DAMASKIN, B.B.

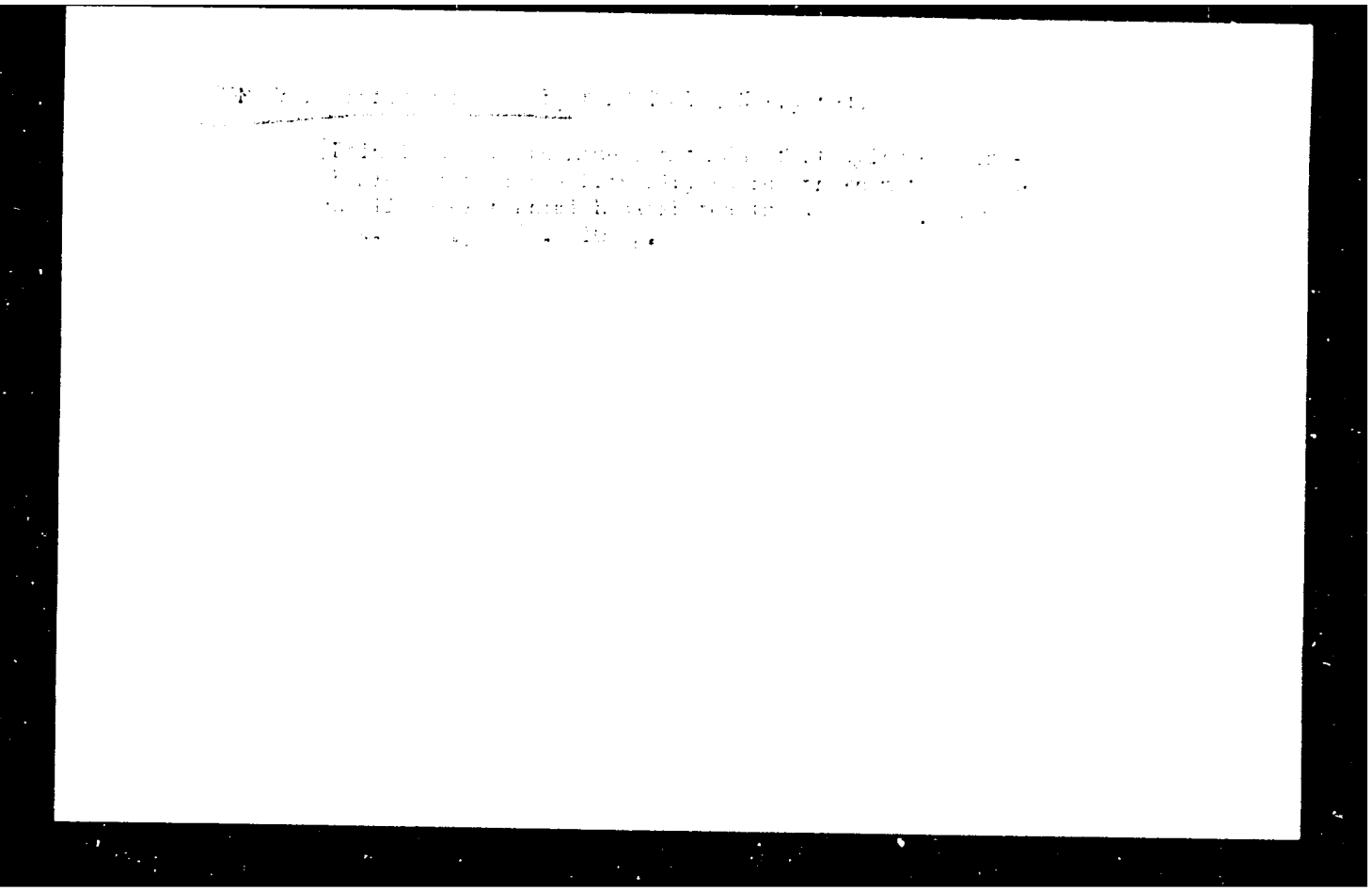
Adsorption isotherm equation and the shape of peaks on differential capacity curves. Zhur.fiz.khim. 39 no.7:1636-1639 Jl '65. (MIRA 18:8)

1. Moskovskiy gosudarstvennyy universitet imeni M.V.Lomonosova.

LEVAKH, R.; DAMASKIN, B.B.

Adsorption of normal and isoamyl alcohols on mercury. Zhur. fiz. khim. 38 no.5:1154-1161 My '64.
(MIRA 18:12)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.
Submitted May 23, 1963.



DAMASKIN, B.B.

Some regularities of nonequilibrium differential capacity curves in the presence of an organic substance. Elektrokhimiia 1 no.3:255-261 Mr '65. (MIRA 18:12)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

FEDOROVICH, Nina Vladimirovna; DAMASKIN, Boris Borisovich; KOROBTSOVA, N.A., red.

[Manual for practical training in theoretical electrochemistry] Rukovodstvo k praktikumu po teoreticheskoi elektrokhimii. Moskva, Izd-vo Mosk. univ. Pt.1. 1965. 72 p. (MIRA 19:1)

DAMASKIN, B.B.

Maxima (humps) on the differential capacitance curves and the structure of the surface layer. Elektrokhimiia 1 no.10:1258-1262 O '65. (MIRA 18:10)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

DAMASKIN, B.B.; IVANOVA, R.V.; SURVILA, A.A.

Adsorption of inorganic ions on mercury from formamide solutions.
Elektrokhimiia 1 no.7:767-772 Jl '65. (MIRA 18:10)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

IVANOV, V.F.; DAMASKIN, B.B.; FRUMKIN, A.N.; IVANCHENKO, S.A.; TESHEKOVA, N.I.

Differential capacity curves of a mercury electrode at high electrolyte concentrations. Elektrokhimiia 1 no.3:279-282 Mr '65. (MIRA 18:12)

1. Moskovskiy gosudarstvennyy universitet i Tul'skiy mekhanicheskiy institut.

DAMASKIN, B.B.

Constant of the attraction interaction between adsorbed organic molecules and the factors contributing to its linear dependence on the potential. Elektrokhimiia 1 no.9:1123-1126 S '65.
(MIRA 18:10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.

KUZNETSOV, V.A.; DAMASKIN, B.B.

Adsorption of some derivatives of pentafluoro- and pentachlorobenzene at the solution - air and solution - mercury interfaces. Elektrokhimiia 1 no.9:1153-1156 S '65. (MIRA 18:10)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.

L 27290-66 EWT(m)/T IJP(c)

ACC NR: AP6016863 SOURCE CODE: UR/0074/65/034/010/1764/1778

22
21
B

AUTHOR: Damaskin, B. B.

ORG: Department of Electrochemistry, MGU im. M. V. Lomonosov (Kafedra elektrokhimii MGU)

TITLE: Regularities in the adsorption of organic compounds

SOURCE: Uspekhi khimii, v. 34, no. 10, 1965, 1764-1778

TOPIC TAGS: adsorption, electrode potential, organic chemistry

ABSTRACT: Among the various direct and indirect methods of studying the adsorption of organic substances on the surface of electrodes the most widely used are the methods of measuring the boundary tension (σ), and differential capacity (C) in relation to the electrode potential (ϕ). The predominant portion of these data were obtained for separation boundary of mercury/water solutions with slight additions of organic compounds. An adsorption theory for organic compounds was developed which was based mainly on experimental data obtained for the mercury electrode by measurement of the σ, ϕ- and C, ϕ-curves.

Card 1/2 UDC: 541.135.5-183:547

L 27290-66

ACC NR: AP6016863

The selection of electrical variables and the adsorption isotherm are presented in detail, from which expressions are derived. Finally, a quantitative theory of differential capacity curves in the presence of organic additives is presented.

The author expresses his deep gratitude to A.N. Frumkin for his collaboration. Orig. art. has: 9 fig. and 48 formulas. [JPRS]

SUB CODE: 07 / SUBM DATE: none / ORIG REF: 037 / OTH REF: 039

Card 2/2

VENKATESYAN, V.K.; DAMASKIN, B.B.; NIKOLAYEVA-FEDOROVICH, N.V.

Effect of the adsorption of organic surfactants on the kinetics of the electrolytic reduction of anions. Zhur. fiz. khim. 39 no. 1:129-134 Ja '65 (MIRA 19:1)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova. Submitted May 23, 1964.

LERKKH, R.; DAMASKIN, B.B.

Adsorpti of aliphatic amines on mercury. Zhur. fiz. khim. 39 no. 1:211-214 Ja '65 (MIRA 19:1)

1. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova. Submitted February 8, 1964.

DAMASKIN, B. I.

Damaskin, B. I. - "The dynamics of the drive mechanism of a [illegible] wheel operation", Mekh.-tekhnol. trudy (Mosk. tekstil'n-t, Vol. XI, 194[illegible], p. 3-1[illegible].

SO: U-3042, 11 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 8, 1949).

DAMASKIN, Boris Ivanovich.

Academic degree of Doctor of Technical Sciences, based on his defense, 2 December 1954, in the Council of the Moscow Textile Inst, of his dissertation entitled: "Some Questions on the Theory of Computing the Designing of the Drawing Apparatus of a Spinning Machine."

Academic degree and/or title: Doctor of Science

SO: Decisions of VAK, List no. 11, 14 May 55, Byulleten' MVO SSSR, No. 15, Aug 56, Moscow, pp. 5-24, Uncl. JPRS/NY-537

DAMASKIN, B.I., doktor tekhn.nauk prof.; BARSH, kand.tekhn.nauk, dots.; STEPNOV, L.N., assistent; LEVIN, V.I., assistent

Method for experimentally determining the magnitude of active stresses in conveyer chains. Izv.vys.ucheb.zav.; tekh.leg. prom. no.5:146-151 '59. (MIRA 13:4)

1. Moskovskiy tekhnologicheskiy institut legkoy promyshlennosti. Rekomendovana kafedroy detaley mashin.
(Dynamometer) (Conveying machinery--Testing)

DAMASKIN, B.I., prof., doktor tekhn.nauk; SIDOROV, Yu.P., kand.tekhn. nauk, inzh.

Right way of using the control mechanisms of looms. Tekst. prom. 20 no.6:27-31 Je '60. (MIRA 13:7)
(Looms)

DAMASKIN, B.I., doktor tekhn.nauk, prof.; BARSH, K.N., kand.tekhn.nauk, dots.

Cooperating with production. Kozh.obuv.prom. 2 no.4:6-8 Ap '60. (MIRA 13:9)

(Shoe manufacture)

DAMASKIN, B.I., doktor tekhn.nauk, prof.; STEPNOV, L.N., assistent

Methods of studying the characteristics of the load on sewing machine needles. Nauch.trudy MTILP no.18:124-131 '60. (MIRA 15:2)

1. Kafedra detaley mashin Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

(Sewing machines--Testing)

DAMASKIN, Boris Ivanovich, doktor tekhn. nauk; SIDOROV, Yuriy Pavlovich, SIMAKIN, V.V., retsenzent; AKSENOVA, I.I., red.; SHVETSOV, S.V., tekhn. red.

[Standardization and modernization of weft control mechanisms] Normalizatsiia i modernizatsiia mekhanizmov kontrolia utochnoi niti. Moskva, Izd-vo nauchno-tekhn. lit-ry RSFSR, 1961. 108 p. (MIRA 15:3)

(Looms)

DAMASKIN, B.I.; LEVIN, V.I.

Analyzing the performance of the gears of sewing machines.
Shvein.prom. no.3:19-23 My-Je '62. (MIRA 15:6)
(Sewing machines) (Gearing)

DAMASKIN, B.I.; LEVIN, V.I., (Moskva)

Loading dynamics of the shafts of sewing machines. Shvein.prom. no.1:9-14 Ja-F '62. (MIRA 15:4)
(Sewing machines—Vibration)

DAMASKIN, B.I. (Moskva); PLOTNIKOV, A.Ye. (Moskva); LEVIN, V.I. (Moskva)

Torsional vibrations of the main shaft of the 22-A Class PMZ sewing machine with simplified needle and thread-pulling mechanisms. Shvein. prom. no.4:16-18 Jl-Ag '62.
(MIRA 16:6)

(Sewing machines—Vibration)

[redacted], B.I., doktor tekhn. nauk, prof.; BARSH, K.N., kand. tekhn. nauk, dotsent

Loading of pivotal conveyors in shoe manufacture. Nauch. trudy MTILP [redacted]. (MIRA 16:7)

1. Kafedra [redacted]y mashin Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.
(Conveying machinery)
(Shoe industry—Equipment and supplies)

DAMA[illegible], B.I., doktor tekhn. nauk, prof.; STEPNOV, L.N., starshiy prepodavatel'

Investigating the heating temperature of sewing machine needles during the puncture of stitched materials. Nauch. trudy MTILP no.24:160-167 '62. (MIRA 16:7)

1. Kafedra detaley mashin Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.
(Sewing machines—Testing)
(Thermometry)

DAMASKIN, B.I., doktor tekhn. nauk, prof.

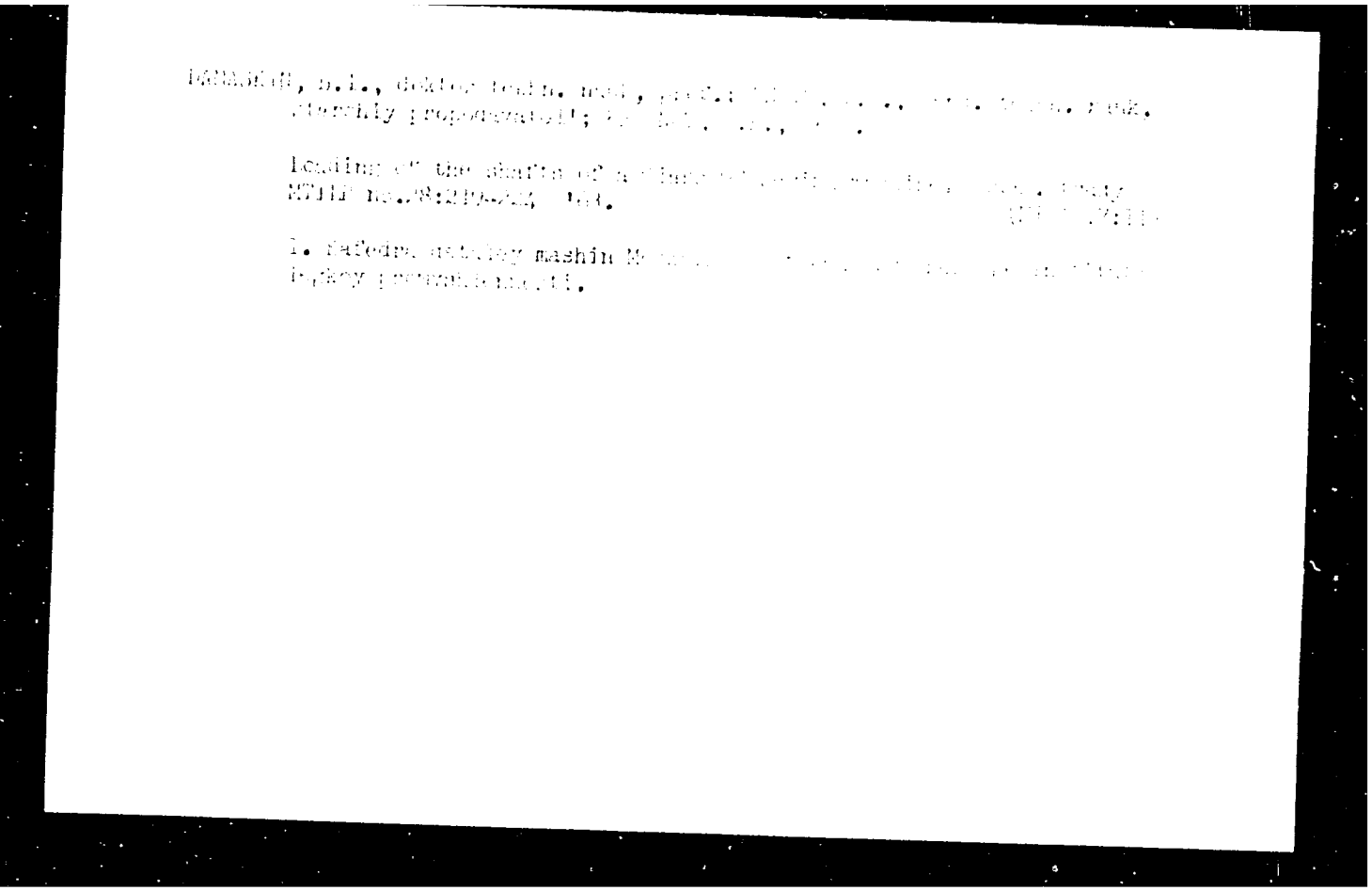
Investigating the pulse variable speed reducing gear. Nauch. trudy MTILP no.24:167-175 '62. (MIRA 16:7)

1. Kafedra detaley mashin Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.
(Conveying machinery) (Gearing---Testing)

DAMASKIN, B.I., doktor tekhn. nauk, prof.; LEVIN, V.I., assistent

Methods for investigating the electric driving of sewing machines. Nauch. trudy MTILP 25:221-226 '62. (MIRA 16:8)

1. Kafedra detaley mashin Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.



[illegible]KIN, N.I., doktor tekhn. nauk, prof.; [illegible] starshiy prepodavatel'; [illegible]

Loading of the shafts of a semi[illegible]. Nauch. trudy MTILP no.28:2[illegible]

1. Kafedra detaley mashin [illegible] (Continued) legkoy promyshlennosti.

APPROVED FOR RELEASE: 07/12/2001 CIA-RDP86-00513R000509530010-8"

DAMASKIN, B.I.; LEVIN, V.I. (Moskva)

Studying the loading of the electric drive of commercial sewing machines. Shvein.prom. no.1:6-11 Ja-F '64. (MIRA 17:3)

DIMASKIN, B.I., doktor tekhn. nauk, prof.; STEPNOV, L.N., starshiy prepodavatel'

Nature of the load on the sewing machine needles. Nauch. trudy MTILP no.29:216-223 '64. (MIRA 18:4)

1. Kafedra detaley mashin Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

DAMASKIN, B.F., doktor tekhn. nauk, prof.

Analyzing the load on the drive of sewing machines. Nauch. trudy MTILP no.24:224-232 '64. (MIRA 18:4)

1. Kafedra detaley mashin Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

DAMASKIN, B.I., doktor tekhn. nauk, prof.; [illegible], V.I., kand. tekhn. nauk, starshiy prepodavatel'

Plotting the reduced systems in the calculation of the torsional vibrations of the driving shaft of sewing machines. Nauch. trudy MTILP no.29:233-237 '64. (MIRA 18:4)

1. Kafedra detaley mashin Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

DAMANSKIN, B.I., doktor tekhn. nauk, prof.; LEVIN, V.I., kand. tekhn. nauk, starshiy prepodavatel'

Studying the electric driving of commercial sewing machines. Nauch. trudy MTILP no.29:238-249 '64. (MIRA 13:4)

DAMASKIN, B.I., doktor tekhn. nauk, prof., CHECHKIN, A.M., assistent

Determining the rigidity of the traction elements of conveyors for the shoe industry. Nauch. trudy MTILP no.2[illegible] '64. (MIRA 18:4)

1. Kafedra detaley mashin Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

DAMASKIN, B.I., doktor tekhn. nauk, prof.; DOBANOV, V.A., aspirant

Investigating the rigidity of the cogged gear drive belt of sewing machines. Nauch. trudy MTIP no.30:241-245 '64.
(MIRA 18:6)

1. Kafedra detaley mashin Moskovskogo tekhnologicheskogo instituta legkoy promyshlennosti.

DAMASKIN, B.I. (Moskva); LEVIN, V.I. (Moskva)

Studying the automatic mechanisms of universal sewing machines for cutting the upper and bottom threads. Shvein.prom. no.5:8-11 S-O '65. (MIRA 18:10)

DAMASKIN, B.I.; POBOL', O.N.; POLUKHIN, V.P. (Moskva)

Investigating the effect of the drive system of sewing machines on their efficiency. Shvein. prom. no. 6:10-14 N-D '65. (MIRA 18:12)

ACC NR: AP6004515 (A) SOURCE CODE: UR/0345/65/000/005/0008/0011

AUTHOR: Damaskin, B. I.; Levin, V. I.

ORG: none

TITLE: Investigation of mechanisms for automatically cutting upper and lower threads in universal sewing machines

SOURCE: Shveynaya promyshlennost', no. 5, 1965, 8-11

TOPIC TAGS: textile industry machinery, automatic control

ABSTRACT: Thread cutting mechanisms in sewing machines are positioned coaxially with the shuttle, and by reciprocating motion, separate the threads from the shuttle and needle before cutting and fastening. A kinematic study was made of the thread separating and cutting process to determine the kinematic and geometric parameters for a thread cutting mechanism. Exemplary arrangements are shown in Figs. 1 and 3. Orig. art. has: 3 figures.

Card 1/3

UDC: 687.053.17.001.5

ACC NR: AP6004515

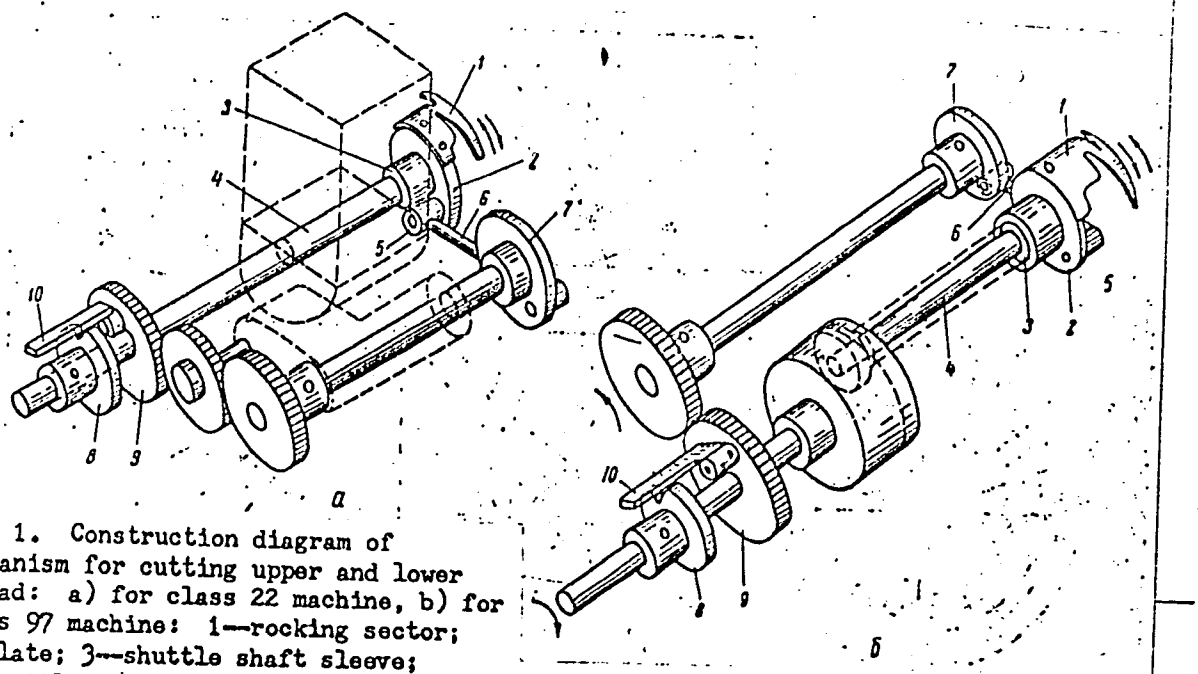


Fig. 1. Construction diagram of mechanism for cutting upper and lower thread: a) for class 22 machine, b) for class 97 machine: 1—rocking sector; 2—plate; 3—shuttle shaft sleeve; 4—shuttle shaft; 5—rocking plate pin; 6—guide; 7—crank; 8—disk for engaging cutting mechanism; 9—cutting mechanism engaging pin; 10—engaging catch.

Card 2/3

ACC NR: AP6004515

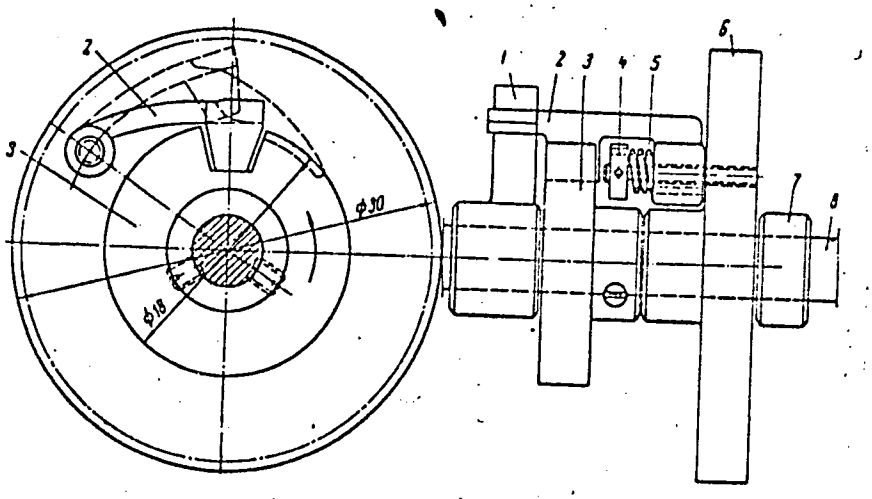


Fig. 3. Engaging mechanism for cutting thread.
1--cam; 2--engaging catch; 3--slotted disk; 4--catch shaft; 5--spring; 6--driving gear for turning crank; 7--adjusting ring; 8--shuttle shaft.

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

Card 3/3

L 29005-66 EWT(m)

ACC NR: AP6018876 SOURCE CODE: UR/0240/65/000/004/0071/0073

AUTHOR: Damaskin, P. T.

46
B

ORG: Dnepropetrovsk Oblast Sanitation and Epidemiology Station (Dnepropetrovskaya oblsanepidstantsiya)

TITLE: Characteristics of the working conditions of persons working with sources of ionizing radiation 19

SOURCE: Gigiyena i sanitariya, no. 4, 1965, 71-73

TOPIC TAGS: ionizing radiation, radiation hazard, radioisotope, nuclear safety

ABSTRACT: The article presents a survey of conditions where sources of radiation are handled in Dnepropetrovsk Oblast. The author touches on the use of radioactive isotopes in manufacturing, the steel industry, welding and construction work, medical institutions, and scientific research institutes. For each of these he gives the results of observations on the actual radiation dosage and a description of the safety measures, procedures, facilities, and devices used to protect personnel. Orig. art. has: 1 table. [JPRS]

SUB CODE: 18 / SUBM DATE: 15Jan64

Card 1/1 BLG UDC: 613.648

ZHUKOV, A.V.; GOROKHOVSKIY, A.D.; DAMASKIN, S.A.; RUDENKO, P.M.; ZONENBERG, M.F.; DIKOVA, S.A.; GAYDAY, V.K., red.

[Production of large wall elements from ceramics] Proizvodstvo krupnykh stenovykh konstruktsii iz keramiki. Kiev, Budivel'nyk, 1965. 33 p. (MIRA 18:8)

1. Moscow. Gosudarstvennyy nauchno-issledovatel'skiy institut stroitel'nykh materialov i izdeliy.

ZHUKOV, A.V.; RUDENKO, P.M.; ZENENBERG, M. Ye.; DAVASKIN, S.A.; SPEKTOR, B.V.; KRIVICH, K.N.

Investigation of a new method of reducing the heat conductivity of hollow ceramic stone and wall panels made of it. Stroi. mat., det. i izd. no. 2:52-61 '65 (MIRA 19:1)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut stroitel'nykh materialov i izdeliy, Kiyev (for Spektor). 2. Kiyevskiy eksperimental'no-issledovatel'skiy zavod (for Krivich).

AUTHOR: Damaskin, V.N., Engineer, 28-6-14/40

TITLE: Die Casting Machines (Mashiny dlya lit'ya pod davleniyem)

PERIODICAL: Standartizatsiya, 1957, # 6, pp 47 - 48 (USSR)

ABSTRACT: This article contains information in digest form on general principles of die casting as used in USSR, Britain, USA and Germany, and on the new standard " ГОСТ 8532-57" for die casting machines for aluminium, with horizontal cold pressing chamber.

The standard will go into effect 1 Jan 58. It includes 9 type-sizes of semi-automatic machines for not more than 0.4, 0.8, 1.6, 3.2, 6.3, 12.5, 25, 50 and 100 kg of aluminium and 6.5 tons to 150 tons closing pressure. These machines will create conditions for unification of complex-shaped parts of semi-automatic machines.

ASSOCIATION: NIILITMash

AVAILABLE: Library of Congress

Card 1/1 1. Industry-USSR 2. Die casting-Standards

Damaskin, V.N.

AUTHOR: Damaskin, V.N., Engineer 28-58-2-18/41

TITLE: Vibrating Knock-Out Grids (Reshetki vybivayushchiye vstryakhivayushchiye)

PERIODICAL: Standartizatsiya, 1958, Nr 2, pp 46-47 (USSR)

ABSTRACT: Information is given on "GOST 8262-56" standard (valid January 1, 1958) for knock-out grids used in foundries for knocking earth and castings out of molds. It extends on two grid types: excenter grids for 0.25, 0.4, 0.63, 1.0, 1.6, and 2.5 tons, and inertia grids for 4, 6.3, 10, 16, 25, and 40 tons. The "GOST" standardizes only the kinetic system of grids, without limiting the design of separate parts. Large grids can be made in several sections. The use of the standard grids in production lines, including automatic lines, is possible. They are to be provided with exhaust devices for complete exhaust of gas and dust during knocking-out.

ASSOCIATION: NIILITMash

AVAILABLE: Library of Congress

Card 1/1 1. Metals--Casting--Equipment 2. Standardization--USSR

DAMASHKIN, V.N.

(11)

PHASE I BOOK EXPLOITATION SOV/3660

Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti. Tsentral'noye pravleniye. Sektsiya remonta i modernizatsii oborudovaniya

Modernizatsiya i remont oborudovaniya mashinostroitel'nykh zavodov (Modernization and Repair of Machine-Building Plant Equipment) Moscow, Mashgiz, 1959. 261 p. Errata slip inserted. 6,100 copies printed.

Ed. (Title page): R.A. Noskin, Candidate of Technical Sciences; Ed. (Inside book): A.T. Popov, Engineer; Tech. Ed.: V.D. El'kind; Managing Ed. for Literature on Metalworking and Machine-Tool Construction (Mashgiz): R.D. Beyzel'man, Engineer; Editorial Board: R.A. Noskin (Chairman), Candidate of Technical Sciences; Ya.S. Borisov, Engineer; V.D. Platnev, Engineer; V.I. Mikhaylovskiy, Engineer; and V.P. Golov, Engineer.

PURPOSE: This collection of articles is intended for technical personnel dealing with modernization and overhaul of equipment.

COVERAGE: The articles in this collection deal with the basic trends and a number of specific problems in the modernization of the machine industry. Modernization of foundry, forging-shop, and crane equipment and problems in the automation of equipment repair are discussed. Information is given on the use of unitized subassemblies in the modernization of metal-cutting machine tools, on measures for prolonging the life of forging hammers, on methods of automatic vibro-electric hard facing of worn parts, on sulfidation, and on vibroisolation of forging-hammer foundations. No personalities are mentioned. References follow several of the articles.

TABLE OF CONTENTS:

Card 3/4

S/028/60/000/009/004/006
B015/B058

AUTHOR: Damaskin, V. N.

TITLE: Machines for Casting in Metal Molds

PERIODICAL: Standartizatsiya, 1960, No. 9, pp. 48-49

TEXT: The standard ГОСТ (GOST) 9451-60 "Foundry Machines. Machines for Casting in Metal Molds (Chills). Basic Parameters and Dimensions" was elaborated for the first time and is valid as of January 1, 1961. The standard refers to general-purpose chill-casting machines with horizontal and vertical parting planes, the chills being usable for the production of iron and nonferrous castings. Seven standardized dimensions were laid down. Five operations are automatized for machines with semiautomatic working cycle: introduction of the metal studs in the mold, remaining of the casting in the mold, removal of the metal studs from the casting, removal of the casting from the mold, and opening of the mold. Additional operations are automatized for machines with automatic working cycle. The introduction of the above-mentioned standard permits regulating parameters and dimensions and laying down the types of

Card 1/2

Machines for Casting in Metal Molds S/028/60/000/009/004/006
B015/B058

machines for a series production, reducing the dimension standards, standardizing units and machine parts, as well as rearranging the casting of machine parts from cast iron and nonferrous alloys to casting in metal molds, thus achieving a considerable improvement in quality.

Card 2/2

DAMASKIN, V.N.

Machines for making shell semimolds and cores. Standartizatsiia 24 no.5:41-42 My '60. (MIRA 14:3)
(Molding machines)

DAMASKINA, A. S., Cand Agric Sci (diss) -- "The effect of perennial grasses on the fertility of meadow-chernozem soils of the Dnestr region". Odessa, 1959. 16 pp (Min Agric Ukr SSR, Odessa Agric Inst), 150 copies (KL, No 12, 1960, 129)

KUDZIN, Yu.K.; DAMASKINA, A.S.; CHERNYAVSKAYA, N.A.

Method of observing the growth of the corn plant (Zea mays L.)
Bot.zhur. 45 no.6:867-870 Je '60. (MIRA 13:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kukuruzy, Dnepropetrovsk.
(Corn (Maize)) (Growth(Plants))

KUDZIN, Yu.K., doktor sel'skokhoz. nauk; DAMASKINA, A.S., kand. sel'skokhoz. nauk; CHERNYAVSKAYA, N.A., kand. sel'skokhoz. nauk

Conditions of the initial nutrition and the yield of corn. Agrobiologiia no.5:774-775 S-O'63. (MIRA 17:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kukuruzy, Dnepropetrovsk.

DAMASKINA, G.B.

YANOVSKIY, P.L.; DAMASKINA, G.B., red.; CHEBYSHEVA, Ye.A., tekhn.red.

[Mineral waters of the U.S.S.R.] Mineral'nye vody SSSR. Izd. 2-oe. Moskva, Pishchepromizdat, 1957. 118 p. (MIRA 11:4)
(MINERAL WATERS)

DAMASKINA, G.B., red.; KISINA, Ye.I., tekhn. red.

[Culinary recipes; from the "Book on tasty and healthy food"] Kulinarnye retsepty; iz"Knigi o vkusnoi i zdorovoi pishche." Moskva, Pishchepromizdat, 1963. 407 p.
(MIRA 17:2)

26.2531
26.1640

S/665/61/000/003/009/018
E039/E420

AUTHORS: Damaskina, I.I., Chetverikova, G.A.

TITLE: Thermionic power converters

SOURCE: Akademiya nauk SSSR. Energeticheskiy institut. Teploenergetika. no.3, 1961. Poluprovodnikovyye preobrazovateli solnechnoy energii. 82-86

TEXT: The basic processes occurring in a thermionic converter are described. It is suggested that the work function of the cathode should be larger than that of the anode bearing in mind that the anode emission must only be a small fraction of the cathode emission. In order to reach the anode, electrons from the cathode must overcome the potential barrier of the space charge. There are four possible ways of overcoming this barrier:
1) the reduction of the interelectrode distance down to a few microns
2) space charge neutralization by the introduction of positive ions
3) the use of electric and magnetic fields ensuring the free passage of electrons from cathode to anode.
4) the introduction of a third electrode, a grid for accelerating electrons.

Card 1/4

Thermionic power converters

Only methods (1) and (2) have been used in practice. It has been shown that powers of up to 0.8 W/cm^2 can be obtained by method (1) with an efficiency of about 13%. Using method (2) space charge neutralization is effected by the introduction of positive cesium ions. One converter operating with a cesium vapour pressure of about 10^{-3} to 10^{-2} mm Hg yielded an efficiency of 10.4% while in another working at a cesium vapour pressure of several mm Hg the efficiency was 9.2%. G.M.Grover (Ref.13: Nucleonics, v.17, no.7, 1959, 54) was the first to utilize nuclear power to heat the cathode of a thermionic converter. He used a cathode consisting of a solid solution of ZrC in uranium carbide enriched with U^{235} and a cylinder of stainless steel as a collector. The converter was placed in the core of a reactor and a cathode temperature of 2700°K was obtained yielding short circuit currents of 30 A and an emf of 3.8 V. The authors present the preliminary results obtained with a converter consisting of a glass tube with a tungsten strip cathode (10 x 1 x 0.05 mm), a nickel anode (internal diameter 2.5 mm and length 6 mm) with interelectrode spacing of about 1.3 mm

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S/665/61/000/003/009/018
E039/E420

Thermionic power converters

Cesium vapour was introduced which acted as a source of positive ions and also reduced the anode work function by forming a film of cesium on the anode. The preliminary results are shown in Fig.2. In Fig.2a, the volt-ampere characteristics and the power curve for the converter operating at a cesium vapour pressure of 0.6 mm are given. The maximum power under these conditions was about 1.2 W. Similar curves for the converter working at a cesium vapour pressure of 3×10^{-2} mm Hg are shown in Fig.2b. [Abstractor's note: The data on the figure does not agree with that given in the Russian text. However, the information on the figure appears to be more self consistent.] As the cesium vapour pressure is increased from about 10^{-2} to 0.6 mm Hg the slope of the volt ampere characteristics was increased. At a cesium vapour pressure of about 10^{-2} mm the efficiency was about 4% and at 0.6 mm about 3%. M.Ye.Gurtovoy, G.I.Kovalenko P.M.Marchuk, B.Ya.Moyzhes and G.Ye.Pikus are mentioned in the article. There are 2 figures, 1 table and 15 references 5 Soviet-bloc and 10 non-Soviet-bloc. The four most recent references to English language publications read as follows:

Card 3/5

33945
S/665/61/000/003/009/018
E039/E420

Thermionic power converters

Ref.11 Wilson V., J. Appl. Phys., v.30, no.4, 1959, 475.
Ref.12 Houston J.M., J. Appl. Phys., v.30, no.4, 1959, 481
Ref.13 as quoted in text.
Ref.14 Lewis H.W. and Reitz J.R. J. Appl. Phys. v.30, no.9, 1959, 1439

Card 4/5

L 52247-65 FSS-2/ENT(l)/EPA(s)-2/ENT(m)/EPF(c)/EEC(k)-2/EPF(n)-2/ENG(m)/EPA(w)-2/
T/EMP(t)/EMP(b)/EWA(h) IJP(c) JHB/JD/TT/WW/JG/GG/GS/AT

ACCESSION NR: AT5015788 UR/0000/65/000/000/0023/0028 44 43 G71

AUTHOR: Damaskina, I. I. 25

TITLE: Efficiency of solar vacuum-type thermionic converters having no space charge

SOURCE: AN SSSR. Energeticheskiy institut. Ispol'zovaniye solnechnoy energii v narodnom khozyaystve SSSR (Use of solar energy in the economy of the U.S.S.R.). Moscow, Izd-vo Nauka, 1965, 23-28

TOPIC TAGS: solar cell, thermionic converter 21

ABSTRACT: As solar-cell efficiency formulas suggested by various researchers fail to reveal the effects of cell parameters and thermal losses on the cell net efficiency, the present article develops a new efficiency formula for the cesium solar cell which permits easy tracing of the above effects. This engineering formula is suggested.

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L 62247-65

ACCESSION NR: AT5015788

$$\eta = R_e A_i \eta_a \eta_a \eta_{Cs} \eta(\theta) \frac{1 + \frac{K}{e\varphi_1} \frac{T_1 T_2}{T_1 - T_2} \ln\left[\varepsilon_m \left(\frac{T_1}{T_2}\right)^2 \right]}{1 + \frac{2KT_1}{e\varphi_1 (1 - \varepsilon_m)}}.$$

The overall efficiency is expressed in the form of a product of coefficients which represent such quantities as the incomplete mirror absorption, diode radiation loss, Cs-ion-formation energy loss, etc. These coefficients are plotted against the cathode temperature (1500—3000K). [Abstracter's note: No experimental verification is mentioned.] Orig. art. has: 3 figures and 20 formulas.

ASSOCIATION: none

SUBMITTED: 12Feb65 ENCL: 00 SUB CODE: EE

NO REF SOV: 001 OTHER: 004

Card 2/2

DAMASKINA, Nadezhda Ivanovna; EL'KIND, V.D., tekhn. red.

[Automation in the machinery industry; bibliographic guide of Russian and foreign literature published from 1950 to 1959] Avtomatizatsiia v mashinostroenii; bibliograficheskii spravochnik otechestvennoi i inostrannoi literatury za 1950-1959 gg. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1961. 522 p. (MIRA 14:11)

(Bibliography—Machinery industry) (Bibliography—Automation)

GLIKMAN, L.A., doktor tekhn.nauk; BABAYEV, A.N., kand.tekhn.nauk; KOSTROV, Ye.N., kand.tekhn.nauk; DAMASKINA, O.L., inzh.

Fatigue strength and residual stresses in steel specimens surfaced with 1Kh13 high-chromium stainless steal. Trudy LMZ no.9:138-151 '62. (MIRA 16:6)
(Steel—Fatigue) (Thermal stresses)

L 61628-65 EWT(d)/DED-2/EWP(1) Pq-4/Pg-4/Pk-4 IJP(c) BB/GG/GS

ACCESSION NR: AT5014714 UR/0000/65/000/000/0082/0090

33
32
B+1

AUTHOR: Alekseyev, V. N.; Damaskinskaya, N. Ya.; Stepanov, V. A.

TITLE: Ferrite core memory device using ferrite pairs with full current recording and reading

SOURCE: Operativnyye i postoyannyye zapominayushchiye ustroystva (Rapid and nonvolatile storage); sbornik statey. Leningrad, Izd-vo Energiya, 1965, 82-90

TOPIC TAGS: ferrite pair memory, full current recording, full current reading, ferrite core memory

ABSTRACT: A memory is described in which the recording and reading of information is carried out by currents whose limit of variation is unbounded from above. This was achieved by the use of two coupled, toroidal, ferrite cores for the registration of a single binary unit of information. One of the cores serves for the actual storage of information, while the second serves for the recording and reading of the basic core and plays an auxiliary role. In the operative memory developed at the department of automation and telemechanics of the LPI im. M. I. Kalinina, the cores are coupled by a single turn of copper wire. The

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L 61628-65

ACCESSION NR: AT5014714

length and diameter of the wire determines the magnitude of the active resistance. The article describes in detail the operation of the unit, develops the necessary theoretical expressions, and presents data from experimental tests on the quality of operation of such ferrite pairs. Orig. art. has: 17 formulas and 5 figures.

ASSOCIATION: LPI im. M. I. Kalinina

SUBMITTED: 20Jan65 ENCL: 00 SUB CODE: DP

NO REF SOV: 000 OTHER: 000

Card 2/2

L 16793-66 EWT(d)/EWP(1) IJP(c) BB/GG

ACC NR: AT6005082 SOURCE CODE: UR/2563/65/000/256/0129/0133

AUTHOR: Damaskinskaya, N.Ya.; Nosyrev, I.K.; Stepanov, V.A.

ORG: none

39
B+1
16,44

TITLE: Optimum choice of parameters of the operative memory using ferrite pairs

SOURCE: Leningrad, Politekhnicheskiy institut. Trudy, no. 256, 1965. Tsifrovyye izmeritel' nyye i upravlyayushchiye ustroystva (Digital measuring and control devices), 129-133

TOPIC TAGS: ferrite core memory, computer memory

ABSTRACT: The operative memory made of ferrite core pairs can operate reliably without temperature controls. The introduction and retrieval of information are carried out by current pulses the amplitude of which is not limited from above, and this results in a temperature independent operation. The principles of operations of ferrite pair units is discussed on a matrix example shown in Fig. 1. The ferrite pair memorizes a single binary unit. The article presents all the pertinent relations and quotes theoretical results which indicate that normalized ferrite core pairs should secure reliable memory

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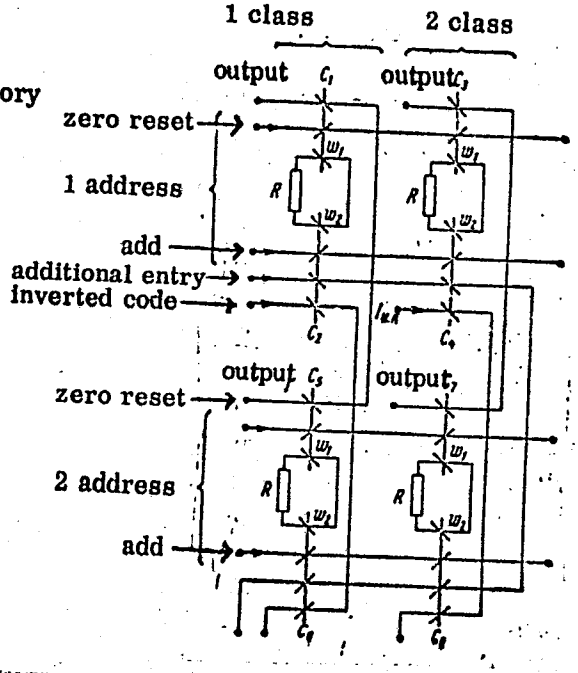
L 16793-66
ACC NR: AT6005082

Fig. 1. Operative memory matrix made of ferrite pairs.



Card 2/3

L 16793-66

ACC NR: AT6005082

operation within the -60 to +60C range. The retrieval time is of the order of 10 μ sec for cycling current pulses not exceeding 1.5 A. Orig. art. has: 9 formulas and 1 figure.

SUB CODE: 09 / SUBM DATE: none

Card 3/3 SM

DAMASKINSKIY, Ye.A.; KOROLEV, G.A.; KOCHAROV, G.Ye.

Effect of the sticking of electrons in an ionization chamber.
Prib.i tekh.eksp. 6 no.5:51-54 S-O '61. (MIRA 14:10)

1. Fiziko-tekhnicheskiy institut AN SSSR.
(Ionization chambers)

L 25391-65 EWT(m) IJP(c)

ACCESSION NR: AP5002145 S/0120/64/000/006/0045/0050

AUTHOR: Damaskinskiy, Ye. A.; Demidov, S. K.; Rynnov, N. I.

TITLE: Characteristics of spark discharge chambers filled with various gas mixtures

SOURCE: Pribory i tekhnika eksperimenta, no. 6, 1964, 45-50

TOPIC TAGS: spark discharge chamber, spark chamber gas

ABSTRACT: Results are reported of an experimental investigation of the effect of gas composition on the irregularity of intensity of spark luminescence in various gaps when a discharge in a spark chamber along the track of a cosmic particle takes place. Cosmic particles were recorded as they passed through a six-electrode spark chamber and two scintillation counters connected in a coincidence circuit. The effect of an admixture to the principal gas on the number of spurious discharges that accompanied the main discharge along the particle track was studied. It was found that even a small admixture of a gas, whose ionization potential is slightly lower than the minimum excitation potential of the principal gas, can drastically change the chamber efficiency; such an admixture sharply

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L 25391-65

ACCESSION NR: AP5002145

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cuts the h-v pulse height. These gases were tested: He, Ne+0,5%A, A, H_2, N_2, He plus various admixtures of A, Ne, Xe, N_2, H_2, C_2H_2. It was established that a certain minimum energy is required in the discharge channel for an observable luminescence of the spark. The irregularity of luminescence depends on the gas composition and, for a given composition, is independent of the applied voltage and power. It is suggested that an A+(0.015–0.4)%C_2H_2 mixture be used in spark chambers instead of the conventional Ne+A mixture. [The authors wish to thank D. G. Alkhazov and I. S. Kirin for their useful advice, S. P. Kruglov for his support and interesting discussions, and V. I. Il'in for his help in building the chamber.] Orig. art. has: 9 figures, 1 formula, and 2 tables.

ASSOCIATION: Fiziko-tekhnicheskiy institut AN SSSR (Physico-Technical Institute, AN SSSR)

SUBMITTED: 19Nov63 ENCL: 00 SUB CODE: NP

NO REF SOV: 005 OTHER: 003

Card 2/2

L 7233-66 EWT(1)/ETC(m) WW

ACC NR: AP5025910 SOURCE CODE: UR/0057/65/035/010/1910/1911

AUTHOR: Gorodinskiy, G.M.; Damaskinskiy, Ye. A.; Romanov, A.M. 44,55 44 55 44 55 31 B

ORG: Physicotechnical Institute im. A.F.Ioffe, AN SSSR, Leningrad (Fiziko-tekhnicheskiy institut AN SSSR) 44,55

TITLE: On recording several particles with an acoustical spark chamber 21, 40, 55

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 10, 1965, 1910-1911

TOPIC TAGS: spark chamber, particle detector, plane geometry

ABSTRACT: It is shown that one can uniquely determine the position of a point in a plane provided one knows the distance of the point from each of three fixed points in the plane and, that if the distances are subject to small experimental errors, the probability of mislocation can be reduced by employing more fixed points. The contemplated application is to the location of a spark in a spark chamber from measurements of the time of occurrence of the spark and the times of arrival of the resulting shock wave at several microphones. Despite the title of their letter, the authors do not discuss the confusion that can arise when several sparks occur simultaneously or nearly so. References are given to descriptions of several microphones which are believed to be suitable for the contemplated application. Orig. art. has: 1 formula

SUB CODE: NP, MA/ SUBM DATE: 06Apr65/ ORIG REF: 000/ OTH REF: 004

Card 1/1 UDC: 539.107.49

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DAMASKOVA SVETLANA

CZECHOSLOVAKIA/Electricity - Semiconductors G-3

Abs Jour : Ref Zhur - Fizika, No 4, 1958, No 8632

Author : Damaskova Svetlana, Patek Karel
Inst : Physics Institute, Czechoslovak Academy of Sciences, Prague Czechoslovakia
Title : Methods of Measuring the Kinetics of Photoelectric Conductivity and Luminescence of Semiconductors

Orig Pub : Ceskosl. casop. fys., 1957, 6, No 3, 294-312

Abstract : Analysis of methods for measuring the kinetics of photoconductivity and photoluminescence of semiconductors.

Card : 1/1

dependence is typical under all circumstances. Figure 3 shows the temperature dependence of τ_p and τ_s (decay time of primary and secondary maxima) for three samples. It varies considerably from sample to sample. Figure 4 shows the dependence of τ_p and τ_s on the applied voltage.

While the decay time of the emission peaks of electroluminescence is about 0.1 to 0.3 msec, the decay-time of U.V. stimulated photo-luminescence for the same samples is over 100 msec.

Figure 5 shows the decay of a_p and a_s at two different temperatures in a semi-logarithmic plot. There are at least two time-constants involved in the decay of a_p. The time constant of the last part of this decay is independent of the applied voltage, which appears as a parameter in Figure 5. The decay of a_s may be described by one time-constant, which is voltage dependent.

A study of the light-sum of each maximum shows that the

Decay of Electroluminescence of ZnS-Cu

light sum and amplitude of the secondary maximum is more voltage-dependent than the primary maximum. The observed phenomena are explained on the basis of a model described by the author in Ref 5. The primary maximum is due to the action of the external field, while the secondary maximum is due to the internal polarization field. The decay of the primary maximum is probably determined by the reduction, due to polarization, in the intensity of the applied electric field. The decay of the secondary maximum is then due to the relaxation of the polarization.
The agreement of the present results with those of previous authors (Refs 3,4) is not very good.
There are 6 figures, 1 table and 5 references, of which 4 are English and 1 German.

ASSOCIATION: Fysikální ústav ČSAV, Praha (Institute of Physics of the Czechoslovak Ac.Sc., Prague)

SUBMITTED: November 8, 1958

DAMASKOVA, S.

Course of electroluminescence of zinc sulfide activated by copper or manganese. p. 444

CESKOSLOVENSKY CASOPIS PRO FYSIKU. (Ceskoslovenska akademie ved. Ustav technicke fysiky) Praha, Czechoslovakia, Vol. 9, no. 4, 1959.

Monthly List of East European Accessions (EEAI), LC, Vol. 8, no. 10, Oct. 1959 Uncl.

Distr: 4E1x(g)/4E2d(b) 2 cys

Behavior of electroluminescence of ZnS:Cu:Mn. S. Damaškovà (Czechoslov. Acad. Sci., Prague). *Czechoslov. J. Phys.* 9, 529(1959)(in English).—The author has prepared a phosphor powder composed of ZnS with $CuSO_4$ 0.1, $MnCO_3$ 4, and $Al_2(SO_4)_3$ 0.08%. Square-wave pulses are applied, and the electroluminescence brightness is measured as a function of the applied elec. field and the voltage pulse length. An attempt is made to interpret the observations by considering the influence of the Mn centers on the resulting polarization charge. A. Kremheller

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1-Jof(orig)
1-IJP(c)
3

DAMASKOVA, S.

Absorption in zinc sulfide. Chekhosl fiz zhurnal 13 no.2:153-157 '63.

1. Fysikalni ustav, Ceskoslovenska akademie ved, Praha.

DAMASKOVA, S.; PATEK, K.

Displacement of the absorption border of ZnS-monocrystals in electric field. Acta phys Hung 14 no.2 3:127-130 '62.

1. Physikalisches Institut der Tschechoslowakischen Akademie der Wissenschaften, Prag, CSSR. Vorgelegt von G. Szigeti [Gyorgy Szigeti]

CONSTANTINESCU, N.; BERCOVICI, C.; ZAVATL, Olga; PETRESCU, Iulia; DAMATIRCA, D.; PLACSIM, Al.; ROZENBOIM, Etty

A hydric epidemic of epidemic hepatitis preceded by dysentery.
Stud. cercet. inframicrobiol. 13 no.4:443-448 '62.
(HEPATITIS, INFECTIOUS) (WATER POLLUTION)
(DYSENTERY, BACILLARY)

GORELIK, B.M.; BUKHINA, M.F.; Prinimali uchastiye: DAMAYEVA, S.F.; ZHARIKOVA, Z.D.; LAVRENT'YEV, A.A.

Crystallization of rubbers at low temperatures under compression. Kauch. i rez. 20 no.11:11-15 N '61. (MIRA 15:1)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti. (Rubber) (Crystallization)

DAMBA, E., inzh.; MATVEYEV, Ye.S., inzh.

Water resources of the rivers of the Mongolian People's Republic and ways to utilize them. Gidr.stroi. 33 no.10:31-37 O '62. (MIRA 15:12)

1. Upravleniye vodnogo khozyaystva Ministerstva sel'skogo khozyaystva Mongol'skoy Narodnoy Respubliki (for Damba).
2. Upravleniye proyektirovaniya, izyskaniy i issledovaniya dlya stroitel'stva gidrotekhnicheskikh sooruzheniy Ministerstva stroitel'stva elektrostantsiy SSSR (for Matveyev).
(Mongolia—Water resources development)

DAMBE, V. (Riga)

Intonations of Zemgalian dialects. Vestis Latv ak no.12:29-38 '60. (EEAI 10:9)

1. Latvijas PSR Zinatnu akademija, Valodas un literaturas instituts.

(Latvian language)

ENDZELINS, J., akademik; SOKOLS, E., otv. red.; BENDIKS, H., red.;
DAMBE, V., red.; GRABIS, R., red.; ZUTIS, J., red.;
OSINS, E., tekhn. red.

[Place names in the Latvian S.S.R.] Latvijas PSR vietvardi.
Riga, Latvijas PSR Zinatnu akad. izdevnieciba. Pt.1.,
Vol.2. K - O. 1961. 505 p. (MIRA 15:3)
(Latvia--Names, Geographical)

DAMBE, V. F.

'Svidetel'stva dialektologii i toponimiki o raspolozhenii pamyatnikov na territorii Latviyskoy SSR."

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

[redacted], B. [redacted], KURZAN, V. A., [redacted], Yu. N., [redacted], L. A., [redacted], N. [redacted] (USSR)

"Biochemical Bases for Raising the Biological Value of Protein Hydrolysates."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 August 1961

DAMBERG, B. [Damberga, B.]

Chemical characteristics of protein hydrolysate from fibrin. Vestis Latv ak no.3:103-110 '61.

*

DAMBERG, B. E.

Chemical characteristics of some protein hydrolysates. Probl. gemat. i perel. krovi no.8:49-55 '62. (MIRA 15:7)

1. Iz kafedry biokhimii (zav. - deystvitel'nyy chlen AN Latviyskoy SSR i chlen-korrespondent AMN SSSR prof. A. A. Shmidt) Rizhskogo meditsinskogo instituta.

(PROTEINS)

DAMBERG, B. Ye. [Damberga, B.]

On the chemical characteristics of protein hydrolyzate from fibrin. Vestis Latv ak no.3:103-110 '61.

(EEAI 10:9)

(Proteins) (Fibrin)

DAMBERG, B. [Damberga, B.]

Comparative study of the dynamics of excretion of amino nitrogen after the parenteral administration of some protein hydrolyzates. Vestis Latv ak no.3:93-96 '62.

*

DAMBERG, V. E.

DAMBERG, V. E. -- "Aspects of Congruence and Difference among Certain Cardiovascular Conditioned and Unconditioned Reflexes." Min Health Latvian SSR. Riga Medical Inst. Riga, 1955. (Dissertation for the Degree of Candidate of Medical Sciences.)

SO: Knizhnaya letopis', No. 4, Moscow, 1956

GROM, N. [Groma, N.]; DAMBERGA, B.; KREMER, Yu. [Kremers, J.]; SHMIDT, A. [Smidts, A.]

Amino acid composition and biological effectiveness of some preparatio. s for parenteral nitrogen alimentation. Izv. AN Latv.SSR no.9:91-94 '63. (MIRA 16:12)

DAMBERGA, B.; KREMER, Yu. [Kremers, J.]

Chromatographic separation of leucine and isoleucine and their quantitative determination in some protein hydrolysates. Izv.AN Latv.SSR no.2:93-96 '64. (MIRA 17:4)

1. Rizhskiy meditsinskiy institut.

BEKER, M.Ye., kand. tekhn. nauk, red.; VIESTURS, U.R. [Viesturs, U.] red.; DAMBERGA, B.A., kand. biol. nauk, red.; KUKAYN, R.A., [Kukains, R.], doktor med. nauk, red.; KARKLIN'SH, R.Ya. [Karklins, R.], kand. tekhn. nauk, red.; STURIS, T.E., red.; YAKOBSON , Yu.O.[Jakobsons, J.], kand. biol. nauk, red.

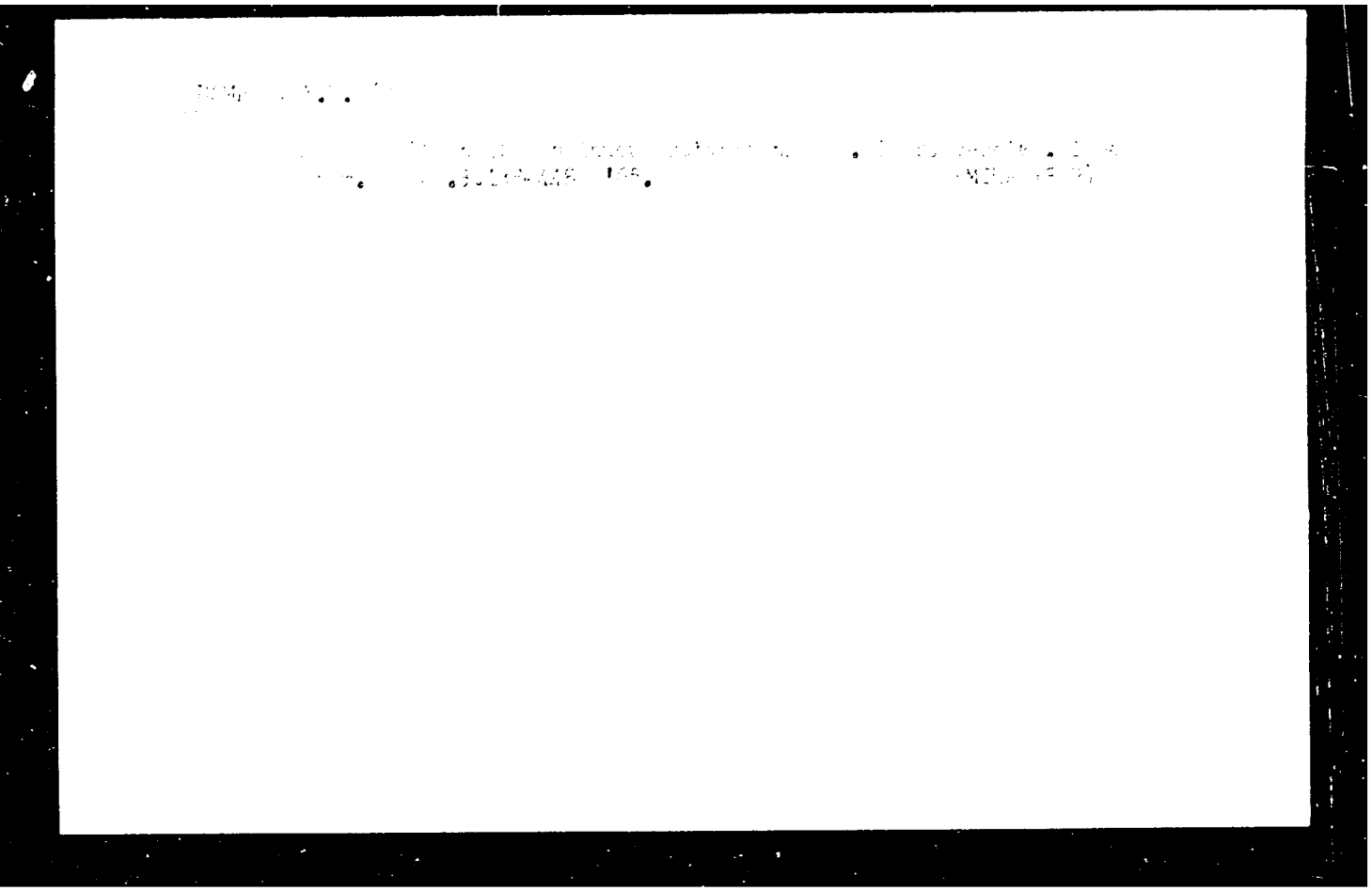
[Microbiological processes and production] Mikrobiologicheskie protsessy i proizvodstvo. Riga, Izd-vo AN Latv.SSR, 1964. 153 p. (MIRA 17:9)

1. Latvijas Padomju Socialistiskas Republikas Zinatnu Akademija. Mikrobiologijas instituts.

KREMER, Yu.N.; DAMBERGA, B.E.

Mechanism of the action of sulfur dioxide as a substance preventing the destruction of tryptophan during its interaction with certain aldehydes and sugars [with summary in English]. Biokhimiia 24 no.1: 110-115 Ja-F '59. (MIRA 12:4)

1. Chair of Biological Chemistry, Medical Institute, Riga.
(TRYPTOPHAN,
interaction with aldehydes & sugars, protective eff. of sulfur dioxide (Rus))
(ALDEHYDES,
interaction with tryptophan, protective eff. of sulfur dioxide (Rus))
(CARBOHYDRATES,
same)
(SULFUR,
dioxide, protective eff. on tryptophan during interaction with aldehydes & sugars (Rus))



TOLUBANOV, A.F.; GRIGOR'YEVA, V.D.; MUKHINA, A.I.; YUDOLOVICH, V.V.; ULANOVA, K.M.; DAMBIT, N.P.; GREBENSHCHIKOV, P.A., red.; YABLOKOVA, G.I., red.izd-va; YUPAYEV, Kh., tekhn.red.

[Forty years of the Chechen-Ingush A.S.S.R.; statistics] Checheno-Ingushskaia ASSR za 40 let; statisticheskii sbornik. Groznyi, Checheno-Ingushskoe knizhnoe izd-vo, 1960. 184 p. (MIRA 13:10)

1. Chechen-Ingush A.S.S.R. Statisticheskoye upravleniye.
2. Nachal'nik Statisticheskogo upravleniya Checheno-Ingushskoy ASSR (for Grebenshchikov).

(Chechen-Ingush A.S.S.R.--Statistics)

25602

S/197/61/000/006/002/007
B104/B201

16.6800

AUTHOR: Dambit, Ya.

TITLE: ОП-I (OP-I) debugging program

PERIODICAL: Akademiya nauk Latviyskoy SSR, Izvestiya, no. 6, (167), 1961, 23 - 25

TEXT: A debugging program, designated as OP-I, has been set up for the ЛМ-3 (LM-3) digital computer. In this program, the numbers of the first (α) and of the last (β) storage cell of the program to be checked, and the number of the cell, by which the program begins, must be known. The correct operation of the program requires that no order to feed in a figure is contained in the interval (α, β), and that the control is transmitted with code 24 without reset. In the debugging program, each order is scanned by a digital computer, and, as there is only the quantity of the second address between α and β, it is examined as to whether it is a control order or some operation order. When an arithmetic or a logical operation is performed by such an order, and the respective result is not stored in the memory, the subsequent order will be verified. When, however, the result is stored in the memory, then the number of this order,

Card 1/4

the order itself, and the contents of the first and of the second address will be printed, and the subsequent order will be checked. The informations are given in the following manner:

0776	00	$\alpha + K$	0000
0777	00	α	$\beta + 1$

Here, $\alpha + K$ is the number of the cell, at which a definite program starts operating. α is the first and β the last cell of this program which involves 109 cells. The block diagram of the program is shown in Fig. 1. The block 1 transmits the order to the working cell, block 2 re-adresses this order, and transmits the control on to the first block. Block 3 classifies the orders, depending on whether the second figure is greater than or equal to four, or whether it is smaller. Block 4 determines the order with recording with respect to the second address. Block 5 prints the number of the order, the order itself, and the contents of the first and second address. Block 6 separates the orders of the control transmission from the transmission orders, the logical operations and the checking operations. Block 7 controls block 5 if the order is a transmission order, and block 8 if the order is a logical operation or a checking operation. Block 8 separates the logical from the checking