ACCESSION NR: AP4041026

with a drop in the input-pulse front duration, which is connected with the rate of increase in the ferrite magnetic field intensity. Orig. art. has: 3 figures.

ASSOCIATION: Tomskiy politekhnicheskiy institut (Tomsk Polytechnic Institute)

SUBMITTED: 09Jul63	ATD PRESS: 3068	ENCL: 00
SUB CODE: EC	NO REF SOV: 002	OTHER 001

Card 2/2

ACCESSION NR: AP4041027 S/0120/64/000/003/0110/0112

AUTHOR: Mesyats, G. A.

TITLE: Matching artificial and natural lines for short-front long-duration pulses

SOURCE: Pribory* i tekhnika eksperimenta, no. 3, 1964, 110-112

TOPIC TAGS: pulse work, short front long duration pulse, artificial line

ABSTRACT: Pulses with a 10^{-9} -sec front and 10^{-6}-sec duration are often desirable for testing dielectrics, semiconductors, plasma, etc. A junction between an artificial line and an r-f cable is suggested by the author as an efficient device for producing such pulses. However, the device adds a spike to the desirable pulse shape. To eliminate the spike, a series RC-circuit or a parallel RL-circuit is suggested as an intermediate element. Oscillograms of the pulses obtained from a 4-section line matched to the RK-3 cable are shown. Orig. art. has: 2 figures and 10 formulas.

ASSOCIATION: Tomskiy politekhnicheskiy institut (Tomsk Polytechnic Institute)

SUBMITTED: 19Jun63 ENCL: 00

SUB CODE: EC NO REF SOV: 004 OTHER: 002

Card 1/1

ACCESSION NR: AP5006592 S/0142/64/007/006/0713/0722

AUTHOR: Kremnev, V. V.; Mesyats, G. A.

TITLE: Analysis of an impulse transformer consisting of coaxial-line sections

SOURCE: IVUZ. Radiotekhnika, v. 7, no. 6, 1964, 713-722

TOPIC TAGS: impulse transformer

ABSTRACT: A theory is developed of a coaxial-line impulse transformer suggested by J. Lewis (Electron. Eng., 1955, v. 27, no. 332). Formulas for the transformer output voltage and transformer matching conditions are derived. Also, formulas describing impulse front and top distortions, when a square impulse is applied to the transformer input and the coaxial-line sections are coiled, are developed. Formulas 22 and 12 were verified by experiments with 1, 2, and 3 RK-49 1.5-m-long cable sections placed parallel to each other at 6-cm spacings; 10-nsec impulses were applied to the input, and the output was

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ACCESSION NR: AP5006592

measured by an oscillograph. Formulas 30 and 31 were verified on a different hookup that consisted of 1—4 sections of RK-47 cable wound into 39-cm-diameter coils, each section 48.4-m long. The transformer was fed with 0.5-μsec impulses having a front-rise time of 0.056 μ sec. A close agreement between the theoretical and experimental data proves that the equivalent circuit of the transformer was correctly selected. Orig. art. has: 7 figures, 40 formulas, and 1 table.

ASSOCIATION: none

SUBMITTED: 20Dec62 ENCL: 00 SUB CODE: EE, EC

NO REF SOV: 005 OTHER: 002

Card 2/2

BAKSHT, R.B.; MESYATS, G.A.

Circuit with ferrite parts for the generation of high-voltage nanosecond pulses. Prib. i tekh. eksp. 9 no.3:108-110 My-Je '64 (MIRA 18:1)

1. Tomskiy politekhnicheskiy institut.

MESYATS, G.A.

Matching of the artificial and natural lines for generating long pulses with a short front. Prib. i tekh. eksp. 9 no.3: 110-112 My-Je '64 (MIRA 18:1)

1. Tomskiy politekhnicheskiy institut.

L 11070-66 EWT(l)/EWA(m)-2/EWA(h)

ACC NR: AT6001397 SOURCE CODE: UR/3180/64/000/000/0142/0146

AUTHOR: Vorob'yev, A. A.; Vorob'yev, G. A.; Negreta, G. A.

69
B+1

ORG: none

TITLE: Utilization of certain properties of a gas discharge for producing high voltage nanosecond pulses

SOURCE: AN SSSR. Komissiya po nauchnoy fotografii i kinematografii. Uspekhi nauchnoy fotografii, v. 9, 1964. Vysokoskorostnaya fotografiya i kinematografiya (High-speed photography and cinematography), 142-146 and insert facing page 113

TOPIC TAGS: gas discharge, pulse generator, plasma diagnostics, high speed photography

ABSTRACT: High voltage pulses of nanosecond duration are used for controlling the Kerr cell and the image converter with an electronic shutter. By utilizing certain properties of spark discharges, the authors obtained stable pulses with a front duration of about 10^{-9} sec and achieved a smooth and stable control of the pulse duration. They also were able to produce series of short pulses with constant time intervals between the pulses such as are employed in high speed stop motion photography. High voltage pulse generators using the short time of commutation of spark discharg-

Card 1/2

L 11070-66
ACC NR: AT6001397

ers and devices using the time of formation of the discharge are described. Orig. art. has: 6 figures, 2 formulas.

SUB CODE: 14, 20 SUBM DATE: 00/ ORIG REF: 007/ OTH REF: 002

Card 2/2

ACCESSION NR: AP4038649 S/0109/64/009/005/0882/0887

AUTHOR: Mesyats, G. A.; Usov, Yu. P.; Korshunov, G. S.

TITLE: Investigation of the spark lag in irradiated gaps for use in nanosecond pulse work

SOURCE: Radiotekhnika i elektronika, v. 9, no. 5, 1964, 882-887

TOPIC TAGS: spark gap, spark lag, irradiated spark gap, pulse work, nanosecond pulse work

ABSTRACT: R. C. Fletcher's investigations (Phys. Rev., 1949, 76, 10, 1501) were continued with a view toward using the results in nanosecond pulse work. From a surge generator with a sealed gap K (see Fig 1 of the Enclosure), pulses were applied to an auxiliary 0.5-mm gap G whose spark irradiated the main gap G. The latter was either of an open type or a quartz-window sealed type (at 360 torr). A positive 15-kv peak was used in all the experiments. The irradiation time was varied by altering the length of the G_a supply cable. The effect of the intensity and time of irradiation on the 10^{-9}-sec-front-pulse lag was studied. Also,

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ACCESSION NR: AP4038649

the effect of the electrode shape and pressure on the spark-formation time was investigated. A multigap delay system is suggested for h-v pulse work. Tests with a 5-gap, 15-kv system showed that, with 2-mm-diameter electrodes and 166-pf capacitors, the time lag could be continuously adjusted within 60-1,000 nanosec. Orig. art. has: 5 figures, 3 formulas, and 2 tables.

ASSOCIATION: none

SUBMITTED: 14Mar63 ENCL: 01 SUB CODE: EC

NO REF SOV: 006 OTHER: 003

Card 2/3

ACCESSION NR: AP4038649

ENCLOSURE: 01

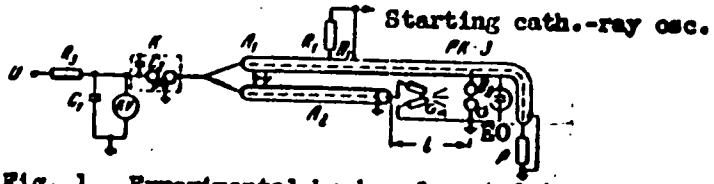

Fig. 1. Experimental hookup for studying the effects of irradiated-gap spark lag

D_1 D_2 - capacitive dividers; K - coaxial chamber; EO - Event-recording oscillograph

Card 3/3

ACCESSION NR: AP4042938 S/0057/64/034/008/1476/1481

AUTHOR: Kassirov, G.M.; Mesyats, G.A.

TITLE: On the breakdown mechanism of short vacuum gaps

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.8, 1964, 1476-1481

TOPIC TAGS: spark ignition, electric breakdown, vacuum breakdown

ABSTRACT: The experimental work of G.M.Kassirov and B.M.Koval'chuk (ZhTF 34,No.3, 1964) on the pulse breakdown of 0.1 to 1 mm vacuum gaps has been continued. New experimental results are reported, and the earlier results are reviewed. The salient experimental facts adduced are the following: 1) There is a delay of 5 to 30 nanosec between application of the pulse and initiation of the breakdown. This delay time increases nonlinearly with increasing gap length and decreases with increasing overvoltage. 2) After initiation of the breakdown, the gap potential falls approximately linearly to zero over a decay period of 3 to 40 nanosec. The decay period increases with increasing gap length, and it also increases with increasing overvoltage. 3) The linear decay of the gap voltage is interrupted in the case of the longer gaps by fluctuations which, in the case of the longest gaps, assume an almost os-

cillatory character with periods from 5 to 10 nanosec. The work of A.Maitland (J. Appl.Phys.32,2399,1961; Brit.J.Appl.Phys.13,122,1962) on pitting of vacuum gap electrodes is reviewed briefly. An attempt is made to provide theoretical explanations for the experimental results described above with the aid of concepts derived from Maitland's findings. To explain the delay time, the authors assume that Maitland's electron beam issuing from a "micropoint" on the cathode has reached its critical intensity by the time the pulse has risen to its maximum, and they calculate the time required for the beam to vaporize a portion of the anode and eject a puff of anode metal vapor. This time they regard as the delay time. For gaps of 0.3 mm and less the calculated delay times are of the same order of magnitude as the observed, and they behave similarly with varying overvoltage. For longer gaps the observed delay times are much longer than the calculated. The authors suggest that in these cases the electron beam does not reach its critical intensity at once, and that the time required for the development of the beam must be included in the calculation. The explanation of the transition to the arc discharge (decay time) is more involved. The suggestion of M. and A.Goldmann (Compt.rend.Acad.Sci.255,23,2654,1961) that the transition occurs when metal vapor traverses the gap as a result of its explosive ejection from the anode is untenable, for the process is too slow. Ions, on the other hand, traverse the gap in a time much shorter than the observed decay times. The

ACCESSION NR: AP4042938

authors suggest that when Maitland's electron beam ejects a puff of anode metal vapor, some ions are formed and a narrow conducting channel results. It is assumed that this channel somehow stimulates the development of other electron beams in its vicinity. The process then continues as a chain reaction and thus accounts for the fluctuations of the electrode potential during the decay period. When the overvoltage is increased, the electron beams become narrower and produce smaller electrode pits and fewer conductive channels. More channels are then required to lower the gap potential by a given amount, and their production requires more time. Orig. art.has: 10 formulas, 3 figures, and 1 table.

ASSOCIATION: Tomskiy politekhnicheskiy institut im.S.M.Kirova (Tomsk Polytechnic Institute)

SUBMITTED: 06Aug63 ENCL: 00

SUB CODE: EM NR REF SOV: 010 OTHER: 009

3/3

L 59643-65 EWT(1) IJP(c)

ACCESSION NR: AP5000839 S/0057/64/034/012/2153/2155

AUTHOR: Vorob'yev, G. A.; Golynskiy, A. I.; Mesyats, G. A.

TITLE: Investigation of the effect of pressure on the process of conductivity rise of sparks in various gases

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 34, no. 12, 1964, 2153-2155

TOPIC TAGS: spark, electric spark, spark conductivity, electric spark conductivity, spark conductivity pressure dependence, gas filled spark gap

ABSTRACT: Experimental data are given on the effect of pressure on the spark-conductivity characteristics in air, hydrogen, nitrogen, carbon dioxide, helium, and freon. The gases investigated were 99.8 percent pure. Nitrogen and carbon dioxide were dehumidified by channeling them through a coil pipe cooled by liquid nitrogen. The inductance of the discharge circuit was about 10^{-9} h and the time constant 1.3×10^{-11} sec. The discharge current reached 100 amp. The pulse frequency was 0.1 cps. The oscillograms of the pulse fronts as functions of time are presented for each gas at various pressures.

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L 59643-65

ACCESSION NR: AP5000839

A section of fast rise followed by a portion of much slower increase are general characteristics of these fronts for air, nitrogen, carbon dioxide, and freon. Carbon dioxide has two steps at pressures below 0.5 atm. For freon at pressures below 3 atm, a constant shift of the curve occurs with the change of pressure. Hydrogen, distinctively, displays no "steps", but has a rather slow-starting rise which steepens smoothly with time. Conductivity as a function of pressure was plotted on the basis of the aforementioned oscillograms. These curves display a characteristic discontinuity at a certain pressure for each gas. Beyond that pressure, the dependence, in logarithmic scale, approximates straight lines for all gases except freon, for which no continuation of the curve beyond the critical pressure was obtained in the experiments described. Orig. art. has: 3 figures.

ASSOCIATION: none

SUBMITTED: 24Jun63 ENCL: 00 SUB CODE: ME, EM

NO REF SOV: 006 OTHER: 001 ATD PRESS: 3166

2/2 ddp

ACCESSION NR: AP5010118 UR/0109/65/010/004/0780/0782

AUTHOR: Mesyats, G. A.; Vorob'yev, P. A.; Bychkov, Yu. I.

TITLE: Using gas microgaps in high-voltage nanosecond impulse devices

SOURCE: Radiotekhnika i elektronika, v. 10, no. 4, 1965, 780-782

TOPIC TAGS: gas microgap, microgap, hv impulse, hv peaker, hv switch

ABSTRACT: Many microgaps connected in series and placed in gas can be used for h-v nanosecond switch or peaker purposes. By using P. R. Howard's formula for voltage across two adjacent electrodes (Proc. IEE, 1952, pt. 2, v. 99, no. 70, 371) and experimental data obtained by the authors, it is shown that the gas microgaps can operate within a fairly wide range of working voltages. Orig. art. has: 2 figures, 2 formulas, and 1 table.

ASSOCIATION: none

SUBMITTED: 22May64 ENCL: 00 SUB CODE: EC

NO REF SOV: 005 OTHER: 001

Card 1/1

ACCESSION NR: AP5007300 S/0057/65/035/003/0516/0518

AUTHOR: Nesyats, G.A.

TITLE: Pulse height insensitive spark pulse sharpeners

SOURCE: Zhurnal tekhnicheskoy fiziki, v.35, no.3, 1965, 516-518

TOPIC TAGS: pulse sharpener, vacuum spark, surface breakdown

ABSTRACT: The operation of a spark pulse sharpener is briefly discussed theoretically from the point of view of minimum dependence of delay time on pulse height and accommodation of a maximum range of pulse heights without readjustment of the gap length. Two possible paths by which one might attempt to achieve the desirable operating characteristics are mentioned: 1) So choose the working medium and electrode shapes as to obtain a delay time nearly independent of pulse height; and 2) Force the desired relation between pulse height and delay time, possibly with the aid of an external circuit. The use of a gas as working medium is regarded as unpromising because of the strong dependence of electron avalanche development time on field strength; the vacuum gap is more suitable. The possibility is mentioned of employing a third electrode within the gap to which a voltage pulse of appropri-

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ACCESSION NR: AP5007300

ate amplitude would be applied simultaneously with the arrival of the input pulse to be sharpened. The problem of providing these auxiliary pulses is regarded as simple and is not discussed. The possibility is also mentioned of employing a large number of very short gaps in series. In a note added in proof the author mentions recent experiments that he has performed in collaboration with S.P.Bugrayev, employing vacuum surface breakdown of ceramics under conditions of highly nonuniform field in the cathode region. With pulses of 6×10^{-10} sec rise time the range of working potentials was from 5 to 40 kV with a sharpening factor of 35. Orig.art.has: 5 formulas and 1 figure.

ASSOCIATION: Tomskiy politekhnicheskiy institut im.S.M.Kirova (Tomsk Polytechnic Institute)

SUBMITTED: 11May64 ENCL: 00 SUB CODE: EC,EM

NR REF SOV: 006 OTHER: 000

Card 2/2

L 51962-65 EWT(1)/EEC-4/EED-2/EWA(h) Peb/Pi-4/Pj-4
ACCESSION NR: AP5012054 UR/0057/65/035/005/0889/0894

29
28
B

AUTHOR: Mesyats, G.A.; Baksht, R.B.

TITLE: Deformation of large-amplitude waves in a transmission line by passage through a ferrite nonuniformity

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 5, 1965, 889-894

TOPIC TAGS: ferrite, pulse, transmission line, rise time

ABSTRACT: The authors discuss the effect on a pulse in a transmission line of a single nonlinear lumped inductance on a ferrite core. The calculations are based on the magnetization equation for a ferrite given by E.M.Gyorgy (J. Appl. Phys., 29, 9, 1011, 1957). It is shown that when the inductance is in series with the line the rise time of the pulse is shortened, and when the inductance is across the line the length of the pulse is reduced. It is concluded that pulses with rise times as short as 10^{-9} sec can be obtained from less rapidly rising pulses with the aid of a ferrite core inductance. The calculations are illustrated with earlier experimental data of the authors (PTE, No. 3, 1064) and A.M.Shenderovich (Dissertatsiya. Ukr. fiz. tekhn. inst., Khar'kov, 1964). "The authors thank A.M.Shendero-

Card 1/2

L 51952-65
ACCESSION NR: AP5012054

vich for discussing the results of the work." Orig. art. has: 26 formulas and 6 figures.

ASSOCIATION: Tomskiy politekhnicheskiy institut imeni S.M.Kirova (Tomsk Polytechnic Institute)

SUBMITTED: 29Jul64 ENCL: 00 SUB CODE: EC

NR REF SOV: 006 OTHER: 001

Card 2/2

L 60336-65 EWT(1)/EPA(s)-2 Pt-7 IJP(c) GG

ACCESSION NR: AP5018296 UR/0057/65/035/007/1202/1204

537.52

AUTHOR: Bugayev, S. P.; Mesyats, G. A.

30
29
B

TITLE: Temporal characteristics in the nanosecond range of a pulse discharge on a dielectric-vacuum interface

21

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 7, 1965, 1202-1204

TOPIC TAGS: dielectric breakdown, dielectric surface, vacuum

ABSTRACT: The authors have observed with an oscilloscope the potential between a 36 mm diameter molybdenum anode and a 22 mm diameter tungsten cathode of the Rogovskiy shape on the surface of a dielectric in vacuum during discharge initiated by a 1 microsec pulse up to 50 kV with a rise time of 1 nanosec. Hollow cylindrical samples (8 and 6.8 mm outer and inner diameters) of fosterite, an argillaceous alumina ceramic, glass, quartz, and plastic were used. The oscilloscope signal was taken from a capacitor voltage divider capable of passing a 5×10^{-10} sec pulse without observable distortion. The sample was in a 5×10^{-6} mm Hg vacuum and was subjected to preliminary pulse discharges, as a result of which the dielectric strength at first increased and then became stable. Overvoltages were determined from static breakdown potentials measured with the

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L 60336-65
ACCESSION NR: AP5018296

potential rising at 500 V/sec. From the oscillograms were determined the delay time between the arrival of the pulse and the initiation of the discharge, and the breakdown time during which the current rose sharply and the discharge passed into the arc stage. For all samples at all overvoltages above 1.2 and for all gap lengths from 0.3 to 3.0 mm the breakdown time was slightly less than 1 nanosec. The delay times were somewhat more variable; they ranged from a few nanosec to several tens of nanosec at large overvoltages and reached the microsec region for overvoltages considerably below 1.2. The breakdown time in vacuum was considerably shorter than has been previously found in air. Few conclusions can be drawn concerning the breakdown mechanism because of the unknown condition of the surfaces, but the approximate equality of both the breakdown and delay times for all the samples, which included both refractory and thermally labile materials, refutes the suggestion of H.Boersch, H.Hamisch, and W.Ehlich (Zs. angewandte Phys., 15, 6, 518, 1963) that vaporization of material from the dielectric surface might be involved. Orig. art. has: 1 formula, 3 figures, and 1 table.

Card 2/3

L 60336-65
ACCESSION NR: AP5018296

ASSOCIATION: Tomskiy politekhnicheskiy institut im. S.M.Kirova (Tomsk Polytechnic Institute)

SUBMITTED: 16Jul64 ENCL: 00 SUB CODE: EM

NO REF SOV: 003 OTHER: 004

Card 3/3 SLP

L 3622-66 EWT(1)
ACCESSION NR: AP5024062 UR/0057/65/035/009/1665/1668

42
39
B

AUTHOR: Mesyats, G.A.

TITLE: A ferrite gate for short strong video pulses

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 9, 1965, 1665-1668

TOPIC TAGS: ferrite, pulse cable, electromagnetic wave reflection, nanosecond pulse, transmission line

ABSTRACT: The author shows that under certain conditions a weakly magnetized ferrite ring included in a transmission line will reflect sufficiently short pulses of one polarity and pass sufficiently short pulses of the opposite polarity. The ferrite is described by the equations of Landau and Lifshits as simplified by E.M. Gregory (J. Appl. Phys., 27, 9, 1011, 1957), and the equations describing the relation between reflected and transmitted waves are taken from previous work of the author and R.B.Mesyats (ZhTF, 35, No.6, 1965) on ferrite pulse sharpeners. Conditions for reflection and transmission of pulses are derived. The theoretical results were tested by experiments employing a 50 ohm cable with three turns through a 4 cm^2 cross section ferrite ring in which the mean length of a magnetic line of

Card 1/2

L 3622-66

ACCESSION NR: AP6024062 3

force was 13 cm and the magnetizing field was 4 Oe. Under these conditions, 10 MW, 200 A, 15-60 nanosec pulses were 66 % reflected or 95 % passed, depending on the polarity. Orig. art. has: 16 formulas and 3 figures.

ASSOCIATION: Tomskiy politekhnicheskiy institut imeni S.M.Kirova (Tomsk Polytechnic Institute)

4455

SUBMITTED: 06Oct64 ENCL: 00 SUB CODE: EC

NR REF SOV: 001 OTHER: 001

Card 1/2

L 46177-66 EWT(1) GG
ACC NR: AP6028625 SOURCE CODE: UR/0057/66/036/008/1492/1498

AUTHOR: Vorob'yev,P.A.; Mesyats,G.A.; Potalitsyn,Yu.F.

ORG: Tomsk Polytechnic Institute im. S.M.Kirov (Tomskiy politekhnicheskiy institut)

TITLE: A new high-power controlled nanosecond switch 25

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no. 8, 1966, 1492 1498

TOPIC TAGS: electric switch, high power switch, spark gap, nanosecond pulse

ABSTRACT: The authors describe a fast high-power switch based on the rapid successive breakdown of a large number (15 or 30) of series-connected short 200 micron gaps between coaxial cylindrical electrodes by capacitive coupling to a single cylindrical trigger electrode coaxial with them. The operation of the device is analyzed in terms of a simple equivalent circuit of which the principal parameters are the capacities between successive gap electrodes, between a gap electrode and the trigger electrode, and between a gap electrode and ground. Four switches were constructed and tested, and the results obtained with two of them are presented. In each of the instruments the 5 mm long, 28 mm diameter gap electrodes were mounted on a hollow cylindrical insulator which enclosed the cylindrical trigger electrode. The gap potentials during the waiting period were equalized by connecting the electrodes to a high resistance voltage divider. The switch chamber was filled with argon at from 1 to 6 atmospheres. In the tests the working voltage was varied from 4 to 40 kV, and in most of the tests

Card 1/2

the switch was triggered with a 5 to 10 kV 100 to 200 nanosec pulse with a rise time of 2 nanosec. In one series, a 7 kV 300 nanosec trigger pulse with a 20 nanosec rise time was used. The rise times of the output pulses ranged from 1 to 2.8 nanosec. The delay between trigger and output pulses ranged from 11 to 136 nanosec, and the dispersion of this delay ranged from 2 to 108 nanosec. Under most conditions the delay was between 15 and 30 nanosec and its dispersion was between 5 and 20 nanosec. The delay, and particularly its dispersion, decreased rapidly with increasing working voltage, and at 40 kV, the delay dispersion for the 30 gap switch was only 2 nanosec. Advantages of the switch are the lack of connection between the trigger and controlled circuits, the low gas pressure required, the stability of the delay time, and the wide range of working voltages. The authors thank B.M.Koval'chuk for his creative participation in the work from its initial stages. Orig. art. has: 7 formulas, 5 figures and 1 table. [15]

SUB CODE: 09,20 / SUBM DATE: 16Aug65 ORIG.REF: 007

MESYATS, [illegible]; [illegible]; ERENBURG, G.A.

[illegible] in the [illegible]. Neft. i gaz.prom. [illegible] (MIRA 18:8)

L 28716-65 EWT(m)/EWC(m)/T/EWP(t)/EWP(b) LJP(c) RWH/JD

ACCESSION NR: AT5004076 S/3127/63/000/05-/0088/0090

AUTHOR: Zakharov, M. S.; Mesyats, N. A.

TITLE: Determination of microconcentrations of copper, lead, bismuth, and zinc in indium, with separation of excess indium by extraction

SOURCE: USSR. Gosudarstvennyy komitet po khimii. Metody analiza khimicheskikh reaktivov i preparatov, no. 5/6, 1963. Polyarograficheskoye opredeleniye ul'tramikroprimesey s nakopleniyem ikh na statsionarhykh rtutnykh ili tverdykh elektrodakh s posleduyushchim rastvoreniyem (Polarographic determination of ultramicroimpurities with their accumulation on stationary mercury or solid electrodes and subsequent dissolution), 88-90

TOPIC TAGS: indium analysis, indium extraction, copper determination, lead determination, bismuth determination, zinc determination, amalgam polarography, anodic trough

ABSTRACT: It is known that indium can be separated from copper, lead, zinc, and bismuth impurities by extraction with diisopropyl and diethyl ether from 5 N HBr. To determine the degree of extraction, a solution of indium in 5 N HBr and known quantities of Cu impurities were poured into a separatory funnel. The degree of extrac-

Card 1/2

L 28716-65
ACCESSION NR:: AT5004076

tion of copper and lead was determined by amalgam polarography using the method of additions. A blank experiment was also performed in which no add tions were introduced into the separatory funnels, while indium was added in the same amounts. The results are tabulated, and show that the degree of extraction by both ethers is satisfactory. The reagents and solutions used are listed, and the procedure used in the determination is described. The maximum sensitivity of the technique (depth of anodic trough, 2 mm) was 4×10^{-7} % for copper, 2×10^{-7}% for lead, 4×10^{-7}% for bismuth, and 2×10^{-7}% for zinc. The method was used to determine copper and lead in samples of indium of brand In-O. The copper and lead content of the samples was 2.3×10^{-5}% and $2.1 \times 10^{-5} - 3.2 \times 10^{-5}$%, respectively. Orig. art. has: 1 table.

ASSOCIATION: TPI

SUBMITTED: 00Jul62 ENCL: 00 SUB CODE: IC

NO REF SOV: 000 OTHER: 002

Card 2/2

ACCESSION NR: AP4043461 S/0075/64/019/008/0959/0963

AUTHORS: Mesyats, N.A.; Nazarov, B.F.; Zakharov, M.S.; Stromberg, A.G.

TITLE: Determination of microamounts of thallium in high purity indium by means of preconcentration amalgam polarography

SOURCE: Zhurnal analiticheskoy khimii, v. 19, no. 8, 1964, 959-963

TOPIC TAGS: thallium polarography, thallium analysis, indium analysis, amalgam polarography, stripping analysis, extraction, preconcentration

ABSTRACT: Because high purity metallic indium and indium alloys find various applications in electronic engineering, semiconductor technology and since thallium is the usual impurity, it was the purpose of this work to develop a method for the determination of thallium. The method was amalgam polarographic. The effect of the electrolysis potential on the height of the anodic peak of thallium is shown in Figure 1, and the maximum height of the thallium peak is achieved from -0.9 to -1.0 volt vs S.C.E. Thallium was extracted with diethyl ether. Since thallium and indium peak potentials coincide in a majority of supporting electrolytes, the indium peak was

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ACCESSION NR: AP4043461

suppressed by complexan III. Since simple extraction is not sufficient to remove interfering amounts of indium, extraction was carried out twice. Recovery of thallium by extraction and the determination accuracy comprises 85-100%, as found on synthetic solutions. The method is very precise. Orig. art. has: 4 tables and 2 figures.

ASSOCIATION: Tomskiy politekhnicheskiy institut im. S. M. Kirova (Tomsk Polytechnic Institute)

SUBMITTED: 29Jul63 ENCL: 01

SUB CODE: IC , GC. NR REF SOV: 001 OTHER: 002

Card 2/3

ACCESSION NR: AP4043461 ENCLOSURE: 01

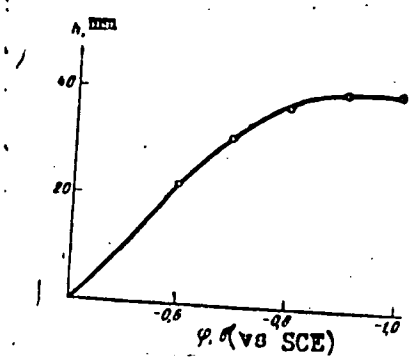


Figure 1
The anodic peak height of thallium as a function of electrolysis potential

Card 3/3

L 33423-66 EWT(m)/EWP(t)/ETI LJP(c) JD

ACC NR: AR6012427 SOURCE CODE: UR/0081/65/000/020/G024/G024

AUTHORS: Mesyats, N. A.; Kaplin, A. A.; Zakharov, M. S.; Tychkina, G. K.

TITLE: Development of an improved quick method for determining copper micro-concentrations in high-purity indium by the method of amalgam polarography with accumulation

SOURCE: Ref. zh. Khimiya, Abs. 20G151

REF SOURCE: Izv. Tomskogo politekhn. in-ta, v. 128, 1964, 42-45

TOPIC TAGS: copper, indium, electrolysis, polarography, HIGH PURITY METAL

ABSTRACT: The use of amalgam polarography with accumulation is described for determining microamounts of Cu in high-purity indium. Two grams of indium are dissolved in 1.5 ml 11 N HNO_3 with heating up to 60—50C. The solution is evaporated to 0.1—0.2 ml, 2 ml 1 M H_3PO_4 are added, electrolysis is carried out for 6 min, and the anode peak is recorded. The analysis of 3 samples (ea 2 parallel and 2 control tests) lasts about 6 hr. The method permits determination of $\geq 4 \times 10^{-6}$% Cu. In determining 2.5×10^{-5}% Cu, the standard deviation is ± 14%. G. Prokhorova. [Translation of abstract] [NT]

SUB CODE: 11/ SUBM DATE: none

Card 1/1 UDC

MESYATS, O.I. [Misiats', O.I.]

Conference on the hydrogeology and engineering geology of the Crimea.
Geol. zhur. 19 no.5:96 '59. (MIRA 13:2)
(Crimea--Geology)

Mesyats, V. A.

15-1957-7-9151

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7, p 48 (USSR)

AUTHOR: Mesyats, V. A.

TITLE: New Discoveries of an Ornamented Mammoth Tusk (Novaya nakhodka ornamentirovannogo bivnya mamonta)

PERIODICAL: Kratkiye soobshch. In-ta arkheol. AN UkSSR, 1956, vol 6, pp 40-42.

ABSTRACT: In 1954 a piece of mammoth tusk with incisions on the surface was found near the paleolithic site at the village of Dovginicha (Zhitomir oblast'). Not far from this locality traces of other paleolithic sites were uncovered in 1955. The carving was done for ornamentation; the incisions arranged in sequence in a definite order were probably used for keeping a record of the hunt; and those incisions which show no systematic arrangement might have been made by using the tusk as a tool.

A. I. Medyantsev

Card 1/1

Translation from: Referativnyy zhurnal, Geological, 1957, Nr 10, p 52 (USSR) 15-1957-10-13756

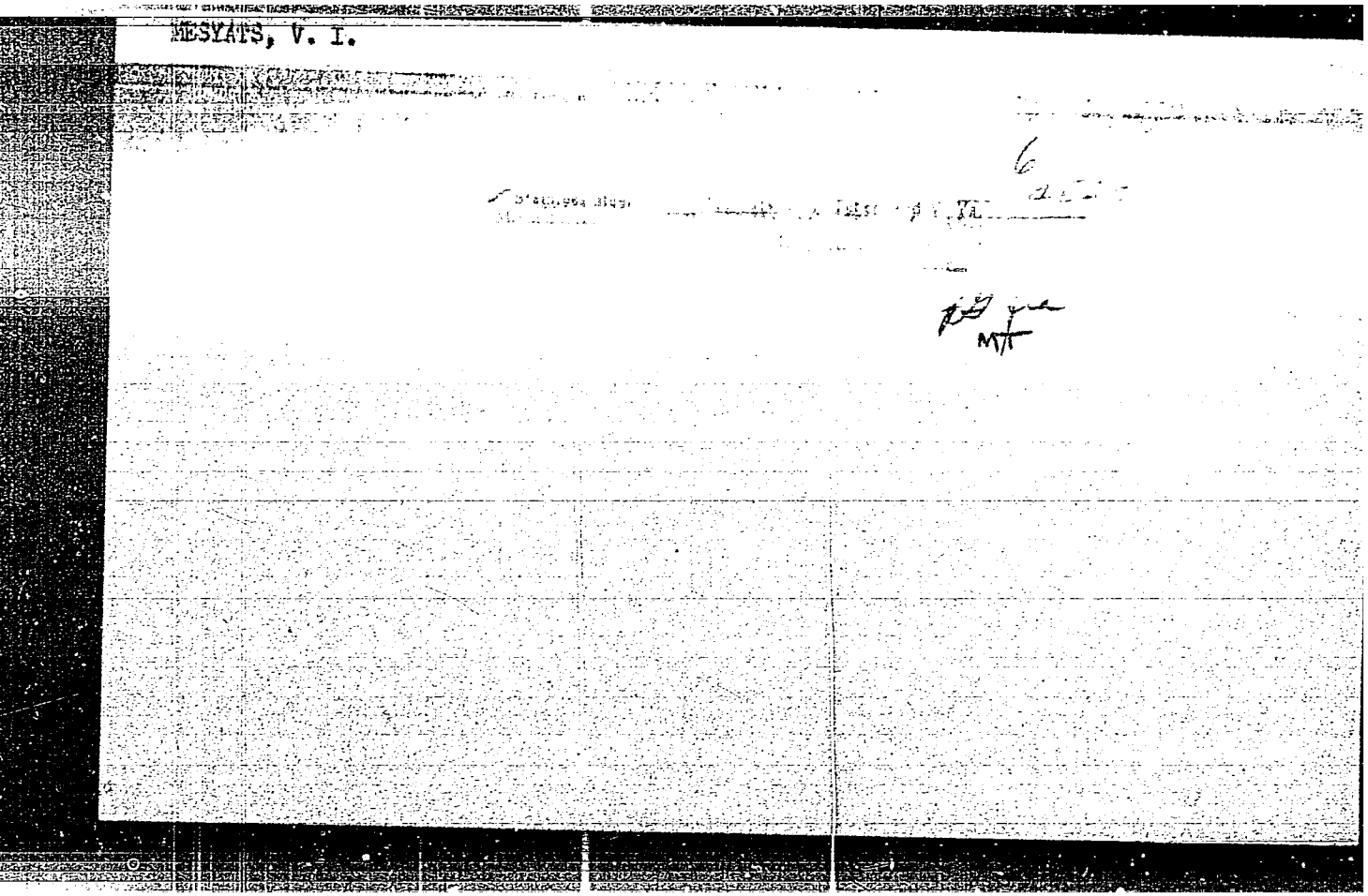
AUTHOR: Mesyats, V. A.

TITLE: Traces of New Late-Paleolithic Sites in the Environs of Ovruch (Sledy novoy pozdnepaleoliticheskoy stoyanki v okrestnostyakh Ovrucha)

PERIODICAL: [illegible] soobshch. In-ta arkheol. AN UkSSR, 1957, Nr 7, pp 3-4

ABSTRACT: Bibliographical entry

Card 1/1



Sov/133/58-9-9/29

AUTHORS: Teder, L. I., Monastyrskiy, V. Ya. and Mesyats, V.I. (Engineers)

TITLE: Smelting of Stainless Steel from Scrap Using Silico-Manganese (Vyplavka nerzhaveyushchey stali na otkhodakh s ispol'zovaniyem silikomargantsa)

PERIODICAL: Stal', 1958, Nr 9, pp 801-802 (USSR)

ABSTRACT: On smelting stainless steel 1Kh18N9T an expensive and short in supply metallic manganese was usually used for alloying (about 10 kg/ton). This was introduced into the deoxidised bath. Cheaper manganese alloys could not be used as they contain carbon. On theoretical considerations the authors proposed to exclude the use of metallic manganese in smelting stainless steel and replace it with silico-manganese, introducing it after blowing the bath with oxygen. The choice of silico-manganese was based on the following basis: a) this is one of the cheapest manganese alloys with a low carbon content; b) it contains little phosphorus, the removal of which on smelting stainless steel presents considerable difficulties, and c) the introduction of silico-manganese permits decreasing the consumption of ferro-silicon on the reduction of chromium from slag. An analysis of the results obtained in a large number of heats carried

Card 1/2

Smelting of Stainless Steel from Scrap Using Silico-Manganese

out by both methods (with metallic manganese and silico-manganese) indicated that the use of silico-manganese does not present any additional technological difficulties. The content of carbon in steel remained the same although instead of 9.8 kg/ton of manganese 15 kg/ton of silico-manganese was used. An increase in the chromium recovery decreased the consumption of ferrochromium (type Khr0000-Khr 000) by 6.75 kg/ton. The consumption of 75% ferrosilicon for deoxidation decreased by 3 kg/ton. The summary economic effect in one melting shop exceeded a million roubles per year. The wider application of the method in other works is recommended.

ASSOCIATION: Kuznetskiy metallurgicheskiy kombinat (Kuznetsk Metallurgical Works)

Card 2/2

SOV/130-59-1-7/21

AUTHORS: Glazov, A.N., and Mesyats, V.I.

TITLE: Improvement of Electric-Furnace Lining (Usovershenstvovaniye futerovki elektropechey)

PERIODICAL: Metallurg, 1959, Nr 1, pp 14-19 (USSR)

ABSTRACT: The authors describe ways in which electric-furnace lining life has been improved at the Kuznetskiy metallurgicheskiy kombinat (Kuznetsk metallurgical combine). Since 1953 wall and rod lives have improved from 54 and 68 heats, respectively, to 164 and 127 respectively. Some of the wall-life improvement is due to the adoption of cased chrome-magnesite bricks, but better wall design, especially of the arch over the tapping hole (Fig 1) and improved maintenance, have been important factors. Better inner lines made possible through the adoption in April 1957 of a suggestion by Monastyrskiy, Fudkomaz and Shtep that shell diameter be increased by 250 mm (Fig 2) led to further improvement. The authors attribute great importance in wall-life to the form of the bottom and banks and discuss the optimal form and its maintenance for furnaces producing stainless or ball-bearing steels with occasional

Card 1/3

Improvement of Electric-Furnace Lining

melting of eg 12KhN3A, 0KhN1M imposing a greater thermal load on the bottom. A special device (Fig 3) is used for removing the top softened layers of the bottom remaining after tapping. A bottom-life of about 2000 heats has been achieved. The authors describe bottom construction (Fig 4) and maintenance and state that the latter is the major life-controlling factor. The bottom lining is covered after brief heating to 100°C with a slightly tamped 30-40 mm thick layer of magnesite powder in water glass and furnace charging is started after this has been heated for 3 hours with coke and firewood. After tapping the first heats the bottom and banks are fettled with dry magnesite powder and kept heated by lowering the hot electrodes. The first 6-8 heats after bottom repairs are of carbon steels. Old bottoms are removed in one piece (Fig 5). The authors briefly describe roof construction, contrasting the old arrangement and that adopted in 1955 (Figs 1a and 1b respectively), at the suggestion of Fudkomaz and Kornilov which secured improved service conditions for the bricks and led to a life increase of

Improvement of Electric-Furnace Lining

35 heats. The improvements in refractory consumption (kg per tonne of steel) and down time brought about by the measures described are shown in Table 2. In 1957 the total (magnesite, chrome-magnesite and silica) refractory consumption was 8.7 kg/tonne and the down time 1.19 of calendar time, while the corresponding 1953 figures were 20.4 and 3.0.

There are 6 figures and 2 tables.

ASSOCIATION: Kuznetskiy metallurgicheskiy kombinat (Kuznetsk metallurgical combine)

GLAZOV, A.N., inzh.; DANILOV, P.M., kand. tekhn. nauk; ZAMARAYEVA, Ye.M., inzh.; MESYATS, V.I., inzh.; PASHCHENKO, V.Ye., inzh.

Influence of the technology of smelting on the quality of Kh17N7IU steel sheet and rolled shapes. Stal' 25 no.10: 911-913 O '65. (MIRA 18:11)

1. Kuznetskiy metallurgicheskiy kombinat.

NALIVKIN, D.V. [Nalyvkin, D.V.], glav. red.; BELYAYEVSKIY, N.A. [Bieliaievs'kyi, M.A.], zam. glav. red.; TIKHOMIROV, V.V. [Tykhomyrov, V.V.], zam. glav. red.; ASSOVSKIY, A.M. [Assovs'kyi, O.M.], red.; MEL'NIKOV, O.D.[Mel'nykov, ...], red. [deceased]; PEYVE, A.V. [Peive, O.V.], red.; YANSHIN, A.L.[IAnshyn, O.L.], red.; MALAKHOVSKIY, V.F.[Malakhovs'kyi, V.F.], red. vypuska; YURK, Yu.Yu., prof.,red.; MESYATS, I.A. [Misiats', I.O.], red.; BASS, Yu.B. red.; MALAKHOVSKIY [Malakhovs'kyi, V.F.], red.; NEKRASOV, G.I. [Nekra...], red.; SLAVUTSKIY, M.B.[Slavuts'kyi, M.B.], red.; [illegible] E.I., red.

[Study of the geology of the U.S.S.R.] Geologicheskaia izuchennost' SSSR. Kiev, Naukova dumka. Vol.33. No.1. 196[illegible]. [illegible] (Kiev)

USSR/Farm Animals. - Small Horned Stock Q-3

Abs Jour : Ref Zhur - Biol., No 6, 1958, No 26165

Author : Stoynovskaya V.I., Musaytaev L.S.
Inst : Not Given
Title : Ways for Increasing Productivity of the Karakul Sheep of Dolichocephalic Constitution (Puti povysheniya produktivnosti karakul'skikh ovets nezhnoy konstitutsii)

Orig Pub : Karakulevodstvo i zverovodstvo, 1957, No 4, 10-14

Abstract : The Karakul sheep of the Kryk type are little productive, not hardy enough, and produce poor lambs. In order to increase their productivity, it is necessary to segregate the mother ewes into separate flocks and to provide them with a higher level of feeding. For their insemination, rams of a strong constitution with a certain amount of roughness should be used. The authors recommend the insemination of ewes with a mixture of the semen of rams. It would be expedient to postpone lambing by 5-10 days as compared with normal timing.

Card : 1/1

MESYATSEV, Aleksandr Stepanovich, Geroy Sotsialisticheskogo Truda; GROMOVA, A.V., red.; KOBYAKOVA, G.N., tekhn. red.

[Promoting multiparity in sheep] Povyshenie mnogoplodiia ovets. Moskva, Sel'khozizdat, 1963. 95 p. (MIRA 16:12)

1. Direktor sovkhoza "Chim-Kurgan" Uzbekskoy SSR (for Mesyatsev).
(Uzbekistan--Karakul sheep) (Gonadotropin)
(birth, Multiple)

S, 146/60/003/01/015/016
D002/D006

25(6)

AUTHOR: [redacted] Candidate of Technical Sciences

TITLE: On the Reliability of Selective and One Hundred Percent Inspection of Manufactured Products

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Priborostroyeniye, Vol 3, 1960, Nr 1, pp 108-114 (USSR)

ABSTRACT: The author determines mathematically the initial reliability data of various methods for checking manufactured products. The number of products in a batch above which the one hundred percent inspection method is less reliable and effective than the selective method, is determined by means of the probability theory. In conclusion, the working formulas for selecting the best checking method are derived. The article was recommended by the Moskovskoye vyssheye tekhnicheskoye uchilishche imeni N.E. Baumana (Moscow Higher Technical School imeni N.E. Bauman). There are 2 graphs and 3 Soviet references.

Card 1/2

S/146/60/003/01/015/016
D002/D006

On the Reliability of Selective and One Hundred Percent Inspection of Manufactured Products

ASSOCIATION: Moskovskoye ordena Lenina i ordena Trudovogo Krasnogo Znameni vysshaye tekhnicheskoye uchilishche imeni N.E. Baumana (Moscow Red Banner of Labor Technical High School of the Order of Lenin imeni N.E. Bauman)

SUBMITTED: September, 29, 1959

Card 2/2

MESYATSEV, P.P., kand.tekhn.nauk, dotsent

Precision and reliability of the inspection of production output when using the method of comparison with a standard specimen. Izv. vys. ucheb. zav.; mashinostr. no.6:154-164 '61. (MIRA 14:7)

1. Moskovskoye vysshoye tekhnicheskoye uchilishche imeni Baumana.

(Production control)

MESYATSEV, P., kand.tekhn.nauk

Technological aesthetics and industrial development. NTO 4 no.10:20-21 O '62. (MIRA 15:9)

1. Predsedatel' komissii po kul'ture proizvodstva komiteta Vsesoyuznogo nauchno-tekhnicheskogo obshchestva po nadezhnosti i kontrolyu kachestva.

(Art and industry)

MESYATSEV, P.P.; CHISTYAKOV, N.I., doktor tekhnicheskikh nauk, professor, retsenzent; SARKISYAN, B.G., inzhener, retsenzent; ZYDAKIN, A.I., inzhener, redaktor; TUBYANSKAYA, F.G., izdatel'skiy redaktor; ZUDAKIN, I.M., tekhnicheskiy redaktor

[Control and adjustment of units of electronic apparatus] Regulirovka i nastroika blokov radiotekhnicheskikh ustroistv. Moskva, Gos. izd-vo obor. promyshl., 1957. 106 p. (MLRA 10:5)
(Electronic control)

PHASE I BOOK EXPLOITATION 860

Mesyatsev, Pavel Pavlovich

Primeneniye teorii veroyatnostey i matematicheskoy statistiki pri konstruirovanii i proizvodstve radioapparatury (Application of the Theory of Probabilities and Mathematical Statistics in the Design and Manufacture of Radio Apparatus) Moscow, Oborongiz, 1958. 261 p. 8,500 copies printed.

Reviewer: Yevteyev, F.Ye., Candidate of Technical Sciences; Ed.: Siforova, V.I., Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: Kuznetsova, A.G.; Tech. Ed.: Pukhlikova, N A.; Managing Ed.: Sokolov, A I., Engineer.

PURPOSE: This book is intended for trained personnel of the radio industry.

COVERAGE: The book deals with the possibility of application of probability theory and mathematical statistics in the design and manufacture of radio equipment. The basic concepts and formulas

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Application of the Theory of Probabilities (Cont.) 860

of the probability theory are introduced. The theory of one-dimensional and multidimensional distribution functions of random variables and the theory of distribution functions of random variables with correlational connections are presented. Error formulas for functions of many random variables are obtained. In each chapter many examples are given, which are closely related to the theory presented and demonstrate the use of probability theory and mathematical statistics during various phases of designing, manufacturing, tuning, and testing of radio equipment. No personalities are mentioned. There are 10 Soviet references.

TABLE OF CONTENTS:

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Application of the Theory of Probabilities (Cont.) 860

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Application of the Theory of Probabilities (Cont.) 860

Card 4/5

AVAILABLE: Library of Congress

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Card 5/5

ZHUKOV, Vasiliy Andreyevich; MESYATSEV, P.P., retsenzent; LICHNOV, A.I., inzh., retsenzent; SHIROKOVA, Z.G., inzh., retsenzent; GUREVICH, B.D., inzh., retsenzent; BASTANOV, S.S., inzh., retsenzent; GOLOVINA, K.N., inzh., retsenzent; BEL'TSEV, A.N., inzh., retsenzent; SOLOMATIN, V.V., inzh., retsenzent; MARSHEV, N.I., inzh., retsenzent; MARSHEV, N.I., inzh., retsenzent; BALASHEVA, T.I., inzh., retsenzent; GIRSHMAN, G.Kh., red.; ANGELEVICH, N.E., red.; SOBOLEVA, Ye.M., tekhn.red.

[Technology of the manufacture of radio equipment] Tekhnologiia proizvodstva radioapparatury. Moskva, Gos.energ.izd-vo, 1959. 636 p. (MIRA 13:3)

(Radio industry)

MESYATSEV, P.P.

Efficiency of continuous production lines. Nauch. dokl. vys. shkoly; vys. shkoly; mash. i prib. no.2:137-150 '59. (MIRA 12:12)
(Assembly-line methods)

PHASE I BOOK EXPLOITATION SOV/5322

Mesyatsev, Pavel Pavlovich

Regulirovka i ispytaniye radioapparatury (Regulation and Testing of Radio Equipment) Moscow, Gosenergoizdat, 1960. 206 p. 30,000 copies printed.

Ed.: Yu. I. Vizun; Tech. Ed.: G. Ye. Larionov.

PURPOSE: This book has been approved by the Ministry of Higher and Secondary Specialized Education, USSR, as a textbook for those specializing in structural designing and production technology in schools of higher education, and particularly for students taking the course on tuning and testing of radio equipment. It may also be used by engineers employed in the radio industry.

COVERAGE: The author discusses fundamentals of the theory of the regulation and testing of radio devices and systems as well as the methods applied and the instrumentation necessary for this purpose. Principles of the design of regulating, checking, and measuring equipment for shop use are explained and information on the organization of the regulation and inspection process is given. No personalities are mentioned. There are 15 references, all Soviet.

Card 1/4

MESYATSEV, Pavel Pavlovich; LIVSHITS, Nina Samuilovna; TSIPULYAVSKIY, L.M., red.; KREYS, I.G., tekhn.red.

[Course in radio engineering; manual for students of pedagogical institutes] Kurs radiotekhniki; posobie dlia studentov pedagogicheskikh institutov. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.RSFSR, 1960. 241 p. (MIRA 14:2)

(Radio)

MESYATSEV, Pavel Pavlovich; SAMSONOVA, M.T., red.; GORDKHOVA, S.S., tekhn.red.

[Introduction to the theory of the design and manufacture of radio equipment] Vvedenie v teoriiu proektirovaniia i proizvodstva radioapparatury. Moskva, Gos.izd-vo "Vysshaia shkola," 1961. 190 p. (MIRA 14:12)
(Radio--Equipment and supplies)

L 26075-65

ACCESSION NR: AT4049227 S/3108/64/000/004/0281/0309

AUTHOR: Mesyatsev, P.P.

TITLE: The basis of operational interchangeability in radio-electronic systems

SOURCE: Vzaimozamenyayemost' i tekhnicheskiye izmereniya v mashinostroyenii; nauchno-tekhnicheskiy sbornik, no. 4, 1964, 281-309

TOPIC TAGS: radio component, electronic apparatus, electronic component interchangeability

ABSTRACT: Operational interchangeability ensures the possibility of continuing work after replacing parts which have changed their parameters during operation. This is necessary since it is impossible to replace the entire system due to excessive costs. Designs of new systems must therefore provide for reserves and for replacement of separate parts in order to restore the capacity of the entire system. The basis of interchangeability is the detailing of the equipment by assemblies, parts, blocks, devices, etc. This depends on cost, production technology, transportation, personnel and quality of repairs. The main parameters are the electrical data: sudden and gradual changes of electrical parameters. Two methods of calculation are given for these changes, and it is pointed out that sudden changes occur most frequently in binary systems. Several

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ACCESSION NR: AT4049227 O

methods are used to ensure interchangeability in radio-electronic systems: without selection of the element, with selection of the element and by adjustment. These methods are chosen depending on the required parameters necessary for interchangeability. The paper includes methods for calculating the symbolic circuits of electronic tubes with all the necessary equations for interchangeability. Similar methods are used for semiconductor devices. The considered methods of calculating the accuracy of radio-electronic systems allows one to interchange their elements. These methods may be simplified by compilation of tables for calculating the most widely used circuits; some such tables are already available for several circuits. Simplification may also be achieved by the correct use of approximate methods of calculation. Orig. art. has: 6 figures and 52 equations.

ASSOCIATION: none

SUBMITTED: 00 ENCL: 00 SUB CODE: EC, IE

NO REF SOV: 002 OTHER: 000

Card 2/2

MESYATSEV, P.P., kand. tekhn. nauk, dotsent

Fundamentals of the design of assembling, adjusting, and testing processes used in the manufacture of radio systems. Izv. vys. ucheb. zav.; mashinostr. no.3:31-37 '65. (MIRA 18:6)

1. Moskovskoye vysshaye tekhnicheskoye uchilishche imeni Baumana.

MESYATSEV, Ye.

Miners' trade-union committee helps production. Mast.ugl. 8 no.9:14-15 S '59. (MIRA 13:2)

1. Predsedatel' profsoyuznogo komiteta shakhty "Chertinskaya-Yushnaya" Kemerovskogo sovnarkhoza.
(Trade unions) (Coal mines and mining)

MESYS, J.; KAPLANAS, O., red.

Klaipeda. Vilnius, Mintis, 1964. 93 p. [In Lithuanian]
(MIRA 18:3)

MESYS, J.; KAPLANAS, O., red.

Klaipeda. Vilnius, Mintis, 1964. 92 p. (MIRA 18:12)

MESZAROS

The 6th International Exhibition of Electronic Parts, Paris, February 8-12, 1963. Radiotechnika 13 no.5:162-164 My '63.

HOLLO, J., prof., dr. (Budapest XI., Gellert ter 4); LENGYEL, T., dr. (Budapest XI., Gellert ter 4); MESZAROS, A. (Budapest XI., Gellert ter 4)

Conditions for executing computations on binary vapour-liquid equilibria. Periodica polytechn chem 5 no.1:35-39 '61.

1. Department of Agricultural Chemical Technology, Polytechnical University, Budapest.

MESZAROS, A. 1948

"Progress of Public Health in Rural Communities."

Nepegeszsegugy, Budapest. 1948 29/609-624(611-616)
No abst. in Exc. Med.

GOMORI, P.; ZOLANI, B.; NAGY, Z.; JAKAB, I.; MESZAROS, A.; Technical assistance: KARAI, A.; SZEKER, A.; VAJDA, V.; VERES, A.

The problem of renal ischaemia and of the arterio-venous anastomoses of the kidney. III. New corrosion studies in dehydration, haemorrhagic, traumatic and ischaemic shock, arterial hypoxia and after serum albumin treatment. Acta med. Acad. sci. Hung. 20 no.2:169-183 '64.

1. Second Department of Medicine (director: prof. P. Gomori) and Institute of Anatomy (director: prof. J. Szentagothai), University Medical School, Budapest.

MOLNAR, Lajos; KERTKES, Erno; MESZAROS, Andras

Significance of the fatty infiltration of the pancreas. Orv. hetil. 99 no.36:1243-1246 7 Sept 58.

1. A Budapesti Orvostudomanyi Egyetem II. sz. Korbonctani Intezetenek (igazgato: Haranghy Laszlo dr. egyet. tanar) kozlemenye.

(PANCREAS, pathol.
fatty infiltration, classif. & histopathol. (Hun))

VARGA, Karoly; MESZAROS, Andras

Necessity of an operational plan at the Kaposvar railroad station. Vasut 13 no.3:5-7 Mr '63.

1. Felugyelo, allomasfonok. (for Varga). 2. Uzemmernok, m. all. fon. h. (for Meszaros).

HUNGARY

JUHASZ, Dr Istvan; MESZAROS, Dr Andras; and VARGA, Dr Istvan; Internal Medical Clinic No 2 of the College of Medicine, Budapest (Budapesti Orvostudomanyi Egyetem II. sz. Belgyogyaszati Klinika) (Director: Dr Pal GOMORI).

"Experimental Thrombophlebitis Induced by Injection of Tissue Extract"

Budapest, Magyar Sebeszet, Vol 19, No 3, Jun 66; pp 167-169.

Abstract: Experiments were carried out in 18 dogs; venous backflow was suspended for 30 minutes and during this period an aqueous tissue extract was injected into the superficial vein of the hind leg. On the basis of the histological findings and by taking into account the experimental conditions, the experimental model seems to be suitable for the investigation of human thrombophlebitis. (11 References, mainly Western).

1/1

BONA, Endre, Dr.; MESZAROS, Antal, Dr.

Case of dissecting aortic aneurysm diagnosed in living person. Orv. hetil. 99 no.46:1620-1621 16 Nov 58.

1. A Budapesti Orvostudomanyi Egyetem II. sz. Belklinikajanak kozlemenye.
(AORTIC ANEURYSM, case reports
dissecting, case diagnosed in living person (Hun))

:ULIK, Robert, Dr.; MESZAROS, Antal, Dr.

Interesting combinations of syndromes with hypophyseal-hypothalamic origin. Orv. hetil. 100 no.7:263-266 15 Feb 59.

1. A Budapesti Orvostudomanyi Egyetem II. Belklinikajanak Kozlemenye.

(ENDOCRINE DISEASES
combined endocrine synd., diag. & ther. difficulties (Hun))

MAGYAR, Eva, dr.; BOSZORMENYI, Erno, dr.; MESZAROS, Antal, dr.

Focal myocytolysis causing fatal cardiac insufficiency. Orv. hetil. 105 no.25:1180-1183 21 Je '64

1. Budapesti Orvostudomanyi Egyetem, I.Korbonctani es Kiserleti Rakkutato Intezet es II. Belklinika.

MESZAROS, Arpad

Rebuild of machine parts. Mezogazd techn 1 no.2:18 '61.

MESZAROS, Arpad

New process for increasing the wear resistance of cast-iron cylinder liners. Mezogazd techn 1 no.5:18-19 '61.

MESZAROS, Arpad, gepeszmernok

Gasoline stations. Auto motor 16 no.15:4 6 Ag '63.

HUNGARY

MESZAROS, Bela; Zoological Institute (Allattani Intezet) of KLTE [abbreviation not identified] (director: WOYNAROVICH, Elek, Dr), Debrecen.

"Effect of Mitosis-Influencing or Other Biologically Active Materials on the Development of Pleurodeles Ova."

Budapest, Biologiai Kozlemenyek, Vol XI, No 1, 1963, pp 39-44.

Abstract: [Author's Hungarian summary modified] The effects of methylcholanthrene, urethan, heparin, sodium citrate, colchicin, choriogonin, acetylcholine, adrenaline, atropine and eserine on embryonic development were tested. The substances were selected on the basis of assumed mitosis-influencing ability. Activators of mitosis, methylcholanthrene and urethan, did not stimulate but, rather, caused destruction of the experimental embryos in an early neurula stage. Acetylcholine and adrenaline had no effect but eserine (physiostigmine), a cholinesterase inhibitor, stopped embryonic development fully. Choriogonin also inhibited development fully. It is proposed that most of the inhibitory substances exert their action by counteracting the trend toward integration. Of 12 references, 11 are Eastern European and 1 is Western.

1/1

MESZAROS, Bela, dr. (Eger)

Treatment of mandibular fractures by extra-oral pin-fixation.
Fogorv. szemle 59 no.1:11-15 Ja '66.

1. A Heves megyei Tanacs Korhaza Szajsebeszeti Osztalyanak (fooorvos: Meszaros, Bela, dr.) kozlemenye.

SCHOBERL, Gyula (Gyor); MESZAROS, Bela (Mosonmagyarovar)

TV service cases. Radiotechnika 11 no.6:180 Je '61.

MESZAROS, Bela, dr. (Mosonmagyarovar)

A letter to the editor. Radiotechnika 12 no.12:419 D '62.

MESZAROS, Bela, dr.

"Newer" two-norm aperture. Radiotechnika 14 no. 5:185 My '64.

L 32193-66 RM

ACC NR: AP6020845 SOURCE CODE: HU/0036/65/072/003/0191/0204

AUTHOR: Moszaros, Bela (Candidate of biological sciences; Adjunctus); Horvath, J. (Adjunctus)

ORG: [Moszaros] Kossuth Lajos University, Debrocen (Kossuth Lajos Tudomanyegyetem); [Horvath] Eotvos Lorand University (Eotvos Lorand Tudomanyegyetem)

TITLE: Some aspects of current trends in biology

SOURCE: Magyar tudomany, v. 72, no. 3, 1965, 191-204

TOPIC TAGS: protein, biologic metabolism, genetics, biophysics, biochemistry, nucleic acid

ABSTRACT: The current confusion in biology, attributed partly to the previous dogmatism of Marxist-Leninist philosophy, is discussed. The basic principles of the Darwin-Mitchurin and the "molecular genetics" approach are listed. In chapter two, an argument is presented to show that the results of molecular genetics serve as proof of the correctness of the D-M approach to genetics that the principal material basis of inheritance is protein metabolism. The controversy in the field of genetics is one of ideology as well. It is part of the controversy between Darwinism and anti-Darwinism and it will continue until a final victory of the biological trend based on materialism is achieved. A discussion of the role of nucleic acids in chapter three is

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ACC NR: AP6020845

followed by a chapter dealing with the one-sided interpretation of the place of "molecular biology" in the sciences. Research on the molecular level corresponds to the fields of biophysics and biochemistry; they are important but are too fragmented to be able to provide information on the essence of life as biological methods may. In chapter five, some misunderstandings, encountered in the evaluation of Mitchurin's theories, are discussed. [JPRS]

SUB CODE: 06 / SUBM DATE: none

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