NOVITSKIY, K.Yu.; YUR'YEV, Yu.K.; ZHINGAREVA, V.N.; GRESL', Kh.

Furan series. Part 33: Reaction of 3,4-bis(halomethyl) - furans with metal cyanides. Zhur. ob. khim. 34 no.8:2568-2570 Ag '64. (MIRA 17:9)

1. Moskovskiy gosudarstvennyy universitet im. Lomonosova.

NOVITSKIY, K.Yu.; KHACHATUROVA, G.T.; GAL'BERSHTAM, M.A.; KANDROR, I.I.; YUR'YEV, Yu.K.

Synthesis of some chloromethyl compounds of the furan series. Vest. Mosk. un. Ser. 2: Khim. 19 no.6:63-65 N-D '64. (MIRA 18:3)

1. Kafedra organicheskoy khimii Moskovskogo universiteta.

NOVITSKIY, F.Yu.; YUR'YEV, Yu.K.; OLEYNIK, A.F.; RODINA, N.B.

Furan series. Part 34: Synthesis based on β-(2-furyl) ethylamine. Zhur. org. khim. 1 no.1:160-162 Ja '65. (MIRA 18:5)

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

NOVITSKIY, K.Yu.; YUR'YEV, Yu.K.; OLEYNIK, A.F.; BORISOVA, G.V.

Furan series. Part 35: Syntheses based on 5-methyl-2-bromoacetylfuran. Zhur.org.khim. 1 no.2:386-388 F '65. (MIRA 18:4)

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

NOVITSKIY, K.Yu.; GRESL', Kh.; YUR'YEV, Yu.K.

Furan series. Part 36: Effect of the solvent on the reaction of 2-chloromethylfuran with sodium cyanide. Zhur.org.khim. 1 no.3: 539-541 Mr '65. (MIRA 18:4)

1. Moskovskiy gosudarstvennyy universitet.

NOVITSKIY, K.Yu.; OLEYNIK, A.F.; NAYDENOVA, N.M.; YUR'YEV, Yu.K.

Furan series. Part 37: Reactions of 2-vinylfuran oxide with ammonia and amines. Zhur.org.khim. 1 no.3:541-545 Mr '65. (MIRA 18:4)

1. Moskovskiy gosudarstvennyy universitet.

NOVITSKIY, K.Yu.; BRATTSEVA, L.V.; YUK'YEV, Yu.K.

Furan series. Part 38: Reactions of 2-vinylfuran with secondary amines. Zhur. org. khim. 1 no.6:1097-1099 Je '65. (MIRA 18:7)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova.

[illegible] EWT(m)/EWP(e) WH
ACC NR: [illegible] (A) SOURCE CODE: UR/0517/66/000/005/0024/0031

AUTHOR: Novitskiy, L. (Candidate of technical sciences)

ORG: None

TITLE: Optical glass and elements

SOURCE: Tekhnika i vooruzheniye, no. 5, 1966, 24-31

TOPIC TAGS: optic glass, optic material, optic element

ABSTRACT: The article represents a general popular review of special glass and materials commonly used for manufacturing the elements of various optical instruments. The elements such as mirrors, prisms and lenses are also generally reviewed including their optical properties and applications. Some common types of silicates and oxides used for the manufacture of optical glass are shown in a table specifying their high purity contents and indicating their standard specifications. After explaining the principles and causes of refraction, a table containing indices of refraction and coefficients of dispersion for various crownglasses and flintglasses is presented. A basic division of glass in ten classes is given. It is mentioned that more than 80 types of white optical glass and over 100 types of colored glass are manufactured in the Soviet Union. The means for decreasing losses caused by absorption and reflection are briefly discussed and the reflection percentages are tabulated for various refraction indices of specially treated glasses.

Card 1/2

L 09341-67
ACC NR: AP6027519

The principles of reflection from plane mirrors and from various types of prisms are outlined and the geometry of reflection is illustrated. The advantages in size of crown-glass and flintglass prisms are mentioned. The application of lenses is also reviewed by using a series of figures and formulas for describing the object-and-image relations. Orig. art. has: 10 figures, 3 tables, 5 formulas.

SUB CODE: 11, 20/ SUBM DATE: None

Card 2/2

ACC NR: AP7000560 (A) SOURCE CODE: UR/0317/66/000/011/0052/0053

AUTHOR: Novitskiy, L. (Candidate of technical sciences)

ORG: none

TITLE: Adjustment control

SOURCE: Tekhnika i vooruzheniye, no. 11, 1966, 52-53

TOPIC TAGS: optic range finder, optic system, optic instrument

ABSTRACT: Mounting and operating instructions are given for a simple balance-control device consisting of two prisms and two wedge-shaped plates for the monocular control of range finders. The device is designed for use in the armed forces. The adjustment operation is based on the observation of two stereoscopic marks, and their deviation at a certain inclination, by means of an additional telescopic system. The angular displacement of the wedge-shaped plate to compensate the inclination provides a measure of the degree of adjustment required by the range finder. A special method is described for controlling the adjustment of large range finders. Orig. art. has: 3 figures. [GE]

SUB CODE: 17,20/SUBM DATE: none

Card 1/1 UDC: none

Novitskiy, L. A.

ZUBOVSKIY, G.I.; LATYSHEV, V.G.; NOVITSKIY, L.A.

Use of SKS-1 high-speed motion-picture cameras for the photographing of distant objects. Zhur. nauch. i prikl. fot. i kin. 3 no.2:131-135 Mr-Ap '58. (MIRA 11:5)

(Cinematography)

NOVITSKIY, L. A., TRUSHCHITSINA, L. V., and AKIMOV, V. I.

"Measuring of emissivity of solids at temperatures over 1000C"

Seminar on production methods, physical properties, and electron structure of refractory metals, compounds, and alloys, organized by the Institute of Powder Metallurgy and Special Alloys AS Ukr SSR, Kiev, 25-29 April 1963.
(Teplofizika vysokikh temperatur, No. 1, 1963, p. 156)

NOVIKOV, L.A.

Advantages of broadcast sowing in Karelia. Trudy Kar. fil. AN SSSR no.29:105-112 '61. (MIRA 15:2)

NOVITSKIY, L.A.; EDGARDT, N.N.

New instruments for thermophysical research. Teplofiz. vys. temp. 3 no.2:326-328 Mr-Ap '65. (MIRA 18:7)

L 14938-66 EWT(d)/EWT(l)/EWP(v)/EWP(k)/EWP(h)/EWP(l)
ACC NR: AP5016701 SOURCE CODE: UR/0294/65/003/003/0463/0466

AUTHOR: Novitskiy, L. A.; Ergardt, N. N.

ORG: none

TITLE: New devices for thermophysical analysis

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 3, 1965, 463-466

TOPIC TAGS: heat conductivity, temperature control, thermocouple, pyrometer, temperature regulation, temperature measurement

ABSTRACT: The authors list the following newly developed devices (giving a brief description and citing the source of information in each case): 1) Apparatus for determining the coefficient of heat conductivity of heated solids, based on stationary heat flow through a plate (Avtorskoye svidetel'stvo No. 163393). 2) Device for measuring the coefficient of heat conductivity by the cylindrical shell method. (Ogneupory, No. 5, 1964, p. 227). 3) Experimental stand for investigation of nonstationary heat exchange at a solid-nonsolid interface (IVUZ. Priborostroyeniye, v. 7, No. 6, 1964, p. 84). 4) Device for measuring heat conductivity of fluids in the 0.07-0.6 kcal range (Pribory i tekhnika eksperimenta, No. 6, 155, 1964). 5) De-

Card 1/3

L 14938-66
ACC NR: AP5016701

vice for regulating temperatures up to 400°C by means of photodiode tube. Can be used for temperature control in soldering, etc. (Radio, No. 12, 42, 1964). 6) Thermoprobe with contact thermocouple. Measures temperatures in the 160-520°C range within 0.7-1.1 sec. (Izmeritel'naya tekhnika, no. 11, 37, 1964). 7) Automatic programmed temperature control system. Has temperature fluctuation of 0.7% (Ogneupory, no. 13, 117, 1964). 8) Supersensitive heat regulator. Temperature held at 300°C ± ± 0.025°. (Priborostroyeniye, No. 6, 14, 1964). 9) Device for measuring surface temperatures in the 25-120°C range. (Priborostroyeniye, no. 17, 25, 1964). 10) Thermocouple device for contactless determination of temperatures of solids. Used for temperature control of metals up to 1300°C. (Stal', no. 8, 751, 1964). 11) Automatic color pyrometers: a) "Tsvetopir 1" which has a sensitivity of ~2° and an error of 0.3%; b) two models of "Tsvetopir 2"--an industrial model with a temperature range of 1300-2800°C and a subrange of 300-400°C; a research model with a temperature range of 1400-2800°C with four subranges. (Pribory i sredstva avtomatizatsii, no. 9, 29, 1964). 12) High temperature heating system for the UEMV-100 electron microscope. (Zavodskaya laboratoriya, no. 12, 1513, 1964). 13) Krypton light source. (Avtorskoye svidetel'stvo No. 160769). 14) Graphite source of infrared radiation in the 2-20 mμ range. (Pribory i tekhnika eksperimenta, no. 4, 188, 1964). 15) Apparatus for automatic recording of dimensional changes of heated components.

Card 2/3.

L 14938-66
ACC NR: AP5016701

(Ogneupory, no. 4, 167, 1964). 16) System for the continuous measurement of weight losses in evaporating solids. (Zavodskaya laboratoriya, no. 12, 1518, 1964).

SUB CODE: 20,14/ SUBM DATE: 00/ ORIG REF: 000/ OTH REF: 000

GPC

Card 3/3

ACC NR: AP7002705 (A) SOURCE CODE: UR/0115/66/000/012/0028/0031

AUTHOR: Novitskiy, L. A.; Petrichenko, B. I.; Varakina, L. P.

ORG: none

TITLE: Determining the integral radiation factor of solid-state materials and coatings at low temperatures

SOURCE: Izmeritel'naya tekhnika, no. 12, 1966, 28-31

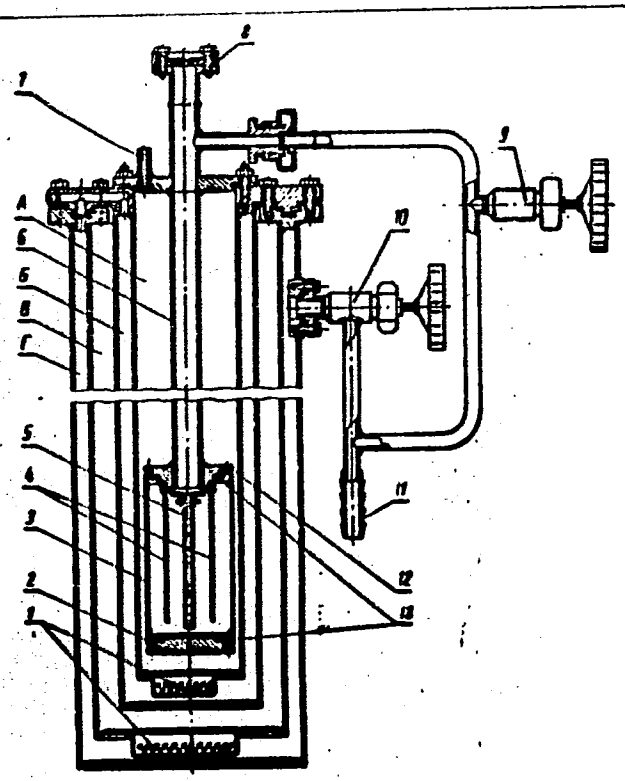
TOPIC TAGS: thermal radiation, low temperature, low temperature research

ABSTRACT: The development of an apparatus for measuring integral thermal-radiation factor ε within the 10--250K range is reported. The apparatus (see figure below) was developed along the lines of the classical calorimetric method. The principal part of the apparatus is thin-wall chamber 3 with copper flanges 2 and 12 sealed by teflon gaskets 13. A thin-walled specimen tubing 5 (3 mm diameter, 100 mm long, 0.2--0.4 mm wall thickness) is placed in the chamber, which is suspended by stainless-steel tubing 6 from the cryostat lid. This apparatus was tested at 100--200K, and the results of ε measurement were found in good agreement with those obtained by A. Goldsmith et al.,("Handbook of Thermophysical Properties of Solid Materials", 1961-63). Estimated error of measurement was ± 8%. Orig. art. has: 2 figures, 4 formulas, and 2 tables.

SUB CODE: 20 / SUBM DATE: 07Jun65 / ORIG REF: 000 / OTH REF: 001

Card 1/2 UDC: 536.24.083:536.48

ACC NR: AP7002705



Card 2/2

BOVITSKIY, L.I.

Successful work without checking between operations. Leg.prom. 16 no.1:44-47 Ja '56. (MLRA 9:6)

1.Direktor Leningradskoy obuvnoy fabriki No.2 "Proletarskaya pobeda".
(Leningrad--Shoe industry)

NOVITSKIY, L.I.; BOYANSKIY, A.A.

Centralized repair of equipment. Leg. prom. 18 no.2:46 F '58.
(MIRA 11:2)

1. Direktor Leningradskoy fabriki No.2 "Proletarskaya pobeda" (for Novitskiy). 2. Zamestitel' glavnogo mekhanika Leningradskoy fabriki No.2 "Proletarskaya pobeda" (for Boyanskiy).
(Shoe industry)

NOVITSKIY, M.

Shortening time required for attaining planned production capacity is the important potential of the national economy. Fin. SSSR 38 no.1:28-32 Ja '64. (MIRA 17:2)

1. Glavnyy spetsialist Stroybanka SSSR.

ZAKHODYAKINA, N.A.; NOVITSKIY, M.A.; SOKOLOV, L.A.; LUKOVTSEV, P.D.

Process of iodide anodic oxidation on a platinum micro-electrode. Part 1: Dependence of the current decay on pH of the supporting electrolyte. Elektrokhimiia 1 no.2:138-142 F '65. (MIRA 18:6)

1. Institut elektrokhimii AN SSSR.

ROBOTOV, V.T.; NOVITSKIY, M.D.; LITVINETS, I.V.; RACHKOVSKAYA, Yu.N.; SUKHORUCHKIN, I.S.; NADEZHDINA, A., red.; TELEGINA, T., tekhn.red.

[Building inspection during construction; practical handbook] Kontrol'nye obmery v stroitel'stve; prakticheskoe posobie. Sost. kollektivom avtorov pod rukovodstvom V.T.Robotova. Moskva, Gosfinizdat, 1959. 275 p. (MIRA 13:1)

1. Vsesoyuznyy bank finansirovaniya kapital'nykh vlozheniy (for Robotov, Novitskiy, Litvinets, Rachkovskaya, Sukhoruchkin).
(Building inspection)

DOBRYNIN, Fedor Tikhonovich; REYNIN, S.N., dots., kand. tekhn. nauk, retsenzent; KOLTUNOVA, V.V., dots., kand.tekhn.nauk, retsenzent; KVITNITSKIY, R.N., dots.,kand.tekhn.nauk, retsenzent; SHLEINA, L.A., dots., kand.tekhn.nauk,retsenzent; RYBAKOVA, T.A., dots.,kand.ekon.nauk,retsenzent; NOVITSKIY, M.D., retsenzent; RYABOVA, O.A., red.

[Principles of construction work and planning and estimates operations] Osnovy stroitel'nogo i proektno-smetnogo dela. Moskva, Vysshaia shkola, 1964. 245 p. (MIRA 17:12)

1. Moskovskiy inzhenerno-ekonomicheskiy institut im. Sergo Ordzhonikidze (for Reynin, Koltunova, Kvitnitskiy, Shleina). 2. Moskovskiy finansovyy institut (for Rybakova). 3. Glavnyy spetsialist tekhnicheskogo upravleniya Stroybanka SSSR (for Novitskiy).

VELLI, Yu.Ya., kand. tekhn. nauk; DOKUCHAYEV, V.V., kand. tekhn. nauk; FEDOROV, N.F., doktor tekhn. nauk; Prinimali uchastiye: DYUKOV, A.B., inzh.; STEPANOV, K.V., inzh.; NOVITSKIY, M.I., inzh.; AGA, M.M., kand. tekhn. nauk; SAKHAROV, I.V.; VOLKOV, V.N., inzh.; ZABORSHCHIKOV, O.V., inzh.; RYBAKOVA, V.G.; ZOLOTAR', I.A., kand. tekhn.nauk, nauchn. red.; KOSTANDOV, A.I., red.izd-va; CHERKASSKAYA, F.T., tekhn. red.

[Buildings and structures in the Far North] Zdaniia i sooruzheniia na Krainem Severe; spravochnoe posobie. Leningrad, Gosstroiizdat, 1963. 490 p. (MIRA 17:2)

NOVITSKIY, N.; BUACHIDZE, Sh.N., red.; ZHIVIDZE, D.I., tekhn.red.

[Industrial Georgia] Industrial'naia Gruziia. Tbilisi, Tekhnika da shkola, 1957. 183 p. (MIRA 11:7)
(Georgia--Industries)

MOLCHANOV, A.K.; NOVITSKIY, M.S.

Reusable triangular packing cases. Kons. i ov. prom. 13 no.11: 44-45 N '58. (MIRA 11:11)

1. Glavnyy inzhener Khersonskogo konservnogo zavoda imeni 8 marta (for Molchanov). 2. Nachal'nik fabrikatnogo tsekha Khersonskogo konservnogo zavoda imeni 8 marta (for Novitskiy).
(Boxes)

NOVITSKIY, N.S.

Washstand for a rural hospital. Zdrav.Bel. 9 no.2:75-76 F'63.
(MIRA 16:7)

1. Zaveduyushchiy Verkhovskoy uchastkovoy bol'nitsy Vitebskogo rayona (glavnyy vrach rayona B.L.Ginzburg).
(HOSPITALS—FURNITURE EQUIPMENT, ETC.)

NOVITSKIY, N.V., inzh.; LYALIN, V.P., inzh.

Physicochemical characteristics of coal from the Azeysk deposit of the Irkutsk Basin. Elek. sta. 36 no.2:13-15 F '65. (MIRA 18:4)

MAU, P.; NOVITSKIY, O.

Bulk release of flour at the Moscow Milling Combine No. 4. Muk.-elev. prom. 29 no.7:9-10 Jl '63. (MIRA 17:1)

1. Zamestitel' glavnogo mekhanika Moskovskogo mel'nichnogo kombinata No.4 (for Mau). 2. Zamestitel' glavnogo energetika Moskovskogo mel'nichnogo kombinata No.4 (for Novitskiy).

NOVITSKIY, O.

Using a time relay for controlling the discharge devices of shaft grain dryers. Muk.-elev.prom. 30 no.1:24 Ja '64. (MIRA 17:3)

1. Zamestitel' glavnogo energetika po avtomatike Moskovskogo mel'nichnogo kombinata No.4.

NOVITS'KIY, Oleksa; KUDLAY, O., redaktor; MINEVICH, I., tekhnicheskiy redaktor.

[Maksym Serdyuk, innovator of gas pressure welding methods] Maksym Serdiu, novator gazopressovoho svariuvaniia. Kyiv, Dersh.vyd-vo tekhn. lit-ry Ukrainy, 1950. 54 p. (MLRA 8:2)
(Serdyuk, Maksym Antonovich) (Oxyacetylene welding and cutting)

AVGUSTINOVICH, V.G.; NOVITSKIY, O.V.

Knocking-out machined parts from centerless grinding machines.
Stan. i instr. 30 no.1:30 Ja '59. (MIRA 12:1)
(Grinding machines--Attachments)

NOVITSKIY, P. A. and KUZNETSOV, M. D.

"Problem of intensification of heat- and mass-exchange processes in the boiling layer."

Report presented at the 1st All-Union Conference on Heat- and Mass- Exchange, Minsk, BSSR, 5-9 June 1961

MYDEL'MAN, Ye.Ya.; NOVITSKIY, P.L.; SEMENENKO, G.P.

Heating of coal in an apparatus with a directed flow of the suspended beds of coal. Koks i khim. no.4:13-15 '60. (MIRA 13:6)

1. Donetskiy industrial'nyy institut (for Mydel'man and Novitskiy).
2. Stalinskiy koksokhimicheskiy zavod (for Semenenko)
(Coal preparation)

NOVITSKIY, P. L., and KUZNETSOV, M. D.

"On Intensification of Heat and Mass Transfer Processes in a Boiling Layer."

Report submitted for the Conference on Heat and Mass Transfer, Minsk, BSSR, June 1961.

KUZNETSOV, M.D.; NEPOMNYASHCHIY, I.L.; NOVITSKIY, P.L.; LYANNAYA, Z.G.

Drying ammonium sulfate in a dryer with a direct shifting of the fluidized bed. Koks i khim. no.8:39-42 '61. (MIRA 15:1)

1. Donetskiy politekhnicheskiy institut.
(Ammonium sulfate) (Drying apparatus)

NOVITSKIY, P.V.

Proximity and principle interrelation of the precision, sensitivity, use, and fast response of measuring devices. Izm. tekh. no.1:5-8 Ja '64. (MIRA 17:11)

DHUZHININ, N.I., starshiy nauchnyy sotrudnik, kand.tekhn.nauk; MOVITSKIY, P.V., inzh.

Certain new problems in the investigation by the electrohydrodynamic analogy method using models with ionic conductivity. Izv.VNIIG 50:91-103 '53. (MIRA 12:5)
(Hydraulic models)

DRUZHININ, N.I., starshiy nauchnyy sotrudnik, kand.tekhn.nauk; NOVITSKIY, P.V., inzh.

Automatic recording of equipotential lines during investigations by the electrohydrodynamic analogy method. Izv.VNIIG 50:115-130 '53. (MIRA 12:5)
(Electric instruments)

NOVITSKIY, P. V.

The following is among dissertations of the Leningrad Polytechnic Institute imeni Kalinin:

"Theoretical and Experimental Investigation of the Circuits of Electromechanical Instruments haveing induction Receiver Converters." 2 July 1953. A study was made of the errors in the utilization of induction converters for measurement by electric methods of different mechanical magnitudes and means have been established for reducing these errors. Methods are recommended for the calculation and design of instruments with induction receivers, which make it possible to reduce the error of these instruments to 0.5%.

SO: M-1048, 28 Mar 56 (Degree not Specified in M-1048)

Elektrichestvo 10, 1955, p. 79-85

TURICHIN, A.M.; NOVITSKIY, P.V., redaktor; VORONETSKAYA, L.V., tekhnicheskiy redaktor.

[Electric measurements of non-electric values] Elektricheskie izmereniia neelektricheskikh velichin. Izd. 2., perer. Moskva, Gos. energ. izd-vo, 1954. 292 p. (MLRA 7:9)
(Electric measurements)

NOVITSKIY, P. V.

NOVITSKIY,P.V.; FETISOV,M.M.

A measuring amplifier with an overlapping feedback demodulator.
Izm.tekh.no.4:37-38 Jl-Ag '55. (MIRA 8:10)
(Electric measurements)

Novitskiy, P.V.

AID P - 2946

Subject : USSR/Electricity

Card 1/1 Pub. 27 - 11/15

Authors : Shramkov, Ye. G., Doc. of Tech. Sci., Prof., V. O. Arutyunov, Doc. of Tech. Sci., Prof., A. M. Turichin, Kand. of Tech. Sci., Dotsent, and P. V. Novitskiy, Kand. of Tech. Sci., Dotsent

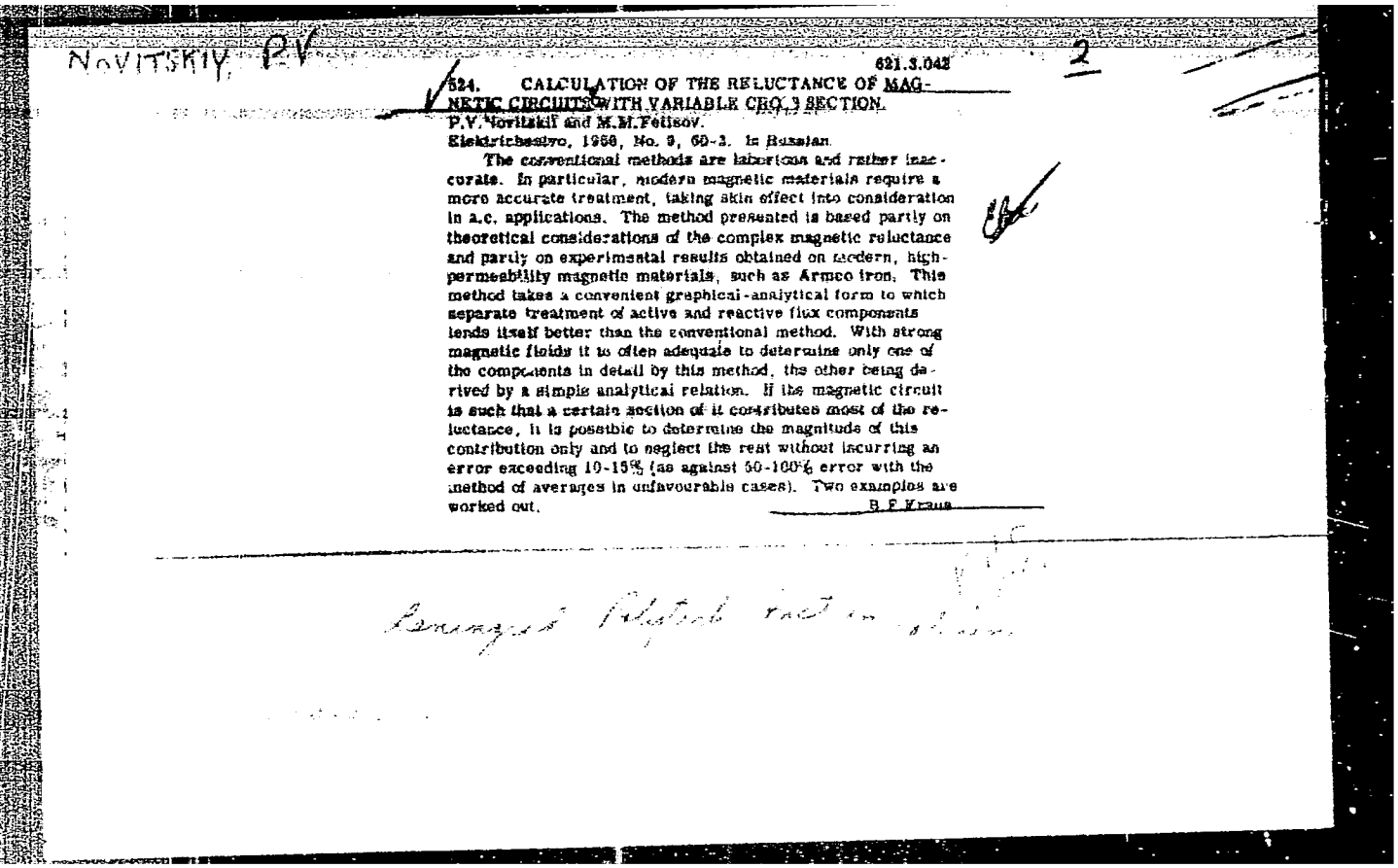
Title : Certain problems of electrical measurements

Periodical : Elektrichestvo, 8, 75-78, Ag 1955

Abstract : The authors discuss certain general problems of electrical measurements, in particular those rising with the rapid development of automation. Remote electrical measurements are one of the important elements of automation. The authors concentrate their attention on the achievements of Soviet technique and indicate the paths of future development in this field.

Institution : None

Submitted : Not given



NOVITSKIY, P.V.

621.3.042

524. CALCULATION OF THE RELUCTANCE OF MAGNETIC CIRCUITS WITH VARIABLE CROSS SECTION.
P.V. Novitskii and M.M. Fetisov.
Elektrichestvo, 1950, No. 9, 60-3. In Russian.

The conventional methods are laborious and rather inaccurate. In particular, modern magnetic materials require a more accurate treatment, taking skin effect into consideration in a.c. applications. The method presented is based partly on theoretical considerations of the complex magnetic reluctance and partly on experimental results obtained on modern, high-permeability magnetic materials, such as Armco iron. This method takes a convenient graphical-analytical form to which separate treatment of active and reactive flux components lends itself better than the conventional method. With strong magnetic fields it is often adequate to determine only one of the components in detail by this method, the other being derived by a simple analytical relation. If the magnetic circuit is such that a certain section of it contributes most of the reluctance, it is possible to determine the magnitude of this contribution only and to neglect the rest without incurring an error exceeding 10-15% (as against 50-100% error with the method of averages in unfavourable cases). Two examples are worked out.

B F Kraus

NOVITSKIY, PETR V.

Call Nr: AF 1154953

AUTHORS: Turichin, Afroim M. and Novitskiy, Petr V.

TITLE: Electric Resistance Wire Strain Gages and their Practical Application (Provolochnyye preobrazovateli i ikh tekhnicheskoye primeneniye)

PUB. DATA: Gosudarstvennoye energeticheskoye izdatel'stvo, Moscow-Leningrad, 1957, 171 pp., 6000 copies

ORIG. AGENCY: None given

EDITORS: Editor: Presnyakov, P.D.; Tech.Ed.: Zabrodina, A.A.

PURPOSE: The book is intended for engineers and scientific workers who use instruments with strain gages for measuring deformations, stresses, and other mechanical quantities.

COVERAGE: The authors state that this book fills an urgent need for a systematic presentation of the theoretical basis and practical use of electric resistance strain gages, together with design and experimental data. The need is said to have arisen as a result of the greatly increased number of engineers, technicians, and scientific workers making use of such gages. Chapters 1, 2, 3, 4, 5, and 7,

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Call Nr: AF1154953

Electric Resistance Wire Strain Gages and their Practical Application (cont)

as well as Sections 6-3 and 6-4, were written by Turichin, A.M. Chapter 6, except for Sections 6-3, 6-4, and 6-9, were written by Novitskiy, P.V. Fetisov, M.M., is the author of Section 6-9. There are 71 bibliographic references, 61 of which are USSR, 6 English, and 4 German.

TABLE OF CONTENTS

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ARUTYUNOV, Valentin Osipovich,; TURICHIN, A.M., dots.; NOVITSKIY, P.V., dots.; SHUMILOVSKIY, N.N., prof., retsenzent,; PREOBRAZHENSKIY, A.A., red.; ZABRODINA, A.A., tekhn. red.

[Electric meters and measurements] Elektricheskie izmeritel'nye pribory i izmereniia. Moskva, Gos. energ. izd-vo, 1958. 631 p. (MIRA 11:12)

1. Kafedra elektropriborostroyeniya Moskovskogo energeticheskogo instituta (for Shumilovskiy, Preobrazhenskiy).
(Electric measurements)
(Electric instruments)

NOVITSKIY, P.V.; NOVOPASHENNYY,G.N.; ZOGRAF, I.A.; OSADCHIY, Ye.P.

Amplifiers used for measurements and equipped with semiconductor triodes. Poluprov.prib. i ikh prim. no.3:196-208 '58.
(MIRA 12:4)

(Transistor amplifiers)

AUTHORS: Novopashennyy, G. N., Engineer, 105-58-6-12/33
Novitskiy, P. V., Docent

TITLE: A Simplified Calculation of the Performance of a Triode Transistor Amplifier (Uproshchennyy raschet usilitelya na poluprovodnikovykh triodakh)

PERIODICAL: Elektrichestvo, 1958, Nr 6, pp. 47-49 (USSR)

ABSTRACT: Both semi-conductors and vacuum-tubes can be characterized by the parameters R_i, S, μ and R_{input}, as well as by the number of anode- or collector-characteristics and by the characteristics of the mains-current or basis-current. With a simplified calculation, however, these characteristics can be replaced by a characteristic immediately mutually combining the input- and output-capacity of the amplifier. A similar method is applied with the calculation of the amplifiers with vacuum pentodes. In this case, the approximated equation $K_U = SR_{load}$ ($R_i \gg R_{load}$) is applied. S denotes the slope. On account of the non-li-

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nearity of the input resistance it is better, when using semi-conductor-triodes, to apply the factor:

$\beta = \frac{\Delta I_{collector}}{\Delta I_{basis}}$ of the current amplification from the basis to the collector, instead of the transconductance, S. This factor represents the slope of the characteristic $I_{collector} = f(I_{basis})$ and remains practically constant both with the change of the method of operation (U_{basis}, $U_{collector}$) as well as with a change of the triode temperature T. When apllying this parameter, the calculation becomes much simplified. The reasons for the selection of the supply-voltage, which is usually assumed between from 1o to 2o Volts, are given. For the selection of R_{load} the relation $R_{load} = (1 - 0,8)\frac{E^2}{P_K}$ is recommended. P_K - power spread on the

collector. The idle current and the displacement current of the basis are obtained from this for the working point in the middle of the working range of the characteristic. The moment of the voltage loss between basis and emitter is neglected and the formula for the resistance $R_{displacement}$ in the basis-displacement circle is determined. Finally, the complete factor K_U of the voltage-amplification, or the formula for the same respectively, is derived. According to this, the formula for the frequency-error of the amplification factor of each cascade is written down with low-frequency and one for high-frequency.

The method of calculation for amplifiers with semi-conductor triodes described here, was largely applied in recent years in the Laboratory for "Physical-Technical-Measurements" under the supervision of Professor Ye. G. Shramkov at the Leningrad Polytechnical Institute. The method has proved quite succesful.

A Simplified Calculation of the Performance of a Triode Transistor Amplifier 105-58-6-12/33

There are 2 figures, 1 table and 2 Soviet references.

ASSOCIATION: Leningradskiy politekhnicheskiy institut imeni Kalinina (Leningrad Polytechnical Institute imeni Kalinin)

SUBMITTED: January 29, 1958

1. Amplifiers--Performance 2. Triodes--Performance
3. Semiconductors--Performance 4. Mathematics

Card 4/4

NOVETSKIY, P. V.

SOV/144-58-9-18/18

AUTHOR: Gizis, A. F., Candidate of Technical Sciences, Docent

TITLE: Inter-University Scientific Conference on Electric Measuring Instruments and Technical Means of Automation (Mezhvuzovskaya nauchnaya konferentsiya po elektroizmeritel'nym priboram i tekhnicheskim sredstvam avtomatiki)

PERIODICAL: Izvestiya Vysshikh Uchebnykh Zavedeniy, Elektromekhanika, 1958, Nr 9, pp 130-135 (USSR)

ABSTRACT: The conference was held at the Leningradskiy elektrotekhnicheskiy institut imeni V. I. Ul'yanova (Lenina) (Leningrad Electro-technical Institute imeni V. I. Ul'yanov (Lenin)) on November 11-15, 1958. The representatives of eleven higher teaching establishments and three research institutes participated and a large number of specialists of various industrial undertakings were present.

Candidate of Technical Sciences B. V. Shamray (Leningrad Electrotechnical Institute) presented the paper "Low inertia transducer of thermo e.m.f. into a d.c. voltage", operating with magnetic elements of an input resistance of 100 Ohm, a signal of 0.001 V and an output voltage of 40 V with a resistance of 4000 Ohm.

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Docent G. A. Alizade (Azerbaydzhan Industrial Institute imeni M. Azizbekov) presented the paper "New d.c. metering transducers with a high input resistance" (phase sensitive transducer in d.c. compensators and particularly its application in the chemical industry).

Docent P. V. Novitskiy (Leningrad Electrotechnical Institute) presented the paper "Apparatus for measuring vibration parameters", described a piezo-electric accelerometer with a range of 10 to 10 000 c.p.s., a sensitivity of 5 to 7 mV/m/sec^2 with an error of up to 2.5%.

Candidate of Technical Sciences D. A. Barodayev (Ural Polytechnical Institute) presented the paper "Instruments for ultra-sonic monitoring of the level and the pressure of liquids" which was one of a series of papers on measuring non-electrical magnitudes by electric methods.

Card 7/13

TURICHIN, Afroim Moiseyevich; NOVITSKIY, P.V., red.; ZABRODINA, A.A., tekhn.red.

[Electrical measurements of nonelectrical values] Elektricheskie izmereniia neelektricheskikh velichin. Izd.3., perer. Moskva, Gos.energ.izd-vo, 1959. 684 p. (MIRA 12:12)
(Physical measurements)

Novitskiy, P.V.

8(2), 9(6) SOV/119-59-3-13/15

AUTHOR: Anisimov, V. I., Engineer

TITLE: The Inter-university Scientific Conference on Electrical Measuring Instruments and on the Technical Means of Automation (Mezhvuzovskaya nauchnaya konferentsiya po elektroizmeritel'nym priboram i tekhnicheskim sredstvam avtomatiki)

PERIODICAL: Priborostroyeniye, 1959, Nr 3, pp 30-31 (USSR)

ABSTRACT: This Conference was held at the Leningradskiy elektrotekhnicheskiy institut im. V. I. Ul'yanova (Lenina) (Leningrad Institute of Electrical Engineering imeni V. I. Ul'yanov (Lenin)) in November 1958. It was attended by more than 500 representatives of universities, scientific research institutes, of the OKB, the SKB (Special Design Office), of industries and other organizations. More than 30 lectures were delivered in the meetings of this Conference. In opening the conference E. P. Berditskiy underlined the outstanding importance of automation and of measuring technique for the development of national economy. N. N. Shumilovskiy in his lecture reported on "The Trends in the Development of Methods of Radioactive Control of Production Data" and outlined the extensive

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possibilities of using radioactive methods in such control. Ye. G. Shramkov and G. A. Spektor reported on a new method of measuring heavy direct currents with the help of the nuclear magnetic resonance. M. A. Rozenblat investigated problems of the application of magnetic amplifiers in automation and in measuring technique. A. V. Fateyev reported on the present-day state on the prospects of automatic control technique. Ya. Z. Tsypkin investigated some peculiar features of and the prospects offered by automatic pulse systems. The lecture by N. G. Boldyrev dealt with problems of stability of discrete automatic systems. V. B. Ushakov discussed the main trends in the development of mathematical analog computers and of computers designed for industrial use. The report by V. S. Ryabyshkin deals with an electronic analog correlator for the calculation of correlation functions in the investigation of winds in the ionosphere. N. I. Turgenева reported on the most important methods, which guarantee both an active and passive freedom from disturbances in

Card 2/3

discrete selective systems. Ye. V. Novosel'tsev discussed problems of averaging, differentiation, and balancing of time-dependent functions which can be represented by electric signals. V. P. Skuridin investigated new computing devices with polarized relays. A. V. Frenke and Ye. M. Dushin reported on instrument transformers for automatic instruments with automatic recording. V. B. Ushakov and S. N. Kopay-Gora reported on a computer for the automatic centralized control of production specifications. M. M. Fetisov discussed fundamental problems of the theory of automatic measuring instruments with an inverse conversion for the measurement of non-electric quantities. Ye. I. Tsvyakov dealt with problems of the construction of automatic d. c. potentiometers with high accuracy. D. I. Malov discussed a high-precision automatic d. c. bridge for digital computations. The participants in the Congress listed below discussed the following subjects (which, however, are not given by the exact wording of the titles): V. A. Ivantsov The planning of measuring elements for

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APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R001237520002-9"

The Inter-university Scientific Conference on Electrical Measuring Instruments and on the Technical Means of Automation SOV/119-59-3-13/15

accurate automatic quotient-type meters in digital computations. E. N. Kharchenko: Methods of determining the dynamic errors of a magnetic oscilloscope by simulation. P. P. Ornatskiy: Problems in measuring electric quantities at extremely low frequencies by electrical indicating instruments of various systems. L. F. Kulikovskiy: Novel types of a. c. compensators. A. S. Rozenkrants: Automatic bridges and a. c. compensators suited for the control of the parameters of condensers in series production. L. I. Stolov: Some characteristics of midget induction motors which can be used in measuring technique and automation. D. A. Borodayev: Ultrasonic pressure- and liquid level gages. Yu. A. Skripnik: The circuitry of a phase-sensitive commutation indicator for a. c. semi-equilibrium bridges. N. P. Suvid: The application of instruments with magnetic bridges, which permit a considerable simplification of the design of the apparatus and the circuitry used in the measurement of non-electric quantities. V. A. Parents: Method of increasing the sensitivity of oxygen gas analysers. P. V. Novitskiy: Design of apparatus for measuring vibration quantities. V. V. Pasynkov: Main types of non-linear semiconductor resistors and possibilities of their application to circuitry in automation and measuring technique. G. N. Novopashennyy: Development of measuring amplifiers with semiconductor triodes. Ya. V. Novosel'tsev, N. A. Smirnov, Ye. Ye. Afanas'yev, Ye. P. Ugryumov: Precision semiconductor frequency meter operating according to the pulse-counting principle. P. G. Nikitin and A. Bezukladnikov: Methods of measuring the magnetic field strength by means of bismuth resistors and transducers operating on the Hall effect principle. A resolution was adopted by the closing plenary meeting of the Conference, which indicates ways of improving and coordinating scientific research work in the field of automation, electric measuring- and computing technique.

Card 4/5

Card 5/5

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S/124/60/000/006/018/039
A005/A001

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Translation from: Referativnyy zhurnal, Mekhanika, 1960, No. 6, p. 130, # 7704

AUTHORS: Novitskiy, P.V., Novopashennyy, G.N.

TITLE: Spark-Ionization Method for Measuring Velocity and Discharge of Gas Flows

PERIODICAL: Nauchno-tekhn. inform. byul. Leningr. politekhn. in-t, 1959, No. 3, pp. 66-70

TEXT: Ionization methods, which are based on the application of radioactive isotopes, have the disadvantage that an increase of the current is connected with danger for the present staff. The authors describe in their article two ionization methods based on the ionization in an electric spark discharge. Between two electrodes proceeds a discharge, which ionizes a gas. The third electrode, a measuring one, is located at a certain distance from the discharge gap in the direction of the stream motion. The velocity of the flow is determined, by one of the methods, from the average value of the current over the time interval during which many discharge pulses occur. In the other, more

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83514
S/124/60/000/006/018/039
A005/A001

Spark-Ionization Method for Measuring Velocity and Discharge of Gas Flows

perfect design, the duration of motion of the plasma[21] is measured, which is carried away by the stream from the instant of plasma formation in the discharge gap to the instant of its arrival to the third electrode, separated by a certain distance.

Yu. R.

Translator's note: This is the full translation of the original Russian abstract.

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SOV/115-59-5-23/27

9(2)

AUTHOR: Novitskiy, P.V. and Novopashennyy, G.N.

TITLE: Half Conducter Amplifiers for Work with Wire Measuring Converters

PERIODICAL: Izmeritel'naya Tekhnika, 1959, Nr 5, pp 53-54 (USSR)

ABSTRACT: At the Leningrad Polytechnic Institute (Leningradskiy politekhnicheskiy institut) the authors designed a semi-conductor measuring amplifier. One uses it to measure dynamic quantities with a frequency oscillation from 16 to 4000 cycles under field conditions. The frequency characteristic of the entire installation is from 16 to 4000 cycles uniform ± 3%. Changing of the surrounding temperature from + 15 to + 45° C causes the changing of output current of 1%. Changing of the feeding voltage by ± 10% causes a changing of the output current of ± 4%. There are 1 diagram and 1 Soviet reference.

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SOV/115-59-6-19/33

9(2,3)

AUTHOR: Novopashennyy, G.N., Novitskiy, P.V.

TITLE: Increasing the Input Impedance of Transistorized Amplifiers

PERIODICAL: Izmeritel'naya tekhnika, 1959, Nr 6, pp 49-51 (USSR)

ABSTRACT: Great input resistances are required for amplifiers used for measuring purposes because they increase the measuring instrument sensitivity and reduce the errors at low frequencies. Transistors are relatively easily used for increasing the magnitude of input resistances of amplifiers by the order of several hundred kilo-ohms. Amplifier input resistance of several megohms may be obtained. However, the practicability of such amplifiers must be decided separately in each case. There is the opinion that for increasing the input resistance of transitioned amplifiers an interstage series feed-back must be used. The input resistance in the simple stage with such a feed-back-emitter follower is $R_{vch} \simeq R_e b$, where R_e is the load resistance of the emitter follower; b is the amplification factor of the stage with common emitter circuit. The amplification factory may be increased, using in this stage either compound transistors, i.e., doubled or tripled transistors,

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Increasing the Input Impedance of Transistorized Amplifiers

or an ordinary amplifier stage with negative feek-back, as shown in fig.1. Since R_{vch} of the amplifier having negative feed-back is $R_{vch} = R_{vch1}(1 + k\beta)$ where R_{vch1} is the input resistance of the first stage, thus $R_{vch} \gg R_{vch1}$ may be obtained with sufficiently large magnitudes of K. It was experimentally established, that $R_э$ is sufficiently stable at a magnitude of 150-300 kilo-ohm and hardly depends on changes of the amplifier feed voltage and the signal frequency in the range of sound frequencies. The research conducted by the Leningradskiy politekhnicheskiy institut (Leningrad Polytechnic Institute) on compound transistors showed that their application is practicable only at temperatures of up to 40°C because of great uncontrolled collector currents arising at higher temperatures. The author states that when using transistors P1A and P1E the input resistance may attain a magnitude of 300-500 kilo-ohms. When building amplifiers with sufficiently high input resistances (0.15-1 megohm), a follower should be used in the amplifier input stage, composed of 3-4 separate transistors. A further increase of the input resistance requires an increase of

Increasing the Input Impedance of Transistorized Amplifiers

emitter load resistance magnitude which, as mentioned before, will cause distortions of the voltage to be amplified in case of temperature changes. There are 3 circuit diagrams, 3 graphs and 2 Soviet references.

LEVSHINA, Ye.S.; MOVITSKIY, P.V.; TURICHIN, A.M.

Induction noncontact torque meters. Izm.tekh. 20 no.1:16-20 Ja '59. (MIRA 11:12)
(Electric instruments)

9(6)

AUTHORS: Novitskiy, P. V., Candidate of Technical Sciences, Presnyakov, P. D., Engineer, Fetisov, M. M., Engineer

SOV/119-60-1-6/14

TITLE: The Construction of Piezoelectric Accelerometers With Minimum Lateral Sensitivity

PERIODICAL: Priborostroyeniye, 1960, Nr 1, pp 15 - 17 (USSR)

ABSTRACT: A piezoelectric transducer (Fig 1) is theoretically not sensitive to oscillations perpendicular to a symmetry axis, i. e. for oscillations in the direction a_b (Fig 1) it gives no signals. A lateral sensitivity, however, exists due to several causes. As such causes the following are mentioned: Wrong mounting of the accelerometers to the surface of the workpiece, wrong fitting of the piezoelement into the accelerometer, or deformation of the piezoelectric element by the mass 1 (Fig 1). A decrease of the lateral sensitivity of the accelerometer, which is caused by the aforementioned deformation, by fixing the mass 1, was found to be impossible. It was found useful to introduce the piezoelectric element

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into the mass 1 according to figure 2a or by the method shown in 2b. As a further means of reducing lateral sensitivity, the authors mention the use of a double-transducer (Fig 3), in which the lateral sensitivity of the two transducers is compensated. A detailed description is given of the transducer developed by E. I. Radion together with the author, which is shown in section in figure 4. This construction makes it possible to adjust the accelerator, so that lateral sensitivity is reduced to a minimum. On the basis of this accelerometer a three-component accelerometer was developed, which does not exhibit the unfavorable properties of similar constructions, as e. g. great weight and unfavorable resonance properties. This accelerometer is shown in figure 6. In this construction the two crystals which are intended to measure lateral acceleration in each case consist of two crystals and are connected in such a manner that the e.m.f. generated by them is mutually compensated. Complete compensation of lateral

The Construction of Piezoelectric Accelerometers With Minimum Lateral Sensitivity

SOV/119-60-1-6/14

sensitivity is effected by means of a differential condenser connected to the amplifier input. There are 6 figures and 3 Soviet references.

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S/119/60/000/06/03/016
B014/B014

AUTHOR: Novitskiy, P. V., Candidate of Technical Sciences

TITLE: Calculation and Design of Piezoelectric Wide-band Accelerometers

PERIODICAL: Priborostroyeniye, 1960, No. 6, pp. 6-9

TEXT: Piezoelectric accelerometers are particularly suitable for measuring vibrational parameters in the frequency range 10-10^4 cps. Such an accelerometer is shown in Fig. 1. Its frequency characteristic is graphically represented in Fig. 2. A formula for calculating frequency errors in the lower frequency range is derived. The calculation of a correcting capacitor which is connected at the input of the measuring circuit and corrects the frequency characteristic at the lower end of the frequency range, is discussed next, and a formula is given for calculation. Furthermore, a formula is given for the calculation of frequency errors at the upper end of the frequency range. In the accelerometer under consideration, the resonance frequency of transverse

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oscillations is below that of longitudinal oscillations. In order to eliminate this effect, the Laboratoriya fiziko-tekhnicheskikh izmereniy LPI (Laboratory of Physical and Technical Measuring Techniques of the LPI) suggested the construction shown in Fig. 3. Here, the load is shaped like a T-shaped axisymmetric body, and the piezoelectric element is ring-shaped. The resonance frequency of transverse oscillations is considerably above that of longitudinal oscillations. A formula, which is sufficiently accurate for engineering purposes, is given for calculating the resonance frequency of the mechanical system. In vibration measurements electrical corrector circuits are used to extend the frequency range without reducing sensitivity. Finally, the author describes the corrector circuits shown in Fig. 5 and their calculation. There are 5 figures, 1 table, and 5 Soviet references.

S/194/61/000/010/013/082
D256/D301

AUTHOR: Novitskiy, P.V.

TITLE: A compact high sensitivity wire manometer

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 10, 1961, 32, abstract 10 A274 (Nauchno-tekhn. inform. byul. Leningr. politekhn. in-t, 1960, no. 8, 92-95)

TEXT: The construction is described of an elastic manometric element with wire tension-sensors of a 4-angular shaped tube with two convex and two concave sides. The convex sides are cylindrical surfaces with their centers coinciding with the symmetry axis of the tube, and the concave ones also cylindrical with their centers equidistant from the axis. Upon action of an external or internal pressure the convex and concave surfaces are deformed in opposite directions, thus providing a possibility for increasing the sensitivity by employing a measuring bridge with 4 sensors glued to

Card 1/2

S/194/61/000/010/013/082
D256/D301

A compact high sensitivity...

the sides of the elastic element. 3 figures. 2 references.
[Abstracter's note: Complete translation]

Card 2/2

NOVITSKIY, P.V.

Quick-acting compensating instruments. Izv. tekh. no. 1:26-28 Ja '61. (MIRA 14:1)
(Electric instruments)

S/115/61/000/004/003/010
B104/B206

AUTHOR: Novitskiy, P. V.

TITLE: Development of frequency pickups for all electric and non-electric quantities

PERIODICAL: Izmeritel'naya tekhnika, no. 4, 1961, 16-21

TEXT: This article is based on data given at the vtoraya mezhvuzovskaya konferentsiya po avtomatizatsii tekhnologicheskikh protsessov (Second Conference of Schools of Higher Education on the Automation of Technological Processes) held in Baku, in October 1960. In the introduction, measuring methods are generally analyzed and discussed and it is pointed out that in connection with the development of automation of technological processes it is necessary to elaborate frequency pickups for the most varied physical quantities. All frequency pickups are oscillating systems, the frequency of which is a function of the physical quantity to be measured. The following five groups are mentioned as frequency-sensitive circuits for these systems: 1) devices with electric parameters; 2) devices with mechanical parameters; 3) devices with variable

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Development of frequency...

time delay; 4) devices with linearly distributed parameters, and 5) devices with three-dimensionally distributed parameters. To the first group belong electronic generators, the frequency of which is determined by active, reactive, or inductive resistances. The values of these resistances are determined by the physical parameters to be measured. Pendulum accelerometers, in which the pickup is a generator, the frequency of which is determined by the natural frequency of the pendulum, belong to the second group. An electrolytic counter developed at the "Vibrator" Plant belongs, among other things, to the third group. In this counter, the gases being generated during the electrolysis move, along a glass tube, a drop of a conductive liquid, which then closes the contacts of a relay. The gas flow to be measured is then drained off and the measuring process is repeated. The drop is thus oscillating at a frequency proportional to the gas flow. The well known string tensiometers, dynamometers, thermometers etc. belong to the fourth group. These pickups are frequency generators, the natural frequency of which is determined by the mechanical natural frequency of a string under tension. The frequency pickups of the fifth group utilize the propagation of mechanical and electromagnetic oscillations in predetermined volumina. Standing waves

are mainly used here and solid and liquid resonators are discussed. The frequency pickups discussed were elaborated and tested at the Special Research Laboratory for Physicotechnical Measurements of the Kafedra elektroizmeritel'noy tekhniki Leningradskogo politekhnicheskogo instituta (Department of Electric Measuring Technology of the Leningrad Polytechnic Institute), at the VNII Geofiziki (VNII of Geophysics) and VNIIM im. D. I. Mendeleyev. P. T. Lek and G. A. Kondrashkova are mentioned. There are 5 figures and 9 Soviet-bloc references.

NOVITSKIY, P.V.

Applying cybernetic ideas to the theory of electric measurement units. Izm.tekh. no.1:33-37 Ja '62. (MIRA 14:12)
(Cybernetics)
(Electric instruments)

NOVITSKIY, P.V.

Possibility of the use of a cybernetic method for increasing the precision of electric measuring instruments. Izm.tekh. no.4: 18-21 Ap '62. (MIRA 15:4)
(Cybernetics) (Electric instruments)

NOVITSKIY, P.V.; MANDEL'SHTAM, S.M.

Automatic computers used in measurement equipment. Izm.tekh. no.5:1-4 My '62. (MIRA 15:6)
(Measuring instruments) (Electronic calculating machines)

SHRAMKOV, Ye.G.; NOVITSKIY, P.V.; FETISOV, M.M.; ZORIN, D.I.

Concerning the structure and some fundamental characteristics of present-day electric measuring devices. Elektrichestvo no.8:20-25 Ag '62. (MIRA 15:7)

1. Leningradskiy politekhnicheskiy institut imeni Kalinina.
(Electric measurements)

L 10011-63 EPF(c)/BDS/EWT(d)/EWT(1)/FCC(w)--AEDC/AFFTC/AFMTC/APGC/ASD/ESD-3/RADC--Pr-4--IJP(C)/GG

ACCESSION NR: AP3000193 S/0115/63/000/005/0001/0006

67
66

AUTHOR: Novitskiy, P. V.

TITLE: Limit of attainable accuracy in automatic statistical processing of successive measurement results

16C

SOURCE: Izmeritel'naya Tekhnika, no. 5, 1963, 1-6

TOPIC TAGS: measurement accuracy, automatic processing of measurements

ABSTRACT: Increasing the number of successive measurements of the same quantity does not necessarily increase the accuracy because of the residual systematic error and the practical impossibility of taking and processing a great number of readings. A digital voltmeter (capable of making up to 50,000 measurements per sec.) coupled with an electronic computer apparently eliminates the second difficulty; however, its accuracy is still limited by the variations in measurand during the measurement period. Depending on the period of these variations, an instrument can yield useful information in the time interval between the instrument's "dead time" and a certain maximum averaging time. Beyond this point

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L 10011-63
ACCESSION NR: AP3000193

the information rapidly drops. Using the nuclear magnetic resonance phenomenon promises cutting down the dead time. The possible information maximum (or dead-time minimum) is determined by the power consumption of the instrument which amounts to 10 sup -6 to 10 sup -10 watt in modern electronic devices. Hence, the attainable accuracy can be increased by using a higher measurement power. Orig. art. has: 30 equations and 3 figures.

ASSOCIATION: none

SUBMITTED: 00 DATE ACQ: 12Jun63 ENCL: 00

SUB CODE: IE,SD NR REF SOV: 011 OTHER: 000

Card 2/2

NOVITSKIY, P. V.; PERSHN, S. M.

"Methods of increasing the accuracy of digital measuring systems by the automatic compensation for systematic and incidental errors."

report submitted for the 3rd Intl Measurement Conf & 6th Intl Instruments & Measurements Conf, Stockholm, 14-19 Sep 64.

SHRAMKOV, Ye.G.; KAVALEROV, G.I.; NOVITSKIY, P.V.

Foremost trends in the development of a general information theory of measurements. Izm. tekh. no.9:1-5 S '63. (MIRA 17:1)

NOVITSKIY, P. V.; PERSIN, S. M.

"Methods of increasing the accuracy of digital measuring systems by the automatic compensation for systematic and incidental errors."

report submitted for Intl Fed of Automatic Control & Intl Fed of Processing Information Conf, Stockholm, 21-23 Sep 64.

NOVITSKIY, P.V.

Fundamental relation in the information theory. Elektrichestvo no.5:93 My '64. (MIRA 17:6)

ACC NR: AR7004307 SOURCE CODE: UR/0271/66/000/011/A036/A036

AUTHOR: Novitskiy, P. V.; Ivanova, V. Ya.

TITLE: Generalized criterion of the information content, weight, complexity, and reliability of measuring instruments

SOURCE: Ref. zh. Avtomat. telemekh. i vychisl. tekhn., Abs. 11A283

REF SOURCE: Izv. Leningr. elektrotekhn. in-ta, ch. 2, vyp. 56, 1966, 60-62

TOPIC TAGS: measuring instrument, information content, reliability

ABSTRACT: It is suggested that the information content obtained from a measuring instrument be considered as its determinative parameter: $q = \log N$, where N - equivalent number of various gradations of measurand, q - information content of the instrument. Methods for determination of instrument information content with various errors are considered. For one type of measuring instrument, a function $N = f(n)$ is obtained, where n - the total number of parts of the instrument. Determination of joint factors is reduced to finding invariant relations among the number of elements, information content, and average life. The possibility of developing such a criterion for a specific type of measuring instruments is demonstrated. It is proven that an invariant relation for modern electronic equipment may serve for evaluating the speed of operation of measuring instruments. Bibliography of 3 titles. B. U. [Translation of abstract]

Card 1/1 SUB CODE: 09, 14 UDC: 658.562.011.56.011

AUTHOR: Novitskiy, R., Candidate of Economic Sciences 129-58-7-22/23

TITLE: Optical "Miracles" (Opticheskiye "chudesa")

PERIODICAL: Tekhnika molodezhi, 1958, Nr 7, pp. 37-39 (USSR)

ABSTRACT: It has frequently happened in the history of mankind that manufacturing processes, scientific experiments, recipes of remedies, etc., after having been kept secret for centuries, got lost and were then re-discovered. The same is the case with the projection of light. It was employed in connection with various religious ceremonies in order to mislead the faithful and to conjure up such apparitions as gods, devils, and spectres. The ancient sciences of Egyptian priesthood - mathematics and astronomy - were kept strictly secret and assisted those who were in power to acquire wealth and power. Only very few priests knew the truth about divine manifestations. One of them was Moses, who later became a Jewish prophet. Outside Egypt the secret of light projection was known also in the Near East. Also the ancient philosophers and idealists Pythagoras and Plato knew this secret. It eventually penetrated as far as China, and from it the show known as "Chinese shades" eventually developed. It was not

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until the 13th century that the projection of light was used also by the Roman Catholic Church. During the 18th century not much was heard of it. Nevertheless, such swindlers as Saint Germain "Count Cagliostro" (Kaliostro), Giuseppe Balzamo (Dzhuzeppe Bal'zamo), Doctor Charles continued the practice of necromancy for the amusement of kings and the aristocracy. The French Revolution marked the beginning of a commercial exploitation of necromancy. The physicist, aeronaut, and swindler Robertson organized a public show where it was possible, against payment of a fee, to summon spirits one wanted to see. On March 27, 1777 Robertson was granted patent rights for his invention which was by no means "ghostly". In 1802 Robertson also visited Russia. The belief in supernatural manifestations had taken particularly firm root in the Ukraine and in White Russia, a development which is reflected in literature (Gogol'). As time went on, these projected images lost their effect and the projecting apparatus was used at schools. The problem of exposing the swindle of these projected "miracles" presents no difficulties whatever in our modern times. In the fifties of the 19th century it happened nearly at one and the same time that a chamber, the interior of

which was painted black, and which was apparently used for optical experiments, was found at Herculanum, and that glass projection lenses were found at Pompeii. During excavations carried out at Nineveh ancient lenses made of rock crystal were discovered. In this way pious and religious men and women were deceived by means of a simple optical device. There are 6 figures.

1. Propaganda--USSR

SAMSONOVA, V.G., prof.; NOVITSKIY, R.I., dotsent; ADISMAN, M.A., inzh.; BIRIUKOV, K.A., person.pensioner soyuznogo znacheniya; LAVRENT'IEV, S.S., kand.fiziko-matematicheskikh nauk; TOLOKONSKIY, N.I., dotsent

Immortalize the memory of S.O.Maizel. Svetotekhnika 7 no.6:28-29 Je '61. (MIRA 14:6)

(Maizel', Sergei Osipovich)

USSR / Cultivated Plants. Grains. M-3

Abs Jour: Ref Zhur-Biol., 1958, No 16, 72918.

Author : Naymark, L. B.; Novitskiy, S. M.
Inst : Belorussian Agricultural Academy.
Title : Of an Experiment in Cultivation of Corn at the Training Experimental Farm of the Belorussian Agricultural Academy.

Orig Pub: Tr. Belorussk. s.-kh. akad., 1957, 23, No 2, 93-103.

Abstract: Periods and rates of planting, significance of different combinations of organic and mineral fertilizers, influence of shelterbelts were studied. Differentiated periods of planting create plantations of different ages which is of practical value for the farm. Short planting periods are recommended (3-5 days); 2-3 plants per hill which is assured by planting 7-10 grains in a hill (32-36

Card 1/2

KOVITSKIY, S.M., inzhener.

Voltage indicator for direct current up to 2 kv. Bezop.truda v prom. 1 no.7:36 Jl '57. (MLRA 10:7)
(Electric instruments)

NOVITSKIY, S.M.

AUTHOR: Novitskiy, S.M. Engineer 91-58-5-18/35

TITLE: Voltage Indicator for D.C. Current up to 2 kv (Ukazatel' napryazheniya postoyannogo toka do 2 kv)

PERIODICAL: Energetik, 1958, Nr 5, p 21 (USSR)

ABSTRACT: A new indicator for voltages up to 2 kv has been developed on a d-c traction substation of 1,650 v. The indicator has been designed on the base of the indicator UVN-6 working with 6 kv. The capacitors of UVN-6 have been replaced by enameled active resistors of the type PE connected to a resistance of 40 kohm. The second end of the active resistance is connected with the metal ring of the indicator to which a 1.5 m grounding cable is also fastened. The new indicator was tested in the laboratory and has been used for a year in 1,650 v d-c installations.

AVAILABLE: Library of Congress

Card 1/1 1. Voltage - Measurement

NOVITSKIY, S.P.; GNUSIN, N.P.; SHKARUBA, A.M.

Automatic reading of polarization curves in the coordinates of a potential - current density logarithm. Zhur. fiz. khim. 39 no.8:2067-2068 Ag '65. (MIRA 18:9)

1. Institut fiziko-khimicheskikh osnov mineral'nogo syr'ya Sibirskogo otdeleniya AN SSSR.

NOVITSKIY, S.S.

NOVITSKIY, S.S.

Late complication following a penetrating wound of the spine.
Zhur.nevr. i psikh.55 no.9:650-651 '55. (MLRA 8:11)

1. Kaganovicheskaya rayonnaya bol'nitsa Kiyeva (glavnyy vrach--
A.I.Matruk)
(SPINE, foreign bodies,
knife fragment, fatal abscess 24 years after wounding)
(FOREIGN BODIES,
spine, knife fragment causing fatal abscess 24 years
after wounding)
(ABSCESS,
spine, caused by knife fragment 24 years after wounding)

NOVITSKIY, S.V.; SHPIGEL'MAN, S.D.

Case of acute intestinal obstruction with ascariasis treated by enterotomy with extraction of helminths and a one-stage administration of oxygen during surgery. Nov.khir.arkh. no.4:99 Jl-Ag '59. (MIRA 12:11)

1. Zastavnovskaya rayonnaya bol'nitsa, Chernovitskoy oblasti. Adres Novitskogo: Zastavna, Chernovitskoy obl., Rayonnaya bol'nitsa.

(INTESTINES--OBSTRUCTIONS)
(ASCARIDS AND ASCARIASIS)
(OXYGEN--THERAPEUTIC USE)

NOVITSKIY, S.V. (Zastavna, Chernovitskoy obl., ul.Shkol'naya, d.10)

Rare case of an open lesion of the rectum. Nov. khir. arkh. no.3: 86 My-Je '60. (MIRA 15:2)

1. Khirurgicheskoye otdeleniye Zastavnovskoy rayonnoy bol'nitsy Chernovitskoy oblasti.
(RECTUM--WOUNDS AND INJURIES)

NOVITSKIY, V.A.

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S/194/61/000/011/049/070
D271/D302

AUTHORS: Bystrov, Yu.M., Gulya-Yanovskiy, V.V., Komissarova, R.F., Merkulov, L.G., Novitskiy, V.A. and Sil'verstov, S.P.

TITLE: Nickel plating of type metal stereo plates in the ultrasonic field

PERIODICAL: Referativnyy zhurnal. Avtomatika i radioelektronika, no. 11, 1961, 11, abstract 11 E81 (Poligr. proiz-vo, 1961, no. 4, 13-15)

TEXT: The process of electrodeposition of metals in the ultrasonic field is briefly considered; it is pointed out that ultrasonics intensify this process which is explained by acceleration of diffusion phenomena in the near-cathode layer. Nickel plating of stereos with the purpose of increased wearability was conducted under the influence of ultrasonic frequency of 27 kc/s, with the specific power of 0.004 - 7 W/cm^2. It is shown that application

Card 1/2