L 10090-67 EWT(1) GW

ACC NR: AT6007102 (N) SOURCE CODE: UR/3194/65/000/003/0078/0121

25

AUTHOR: Chornyakova, A. P.

ORG: Basin Hydrometeorological Observatory of the Black and Azov Seas (Basseynovoya gidrometeorologicheskaya observatoriya Chernogo i Azovskogo morey)

TITLE: Wind field types of the Black Sea

SOURCE: Basseynovaya gidrometeorologicheskaya observatoriya Chernogo i Azovskogo morey. Sbornik rabot, no. 3, 1965, 78-121

TOPIC TAGS: synoptic meteorology, wind velocity, wind direction, marine meteorology, sea water

ABSTRACT: Using computation methods developed by the State Oceanographic Institute, the prevailing winds of the Black Sea were classified on the basis of 14,608 synoptic charts and 43,824 microsynoptic charts for a 10 year period (1946 to 1955). Classification of wind types was conducted according to wind direction as well as wind velocity (5-10, 10-15, 15-20 m/sec and more than 20 m/sec). Statistical tables showing the frequency and duration of the synoptic process types are given; also, the distribution of synoptic process types and subtypes is given according to season and velocity. The influence of the Crimean and Caucasian Mountains on winds over the Black Sea is discussed. These different wind characteristics in the form of charts

Card 1/2

L 10090-67

ACC NR: AT6007102

and tables can be used to compute waves and currents, to solve problems on the intermixing of sea waters, to select the most economical seaway routes, and also to solve various problems faced by planning and construction organizations. Orig. art. has: 12 tables and 8 figures.

SUB CODE: 04/ SUBM DATE: none/ ORIG REF: 009

Card 2/2

MEDVINSKIY, Veniamin Grigor'yevich, inzh.; CHERNYAKOVA, I.Z., inzh., red.; FOMICHEV, A.G., red. izd-va; GVIRTS, V.L., tekhn. red.

[Efficiency promotion in forging shop engaged in large-scale forging] Ratsionalizatsiia v kuznechno-pressovykh tsekhakh pri proizvodstve krupnykh pokovok. Leningrad, 1961. 11 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Kovka i goriachaia shtampovka, no.1) (MIRA 14:7)
(Forging—Technological innovations)

SHVAN Aleksandr Germanovich; VOLKOVICH, Mikhail Mikhaylovich; CHERNYAKOVA, I.Z., inzh., red.; FOMICHEV, A.G., red. izd-va; GVIMTS, V.L., tekhn. red.

[Semiautomatic machine for trimming and kurling the edges of parts having the state of a body of revolution] Poluavtomat dlia obrezki i zakatki borta detalei, imeiushchikh formu tel vrashcheniia. Leningrad, 1961. 8 p. (Leningradskii Dom nauchno-tekhnicheskoi propagandy. Opyt novatorov. Seriia: Goriachaia i kholodnaia obrabotka metallov davleniem, no.8) (MIRA 14:12).

(Machine tools)

TKACHENKO, Z.A., dotsent; CHERNYAKOVA, K.Z.; KROKHMAL', E.N.

Bromine-caffeine-calcium electrophoresis in the compound treatment of rheumatic fever and other diseases of the internal organs. Vrach. delo no.10:81-84 O '63.
(MIRA 17:2)

1. Kafedry propedevtiki vnutrennikh bolezney (zav. - dotsent Z.A. Tkachenko), fakul'tetskoy terapii (zav. - dotsent V.V. Oginskiy) Luganskogo meditsinskogo instituta i oblastnaya klinicheskaya bol'nitsa.

√ New method of measuring the thermal characteristics of semi-conductors. M. A. CHERNYAKOVA AND A. F. CHUDNOVSKY. (Zhur. Tekh. [illegible] (1955); *Met. Abstr. J. Inst. Metals*, 23 [4] 353 (1956). — The [illegible] characteristics required are the coefficient of thermal conductivity (λ), the heat capacity (C), and the coefficient of [illegible] diffusivity (a = λ/C) [illegible]

[illegible] method, a is measured directly by a cooling method; [illegible] is the temperature difference between [illegible] of the specimen and the surroundings [illegible] is the extrap- [illegible]

mensions of the specimen [illegible] cylinder, or plate [illegible] Kondrat'ev's [illegible] arrangement [illegible] heating current passed [illegible] used [illegible] applicable to very small specimens [illegible] mine the characteristics of [illegible]

CHERNYAKOVA, M. A.: Master Tech Sci (diss) -- "The thermal conductivity of semiconductor thermoresistors". Leningrad, 1958. 11 pp (Min Higher Educ USSR, Leningrad Polytech Inst im M. I. Kalinin), 150 copies (KL, No 7, 1959, 126)

ACCESSION NR: AT4037535 S/2563/63/000/224/0203/0216

AUTHOR: Chudnovskiy, A.F.; Babanov, A.A.; Kaganov, M.A.; Lazarev, A.I.; Chernyakova, M.A.

TITLE: Equipment for measuring the heat capacity and thermal conductivity of metals at high temperatures, and data for some heat resistant alloys

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy*, no. 224, 1963. Liteyny*ye svoystva zharoprochny*kh splavov (Castability of heat-resistant alloys), 203-216

TOPIC TAGS: castability, heat resistant alloy, iron based alloy, nickel based alloy, Nichrome alloy, austenitic steel, cast steel, high alloy steel, alloy composition, cast alloy steel, alloy No.3, alloy Kh1, alloy Kh32, alloy No. 6, steel 10KhSND, steel 15KhSND, steel 65 G, steel 1Kh18N9, transformer steel, alloy heat capacity, alloy thermal conductivity, hollow sphere measuring procedure, alpha calorimeter measuring procedure, heat capacity measurement, heat conductivity measurement

ABSTRACT: Special equipment (see Fig. 1 in the Enclosure) was designed and constructed to measure the heat capacity and thermal conductivity of metals at

Card 1/4

ACCESSION NR: AT4037535

temperatures up to 1000C and to obtain curves for the dependence of these parameters on temperature. The hollow sphere procedure was used to measure thermal conductivity, while heat capacity was determined by means of a technique involving two samples, one of which acts as a calorimeter and the other as a so-called "alpha calorimeter". Metals tested included a number of heat resistant alloys (see Nekhendzi, Yu. A., p. 9-23, this same book, for compositions) and other cast alloy steels. The results indicate that the specific heats coincide closely at similar temperatures for alloys of widely varying composition. Sharp peaks in the gamma to alpha conversion range were noted for 10KhSND, 15KhSND and 65 G. Similar peaks, but at varying temperatures, were noted for ferritic steels with 5% Si, steel 1Kh18N9 and heat resistant alloys not subject to such conversions. Thermal conductivity values ranged from about 55-65 cal/m·degrees at 100C to about 25-35 at 800C, except for 65 G (about 42 at 200C to about 25 at 800C) and alloy No. 3 (about 10 at 150C to about 5 at 850C). Orig. art. has: 12 graphs and 6 formulas.

ASSOCIATION: Leningradskiy politekhnicheskiy institut im. M.I. Kalinina (Leningrad Polytechnical Institute)

Card 2/4

ACCESSION NR: AT4037535

SUBMITTED: 00	DATE ACQ: 04Jun64	ENCL: 01
SUB CODE: MM	NO REF SOV: 003	OTHER: 000

Card 3/4

ACCESSION NR: AT4037535

ENCLOSURE: 01

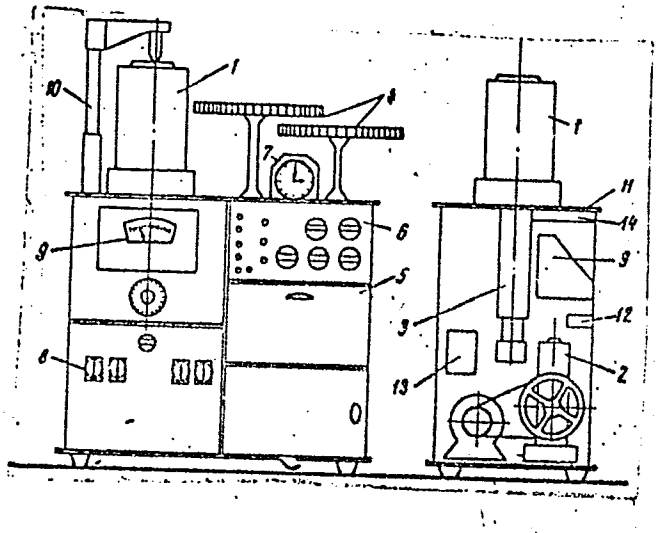

Fig. 1 Overall view of the measuring equipment.

1 - vacuum furnace 2 - fore-pump PVN-20 3 - diffusion oil pump MM40A 4 - scales 5 - hinged leaf bench 6 - potentiometer PPTN1 7 - clock with timer 8 - pump, heater, transformer and other switches 9 - vacuum gage dial window 10 - rotating hoist 11 - upper frame plate 12 - adjustable cock 13 - transformer (127/12 v), two-parallel wired auto transformers LATR-1, thermocouple vacuum gage VT-2 14 - fuse box

Card 4/4

USSR/Farm Animals. Swine. Q-2

Abs Jour: Ref Zhur - Biol., No. 22, 1958, 101200

Author : Chernyakova, M.M.

Inst : Kharkov Zootechnical Institute

Title : The Topography of the Chromaffin System in Piglets (Preliminary Report).

Orig Pub: Sb. tr. Khar'kovsk. zootekhn. in-t, 1956, 8, 117-119

Abstract: It was demonstrated on 30 piglets aged 1 day to 2 months that abdominal paraganglions are situated along the abdominal aorta as adrenal caudae, and adjoin the lateral surface of its wall as single elongated glands. In a fetus, they then continue deriving from the adrenal medulla substance. In piglets, the carotid gland is situated under the wing of the atlas

Card 1/2

CHERNYAKOVA, R. B.

KATSNEL'SON, M.U.; CHERNYAKOVA, R.B.; BUDRINA, M.S.

Integral method for determining the quantity of a γ-radioactive substance. Zav. lab. 23 no.4:443-445 '57. (MLRA 10:6)
(Gamma rays--Measurement) (Radioactive substances)

CHERNYAKOVA, R.L., otv. za vypusk

[Programs for individual and group training of solution operators on finishing machine units; manufacture of pot spun rayon] Programmy dlia individual'noi i brigadnoi podgotovki apparatchikov rastvoreniia na otdelochnykh agregatakh; proizvodstvo viskoznogo shelka tsentrifugal'nogo priadeniia. Moskva, Vses.uchebno-pedagog. izd-vo Proftekhizdat, 1959. 12 p. (MIRA 13:9)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po professional'no-tekhnicheskomu obrazovaniiu.
(Rayon industry)

L 30245-66 EWT(m)/EWP(e) WH

ACC NR: AP6011325 (A) SOURCE CODE: UR/0363/66/002/003/0553/0559

26
B

AUTHOR: Pavlushkin, N. M.; Chernyakova, R. M.

ORG: Moscow Institute of Chemical Technology im. D. I. Mendeleyev (Moskovskiy khimiko-tekhnologicheskiy institut)

TITLE: Investigation of the kinetics of burning out sulfides from blast-furnace glasses

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 3, 1966, 553-559

TOPIC TAGS: sulfide, sulfur, glass property

ABSTRACT: The study was carried out at 1400-1450°C and the burning duration was from 5 min to 24 hours. The sulfur removal was found to increase with burning temperature and burning duration. The greater the carbon content in the glass charge, the less sulfur was removed. Regardless of the burning out process conditions and carbon content in the glass, the minimum sulfur content in the final glass product was 0.02--0.03%. After rapid sulfur removal in the initial 3-5 minutes of burning, the rate declined sharply. On the basis of the experimental results the following correlation between sulfide sulfur content in glass and the burning out duration at a given temperature was determined:

$$y_\tau = y_0 - a^{a+b\ln\tau+c\ln^2\tau},$$

UDC: 666.199

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L 30245-66

ACC NR: AP6011325

where y_τ is the sulfide sulfur content (in %) in the glass at an instant τ, y_0 is the theoretical sulfide content (in %) in the glass charge, τ is the burning out duration (in min); a, b, and c are constants depending on process temperature, quantity of the carbon reducing agent, and quantity of glass charge, respectively. Orig. art. has: 3 figures, 4 tables, 2 formulas.

SUB CODE: 11,07/ SUBM DATE: 19Jul65/ ORIG REF: 005/ OTH REF: 001

Card 2/2 CC

CHERNYAKOVA, Revekka Samoylovna

Pathogeny and Lengthy Treatment of (nezazhivayushchikh) Injuries of the Soft Tissues of Firearm Origin

Dissertation for candidate of a Medical Science degree. Chair of the Department of Surgery (head, Prof. S.R. Mirotvortsev) Saratov Medical Institute, 1948.

CHERNYAKOVA, S.N.

KURMANOVSKAYA, I. M., CHERNYAKOVA, S. N., IVANOVA, YE. A., YEMEL'YANOVA, YE. R.

Hypertension

Symptoms and diagnosis of initial stages of hypertension. Sov. med. 16 no. 8, 1952.

9. Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

L 16735-66 EWT(d)/EWP(c)/EWP(v)/T/EWP(k)/EWP(l)/ETC(m)-6
ACC NR: AR5012857 UR/0276/65/000/004/B004/B004
620.179.1:534.8

61
B

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya. Svodnyy tom, Abs. 4B31

AUTHOR: Timoshenko, Ya.A.; Bedritskiy, A.G.; Chernyakova, S.S.

TITLE: Ultrasonic inspection of parts in industry

14

CITED SOURCE: Sb. Primeneniye ul'trazvuka v mashinostr. Minsk, Nauka i tekhnika, 1964, 34-40

TOPIC TAGS: friction welding, nondestructive test, test method, test instrumentation, ultrasonic inspection, ultrasonic flaw detector/UZD 7 ultrasonic flaw detector

TRANSLATION: The design of the UZD-60 defectoscope was somewhat modified for ultrasonic inspections of parts welded by friction (the tip of the steering rod and rear drive shaft for power selection). With the help of a UZD-7 defectoscope, the adhesive fusion of a braking lining and the quality of fusion of metal and ceramics were ultrasonically inspected; the joining of a disc with its friction cover plate were UDM-IM tested. Inspections of the above mentioned parts took from 10 to 30 seconds. 3 figures.

L. Tsukerman

SUB CODE: 13,14,20/ SUBM DATE: none

Card 1/1 vmb

USSR / General Problems of Pathology. Tumors. Human Neoplasms. U

Abs Jour: Ref Zhur-Biol., No 11, 1958, 51772.

Author : Baranov, V. I.; Chernyakova, T. A.
Inst : Not given.
Title : On the Duration of Remissions in Chronic Myeloleukosis.

Orig Pub: Terapevt. Arkhiv.; 1957, 29, No 2, 38-43.

Abstract: A case of chronic myeloleukosis in a 47 year old woman, the interest of which lies in a marked clinical and hematological remission, obtained by irradiation of the spleen (2400r-totally) in combination with erythrocyte transfusion, the remission occurring 2½ years after the appearance of the first symptoms of the disease, when the patient was in a very critical condition. The patient felt

Card 1/2

CHERNYAKOVA, T.A.

Evaluation of the effectiveness of x-ray therapy in certain forms of cancer of the larynx. Vop.otorin. 21 no.6:75-77 N-D '59.
(MIRA 13:4)

1. Iz rentgeno-radiologicheskogo (nachal'nik - dotsent S.A. Sviridov) i otolaringologicheskogo (nachal'nik - kand.med.nauk V.N. Shchechkin) otdeleniya TSentral'noy klinicheskoy bol'nitsy Ministerstva putey soobshcheniya (Moskva).
(LARYNX, neoplasms)

LIMONCHIK, S.L.; CHERNYAKOVA, T.A. (Moskva)

Giant follicular lymphoma (Brill-Symmers disease). Klin.med. 40 no.6:59-63 Je '62. (MIRA 15:9)

1. Iz khirurgicheskogo otdeleniya (zav. - zasluzhennyy vrach UkrSSR A.N. Fedorov) Basseynovoy bol'nitsy No.2 (glavnyy vrach I.L. Popkov) Moskovsko-Oksko-Volzhskogo vodzdravotdela Ministerstva zdravookhraneniya RSFSR.

(LYMPOMA)

CHERNYAKOVA, V.L. (Kazan')

Hemotherapy in treating eczema in young children. Kaz. med. zhur. no.5:74 S-O '61. (MIRA 15:3)

(ECZEMA)
(BLOOD AS FOOD OR MEDICINE)

L 47085-66 EWT(m)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AT6030228 SOURCE CODE: UR/2776/66/000/049/0084/0085

AUTHOR: Sorokina, N. N.; Fedorov, A. A.; Golubeva, V. M.; Chernyakhovskaya, F. V.

ORG: none

47
B+1

TITLE: Chemical-spectroscopic method of determining the samarium content in 1Kh13N16B and 12Kh1MF steels, and KhN77YuR alloy

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov, no. 49, 1966. Novyye metody ispytaniy metallov; khimicheskiy kontrol' v metallurgii (New methods in the analysis of metals; chemical control in metallurgy), 84-85

TOPIC TAGS: samarium, spectroscopy, metal chemical analysis

ABSTRACT: A chemical-spectroscopic method of determining the samarium content in 1Kh13N16B, and 12Kh1MF steels, and KhN77TYuR alloy has been developed. Samarium is isolated by precipitation in the form of fluoride, which is subjected to spectroscopic analysis. With this method, samarium contents of 0.001—0.1% can be determined with respective errors of ±0.0003—0.008%. Orig. art. has: 1 table. [TD]

SUB CODE: 11, 13/ SUBM DATE: none/ ORIG REF: 001/

Card 1/1 MLT

CHERNYAKOVSKAYA, G. L.

KASAB'YAN, S.S., prof.; CHERNYAKOVSKAYA, G.L., kand.med.nauk

Histochemical characteristics of the distribution of ascorbic acid in the thyroid in endemic goiter [with summary in English]. Probl. endok. i gorm. 3 no.5:89-92 S-O '57. (MIRA 11:1)

1. Iz kafedry patologicheskoy anatomii (zav. - prof. S.S.Kasab'yan) Dagestanskogo meditsinskogo instituta (dir. - prof. M.T.Nagornyy)

(VITAMIN C, metabolism,
thyroid gland, in endemic goiter, cytol. distribution (Rus))
(GOITER, metabolism,
endemic, vitamin C cytol. distribution in thyroid (Rus))

CHERNYAKOVSKAYA, G.L.

Analysis of children's accidents in Archangel in 1955. Ortop., travm. i protez. 18 no.1:68 Ja-F '57. (MLRA 10:6)

1. Iz kafedry operativnoy khirurgii (zav. - prof. S.I.Yelizarovskiy) Arkhangel'skogo meditsinskogo instituta.
(ARCHANGEL--ACCIDENTS)

CHERNYAKOVSKAYA, G.L.; RYABOKON', Ye.A.

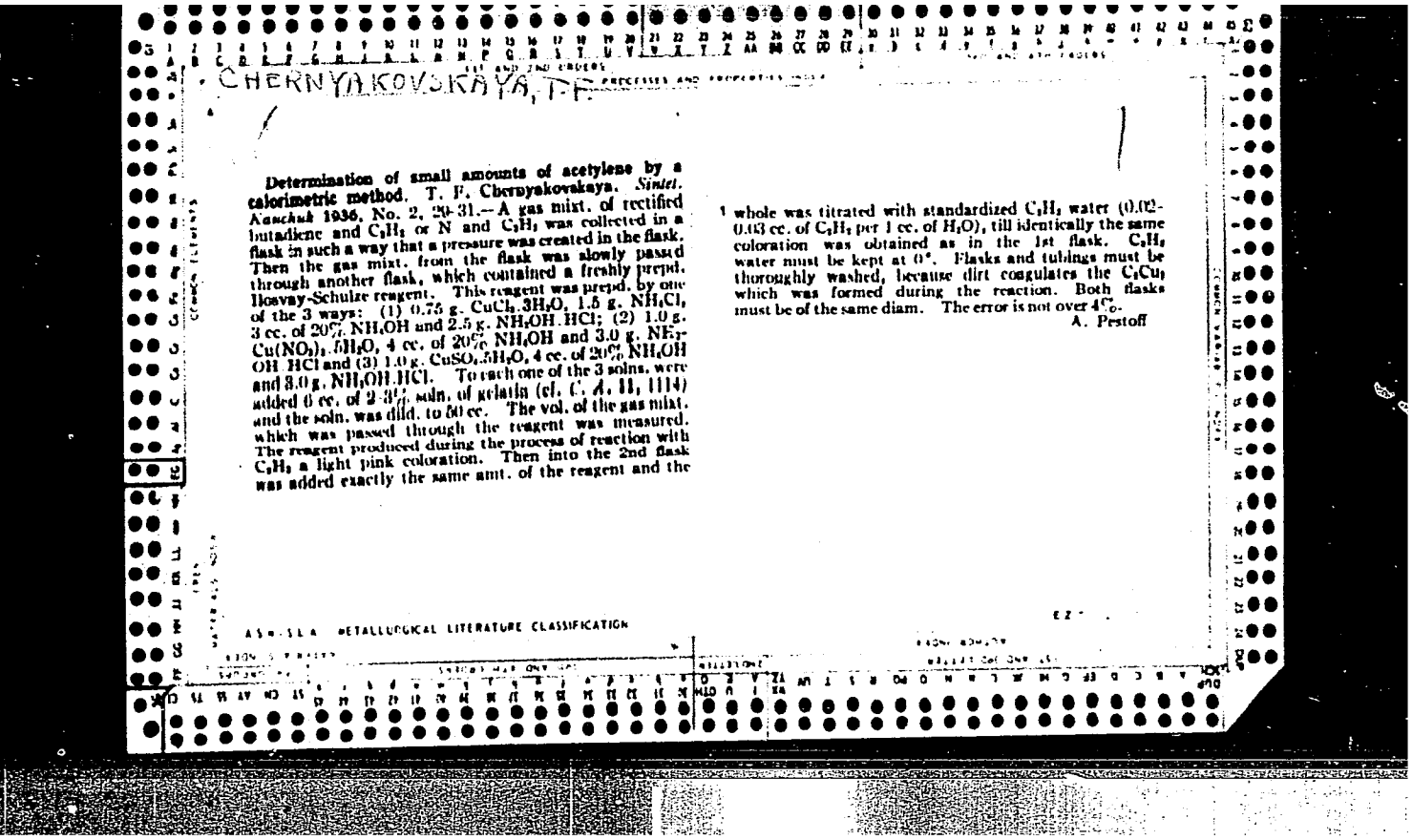
Results of treating fractures of the radius in a typical location at the Traumatology Center of Archangel. Ortop.travm. i protez. 20 no.1: 37-40 Ja '59. (MIRA 12:3)

1. Iz kafedry operativnoy khirurgii (zav. - prof. S.I. Yelizarovskiy) Arkhangel'skogo meditsinskogo instituta i travmatologicheskogo otdeleniya 1-y Arkhangel'skoy gorodskoy bol'nitsy (glavnyy vrach - Ye. P. Abrikosova).
(RADIUS, fract.
management (Rus))

CHERNYAKOVSKAYA, G.L.; RYABOKON', Ye.A.

Analysis of the treatment of fractures of the malleolus according to data of the Department of Traumatology of the First Archangel Hospital. Ortop., travm. i protez. 21 no.8:42-47 Ag '60.
(MIRA 13:11)

1. Iz kafedry operativnoy khirurgii (zav. - prof.S.I.Yelizarovskiy) Arkhangel'skogo meditsinskogo instituta i travmatologicheskogo otdeleniya 1-y gorodskoy bol'nitsy.
(ANKLE—WOUNDS AND INJURIES)



CHERNYAKOVSKAYA, T. F.

Determination of small amounts of acetylene by a calorimetric method. T. F. Chernyakovskaya. *Sintet. Kauchuk* **1936**, No. 2, 29-31.—A gas mixt. of rectified butadiene and C_2H_2 or N and C_2H_2 was collected in a flask in such a way that a pressure was created in the flask. Then the gas mixt. from the flask was slowly passed through another flask, which contained a freshly prepd. Ilosvay-Schulze reagent. This reagent was prepd. by one of the 3 ways: (1) 0.75 g. $CuCl_2.3H_2O$, 1.5 g. NH_4Cl, 3 cc. of 20% NH_4OH and 2.5 g. $NH_2OH.HCl$; (2) 1.0 g. $Cu(NO_3)_2.6H_2O$, 4 cc. of 20% NH_4OH and 3.0 g. $NH_2OH.HCl$ and (3) 1.0 g. $CuSO_4.5H_2O$, 4 cc. of 20% NH_4OH and 3.0 g. $NH_2OH.HCl$. To each one of the 3 solns. were added 0 cc. of 2-3% soln. of gelatin (cf. *C. A.* **11**, 1114) and the soln. was dild. to 50 cc. The vol. of the gas mixt. which was passed through the reagent was measured. The reagent produced during the process of reaction with C_2H_2 a light pink coloration. Then into the 2nd flask was added exactly the same amt. of the reagent and the whole was titrated with standardized C_2H_2 water (0.02-0.03 cc. of C_2H_2 per 1 cc. of H_2O), till identically the same coloration was obtained as in the 1st flask. C_2H_2 water must be kept at 0°. Flasks and tubings must be thoroughly washed, because dirt congulates the C_2Cu_2 which was formed during the reaction. Both flasks must be of the same diam. The error is not over 4%.

A. Prstoff

ASTIA METALLURGICAL LITERATURE CLASSIFICATION

CHERNYAKOVSKAYA, T. F.

Determination of heat production by fats by chromatometric oxidation. Yu. S. Musabekov and T. F. Chernyakovskaya. *Gigiena i Sanit.* 1950, No. 4, 47-8.—Cf. above abstr. for principle. Fats are incompletely oxidized by dichromate-H_2SO_4, hence CrO_3 was used with 2-hr. heating on a water bath. Oxidation of 96–9% of the sample was observed with K palmitate, Na stearate, Na oleate, and oils: sunflower, soybean, butter, lard. It is believed that the method can be used for fat analysis.
G. M. Kosolapoff

BOGORODSKIY, S.M.; KRAVCHUK, V.N.; CHERNYAKHOVSKIY, A.G.

Lower-Middle Miocene eluvium in the Ust-Urt. Kora vyvetr. no.5:371-373 '63. (MIRA 16:7)

1. Vsesoyuznyy aerologicheskiy trest.
(Ust-Urt—Weathering)

CHERNYAKOVSKIY, F. P.

"Installation of Foucault's Pendulum in School," Fiz. v Shkole, No.1, 1952

MAKAROV, M.M.; CHERNYAKOVSKIY, F.P.

Deilectric properties of friction rings. Uch.zap.IArosl.tekhnol. inst. 2:147-161 '57. (MIRA 12:7)
(Clutches (Machinery)) (Vulcanization) (Induction heating)

SOV/112-59-1-152

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 1, pp 16-17 (USSR)

AUTHOR: Makarov, M. M., and Chernyakovskiy, F. P.

TITLE: Dielectric Properties of Friction Rings

PERIODICAL: Uch. zap. Yaroslavsk. tekhnol in-ta, 1957, Vol 2, pp 163-172

ABSTRACT: Dielectric properties of friction-ring material were investigated at 6-23 mc with a moisture content of 1.28-11.8%, in connection with the task of high-frequency drying and curing the rings. The measurements were made by a KV-1 Q-meter with an airgap between the sample and the measuring-capacitor plate. Bibliography: 1 item.

Soviet abstractor's note: The frequency-response characteristics have a sharp peak of permittivity and a dip in the loss angle at 12 mc. This contradicts the physical meaning of the relaxation losses and compels one to look for the cause of these effects in the systematic errors of measurement.

A.V.N.

Card 1/1

CHERNYAKOVSKIY, F.P.

5(1) PHASE I B[illegible]K EXPLOITATION SOV/2927

Yaroslavl'. Tekhnologicheskiy institut

Uchenyye zapiski, Tom II (Scientific Notes, Vol. 2)
Yaroslavl', [illegible] [illegible] copies printed.

Editorial Staff: A.I.Zaikina, Candidate of Historical Sciences; Docent M.M. Makarov, Candidate of Technical Sciences; Professor M.I. Farberov, Doctor of Technical Sciences;

Resp. Ed.: Professor Yu.S. Musabekov, Doctor of Chemical Sciences

Secretary-Scientist: B.F. Ustavshchikov, Candidate of Chemical Sciences

PURPOSE: This book is primarily intended for industrial chemists and technologists interested in the kinetics of chemical reactions and their related physical processes.

COVERAGE: The twenty-two articles of this collection deal mainly with industrial processes for the preparation of organic compounds, problems of heat physics and general mechanics related to these processes, and with industrial chemical equipment. No personalities are mentioned. References are given after each article.

TABLE OF CONTENTS:

CHEMISTRY

CHEMICAL TECHNOLOGY, PROCESSES AND EQUIPMENT

HISTORY OF CHEMISTRY

27745
S/058/61/000/007/027/086
A001/A101

11.1510

AUTHOR: Chernyakovskiy, F.P.

TITLE: A device for investigating free radicals by the paramagnetic resonance method

PERIODICAL: Referativnyy zhurnal. Fizika, no. 7, 1961, 148, abstract 7V365 ("Uch. zap. Yaroslavsk. tekhnol. in-ta", 1960, v. 5, 35 - 40)

TEXT: The author describes a simple straight spectrometer for observations of ЭПР (EPR) in the 3-cm range. A cylindrical resonator with H_{011}-type oscillations has been used. To investigate anisotropy of spectrum, it is possible to vary the angle between the specimen and the permanent magnetic field H. The feeding of klystron is stabilized. The modulation depth of the magnetic field amounts to ~150 oe. The signal-to-noise ratio for 10^{-6} mol diphenyl picryl hydrazyl is equal to ~20.

E. Kharakhash'yan

[Abstracter's note: Complete translation]

Card 1/1

CHERNYAKOVSKIY, F.P.; KALMANSON, A.E.; BLYUMENFEL'D, L.A.

Electron paramagnetic resonance in crystals of triphenylmethane dyes. Opt. i spektr. 9 no. 6:786-787 D '60. (MIRA 14:1)
(Methane--Spectra)

S/081/61/000/012/006/026
B117/B203

11.1570

AUTHOR: Chernyakovskiy, F. P.

TITLE: Apparatus for studying free radicals by the paramagnetic resonance method

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 12, 1961, 164, abstract 12E2 (12Ye2). ("Uch. zap. Yaroslavsk. tekhnol. in-ta", v. 5, 1960, 35-40)

/B

TEXT: A simple apparatus for observing the electron resonance of free radicals at a frequency of 9500 megacycles per second is described; the signal to noise ratio is 20 : 1 for 10^{-6} M diphenyl picryl hydrazyl.
[Abstracter's note: Complete translation.]

Card 1/1

CHERNYAKOVSKIY, F.P.; MACHTINA, K.A.; MUSABEKOV, Yu.S.

Using the magnetic method for investigating the properties of the crystals of dyes from the malachite green group. Khim. i khim. tekh. 1:247-254 '62. (MIRA 17:2)

CHERNYAKOVSKIY, F.P.

Mangetic properties of the crystallohydrates of triphenylmethane dyes. Khim. i khim. tekh. 1:255-258 '62. (MIRA 17:2)

BASAYEV, R.M.; MACHTINA, K.A.; CHERNYAKOVSKIY, F.P.; MUSABEKOV, Yu.S.

Electronic paramagnetic resonance of alizarin dyes.
Khim. i khim. tekh. 1:259-261 '62. (MIRA 17:2)

S/081/62/000/006/040/117
B101/B110

24,7600

AUTHORS: Basayev, R. M., Chernyakovskiy, F. P.

TITLE: Apparatus for studying electron paramagnetic resonance spectra with high-frequency modulation of the magnetic field

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 6, 1962, 156, abstract 6Ye10 (Uch. zap. Yaroslavsk. tekhnol. in-ta, v. 6, 1961, 249 - 251)

TEXT: A short description is given of a radiospectrometer for electron paramagnetic resonance, straightway type, with 3-cm range and HF modulation (100 kcps). In the spectrometer a rectangular resonator with piston is used for the H_{012} wave. The high frequency feeding is done by a coupling loop. A similar apparatus has been described earlier (RZhKhim, 1959, no. 20, 71287). [Abstracter's note: Complete translation.]

Card 1/1

DARBINYAN, T.M.; CHERNYAKHOVSKIY, F.R.; KNYAZ'KOVA, Z.I.

Modern chloroform anesthesia with the use of a mask and exact dosage for patients with burns. Eksper. khir. i anest. 9 no.1:67 70 Ja-F '64. (MIRA 17:12)

1. Institut khirirugii imeni Vishnevskogo (dir. - deystvitel'nyy chlen AMN SSSR prof. Vishnevskiy) AMN SSSR, Moskva.

GRIBANOV, V.A.; CHERNYAKOVSKIY, F.P.

Densitometric recording on an MF-4 microphotometer by means of an EPP-09M recording potentiometer. Prib. i tekh. eksp. 9 no.6:119 N-D '64. (MIRA 18:3)

1. Yaroslavskiy tekhnologicheskiy institut.

ACCESSION NR: AP4011500 S/0051/64/016/001/0155/0159

AUTHOR: Chetverikov,A.G.; Chernyakovskiy,F.P.; Blyumenfel'd,L.A.; Lyubchenko,L.S.; Moshkovskiy,Yu.Sh.

TITLE: Light induced paramagnetic centers in triphenylmethane dye crystals

SOURCE: Optika i spektroskopiya, v.16, no.1, 1964, 155-159

TOPIC TAGS: paramagnetic center, color center, photoreaction, triphenylmethane dye, brilliant green, malachite green, EPR, photocoloring, photobleaching

ABSTRACT: In recent years a number of investigators have reported observing the appearance of paramagnetic centers in pigment and dye crystals under the influence of illumination. The present paper gives the results of preliminary experiments on the influence of illumination as regards formation of paramagnetic centers in the crystals of some triphenylmethane dyes, namely, brilliant green (I), and two methylated derivatives of malachite green (II & III), synthesized by the Grignard reaction. The structural formulas of the investigated dyes are shown in the Enclosure. The EPR spectra were measured on an EPR-2 IKhF spectrometer; the absorption and reflection spectra on an SF-10 spectrophotometer. In agreement with the results of V.E.

Card 1/2

ACC.NR: AP4011500

Kholmogorov and D.N.Glebovskiy (Opt.i spektr.12,726,1962) and in contrast with the results of F.I.Chernyakovskiy,A.Ye.Kalmanson and L.A.Blyumenfel'd (Ibid.9,786,1960), the crystals of the investigated dyes precipitated from solution in the dark did not yield an EPR signal. EPR signals disappear upon illumination of the dye crystals with the light from a 3 watt incandescent lamp. It was found, in fact, that two types of paramagnetic centers form in dye I. Heating of the crystals results in fading of the EPR signal. In the course of the investigation it was also found that, in addition to formation of paramagnetic centers, illumination results in reversible change in the color of the dye. A tentative interpretation of the results is given, but thorough analysis must await completion of quantitative measurements which are now underway. Orig.art.has: 3 formulas and 3 figures.

ASSOCIATION: none

SUBMITTED: 15Apr63 DATE ACQ: 14Feb64 ENCL: 01

SUB CODE: PH NR REF SOV: 008 OTHER: 003

Card 2/3

SIKHARULIDZE, I.A., zasl. deyatel' nauki, prof., otv. red.; BERADZE, N.I., dots., otv. red.; ARKHANGEL'SKIY, V.N., prof., red.; ABULADZE, V.A., red.; ANTELAVA, D.N., kand. med. nauk, red.; BOGOSLOVSKIY, A.I., doktor biol. nauk, red.; BUNIN, A.Ya., kand. med. nauk, red.; VILENKINA, A., doktor med. nauk, red.; VISHNEVSKIY, N.A., prof., red.; ZARUBIN, G.S., nauchn. sotr., red.; ITSIKSON, L.Ya., kand. med. nauk, red.; KRASNOV, M.L., zasl. deyatel' nauki, prof., red.; MACHARASHVILI, P.D., zasl. vrach Gruz. SSR, red.; PUCHKOVSKAYA, N.A., prof., red.; RABKIN, Ye.B., prof., red.; RSHZHECHITSKAYA, O.V., kand. med. nauk, red.; ROSLAVTSEV, A.V., st. nauchn. sotr., red.; TARTAKOVSKAYA, A.I., kand. med. nauk, red.; FRADKIN, M.Ya., prof., red.; KHAYUTIN, S.M., prof., red.; CHERNYAKOVSKIY, G.Ya., kand. med. nauk, red.; CHKONIYA, E.A., kand. med. nauk, red.; SHATILOVA, T.A., doktor med. nauk, red.; YAKOVLEV, A.A., nauchn.sotr., red.

[Materials of the Second All-Union Conference of Ophthalmologists] Materialy Vsesoiuznoi konferentsii oftal'mologov. Tbilisi, Respublikanskoe nauchn. ob-vo oftal'mologov Gruz.SSR, 1961. 498 p. (MIRA 18:1)

1. Vsesoyuznaya konferentsiya oftal'mologov, 2d, Tiflis, 1961.
2. Chlen-korrespondent AMN SSSR (for Arkhangel'skiy).

L 6715-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RPL/AFWL/AS(mp)-2/RAEM(c)/SSD/ ASD(a)-5/RAEM(i)/ESD(gs)/ESD(t) JW/JPN/EM

ACCESSION NR: AP4042208 S/0020/64/157/002/0381/0383

AUTHOR: Blyumenfel'd, L. A.; Gribanov, V. A./ Lyubchenko, L. S./ Chernyakovskiy, F. P./ Chetverikov, A. G.

TITLE: The appearance of paramagnetic centers and EMF during electrochemical reactions in polycrystals of triphenylmethane dyes

SOURCE: AN SSSR. Doklady*, v. 157, no. 2, 1964, 381-383

TOPIC TAGS: paramagnetic center, electromotive force, electrochemical reaction, triphenylmethane dye, polycrystal of tripnenylmethane dye electron magnetic resonance, electron paramagentic resonance, Ohm's law, singlet, free radical, Curie law, triphenylmethane dye conductivity, solid triphenylmethane conductivity dependence

ABSTRACT: In continuation of earlier work which showed electron magnetic resonance (emr) signals in polycrystalline specimens of brilliant green subjected to artificial light, the authors describe some new electric and magnetic effects observed upon passing an electric current through pressed tablets of such specimens of the same and other dyes (see formulas I-VII). All tests were conducted

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L 6715-65

ACCESSION NR: AP4042208 2

with compound I and apply to the other dyes. Electrodes which did not influence electric and magnetic properties were inserted into the tablets. Positive deviations from Ohm's law were observed. With direct current, conductivity increased with time and voltage. It was 10^{-8} $ohm^{-1} \cdot cm^{-1}$ at room temperature and 360 v/cm. The current passing through the tablet gave rise to potentials of the same sign (much like charging an accumulator with reached e.g. 75 v with a 300 v current in a 0.15 cm thick tablet. A singlet epr (electron paramagnetic resonance) signal with g-factor appeared as the current passed through the tablet, indicating the appearance of free-radical neutral compounds at the cathode. Its dynamics may be seen from Fig. 2 (encl.) Test showed the paramagnetic centers located close to the cathode. Increasing the temperature led to rapid disappearance of the signal upon discharge. Studies of this motion between 300 and 77 K showed that its intensity did not obey the Curie law; it coincided with the temperature dependency of the "narrow" epr light signal. Orig. art. has: 2 figures and 7 formulas.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Physical Chemistry, Academy of sciences, SSSR)

SUBMITTED: 24Feb64 ENCL: 02

Card 2/5

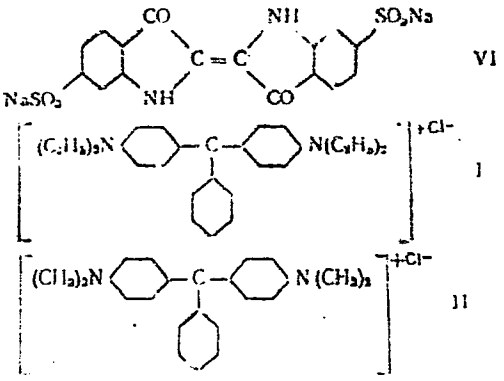
L 6735-65
ACCESSION NR: AP4042208

SUB CODE: GC,NP NO REF SOV: 003 OTHER: 001

Card 3/5

L 6715-65
ACCESSION NR: AP4042208

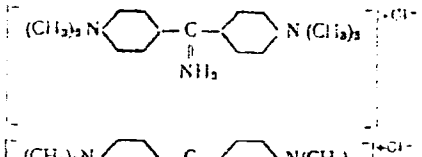
ENCLOSURE: 01



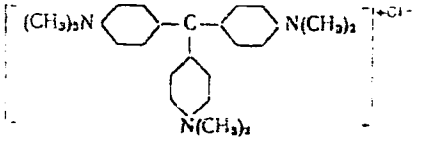
VI

I

II



III



IV

Card 4/5

L 6715-65
ACCESSION NR: AP4042208 ENCLOSURE: 02

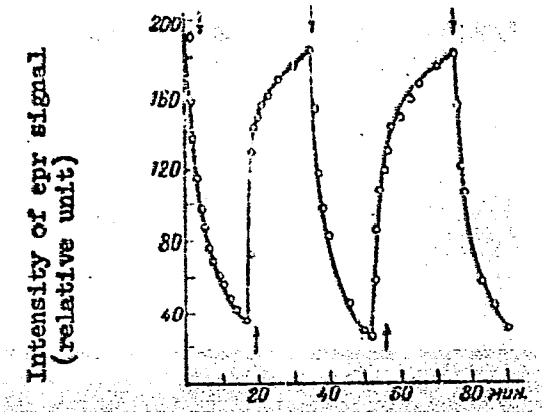


Fig. 2. Increase and decrease of intensity of the epr signal of a tablet of dye I in successive cycles of discharge and recharge. The arrows show the beginning of discharge (↓) and beginning of recharge (↑)

Card 5/5

L 59541-65 EWT(1)/EPA(s)-2/EWT(m)/EWG(m)/EWP(j)/T/EWA(h) Pz-6/Pc-4/Pt-7/Peb
IJP(c) DS/AT/JAJ/RM

ACCESSION NR: AP5016829 UR/0364/65/001/006/0735/0738
621.315.592:547

AUTHOR: Chernyakovskiy, F. P ; Gribanov, V. A.; Chetverikov, A. G.; Blyumenfel'd, L. A.

TITLE: Electrochemical mechanism of charge transfer and generation of electromotive force in certain organic semiconductors

SOURCE: Elektrokhimiya, v. 1, no. 6, 1965, 735-738

TOPIC TAGS: charge transfer, electromotive force, organic semiconductor, electrochemistry, polycrystalline complex

ABSTRACT: The charge transfer phenomenon and the origin of the electromotive force were studied in polycrystalline complex organic semiconductors: n-phenylenediamine with tetrabromoquinone (I), n-phenylenediamine with tetrachloroquinone (II), benzidine tetrachloroquinone (III), and benzidine [illegible]. The [illegible] from acetonitrile, ethanol, bromobenzene, [illegible]. After drying [illegible] of room temperature under 10^{-2} mm Hg the [illegible] were pressed [illegible] kg/cm^2) into tablets 10 mm in diameter and 1 mm thick. Each tablet had a built-in

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L 59541-65

ACCESSION NR: AP5016829

metal electrode. The tablets had an electrical conductance of the order of 10^{-9} $(ohm \cdot cm)^{-1}$. After passing a 10^{-5} to 10^{-7} amp[illegible] for a few minutes, electromotive forces of 30 to 35 volts were generated [illegible] complexes I and II [illegible] acetonitrile the electrical conductance and [illegible] motive force are [illegible] tional to the tablet thickness. There [illegible] transfer [illegible] between the electrodes through the complex [illegible] in the [illegible] the energy of activation of thermo-electrica[illegible] for complex I and II [illegible] 0.01 electron volt and 0.38 ± 0.01 electron v[illegible] pectively. When complex II tablets were exposed to vapor of aceton[illegible] water and evacuated [illegible] Hg, the mechanism of the charge transfer [illegible] the reductive [illegible] tivation dropped to 0.25 ± 0.01 electron volt [illegible] ± 0.01 electron volt, respectively. Discontinuous change of the energy [illegible] transfer mechanism is electrochemical. The [illegible] of electrical current involves reduction [illegible] and oxidation [illegible] of them take place on the surface of the [illegible] at the complex-[illegible] reverse reactions result in generation [illegible] form[illegible] water, condensed on the complex surface, [illegible] not transfer [illegible] Complex III and IV do not produce any electr[illegible] type. Complex II prepared from bromobenzene, ethanol, and [illegible] not produce any [illegible]

Card 2/3

L 59541-65

ACCESSION NR: AP5016829

force. Orig. art. has: 2 figures.

ASSOCIATION: Institut khimicheskoy fizik[illegible] SSSR (Institute of Chemical Physics, Academy of Sciences, SSSR)

SUBMITTED: 03Feb65 ENCL: [illegible] SUB CODE: [illegible]

NO REF SOV: 003 OTHER: [illegible]

Card 3/3

DARBINYAN, T.M.; SARKISOV, D.S.; KRYMSKIY, L.D.; CHERNYAKHOVSKIY, F.R.

Postoperative pulmonary atelectasis in patients with congenital heart defects. Grud. khir. 5 no.6:26-34 N-D'63 (MIRA 17:2)

1. Iz Instituta khirurgii imeni A.V.Vishnevskogo (direktor deystvitel'nyy chlen AMN SSSR prof. A.A. Vishnevskiy) AMN SSSR. Adres avtorov: Moskva, B. Serpukhovskaya ul., d. 27. Institut khirurgii imeni A. Vishnevskogo.

DARBINYAN, T.M.; CHERNYAKHOVSKIY, F.R.

Anesthesia in surgery and painful bandaging of burned persons.
Eksper. khir. i anest. 8 no.3:77-82 My-Je'63 (MIRA 17:1)

1. Iz laboratorii anesteziologii Instituta khirurgii imeni A.V.Vishnevskogo (dir. - deystvitel'nyy chlen AMN SSSR prof. A.A. Vishnevskiy) AMN SSSR,

CHERNYAKHOVSKIY, F.R.

4th, 5th, 6th, 7th and 8th meetings of the Anaesthesiological Society of Moscow and Moscow region. Eksper. khir. i anest. 9 no.5:87-94 S-O '64. (MIRA 18:11)

DARBINYAN, T.M.; CHERNYAKHOVSKIY, F.R.; CHEBOTAR', G.I.

Automatic maintenance of adequate artificial pulmonary ventilation; preliminary report. Nov. med. tekh. no.3:108-111 '65.
(MIRA 19:1)

KOVALENKO, Ye.A. (Moskva); POPKOV, V.L. (Moskva); CHERNYAKOV, I.N. (Moskva)

Oxygenation of brain tissue during the inspiration of air and oxygen with an admixture of CO_2. Fiziol. zhur. 50 no.2:177-182 F '64. (MIRA 18:2)

KOKIN, M.V., kand. tekhn. nauk; MONAKHOV, I.G., kand. tekhn. nauk; CHERNYAKOV, L.M., kand. tekhn. nauk; SHADRINA, G.N., kand. tekhn. nauk

Selecting cranes to assemble large-panel industrial buildings.
Transp. stroi. 14 no.11:30-32 N '64. (MIRA 18:3)

CHERNYAN, S.M.

RAPOPORT, B.M.;MILOVIDOVA, N.V.;CHERNYAN, S.M.

Group chemical composition of kerosene gas oil fractions. Khim. i tekh. topl. i masel no.2:3-11 F '57. (MLRA 10:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut poppererabotki nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva.
(Hydrocarbons--Analysis) (Chromatographic analysis)

CHERNYANSKIY, P.M., inzh.

Investigating the reliability of the design of cam mechanisms for automatic machine tools. Izv.vys.ucheb.zav.; mashinostr. no.9:131-139 '62. (MIRA 16:2)

1. Moskovskoye vysshaye tekhnicheskoye uchilishche imeni Baumana.

(Cams) (Machinery, Automatic)

CHERNYANSKIY, P.M., inzh.

Efficiency of bracketless cam gears in automatic machines.
Mekh. i avt.proizv. 18 no.8:48-49 Ag '64. (MIRA 17:10)

CHERNYANSKIY, P.M., inzh.

Interaction of a slide bar and supports considering the rigidity and fitting gap. Izv. vys. ucheb. zav.; mashinostr. no. 10:44-51 '65 (MIRA 19:1)

1. Submitted November 22, 1963.

L 02956-67 EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(l)
ACC NR: AP6029952 (A, N) SOURCE CODE: UR/0413/66/000/015/0129/0130

INVENTORS: Zagorodnikov, A. Ya.; Chernyanskiy, P. M.; Yermakov, Yu. M.; Zamchalov, Yu. P.; Shaumyan, G. A.

ORG: none

TITLE: A method for taking a finish cut in producing bodies of revolution. Class 49, No. 184580 [announced by Moscow Higher Technical School of the Order of Lenin and the Order of the Workers' Red Banner imeni N. E. Bauman (Moskovskoye ordena Lenina i ordena Trudovogo Krasnogo Znameni vyssheye tekhnicheskoye uchilishche)]

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 129-130

TOPIC TAGS: metalworking, metalworking machine accessory, machine tool, metal cutting machine tool, body of revolution

ABSTRACT: This Author Certificate presents a method for taking a finish cut in producing bodies of revolution being simultaneously turned (see Fig. 1). To increase the efficiency and to improve the quality of surface, the finish cut is taken with a tool bit fed in the radial and the tangential directions in respect to the product. The tool bit is provided with two cutting blades, one of which is held at an angle to the axis of the product and is fed gradually into the contact with the product at the removal zone of the outer layer. The other blade is held parallel to the axis

Card 1/2 UDC: 621.941.1:08

L 09256-67

ACC NR: AP6029952

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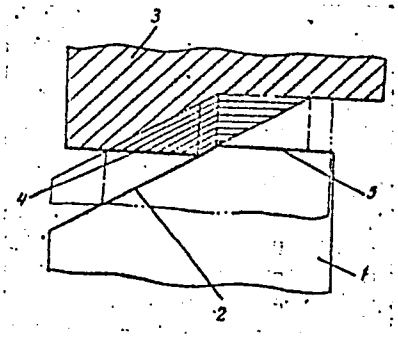

Fig. 1. 1 - tool bit; 2 - first cutting blade; 3 - product; 4 - zone of outer layer removal; 5 - second cutting blade

of the product and is ground to fit that region of the body of revolution which is being cut by this blade. It is this second blade which produces the finish cut on the product. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 17Oct64

CHERNYASHEVSKIY, V. T.

"Instruction Charge Panel for Storage Batteries," Fiz. v Shkole, No.4, 1952

1. CHERNYASHEVSKIY, V. T.

2. USSR (600)

4. Microscope and Microscopy

7. Homemade microscope from a spare eyepiece. Fiz v shkole No 1 1953.

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

CHERNYASHEVSKIY, V.T. (g. Voroshilovsk Luganskoy oblasti)

Laboratory counter of ionizing particles. Fiz.v shkole 21 no.4:88-89 Jl-Ag '61. (MIRA 14:10)
(Physical instruments)

1. IZRAYLEVICH, L. A., CHERNYASKIY, I. YA.

2. USSR (600)

4. Sand, Foundry

7. Production cost of reclaimed sand. Lit. proizv. No. 11, 1952.

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

LASTIKOV, M., inzh.; ASHKINAZI, B., inzh.-mekhanik (Baku); BELEN'KAYA, L., inzh.; ZNAMENSKIY, A.; ZAYTSEV, V.; CHERNYATEVICH, K., tekhnik-elektrik.

Suggested, created, introduced. Izobr.i rats. no.1:28-30 Ja '61. (MIRA 14:1)

1. Byuro ratsionalizatorov i izobretateley Pskovskogo oblastnogo upravleniya mestnoy promyshlennosti (for Lastikov). 2. Nachal'nik Byuro ratsionalizatorov i izobretateley, Leningrad (for Znamenskiy). 3. Starshiy inzhener Byuro ratsionalizatorov i izobretateley Dal'nevostochnogo parokhodstva, Vladivostok (for Zaytsev). 4. Dneprodzerzhinskiy azotnotukovyy zavod (for Chernyatevich). (Technological innovations)

CHERNYATIN, A.A., dotsent, kand.tekhn.nauk

New method for determining the stiffness degree of leather of footwear bottoms. Kozh.-obuv.prom.2 no.3:26-28 Mr '60.
(MIRA 14:5)

(Leather--Testing)

APPROVED FOR RELEASE: 06/12/2000 CIA-RDP86-00513R000308620003-9"

CHERNYATIN, A.A., kand.tekhn.nauk, dotsent

Determining the degree of complexity of leather footwear styles. Report No.2. Method of determining the complexity of leather shoe trimmings and decoration. Izv.vys.ucheb.zav.; tekh.leg.prom. no.1: 76-80 '62. (MIRA 15:2)

1. L'vovskiy torgovo-ekonomicheskiy institut. Rekomendovana kafedroy tovarovedeniya promyshlennykh tovarov.
(Shoe manufacture)

CHERNYATIN, A.A., kand.tekhn.nauk, dotsent

Problem of establishing the degree of complexity of leather shoe styles. Report No.2: Determining the complexity of the shoe upper design in leather footwear. Izv.vys.ucheb.zav.; tekh.leg.prom. no.6:63-70 '61. (MIRA 14:12)

1. L'vovskiy torgovo-ekonomicheskiy institut. Rekomendovana kafedroy tovarovedeniya promyshlennykh tovarov.
(Shoe manufacture)

Translation from: Referativnyy zhurnal. Metallurgiya, 1959, Nr 3, p 45 (USSR) SOV/137-59-3-5242

AUTHORS: Chernyatin, A. N., Kitayev, B. I.

TITLE: On the Maximum Size of a Lump of Charge Material in a Blast Furnace (O maksimal'nom razmere kuska shikhty v domennoy pechi)

PERIODICAL: Tr. Ural'skogo politekhn. in-ta, 1958, Nr 73, pp 74-86

ABSTRACT: An attempt is made to obtain a relationship for determining the maximum lump size (LS) of charge material by means of the laws governing the heat exchange and the aerodynamics of the layer. The relationship found indicates that the height of a blast furnace (F) is determined by the LS and that a slight change in LS causes a fairly large change in the height. A change in LS permits the regulation of the temperatures of a blast F by decreasing or increasing the reserve height of the blast F. The author draws the conclusion that an increase in the yield of the blast F obtained through a simultaneous increase in the LS and the height of a blast F results in a deterioration of its volumetric utilization factor.

Card 1/1

M. O.

CHERNYATIN, A.N.

Aerodynamics of the loose material layer. Trudy Ural.politekh. inst. 87-104 '58. (MIRA 12:8)
(Blast furnaces) (Aerodynamics)

CHERNYATIN, A.N.; KITAYEV, B.I.

Effect of burden material properties on heat exchange in the layer. Trudy Ural.politekh.inst. 73:105-122 '58.

(Blast furnaces) (Heat--Transmission) (MIRA 12:8)

C[illegible]YATIN, [illegible], Cand Tech Sci--(diss) "Effect of the nature of structure-change materials up on the coredynamics and heat rich[illegible] in the [illegible]." Sverdlovsk, 1957. 14 pp (Min of Higher Education USSR. Ural Polytech Inst im S.M. Kirov), 150 copies (KL, 15-58, 140)

-103-

CHERNYATIN, A.N.; KITAYEV, B.I.

New developments in the calculation of zonal heat balances and thermal conditions in blast furnaces. Izv. vys. ucheb. zav.; chern. met. no.10:20-30 '60. (MIRA 13:11)

1. Ural'skiy politekhnicheskiy institut.
(Blast furnaces) (Heat--Transmission)

TROYB, S.G.; CHERNYATIN, A.N.; PASTUKHOV, G.M.

Classification of compacted excavator peat. Gaz. prom. 5 no. 12:15-17 D '60. (MIRA 14:1)
(Peat gasification)

TROYB, S.G.; CHERNYATIN, A.N.; VELIZHEV, F.K.

Gasification of fuel oil. Izv.vys.ucheb.zav.; chern.met. 4 no.6: 194-197 '61. (MIRA 14:6)

1. Ural'skiy politekhnicheskiy institut.
(Petroleum as fuel)

CHERNYATIN, A.N.; TLEUGABULOV, S.M.

Design and durability of blast furnace hearths and hearth bottoms. Metallurg 7 no.9:7-9 S '62. (MIRA 15:9)

1. Karagandinskiy metallurgicheskiy zavod (for Tleugabulov).
(Blast furnaces--Design and construction)

CHERNYATIN, A.N. (Chelyabinsk)

Ways of studying the dynamic properties of a blast furnace hearth. Izv. AN SSSR Met. i gor. delo no.3:32-36 My-Je '62.
(MIRA 15:7)

CHERNYATIN, A. N.

Investigating the indices of the thermal conditions of a blast furnace bottom in steady and transient conditions of its operation. Izv. vys. ucheb. zav.; chern. met. 7 no.6:29-39 '64. (MIRA 17:7)

1. Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii.

CHERNYATIN, A.N.; OSTROUKHOV, M.Ya.; GIMMEL'FARB, R.A.; VOLKOV, Yu.P.; BABARYKIN, N.N.; SHPARBER, L.Ya.; GALATONOV, A.L.

Mastering of MMK [Magnitogorsk Metallurgical Combine] blast furnace operations with the use of natural gas. Metallurg 10 no.8:12-13 Ag '65. (MIRA 18:8)

1. Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii i Magnitogorskiy metallurgicheskiy kombinat.

AGASHIN, A.A.; BABARYKIN, N.N.; VOLKOV, Yu.P.; GALATONOV, A.L.; KRYUKOV, N.M.; MALIKOV, K.V.; OSTROUKHOV, M.Ya.; PISHVANOV, V.L.; CHERNYATIN, A.N.; YUSHIN, F.A.

Experimental operation of blast furnaces on mazut and natural gas. Stal' 25 no.5:393-400 My '65. (MIRA 18:6)

1. Magnitogorskiy metallurgicheskiy kombinat; Vsesoyuznyy nauchno-issledovatel'skiy institut metallurgicheskoy teplotekhniki i Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii.

CHERNYATIN, I.A., starshiy nauchnyy sotrudnik, kandidat tekhnicheskikh nauk.

Equipment for hydroelectric power stations for measuring and controlling the water flow conditions during operations. Izv.VNIIG no.43: 43-53 '50. (MLRA 10:2)

(Hydroelectric power stations)

CHERNYATIN, I.A., starshiy nauchn.sotrudnik, kand. tekhn. nauk.

Water-level lowering time in surge tanks in connection with suddenly turned-on loads. Izv. VNIIG 46:167-175 '51.

(Hydraulics) (MIRA 12:5)

AUTHOR: Chernyatin,I.A.,Candidate of Technical Sciences 98-58-7-9/21

TITLE: Operational Testing of Hydraulic Turbine Units in Hydro-electric Power Plants (Ekspluatatsionnyye ispytaniya gidroturbinnykh blokov i agregatov na gidroelektrostantsiyakh)

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1958, Nr 7, pp 30-34(USSR)

ABSTRACT: The author reviews different simplified methods of the operational testing of turbines and proposes the method of synthesis of exploitation. This theory is described in details and analytical and graphic determinations are given. There are 3 graphs, 1 figure and 7 references, 6 of which are Soviet and 1 American.

1. Power plants 2. Hydraulic systems--Test methods 3. Hydraulic systems--Test results

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CHERNYATIN, I.A., starshiy nauchnyy sotrudnik, kand.tekhn.nauk

Investigating the relation between the pressure drop in the case and the discharge of water flowing through the turbine. Izv.VNIIG 61:60-71 '58. (MIRA 13:6)
(Hydraulic turbines)

CHERNYATIN, Ivan Aleksandrovich; GIRSHKAN, I.A., red.

[Methods for operational investigations of hydraulic turbine units of hydroelectric lower plants and planning their flow metering devices] Metodika ekspluatatsiionnykh issledovanii gidroturbinnykh blokov GES. Proektirovanie ikh raskhodomernykh ustroistv. Moskva, Gos.energ.izd-vo, 1959. 77 p. (MIRA 13:3)
(Hydraulic turbines)

CHERNYATIN, I.A., starshiy nauchnyy sotrudnik, kand.tekhn.nauk

Head loss in sectional pipes before the spiral turbine casing in low-pressure hydroelectric power stations. Izv. VNIIG 65:107-116 '60. (MIRA 14:5)

(Hydraulics) (Hydroelectric power stations)

VUKS, M.F.; CHERNYAVSKAYA, I.A.

Broadening of the scattering line in alcohols and affine homologous series and its relation to the scattering of electromagnetic waves. Vest.LGU 17 no.22:45-51 '62. (MIRA 15:12)
(Hydrocarbons) (Alcohols)
(Electromagnetic waves—Scattering)

AVTONOMOV, G.Ye.; KARTVELISHVILI, N.A.; CHERNYATIN, I.A.

Results of the calculations of a water hammer by the effective curves of the shutting-off of turbine deflectors. Izv.AN SSSR.Mekh. i mashinostr. no.5:155-159 S-O '63. (MIRA 16:12)

VASIL'YEV, Yu.S., dots., kand. tekhn. nauk; VEL'NER, Kh.A., dots., kand. tekhn. nauk; GINDUS, D.O., inzh.; GOLOVACHEVSKIY, N.I., dots., kand. tekhn. nauk; GROMOV, A.I., inzh.; DOMANSKIY, L.K., inzh.; ISAYEV, Yu.M., inzh.; KULESH, N.P., dots., kand. tekhn. nauk; MIKHALEV, B.N., dots., kand. tekhn. nauk; MOROZOV, A.A., prof., doktor tekhn. nauk [deceased]; NALIMOV, S.M., st. nauchn. sotr., kand. tekhn. nauk; REZNIKOVSKIY, A.Sh., kand. tekhn. nauk; SVANIDZE, G.G., doktor tekhn. nauk; TANANAYEV, A.V., dots., kand. tekhn. nauk; KHAZANOVA, A.Z., inzh.; CHERNYATIN, I.A., st. nauchn. sotr., kand. tekhn. nauk; SHCHAVELEV, D.S., prof., doktor tekhn. nauk; YAGODIN, N.N., st. nauchn. sotr., kand. tekhn. nauk; LEONOVA, B.I., red.

[Utilization of water power] Ispol'zovanie vodnoi energii. Moskva, Energiia, 1965. 563 p. (MIRA 19:1)

ACC NR: AP7004238 SOURCE CODE: UR/0103/67/000/001/0005/0016

AUTHOR: Chernyatin, V. A. (Moscow)

ORG: none

TITLE: Synthesizing stable linear control systems

SOURCE: Avtomatika i telemekhanika, no. 1, 1967, 5-16

TOPIC TAGS: automatic control R and D, automatic control theory, linear automatic control

ABSTRACT: A linear automatic control system describable by $\dot{\eta} = A\eta + bu$ is considered; here, η is an n-vector, A is an nxn matrix, b is an n-vector, u is a scalar control input (of the controller). Two synthesis problems are solved, with gain constrain imposed by the asymptotic stability of the system: (1) In the class of permissible controls, design a linear controller $u = k'\eta$ that would

 UDC: 62-501.12

ACC NR: AP7004238

ensure asymptotic stability to the equilibrium state $\eta = 0$; (2) Design a linear controller that would ensure a stability δ higher than a certain specified $\mu > 0$; here, k is an n-vector and k' is a transposed vector (with respect to k). The solution is based on the Hurwitz stability criteria; however, solution of the Hurwitz inequalities proper is avoided by introduction of positive parameters. Four examples illustrate applications of the method. Orig. art. has: 75 formulas.

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L 63684-65 EWT(d)/EPF(n)-2/EWP(1) IJP(c) WW/BC

ACCESSION NR: AP5013834 UR/0103/65/026/005/0770/0781

55 62-50

AUTHOR: Chernyatin, V. A. (Moscow)

TITLE: Investigation of the solutions of a set of Riccati equations in the problem of analytical construction of optimal controllers

SOURCE: Avtomatika i telemekhanika, v. 26, no. 5, 1965, 770-781

TOPIC TAGS: Riccati equation, automatic control, automatic control design, automatic control system, automatic control theory

ABSTRACT: The problem is considered of the analytical construction of an optimal controller for a plant describable by these equations

$$\frac{d\eta_k}{dt} = \sum_{\alpha=1}^{n} b_{k\alpha}(t)\eta_\alpha + m_k(t)\xi \qquad (k = 1, \ldots, n),$$

or in a vector form: $\frac{d\eta}{dt} = B(t)\eta + m(t)\xi$.

where η is the n-variable vector; B(t) and m(t) are $n \times n$ and $n \times 1$ matrices, respectively, which are continuous and bounded by a t_0, T interval; ξ is the

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output variable of the controller. An auxiliary theorem is proven which reduces the problem to the solution of a set of $n(n+1)/2$ Riccati equations:

$$\frac{dy_{\lambda j}}{dt} + \chi a_\lambda \delta_{\lambda j} + \sum_{\alpha=1} (b_{\alpha\lambda} y_{\alpha j} + b_{\alpha j} y_{\alpha\lambda}) -$$

$$- \frac{1}{c\chi} \left(\sum_{\alpha=1}^{n} m_\alpha y_{\alpha j} \right) \left(\sum_{\alpha=1}^{n} m_\alpha y_{\alpha\lambda} \right) = 0$$

and to finding the conditions guaranteeing the existence of this positive definite quadratic V-form:

$$V(\eta, t) = \sum_{\lambda, j=1}^{n} y_{\lambda j} \eta_\lambda \eta_j \quad (y_{\lambda j} = y_{j\lambda}).$$

It is further proven that the solution of the above problem exists. Two examples illustrate the use of formulas. "The author wishes to thank A. M. Letov for his useful advice and comments." Orig. art. has: 4 figures and 60 formulas.

ASSOCIATION: none

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