НОВИКОВ, Ye.A., kand.sel'skokhozyaystvennykh nauk, red.; BEGUCHEV, A.P., kand.sel'skokhozyaystvennykh nauk, red.; TETYUREVA, I.V., red.; FEDOTOVA, A.F., tekhn.red.

[Cattle] Krupnyi rogatyi skot. Izd.5-oe. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1957. 342 p. (Agrozootekhnicheskie kursy. 2.g. obucheniia) (MIRA 10:12)

(Cattle)

MOVLIKOV, Yevgeniy Aleksandrovich; BOBYLEV, P.G., redaktor; PAVLOVA, M.M., tekhnicheskiy redaktor.

[Principles in raising purebred dairy cattle] Osnovy chistoporodnogo razvedeniia molochnogo skota. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1957. 235 p. (MLRA 10:6)
(Dairy cattle breeding)

NOVIKOV, YE. A.

Q-1

USSR/Farm Animals - General Problems.

Abs Jour : Ref Zhur - Biol., No 1, 1958, 2529

Author : Ye. A. Novikov

Inst :

Title : The Theory of Development of the Breeding Farm Animals Should be Elaborated.

Orig Pub : Zhivotnovodstvo, 1957, No 1, 49-53

Abstract : Disputes certain statements made by A.Ya. Malakhovskiy (1956). Matching is not the highest form of selection but an entirely independent procedure. Matching and selection are determining factors for improving a breed (contrary to the opinion of Malakhovskiy who considers that methods of raising and feeding the young stock are the determining factors). Describes the inaccuracy of his classification and characteristics of breeding methods (which are made without any consideration of the

Card 1/2

NOVIKOV, Yevgeniy Aleksandrovich; BENYUMOV, O.M., red.; BERLOV, A.P., tekhn. red.

[Increasing milk production and butter fat content] Povyshenie udoinosti i zhirnomolochnosti korov. Moskva, Izd-vo "Znanie," 1958. 30 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.5, no.20). (MIRA 11:8)
(Dairying)

NOVIKOV, Ye.A., kand. sel'skokhozyaystvennykh nauk.

On the proper attitude toward the legation of classical figures in animal sciences. Zhivotnovodstvo 20 no.4:89-91 Ap '58. (MIRA 11:3)
(Stock and stockbreeding)

NOVIKOV, Ye.A., doktor sel'skokhozyaystvennykh nauk

Evaluation and selection of bull sires. Zhivotnovodstvo 21 no.1:65-73 Ja '59. (MIRA 12:2)
(Cattle breeding) (Bulls)

NOVIKOV, Ye.A., doktor sel'skokhozyaystvennykh nauk

New beef cattle breeds in the United States. Zhivotnovodstvo 21 no.5:87-88 My '59. (MIRA 12:7)
(United States--Beef cattle)

NOVIKOV, Yevgeniy Aleksandrovich, prof.; MECHIPORUK, L.P., red.; GUREVICH, M.M., tekhn. red.

[Raising purebred dairy cattle] Chistoporodnoe razvedenie molochnogo skota. Izd.2., dop. i perer. Moskva, Sel'khozizdat, 1962. 359 p. (MIRA 16:4)
(Dairy cattle breeding)

TOMME, M.F.; NOVIKOV, Ye.A.; NECHIPORUK, L.P., red.; KOBYAKOVA, G.N., tekhn. red.

[General zootechny] Obshchaia zootekhniia. Izd.3., perer. i dop. Moskva, Sel'khozizdat, 1963. 534 p. (MIRA 17:4)

NOVIKOV, Ye.A.

Convergence of a functional Taylor's series for the characteristic functional of a random field. Usp. mat. nauk 19 no.6:195-197 N-D '64 (MIRA 18:2)

NOVIKOV, Ye.D.

Air spraying of heavy liquid fuels. Trudy TSNIIMF no.60: 62-73 '64. (MIRA 18:4)

L 45117-66 EWT(m)/T DJ

ACC NR: AP6025686 (A) SOURCE CODE: UR/0413/66/000/013/0153/0153

INVENTOR: Privalov, A. I.; Il'ichev, V. V.; Kovalev, N. I.; Novikov, Ye. D.; Sizov, M. A.

ORG: none

24
B

TITLE: Device for checking the working substance in a closed hydraulic system. Class 72, No. 183626

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 13, 1966, 153

TOPIC TAGS: hydraulic device, hydraulic engineering, hydraulic equipment

ABSTRACT: An Author Certificate has been issued for a device for checking the working substance in a closed hydraulic system. It consists of a main pump, a booster tank, and pressure signaling devices mounted on the pressure and suction lines of the main pump and connected to the closed hydraulic system. To automatically compensate for working-substance losses in the hydraulic system the signaling device mounted on the pressure line actuates a hydraulic pumping cylinder to replace losses, and the signaling device mounted on the suction line turns it off. The pumping cylinder is equipped with a terminal switch which signals the amount of liquid fed into the system. [SA]

SUB CODE: 13/ SUBM DATE: 19May64/

Card 1/1 mjs UDC: 623.451.8

29762
S/194/61/000/006/042/077
D201/D302

9.4340 (1143,1150)

AUTHORS: Novikov, Ye.F. and Sinitsa, S.P.

TITLE: A method of measuring the semiconductor diode impedances at a wide range of bias

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 6, 1961, 23, abstract 6 D143 (Nauchno-tekhn. inform. byul. Leningr. politekhn. in-t, 1960, no. 3, 17-22)

TEXT: The method proposed is based on determining active and reactive components of the complex admittance (CA) from the amplitude of the voltage across the CA and phase shift between the measured and the resistive voltage. The alternating source voltage U is applied to the CA through a standard resistance. Balance amplitude modulation of the voltage obtained at the CA is applied in order to improve the accuracy of measurements. The voltage at the CA together with the resistive voltage is applied to a phase detec-

Card 1/2

A method of measuring...

tor. Depending on the phase shift between the resistive voltage and U (0 or 90°) at the output of the phase detector, the amplitude of the modulated voltage (MV) will be proportional either to the active or to the reactive component of voltage at CA. The modulated voltage is then amplified by a narrow band LF amplifier. Its output voltage is measured by means of a synchronous detector, in order to increase the selectivity of the arrangement and to make possible determination of the phase sign between the active voltage and that at the CA. The arrangement permits measurement of the impedance of semiconductor devices when the amplitude of AC signal $< kT/q$, the polarity of the biasing voltage being arbitrary. The method described has several advantages over the usual bridge method. Results of measurements of CA of alloy semiconductor diode (carried out at 112 and 2700 mc/s) are given. 1 reference. [Abstracter's note: Complete translation]

Card 2/2

L 10784-67 EWT(1) RO
ACC NR: AP7003490 (N) SOURCE CODE: UR/0394/66/004/006/0035/0037

26

AUTHOR: Novikov, Ye. G.; Pozdeyeva, A. G.; Stonov, L. D.; Bakumenko, L. A.

ORG: [Novikov; Pozdeyeva] Eastern Scientific Research Institute of Carbon Chemistry (Vostochnyy nauchno-issledovatel'skiy uglekhimicheskiy institut); [Stonov; Bakumenko] All-Union Scientific Research Institute of Chemical Means of Plant Protection (Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh sredstv zashchity resteniy)

TITLE: Investigation of the herbicidal activity of semi- and thiosemicarbazones of the pyridine series

SOURCE: Khimiya v sel'skom khozyaystve, v. 4, no. 6, 1966, 35-37

TOPIC TAGS: pyridine, weed killer, organic synthetic process, agriculture crop

ABSTRACT: A series of 12 semi- and thiosemicarbazones of the pyridine series were synthesized and tested for herbicidal activity on wheat and radish under laboratory conditions. It was established that the physiological activity of the thiosemicarbazones, especially the 2-derivatives, is substantially higher. A determination of the polarographic reduction and oxidation potentials and their comparison with the herbicidal activity of the compounds showed no direct relationship, indicating that the pyridine thiosemicarbazones do not take direct part in the oxidation-reduction processes that occur in plant tissues. A possible mechanism of the herbicidal action of pyridine thiosemicarbazones, consisting of the formation of internal complex compounds with

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L 10784-67

ACC NR: AP7003490

trace metal ions, was proposed. It was found that the thiosemicarbazone of 2-pyridinealdehyde exhibits very high herbicidal activity (additional tests were conducted on oats, millet, and vetch) and hence merits further study. The authors also call for a study of the thiosemicarbazones of other aldehydes and ketones of the pyridine series, possessing various substituents in the ring. Orig. art. has: 1 table. [JPRS: 38,970]

SUB CODE: 07 / SUBM DATE: 22Jun65 / ORIG REF: 002 / OTH REF: 001

Card 2/2

5 (3) SOV/79-29-3-20/61

AUTHORS: Yesafov, V. I., Stashkov, L. I., Sirotkin, L. B., Suvorov, A. L., Novikov, Ye. G.

TITLE: On the Characteristics of the α,β-Unsaturated Ketones. VII (K kharakteristike α,β-nepredel'nykh ketonov. VII)

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 3, pp 845-849 (USSR)

ABSTRACT: The present paper is issued as first publication of experimental data on the hydrolytic cleavage of the aliphatic aromatic α,β-unsaturated ketones containing an aryl radical which is directly combined with the carbonyl group. Ketones of this type were obtained by dehydration of the β-ketols which had been synthesized according to the method of Grignard, V. and Colonge, I. (Ref 2).

$$(CH_3)_3C-\overset{CH_3}{\overset{|}{C}}=O + CH_3COAr \xrightarrow{C_6H_5N(CH_3)MgJ} (CH_3)_3C-\overset{CH}{\overset{|}{\underset{OH}{\overset{|}{C}}}}-CH_2COAr$$

Experiments with respect to the hydrolytic cleavage of the β-ketols were carried out as well. The data of table 2 show that the β-ketols are far more unstable than the corresponding

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On the Characteristics of the α,β-Unsaturated Ketones. VII

α,β-unsaturated ketones and prove to be more sensitive to very weak hydrolysis reagents. Besides, the behavior of the β-ketols in the hydrolysis differs from that of the α,β-unsaturated ketones by the fact that a change of the NaOH-concentration exerts a slight influence upon the cleavage intensity of the β-ketols whereas the hydrolytic cleavage of the α,β-unsaturated ketones is considerably influenced. The rate of hydrolysis of the aliphatic aromatic ketones investigated increases significantly when the NaOH concentration is increased from 0.01 to 0.1 n. 8 β-ketols hitherto unknown were synthesized and described. It was determined how far the hydrolytic cleavage of the β-ketols and at the same time that of the α,β-unsaturated ketones develops and it was proved that the latter separate but little HBr on bromination. There are 2 tables and 4 references, 2 of which are Soviet.

ASSOCIATION: Ural'skiy gosudarstvennyy universitet (Ural State University)

SUBMITTED: February 18, 1958

L 38847-66 EWP(j)/EWT(m)/T IJP(c) RM/

ACC NR: AR6011877 SOURCE CODE: UR[redacted]/080/016/S048/S048

AUTHOR: Novikov, Ye. G.; Volkova, N. S.; Bykova, G. Ye. 14

TITLE: Preparation of carbazole-phenol-formaldehyde resins 15 B

SOURCE: Ref. zh. Khimiya, Abs. 16S322

REF SOURCE: Sb. Khim. produkty koksovaniya ugley Vost. SSSR. Vyp. 2. Sverdlovsk, 1964, 164-171

TOPIC TAGS: phenolformaldehyde, phenolic plastic, resin

ABSTRACT: The conditions of preparation of carbazole-base novolac resins were studied in detail. The choice of the conditions for the preparation of carbazole formolites in an easily extractable lamellar form was determined by using pure carbazole and various quantities of formalin and H_2SO_4. The following optimum conditions for the preparation of formolites were found: carbazole/formaldehyde molar ratio equal to 1/3, amount of NH_3 in the aqueous phase 2%, consumption of H_2SO_4 (d = 1.84) 11-12% of total charge, acid diluted to a 50-60% concentration. A new method was developed for preparing novolac resin by condensing the carbazole formolite with phenol and formalin while heating the reagent mixture on an oil bath at 100-105°, distilling off the water, and gradually raising the temperature to 130-140°. Indices of the mechanical and dielectric properties of pressed products prepared from carbazole-phenol-formaldehyde resins with fiberglass as filler are given. The high

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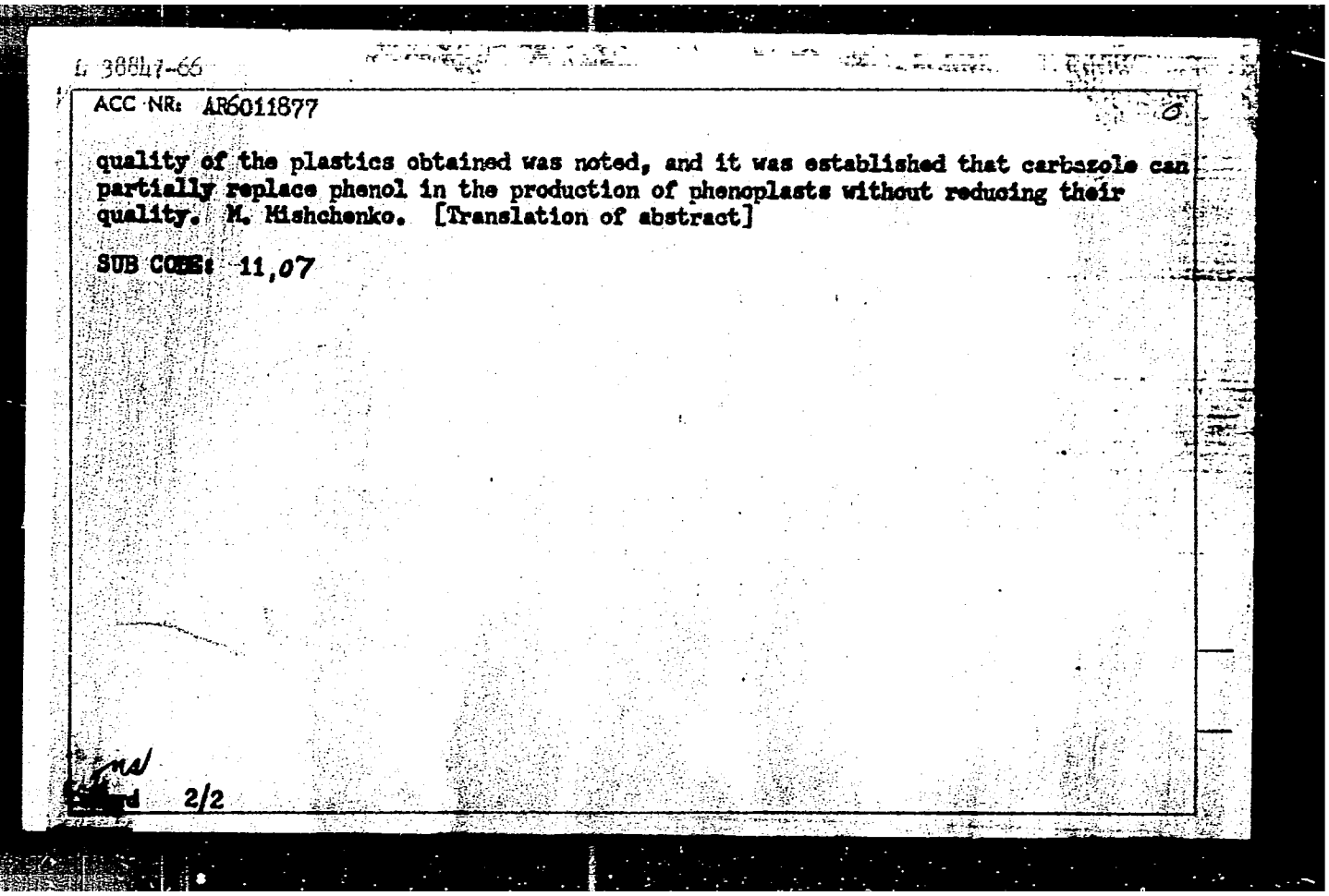

L 38847-66

ACC NR: AR6011877

quality of the plastics obtained was noted, and it was established that carbazole can partially replace phenol in the production of phenoplasts without reducing their quality. M. Mishchenko. [Translation of abstract]

SUB CODE: 11,07

2/2

SHVETSOVA-SHILOVSKAYA, K. D.; MEL'NIKOV, N. N.; BORISOVA, I. M.; NOVIKOV Ye.G.

Organic insectofungicides. Part 76: Synthesis of some new derivatives of carbamic acid. Zhur. ob. Khim. 34 no.6:1779-1780 Je '64. (MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh sredstv zashchity rasteniy.

L 1964-66 EWT(m)/EWP(j) RM

ACCESSION NR: AP5021783 UR/0068/65/000/008/0039/0042
668.74

44.55 44.55 44.55 25 B 15,44,55

AUTHOR: Novikov, Ye. G.; Aksenova, T. F.; Belyayeva, A. M.

TITLE: Preparation and properties of carbazole-phenol-formaldehyde resins

SOURCE: Koks i khimiya, no. 8, 1965, 39-42

TOPIC TAGS: carbazole, formolite resin, formaldehyde, heat resistant plastic

ABSTRACT: Hydrocarbon - phenol-formaldehyde resins (formolites) based on carbazole were synthesized in two steps: condensation of carbazole with formaldehyde in an alkaline medium produced the low-melting and reactive N-methylolcarbazole, and the latter was then condensed with formaldehyde in an acid medium. The conditions of preparation of N-methylolcarbazole were studied by ultraviolet spectroscopy. It was found that in order to obtain the formolite, the raw material used may be commercial carbazole with a concentration not below 85% containing no more than 3% phenanthrene. The synthesis of the carbazole-phenol-formaldehyde resins consisted in filling the reactor with 1 pt. by wt. of the formolite, 2 pts. by wt. of phenol, and formalin, the required amount of which was determined by preliminary analysis. The catalyst

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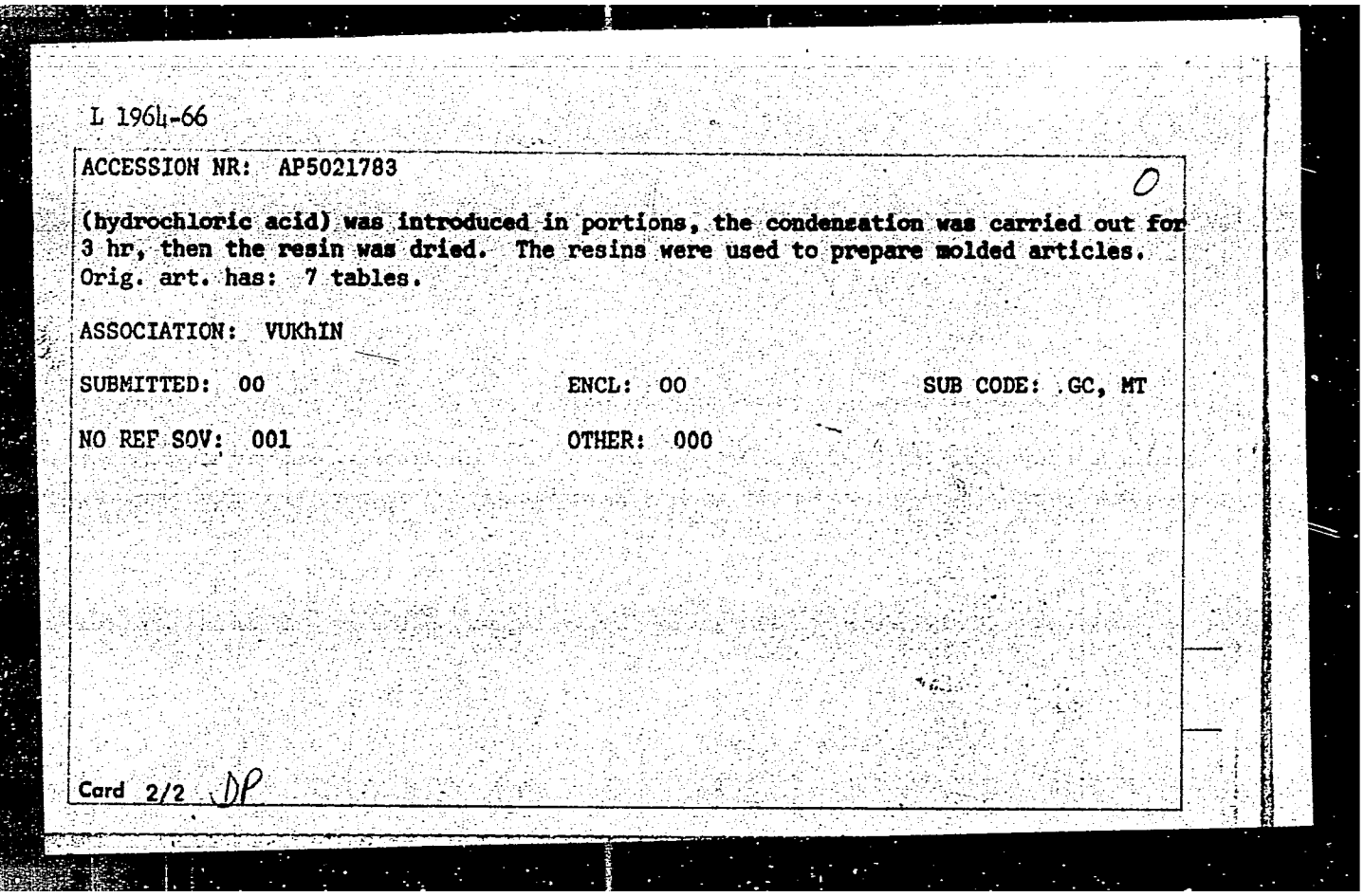

L 1964-66

ACCESSION NR: AP5021783 O

(hydrochloric acid) was introduced in portions, the condensation was carried out for 3 hr, then the resin was dried. The resins were used to prepare molded articles. Orig. art. has: 7 tables.

ASSOCIATION: VUKhIN

SUBMITTED: 00 ENCL: 00 SUB CODE: GC, MT

NO REF SOV: 001 OTHER: 000

Card 2/2 DP

L 8129-66 EWT(m)/EPF(c)/EWP(j)/T/EWA(c) RM

ACC NR: AP5025019 SOURCE CODE: UR/0286/65/000/016/0080/0080

AUTHORS: Novikov, Ye. G.; Aksenova, T. F.

ORG: none

TITLE: Method for obtaining carbazolephenolformaldehyde resins. Class 39, No. 173928

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 80

TOPIC TAGS: carbazole, formaldehyde, polycondensation, polymerization

ABSTRACT: This Author Certificate presents a method for obtaining carbazole-phenolformaldehyde resins by condensing carbazole with formaldehyde in an alkali medium and treating the reaction mixture with phenol in an acid medium. To simplify the process, the phenol treatment is carried out directly after the condensation of the carbazole with formaldehyde.

SUB CODE: OC/ SUBM DATE: 27May64

nw

Card 1/1 UDC: 678.632.:547.759

SHERBAKOV, Mikhail Grigor'yevich; FISENKO, Vitaliy Isidorovich; NOVIKOV, Yevgeniy Ivanovich; YURCHENKO, I.F., inzh., red.; MANIN, I.I., retsenzent; KOLTUNOVA, M.P., red.; VOROTNIKOVA, L.F., tekhn. red.

[Wages of track maintenance workers; manual]Oplata truda v putevom khoziaistve; spravochnik. Pod obshchei red. I.F. IUrchenko. Moskva, Transzheldorizdat, 1962. 185 p. (MIRA 16:2)

(Wages—Railroads)

SHCHERBAKOV, Mikhail Grigor'yevich; FISENKO, Vitaliy Isidorovich; NOVIKOV, Yevgeniy Ivanovich; YURCHENKO, I.F., inzh., red. KOLTUNOVA, M.P., red.

[Wages in the maintenance and operation of tracks, buildings and structures; a manual] Oplata truda v khoziaistvakh puti, zdanii i sooruzhenii; spravochnik. Izd.2., perer. i dop. Moskva, Transport, 1964. 309 p. (MIRA 18:4)

OKHAPKIN, K.A., kand.sel'skokhoz.nauk; Prinimali uchastiye: BRAN'KOV, P.G., nauchnyy sotrudnik; RUMYANTSEVA, T.V., nauchnyy sotrudnik; IVIN, I.A., kand.sel'skokhoz.nauk; KOVIKOV, Ye.S.; KARPUSHENKO, A.I.; YELFIMOVA, Ye.I., aspirantka. LAPIDUS, M.A., red.; PROKOF'YEVA, L.N., tekhn.red.

[How to make the transition to monetary wages; aid to collective farm chairmen, economists, and accountants] Kak pereiti na denezhnuiu oplatu; v pomoshch' predsedateliam kolkhozov, kolkhoznym ekonomistam i bukhgalteram. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 55 p. (MIRA 13:6)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut ekonomiki sel'skogo khozyaystva. 2. Otdel normirovaniya i oplaty truda Vsesoyuznogo nauchno-issledovatel'skogo instituta ekonomi sel'skogo khozyaystva (for Bran'kov, Rumyantseva). 3. Vsesoyuznyy nauchno-issledovatel'skiy institut ekonomi sel'skogo khozyaystva (for Yelfimova). (Collective farms--Income distribution)

ZGUT, Moisey Abramovich; NOVIKOV, Ye.S., red.

[Visual aids in radio engineering] Nagliadnye posobiia po radiotekhnike. Izd.2., perer. i dop. Moskva, Izd-vo "Sviaz'," 1964. 319 p. (MIRA 17:8)

NOVIKOV, Ye.Ye., aspirant

Classification of causes of the wear of rolling-contact bearings of mine car chutes. Izv. DGI 42 pt.2:36-39 '62.

Influence of the quality of grease on the coefficient of resistance in the bearing assembly of mine cars. Ibid.:40-43 (MIRA 18:9)

NOVIKOV, Ye.Ye., aspirant; [illegible], A.S., kand. tekhn. nauk

How to determine the driving force of a train moving along the tracks with variable longitudinal profiles. Izv. VUZ 41 pt.3: 65-68 '62. (MIRA 18:9)

L 37191-66

ACC NR: AP6027828 SOURCE CODE: UR/0240/66/000/002/0057/0058

AUTHOR: Novikov, Yu.; Abramova, L. N. 32 10

ORG: Moscow Scientific Research Institute of Hygiene im. F. F. Erisman (Moskovskiy nauchno-issledovatel'skiy institut gigiyeny)

TITLE: Use of the extraction-photometric method with arsenazo III to detect uranium in urine

SOURCE: Gigiyena i sanitariya, no. 2, 1966, 57-58

TOPIC TAGS: photoelectric method, excretion, rabbit, uranyl nitrate, uranium

ABSTRACT: In using Paley's photoelectrocolorimetric method with the reagent arsenazo III, the relative error does not exceed 3.3% in the absence of interfering impurities. The authors used it to determine uranium in the daily urine of three rabbits over a period of about three months. During this time the animals received 10,000 micrograms of uranyl nitrate daily in 100 ml of water introduced into the gastrointestinal tract with a sound. The rabbits excreted on the average 10.5 micrograms of uranium daily, or about 0.1% of the daily intake of the substance. (This finding is consistent with the results of the experiments of Chapman and Hammons who found that cows excrete 0.5% of the daily intake of uranium with the ration). During the 15 days following cessation of poisoning, the amount of uranium in the daily urine was over 1 microgram, but fell below 1 microgram during the next 10 days. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 06/ SUBM DATE: 24Mar65/ ORIG REF: 001/ OTH REF: 001

Card 1/1 mlp UDC: 616.632.791-073.524+612.463.3:546.791

0917 1340

GONCHARENKO, D.T., kand.tekhn.nauk; BRODSKIY, V.Sh., inzh.; DROZDOV, V.L., inzh.; NOVIKOV, Yu.A., inzh.

Scraper plows for coal mining. Mekh. i avtom.proizv. 19 no.3:14 Mr '65. (MIRA 18:4)

GONCHARENKO, D.I., kand. tekhn. nauk; DROZDOV, V.L., inzh.; NOVIKOV, Yu.A., inzh.; BRODSKIY, V.Sh., inzh.; KOZLOV, M.D.; GLUSHAKOV, V.A.

Using plow scrapers in mining coal seams dangerous because of sudden ejections of coal and gas in the Vostochnaya Mine. Ugol' 40 no.1:37 Ja '65. (MIRA 18:4)

1. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut (for Goncharenko, Drozdov, Novikov, Brodskiy). 2. Glavnyy inzh. tresta Proletarskugol' (for Kozlov). 3. Glavnyy inzh. shakhty "Vostochnaya" tresta Proletarskugol' kombinata Donetskugol' (for Glushakov).

GONCHARENKO, D.I., kand.tekhn.nauk; DROZDOV, V.L., inzh.; NOVIKOV, Yu.A., inzh.; BRODSKIY, V.Sh., inzh.; PETRENKO, S.Ya.; BARANOV, Yu.I.

Scraper-plow extraction of very thin and outbreak-prone coal seams. Ugol' 40 no.9:38-40 S '65. (MIRA 18:10)

1. Donetskiy nauchno-issledovatel'skiy ugol'nyy institut (for Goncharenko, Drozdov, Novikov, Brodskiy). 2. Upravlyayushchiy trestom Proletarskugol' (for Petrenko). 3. Glavnyy inzh. shakhty "Mushketovskaya-Vertikal'naya" tresta Proletarskugol' (for Baranov).

L 13228-63 EWT(d)/FCC(w)/BDS AFFTC IJP(C) S/044/63/000/003/043/047

53

AUTHOR: Novikov, Yu. F.

TITLE: Analytic method for constructing an empirical function in several variables 16

PERIODICAL: Referativnyy Zhurnal, Matematika, no. 3, 1963, 14, Abstract 3V54 (Sb. Rabot. Nauchnyy In-ta. Tekhnol. Mashinostr. Sovnarkhoz Rostovsk. Ekon. Adm. R-na, no. 2, 1961, 97-105).

TEXT: A method is examined for processing experimental data for the case in which the number of variable factors in the phenomenon under study is in excess of two or three. The method is based on the following theorem on functions in several variables: if a given function $F(x, y, z, \ldots)$ in a certain region D of variations in its arguments is continuous in its set of arguments, then it is continuous in respect to each one of its separate arguments. This means that the function $y = F_2(x, z_1, w_1, \ldots)$, is continuous in respect to x while the function $y = F_1(x_1, z, w_1, \ldots)$, et cetera, are continuous in respect to Z, et cetera. These formulas have the same "original function" and differ only in their coefficients, the powers of the variables, and the free

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L 13228-63

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An analytic method for constructing an .....

terms. By reducing the problem of obtaining a dependence with many factors to problems involving dependences with one factor, an empirical formula is obtained which connects as many variables as we please. The method is simple, it does not require that one should first give the form of the mathematical relationship between all the variables and it ensures obtaining a formula in any case there is a sufficient amount of reliable experimental data. A geometrical interpretation of the method is given. Numerical examples are given. Three references are cited.

[Abstracter's note: Complete translations.]

Card 2/2

NOVIKOV, Yu.F.

Conference on the machining of metals. Mashinostroitel' no.11:47 N '61. (MIRA 14:11)

(Metal cutting)

ZHILIN, V.A.; MONCHENKO, V.P.; NOVIKOV, Yu.F.

Using standards for dowels and dowelled joints. Standartizatsiia 26 no.9:12-17 S '62. (MIRA 15:9)

(Dowels—Standards)

NOVIKOV, Yu. F.

Novikov, Yu. F. - "Development, Investigation, and Calculation of the Rational Technology of Cutting Thick-Stemmed Crops and of the Cutting Equipment for Harvesting Them." Joint Academic Council, All-Union Sci Res Inst of the Mechanization of Agriculture (VIM), and All-Union Sci Res Inst of the Electrification of Agriculture (VIESKh). Moscow, 1956 (Dissertation for the Degree of Candidate in Technical Sciences).

So: Knizhnaya Letopis', No. 10, 1956, pp 116-127

NOVIKOV, Yu.F., kandidat tekhnicheskikh nauk; PANOV, I.M., inzhener.

Some present-day trends in the development of plows. Sel'khoz-mashina no.6:26-29 Je '57. (MLRA 10:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennogo mashinostroyeniya.
(Plows)

NOVIKOV, Yu.F., kandidat tekhnicheskikh nauk; KUZNETSOV, Ya.A., inzhener.

Rotary tillage machinery and problems connected with their use; from foreign periodicals. Sel'khozmashina no.7:31-33 Jl '57. (MLRA 10:8)

(Agricultural machinery)

NOVIKOV, Yu.F., kandidat tekhnicheskikh nauk.

[redacted] and calculations for a rotary mowing apparatus with moving cutting parts. Sel'khozmashina no.8:1-5 Ag '57. (MLRA 10:8)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyaystvennogo mashinostroyeniya.
(Mowing machinery) (Cutting machines)

NOVIKOV, Yu.F., kand. tekhn. nauk

Using electron calculating machines in studying and designing the working surfaces of tillage machines. Trakt. i sel'khozmash. 33 no.9:28-32 S '63. (MIRA 16:10)

1. Rostovskiy institut sel'skokhozyaystvennogo mashinostroyeniya.
(Electronic computers) (Surfaces (Technology))
(Agricultural machinery—Design and construction)

NOVIKOV, Yu. F.

"Mekhanika pochvoobrabatyvayushchikh orudiy, ekologicheskiye usloviya i etnicheskaya spetsifika."

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

TUMANOVSKIY, M.N., prof.; GARMASH, V.Ya.; NOVIKOV, Yu.G.

Electrokymographic examination of the heart in dogs in normal conditions and in experimental myocardial infarct. Terap.arkh. 33 no.10:11-18 '61. (MIRA 15:1)

1. Iz kafedry fakul'tetskoy terapii (zav. - prof. M.N. Tumanovskiy) i kafedry operativnoy khirurgii s topograficheskoy anatomiey (zav. - prof. T.F. Lavrova) Voronezhskogo meditsinskogo instituta.
(HEART—INFARCTION) (ELECTROKYMOGRAPHY)

NOVIKOV, Yu.G. (Voronezh, Nikitinskaya ul., d.6, kv. 7)

Technique for the excision of experimental myocardial infarct. Grudn. khir. 4 no.5:44-46 S-O'62 (MIRA 17:3)

1. Iz kafedry operativnoy khirurgii s topograficheskoy anatomiyey (zav. - prof. T.F. Lavrova) Voronezhskogo meditsinskogo instituta.

TUMANOVSKIY, M.N.; LAVROVA, T.F.; NOVIKOV, Yu.G.; GARMASH, V. Ya.

Electrokymographic investigation of the heart in dogs following excision of experimental myocardial infarction. Kardiologiia 2 no.6:22-27 N-D'62. (MIRA 17:8)

1. Iz kafedry fakul'tetskoy terapii (zav. - prof. M.N. Tumanovskiy) i kafedry topograficheskoy anatomii s operativnoy khirurgiyey (zav. - prof. T.F. Lavrova) Voronezhskogo meditsinskogo instituta.

NOVIKOV, Yu.G. (Voronezh, Nikitinskaya ul. 4, kv.7)

Experimental data on the surgical excision of myocardial infarct. Vest. khir. 92 no.4:85-91 Ap '64 (MIRA 18:1)

1. Iz kafedry operativnoy khirurgii s topograficheskoy anatomiyey (zav. - prof. T.F. Lavrova) Voronezhskogo meditsinskogo instituta.

LAVROVA, T.F.; NOVIKOV, Yu.G.; KHARIN, V.S.; SHAPOVALOV, A.Ye.; KOLOKOLOVA, T.D.; KHRITININA, K.M.; MINEYEVA, G.T.

Temporary exclusion of the left cardiac ventricle from circulation in an experiment. Grud. khir. 6 no.5:62-66 S-O '64. (MIRA 18:4)

1. Kafedra operativnoy khirurgii s topograficheskoy anatomiyey (zav. - prof. T.F.Lavrova), tsentral'naya nauchno-issledovatel'skaya laboratoriya i kafedra biokhimii (zav. - dotsent K.M. Khritinina) Voronezhskogo meditsinskogo instituta.

BRAYT, P.I.; GALITSKIY, V.G.; NOVIKOV, Yu.I.

Two-way niveling plummet for measuring the displacement and settling of structures. Osn. fund. i mekh. grun. 5 no.3: 23-25 '63. (MIRA 17:1)

NOVIKOV, Yu.I.

Cervical cancer in pregnancy. Akush. i gin. no.3:66-68 My-Je '54. (MLRA 7:8)

1. Iz kafedry akusherstva i ginekologii (zav. prof. M.A.Petrov-Maslakov) Leningradskogo sanitarno gigiyenicheskogo meditsinskogo insituta.

(PREGNANCY, complications,
*cervical cancer)
(CERVIX, UTERINE, neoplasms,
*in pregn.)

NOVIKOV, Yu.I.

Rectal cancer in pregnancy at term. Akush. i gin. no.4:73-74 Jl-Ag '54. (MLRA 7:11)

1. Iz kafedry akusherstva i ginekologii (zav. prof. M.A.Petrov-Maslakov) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.

(RECTUM, neoplasms,
in pregn. at term)
(PREGNANCY, complications,
cancer of rectum in pregn. at term)

NOVIKOV, Yu. I.

"Certain Characteristics of Conditioned Reflex Reactions of Pregnant Women." Cand Med Sci, Chair of Gynecology and Obstetrics, Leningrad Sanitary-Hygiene Medical Inst, Min Health RSFSR, Leningrad, 1955. (KL, No 14, Apr 55)

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

NOVIKOV, Yu.I.

Some peculiarities of unconditioned vascular reflexes in healthy pregnant women. Akush. i gin. no.6:11-14 N-D '55 (MLRA 9:6)

1. Iz kafedry akusherstva i ginekologii (zav.-prof. M.A. Petrov-Maslakov) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.

(PREGNANCY
vascular reflexes, particularities peculiarities)
(BLOOD VESSELS, physiol.
reflexes in pregn., peculiarities)

NOVIKOV, Yu.I., assistent

Peculiarities in the vascular reactions of parturients with an edematous-nephrotic syndrome. Trudy LSGMI 18:98-102 '55. (MIRA 14:3)

1. Leningradskiy sanitarno-gigiyenicheskiy meditsinskiy institut, kafedra akusherstva i ginekologii.

(REFLEXES) (PREGNANCY)
(HYPERTENSION) (KIDNEYS--DISEASES)

NOVIKOV, Yu.I., assistent

Influence of placental protein on the vascular tonus of the kidneys.
Trudy LSGMI 18:103-106 '55. (MIRA 14:3)

1. Leningradskiy sanitarno-gigiyenicheskiy meditsinskiy institut, kafedra akusherstva i ginekologii.
(PROTEINS) (KIDNEYS—BLOOD SUPPLY)

PETROV-MASLAKOV, M.A., prof.; NOVIKOV, Yu.I., assistent

Pregnancy, labor, and the postnatal period in liver diseases. Trudy LSGMI 18:146-155 '55. (MIRA 14:3)

1. Leningradskiy sanitarno-gigiyenicheskiy meditsinskiy institut, kafedra akusherstva i ginekologii.
(LIVER--DISEASES) (PREGNANCY, COMPLICATIONS OF)

NOVIKOV, Yu.I.

A live birth following rupture of the uterus in an accident. Akush. i gin. 34 no.1:110-111 Ja-F '58. (MIRA 11:4)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. M.A.Petrov-Maslakov) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(CHILDBIRTH)

NOVIKOV, Yu. I.

Status of vascular tonus in pregnant women with edema.
Akush. i gin. 34 no.2:18-24 Mr-Ap '58. (MIRA 11:5)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. M.A. Petrov-Maslakov) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(PLETHYSMOGRAPHY, in various dis.
edema in pregn. (Rus))
(PREGNANCY, TOXEMIAS, physiol.
vasc. tonus, plethysmography (Rus))

NOVIKOV, Yu.I.

Late complications of transplantation of the ovary in bilateral ovariectomies. Akush.i gin. 35 no.5:99-100 S-O '59. (MIRA 13:2)

1. Iz kafedry akusherstva i ginekologii (zaveduyushchiy - prof. M.A. Petrov-Maslakov) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(OVARY surgery)

NOVIKOV, Yu.I.

Experience in the treatment of inflammatory diseases of the female genitalia by administration of antibiotics through the posterior fornix. Akush.i gin. 36 no.5:93-96 S-O '60. (MIRA 13:11)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. M.A. Petrov-Maslakov) Leningradskogo sanitarno-gigiyenicheskogo instituta.
(GYNECOLOGY) (ANTIBIOTICS)

NOVIKOV, Yu.I.; PISAREVSKIY, A.A., kand.med.nauk

Acute pancreatitis in pregnancy at term. Akush.i gin. no.4: 118-120 '61. (MIRA 15:5)

1. Iz rodil'nogo doma imeni prof. Snegireva (nauchnyy rukovoditel' - prof. M.A. Petrov-Maslakov, glavnyy vrach A.A. Dodor).
(PREGNANCY, COMPLICATIONS OF) (PANCREAS—DISEASES)

NOVIKOV, Yu.I.

Status of the peripheral vascular tonus in pregnant women. Akush. i gin. 37 no.2:34-39 F '61. (MIRA 14:3)

1. Iz kafedry akusherstva i ginekologii (zav. - prof. M.A. Petrov-Maslakov) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.

(PREGNANCY) (PLETHYSMOGRAPHY)

NOVIKOV, Yu.I.; TAROVERDOVA, A.A.

Study of the properties of plasma dried in plastic containers. Probl. gemat. i perel. Krovi 8 no.9:37-39 S '63. (MIRA 17:9)

1. Iz Vitebskoy oblastnoy stantsii perelivaniya krovi (dir. S.Z.Mekler).

NOVIKOV, Yu.I.

Separation of plasma from preserved blood by means of pressure using sterile air. Probl. gemat. i perel. krovi 9 no.10:56-57 O '64. (MIRA 18:3)

1. Iz Vitebskoy oblastnoy stantsii perelivaniya krovi (dir. S.Z. Mekler).

AID Nr. 994-4 20 June

NOVIKOV, Yu. K.

ELECTROSLAG MELTING OF TITANIUM ALLOYS (USSR)

Gurevich, S. M., V. P. Didkovskiy, and Yu. K. Novikov. Avtomaticheskaya svarka, no. 4, Apr 1963, 27-33. S/125/63/000/004/005/011

The Electric Welding Institute, Ukrainian Academy of Sciences, has studied the electroslag melting of titanium alloys with special attention to the casting of ingots of oblong cross section. Consumable electrodes were compacted from titanium sponge of various degrees of purity. The melting was done under oxygen-free AN-T2 flux [unidentified] in an argon atmosphere. Alloying additions, when used, were added to the electrodes. The 12- to 15-kg round and flat ingots of BT1 titanium [commercial grade] and OT4 [2.0—3.5% Al, 1.0—2.0% Mn] and OT4-1 [1.0—2.5% Al, 0.8—2% Mn] alloys had a clean, smooth surface. Mechanical properties of the alloys, though dependent on the grade of titanium sponge used, were satisfactory even in alloys melted from low-purity sponge. The BT1 melted from TT00 sponge [high-purity] had a [illegible] strength of 41.4 kg/mm^2, elongation of 29.9%, reduction of area of [illegible]h toughness of 17.0 kg-m/cm^2, and hardness H_B of 131. The cor-[illegible]gures for BT1 melted from TT2 [low-grade] sponge were

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AID Nr. 994-4 20 June

ELECTROSLAG MELTING [Cont'd] S/125/63/000/004/005/011

54.1 kg/mm^2, 24.8%, 43.9%, 9.4 kg-m/cm^2, and 190. Similar results were obtained with OT4 and OT4-1 alloys. Generally it was found that alloys produced by a single electroslag melting have mechanical properties in the as-cast condition equal to those of the same alloys double-melted in a vacuum-arc furnace. Mechanical properties of ingots with oblong cross section were found to be the same as those of round ingots. Vacuum (10^{-4} mm Hg) annealing of electroslag-melted alloys produced no further improvement in mechanical properties. [WB]

Card 2/2

GUREVICH, S.M.; DIDKOVSKIY, V.P.; NOVIKOV, Yu.K.

Making titanium alloy ingots by the electric slag method.
Avtom. svar. 16 no.10:37-42 O '63. (MIRA 16:12)

1. Institut elektrosvarki imeni Patona AN UkrSSR.

NOVIKOV, Yu.M., inzh.

Brief review of an Indian journal. Gidr.stroi. 26 no.9:59-63 S '57. (MIRA 10:10)
(India--Hydraulic engineering--Periodicals)

NOVIKOV, Yu.M., inzh.

Hydraulic power-engineering construction project on the Saint Lawrence River. Elek. sta. no.4 Supplement:38-42 J1-Ag '58. (MIRA 11:10)

(Saint Lawrence River--Hydroelectric power stations)

AUTHOR: Novikov, Yu.M., Engineer

SOV-98-58-8-18/22

TITLE: Results of Apron Action in Spillway Constructions (Rezul'taty raboty gasitel'nykh ustroystv vodosbrosnykh sooruzheniy)

PERIODICAL: Gidrotekhnicheskoy stroitel'stvo, 1958, Nr 8, pp 53-56 (USSR)

ABSTRACT: This is a review of different types of aprons used in the US. The author describes the results of destructive water action on some of them.
There are 6 photos and 8 diagrams and 1 non-Soviet reference.

1. Dams--Design 2. Water--Disposal

Card 1/1

NOVIKOV, Yu. M., inzh.

Construction of a deepwater navigable waterway on the St. Lawrence River and the Great Lakes. Rech. transp. 17 no. 6:39-40 Je '58. (MIRA 11:7)

(St. Lawrence River--Navigation)

NOVIKOV, Yu.M., inzh.; BOLDYREV, A.A., inzh.

The high Assuan Dam and its economic importance to the Egyptian area of the United Arab Republic. Energokhoz. za rub. no.2:1-6 Mr-Ap '59. (MIRA 12:5)
(Assuan Dam)

NOVIKOV, Yu.M., inzh.

Power engineering construction in New Zealand. Energokhoz. za rub. no.5:38-43 S-O '59. (MIRA 13:2)
(New Zealand--Power engineering)

NOVIKOV, Yu.M., inzh.

Some data pertaining to the electric part of the Robert Saunders Hydroelectric Power Station on the Saint Lawrence River. Energokhoz. za.rub. no.3:34-36 My-Je '60. (MIRA 13:7)
(Canada--Hydroelectric power stations)

NOVIKOV, Yu.M., inzh.

Water resources of the Snowy Mountains. Gidr.stroi. 29 no.3: 48-53 Mr '60. (MIRA 13:6)
(Muniong Range—Hydroelectric power stations)

BOLDYREV, A.A.; IL'IN, A.I.; NOVIKOV, Yu.N.; VOZNESENSKIY, A.N., prof., red.; TOROPOV, L.N., red.; LARIONOV, G.Ye., tekhn. red.

[Development of water resources in India] Ispol'zovanie vodnykh resursov Indii. Pod obshchei red. A.N.Voznesenskogo. Moskva, Gos. energ. izd-vo, 1961. 95 p. (MIRA 15:3)
(India--Water resources development)

34219
S/057/62/032/002/021/022
B124/B102

26.2311

AUTHORS: Zolototrubov, I. M., Novikov, Yu. M., and Kielev, V. A.

TITLE: Electrodynamic excitation of shock waves

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 2, 1962, 253 - 255

TEXT: The electrodynamic method described by John Marshall (Second International Conference on the Peaceful Uses of Atomic Energy, Geneva, 1958) was used to excite shock waves in a tube with continuous flow of an inert gas. The basic diagram of the setup used is shown in Fig. 1 and has been described in detail by the authors (ZhTF, 31, 5, 518, 1961), where it has been used to preheat the plasma. The maximum magnetic field below the single-turn coil was 45 kilogauss and the discharge took 6 μsec. It has been established that the moments of rise of the shock waves correspond to the zeros of the magnetic field (or to the maximum induction e. m. f.). The maximum propagation rate of the shock wave ($7.5 \cdot 10^6$ cm/sec) occurs in the third halfperiod of the current when the gas around the coil has been sufficiently ionized by the waves of the preceding halfperiods. Since the alternating magnetic field depends on the distance from the coil, the

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Electrodynamic excitation ...

position of the boundary of the ejected plasma must be given by $nkT = \frac{H^2}{8\pi}$, where n is the particle density in the plasma. The H-field in the plasma boundary is graphically determined from the axial field distribution below the and around the coil at several instants of time. It varies only little within 2.5 μsec and remains at about 3 kilogauss. When complete ionization is assumed, the plasma temperature is estimated to be $1.2 \cdot 10^5$ °K. Plasma ejection in helium and oxygen is appreciable only from the 6th or 7th halfperiod onward. The authors thank K. D. Sinel'nikov, Academician AS UkrSSR, V. T. Tolok, N. A. Khizhnyak, B. G. Safronov, Candidates of Physics and Mathematics, and the scientific collaborators G. G. Aseyev and Yu. S. Azovskiy. There are 2 figures and 3 references: 2 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: A. C. Colb, Phys. Rev., 112, 291, 1958.

SUBMITTED: July 28, 1961

Card 2/2

ZOLOTOTRUBOV, I.M.; KISELEV, V.A.; NOVIKOV, Yu.M.

Study of processes taking place in a coaxial plasma source.
Zhur. tekh. fiz. 34 no.6:998-1004 Je. '64. (MIRA 17:9)

L 24318-66 EWT(1)/EPF(n)-2/EWG(m) IJP(c) AT
ACC NR: AT6006750 SOURCE CODE: UR/3137/64/000/080/0001/0008

AUTHORS: Zolototrubov, I. M.; Kiselev, V. A.; Novikov, Yu. M.; Tolok, V. T.

ORG: none

TITLE: Operation of a coaxial plasma source in a longitudinal magnetic field

SOURCE: AN UkrSSR. Fiziko-tekhnicheskiy institut. Doklady, no. 080/P-032, 1964. Rabota koaksial'nogo plasmennogo istochnika v prodol'nom magnitnom pole, 1-8

TOPIC TAGS: plasma gun, plasma injection, plasmoid, hydrogen plasma, plasma structure, plasmoid acceleration, longitudinal magnetic field

ABSTRACT: To produce a plasmoid with a relatively small number of impurities and neutral particles, the authors developed a new construction, in which the coaxial plasma gun is placed in a longitudinal magnetic field, with an aim of having the rotation of the plasma in the crossed electric and magnetic fields symmetrize the discharge in

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L 24318-66

ACC NR: AT6006750

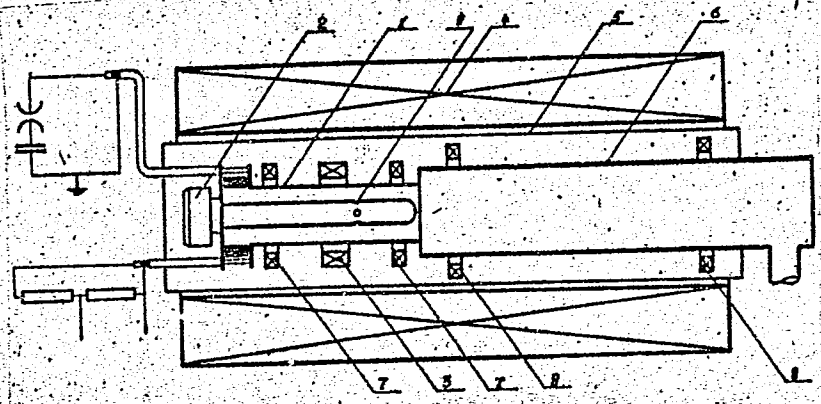

Fig. 1. Diagram of setup. 1 -- Gun, 2 -- vacuum valve, 3 -- field coil, 4 -- solenoid, 5 -- screen, 6 -- vacuum system, 7, 8 -- magnetic probes, 9 -- gas-inlet openings.

azimuth and increase the degree of ionization and the magnitude of the transverse component of the particle energy (Fig. 1). A field up to 8000 G was produced by discharging a capacitor bank. The working gas was hydrogen. The gun-current oscillogram shows the typical plateau characterizing rotation of the plasma in the crossed

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ACC NR: AT6006750 O

fields. The rotation of the plasma was measured with external probes and the propagation of the plasma in the azimuthal direction was investigated by high-speed photography. The experiment has shown that when the coaxial source is placed in a longitudinal magnetic field the plasma rotates in azimuthal direction, the discharge occurs over the entire length of the gun and is symmetrical with respect to the periphery of the electrodes. This contributes to a cleaner plasma. Spectrograms of the discharge have shown that the magnetic field does decrease the intensity of the iron and chromium lines in the plasma spectrum. A shortcoming of the source is the small longitudinal plasmoid velocity (10^7 cm/sec) and insufficient ionization. These shortcomings are expected to be eliminated in the future. Orig. art. has: 6 figures.

SUB CODE: 20/ 1 ORIG REF: 002/ OTH REF: 003

SUBM DATE: none

Card 3/3 FV

L 4:801-66 EWT(1)/T IJP(c) JGS/GD/AT

ACC NR: AT6020412 (N) SOURCE CODE: UR/0000/65/000/000/0148/0156

77
Bt/

AUTHOR: Zolototrubov, I. M.; Kiselev, V. A.; Novikov, Yu. M.

ORG: none

TITLE: Current distribution in a coaxial plasma gun

SOURCE: AN UkrSSR. Issledovaniye plazmennykh sgustkov (Study of plasma clusters). Kiev, Naukovo dumka, 1965, 148-156

TOPIC TAGS: plasma gun, plasmoid, high speed photography, PLASMA DISCHARGE, ELECTRODYNAMICS

ABSTRACT: The purpose of this work was to determine the current distribution in a coaxial plasma gun and the electrodynamic forces acting on the plasma. The current distribution was determined by a differential magnetic probe and the measurements were taken at different delays between the initial gas injection and time of the discharge. When this delay was 200-300 μsec, discharge current formed several sheets arising due to partial current flows at insulation walls. The probe and fast streak photography data showing this effect are given in the text. Evidence of the trapped magnetic field between the current sheets was also found. It was found that for small delay times, only single current sheets are formed and that their velocity drastically increases during the current maximum. In addition to current sheets, observation of plasmoids was made and it was found that their velocities reached several times that

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L 43802-66

ACC NR: AT6020412

of the sheets ($8 \cdot 10^7$ cm/sec) showing that they are not accelerated by the electromagnetic interaction with the current, but rather by the drift-inducing fields. This was further substantiated by observing counter-streaming sheets and plasmoids in another set of experiments. Orig. art. has: 6 figures.

SUB CODE: 20/ SUBM DATE: 11Nov65/ ORIG REF: 002/ OTH REF: 003

Card 2/2 LJM

L 43800-66 EWT(1) IJP(c) AT/GD
ACC NR: AT6020414 (N) SOURCE CODE: UR/0000/65/000/000/0165/0171

64
B+1

AUTHOR: Zolototrubov, I. M.; Kiselev, V. A.; Novikov, Yu. M.; Tolok, V. T.

ORG: none

TITLE: Operation of the coaxial plasma source in a longitudinal magnetic field

SOURCE: AN UkrSSR. Issledovaniye plazmennykh sgustkov (Study of plasma clusters). Kiev, Naukovo dumka, 1965, 165-171

TOPIC TAGS: plasma gun, plasma source, plasma magnetic field, plasma dynamics, LONGITUDINAL MAGNETIC FIELD

ABSTRACT: An attempt to develop a plasma source free of impurities by the use of a coaxial gun in a longitudinal magnetic field is discussed. The plasma gun and its operation is described, its energy source is a battery of condensers (1000 μf) working at 5 kv, the working gas is hydrogen injected by a fast-acting valve. When the gun is operated in the magnetic field, the discharge current plate appears. This, together with the observation of the plasma ejection velocity, indicates plasma drift typical of crossed electric and magnetic fields. High speed photography reveals that the plasma generated when the magnetic field is applied is much more uniform than in the absence of the field. Spectroscopic analysis shows that the magnetic field inhibits very strongly the appearance of electrode material impurities found in discharges without the external field. It is planned to overcome the insufficient ionization and

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L 43601-66

ACC NR: AT6020414

low plasma velocity by increasing the electric power input and the modified magnetic field. Orig. art. has: 6 figures, 1 formula.

SUB CODE: 20/ SUBM DATE: 11Nov65/ ORIG REF: 002/ OTH REF: 003

Card 2/2

14(10) SOV/98-59-2-18/22

AUTHOR: Novikov, Yu.M., Engineer

TITLE: Examples of Working Procedures in Hydraulic Construction on the St. Lawrence River (Primery proizvodstva rabot po gidrouzlam na r. Sv. Lavrentiya)

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 2, p 56-60 (USSR)

ABSTRACT: The author describes different equipment and methods of work used by American and Canadian enterprises during the erection of various hydraulic structures on the St. Lawrence River. There are 5 photos, 1 diagram and 12 references, 11 of which are English and 1 German.

Card 1/1

24.2120 (1049,1141)
26.2321

S/057/61/031/005/002/020
B104/B205

AUTHORS: Zolototrubov, I. M., Novikov, Yu. M., Ryzhov, N. M., Skoblik, I. P., and Tolok, V. T.

TITLE: Magnetic compression of plasma

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 31, no. 5, 1961, 518-521

TEXT: The heating of plasma by magnetic fields slowly varying in time is discussed in the introduction. It is shown that, if the variation is slow with respect to the Larmor period, the final energy of the particles will be determined only by their initial energy and by the ratio of field strengths at the beginning and at the end of the cycle of compressions. As the holding time is very short for small initial energies, compression must be done quickly. This can be achieved either by the use of strong and rapidly varying magnetic fields which ionize the gas through the induced eddy emf and compress the resulting plasma, or by means of two magnetic fields, one rapidly varying and heating the gas and the other slowly varying and compressing the plasma. The second method is more convenient for practical purposes. The authors dwell upon several papers

Magnetic compression of plasma

including those by A. C. Colb (Phys. Rev., 112, 291, 1958), Colb et al. (Phys. Rev. Letters, 3, 5, (1959)) and Boyer et al. (Phys. Rev. 119, 831, 1960). Experiments with both kinds of plasma heating have shown that neutrons and soft X-rays are emitted as soon as maximum compression is attained, which is indicative of plasma heating. Colb's statement that the plasma is stable was refuted by I. F. Kvartskhava et al. (ZhETF, 38, 1641, 1960; ZhTF, XXX, 11, 1521, 1960). Here, an experiment is described, in which compression was effected by a slowly varying magnetic field. The experimental arrangement does not differ essentially from that used by Colb and others. The only difference is that the preliminary ionization was brought about by a shock wave produced by an induction discharge without electrodes (Fig. 1). The shock wave was produced by coil 1 (one winding) over which a capacitance of 6.3 μf charged up to 30 kv was discharged. The discharge took 6 μsec. The maximum magnetic field had a strength of 60 koe. The principal magnetic field was generated by coil 2 which consisted of 15 windings and generated a field of 85 koe. A camera was installed in the middle of this coil, between the windings. As the capacitance of the coil was much higher than that of the discharge circuit, the energy of the capacitor could be utilized up to 95%.

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Magnetic compression of plasma

Discharge tube 3 was made of quartz and had an inner diameter of 3 cm and a length of 1 m. During the experiment the pressure could be measured within the range of $10^{-1} - 5 \cdot 10^{-2}$ mm Hg. A photograph [Abstracter's note: Not reproducible] shows that the velocity of the shock wave in the first semiperiod was not especially high but increased with increasing discharge. In the part of the shock wave where the gas was ionized by the preceding shock wave, its velocity was 5-6 times higher than in the part where the gas was not ionized. As the amplitude of the magnetic field diminished, the velocity of the shock wave tended toward a limit, i.e., the velocity of sound. Fig. 3 shows oscillograms of the magnetic field (a) and of the intensity of X-ray emission (б) and (в). The first pulse in 3б appeared in the second semiperiod of the principal magnetic field. 3в shows X-ray emission with a very long delay time. The optimum delay time was attained when the principal field was switched on after the sixth semiperiod. In this state, the velocity of waves produced by coil 1 was constant. It may be seen that the compression of the plasma by the principal field leads to instabilities accompanied by X-ray emission. A photographic film was used to study the regions of X-ray emission. The blackenings had a local character and were unevenly distributed between the middle of the coil and

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Magnetic compression of plasma

that end which was opposite to coil 1. K. D. Sinel'nikov, Member of the AS UkrSSR, is thanked for a discussion. There are 4 figures and 10 references: 7 Soviet-bloc and 3 non-Soviet-bloc.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN USSR Khar'kov (Institute of Physics and Technology, AS UkrSSR, Khar'kov)

SUBMITTED: July 15, 1960

Fig 1

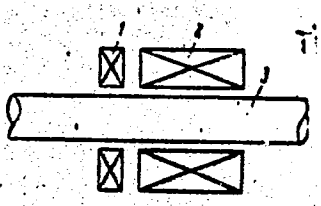
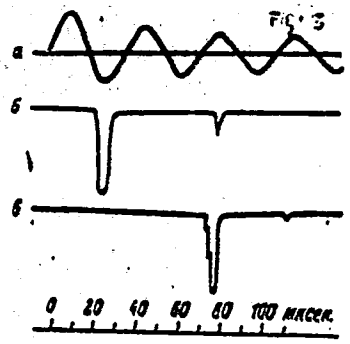


Fig. 3



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L 27848-65 EWT(1)/EPA(sp)-2/EPA(w)-2/EEC(t)/T/EWA(m)-2/EED(b)-3 Pz-6/Po-4/
Pab-10/Pae-2/Pi-4 IJP(c) AT

ACCESSION NR: AP5005225 S/0057/65/035/002/0253/0258

69
B

AUTHOR: Zolototrubov, I.M.; Kiselev, V.A.; Novikov, Yu.M.

TITLE: Current distribution in a coaxial plasma gun

SOURCE: Zhurnal tekhnicheskoy fiziki, v.35, no.2, 1965, 253-258

TOPIC TAGS: plasma, plasma acceleration, plasma gun, current distribution, plasma drift

ABSTRACT: The current distribution within a coaxial plasma gun was determined, high-speed streak photographs of the luminosity within the gun were obtained, and the velocities of the plasma bursts issuing from the gun were measured. The investigations were undertaken in order to clarify the mechanism of plasma accelera-

L 27848-65

ACCESSION NR: AP5005225

7 mm apart. The velocities of the ejected plasma bursts were determined by measuring the flight time between two external magnetic probes 50 cm apart. The authors have described their apparatus and methods in more detail elsewhere (ZhTF 34,998, 1964). When the delay between gas admission and capacitor discharge was small (100 microsec) only one principal current sheet was formed which, beginning at the center of the gun, moved toward the mouth at about 1.5×10^7 cm/sec. When the delay was longer, a second current sheet formed nearer the mouth and moved forward much [illegible]. The streak photographs also revealed an ionized (luminous) sheet mov-

L 27841-65

ACCESSION NR: AP5005225

ASSOCIATION: none

SUBMITTED: 24Mar64 ENCL: 00 SUB CODE: ME, EM

NR REF SOV: 003 OTHER: 004 ATD PRESS: 3193

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ZOLOTOTRUBOV, I.M.; NOVIKOV, Yu.M.; KISELEV, V.A.

Electrodynamic generation of shock waves. Zhur.tekh. fiz. 32 no.2:253-255 F '62. (MIRA 15:2)
(Shock waves) (Magnetic fields)

S/048/63/027/002/022/023
B104/B180

AUTHORS: Peker, L. K., and Novikov, Yu. N.

TITLE: Properties of odd and odd-odd nuclei with $55 \leqslant Z$ and $N \leqslant 75$

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 27, no. 2, 1963, 295 - 300

TEXT: R. K. Sheline et al. (Phys. Rev. Lett., 7, 446 (1961)) assumed that a big new region of deformed nuclei exists in the range Z = 50 - 82 and N = 50 - 82. Here criterions for the presence or absence of an equilibrium deformation are studied, and within the frame work of the generalized Bohr-Mottelson model the properties of deformed odd and odd-odd nuclei of this range are described by wave functions and by the Nilsson diagram. In a lengthy discussion of experimental data it is shown that the hypothesis on the existence of a new range of deformed nuclei is correct. The wave functions of these nuclei can be calculated with $\mu \approx 0.40 - 0.45$. With the Nilsson diagram (Fig. 3) the parameter of the equilibrium deformation of nuclei located at the boundaries of new range (Fig. 4) are calculated. There are 4 figures.

Properties of odd and odd-odd...

ASSOCIATION: Nauchno-issledovatel'skiy fizicheskiy institut Leningradskiy gosuniversiteta im. A. A. Zhdanova (Scientific Physical Research Institute of the Leningrad State University imeni A. A. Zhdanov)

Fig. 3. Single-level nuclei out of the range $55 \leqslant Z$, $N \leqslant 75$ at $\mu = 0.40 - 0.45$ (Nilsson parameter $\kappa = 0.05$).

Fig. 4. Equilibrium deformation as a function of proton and neutron numbers.

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Fig. 3

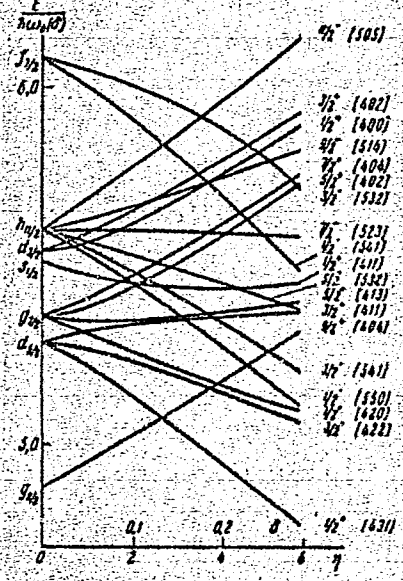
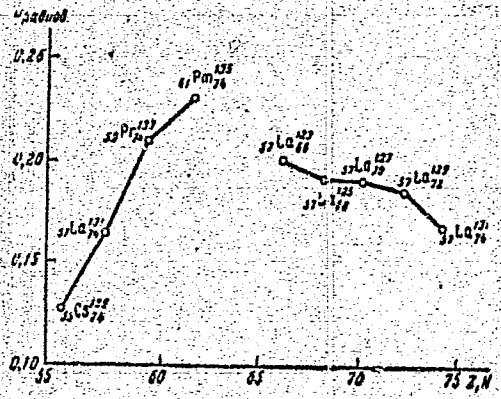


Fig. 4



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ACCESSION NR: AP4040300 S/0057/64/034/006/0998/1004

AUTHOR: Kolototrubov, I.M.; Kiselev, V.A.; Novikov, Yu.M.

TITLE: Investigation of the processes taking place within a coaxial plasma gun

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.6, 1964, 998-1004

TOPIC TAGS: plasma, plasma source, plasma physics, discharge tube, hydrogen plasma

ABSTRACT: The behavior of a coaxial plasma gun was observed with probes and high speed photography in order to elucidate the operating principles of this much used but not thoroughly understood device. The gun consisted of two 66 cm long coaxial cylinders 3.0 and 6.5 cm in diameter, closed at one end by a ceramic insulator and open at the other to a 10^{-5} mm Hg vacuum. Hydrogen (0.8 cm^3 at standard conditions) was admitted through an opening in the wall of the outer electrode midway between the ends by means of a quick acting electrodynamic valve. The gun was powered with a 12 microfarad capacitor charged to 20 kV. The total inductance was 0.3 microhenry, the half-period was 5 microsec, and the peak current reached 106 kA. A 0.077 ohm resistor made of coaxial cables with nichrome conductors was included in the circuit to damp the oscillations. The signal for the discharge of this system was given by

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