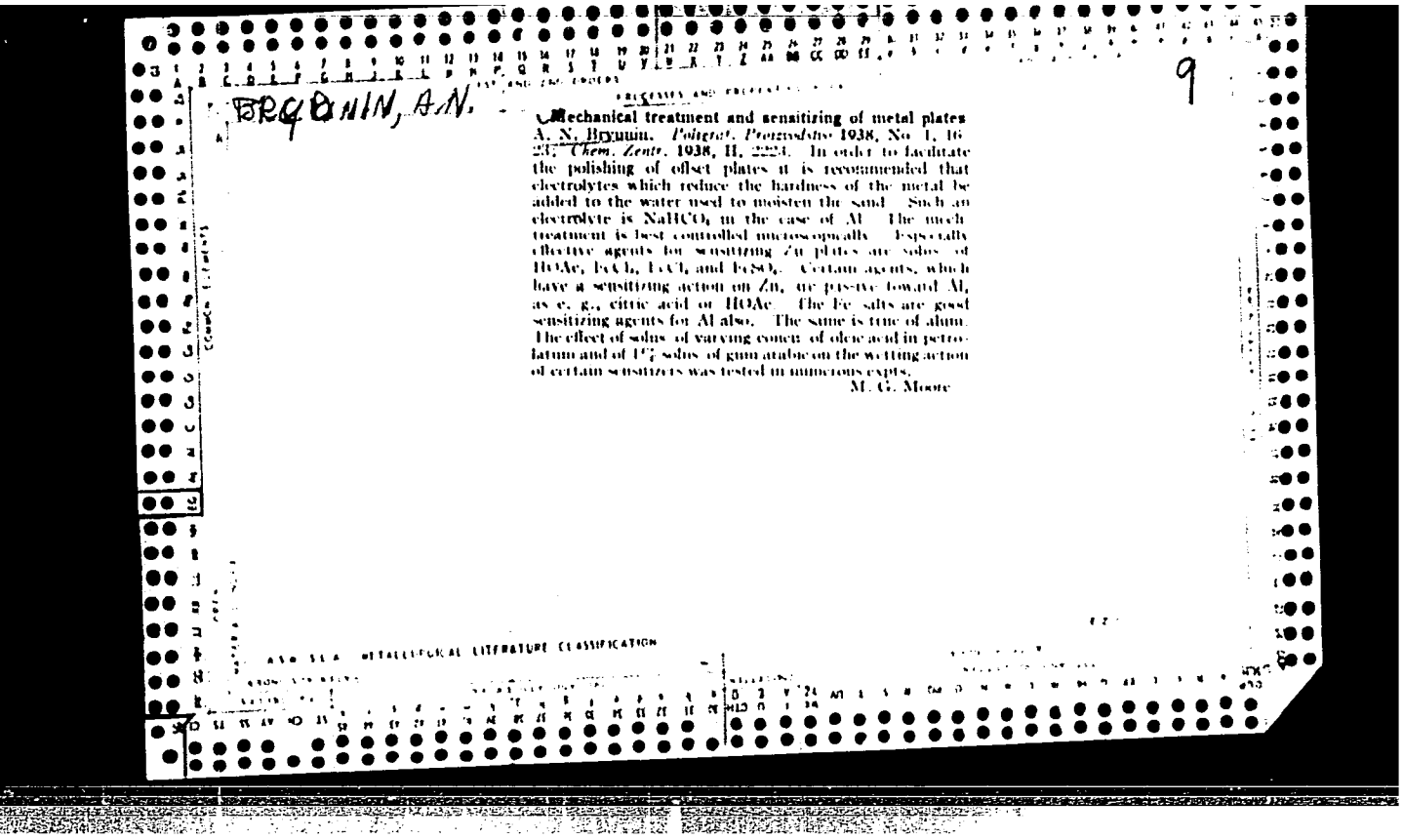

BROWN, A.N.

9

Mechanical treatment and sensitizing of metal plates A. N. Brownin. *Poligraf. Proizvodstvo* 1938, No. 1, 16-23; *Chem. Zentr.* 1938, II, 2224. In order to facilitate the polishing of offset plates it is recommended that electrolytes which reduce the hardness of the metal be added to the water used to moisten the sand. Such an electrolyte is $NaHCO_3$ in the case of Al. The mech. treatment is best controlled microscopically. Especially effective agents for sensitizing Zn plates are solns. of HOAc, $FeCl_3$, $FeCl_2$, and $Fe_2(SO_4)_3$. Certain agents, which have a sensitizing action on Zn, are passive toward Al, as e. g., citric acid or HOAc. The Fe salts are good sensitizing agents for Al also. The same is true of alum. The effect of solns. of varying concn. of oleic acid in petrolatum and of 1% solns. of gum arabic on the wetting action of certain sensitizers was tested in numerous expts.

M. G. Moore

AND U.S.A. METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

36949
S/142/61/004/006/014/017
E192/E382

9.7000

AUTHOR: Bryunin, V.N.

TITLE: High-speed computing device based on junction diodes

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, v. 4, no. 6, 1961, 723 - 726

TEXT: A computing device based on the principle similar to that of ring counters is described. A block schematic of the system is illustrated in Fig. 1. The input signals are amplified in the pre-amplifier YC and are applied to a gating circuit KC and a phase separating network consisting of diodes $Д_1$ and $Д_2$. The positive input pulses are simultaneously applied to the inputs of all the odd coincidence circuits (C_1, C_3, ... C_{n-1}), while the negative ones are fed to even coincidence circuits (C_2, C_4, ... C_n). The first coincidence circuit C_1 is actuated by the first input pulse and produces a signal which is applied to the input of the second coincidence circuit C_2. If the duration of the output

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pulse taken from C_1 is greater than half the period of the input signal, C_2 is triggered at the instant of the appearance of the negative pulse and thus prepares the circuit C_3 for triggering. In this manner alternate input positive and negative pulses result in successive triggering of the coincidence circuits. By applying the output pulse from C_n to the input of C_1, the output pulses can be counted, the division ratio being:

$$K = 2f/n \qquad (1)$$

where f is the frequency of the input signal and
n is the number of coincidence circuits.
The number of input pulses can be read on the counter circuit ПС and the indications of the trigger circuits $T_1 - T_n$.
The coincidence circuits in the above computing device can be

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High-speed computing device ....

based on diode amplifiers with transformer loads. The operating speed of such a circuit can be considerably increased if cathode followers based on vacuum tubes are employed instead of transformers. The above method of counting the pulses is advantageous in that if offers a comparatively simple means of achieving high-speed operation. Thus, by employing a circuit with diodes and vacuum tubes it is possible to operate at frequencies of 20 Mc/s. Further, by combining high-frequency transistors and electron tubes in the above system, it should be possible to increase their operating speeds to tens of mega-cycles. The system can also be used as a stable delay line, a secondary frequency standard or a time-marker generator. There are 5 figures.

ASSOCIATION: Kafedra elektroniki Moskovskogo inzhenerno-fizicheskogo instituta (Department of Electronics of the Moscow Engineering-physics Institute)

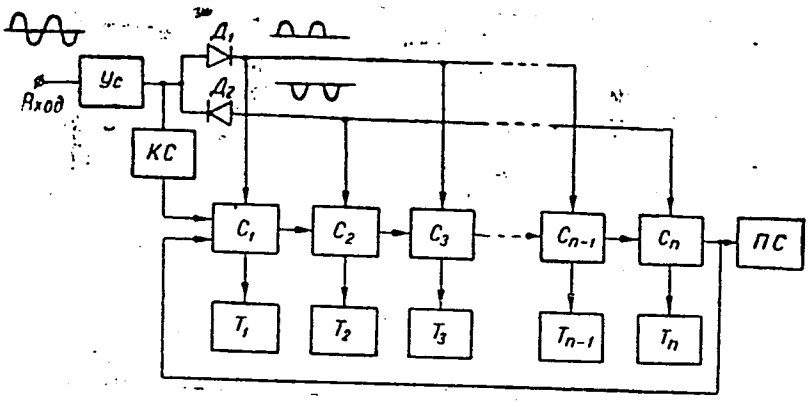
SUBMITTED: March 31, 1961

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

High-speed computing device S/142/61/004/006/014/017
E192/E382

Fig. 1:



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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

41472
S/108/62/017/010/002/002
D201/D308

9,4346

AUTHOR: Bryunin, V.N.

TITLE: Diffusion capacitance of the p-n junction of junction diodes

PERIODICAL: Radiotekhnika, v. 17, no. 10, 1962, 45-51

TEXT: The method, circuit diagram and the results of measuring the diffusion capacitance of the p-n junction of germanium and silicon junction diodes at high level signals are given. A rectangular variable length and amplitude pulse current generator triggers the reverse bias generator through a variable delay line. The measuring circuit consists of the diode under test, load resistor R_L, a capacitance C_L which includes all the strays, and a forward bias resistor R_1. The measuring circuit is replaced by its equivalent circuit and the character of changes of the total p-n junction capacitance is determined after the ending of the forward current pulse. The following germanium type diodes were analyzed (in batches of 10) Д7А (D7A), Д7Г (D7G), Д7Д (D7D) and Д7Ж

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Diffusion capacitance ...

(D7Zh), also the following silicon types: Д202 (D202), D203, D205 and D211, together with 10 samples of germanium triode transistor П2А (P2A). Measurements were carried out within -50 to +50°C. Conclusions: 1) The magnitude of diffusion capacitance may be determined from the analysis of transients in a measuring circuit based on a diode amplifier with capacitive load. 2) For the forward current pulse durations $\lesssim 3\mu$ sec to the initial magnitude C_0 of the diffusion capacitance depends linearly on the quantity of electricity transferred through the junction in the forward direction. 3) After the end of the forward current pulse the diffusion capacitance decreases as exp $C_0 e^{-\frac{t}{k}}$, where k is the time constant of the decrease of this capacitance. 4) The proportionality factor in the linear increase of the C_0 with respect to the quantity of electricity and the coefficient k are independent of the forward current pulse parameters and determined only by the 'internal' properties of the junction. 5) The spread in the values of the above two coefficients does not exceed 15 to 20% for all types of diodes in a temperature range -50° to + 50°C, which shows a good stability of the diffusion capacitance. 6) The equivalent circuit for the

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reverse conductance of a p-n junction under a forward current pulse may be approximated by the parallel connection of the diffusion and depletion-layer capacitances and the constant reverse resistance of the barrier-layer. 7) The effect of the hole storage in the base may be represented by a simple expression for the diffusion capacitance, valid for both low and high-level signals. 8) Taking into account the effect of diffusion capacitance on the reverse conductance of a junction diode makes possible an exact design of practical pulse circuits and diode amplifiers. There are 6 figures.

SUBMITTED: October 27, 1961

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUNO, A.D.

Decomposition of algebraic numbers into continued fractions. Zhur. vych. mat. i mat. fiz. 4 no.2:211-221 Mr-Ap '64. (MIRA 17:7)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

L 48295-65 EWT(d) Pq-4 IJP(c)

ACCESSION NR: AP5010669 UR/0038/65/029/002/0329/0364

AUTHOR: Bryuno, A. D.

TITLE: Power asymptotics of solutions of nonlinear systems

SOURCE: AN SSSR. Izvestiya. Seriya matematicheskaya, v. 29, no. 2, 1965, 329-364

TOPIC TAGS: differential equation, asymptotic solution

ABSTRACT: The author studies

$$\frac{dx_1}{f_1(x_1, \ldots, x_n)} = \cdots = \frac{dx_n}{f_n(x_1, \ldots, x_n)} \qquad (1)$$

where $f_i = x_i \sum_{j=1}^{m} a_{ji} x_1^{q_{j1}} \ldots x_n^{q_{jn}}$, a_{ji} and q_{jk} are real, and solves the problem of finding the power asymptotics of

$$x_i = b_i \tau^{p_i}, \quad i = 1, \ldots, n. \qquad (2)$$

for all solutions of (1) which can be written in the form $x_i = b_i \tau^{p_i} (1 + o(1))$, $b_i \neq 0$, $i = 1, \ldots, n$. Here b_i and p_i are arbitrary real, $\sum_{i=1}^{n} p_i \neq 0$. While not considering existence of solutions of (1), he shows how to obtain the set containing

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L 48295-65

ACCESSION NR: AP5010669

all of the indicated asymptotics. Due to the complexity of the problem, he does not study the possibility of extending the power expansions. The notions of "contraction" and "cone of contraction" are introduced, and it is shown that if

$$x_i = b_i \tau^{p_i} (1 + o(1)), \quad b_i \neq 0, \quad i = 1, \ldots, n, \qquad (3)$$

is a solution of (1) then (2) is a solution of the corresponding contraction. In the next section (which does not depend on the previous one) the author shows that it is sometimes possible by means of a certain transformation either to reduce the number of variables or even to integrate (1) in finite form. In the last section, with the help of the aforementioned transformation, the solution of the contraction (2) is obtained completely. He gives examples to aid in understanding the applications. Orig. art. has: 64 formulas.

ASSOCIATION: none

SUBMITTED: 22Apr63 ENCL: 00 SUB CODE: MA

NO REF SOV: 005 OTHER: 003

Card 2/2

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUNO, A.D.

Normal form of differential equations. Dokl. AN SSSR 157 no.6: 1276-1279 Ag '64. (MIRA 17:9)

1. Predstavleno akademikom L.S. Pontryaginym.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BA

S/020/62/143/004/001/027
B112/B102

AUTHOR: Bryuno, A. D.

TITLE: Asymptotic behavior of the solutions of non-linear systems of differential equations

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 143, no. 4, 1962, 763-766

TEXT: The asymptotic behavior of the parameter-depending solution $x_1 = \varphi_1(\tau), \ldots, x_n = \varphi_n(\tau)$ of a system $dx_1/f_1(x_1,\ldots,x_n) = \ldots = dx_n/f_n(x_1,\ldots,x_n)$ is investigated by studying a reduced system $dx_1/\tilde{f}_1(x_1,\ldots,x_n) = \ldots = dx_n/\tilde{f}_n(x_1,\ldots,x_n)$ which is defined as follows: The number $p(\varphi(\tau)) = \overline{\lim_{\tau\to\infty}} (\ln|\varphi(\tau)|/\ln\tau)$ is said to be the order of the function $\varphi(\tau)$. The functions f_i are assumed to be represented in the form $f_i(x_1,\ldots,x_n) = \sum a_{iq_1\ldots q_n} x_1^{q_{11}} \ldots x_n^{q_{hn}}$. The reduced functions $\tilde{f}_i(x_1,\ldots,x_n)$

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Asymptotic behavior of the ...

contain only such terms $a_{iq_1'\ldots q_n'} x_1^{q_1'} \ldots x_n^{q_n'}$ for which $a_{iq_1'\ldots q_n'} \varphi_1^{q_1'}(\tau) \ldots \varphi_n^{q_n'}(\tau)/\varphi_i^{l}(\tau)$ is of a minimal order. A geometric method to construct the reduced system is derived.

PRESENTED: November 20, 1961, by I. G. Petrovskiy, Academician

SUBMITTED: November 15, 1961

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APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUNO, A.D.

Convergence of transformations of differential equations to the normal form. Dokl. AN SSSR 165 no.5:987-989 D '65.
(MIRA 19:1)

1. Submitted July 16, 1965.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSHCHENKO, L.P.; ZAKHARCHUK, V.I.

Rhythmic work is the guarantee of high technical and economic indices. Ugol' 39 no.5:16-18 My '64. (MIRA 17:8)

1. Normativno-issledovatel'skaya stantsiya tresta Petrovskugol'.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSHININ, I. G., and Others

Increasing the productivity of swine in the Dnieper region. Sots. zhiv. 14, No 2, 1952.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

USSR/Farm Animals - Swine Q

Abs Jour : Ref Zhur - Biol., No 15, 1958, 69364

Author : Bryushinin, I.G.
Inst :
Title : Feeding of Corn Chops and Silaged Conrncobs to Pregnant and Nursing Sows

Orig Pub : Svinovodstvo, 1957, No 9, 37-39

Abstract : Corn chops (I) and silaged corcobs (II) can be included in the rations of pregnant sows up to40% of their nutritional value, provided they are stopped 7-10 days before farrowing. The nursing sows may be fed I up to 40% and II up to 30%, starting with small rations, 7-10 days after farrowing.

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

USSR/Farm Animals - Swine. G-4

Abs Jour : Ref Zhur - Biol., No 18, 1958, 83429

Author : Borts, I.L., ~~Brynshinin, I.G.,~~ Kovalenko, N.A., Nazarenko, V.A., Pochernyayeva, G.M., Spirin, K.F.

Inst : -

Title : Corn Waste as Valuable Swine Fodder.

Orig Pub : Svinovodstvo, No 12, 38-44

Abstract : When corn waste (CW) was fed to adult pregnant and nursing sows in proportions reaching 23-25 and 41.45 percent of fodder rations, negative effects in terms of the sows' fertility and milk productivity, or in terms of piglet development were not observed. It was determined that CW may be fed to suckling piglets as additional fodder, and to weaned piglets as basic fodder in feed mixtures. When raising pure-bred sows to mating age, it is possible to repalce grain feeds by CW, limiting it to 60 percent of the feeds' nutritional values. As swine which were

Card 1/2

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BRYUSHININ, V.P.

SEMENOV,N.N.; BRYUSHININ,V.P., svarshchik

Roller supports for centering, clamping and welding pipes. Rats. i izobr. predl. v stroi. no.92:18-20 '54. (MLRA 8:6)

1. Master stroitel'no-montazhnogo upravleniya tresta Transvodstroy (for Semenov).

(Pipe, Steel)

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BRYUSHINKIN, M.S., inzhener-podpolkovnik

Utilize communications equipment in an exemplary fashion.
Vest. protivovozd.obor. no.4:62-65 Ap '61. (MIRA 14:7)
(Communication, Military)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSHKO, V.A.

Production of wheat starch at the Orane Starch Factory. Sakh.prom. 34 no.10:57-58 O '60. (MIRA 13:10)

1. Oranskiy krakhmal'nyy zavod.
(Orane--Starch)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSHKOV, A.

BRYUSHKOV, A., inzh. po tekhnike bezopasnosti, Baku.

Excursion to the Baku proving ground of the Central Fire Protection Scientific Research Institut. Pozh.delo 3 no.12: 29 D '57. (MIRA 10:12)
(Baku--Fire prevention--Research)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSHKOV, A.A.

Papyrus is not paper. Bum.prom. 35 no.7:27
Je '60. (MIRA 13:8)
(Papyrus(The plant)) (Paper)

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BRYUSHKOV, A.A.

Paper production in Central Asia. Bum. prom. 36 no.7:27-29 Jl '61. (MIRA 14:9)

(Asia, Central--Paper industry)

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BRYUSHKOV, N.I.

Using the hydraulic drill in Baku. Neftianik 2 no.4:4-5 Ap '57.
(Oil well drilling) (MLRA 10:5)
(Boring machinery)

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ALIKAYEV, V.A.; DUL'NEV, V.I.; VASIL'KOV, G.V.; TROKHIN, V.K.; IVASHCHENKO, S.A.; PLATONOV, V.A., veterinarno-sanitarnyy ekspert; ROMANYUKHA, A.I.; BRYUSHKOV, P.; PERGAT, F.F.; SPIRIN, F.; ARKADSKIY, V.P.; MEDVEDEV, I.

Brief news. Veterinariia 41 no.10:118-126 O '64.
(MIRA 18:11)

1. Nachal'nik veterinarno-sanitarnogo uchastka stantsii Melitopol' Pridneprovskoy zheleznoy dorogi (for Romanyukha).

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BRYUSHKOV, V.I., gornyy inzh.geolog.

Tectonics and coal-bearing areas of the upper Sokur district in the Karaganda Basin. Sbor.nauch.trud. KazGMI no.14:77-82 '56.
(MIRA 10:10)

(Karaganda Basin--Coal geology)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSHKOV, V.I.; FIGMAN, B.A.; YEMEL'YANOVA, Ye.V., red.

[High-efficiency attachments for grinding cutting tools] Vysokoproizvoditel'nye prisposobleniia dlia zatochki rezhushchego instrumenta. Leningrad, Lenizdat, 1964. 53 p. (MIRA 18:1)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRIUSHKOV, V. I. Cand Geol-Mineral Sci— (diss) "Geology and Conditions for formation of the coal-bearing deposits of Verkhne-Sokyrsk rayon of the Karaganda basin," Alma-Ata, 1960, 20 pp, 150 cop. (Institute of Geological Sciences, AS Kazakh SSR) (KL, 42-60, 112)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSHKOV, V.I., inzhener-geolog

New data on the geology of coal-bearing sediments in the eastern part of the Karaganda Basin. Sbor.nauch.trud.KazGMI no.18:137-143 '59. (MIRA 15:2)

(Karaganda Basin--Coal geology)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSHKOV, V.S.; BYCHKOV, V.P.; MAMONOV, A.F.

Quartz spring coiling machine. Zav. lab. 30 no.11:1417 '64
(MIRA 18:1)

1. Institut obshchey i neorganicheskiy khimii im. N.S.Kurnakova AN SSSR.

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BRYUSHKOVA, F. I.

"A Simplified Method of Testing the Quality of Chemical Treatments of Wheat Seed," Doklady Vsesoiuznoi Akademii Sel'skokhoziaistvennykh Nauk imeni V. I. Lenina, vol. 3, no. 3-4, 1938, pp. 29-36. 20 Akl

So: SIRA-S1-90-53, 15 Dec 1953

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSHKOVA,F.I.; NOSKOVA,A.V.; CHUBOVA,A.V.

Effectiveness of Bordeaux mixture for the control of Phytophthora in potatoes. Trudy VNIISP no.4:147-152 '54. (MLRA 8:12)
(Potatoes--Diseases and pests) (Phytophthora) (Bordeaux mixture)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

PARAMONOV, Aleksandr Aleksandrovich; BRYUSHKOVA, Fira Ivanovna; SKRYABIN, K.I., akademik, otvetstvennyy redaktor; PEREDEL'SKAYA, N.M., redaktor izdatel'stva; ASTAF'YEVA, tekhnicheskiy redaktor

[The nematode Ditylenchus destructor in potatoes and methods of controlling it] Steblevaia nematoda kartofelia i mery bor'by s neiu. [Moskva] Izd-vo Akademii nauk SSSR, 1956. 110 p. (MLRA 9:10)
(Potatoes--Diseases and pests) (Nematoda)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSHKOVA, F.I.; KRYLOV, P.S.

Experiments in eliminating the potato rot nematode. Trudy Gel'm. lab. 16:24-26 '65. (MIRA 19:2)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRyuSHKovA, T.I.

AUTHORS: Pechkovskaya, K.A., Shedid-Khuzemi, N.A., Orlovskiy P.N., Livshits, F.B., Novikova I.S. and Bryushkova, I.I. SOV/138-58-6-3/25

TITLE: Chemical and Physico-Chemical Methods of Evaluating the Properties of Carbon Black (Khimicheskiye i fiziko-khimicheskiye metody otsenki kachestva sazh) Part II: The Fundamental 'Structure' of Carbon Black (Soobshcheniye II: pervichnaya 'struktura' sazhi)

PERIODICAL: Kauchuk i Rezina, 1958, Nr 6, pp 8 - 13 (USSR)

ABSTRACT: The colorimetric method for evaluating the dispersity of carbon black was discussed in Part I (Ref 1). This article describes investigations on the 'structure' of carbon black. After defining the terminology of 'carbon black particles', crystallite, and the primary and secondary aggregate, methods for the quantitative evaluation of the fundamental 'structure' of carbon black are discussed. None of these methods was entirely satisfactory. Comparative evaluation of the fundamental 'structure' can be achieved by defining the oil number and the 'structure' index. The form factor can serve as an added characteristic. The partial breakdown of the fundamental 'structure'

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of jet carbon black leads to a decrease in the oil number without causing appreciable changes in the unit surface. The fundamental 'structure' inhibits granulation of the carbon black. The secondary 'structure' makes granulation easier. The degree of the development of the fundamental 'structure' indicates a change in the technological properties of the raw material mixtures; mixtures containing carbon black with large primary particles are usually more viscous, can be sprayed more quickly and give a thinner deposit than mixtures containing carbon black of normal structure. Jet carbon black (with partly disintegrated fundamental 'structure') imparts to vulcanisates, based on SKB, a lowered modulus, a lower degree of electroconductivity and increased bonding strength to cords (Fig 3). The degree of dispersity and data on the 'structure' of various Soviet carbon blacks are listed in

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SOV/138-58-6-3/25

Chemical and Physico-Chemical Methods of Evaluating the Properties of Carbon Black

Table 2, and Table 4 gives the physico-chemical and technological properties of American furnace carbon black. There are 5 tables, 3 figures and 13 references (7 English, 2 German and 4 Soviet)

ASSOCIATION: Nauchnoissledovatel'skiy institut shinnoy promyshlennosti (Research Institute for the Tire Industry)

1. Carbon black--Physical properties 2. Carbon black--Chemical properties 3. Colorimetric analysis--Applications

Card 3/3

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S/032/61/027/001/005/037
B017/B054

AUTHORS: Gel'man, N. E., Van Ven'- yun', and Bryushkova, I. I.

TITLE: Use of Conductometry for a Direct Microdetermination of Oxygen in Organic Compounds

PERIODICAL: Zavodskaya laboratoriya, 1961, Vol. 27, No. 1, pp. 24-28

TEXT: A direct conductometric microdetermination of oxygen was developed according to the method by M. O. Korshun and Ye. A. Bondarevskaya (Refs. 10, 11). The organic compound is thermally decomposed in a nitrogen- or argon atmosphere; the resulting gaseous reaction products are allowed to pass over platinized carbon black at 900°C, the oxygen is quantitatively transformed to CO. The resulting carbon monoxide is oxidized by copper monoxide to CO_2 at 300°C, and is absorbed in an alkaline solution. The resulting carbon dioxide is determined by the change in electrical conductivity of the absorption solution. For a quantitative oxidation, a 3.5 cm long contact layer is required, and the gas flow velocity must not exceed 10-12 ml/min. Numerous organic compounds of

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different structures and compositions were analyzed; results are compiled in Tables 1 and 2. An analysis takes 30-35 minutes. The percent oxygen content in organic compounds was determined by a calibration curve shown in Fig. 3. The oxygen amount in μ is plotted on the abscissa, the decrease in electrical conductivity of the absorption solution on the ordinates. There are 3 figures, 2 tables, and 11 references: 6 Soviet and 5 German.

ASSOCIATION: Institut elementoorganicheskikh soyedineniy Akademii nauk SSSR (Institute of Elemental-organic Compounds, Academy of Sciences USSR)

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

GEL'MAN, N.E.; BRYUSHKOVA, I.I.

Elemental analysis of organometallic compounds igniting in air. Simultaneous microdetermination of carbon, hydrogen, and aluminum or some other element as an oxide. Zhur. anal. khim. 19 no.3:369-374 '64. (MIRA 17:9)

1. Institut elementoorganicheskikh soyedineniy AN SSSR, Moskva.

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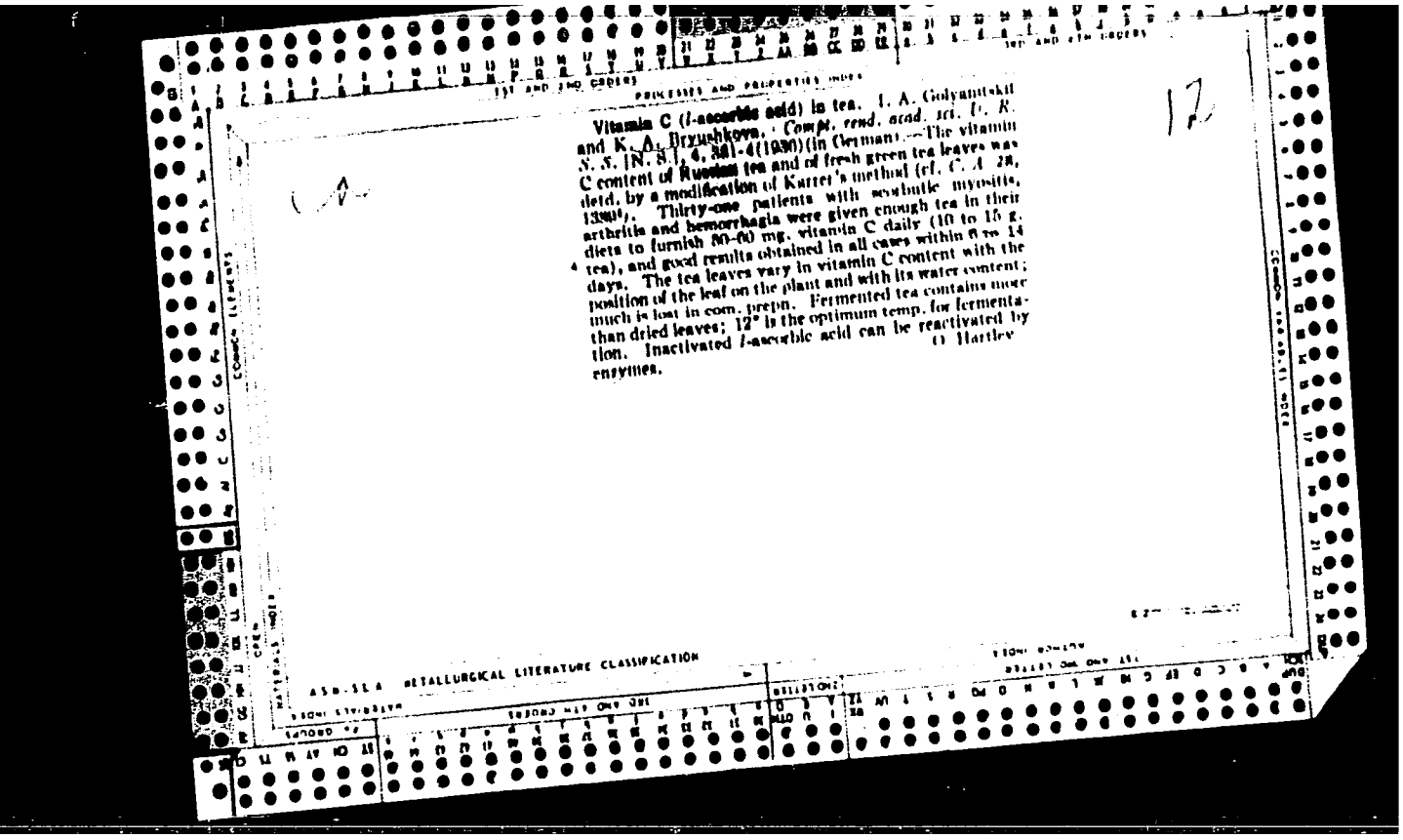
PROCESSES AND PROPERTIES INDEX

12



Vitamin C (*l*-ascorbic acid) in tea. I. A. Golyanitskii and K. A. Bryushkova. *Compt. rend. acad. sci. U. R. S. S.* [N. S.], 4, 381-4(1936)(in German).—The vitamin C content of Russian tea and of fresh green tea leaves was detd. by a modification of Karrer's method (cf. *C. A.* 28, 1380[4]). Thirty-one patients with scorbutic myositis, arthritis and hemorrhagia were given enough tea in their diets to furnish 80-60 mg. vitamin C daily (10 to 15 g. tea), and good results obtained in all cases within 6 to 14 days. The tea leaves vary in vitamin C content with the position of the leaf on the plant and with its water content; much is lost in com. prepn. Fermented tea contains more than dried leaves; 12° is the optimum temp. for fermentation. Inactivated *l*-ascorbic acid can be reactivated by enzymes. O. Hartley

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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BRYUSHKOVA, K. A.

"The role of ascrobic acid in the life of plants and yeast." The Far Eastern Filiale of the Central Institute of Haematology and Blood Transfusion (dir: Prof. I. A. Golyanitskii.) (p. 1083) by Golyanitskii, I. A. and Bryushkova, K. A.

SO: Biological Journal (Biologicheskii Zhurnal) Vol. V, 1936, No. 6

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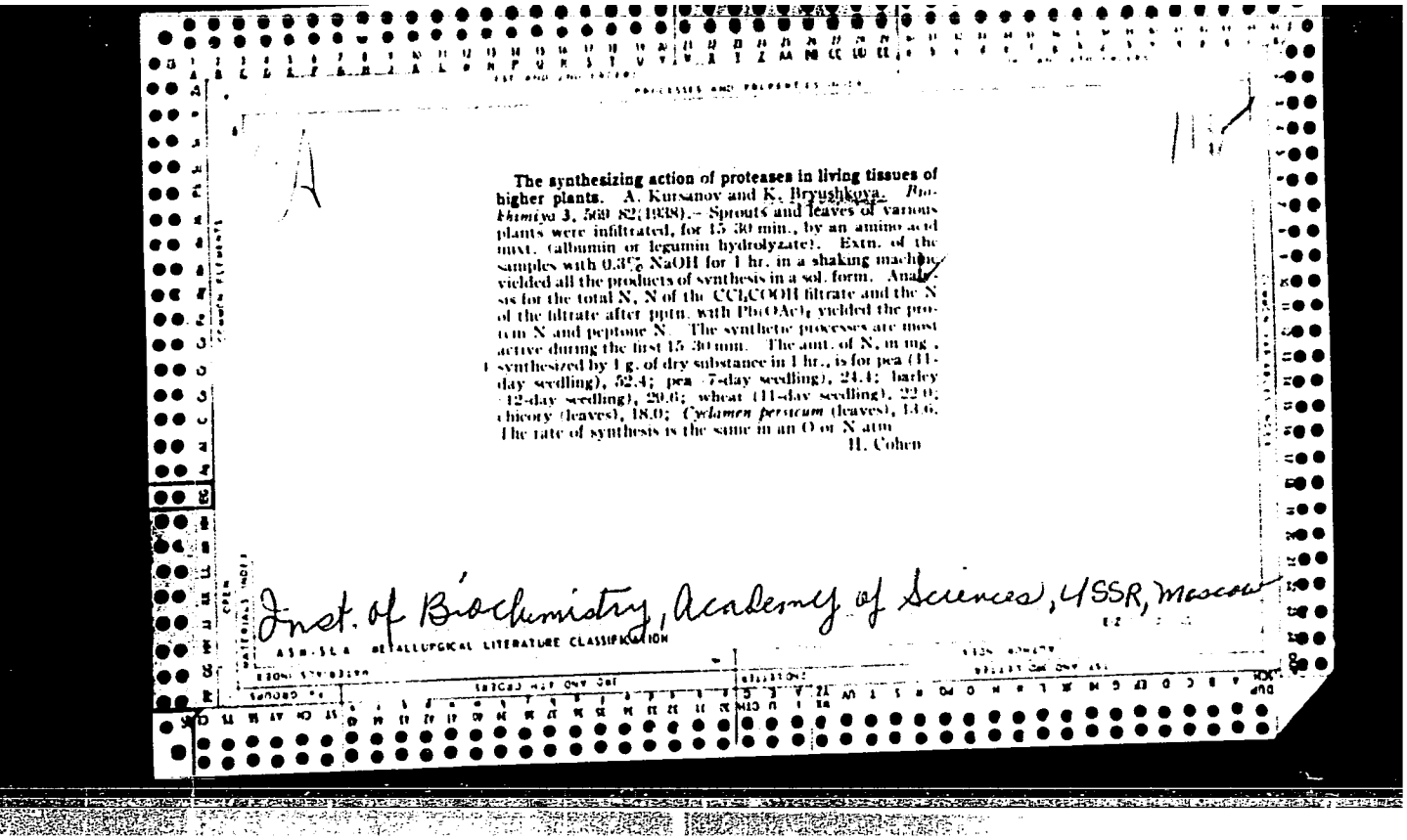

The synthesizing action of proteases in living tissues of higher plants. A. Kursanov and K. Bryushkova. *Biokhimiya* 3, 568-82(1938).— Sprouts and leaves of various plants were infiltrated, for 15-30 min., by an amino acid mixt. (albumin or legumin hydrolyzate). Extn. of the samples with 0.3% NaOH for 1 hr. in a shaking machine yielded all the products of synthesis in a sol. form. Analysis for the total N, N of the CCl_3COOH filtrate and the N of the filtrate after pptn. with $Pb(OAc)_4$ yielded the protein N and peptone N. The synthetic processes are most active during the first 15-30 min. The amt. of N, in mg., synthesized by 1 g. of dry substance in 1 hr., is for pea (11-day seedling), 52.4; pea (7-day seedling), 24.4; barley (12-day seedling), 20.6; wheat (11-day seedling), 22.0; chicory (leaves), 18.0; *Cyclamen persicum* (leaves), 13.6. The rate of synthesis is the same in an O or N atm.

H. Cohen

Inst. of Biochemistry, Academy of Sciences, USSR, Moscow

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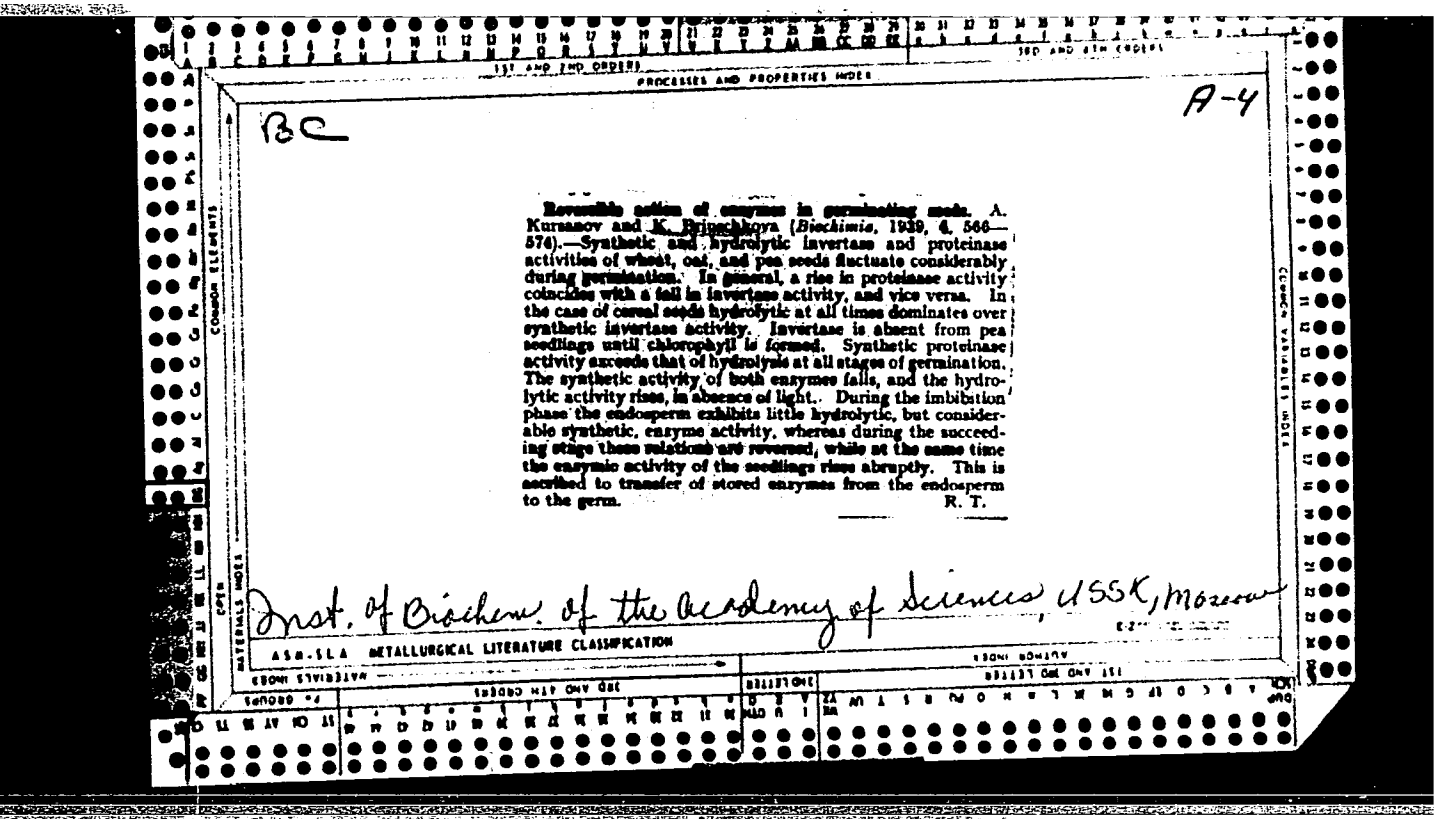

BC

A-4

Reversible action of enzymes in germinating seeds. A. Kursanov and K. Brjuchkova (*Biochimia*, 1939, 4, 566—576).—Synthetic and hydrolytic invertase and proteinase activities of wheat, oat, and pea seeds fluctuate considerably during germination. In general, a rise in proteinase activity coincides with a fall in invertase activity, and vice versa. In the case of cereal seeds hydrolytic at all times dominates over synthetic invertase activity. Invertase is absent from pea seedlings until chlorophyll is formed. Synthetic proteinase activity exceeds that of hydrolysis at all stages of germination. The synthetic activity of both enzymes falls, and the hydrolytic activity rises, in absence of light. During the imbibition phase the endosperm exhibits little hydrolytic, but considerable synthetic, enzyme activity, whereas during the succeeding stage these relations are reversed, while at the same time the enzymic activity of the seedlings rises abruptly. This is ascribed to transfer of stored enzymes from the endosperm to the germ.

R. T.

Inst. of Biochem. of the Academy of Sciences, USSR, Moscow

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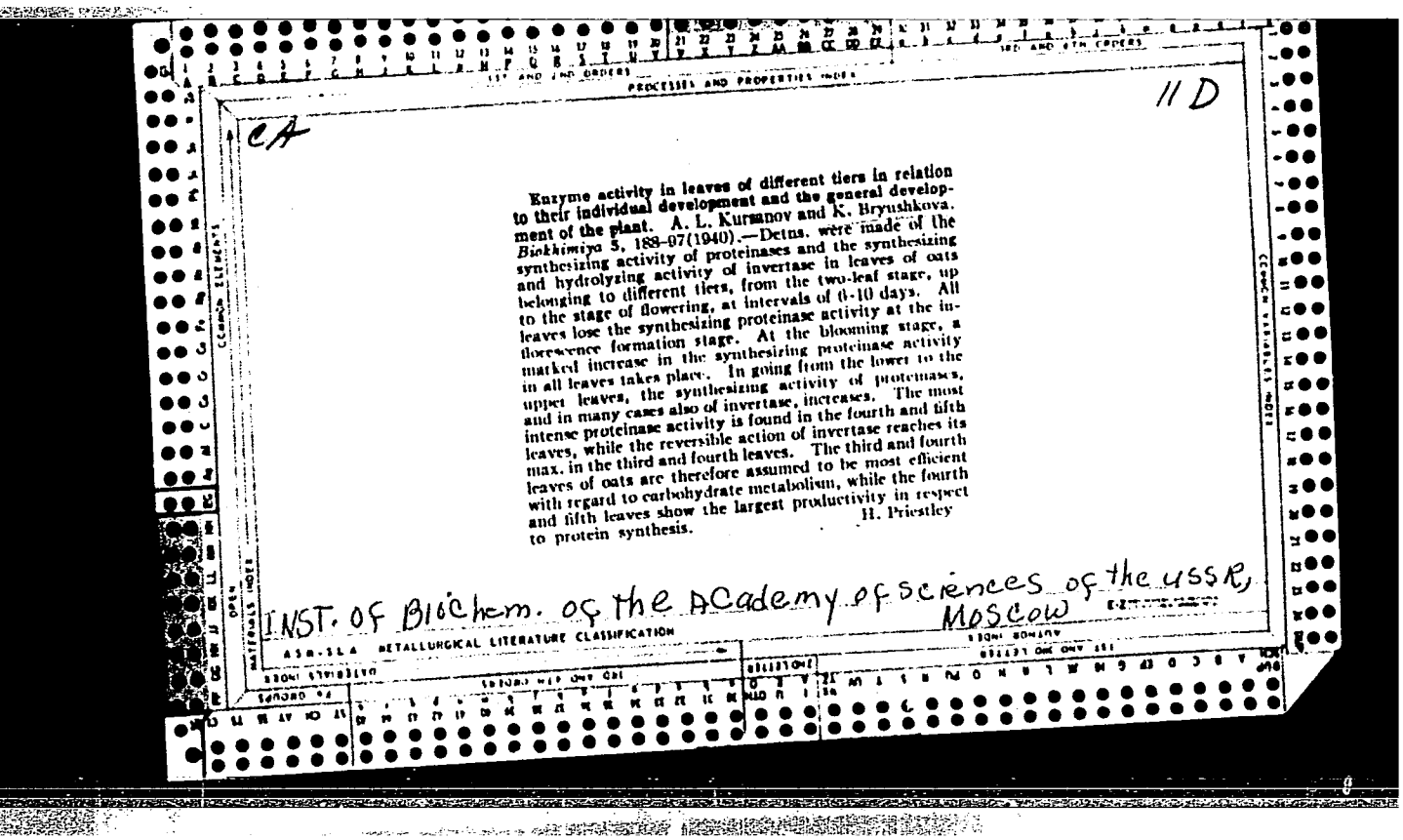

PROCESSES AND PROPERTIES INDEX

11 D

CA

Enzyme activity in leaves of different tiers in relation to their individual development and the general development of the plant. A. L. Kursanov and K. Bryushkova. *Biokhimiya* 5, 188–97(1940).—Detns. were made of the synthesizing activity of proteinases and the synthesizing and hydrolyzing activity of invertase in leaves of oats belonging to different tiers, from the two-leaf stage, up to the stage of flowering, at intervals of 6–10 days. All leaves lose the synthesizing proteinase activity at the inflorescence formation stage. At the blooming stage, a marked increase in the synthesizing proteinase activity in all leaves takes place. In going from the lower to the upper leaves, the synthesizing activity of proteinases, and in many cases also of invertase, increases. The most intense proteinase activity is found in the fourth and fifth leaves, while the reversible action of invertase reaches its max. in the third and fourth leaves. The third and fourth leaves of oats are therefore assumed to be most efficient with regard to carbohydrate metabolism, while the fourth and fifth leaves show the largest productivity in respect to protein synthesis. H. Priestley

INST. of Biochem. of the Academy of Sciences of the USSR, Moscow

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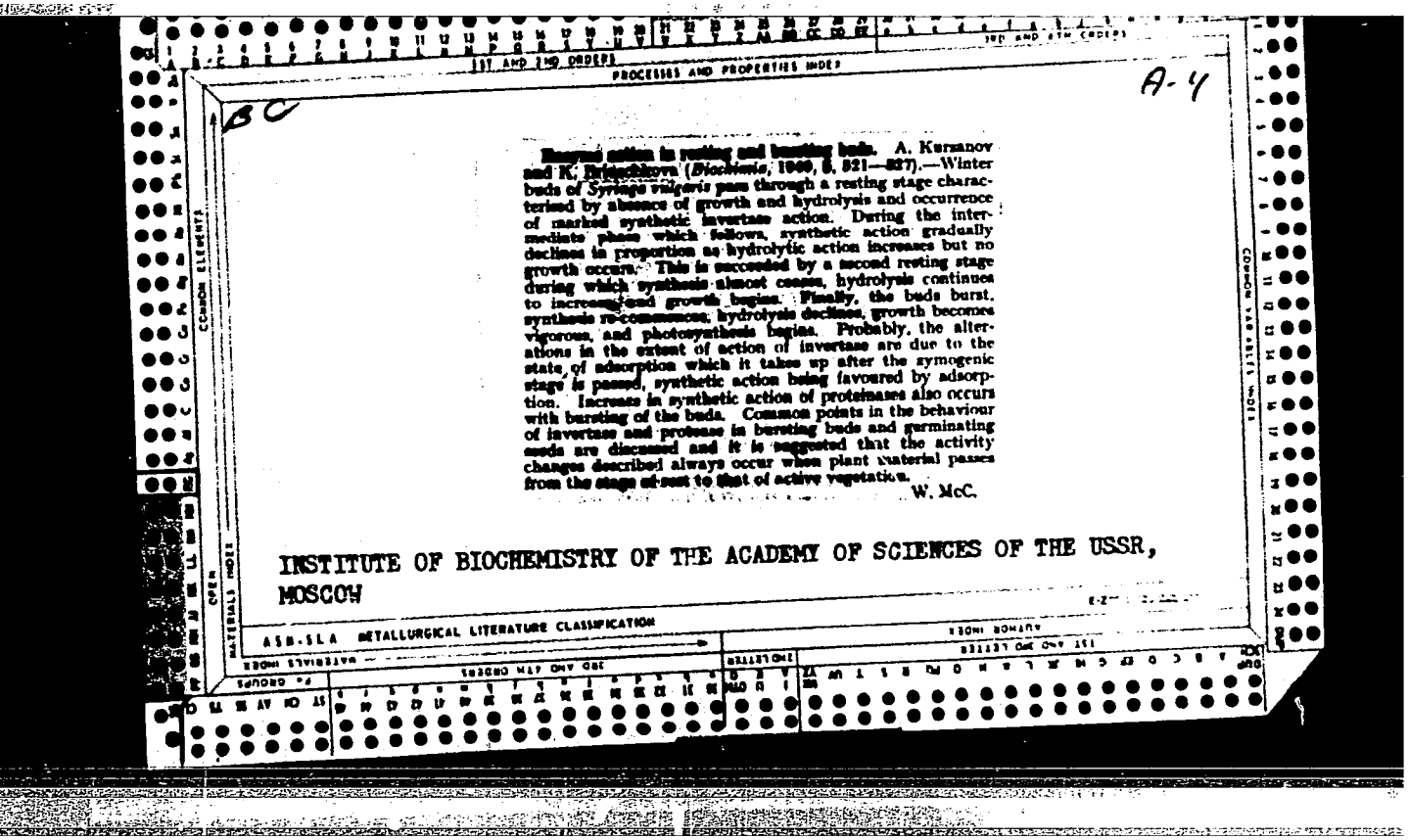

PROCESSES AND PROPERTIES INDEX

A-4

BC

Enzyme action in resting and bursting buds. A. Kursanov and K. Brigadirova (*Biochimia*, 1940, 5, 821—827).—Winter buds of *Syringa vulgaris* pass through a resting stage characterised by absence of growth and hydrolysis and occurrence of marked synthetic invertase action. During the intermediate phase which follows, synthetic action gradually declines in proportion as hydrolytic action increases but no growth occurs. This is succeeded by a second resting stage during which synthesis almost ceases, hydrolysis continues to increase, and growth begins. Finally, the buds burst, synthesis re-commences, hydrolysis declines, growth becomes vigorous, and photosynthesis begins. Probably, the alterations in the extent of action of invertase are due to the state of adsorption which it takes up after the zymogenic stage is passed, synthetic action being favoured by adsorption. Increase in synthetic action of proteinases also occurs with bursting of the buds. Common points in the behaviour of invertase and protease in bursting buds and germinating seeds are discussed and it is suggested that the activity changes described always occur when plant material passes from the stage at rest to that of active vegetation.

W. McC.

INSTITUTE OF BIOCHEMISTRY OF THE ACADEMY OF SCIENCES OF THE USSR, MOSCOW

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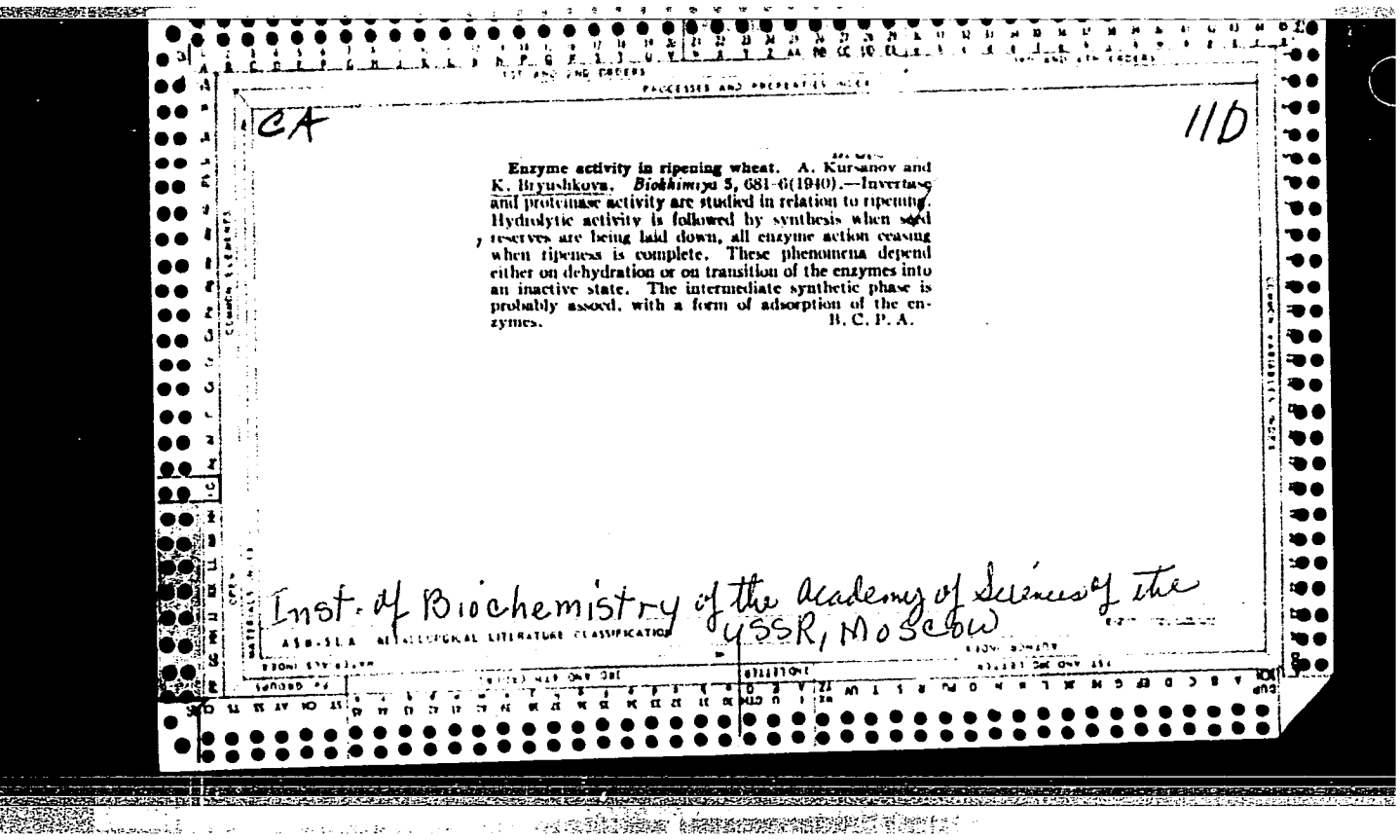

CA

11D

Enzyme activity in ripening wheat. A. Kursanov and K. Bryushkova. *Biokhimiya* 5, 681–6(1940).—Invertase and proteinase activity are studied in relation to ripening. Hydrolytic activity is followed by synthesis when seed reserves are being laid down, all enzyme action ceasing when ripeness is complete. These phenomena depend either on dehydration or on transition of the enzymes into an inactive state. The intermediate synthetic phase is probably assocd. with a form of adsorption of the enzymes. B. C. P. A.

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GUNAR, I.I.; KRASTINA, Ye.Ye.; BRYUSHKOVA, K.A.; BELIKOVA, Ye.M.

Diurnal periodicity in the synthetic activity of roots. [with summary in English]. Izv. TSKha no.5:18-34 '60. (MIRA 13:11)
(Roots (Botany))

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSHKOVA, O., inzh.; DUBROVKIN, S., inzh.

Ceramic radiators. Na stroi.Mosk. 1 no.9:24 S '58.
(MIRA 11:12)
(Radiators) (Ceramics)

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BRYUSHKOVA, T. A.

L 16067-65 EWG(j)/EWT(m)/EPF(c)/EPF(n)-2/EWP(j)/T/EWA(h)/EWA(l) Pc-4/ Pr-4/Peb/Pu-4 GG/RM

ACCESSION NR: AP4046086 S/0076/64/038/009/2316/2319

AUTHOR: Kiseleva, Ye. D.; Ragimov, A. V.; Chmutov, K. V.; Berlin, A. A.; Kliyentovskaya, M. M.; Bryushkova, T. A.

TITLE: Effect of an ionizing radiation current of accelerated electrons on polysulfophenylenequinone cationites

B

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 9, 1964, 2316-2319

TOPIC TAGS: polysulfophenylenequinone cationite, ionite P3, ionite P4, ionite PS-3, radiation stability, accelerated electron radiation, radiolysis, dry atmosphere radiation, EPR spectrum, double bond oxidation

ABSTRACT: The stability of polysulfophenylenequinone cationites subjected to accelerated electron current radiation in water and in a dry atmosphere was investigated. The conjugated bond-containing ionites were obtained by reaction, in a weakly alkaline medium, of p-benzoquinone (I) with salts of bisdiazotised benzidinedisulfonic acid-2,2 (II) (I:II=1:3 for ionite P3 and 1:4 for ionite P4) or

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L 16067-65
ACCESSION NR: AP4046086

stilbenedisulfonic acid-2, 2(III) (I:III=1:3 for ionite PS-3). Radiation conditions: electron energy=4.0-4.2 ME, current strength = 5-10 milliamps, dosage = 1-3 x 10^{19} ev/gm.sec. On irradiation in water the capacity and weight of the cationites was reduced and swelling increased with increasing dosage. Destruction was believed to have been caused by oxidation of the quinone-hydroquinone group in P3 and P4 and oxidation of the double bond in PS-3 by the products of water radiolysis. On irradiation in the absence of water the radiation stability was considerably increased. The increased ion exchange capacity of the irradiated PS-3 cationite was explained due to the formation of carboxyl groups at the site of the double bond rupture. The stability to ionizing radiation by accelerated electrons was increased by an increasing amount of hydroquinone in the cationite; stability of the cationites decreased in the following order: P3>P4>PS-3. EPR signals of the irradiated samples showed an increased number of unpaired electrons attributed to formation of new radicals due to the C-S bond rupture. Orig. art. has: 5 figures and 2 tables.

ASSOCIATION: Akademiya nauk SSSR Institut fizicheskoy khimii (Academy of

Card 2/3

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

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L 16067-65
ACCESSION NR: AP4046086

Sciences SSSR Institute of Physical Chemistry)

SUBMITTED: 24Apr64 ENCL: 00

SUB CODE: GC, EM, GP NO REF SOV: 002 OTHER: 000

Card 3/3

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

KISELEVA, Ye.D.; RAGIMOV, A.V.; CHMUTOV, K.V.; BERLIN, A.A.; KLIYENTOVSKAYA, M.M.; BRYUSHKOVA, T.A.

Effect of the ionizing radiation of accelerated electron current on polysulfophenylenequinone cation exchangers. Zhur. fiz. khim. 38 no.9:2316-2319 S '64. (MIRA 17:12)

1. Institut fizicheskoy khimii AN SSSR.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSKE, Ya. E. Cand Chem Sci -- "Basic-acidity properties of aromatic diazo compounds and certain [redacted] problems of their structure." Len, 1960 (Len Order of Lenin State Univ im A. A. Zhdanov) (KL, 1-61, 181)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSKE, Ya.E.; PORAY-KOSHITS, B.A.

Certain characteristics of amphoteric compounds. Report No.1: Compounds with a single functional group. Trudy LTI no.60:123-137 '60. (MIRA 14:6)

1. Kafedra tekhnologii organicheskikh krasiteley Leningradskogo tekhnologicheskogo instituta imeni Lensoveta.
(Diazo compounds) (Hydrogen-ion concentration)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSKE, Ya.E.; PORAY-KOSHITS, B.A.

Certain characteristics of amphoteric compounds. Report No. 2: Acid-base properties of aromatic diazo compounds. Trudy LTI no.60: 138-148 '60. (MIRA 14:6)

1. Kafedra tekhnologii organicheskikh krasiteley Leningradskogo tekhnologicheskogo instituta imeni Lensoveta.
(Diazo compounds)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

PORAY-KOSHITS, B.A.; BRYUSKE, Ya. E.

Structure and conversions of aromatic diazo compounds. Report No. 19: Acid-base equilibrium of certain diazo compounds. Trudy LTI no.60:149-158 '60. (MIRA 14:6)

1. Kafedra tekhnologii organicheskikh krasiteley Leningradskogo tekhnologicheskogo instituta imeni Lensoveta.
(Diazo compounds)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSHE, Ya.E.; PORAY-KOSHITS, B.A.

Effect of substituents in the aromatic ring on the acid-basic properties of diazo hydrides. Zhur.prikl.khim. 35 no.1:182-185 Ja '62. (MIRA 15:1)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.
(Diazo compounds) (Substitution (Chemistry))

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSOV, A. Ya.

"Chto nado ponimat' pod etnicheskimi obshchnostyami v arkheologii i ikh enacheniye dlyaproblemy proiskhozhdeniya drevnikh i sovremennykh narodov."

report submitted for 7th Intl Cong, Anthropological & Ethnological Sciences, Moscow, 3-10 Aug 64.

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSOV, B.A.

Method for plotting maps of gravity anomaly verical gradients. Nauch. dokl.vys.shkoly; geol.-geog.nauki no.1:238-242 '58. (MIRA 12:2)

1. Moskovskiy universitet, geologicheskiy fakul'tet, kafedra geofizicheskikh metodov issledovaniya zemnoy kory.
(Gravity--Maps)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSOV, B.A.

Concerning a method for determining the site of the perturbing mass based on gravimetric data. Nauch.dokl.vys.shkoly; geol.-geog.nauki no.2:191-201 '59. (MIRA 12:8)

1. Moskovskiy universitet, geologicheskiy fakul'tet, kafedra geofizicheskikh metodov issledovaniya kory.
(Gravity)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

Byusov, B. A.

AUTHOR: None given

TITLE: Chronicle

PERIODICAL: Geodeziya i kartografiya, 1960, No. 8, pp. 72-77

9/06/60/000/008/001/001
B012/B051

TEXT: From May 10-14, 1960 the shestoye Vsesoyuznoye soveshchaniye po gravimetrii (Sixth Interdepartmental Conference on Gravimetry) was held in Moscow. It was convened by the Geodezicheskiy sektsiya Komissii geodezii i geofiziki Akademii nauk SSSR (Section for Geodesy of the Committee of Geodesy and Geophysics of the Academy of Sciences USSR) and the Aerogravimetricheskaya laboratoriya Instituta fiziki Zemli AN SSSR (Laboratory for Aerogravimetry of the Institute of Physics of the Earth of the AS USSR). 216 representatives of 54 organizations took part in this conference: production organizations, research centers, testing and construction organizations, educational institutions, and organizations of the Akademiya nauk SSSR (Academy of Sciences USSR), Sibirskoye otdeleniye AN SSSR (Siberian Department of the

Card 1/6

AS USSR), Akademii nauk Ukrainskoy, Gruzinskoy, Litovskoy i Azerbaydzhanskoy SSR (Academies of Sciences of the Ukrainskaya, Gruzinskaya, Litovskaya, and Azerbaydzhanskaya SSR), Ministerstva vysshego i srednego spetsial'nogo obrazovaniya SSSR (Ministry of Higher and Secondary Special Education of the USSR), Ministerstva geologii i okhrany nedr SSSR (Ministry of Geology and Preservation of Mineral Resources), Komitet standartov, mer i izmeritel'nykh priborov pri Sovete Ministrov SSSR (Committee on Standards, Measures, and Measuring Instruments of the Council of Ministers USSR), NII VTS, Gosudarstvennyy komitet Soveta Ministrov SSSR po avtomatizatsii i mashinostroyeniyu (State Committee on Automation and Machine Construction of the Council of Ministers USSR), as well as representatives of the factories of the Sovnarkhoz (Leningrad Sovnarkhoz) and the Leningradskiy sovnarkhoz (Leningrad Sovnarkhoz) that produce gravimetric apparatus. 70 lectures were held. P. D. Zhongolovich (Institut teoreticheskoy astronomii AN SSSR (Institute of Theoretical Astronomy of the AS USSR)) spoke about the "Experience With Determining Some Parameters of the Gravitational Field of the Earth From Observations of the Second and

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Third Artificial Satellites". P. D. Vanovskiy (Vanovskiy) spoke about "The Determination of the Absolute Value of Gravitational Acceleration at the Point of VNIIM in Leningrad". M. Ye. Pogrebetskiy spoke about the "High-Precision Pendulum Apparatus of the Committee". [illegible] spoke about "Portable Static Gravimeters". [illegible] spoke about Recording Pendulum Instruments". [illegible] spoke about Questions of the Theory and Practice of Gravimetric Observations". [illegible] spoke about the "Problem of Gravimeter-Calibration Fields". [illegible] spoke about the "Design of a Photoelectric Astatic Gravimeter" (GAP-1)". [illegible] spoke about "Design of a Photoelectric Gravimeter". [illegible] spoke about "Gravimetric Observations on the Fields of Determining Gravitational Acceleration". [illegible] spoke about "The Theory of Determining Gravitational Acceleration on the Sea". [illegible] spoke about "Some Results of Gravimetric Observations at Sea". [illegible] spoke about "Some Results of Gravimetric Observations at Sea". [illegible] spoke about "Some Results of Gravimetric Observations at

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

Chronicle

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(Leningrad State University). Dr. A. Tomoshi spoke about "The Errors of Interpolation of Gravity Anomalies and the Accuracy of Determining Gravimetric Definitions of the Vertical", Dr. [illegible] about "Errors of the Representation and Interpolation of Gravitational Anomalies", Ye. M. Shcherbakov reported on "Preliminary Results of Geodetic and Gravimetric Work in the Antarctica" (Ye. K. Avrunin also co-authored), and V. of the Earth Crust in the Antarctica According to Gravimetric Data", S. A. Tikhov on "The Structure of the Earth's Crust in the Antarctica According to Gravimetric Data". [illegible] spoke about the "Preparation and Use of Gravimetric Maps". The Recommendations given by the Conference are mentioned. The Conference of the Workers of the Topographic-Geodetic and Surveying Service of the Glavnoye Upravleniye Geodezii i Kartografii pri Sovete Ministrov SSSR (Main Administration of Geodesy and Cartography at the Council of Ministers USSR) and the Conference of Workers of Mineral Resources of the Council of Ministers Ukrainskaya SSR) was held in Artemovsk. There, the state of the topographic-geodetic and surveying work in the organizations of the Glavgeodezya USSR (Glavgeodeziya UkrSSR) and the introduction of new

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techniques and technology in production were discussed. At the conference it was stated that the extent of the work mentioned will be considerably increased within the next seven years. Furthermore, the following drawbacks were pointed out: The methods applied are too extensive and operative, the geological organizations are insufficiently equipped with new apparatus; in geological observations the aero-photographs and topographic plans available on a large scale are not sufficiently used. This state is explained by inefficient technical direction, inefficient technical and material supply, by a lack of suitable direction in the Glavgeodeziya UkrSSR and the Ministerstvo geologii i okhrany nedr SSSR (Ministry of Geology and Conservation of Mineral Resources of the USSR). Recommendations are given to improve this situation. For improving the qualifications of the workers the Conference suggested to convene scientific and technical conferences at regular intervals. For improving information and for the exchange of experience the editorial board of the present periodical was asked to furnish a section for topographic and geodetic work in geological observations. The participants in the Conference appealed to the workers

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of the topographic-geodetic and Surveying Service of the Glavgeodeziya USSR (Glavgeodezii i Kartografii) to [illegible] everything possible in order to carry out the resolutions of the 21st Party Congress of the CPSU and the Plenum of the Central Committee of the CPSU in June.

Card 6/6

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSOV, B.A.

Method for determining the site of the perturbing mass based on gravimetric data. Part 2. Izv. vys. ucheb. zav.; geol. i razv. 3 no.8:92-98 Ag '60. (MIRA 13:10)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
(Prospecting—Geophysical methods)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSOV, B.A.

Some results of geophysical studies in the western Caucasus.
Prikl. geofiz. no.36:236-252 '63. (MIRA 16:9)
(Caucasus, Northern--Prospecting--Geophysical methods)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSOV, B.A.

Amplitude method for estimating the depth of perturbing objects from the gravitational and magnetic anomalies at various altitudes. Razved. geofiz. no.1:40-46 '64. (MIRA 18:7)

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

L 13847-66 EWT(1)/EWA(h) GW

ACC NR: AR6000808 SOURCE CODE: UR/0169/65/000/009/G007/G007

SOURCE: Ref. zh. Geofizika, Abs. 9G43

AUTHOR: Bryusov, B. A.

29
B

TITLE: Interpretational possibilities for the method of statistic correlation of gravimetric and seismic data

12,44,55 12,44,55

CITED SOURCE: Sb. Geofiz. issledovaniya. No. 1. M., Mosk. un-t, 1964, 136-153

TOPIC TAGS: gravimetric analysis, seismology, statistic analysis

TRANSLATION: The use of frequency selection methods for isolating gravity fields is effective only when there is sufficient difference between the horizontal dimensions of the gravitating objects. Otherwise, the method of correlating gravimetric and seismic data is proposed for constructing the relief of the contact surface. This consists of using the method of least squares for selecting the appropriate linear and empirical formula of the type $H=a+b\cdot\Delta g$ (H is the depth to the seismic reference level, Δg is the anomaly in the force of gravity). The correlation should be done within the confines of individual sections which are isolated with respect to

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UDC: 550.311

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

L 13847-66
ACC NR: AR6000808

geologic considerations, the forms of the reference level and the morphological features of the gravitational field. The eastern Caucusus is used as a test region for the proposed method. A relief diagram for the paleozoic deposit in this region is plotted. The physical meaning of the statistic correlation method is discussed and means for carrying out this method are indicated.

SUB CODE: 08

OC

Card 2/2

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

L 29588-66 EWT(1) GW/GD
ACC NR: AT6014339 (A) SOURCE CODE: UR/0000/64/000/000/0154/0161

AUTHOR: Bryusov, B. A.; Geysherik, G. M.

33
B+1

ORG: none

TITLE: Local anomalies in the force of gravity in the Northeast Caucasus foothills

SOURCE: Moscow. Universitet. Kafedra geofizicheskikh metodov issledovaniya zemnoy kory. Geofizicheskiye issledovaniya (Geophysical research), no. 1. Moscow, Izd-vo Mosk. univ., 1964, 154-161

TOPIC TAGS: earth gravity, gravitation field, geology

ABSTRACT: The gravitational field in the Northeast Caucasus region is studied. 13 profiles are selected which cover the steepest local anomalies and regions of high gradients in the force of gravity. Graphs of these anomalies are used for calculating the depth of the deposits responsible for the irregularity according to the following asymptotic formulas for a vertical scarp:

$$h < \frac{\Delta g}{\pi\left[1+\frac{|G_{max}|}{4k\sigma}\right]}, \qquad h < \frac{|\Delta g_{max}|}{\pi |G_{max}|}, \qquad h < \frac{\Delta x}{\pi} = 0{,}318\,\Delta x.$$

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where

$$|\Delta g_{max}| = |\Delta g(+\infty) - \Delta g(-\infty)|,$$

h is the depth of the upper edge of the deposit, G_{max} is the maximum horizontal gradient in the force of gravity, Δx is the projection on the x-axis of the tangent section cut off by the tangents to the asymptotic sections of the curve for the force of gravity. The horizontal gradient G at each point was determined from the formula

$$G(x) = \frac{\Delta g(x+a) - \Delta g(x-a)}{2a},$$

where a was taken as equal to 2.5 km. It is found that in most cases the local anomalies in the force of gravity are due to disturbing factors associated with the surface of the prepaleozoic stratum or with anomalous masses inside the folded layer. The geographic pecularities of the anomalies are discussed. Orig. art. has: 3 figures, 1 table, 4 formulas.

SUB CODE: 08/ SUBM DATE: 05Nov64/ ORIG REF: 006/ OTH REF: 001

Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

BRYUSOV, V.YA.

"Le probleme indoeuropean et la culture des haches de combat."

Report submitted to the 6th Intl. Cong. of the Intl. Union of Prehistoric and Prohistoric Sciences, Rome, Italy
29 Aug-3 Sep 1962

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

L 25505-66 EPF(n)-2/EWT(l)/EWT(m)/ETC(f)/EWG(m) IJP(c) AT/JD

ACC NR: AP6011387 SOURCE CODE: UR/0057/66/036/003/0443/0446

AUTHOR: Shvets, O.M.; Tarasenko, V.F.; Ovchinnikov, S.S.; Brzhechko, L.V.; Pavlichenko, O.S.; Tolok, V.T.

ORG: none

93
B

TITLE: Investigation of high frequency heating of a dense plasma in a metallic chamber

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 3, 1966, 443-446

TOPIC TAGS: plasma heating, ion temperature, cyclotron resonance, magnetic mirror machine, high frequency, hydrogen, helium, argon, helium plasma, hydrogen plasma, plasma charged particle, plasma density

ABSTRACT: This paper appears to be a sequel to an earlier paper by five of the present authors (ZhTF, 35, 1285, 1965). Hydrogen-helium and hydrogen-argon plasmas at pressures in the (1-3) x 10^{-3} mm Hg range with charged particle densities of the order of 10^{14} cm^{-3} were produced in the "Vikhr'" magnetic mirror machine and were heated by ion cyclotron waves which were produced in the vicinity of the magnetic mirror and propagated to the center of the discharge chamber where the magnetic field was weaker and corresponded to the proton cyclotron resonance. The 150 kW oscillator operated at a frequency of 1.82 Mhz. The following advantages are claimed for the employed technique (which is not described in any detail in the present paper): the momentum initially imparted to the ion is perpendicular to the external magnetic field

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ACC NR: AP6011387

and thus does not tend to drive the ion away from the region of the magnetic mirror; the conditions for producing the waves do not deteriorate with increasing plasma size or density; the input impedance is low; and energy can be introduced at two different frequencies if it is desired to heat both the ion and the electron components of the plasma. Regular oscillations at frequencies of the order of 20 kHz of the intensities of spectrum lines were observed at magnetic field strengths close to the proton cyclotron resonance. These oscillations appeared when waves were being excited in the plasma and were due to eccentric rotation of the plasma filament as a whole with respect to the axis of the chamber, as was confirmed by longitudinal observation with two photomultipliers mounted 3 cm from the axis. The ion temperatures were determined from the Doppler broadening of spectrum lines. The temperature of the additional gas (helium or argon) increased sharply as the strength of the magnetic field approached the proton cyclotron resonance value. Argon temperatures as high as 250 eV were observed. Temperatures of various impurity ions were also measured; these temperatures were independent of the mass of the impurity ion. The width of H_β interpreted as Doppler broadening, indicated a much lower temperature for hydrogen atoms than for the various ions. This is ascribed to the short life of a hydrogen atom in the plasma. The temperature of the plasma decreased rapidly with increasing distance from the axis, being down by a factor of 5 at 4 cm from the axis. The ion temperature increased rapidly with increasing high-frequency power, and much higher temperatures could apparently be achieved by increasing the high-frequency power and the magnetic field strength. It is concluded that a dense plasma containing two kinds of ions can be

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ACC NR: AP6011387

heated by resonance production of ion cyclotron waves in ions of one kind, but that the mechanism of energy transfer between the two different kinds of ions is not understood. Orig. art. has: 3 formulas and 4 figures.

SUB CODE: 20 SUBM DATE: 18Feb65 ORIG. REF: 002

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APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

L 40922-66 EWT(1) IJP(c) GD/AT

ACC NR: AT6020564 SOURCE CODE: UR/0000/65/000/000/0026/0038

58
57
B+1

AUTHOR: Shvets, O. M.; Ovchinnikov, S. S.; Tarasenko, V. F.; Brzhechko, L. V.; Pavlichenko, O. S.; Tolok, V. T.

ORG: none

TITLE: Study of the conditions for generating a dense plasma in a metal chamber and the high frequency heating of plasma

SOURCE: AN UkrSSR. Vysokochastotnyye svoystva plazmy (High frequency properties of plasma). Kiev, Naukovo dumka, 1965, 26-38

TOPIC TAGS: heated plasma, plasma density, plasma generator, argon plasma

ABSTRACT: The generation of plasma in a metal container and the properties of such a plasma were investigated. A diagram of the experimental apparatus is shown. Up to 100 kw can be generated at frequencies of $1.82 \cdot 10^6$ Hg. The magnetic field which can be produced in several configurations, has a maximum value of $2 \cdot 10^5$ A/m. The plasma diagnostics consist of: 1) voltage monitoring across the plasma column, which determines the coupling between the generator and the plasma load; 2) spectral measurements of plasma ions and impurity lines, giving the density and temperature of the ions; and 3) magnetic probe to determine the field distributions. A plasma density of $2 \cdot 10^{14}$ cm^{-3} and a temperature of $4 \cdot 10^5$°K were attained. Another set of experiments

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ACC NR: AT6020564

was performed to observe the launching of high frequency waves into the plasma to produce ion heating. The results of these experiments show that when argon plasma was used, an ion temperature of $2 \cdot 10^{6}$°K was reached. Since the ion temperature depends strongly on the applied voltage, it is concluded that higher voltage would result in hotter plasma. It was also shown that a mixture of two different ionic species can be effectively heated; the energy transfer mechanism, however, must be further investigated. Orig. art. has: 5 figures.

SUB CODE: 20/ SUBM DATE: 19Nov65/ ORIG REF: 002/ OTH REF: 001

Card 2/2 vmb

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

L 05917-67 EWT(1) IJP(c) AT

ACC NR: AR6032293 SOURCE CODE: UR/0275/66/000/007/A023/A023

46
B

AUTHOR: Shvets, O. M.; Ovchinnikov, S. S.; Tarasenko, V. F.; Brzhechko, L. V.; Pavlichenko, O. S.; Tolok, V. T.

TITLE: Investigation of conditions for the production of a dense plasma in a metal chamber and for its h-f heating

SOURCE: Ref. zh. Elektronika i yeye primeneniye, Abs. 7A167

REF SOURCE: none

TOPIC TAGS: dense plasma, particle density, charged particle density, cyclotron ion wave

ABSTRACT: Conditions for producing a dense plasma on a "VIKHR'" system by means of high-powered frequency oscillators were investigated. Charged particle density was determined on the basis of the Stark widening of the line H_β and by SHF methods. Electron temperature was determined by the intensity ratios of the He lines. It was found that the density of the plasma produced in a metal chamber reached $\sim 10^{13}$ cm^{-3} at an electron temperature of 40 ev. Further action of

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"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

L 05917-67

ACC NR: AR6032293

cyclotron ion waves on the plasma resulted in an insignificant increase in the ion temperature of the basic gas (H_3) and a noticeable heating up of the ions of other gases which were present in the system (up to $\sim$200 ev). The mechanism of energy transmission by protons to other ions is not clear. Bibliography of 3 titles. [Translation of abstract]

SUB CODE: 09, 20/

kh

Card 2/2

APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2"

"APPROVED FOR RELEASE: 06/09/2000 CIA-RDP86-00513R000307130005-2

L 04161-67 EWP(e)/EWT(m) WH

ACC NR: AP6023674 SOURCE CODE: UR/0143/66/000/004/0025/0029

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TITLE: Comparison of the properties of sheet mica made from muscovite, phlogopite, and vermiculite

SOURCE: IVUZ. Energetika, no. 4, 1966, 25-29

TOPIC TAGS: mica, dielectric property

ABSTRACT: All mica test samples were prepared with the same binder, that is, with Type K-47 organosilicon lacquer, used in the amount of 4% with respect to the dry sample. All the samples were baked under the same conditions: 300°C, pressure 40 kg/cm^2, for 5 hours. Measurements of the tangent of the dielectric losses and dielectric permeability were made at a frequency of 1 kilocycle. The results of the tests are shown in a series of curves. The best electrical properties and the least dependence of these properties on temperature were found for sheet mica made from muscovite; on heating this sheet mica from 22 to 600°C, the

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tangent of the dielectric losses rose from 0.017 to 0.11; the specific volumetric resistance decreased from 5.8×10^{13} to 7.8×10^{11} ohm-cm; the dielectric permeability rose from 3.4 to 3.7; the electric strength decreased from 27 kilovolts/mm to 22 kilovolts/mm. In sheet mica made from phlogopite, values of the properties of the same order were observed at a temperature of 350°C, as compared with 600°C for the sheet mica made of muscovite. Thus, sheet mica made of muscovite with K-47 lacquer can be used up to 500°C, if at this temperature there is required an electrical strength of the order of 20 kilovolts/mm. Above 500°C, water of crystallization begins to separate out, which leads to a change in the properties of this sheet mica at higher temperatures. Sheet mica made of phlogopite can be used up to 350°C; above this temperature, there is a sharp rise in the tangent of the dielectric losses. Sheet mica made of vermiculite can be used only up to 250°C, for the same reason. In general, the muscovite sheet mica is considered the best for most applications. Orig. art. has: 6 figures.

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ACC NR: AT6022764 (A) SOURCE CODE: UR/2563/65/000/258/0138/0141

AUTHOR: Brzhezanskiy, V. I.; Vakser, N. M.; Tolvinskaya, A. V.

ORG: none

TITLE: Mica plastics

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy, no. 258, 1965. Vysokovol'tnaya izolyatsiya liniy i apparatov (High voltage insulation of lines and apparatus), 138-141

TOPIC TAGS: mica product, mica plastic, mica

ABSTRACT: The mica plastic consists of small phlogopite flakes bonded by aluminum phosphate (Soviet trademark AF-2,5) or silicone. Developed by the Department of Electric Insulation, Cables, and Capacitors, LPI, the new material is intended as insulation operating at 350—400C in electrical equipment. Within 25—400C, the mica plastic has $tg\delta$ from about 0.04 to about 0.25 and ε about 6 or 7 measured at 1000 cps. Although good electrical characteristics were ensured

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with the binder content as low as 1%, in practice over 3% binder was used to add high mechanical strength to the material. Curves of $tg\delta$, ε, and resistivity vs. temperature for five different compositions of the mica plastic are shown. Data on a mica plastic with an organic binder (working temperature up to 150C) is also given. Orig. art. has: 3 figures and 1 table.

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ACC NR: AP6035535 SOURCE CODE: UR/0292/66/000/010/0047/0050

AUTHOR: Abramishvili, D. A. (Engineer); Brzhezanskiy, V. O. (Engineer); Parkhomenko, V. I. (Engineer)

ORG: none

TITLE: Electrical characteristics of the micaplastic with heat-resistant binders

SOURCE: Elektrotekhnika, no. 10, 1966, 47-50

TOPIC TAGS: mica product / slyudoplast mica product heat resistant material,

ABSTRACT: The "slyudoplast" or micaplastic (MP) sheet insulating material consists of small phlogopite flakes and one of these heat-resistant binders: (A) aluminum phosphate, (B) same, plus an artificial-corundum filler, (C) silicone, and (D) A-plus-C combination. Resistivity, breakdown voltage, water absorption, moisture absorption, and lifetime of these binders are

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tabulated. Electrical characteristics (ρ_v, ρ_s, breakdown voltage), weight loss and swelling of the above MP's heated and 1000-hr aged at 500C or subjected to high humidity or high vacuum were determined. Findings: (1) MP with any of the above binders can be used for continuous (1000 hrs) work at 500C in air or in vacuum; or for short-time work at 750C; (2) Inorganic or near-inorganic binder is recommended for MP intended for working in vacuum at 500C; (3) Products molded (at 280C) from A-binder MP and intended for high-temperature operation should receive an additional thermal treatment at 500C; (4) The above MP's can be used as elastic molded insulation of slots, magnets, windings, etc., operating at 500C. Orig. art. has: 6 figures and 3 tables.

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ACC NR: AT7000580 SOURCE CODE: UR/2589/65/000/078/0043/0048

AUTHOR: Brzhezinskiy, M. L.; Zorin, D. I.; Sverdlichenko, V. D.

ORG: VNIIM

TITLE: A photometric photoelectric microscope

SOURCE: USSR. Komitet standartov, mer i izmeritel'nykh priborov. Trudy institutov Komiteta, no. 78(138), 1965. Issledovaniya v oblasti lineynykh izmereniy (Research in the field of linear measurements), 43-48

TOPIC TAGS: ~~photoelectric~~ microscope, photoelectric method, photoelectric tracking, optic scanning, photoelectric scanning, automatic scale reading equipment, metrology

ABSTRACT: A photoelectric, line reading microscope is described. The block diagram of this instrument is shown in Figure 1. Scale *10* is illuminated by the light source *3* through the beam splitter *2* and the objective *1*. The scale plane is imaged by the relay lens system *4* into the plane of the optical chopper *5* (in the form of a vibrating split) driven by two electromagnets. A photodetector *6* receives the light from the optical scanning system and generates electrical signals proportional to the instantaneous values of the light flux. The photodetector output is amplified in the amplifier *7* and demodulated in a phase sensitive ring demodulator *8*. The resulting dc signal, proportional to the displacement of the microscope main axis from the center of

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