

MALKIN, I.G.

SUBJECT USSR/MATHEMATICS/Differential equations CARD 1/2 PG - 509
AUTHOR MALKIN I.G.
TITLE Some problems in the theory of non-linear oscillations.
PERIODICAL Moscow: State Publication for technical-theoretical literature
 492 p. (1956)
 reviewed 1/1957

The present paper seems to be the most detailed representation existing in the moment of the "method of the small parameter" due to Poincaré (perturbation calculation) and its applications to non-linear oscillating systems. The author who has already become known by numerous publications and by two books on the same theme now has given once more a summary extended in many points and completed by practical examples. Compared with other books on non-linear oscillations which have been published during the last years this present monography is rather one-sided from the methodical point of view; this disadvantage is compensated, however, by an outstanding mathematical rigidity. Completeness with respect to the many-sided problems which occur applying Poincaré's method is not aspired. This does not exclude, however, that certain partial ranges are fully detailed represented.

On nearly 500 pages in 8 chapters it is treated: 1) Quasi-linear oscillations with one degree of freedom. 2) Periodic oscillations of quasi-linear systems with several degrees of freedom. 3) The stability of oscillations. 4) Almost periodic oscillations of quasi-linear systems. 5) Quasi-harmonic systems. 6) Systems which are near to arbitrary non-linear ones. 7) Liapunov systems.

Moscow: State Publication 492 p. (1956)

CARD 2/2

PG - 509

8) Neighboring systems to Liapunov systems.

Compared with the contents of the monography "The methods of Liapunov and Poincaré in the theory of the non-linear oscillations" formerly published by the same author, it strikes that now even systems with non-analytic characteristics were rendered accessible to the consideration. Here the solution is obtained by successive approximation, whereby the question of convergence is investigated in detail. Also the proofs of existence for periodic and almost periodic solutions have been particularly carefully treated. Building-up processes and slow variations of state in oscillating systems are not considered among others.

Besides of the consideration of concrete practical problems (tube generator, Duffing-oscillator, pendulum with moved point of suspension, sequence-systems and others) special attention is payed for an extensive explicit performance of the methods considered, such that their practical applicability is guaranteed.

L 00997-57 EWP(m)/EEC(k)-2/EWT(d)/EWT(l)/FSS-2 GW

ACC NR: AM6023684

Monograph

40 UR
38
B+1

Malkin, Ioel' Gil'yevich

Theory of the stability of motion (Teoriya ustoychivosti dvizheniya) 2d ed., rev.
Moscow, Izd-vo "Nauka", 66. 0530 p. illus. 8,500 copies printed.

TOPIC TAGS: motion stability, motion mechanics, motion equation, periodic motion,
differential equation, linear equation, nonlinear equation

PURPOSE AND COVERAGE: The book is a systematic account of the theory of motion stability (first developed by A. M. Lyapunov), its methods, and its application to the solution of specific practical problems. The formulation of the problem, the basic theorems of the second Lyapunov method for steady-state motion, and the theory of stability in the first approximation also for steady-state motion are discussed in the first three chapters, which require for study a knowledge of only the basic elements of the theory of differential equations. The classical critical cases for steady-state motion and the theory of stability of periodic motion are discussed in the next two chapters. The cases when the characteristic equation has multiple roots are included. A detailed and systematic account of the theory of equation (linear and nonlinear) with periodic coefficients is also given. The sixth chapter is devoted to the general case of unsteady motion and requires knowledge of the theory of differential equations to the extent, for example, of "Kurs differentsial'nykh uravneniy" of V. V. Stepanov. The book is intended primarily for applied workers, and basic consideration is given to practical procedures for solving stability problems.

Card 1/3

UDC: 531.3

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ACC NR: AM6023684

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All the discussed methods are accompanied by illustrative examples, some of which were taken from current technical literature. Two important articles published by the author after the first edition of the book, additional material on the generalized Lyapunov theorem on the asymptotic stability and instability in the cases of functions with derivatives of constant sign, and a short outline of the application of the methods of the theory of motion stability to problems of optimal control system stabilization are included as appendices. Notes on new results and literature concerning problems considered in the book have been added by the editor. The author thanks N. G. Chetayev and A. I. Lur'ye for reading the manuscript and making valuable comments.

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Card 2/3

ACC NR: AM6023684

Appendix II. On the existence of Lyapunov functions - - 452
Appendix III. Generalization of the theorem of the second Lyapunov method - - 463
Appendix IV. Problems of controlled motion stabilization - - 475
Editor's notes - - 515

SUB CODE: 20/ SUBM DATE: 24Jan66/ ORIG REF: 111/ OTH REF: 010

ms
Card 3/3

Malkin, I. I.

ANDRIASYAN, G. K.; GUNINA, A. I.; MALKIN, I. I.

Therapeutic use of highly concentrated Matsesta water in skin diseases.
Vest. ven. i dermat. no. 5:33-36 S-O '55. (MIRA 9:1)

1. Iz Gosudarstvennogo nauchno-issledovatel'skogo bal'neologicheskogo
instituta imeni I. V. Stalina Ministerstva zdravookhraneniya SSSR
(dir. N. P. Vladimirov) i sanatoriya Moskva (glavnyy vrach A. A. Syrsova)
(SKIN, diseases,
balneoter., Matsesta waters in high concentration)
(BALNEOLOGY, in various diseases
skin dis., Matsesta water in high concentration)

MALKIN, I.I.

ANDRIASYAN, G.K.; MALKIN, I.I.

Treating skin diseases with Watsesta baths using increasing concentrations of hydrogen sulfide. Vop.kur.fizioter. i lech.fiz. kul't. 22 no.4:69-70 J1-Ag '57. (MIRA 10:11)

1. Iz Bal'neologicheskogo instituta imeni I.V.Stalina (dir. - dotsent N.P.Vladimirov) i santoriya "Moskva" (glavnyy vrach A.A. Syrkova)

(SKIN--DISEASES) (MINERAL WATERS, SULFUROUS)

YEMANOVA, Ye. A., kand. med. nauk; MALKIN, I. I.; KORESHEVA, I. I.;
SAMANCHUK, I. M.

Effectiveness of the compound balneoclimatic treatment of
psoriasis at Sochi-Matsesta health resort. Vest. derm. i ven.
36 no.6:28-33 Je '62. (MIRA 15:6)

1. Iz Sochinskogo nauchno-issledovatel'skogo instituta kurorto-
logii (dir. - zasluzhemnyy deyatel' nauki prof. M. Shikhov)
i dermatologicheskogo sanatoriya "Raduga" (glavnyy vrach A. V.
Aleksandrov)

(PSORIASIS)
(SOCHI--HEALTH RESORTS, WATERING-PLACES, ETC.)

MALKIN, I.I.; DOVZHANSKIY, S.I., kand.med.nauk; KIEZUN, V.A.

Use of ultrasoft X rays in a compound treatment of neurodermatitis and dermal pruritus in the Sochi health resort. Vest. derm. i ven. 38 no.3:61-64 Mr '64. (MIRA 18:4)

1. Sochinskiy dermatologicheskii sanatoriy ("Raduga" (nauchnyy konsul'tant - chlen-korrespondent AMN SSSR prof. P.V.Kozhevnikov).

DOVZHANSKIY, S.I., kand.med.nauk; MALKIN, I.I.; SMIRNOVA, Ye.P.; KORESHEVA,
I.I.; KIEZUN, V.A.; SHAVLAK, L.I.; SAMANCHUK, I.M.; KOKHANOV, Ye.M.;
Prinimali uchastiye: KERIMOV, V.M.; LEV, Kh.A.; GULUBZEV, A.F.

Combined hydrogen sulfide-radon baths in treating chronic
dermatoses at the Sochi-Matsesta Health Resort. Vest. dermat.
i ven. 38 no.9:47-51 S '64. (MIRA 18:4)

1. Sochinskiy institut kurortologii i fizioterapii (dir. N.Ye.
Romanov) i dermatologicheskii sanatoriy "Raduga" (glavnyy vrach
G.K.Gonsales).

KOZHEVNIKOV, P.V., prof.; MALKIN, I.I.; DOVZHANSKIY, S.I.; kand. med. nauk

Specialized dermatologic sanatorium as the basic form of organized treatment of skin diseases at a health resort. Vest. dermat. i ven. no.1:73-79 '65. (MIRA 18:10)

1. Sanatoriy "Raduga" (glavnyy vrach G.K. Gonsales) kurorta Sochi-Matsesta.

I 17554-66, EWT(d)/T/EWP(1) IJP(e)

ACC NR: AP6002158

SOURCE CODE: UR/0280/65/000/006/0146/0151

AUTHOR: Ostrovskiy, G. M. (Moscow); Volin, Yu. M. (Moscow); Malkin, I. I. (Moscow)

ORG: none

TITLE: Method for solving optimal problems with boundary conditions

SOURCE: AN SSSR. Izvestiya. Tekhnicheskaya kibernetika, no. 6, 1965, 146-151

TOPIC TAGS: optimal problem, successive approximation, boundary value problem

ABSTRACT: A method of ^{16,44,5} successive approximations is offered for solving the problems with boundary conditions at the right end of the integration interval. Thissystem of ordinary differential equations is considered: $\frac{dx_i}{dt} = f_i(x_1, \dots, x_n, u_1, \dots, u_r);$

$i = 1, \dots, n$, where x_i are phase coordinates and u_j are control variables. With initial values of $x_i(0) = a_i$ known, find such control variables $u_j = u_j(t)$ that at $t = T$, one of the coordinates, e.g., x_1 , be minimized and other coordinates take on these specified values: $x_i(T) = b_i, i = 2, \dots, n$. A method of finding the derivatives

Card 1/2

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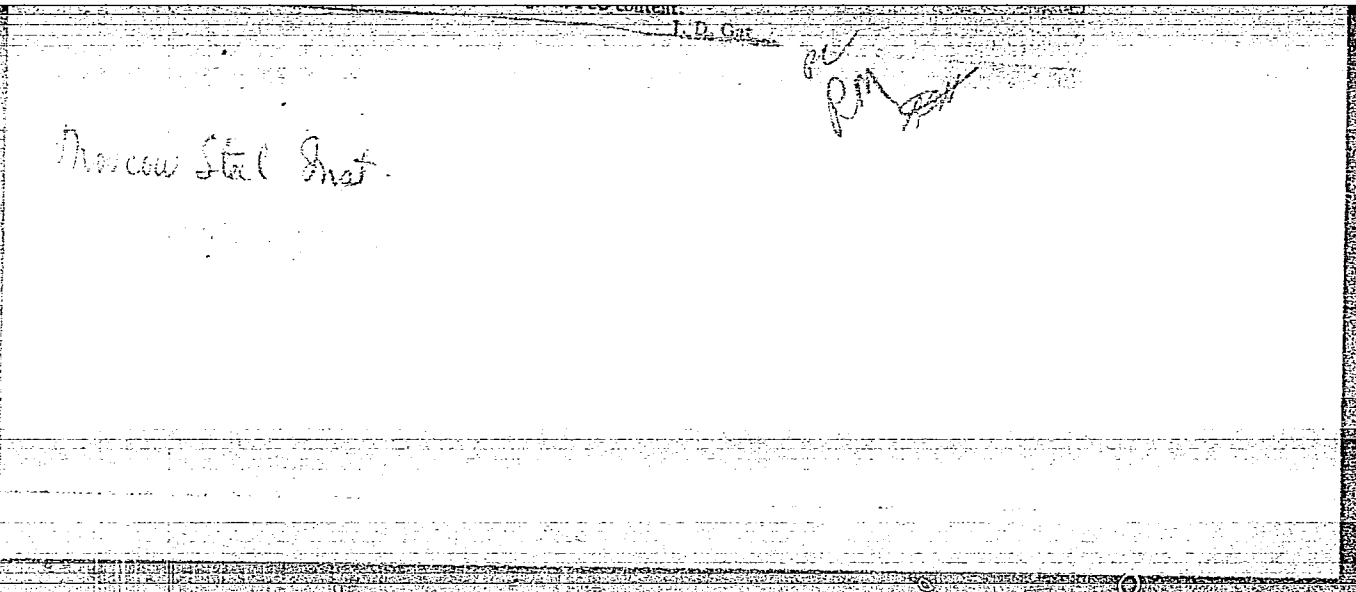
ACC NR: AP6002158

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$\partial x_i(T) / \partial u_j$ is set forth. This method is combined with J. B. Dennis' method of intersecting hyperplanes and steepest descent and a repeated procedure of approximations is used. An example of the determination of optimal temperatures in a reactor producing maleic anhydride illustrates the method. Orig. art. has: 36 formulas and 1 table.

SUB CODE: 12 / SUBM DATE: 10Mar64 / ORIG REF: 005 / OTH REF: 001

Card 2/2 nat



Moscow State Inst.

PC
RM

MALKIN, I. I.

AUTHORS: Bazanov, F.M., Docent, Kolesanov, F.F. Docent, 133-58-4-2/40
Malkin, I. L. Docent and Sharov, S. I., Professor

TITLE: Pelletising of Iron Ore Concentrates and Fine Ores
(Polucheniye okatyshey iz rudnykh kontsentratov
i melkikh rud)

PERIODICAL: Stal', 1958, Nr 4, pp 289-294 (USSR)

ABSTRACT: Methods of production of pellets from fine ores, namely, rolling in a drum, on a plate and rolling of briquettes made under low pressure in a warm press (extrusion) are briefly compared. It is claimed that rolling of preformed briquettes is most advantageous as pellets produced are of a uniform size and high outputs can be obtained. Main results of the latest experiments on pelletising concentrates obtained by magnetic concentration of Krivoy Rog quartzites are described. Chemical composition and size distribution of the concentrates is given. Lime and limestone (0-3 mm) were used as fluxing agents and bentonite, sulphite lyle and refractory clay were used in some experiments as strengthening agents. Pellets were made by extruding briquettes which were cut and rolled in a drum. Firing of green pellets was done

Card 1/2

Pelletising of Iron Ore Concentrates and Fine Ores 133-58-4-2/40

on a sintering pan by combustion of a gas-air mixture over the layer of pellets (Fig.2). The most suitable firing conditions for a given raw material were established in separate experiments. Gas permeability and reducibility of pellets were compared with those of sinter indicating the superiority of pellets in both respects. On the basis of a large number of experiments on firing pellets in a sinter pan it is claimed that a throughput of a Dwilight Lloyd sinter strand of 50 m² surface area and an ignition time of 28 min can be 2000 tons/day. The consumption of heat under laboratory conditions was 329 cal/kg which is smaller than that in sintering, can be further decreased by increasing the bed height. Blast furnace gas with a small addition of coke oven gas can be used for the purpose. In the Moscow Institute of Steel a scheme for industrial production pellets was developed (Fig.4) and in 1958 semi-industrial and industrial experimental production of pellets from Krivoy Rog concentrates and their smelting in blast furnaces will be carried out.

Card 2/2

There are 4 figures.

ASSOCIATION: Moskovskiy institut stali (Moscow Institute of Steel)

1. Ores--Processing
2. Pellets--Production

BAZANOV, Fedor Mikhaylovich; MALKIN, Iuda Lazarevich

[Calculation of sintering charge mixtures] raschet agio-
meratsionnykh shikht. Moskva, Metallurgiya, 1964. 61 p.
(MIRA 17:12)

MALKIN, I. M.

"The Supertension during Electrolytic Separation of Mercury or Tantalum"; Zhur Fiz. Khim; 13, No. 2, 1939; Academy of Sciences Ukrainian SSR, Institute of Physical Chem. imeni L. V. Pisarzhevskiy, Red. 31 May 1938.

Report U-1613, 3 Jan. 1952.

MALKIN, I. M.

MALKIN, I. M. "An Experiment in the Application and Direction of Further Development of a System of Forced Block Cave-in in the Ore Mines of Leninogorsk Combine." Acad Sci Kazakh SSR. Inst of Metallurgy and Ore Dressing. Alma-Ata, 1956. (Dissertation for the Degree of Candidate in Technical Science)

So: Knizhnaya Letopis', No. 19, 1956

А.И.И.И.
LYSENKO, I.Z.; MAIKIN, I.M.; DZHAKUPBAYEV, A.N.; USPANOV, K.Ye.

Developing systems of forced pillar caving in working flat hard
ore deposits. Trudy Inst. gor. dela AN Kazakh. SSR 1:3-15 '56.
(Mining engineering) (MIRA 11:1)

MALKIN, I.M.

Use of the forced caving system in the mines of Leninogorsk Combine.
Gor.zhur.no.8:26-31 Ag '56. (MLBA 9:10)

1. Direktor Leninogorskogo polimetallicheskogo kombinata.
(Kazakhstan--Mining engineering)

МАКЕИМ, И.М.

DZHAKUPBAYEV, A.M., kandidat tekhnicheskikh nauk; ~~MAKEM~~, I.M., kandidat tekhnicheskikh nauk; ISAKOV, V.A., gornyy inzhener; USPANOV, K.Ye., gornyy inzhener.

Block caving system of mining with use of horizontal boreholes. Gor. zhur. no.5:43-45 My '57. (MIRA 10:6)
(Mining engineering)

SOV/127-59-1-5/26

AUTHOR: Malkin, I. M., Director of Combine

TITLE: The Increase of Labor Productivity in the Mines of the Leninogorsk Combine (Rost proizvoditel'nosti truda na rudnikakh Leninogorskogo Kombinata)

PERIODICAL: Gornyy zhurnal 1959, Nr 1, pp 18-23 (USSR)

ABSTRACT: The Leninogorsk Combine consists of the Leninogorsk and underground mines and the Andreyevskiy open cast mine of polymetallic ores. Ore production in 1958 exceeded the production of 1947 4.7 times. This was the result of an improvement in technological mining methods and the mechanization and improvement of labor organization. A new method for opening ore deposits was successfully elaborated by the Giprotsvetmet. The new mines Skipovaya, Bystrushinskaya, and Belkina #1 and #3 were constructed. Underground transportation was centralized in the Skipovaya mine, as well as the pumping of 4,000 cu m/hr of water. The introduction of the forced level caving system was most effective for increasing ore production. The SVB-1 shot drilling machine and the SB-2, SB-4, and BASH-5 milling cutters used in the

Card 1/2

SOV/127-59-1-5/26

The Increase of Labor Productivity in the Mines of the Leninogorsk Combine

combine were designed by a special construction office. In spite of improvements, there is still a shortage of urgently needed high-capacity drilling equipment, loading machines, mechanization and automation accessories, cables, relays and starters. The author recommends the organization of an experimental mine; the Bystrushinskaya mine is quoted as being suitable for this purpose. There are 2 tables.

ASSOCIATION: Leninogorskiy polimetallicheskiy kombinat (The Leninogorsk Polymetallic Combine).

Card 2/2

MALKIN, I.M., kand.tekhn.nauk; ALBOROV, Z.B., gornyy inzh.; YUSHKO, S.F.,
inzhener-mekhanik

Improving boring with sinker drills at the Leninogorsk Combine.
Gor.zhur. no.3:36-38 Mr '60. (MIRA 14:5)

1. Leninogorskiy polimetallicheskiy kombinat.
(East Kazakhstan Province--Rock drills)

MALKIN, I.M.; CHIRKOVA, N.P.; MEYMAN, V.G.; KARLINSKAYA, L.S.; GANCHENKO,
V.M.; POKIDYSHEV, M.I.; CHERNYSHEV, Yu.P.; PLATONOV, G.F.;
MIKHAYLOV, N.I.; ABDEYEV, M.A.; MILLER, O.G.; BUTENKO, N.S.;
DYUYSEKIN, Ye.K.

Treatment of zinc-bearing slags in electric furnaces with coke
conductivity. TSvet. met 33 no. 12:15-23 D '60. (MIRA 13:12)

1. Leninogorskiy polimetallicheskiy kombinat (for Malkin, Chirkova,
Meyman, Karlinskaya, Ganchenko, Pokidyshev, Chernyshev). 2. Altay-
skiy gorno-metallurgicheskiy institut AN KazSSR (for Platonov,
Mikhaylov, Abdeyev, Miller, Butenko, Dyuysekin).
(Zinc--Electrometallurgy) (Electric furnaces)

BRONNIKOV, Dmitriy Mikhaylovich, doktor tekhn. nauk; BARANOV, Ye.G., kand. tekhn. nauk, retsenzent; MALKIN, I.M., kand. tekhn.nauk, retsenzent; KUTUZOV, D.S., gorn. inzh., retsenzent; PARTSEVSKIY, V.N., red. izd-va; LOMILINA, L.N., tekhn. red.

[Choice of blasthole parameters in underground ore breaking] Vybor parametrov vzryvnykh skvazhin pri podzemnoi otboike rud. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1961. 109 p.

(MIRA 14:12)

(Boring)

(Blasting)

IMENITOV, Vladimir Rafailovich. Prinimali uchastiye: KUTUZOV, D.S.;
FAYBISHENKO, D.I.; ZHIGALOV, M.L.; AGOSHKOV, M.I., retsenzent;
MALKIN, I.M., kand. tekhn. nauk, retsenzent; ALBOROV, Z.B.,
kand. tekhn. nauk, retsenzent; BUBLIS, A.N., gorn. inzh., re-
tsenzent; BUNIN, A.I., otv. red.; SIPYAGINA, Z.A., red. izd-va;
SHKLYAR, S.Ya., tekhn. red.

[Highly productive systems of mining thick hard ore deposits]
Vysokoproizvoditel'nye sistomy razrabotki moshchnykh mesto-
rozhdenni krepkikh rud. Moskva, Gos.nauchno-tekhn.izd-vo lit-
ry po gornomu delu, 1961. 417 p. (MIRA 15:2)

1. Chlen-korrespondent Akademii nauk SSSR (for Agoshkov).
(Mining engineering)

MAIKIN, I.M., laureat Leninskoy premii

Leninogorsk complex ore combine. Gor. zhur. no. 10:8-13 0 '61.
(MIRA 15:2)

1. Direktor Leninogorskogo polimetallicheskogo kombinata.
(Leninogorsk Region (East Kazakhstan Province)—Mining engineering)
(Blasting)

MALKIN, I. P.

USSR/Metallurgy - Chemical technology

Card 1/1 Pub. 22 - 31/47

Authors : Kholodov, A. I.; Suchil'nikov, S. I.; and Malkin, I. P.

Title : The wetting ability of electric smelting slags

Periodical : Dok. AN SSSR 101/6, 1093 - 1096, Apr. 21, 1955

Abstract : Experiments were carried out with three synthetic and four factory type slags obtained from an electric arc smelter to determine their wetting ability. Results showed that the extreme angle of wetting of cast iron with factory and synthetic slags at a temperature of 1350-1630° varies between 77-26°. It was found that any increase in temperature was followed by a corresponding increase in the wetting ability of the slag. The effect of calcium carbide contents in the slag on its wetting ability is explained. Nine USSR references (1945-1954). Table; graphs; drawing.

Institution : The S. M. Kirov Ural Polytechnic Inst.

Presented by: Academician I. P. Bardin, November 22, 1954

SOV/137-59-5-9923

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 5, p 67 (USSR)

AUTHORS: Malkin, I.P., Volkova, L.A., Ruzhitskiy, V.I.

TITLE: Smelting ^{18 18}Stainless and Heat Resistant Steels at the Uralmash-zavod

PERIODICAL: Sb. statey. Ural'skiy z-d tyazh. mashinostr. im. S. Ordzhonikidze, 1958, Nr 3, pp 52 - 61

ABSTRACT: Information is given on the experience made in the production of stainless and heat resistant steels at the Uralmashzavod. In the production of certain steel grades the following methods were used: vacuum treatment of the metal in the ladle or de-gassing of the metal flow in a vacuum during the transfer from one ladle into another, and teeming in a neutral gas medium. In casting ingots for forgings, molds having a triple conicity of the side walls (5.1; 15.9 and 94% from top to bottom) and a spherical bottom were employed. Ingots, cast in such molds proved to be more compact and homogeneous. ✓

Card 1/1

V.B.

DOKSHITSKAYA, A.I., kand.tekhn.nauk; GORLACH, I.A., inzh.; MALKIN, I.P.,
inzh.

Comparing the properties of electrical steel made by scrap
remelting and with oxidation. Trudy Ural.politekh.inst.
no.75:181-193 '59. (MIRA 13:4)
(Steel--Electrometallurgy) (Steel--Defects)

MALKIN, I.P., inzh.

Reduction of ball-bearing steel in arc furnaces. Trudy Ural.
politekh.inst. no.75:207-218 '59. (MIRA 13:4)
(Steel--Electrometallurgy) (Bearing metals)

MALKIN, I.P.; KRESHCHANOVSKIY, N.S.

Making austenitic chromium-manganese steels alloyed with
nitrogen. Izv. vys. ucheb. zav.; Chern. met., 8 no.1, 1970, p.165.
MIRA 1971

1. Tsentral'nyy nauchno-issledovatel'skiy institut tekhnologii
i mashinostroyeniya i Nauchno-issledovatel'skiy institut
tyazhelogo mashinostroyeniya Ural'skogo zavoda tyazhelogo
mashinostroyeniya imeni Sergeya Orizhonikidze.

MALKIN, I.Z.; PETRZHAK, K.A.; YAKOVLEV, V.A.

Effect of alpha-particle reflection during measurements in a 2π
solid angle chamber. Trudy Radiev.inst.AN SSSR 9:207-213 '59.
(MIRA 14:6)

(Alpha rays) (Ionization chambers)

MALKIN, KH, R.

PA 27/49T42

USSR/Electricity
Cables, High-Voltage
Cables, Electric

Nov 48

"Review of V. I. Pogarskiy's 'Working of High-Voltage Power Cables,'" Kh. R. Malkin, Engr, I. G. Gertsenshteyn, Cand Tech Sci, 2 pp

"Elektrichestvo" No 11

Very critical review of subject book. Says that material is incomplete, consideration superficial, theoretical standard low, and mistakes and inaccuracies abundant.

27/49T42

8 (0)

80V/112-57-5-9786

Translation from: Referativnyy zhurnal. Elektrotehnika, 1957, Nr 5, p 20 (USSR)

AUTHOR: Malkin, Kh. R.

TITLE: Selection of Paper Impregnated Insulation for High-Voltage Cables
(Vybor bumazhnoy propitannoy izolyatsii vysokovol'tnykh kabeley)

PERIODICAL: Inform.-tekhn. sb. M-vo elektrotekhn. prom-sti SSSR, 1956,
Nr 4(88), p 7-11

ABSTRACT: Thinner paper tapes used for insulating power-cable cores considerably increase breakdown voltages of the cable insulation. However, the number of tapes necessarily increases, which complicates the technique of insulating and affects the insulation tightness; for this reason, tapes of different thicknesses have been used for cable insulation. The layer thickness must be selected on the basis of corresponding gradients determined experimentally. Formulae are presented for selecting insulation layers from paper tapes of different thicknesses; the formulae allow for various permittivities of

Card 1/2

SOV /112-57-5-9786

Selection of Paper Impregnated Insulation for High-Voltage Cables

the paper (grading is made on the basis of both permittivities of, and maximum gradients on, various insulation layers). The author believes that the principle of insulation grading according to the gradients and the use of thinner paper tapes will permit reducing insulation thickness in all cables designed for voltages of 20 kv and up.

A. O. M.

Card 2/2

MALKIN, Kh. R.*

341.373.211

V 3874. MODERN DESIGNS OF FOREIGN H.V. CABLES (SURVEY).
 Kh. R. Malkin.
 Elektrichesvo, 1957, No. 2, 64-71. In Russian.
 Oil-filled, pressure and gas cables are considered, with special stress on U.S.A. and British designs. Relationships between service life and breakdown stress, and between maximum gradient and pressure in oil and gas cables are discussed and analyzed, and also between impulse breakdown voltage and thickness of the paper taping for oil and gas-pressure cables. Oval pressure cables are also considered. Author seems to accept conclusions of Western authors on the relative merits of the various types without critical comment.
 B. F. Kraus

~~from duplicate in CIA files~~, Cond. Tech Sci, Decent.
 Leningrad Polytech. Inst. in Kalinin

8(3)

PHASE I BOOK EXPLOITATION

SOV/183

Malkin, Khaim Ruvimovich

Teplovy i elektricheskiy raschet koaksial'nykh vysokochastotnykh kabeley (Thermal and Electric Rating of Coaxial High-frequency Cables) Moscow, Gosenergoizdat, 1958. 96 p. 5,550 copies printed.

Ed.: N.D. Kurbatov; Tech. Ed.: Ye. M. Soboleva.

PURPOSE: This book is intended for engineers and technicians working in the field of high-frequency cables, and also for vtuz students.

COVERAGE: The author discusses the thermal rating of high-frequency coaxial cables with matched and nonmatched loads and the computation of current parameters for individual designs of such cables. The approximate thermal rating for cables with intermittent and stepped loads is also included. There are 23 references, 14 of which are Soviet, 7 English, and 2 German.

Card 1/4

Thermal and Electric Rating of Coaxial High-frequency Cables SOV/1830

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Thermal and Electric Rating of Coaxial High-frequency Cables SOV/1834

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Thermal and Electric Rating of Coaxial High-frequency Cables SOV/1830

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AVAILABLE: Library of Congress

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TM'dfh
7-2-59

ISTOMINA, Nina Petrovna; LAKERNIK, Refail Moiseyevich; SHARLE, David
Leonidovich; MALKIN, Kh.R., retsenzent; LINKOV, A.V., red.;
ZHITNIKOVA, O.S., tekhn.red.

[Municipal telephone cables] Gorodskie telefonnye kabeli.
Moskva, Gos.energ.izd-vo, 1960. 247 p.

(MIRA 14:1)

(Telephone lines)

ARENZON, S.I., inzh.; MALKIN, Kh.R., kand.tekhn.nauk

High-pressure cable lines in steel pipes with 110 and
220 kilovolt rating. Elek.sta. 31 no.4:65-69
Ap '60. (MIRA 13:7)
(Electric cables)

MALKIN, Kh.R.; POSHERSTNIK, M.Yu.; SALYUTINA, M.A.; RENNE, V.T., doktor tekhn. nauk, retsenzent; LAVINSKIY, V.P., inzh., retsenzent; TU-RYBRIN, M.B., nauchnyy red.; NIKITINA, M.I., red.; KOROVENKO, Yu.N., tekhn. red.

[Handbook on electric lines and power cables] Spravochnik po silovym kabeliam i provodam. Leningrad, Gos.soiuznoe izd-vo sudostroit.prc-myshl., 1961. 387 p. (MIRA 14:12)

(Electric cables)

(Electric lines)

VERNIK, S.M., kand.tekhn.nauk; MALKIN, Kh.R., kand.tekhn.nauk

Method for calculating the thermal conditions in large cables
carrying radio frequency in repeating transitory operation.
Vest.elektroprom. 32 no.8:48-51 Ag '61. (MLRA 14:8)
(Coaxial cables) (Radio lines)

S/044/62/000/006/012/127
B112/B104

AUTHOR: Malkin, K. Ye.

TITLE: A method in the center problem

PERIODICAL: Referativnyy zhurnal. Matematika, no. 6, 1962, 50, abstract
6B216 (Uch. zap. Ryazansk. gos. ped. in-t, v. 24, 1960,
107 - 117)

TEXT: The author considers the equation

$$dy/dx = (-x + P(x, y))/(y + Q(x, y)), \quad (1)$$

where $P(x, y)$ and $Q(x, y)$ are polynomials containing no terms of an order lower than the second. He attempts to find conditions for the Lyapunov-Poincaré center in the simplest form. He proceeds from the well-known theorem that, if a center exists in the origin, equation (1) has a general integral of the form $x^2 + y^2 + F(x, y) = C$ (where $F(x, y)$ is an analytic function containing no terms of an order lower than the third) and goes over to new (complex) variables by writing $z = x + iy$ and $\bar{z} = x - iy$, and by expressing the functions $P(x, y)$, $Q(x, y)$, and $F(x, y)$ by the variables
Card 1/2

S/044/62/000/006/012/127
B112/B104

A method in the center problem

z and \bar{z} . The author determines a number of center problems in the form of a system of linear algebraic equations, the coefficients of which are expressed linearly by the coefficients of the polynomials $P(x, y)$ and $Q(x, y)$. The author uses a process which he suggested for solving the center problem for the case where $P(x, y)$ and $Q(x, y)$ are second-order polynomials. In this case he obtains the well-known results of H. Dulac (that are equivalent to the conditions of N. A. Sakharnikov, Prikl. matem. i mekhan., 1948, 12, No. 5) where - this is of special interest - the author does not derive the proof for the existence of a center by integrating equation (1) as is done in most cases. By analyzing the center conditions, the author shows directly that the entire infinite set of these conditions is fulfilled if the first two of them are fulfilled. [Abstracter's note: Complete translation.]

Card 2/2

MALKIN, Kh.Sh.

New automatic device for individual changing of the guide comb
cursors of Rachel type knitting machines. Tekst.prom. 23 no.5:
13-14 My '63. (MIRA 16:5)

1. Rukovoditel' laboratorii modelirovaniya trikotazhnykh izdeliy
Nauchno-issledovatel'skogo instituta tekstil'noy i legkoy
promyshlennosti soveta narodnogo khozyaystva Gruzinskoy SSR.
(Knitting machines)

MALKIN, Kh,Sh.

Improved automatic device for the individual exchange of
comb slides. Tekst. prom. 25 no.4:37 Ap '65. (MIRA 18:5)

1. Rukovoditel' laboratorii assortimenta trikotazhnykh izdeliy
Tbilisskogo NIILTP.

MALKIN, L. A.

"Renovation of Dies", Stanki I
Instrument, 14, No. 11-12, 1943

BR#52059019

MALKIN, L. A. Engineer

Mr., Chair of Applied Mechanics, M TU (Moscow Higher
Technical School) imeni Bauman (-1945-)

"An Instrument for Determining the Front Angle of
Cutting Dies," Stanki I Instrument, 16, Nos. 4-5, 1945

BR-52059019

MALKIN, L. D. L. A.

MVTU, imeni Bauman (-1946-)

Candidate of Technical Sciences

"New Gearings," Stanki I Instrument 17, No. 1, 1946

BR-52059019

USSR/Engineering Machinery - Design Gears, Planetary

Jan 1947

"How to Obtain a Highly Economical Simple Planetary Gear," L.A. Malkin, Candidate Tech Sci, 4 1/2 pp
"Yest Mashinstroy" No 1

Author presents method of calculations which should aid greatly in clarifying the phenomenon of transmission and should prove very valuable to all classes of engineers. The revolutions as well as the moment of rotation transferred from planetary system to series system. To carry out these calculations, necessary to have revolution with angular
IC 50733

USSR/Engineering (Contd)

Jan 1947

velocity equal, and opposite to the absolute transverse velocity. Refers to his article in "Yestnik Mashinstroyeniya" No 11/12, 1946, in which he established certain fundamentals upon which he bases present calculations.

IC

50733

MALKIN, L.A.

PA 50733

MALKIN, L. A.

Sozdanie garmonicheskikh krutil'nykh kolebani s pomoshch'iu zu chatykh koles.
(Vestn. Mash., 1951, no. 6, p. 12-14)

Making harmonic torsional vibrations by means of gear wheels.

DLC: TN4.V4

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library
of Congress, 1953.

MALKIN, L.A., kandid.,t tekhnicheskikh nauk, dotsent.

Mechanism for establishing a stabilized bearing. Trudy MIIGAIK no.21:27-
31 '55. (MIRA 10:1)

1. Moskovskiy institut inzhenerov geodesii, Kafedra priborostroyeniya.
(Orientation)

112-3-6411

112-3-6411

Translation from: Referativnyy Zhurnal, Elektrotehnika, 1957,
Nr 3, p. 187 (USSR)

AUTHOR: Malkin, L.A., Shillinger, V.I.

TITLE: Automatic Elevation Instruments Installed in Automobiles
(Avtomaticheskiye pribory dlya opredeleniya prevysheniy,
ustanavlivayemye na avtomobilyakh)

PERIODICAL: Tr. Mosk. in-ta inzh. geod., aerofotos"emki i kartogr.,
1956, Nr 23, pp. 63-91

ABSTRACT: Bibliographic entry.

Card 1/1

SOV/154-58-2-10/22

AUTHOR: Maikin, L. A., Docent, Candidate of Technical Sciences

TITLE: An Instrument for the Reproduction of Distances (Pribor diya vosproizvedeniya rasstoyaniy)

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Geodeziya i aerofotos"yemka, 1958, Nr 2, pp 93-100 (USSR)

ABSTRACT: The article describes an instrument suggested, designed, and tested at the MIIGA i K used for reproducing distances between two points with considerable accuracy. These points can be materialized and fixed on the tripod by means of balls. The exact reproduction of the distance can be done in different ways. The problem is to determine with accuracy four distances from two points at the base (O, A) to the two points to be selected (B, C). These distances L_{AB} , L_{OB} , L_{AC} , and L_{OC} can be of any size and are independent of each other. They have, however, to be known exactly. The instrument also makes it possible to draw with accuracy a normal to the given line. The method is explained, and the design of the instrument is described, which consists of an indicator head, an elastic connection, and a

Card 1/2

An Instrument for the Reproduction of Distances

SOV/154-58-2-10/22

movable head. The instrument "remembers" the distance between the centres of the balls by means of the indicator head. Friction is completely avoided within the graduated circle. Briefly, the question of selecting a connection (the diameter of the wire) and the accuracy required in keeping the tension of the wire constant are touched upon. There are 10 figures, 1 table, and 1 reference, 1 of which is Soviet.

ASSOCIATION: Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii (Moscow Engineering Institute of Geodesy, Aerophotography, and Cartography)

SUBMITTED: December 2, 1957

Card 2/2

MALKIN, L. I.

IVANOV, A. I.

AUTHOR: Bol'shakov, V. P., Candidate of Technical Sciences
SOV/ISA-10-2-16/22
Scientific and Technical Conference of MIIGA i K (Machno-
tehnicheskaya konferentsiya MIIGA i K) I
TITLES: Isslediya vyznabih uchebnykh savdeniy. Geodesiya i
aerofoto'yemka, 1956, Br 2, pp 111-114 (USSR)
PERIODICAL:
ABSTRACT:

From April 24 to 26 a scientific and technical conference of the MIIGA i K (Institute of Geodesy, Aerophotography, and Cartography, Moscow) was held in Moscow. Furthermore, there were four sections in operation on geodesy, aerophotography, cartography, and on the production of photogrammetrical instruments. More than 300 delegates from 45 institutes took part in the conference at which 28 lectures were given. 20 delegates participated in the discussions. The opening remarks were made by the Director of the MIIGA i K, Professor P. S. Zakharov, Doctor of Technical Sciences. The first paper read was that by Professor Ivanov on "The Fight Against Revisionism." A. I. Ivanov, Doctor of Technical Sciences, spoke on "The Setup and the Levelling Principles of the Geodetic Basic Network of the USSR." A. M. Lirovskiy, Professor, read a paper on "The Method of Squaring Coordinates in Some Kinds of Geodetical Networks." G. G. Selikhovich, Doctor, "On a Bench Mark of Special Stability." V. P. Bol'shakov, Doctor, "On a Bench Mark of Technical Sciences." V. P. Bol'shakov, Doctor, "On a Bench Mark of Technical Sciences." "Optical Measurements of Distances Under Precise Conditions." M. I. Agorov, Assistant, "On the Methodology of High-Precision Measurements in First-Class Triangulations." K. M. Ya. Bobirt, "On the Problems of Determining Some Elements of Inner Orientation of Students and Super-Wide Angle Aerial Cameras." A. K. Parny, Graduate Student, "On a Level Device With a Freely Suspended Reflex Student." D. I. Lyayev, reported on "Geodesy and Cartography at the Beginning of the Soviet Rule." Ye. P. Arzhanov on "An Investigation of the Film Smoothing Device With Supporting Rollers." I. M. Vesil'yev, Graduate Student, "Stereooperator with Electrical Corrections." V. Ya. Mikhaylov, Doctor, Candidate of Technical Sciences, "On the Change of Scale of Aerial Photographs Resulting from Misalignment." P. V. Zakharov, "On the Distinctive Capabilities of Black-and-white and Color Photographs." Iu. K. Kuznetsov, Graduate Student, "The Elements of the Theory of a New High-Speed Shutter." I. G. Syzikh, Professor, "The Present State of Physical-Mathematical Knowledge on the Precise Fixing of Measuring Tools." G. G. Golovinskiy, "Speeding up and Improving the Production of Measuring Tools." L. I. Malkin, Doctor, Candidate of Technical Sciences, "V. S. Instruments for the Precise Measurement of Distances." V. S. Mikhaylov, Assistant, "Field Tests With the Optical Range Finders." A. V. B. Usor, Assistant, "On the Study of Inaccuracies in the Measuring Devices of Telescopes." E. M. Volkov, Professor, Doctor of Geographical Sciences, "Some Remarks on Engraving in the Production Process of Original Maps."

Card 1/3

Card 2/3

Card 3/3

MALKIN, L. A., Docent

"Apparatus for the Exact Recording of Distances"

report presented at a Scientific-Technical Conference at Moscow Inst. of Geodesy,
Aerial Photography and Cartography Engineers, 24-26 April 1958.
(Geodeziya i kartografiya, no. 3, pp. 79-80, 1958)

MALKIN, L. A.

PHASE I BOOK EXPLOITATION SOV/4233

Moscow. Vyssheye tekhnicheskoye uchilishche

Raschetny detaley i mekhanizmov tochnykh priborov; sbornik statey
(Design of Parts and Mechanisms of Precision Instruments;
Collection of Articles) Moscow, Mashgiz, 1960. 260 p.
5,000 copies printed.

Ed. (Title page): T. A. Gevondyan, Doctor of Technical Sciences,
Professor; Ed. (Inside book): Ya. G. Alaverdov, Engineer;
Tech. Ed.: A. F. Uvarova; Managing Ed. for Literature on
Machine Building and Instrument Making (Mashgiz): N. V.
Pokrovskiy, Engineer.

PURPOSE: This collection of articles is intended for scientific
workers and engineers engaged in instrument making.

COVERAGE: The results of investigations on making instruments
with complex and design-perfect parts, pairs, and mechanisms,
it is claimed, are published here for the first time. The
articles cover theory and methods of spherical cogwheel
engagement, a new method of manufacturing toothed wheels with

~~Card 1/6~~

Design of Parts and Mechanisms (Cont.)

SOV/4233

alternating ratio within one revolution, a universal method for designing an oscillating system for stability by means of complex variables, and precision methods for designing brake centrifugal governors used in instrument design. Some of the articles are accompanied by Soviet and non-Soviet references. No personalities are mentioned.

TABLE OF CONTENTS:

Gevondyan, T. A., Doctor of Technical Sciences, Professor. A Special Type of Ball-Cog Wheel Engagement 6

The meshing wheels have ball-shaped cogs.

This type of engagement is used in those cases where the angle between the intersecting axes becomes too large. Basic equations for designing such an engagement are given.

Presnukhin, L. N., Doctor of Technical Sciences, Professor, and L. A. Malkin, Candidate of Technical Sciences, Docent. Involute Spur Wheels With Alternating Gear Ratio and Their Use in Instrument Building 25

A new method for manufacturing involute spur gears with a ratio varying during a single revolution is discussed, as well as its use in computers.

~~Card 2/6~~

ZAKAZNOV, N.P., dotsent; MALKIN, L.A., dotsent

Kinematics of the machine for grinding and polishing plane surfaces
of parts of optical instruments. Izv. vys. ucheb. zav.; geod. i
aerof. no.5:133-134 '60. (MIRA 13:12)

1.Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i
kartografii.

(Grinding and polishing)

(Glass, Optical)

MALKIN, L.A., dotsent, kandid. tekhn. nauk

High-speed shutter for aerial cameras based on the use of the "field of exposure." Izv. vys. ucheb. zav.; geod. i aerof. no. 1: 73-86 '61.
(MIRA 14:6)

1. Moskovskiy institut inzhenerov geodezii, aerofotos'yemki i kartografii.
(Shutter, Photographic)

MALKIN, L.A., dotsent, kand.tekhn.nauk

Small reducing gears with bevel wheels. Vest.mash. 41 no.3:7-11
Mr '61. (MIRA 14:3)

(Gearing, Bevel)

MALKIN, L.A., kand.tekhn.nauk, dotsent

Planetary reducers composed of two conical wheels. Trudy MIIGAIK
no.45:13-23 '61. (MIRA 14:7)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i
kartografii, kafedra obshchego mashinostroyeniya.
(Cartography) (Gearing)

MALKIN, L.A., kand. tekhn. nauk, dotsent

Simplest means of designing the teeth of conical wheels for
small reducers. Trudy MIIGAIK no.50:15-19 '62. (MIRA 16:7)

1. Kafedra obshchego mashinostroyeniya Moskovskogo instituta
inzhenerov geodezii, aerofotos"yemki i kartografii.
(Gearing)

120-4-3/35
MALKIN, L.Z.

AUTHORS: Bugorkov, S.S., Malkin, L.Z., Petrzhak, K.A., Yakovlev, v.A.
and Yakunin, M.I.

TITLE: Ionisation Chambers for Alpha Particle Counting
(Ionizatsionnyye kamery dlya scheta al'fa-chastits)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1957, no.4,
pp. 16 - 19 (USSR)

ABSTRACT: The construction and properties of 5 ionisation chambers
for alpha particle counting are described.

no.1: A universal camera for alpha particles emitted within
a solid angle of 2π (Fig.1). This camera is used for
measurements on alpha-active materials deposited on one or
both sides of a thin plate. It can also be used to estimate
the degree of alpha-activation of the inner surfaces of
hemispherical platinum cups after various chemical procedures.

no.2: A camera for measurements in a solid angle which is
less than, or equal to, 2π (Fig.4).

no.3: A camera for measuring alpha activities of liquids
(Fig.5).

no.4: A camera with a solid angle $(0.01 - 0.001) \times 2\pi$ (Fig.6).

no.5: An argon filled camera (Fig.7). This is used to
measure intensities of the order of 2×10^7 counts/min and also

Card1/2

120-4-3/35

Ionisation Chambers for Alpha Particle Counting.

in the measurement of alpha activity on a high beta background.
Pressure of the argon is about 1 atm.

The mechanical design of the 5 chambers are shown in the
figures quoted above.

There are 7 figures and 3 references, 1 of which is Slavic

ASSOCIATION: Khlopin Radiation Institute Ac.Sc. USSR:
(Radiyevyy institut im. V.G. Khlopina AN SSSR)

SUBMITTED: September 26, 1956.

AVAILABLE: Library of Congress

Card 2/2

MALKIN, L. Z.

PHASE I BOOK EXPLOITATION 557/3503

Academy of Sciences USSR, Radiyevy Institut

Trudy, t. IX (Transactions of the Radium Institute, Academy of Sciences USSR, Vol. 9) Moscow, Izd-vo AN SSSR, 1959. 287 p. Errata slip inserted. 1,700 copies printed.

Ed.: M.A. Perfilov, Doctor of Physical and Mathematical Sciences; Ed. of Publishing House: G.M. Aron; Tech. Ed.: A.V. Sainnova.

PURPOSE: The volume is intended for physicists.

CONTENTS: The book represents volume 9 of the Transactions of the Radium Institute 1954 to 1956. There are a number of articles dealing with the study of nuclear reactions occurring with particles of different energies ranging from several of up to hundreds of MeV. Others treat different problems of the physics of neutrons. Results of studies of various neutron sources, neutron energy distribution in a moderator (water), and other problems connected with the theory of neutron interaction with matter are presented. The majority of the articles are concerned with problems of method. The authors provide a complete description of the construction of equipment and of the results of tests performed under laboratory conditions. Several important physical constants are determined. The following articles are included: 1. K.A. Petrzhak, and Yu.P. Roznovoy. Wall Effect in Ionization Chamber. 192 2. Malkin, L.Z., K.A. Petrzhak, and V.M. Yekovlev. Study of the Effect of Alpha Particle Reflection on Counting in a Chamber with a Solid Angle - 4pi. 207 3. Rudzik, S.S., L.Z. Malkin, K.A. Petrzhak, V.A. Kozlovskiy, and N.I. Yekshin. Simultaneous Measurement of Alpha Particle Counting. 214 4. Malozemov, V.I. The Direct Method for Determining Low Radon Concentrations in the Air. 229 5. Malozemov, V.I. Distribution of Disintegrated Radon Products in Ampoules Filled with Powder and in Ampoules without Filler. 236 6. Rik, S.B., A.I. Busanov, and S.I. Chupovskiy. The Photographic Effect of Slow Neutrons. 238 7. Arshinov, V.B. Accumulation of the Daughter Product in the Branch Decay of the Parent. 250 8. Agafonov, K.M., V.V. Mironov, and V.G. Solov'ev. Active Electronic Spectra in Air Equivalent Volume Counters. 253 9. G.P. Gerasimov. Method of Measuring Half-Life of Short-Lived Radioactive Elements. 258 10. Gerasimov, G.P., L.P. Gerasimov, and V.G. Solov'ev. Determining the Decay Constant of a Radioactive Substance by the Method of Counting in a Chamber with a Solid Angle - 4pi. 268 11. Gerasimov, G.P., L.P. Gerasimov, and V.G. Solov'ev. Determining the Decay Constant of a Radioactive Substance by the Method of Counting in a Chamber with a Solid Angle - 4pi. 278 12. Gerasimov, G.P., L.P. Gerasimov, and V.G. Solov'ev. Determining the Decay Constant of a Radioactive Substance by the Method of Counting in a Chamber with a Solid Angle - 4pi. 288

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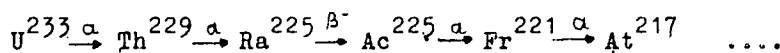
S/186/60/002/005/017/017
A051/A130

AUHTORS: Malkin, L. Z.; Nikol'skaya, Ye. B., Petrzhak, K.A.

TITLE: Investigating the possibility of the existance of an α -branch of Ra²²⁵ in the neptune row

PERIODICAL: Radiokhimiya, v. 2, no. 5, 1960, 632

TEXT: The problem dealt with by the authors was the study of the α - decay of Ra²²⁵, the possibility of which was predicted theoretically, (Ref. 1: W. Jentscke, Phys. Rev., 77, 98, 1950). It is pointed out that till the present time no experimental attempt was made to detect the α -emission of Ra²²⁵, decomposing by β -decay with a T = 14.8 days. It is mentioned that Ra²²⁵ is a member of the neptune row, a part of which is given as being:



The limit obtained for the existance of an α -branch for Ra²²⁵ (Ref. 2:
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A051/A130

Investigating the possibility of

D. Strominger, J. M. Hollander, G. T. Seaborg, Rev. Modern Physic, 30, 2, 806, 1958) is given as being $\leq 0.01\%$. The authors had at their disposal a preparation of U^{233} (1 gr) of high radiochemical purity, kept for two years. The latter was used as the source of Ra^{225} . The difficulty of observing the weak α -activity of the Ra^{225} on a background of other α -emitters of the neptune row, such as the Ac^{225} , Fr^{221} , At^{217} , etc., is pointed out. It is stated that with the alpha decay of Ra^{225} emanation Em^{221} should form. This known isotope of emanation is obtained usually in the reaction of splitting off from Th^{232} using fast protons. The half-life of Em^{221} is 25 m. 80 % of the emanation decays by beta-emission, forming Fr^{221} and 20 % by alpha emission, forming Po^{217} . Thus, by detecting the presence of Em^{221} in the preparation, the existence of alpha-decay of Ra^{225} was proven. In order to measure the Em^{221} a known method of emanation measurement of Rn^{222} was used (Ref. 3: Sbornik prakticheskikh rabot po radiokhimi pod redaktsiyey I. E. Starika, A. N. Murina i A. P. Patnera. Izd. LGU, 1956). The solution of the U^{233} was placed into a bubbler which was sealed for three hours. It was later opened and the emanation was transferred to an ionization chamber, the ionization stream of which was measured on an $CG-1M$ (SG-1M) electrometer. According to the obtained measurements, the

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Investigating the possibility of

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A051/A130

ionization current of the chamber did not exceed the background, i.e., Em^{221} was not detected in the U^{233} . An evaluation of the sensitivity of the method used showed that Em^{221} could be detected if the alpha-decay of the Ra^{225} exceeded 0.0001 % of its beta-decay. Thus, the obtained results lead to the establishment of a limit of α -branching of the Ra^{225} as ≤ 0.0001 %, which corresponds to $T_a \geq 50,000$ years. There are 3 references: 1 Soviet-bloc, 2 non-Soviet-bloc. The English language publications read as follows: W. Jentscke, Phys. Rev., 77, 98, 1950; D. Strominger, J. M. Hollander, G. T. Seaborg, Rev. Modern Physic, 30, 2, 806, 1958).

Card 3/3

S/186/62/004/005/009/009
E111/E435

AUTHORS: Aron, P.M., Malkin, L.Z.

TITLE: Production of thin uniform layers of plutonium

PERIODICAL: Radiokhimiya, v.4, no.5, 1962, 619

TEXT: The authors have used and recommend the following method for preparing solutions for spraying plutonium to give thin uniform layers. To a solution of 5 mg of plutonium in 2 ml of concentrated nitric acid about 0.2 ml of 30% H₂O₂ is added to obtain tetravalent plutonium; H₂O₂ is then destroyed with platinum in the hot solution; the solution is evaporated to a volume of 2 to 3 drops and then left till dry in a desiccator with NaOH and CaCl₂. The deposit dissolved in 1 to 2 ml of alcohol or chemically pure acetone, sprays well from a capillary under the action of an electric field. Multi-layer films are built up.

SUBMITTED: May 18, 1962

Card 1/1

L 17583-63 EMT(m)/BDS AFFTC/ASD DM
ACCESSION NR: AP3005226 S/0089/63/015/002/0158/0159

AUTHORS: Malkin, L. Z.; Alkhazov, I. D.; Krivokhatskiy, A. S.; 55
Petrzhak, K. A.

TITLE: Half-life periods¹⁹ of spontaneous fission of Pu sup 240
and Pu sup 242

SOURCE: Atomnaya energiya, v. 15, no. 2, 1963, 158-159

TOPIC TAGS: Pu sup 240, Pu sup 242, Pu, scintillation counter,
ionization counter

ABSTRACT: Authors used a xenon scintillation counter to measure the half-lives of plutonium isotopes. A double scintillation counter was constructed which permitted a simultaneous measurement of the activity from two identical samples. Surface density of the samples was reduced in this method. Other investigators made measurements with ionization counters. Scintillation counters have the advantage of higher resolution and lesser sensitivity to Alpha particles. Xenon pressure used was 2.5 to 3 atm. The

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L 17583-63

ACCESSION NR: AP3005226

quantity of Pu sup 240 and Pu sup 242 was determined from their Alpha activity. Thirty-eight and 3/10 fission events per hour were recorded. The half-life of the spontaneous fission of Pu²⁴⁰ was $1.45 \pm 0.02 \times 10^{11}$ years; in the case of Pu²⁴², it was $7.45 \pm 0.17 \times 10^{16}$ years. "In conclusion, the authors express their deep gratitude to N. S. Kazakina for preparation of samples." Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 14Nov62

DATE ACQ: 06Sep63

ENCL: 00

SUB CODE: PH

NO REF SOV: 003

OTHER: 009

Card

2/2

MALKIN, L.Z.; ALKHAZOV, I.D.; KRIVOKHATSKIY, A.S.; PETRZHAK, K.A.;
BELOV, L.M.

Energy distribution of spontaneous fission fragments of Cm²⁴⁴.
Atom. energ. 15 no.3:249-250 S '63. (MIRA 16:10)

(Curium) (Nuclear fission)

MALKIN, L.Z.; ALKHAZOV, I.D.; KRIVOKHATSKIY, A.S.; PETRZHAK, K.A.;
BELOV, L.M.

Spontaneous fission of Cm^{244} with emission of a long-range
 α -particle. Atom. energ. 16 no.2:148-149 / F '64.
(MIRA 17:3)

MALKIN, L.Z.; ALKHAZOV, I.D.; SOKOLOV, A.M.

Unit for preparing thin homogeneous extended radioactive sources.
Radiokhimiia 6 no.2:258-259 '64. (MIRA 17:6)

SHEFER, D.G.; MALKIN, M.E.; NEYGALIKH, M.G.; RAZUMOVSKAYA, A.M.
SHERSHEVER, S.M.; SOSKOVA, A.V.

Medical and prophylactic significance of the use of anticoagulants
in disorders of the brain blood supply. Zhur. nerv. i psikh. 60
no. 6:702-706 '60. (MIRA 13:12)

1. Klinika nervnykh bolezney Sverdlovskogo meditsinskogo
instituta, Institut kurortologii i fizioterapii nervologicheskiye
statsionary Sverdlovskaya.
(BRAIN--BLOOD VESSELS) (ANTICOAGULANTS)

SHEFER, D.G.; MALKIN, M.F. (Sverdlovsk)

Balneological physical therapy in vascular diseases of the brain.
Vop. kur., fizioter. i lech. fiz. kul't. 29 no.4:289-297 J1-Ag
'64. (MIRA 18:9)

S/081/62/000/010/061/085
B168/B180

AUTHORS: Malkin, M. G., Pivovarov, M. M.

TITLE: Dielectric properties of Latnaya clays with additions of titanium dioxide in the 50 - 25,000 kc/s range

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 10, 1962, 412, abstract 10K186 (Tr. Voronezhsk. un-ta, v. 55, 1961, 87 - 94)

TEXT: Investigation established that additions of TiO_2 reduce the sintering temperature of semiacid Latnaya clay to $1320^{\circ}C$. By varying the additions of TiO_2 it is possible to produce ceramics with appreciable permittivity (58.8), which falls as the frequency increases. The dielectric loss angle diminishes with small additions accompanied by an increase in frequency. [Abstracter's note: Complete translation.]

Card 1/1

SA

319. Heat Conduction in a Medium Composed of Several Layers. N. Malkin. *Comptes Rendus (Akademy) de l'Acad. des Sciences, U.S.S.R.* 20: 3-3, pp. 109-111, 1938. In French.—The equation of thermal conduction is taken in its vectorial form and is applied to a medium consisting of several layers defined by a family of surfaces which can be designated by a constant. The temperature is taken as a function of this constant and the heat transfer is worked out for generalised coordinates. The results are first obtained for each individual layer and then these are combined subject to certain boundary conditions. The solution is obtained in such a form that existing tables can be used for its evaluation. A large number of references is given together with a short discussion of some of the papers.

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J

ASB, 55A METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	00
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MALKIN, N.

"Derivation of the Somigliana-Clairaut formulae with the aid of curvilinear co-ordinates," Astron. Zhur. 16, No. 1, 1939.

Report U-1518, 23 Oct. 1951.

PAIKIN, N.

"Determination of the figure of a geoid on the basis of observations of gravity", Astron. Zhur. 16, No. 1, 1939.

Report U-1518, 23 Oct. 1951.

MALKIN, N.

"Conditions for use of Stokes' Formula in Determining the Earth Figure from Observations on Gravity,"

SO: Dok. AN, 35, No. 1, 1942. c1942-.

MALKIN, N.

Central Institute of Prognosis, (-1945-)

"On the Transformation of Air Masses Under the Influence of an Underlying Surface."

Iz. Ak. Nauk SSSR, Ser. Geograf. i Geofiz., No 2, 1945.

5189. BALRING HYDROGEN PRESSURE FOR CYCLING
TURBOGENERATORS AND SYNCHRONOUS CONDENSERS.
L.V. Bresil'nikov, M.I. Melnik and P.V. Korolkin.
Mosc., Statist. 1967, no. 6, 44-7. In Russian.

The sealing installed in Russian turbogenerators "with cylindrical clearance". If carefully executed, will ensure reliable operation of these machines at 0.5 atm hydrogen gauge pressure. In this case the daily leakage of hydrogen is increased 2-4 times in relation to the leakage during operation at 0.05 atm gauge pressure. Tests show that with increase of hydrogen pressure from 1.05 to 1.5 atm abs. the rotor current can be increased by 6-8%. Heating of rotor windings is lessened.

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MALKIN, N.I., inzh.

Prevention of the shorting of the winding of the rotor of the T77-
100-2 generator with the hull using a burning technique. Energetik
L2 no.10:15-16 0 '64. (MIRA 17:11)

MALKIN, V. R.

Malkin, N. R. "Determination of the Thickness of a Layer of Homogeneous Material Covering a Sphere, or a Surface, on the Basis of its Given Potential (Solution of the Inverse Gravimetric Problem)" *Trudy Fiziko-Matematicheskogo Instituta, Leningrad-Moscow*, vol. 2, No. 4, 1932, pp. 17-26.

MALIN, N. A.

Malkin, N. R. "Integrators of Gravity Applied to a Relief of Disturbing Masses Expressed in Contours." Doklady Akad. Nauk S.S.S.R., Leningrad-Moscow, Series A, No. 13, 1932, pp. 333-337.

MALKIN, H. R.

Melkin, H. R. "Concerning Helmholtz's Formula and the Hypothesis of Isotropy." Doklady Akad. Nauk S.S.S.R., Leningrad-Moscow, vol. 21, No. 6, 1938, pp. 280-282.

....., .. .
Akimov, M. I. and Malkin, N. R.- "The movement of a physical point in a given power field along a spiral on a rough surface," Zapiski Leningr. gosyuznata, Vol. XV XVI, 1949, p. 141-47.

SO: U-5240, 17, Dec. 53, (Letopis 'Zhurnal 'nykh Statey, No. 23, 1953).

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MALEIN, N.R., starshiy nauchnyy sotrudnik

Determination of the physical surface of the earth without
reduction and condensation. Trudy TSNIIGAIK no.68:64-69 '49.
(MIRA 10:12)
(Earth--Surface)

MAL'KIN, N. R.

MALKIN, N.R., starshiy nauchnyy sotrudnik

Calculation of the deflection of the vertical on the basis
of gravity anomalies on mountains. Trudy TSNIIGAIK no.68:69-74
'49. (MIRA 10:12)

(Gravity--Measurement)

MALKIN, N. R.

Influence of marine transgressions and straits on the Quaternary
glaciations of Europe. Analele geol geogr 15 no.4:95-111 O-D '61.

(Europe—Geology, Stratigraphic)
(Glacial epoch)

11(1)

PHASE I BOOK EXPLOITATION

SOV/2429

Malkin, O.A., and Yu. M. Trushin

Termomagnitnyy indikator kisloroda dlya ekspress-analiza produktov sgoraniya (Thermomagnetic Oxygen Indicator for Rapid Analysis of Combustion Products) Moscow, Oborongiz, 1958. 17 p. 2,200 copies printed.

Ed. of Publishing House: M.S. Anikina; Tech. Ed.: V.P. Rozhin; Managing Ed.: A.S. Zaymovskaya, Engineer.

PURPOSE: This book is intended for scientists and engineers studying combustion processes in jet motors and determining the percentage of oxygen content in the air and other gases.

COVERAGE: The book discusses attempts to devise an instrument which will permit the direct determination of the oxygen content in the combustion products of mixtures of hydrocarbons with air. The instrument devised has a time lag of 0.6 seconds and is functional under normal conditions and at pressures up to 0.3 atm. The results of stand tests are also given. The working principle of the instrument utilizes the coefficient of combustion
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Thermomagnetic Oxygen (Cont.)

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efficiency (η_z), which is proportional to the amount of oxygen consumed during combustion. The authors thank D.I. Ageykin for consultation on making the instrument. There are 10 references: 5 Soviet and 5 English.

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