

LEVIN, G.G.

The problem of plant individuality. Bot.shur. 46 no.3:432-447  
Mr '61 (MIRA 14:3)

1. Botanicheskiy institut imeni V.L. Komarova AN SSSR, Leningrad.  
(Botany)

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000929520011-2

LEVIN, G. G.

Individuality in plants. Analele biol 15 no.6:55-79 I-B '61.

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000929520011-2"

LEVIN, G.G.

Plant life cycles, their relations and evolution. Bot. zhur. 48  
no.7:1039-1050 Jl '63. (MIRA 16:9)

|Botanicheskiy institut imeni V.L.Komarova AN SSSR, Leningrad.  
(Ontogeny(Botany))

LEVIN, G.G.

Individuality and life cycles of plants. Bot. zhur. 49  
no.2:272-280 F '64. (MIRA 17:6)

1. Botanicheskiy institut imeni V.L. Komarova, Akademii  
nauk SSSR, Leningrad.

BEL'SKIY, B.N. [deceased]; BUR'YANOV, V.F.; VASIL'IEV, Ye.P.; VITKINA, N.I.:  
GALLAY, Ya.S.; LEVIN, G.I.; MATVEYEV, Yu.M.; CHILYUSTKIN, A.B.;  
ROKOTIAN, Ye.S., red.; ISTOMIN, A.B., red.; GOUZIN, T.I., red.;  
NEPOMNIASHCHIY, N.I., red. izd-va; KARASHEV, A.I., tekhn. red.

[Ferrous metallurgy in capitalistic countries] Chernaya metallurgiya  
kapitalisticheskikh stran. Pt.4. [Rolling mill production] Prokatnoe  
i trubnoe proizvodstvo. Bel'skiy, B.N. and others. Moskva, Gos.  
nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii.  
1958. 627 p. (MIRA 11:7)

1. Moscow. TSentral'nyy nauchno-issledovatel'skiy institut chernoy  
metallurgii.  
(Forging) (Rolling (Metalwork)) (Pipe, Steel)

SOV/118-58-1-13/16

AUTHOR: Levin, G.I., Candidate of Economic Sciences

TITLE: On the Methods of Basing the Economic Reasons in Applying New Machines (O metodakh ekonomicheskogo obosnovaniya pri-meneniya novykh mashin)

PERIODICAL: Mekhanizatsiya trudoyemkikh i tyazhelykh rabot, 1958, Nr 1, pp 41-44 (USSR)

ABSTRACT: The author reviewing an article by Professor G.A. Shaumyan in this periodical (1958, Nr 7), draws attention to several mistakes and criticises the article. He states that the application of the repayment principle with regard to capital investments limits the possibilities of introducing the highest techniques in the socialist economy. Secondly the repayment formula leads to the dissipation of capital investments.

There are 1 table and 1 Soviet reference.

1. Machines--Economic aspects    2. Machines--Costs    3. Social science

Card 1/1

SOKOLOV, B.M., B.M., prof., doktor ekon.nauk, otd.red.; LEVIN, G.I., kand. ekon.nauk, red.; VAYNSHTEIN, B.S., red.; BIRMAN, I.Ya., red.

[Problems in the economic effectiveness of capital investments and of new techniques in building] Voprosy ekonomiceskoi effektivnosti kapital'nykh vlozhenii i novoi tekhniki v stroitel'stve. Moskva, Gos.isd-vo lit-ry po stroit., arkhit. i stroit.materialam, 1959. 252 p. (MIRA 12:5)

1. Akademiya stroitel'stva i arkhitektury. Institut ekonomiki stroitel'stva.

(Construction industry--Finance)

POLOTSKIY, I.G. [Pelets'kyi, I.H.]; KHODOV, Z.L.; LEVIN, G.I. [Levin, H.I.]

Effect of oxygen impurities and alloying additions on the elastic properties and internal friction of chromium [with summary in English]. Ukr. fiz. zhur. 4 no.1:116-121 Ja-F '59. (MIRA 12:6)

1. Institut metallofiziki AN USSR.  
... (Chromium alloys) (Oxygen)

POLOTSKIY, I.G.; LEVIN, G.I.

Mechanism of the effect of ultrasonic waves on the crystallization process. Sbor. nauch. rab. Inst. metallofiz. AN URSR no.10:160-167 '59. (MIRA 13:9)

(Crystallization) (Ultrasonic waves)

LEVIN, G.I., kand.ekon.nauk; SOKOLOV, B.M., doktor ekon.nauk, prof.,  
nauchnyy red.; GLAZUNOVA, Z.M., red.izd-va; NAJMOVA, G.D.,  
tekhn.red.

[Determining specific capital investments in industrial  
construction] Opredelenie udel'nykh kapital'nykh vlozhenii  
v promyschlennom stroitel'stve; nauchnoe soobshchenie. Moskva,  
Gos.izd-vo lit-ry po stroit., arkhit. i stroit.materialam,  
1961, 45 p.  
(Construction industry—Finance) (MIRA 15:4)

LEVIN, O.I. (Kiyev); POLOTSKIY, I.G. (Kiyev)

Effect of ultrasonic waves on the formation of the primary  
crystallization structure. Izv. AN. SSSR. Otd. tekhn. nauk.  
Met. i topl. no.3:167-169 My-Je '61. (KIRA 14:7)  
(Crystallization) (Ultrasonic waves)

POLOTSKIY, I.G.; LEVIN, G.I.

Effect of ultrasonic waves on the crystallization of supercooled  
melts: Sbor. nauch. rab. Inst. metallofiz. AN URSR no.13:177-180  
'61. (MIRA 14:12)

(Ultrasonic waves)  
(Supercooling)

I. 19747-63 EWP(k)/EWT(l)/EWP(q)/EWT(m)/BDS/EWP(B) AF:TC/ASD/ESD-3/

IJP(C) PI-4 JD

ACCESSION NR: AT3001937

S/2912/62/000/000/0372/0379

213

AUTHORS: Polotskiy, I. G.; Levin, G. I.

TITLE: The action of ultrasound on the formation of the structure of primary crystallization

SOURCE: Kristallizatsiya i fazovyye perekhody. Minsk, Izd-vo AN BSSR, 1962, 372-379

TOPIC TAGS: crystal, crystallization, crystallography, ultrasound, ultrasonic, nucleation, center, nucleus, rate of growth, eutectic, salol, naphthalene, camphor, supercooling, front, friction, cavitation, bubble

ABSTRACT: The paper describes experimentation intended to study the effect of ultrasound (US) on the process of crystallization of alloys and, more specifically, on the formation of the primary-crystallization structure. The experimentation employed transparent substances with a low rate of crystallization to facilitate the photography of separate stages of the crystallization process under a microscope. Thus, salol and the naphthalene-camphor system were tested in eutectic crystallization. A small chamber containing the fusion was placed on the table of a microscope. The bottom of the chamber was formed by a plane-parallel polished glass

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L 19747-63

ACCESSION NR: AT3001937

plate to permit microscopic observation of the crystallization of the fusion. A 22-kcps vibrator with a half-wave concentrator produced irradiating vibrations. An RK-50 camera took 24 to 2,000 frames/sec. Changes in temperature (T) were accomplished by two ultrathermostats. The salol had previously been deactivated by heating to 70°C, holding for 15 min, and supercooling to 10°. The test results show that exposure to US changes the crystallization of salol from a columnar form to a formation of extremely small equiaxial microcrystals. The naphthalene-camphor eutectic is most significantly affected by the US through the action of the friction force between the fusion and the precipitating acicular crystals, which evoke their breakup. It is established that, under the action of US, intensive crystallization of the fusion occurs most intensely in the vicinity of the US-vibration source, and that the region of crystallization, subsequently, expands into the fusion. The tests show that cavitation bubbles, which perform stationary oscillations, evoke dispersion of crystals on the crystal-fusion boundary and, thereby, appear to be one of the substantial elements of the acceleration of the crystallization process and the grain-communition process in a US field. Orig. art. has 4 figs.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 16Apr63

ENCL: 00

SUB CODE: CH, PH, MA

NO REF SOV: 018

OTHER: 001

Cord 2/2

POLOTSKIY, I.G.; LEVIN, G.I.

Effect of ultrasound on structure formation in primary crystallization.  
Kristallografiia 7 no.4:645-647 Jl-Ag '62. (MIRA 15:11)

1. Institut metallofiziki AN UkrSSR.  
(Ultrasonic waves--Industrial applications)  
(Crystallization)

ACCESSION NR: AT4042841

S/2601/64/000/018/0183/0186

AUTHOR: Levin, G. I., Kaverina, S. N.TITLE: Coercive force and the "induced" structure of permalloy coatings

SOURCE: AN UkrSSR. Institut metallofiziki. Sbornik nauchnykh rabot, no. 18, 1964. Voprosy fiziki metallov i metallovedeniya (Problems in the physics of metals and physical metallurgy), 183-186

TOPIC TAGS: permalloy coating, coating coercive force, replica analysis method, sublayer surface roughness, coating structure effect, coercive force structural dependence, induced coating structure

ABSTRACT: Permalloy coatings (60 - 90 gauge) were vacuum deposited from Fe-Ni with 82.5% Ni on aluminum sublayers (sublayer temperature 220-250°C) with surface irregularities of 20-500 gauge to establish the quantitative dependence of the coating's coercive force on the degree of irregularity in the sublayer surface. The replica analysis method showed that coatings up to 90 gauge reflect the relief of the sublayer. Measurements showed that

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L33334-65 EWA(c)/EWT(m)/EWP(b)/T/EWP(t) IJP(c) JD  
ACCESSION NR: AT5005119

S/2601/64/000/019/0132/0135

AUTHOR: Kaverina, S. N.; Levin, G. I.TITLE: Electron microscope observation of the domain structure in thin iron films

SOURCE: AN UkrSSR. Institut metallofiziki. Sbornik nauchnykh trudov, no. 19, 1964. Voprosy fiziki metallov i metallovedeniya (Problems in the physics of metals and physical metallurgy), 132-135

TOPIC TAGS: thin ferromagnetic film, domain structure, electron microscopy, electron microscope/ Tesla-242 electron microscope

ABSTRACT: Observation of the domain structure in thin ferromagnetic films with the aid of the electron microscope is based on deflection of electrons by Lorentz forces as they pass through the film. As distinct from all other methods for studying magnetic structure, this method makes it possible to determine the axis of magnetic susceptibility in any section within the domain and to obtain a quantitative description of the magnetic distribution. The "Tesla-242" electron microscope was used to observe the magnetic structure of thin magnetic films and magnetization processes. The shadow method proposed by Hale, Fuller and Rubinstein (M. Hale,

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ACCESSION NR: AT5005119

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H. Fuller, H. Rubinstein, J. App. Phys., 1959, No 5, 789) was used with projection and objective lenses. The method is based on defocusing the optical system, a plane being formed which lies directly beyond the specimen. The intensity distribution in this plane depends on the intensity of magnetization in the film. Due to the high or low intensity caused by the difference in deflection of electrons, the boundaries of differently magnetized sections of the film are separated in the form of light and dark lines. A high degree of defocusing gives excellent sensitivity to small changes in magnetic intensity and the subdomain structure along with the basic domain structure can be observed. A low degree of defocusing permits observation of the basic domain boundaries where the resolving power of the microscope is high, thus making it possible to measure the thickness of the domain boundaries. In this case, the crystal structure is distinguishable, although not sharp, because of the defocusing of the objective. The image of the crystal structure becomes clearer as the focal plane is approached. Iron films with a thickness of 50  $\mu$ m were studied. The films were sprayed on a crystal of NaCl and separated by dissolving the crystal in water. Electron photomicrographs of the results are given.

Orig. art. has: 3 figures.

ASSOCIATION: none

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000929520011-2"

Card 2/3

L 33334-65

ACCESSION NR: AT5005119

SUBMITTED: 04Jul63

ENCL: 00

SUB CODE: SS

NO REF Sov: 000

OTHER: 005

Card 3/3

APPROVED FOR RELEASE: 08/23/2000 - CIA-RDP86-00513R000929520011-2"

L 50963-65 EWT(1)/EPA(s)-2/EWT(m)/EWP(1)/EWA(d)/T/EWP(t)/EEC(b)-2/EWP(s)/EWP(b)  
ACCESSION NR: AP5011431 Pt-7/P1-4 IJP(c) JD/30 UR/0048/65/029/004/0560/0567  
*32*  
*51*  
*6*

AUTHOR: Lesnik, A.G.; Levin, G.I.

TITLE: Measurement of the magnetic characteristics of Pernalloy films by the resonance absorption method /Report, Second All-Union Symposium on the Physics of Thin Ferromagnetic Films held in Irkutsk, 10-15 July 1964/ *III*

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 4, 1965, 560-567

TOPIC TAGS: ferromagnetic thin film, permalloy, magnetic anisotropy, magnetic property, resonance absorption *1* *2* *3*

ABSTRACT: It has been shown by T.D.Rossing (J. Appl. Phys. 34, Part 2, 995, 1963) that the width of the resonance absorption curve  $\Delta H$  of a ferromagnetic film is a linear function of the excitation field frequency, i.e., that  $\Delta H = \Delta H_0 + \beta\omega$ , where  $\omega$  is the excitation frequency,  $\beta$  is a frequency independent parameter and  $\Delta H_0$  is the so-called residual width, which depends on inhomogeneities of the film properties, specifically on the dispersion of the anisotropy field in magnitude and angle. In the megacycle frequency range (and lower) the relaxation width should be small compared with the residual width. This offers the possibility of employing

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L 50963-65

ACCESSION NR: AP5011431

resonance absorption in this region to obtain data on the properties of ferromagnetic films. The purposes of the present work, accordingly, were to analyze this possibility and to test it in practice. It is assumed that each microregion with a specific magnitude and direction of  $H_k$  participates independently in the resonance. It is also assumed that in experiments one can distinguish between the contributions to the residual line width due to different factors, namely, absorption by microdomains in which the magnetization vectors are in a metastable position, fragmentation of the film into domains, and the effect of pores, nonmagnetic inclusions and structural defects. The equipment for the experimental part of the work was similar to that described by T.E.Hasty and L.J.Bondreux (J. Appl. Phys., 32, 1807, 1961) and consisted essentially of an rf oscillator and a coil to provide the magnetizing field. Some  $H_k$  distribution curves are reproduced. The shifting of the curves under the influence of various factors is discussed. It is concluded that provided certain conditions are fulfilled the resonance absorption technique can be used to determine the mean value of the anisotropy field, the dispersion of  $H_k$  in magnitude and direction, and the value of the coercive force. The requisite conditions are a sufficiently small amplitude of the exciting field and - for obtaining the dispersion curves - a magnetizing field weaker than the mean anisotropy.

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L 50963-65

ACCESSION NR: AP8011431

field. At frequencies of the order of 1 Mc (and lower) no distortion of the dispersion curves due to resonance absorption by microdomains with metastable orientation of the magnetization was observed. Orig. art. has: 11 formulas, 6 figures, and 2 tables.

ASSOCIATION: Institut metallofiziki Akademii nauk UkrSSR (Institute of Metal Physics, Academy of Sciences UkrSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: EM, EC

NR REF Sov: 000

OTHER: 006

sh  
Card 3/3

L 50954-65 EWT(1)/EPA(s)-2/EWT(m)/EWP(w)/EWP(1)/EWA(d)/T/EWP(t)/EEC(b)-2/EWP(z)/  
EWP(b) Pt-7/P1-4 IJP(c) JD/3G

ACCESSION NR: AP5011437

UR/0048/65/029/004/0591/0598  
*53  
52  
B*

AUTHOR: Lesnik, A.G.; Levin, G.I.; Kaverina, S.N.

TITLE: Influence of irregularities of the substrate surface on the coercive force of Permalloy films Report, Second All-Union Symposium on the Physics of Thin Ferromagnetic Films held in Irkutsk, 10-15 July 1964

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 4, 1965, 591-596

TOPIC TAGS: ferromagnetic thin film, magnetic anisotropy, magnetic property, permalloy

ABSTRACT: It is a familiar fact that irregularities of the substrate surface (roughness, etc.) affect the properties of films deposited on such substrates, but despite the obvious importance of this factor as regards fabrication of films with consistent properties, the nature of the effect and its regularities have not been adequately studied. Accordingly, the purpose of the present work was to clarify the mechanism of the influence of substrate surface irregularities on one property of Permalloy films, namely, the coercive force. The films of 82% Ni + 18% Fe alloy were deposited in a vacuum of about  $10^{-5}$  mm Hg onto glass (microscopic cover glasses) substrates heated to  $650^{\circ}$  in the presence of a 100 Oe field. The deposition rate

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L 50954-65

ACCESSION NR: AP5011437

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was 30-40 Å/sec. The final films were all 800 to 1000 Å thick. Thus, the only varies parameter was the roughness of the glass substrate surface; this was varied in the range of irregularities from 200 to 2000 Å by preliminary coating of the glass with a film of silicon monoxide or aluminum several thousand angstroms thick. The degree of roughness was determined from the size of the film crystallites, gauged from replica electron micrographs. It was found that the film structure (crystallite size) is consistent with the degree of roughness. Films deposited on relatively smooth substrates (200-500 Å irregularities) had a relatively low coercive force, pronounced anisotropy and a more or less rectangular hysteresis loop. With increase of the roughness the coercive force increased, the anisotropy was smoothed out and the loop deviated from rectangularity. The experimental results are presented in figures. An attempt is made to explain the roughness dependence of the coercive force on the basis of theoretical considerations. The inferred regularities and relationships are qualitatively consistent with the experimental results. The deduction is that the irregularities affect or determine the size of the domains, and this, as in the case of variation in film thickness, determines the coercive force, anisotropy, and other magnetic properties. Orig. art. has: 11 formulas and 3 figures.

Card 2/3

L 50954-65

ACCESSION NR: AP5011437

ASSOCIATION: Institut metallofiziki Akademii nauk UkrSSR (Institute of Metal Physics,  
Academy of Sciences, UkrSSR)

SUBMITTED: 00

ENCL: 00

SUB CODE: EM

NR REF Sov: 000

OTHER: 003

Card 3/3

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000929520011-2

KAVERINA, S.N.; LEVIN, G.I.

Electron microscopy of the domain structure of thin iron films.  
Sbor.nauch.trud. Inst. metallofiz. AN URSR no.19:132-135 '64.  
(MIRA 18:5)

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000929520011-2"

LESNIK, A.G.; LEVIN, G.I.; KAVERINA, S.N.

Effect of unevenness of a backing surface on the coercive force  
of Permalloy films. Izv. AN SSSR. Ser. fiz. 29 no.4:591-596 Ap  
'65. (MIRA 18:5)

1. Institut metallofiziki AN UkrSSR.

L 50975-65 EWT(1)/EPA(s)-2/EWT(m)/EWP(1)/EWA(d)/T/EWP(t)/EWP(z)/EWP(e) Pt-7/P1-4  
IJP(c) JD/30

ACCESSION NR: AP5011448

UR/0048/65/029/004/0639/0641

AUTHOR: Levin, G. I.

TITLE: Use of electron-beam heating for preparation of metal films /Report,  
Second All-Union Symposium on the Physics of Thin Ferromagnetic Films held in  
Ukutsk 10-15 July 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 4, 1965, 639-641

TOPIC TAGS: ferromagnetic thin film, thin film, permalloy, electron gun,  
electron beam heating

ABSTRACT: The advantages of electron-beam heating of metals are obvious; use of this procedure in conjunction with water-cooled crucibles for vacuum evaporation of metals for preparation of thin films insures a high degree of purity of the film, etc. The paper briefly describes an electron gun developed at the Institute of Metal Physics of the Ukrainian SSR Academy of Sciences that has been successfully used for the purpose of preparing Permalloy and other thin films. Photographs of the gun and of the chamber in which it is used are reproduced; another figure shows the gun supply circuit. A table lists the characteristics of a

Cord 1/2

50576-45

ACCESSION NR: AP5011448

series of Fe-Ni films deposited on glass substrates in a magnetic field, with the heating provided by the described electron gun. The deposition rate was about 60 Å per sec. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Institut metallofiziki Akademii nauk USSR (Institute of Metal Physics, Academy of Sciences, USSR)

SUBMITTED: 60

ENCL: 00

SUB CODE: EC

NR REF Sov: 000

OTHER: 002

Card 2/2

L 40260-66 SNT(m)/T DJ

ACC NR: AP6014151

(A)

SOURCE CODE: UR/0114/65/000/012/0003/0006

52  
51  
SAUTHOR: Ivanov, V. N. (Doctor of technical sciences, Professor); Ustinov, N. P.  
(Candidate of technical sciences, Docent); Levin, G. I. (Engineer)

ORG: None

TITLE: The effect which sleeve deformation in pump elements has on durability and work capacity

SOURCE: Energomashinostroyeniye, no. 12, 1965, 3-6

TOPIC TAGS: material deformation, friction, engine fuel pump, durability, hydraulic device, valve, diesel engine

ABSTRACT: Experimental data are given to show the effect which sleeve deformation in pump elements has on their durability and work capacity. Recommendations are made for reducing deformation of piston pairs during operation. Tests were carried out at various institutes to determine the wear of precision surfaces of piston pairs used in diesel engine fuel pumps. Other tests showed that sleeve and piston failure do not occur uniformly. Experimental studies show that the precision surface of the sleeve is strongly deformed when the space above the piston is sealed with a pressure valve. The wear curves set up before operation coincide with the deformation curves of the precision sleeve surface after assembly. Changes in the shape of the precision

Card 1/2

UDC: 621.43.03.621.436.004.17

REF ID: A7 KMP(1)/KMP(m)/KMP(t)/KPI IJP(c) JD

ACC NR: A7C029131

SOURCE CODE: UR/0048/66/030/006/1050/1054

AUTHOR: Lesnik, A.G.; Nedostup, V.M.; Lovin, G.I.

CRC: none

TITLE: On the role played by vacancies and dislocated atoms in induced anisotropy  
Report, All-Union Conference on the Physics of Ferro- and Antiferromagnetism held  
2-7 July 1965 in Sverdlovsk

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 6, 1966, 1050-1054

TOPIC TAGS: ferromagnetic film, permalloy, magnetic anisotropy; annealing, lattice defect, kinetic theory

ABSTRACT: The authors have investigated the magnetic anisotropy of approximately 1000 Å thick permalloy films, vacuum deposited at  $3 \times 10^{-5}$  mm Hg from a 17.5Fe-82.5Ni melt at about 40 Å/sec onto heated (20 to 200°) glass substrates and annealed at different temperatures and for different lengths of time in a 100 Oe field. Curves were plotted giving the magnetic anisotropy as a function of duration of anneal for films that were deposited on substrates maintained at a given temperature during deposition and were annealed at a (generally different) given temperature. Two of these curves are presented. The curves had different shapes, depending on the parameters (substrate and annealing temperatures): some rose monotonically with increasing annealing time toward a limiting value of the magnetic anisotropy, some fell monotonically, and

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ACC NR: A86029131

others (including the two presented in the paper) decreased to a minimum and then rose toward the initial value of the anisotropy. It is hypothesized that induced magnetic anisotropy is due mainly to the influence of lattice defects, and data in the literature are adduced in support of this hypothesis. A simple kinetic theory of the magnetic anneal of the films is developed on the assumption that the anisotropy is due to ordered chains of vacancies and that during the anneal the number of ordered vacancies can increase as a result of ordering of initially disordered vacancies and can decrease as a result of annihilation of vacancies with dislocated atoms. The results of this theory were compared with the experimental curves and good agreement was found; it is concluded that ordered vacancies are mainly responsible for the induced magnetic anisotropy in the investigated films. The activation energies for the ordering and annihilation processes were found to be 27 and 18.7 kilocal/gram-atom, respectively. The processes taking place during the anneal were found to take place least rapidly in the films that were deposited on 100° C substrates. The greater rapidity of the anneal processes in films deposited on colder substrates is ascribed to the effect of greater mechanical stresses in those films; the reason for the greater rapidity of the anneal processes in the films deposited on hotter substrates is not understood. The authors expect to investigate in the future the effects of impurities and film deposition rate on the kinetics of magnetic anisotropy induction. Orig. art. has: 9 formulas and 1 figure.

SUB CODE: 20 SUBM DATE: 00 ORIG. REF: 001 OTH REF: 008

Corr.: 1/2 bc

ACC NR: AP7004754

SOURCE CODE: UR/0413/67/000/001/0049/0049

INVENTOR: Lesnik, A. G.; Levin, G. I.

ORG: none

TITLE: Method of producing ferromagnetic films. Class 12, No. 189952  
[announced by the Institute of Metal Physics, AN UkrSSR (Institut  
metallofiziki AN Ukrssr)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1,  
1967, 49

TOPIC TAGS: ferromagnetic film, ~~ferromagnetic film~~, vacuum deposition,  
ferromagnetic material, metal deposition, varnish, heat resistant material

ABSTRACT: This Author Certificate introduces a method of vacuum deposition of ferro-magnetic films in a magnetic field on a substrate precoated with a sublayer. To increase the coercive force of films and facilitate the control of film parameters, the sublayer is made of heat-resistant, organosilicon varnish which is vacuum-heat treated prior to the deposition of ferromagnetic material.

[ND]

SUB CODE: 13,1170/SUBM DATE: 09/09/65/ ATD PRESS: 5117

Card 1/1

UDC: 621.318.132.002.2

BURSHTEYN, Grigoriy Yakovlevich, doktor ekon. nauk; LEVIN, G. I.,  
kand. ekon.nauk, retsensent; PERVUKHIN, A.G., retsensent;  
PROBST, A.Ye., doktor ekon.nauk, retsensent; KHARCHENKO,  
A.K., doktor tekhn. nauk, retsensent; GOLUBYATNIKOVA, G.S.,  
red.izd-va; BOLDYREVA, Z.A., tekhn. red.; MAKSIMOVA, V.V.,  
tekhn. red.

[Capital assets of the coal industry] Osnovnye fondy ugol'-  
noi promyshlennosti. Moskva, Gosgortekhizdat, 1963. 211 p.  
(MIRA 16:8)  
(Coal mines and mining—Finance)

LEVIN, G.I., inzh.

Automatic regulation of the cooling of diesel locomotive engines  
by means of a fan with turning blades. Trudy MIIT no.151-75-  
'62. (MIRA 16:2)

(Diesel engines—Cooling) (Automatic control)

LEVIN, Grigoriy Il'ich; KHACHATUROV, T.S., otv. red.; MAZOVER,  
Ya.A., red. izd-va; UL'YANOVA, O., tekhn. red.

[Specific capital investments in industrial construction]  
Udel'nye kapital'nye vlozheniya v promyshlennom stroitel'stve.  
Moskva, Izd-vo Akad.nauk SSSR, 1963. 277 p. (MIRA 16:7)

1. Chlen-korrespondent AN SSSR (for Khachaturov).  
(Capital investments)  
(Construction industry--Finance)

LEVIN, G.I., inzh.

New hydraulic transmissions for diesel locomotives. Elek. i  
tepl.tiaga. 4 no. 6:46-48 Je '60. (MIRA 13:8)  
(Railroads--Electrification)

S/120/62/000/006/019/029  
E140/E435

AUTHORS: Levin, G.L., Markov, A.A., Plakhov, A.G., Smolkin, G.Ye.  
Sofiyev, G.N., Stepanov, G.N., Shapkin, V.V.

TITLE: Line and frame scanning generator for electron-optical  
image intensifiers

PERIODICAL: Pribory i tekhnika eksperimenta, no.6, 1962, 100-106

TEXT: The authors discuss the use of image-intensifier tubes for  
the spectroscopic and space-geometric study of pulsed gas  
discharges in plasma studies (controlled thermonuclear synthesis).  
The system permits spectral analysis of dynamic processes with  
time resolution in the range  $5 \times 10^{-8}$  to  $1.25 \times 10^{-5}$  sec.  
A five-stage intensifier is used. Free-running and triggered  
versions are used, the latter to reduce background noise where  
necessary. There are 6 figures.

ASSOCIATION: Institut atomnoy energii AN SSSR  
(Institute of Atomic Energy AS USSR)

SUBMITTED: January 25, 1962  
Card 1/1

APPROVED FOR RELEASE: 08/23/2000 CIA-RDP86-00513R000929520011-2"

ACCESSION NR: AR4032152

8/0058/64/000/002/A016/A016

SOURCE: Ref. zh. Fiz., Abs. 2A173

AUTHOR: Levin, G. L.

TITLE: Multichannel universal storage tube memory for two and  
three dimensional pulse height and time analyzers of pulses

CITED SOURCE: Tr. 5-y Nauchno-tekhn. konferentsii po yadern.  
radioelektronike. T. 2. Ch. 1. M., Gosatomizdat, 1963, 80-86

TOPIC TAGS: memory, universal memory, storage tube memory, multi-  
channel memory, two dimensional analysis, three dimensional analy-  
sis, pulse height analyzer, time analyzer

TRANSLATION: A block diagram of a universal memory unit using an  
electrostatic storage tube is presented and its operation briefly  
described. The memory unit consists of three blocks: control, de-

ACCESSION NR: AR4032152

flection, and tubes. The control block contains the illumination, writing, and resetting generators, the regeneration multivibrator, and the program unit. The deflection block includes the address and number registers, which generate the staircase voltage applied to the deflecting plates of the storage tube (128 steps horizontally and 128 vertically). The summation in the memory is carried out in a binary system sequentially, and the bit positions are scanned until a position in which "0" is written is reached. "1" is then written in that position and the summation is terminated. Subtraction is carried analogously, with "0" written in place of the first "1". Possibility for converting from binary to binary-decimal computation and recording is provided. The number of the memory channels is 1024, 512, or 256. The capacity of each channel is  $2^{16}$  in the case of the binary system and  $10^4$  in the case of the binary-decimal system. The time necessary to record one pulse is variable from 10 to 160  $\mu$ sec, the average being 20  $\mu$ sec. Long-duration storage of the information is realized in the memory by regeneration with simul-

Card 2/3

ACCESSION NR: AR4032152

taneous display of the accumulated information on the screen of an oscilloscope tube. The memory can operate in the modes of addition, subtraction, display, information readout, and two control modes. The information readout is on a VPU-16 rotor-type printer, an automatic recorder, or magnetic tape. M. Vishnevskiy.

DATE ACQ: 31Mar64

SUB CODE: SD, CP

ENCL: 00

Cord 3/3

1. LEVIN, G. L.
2. USSR (600)
4. Machine Tools
7. Examples of modification and modernization of equipment. Stan i instr. No. 1 1953.
  
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

LAWRENCE, G.L.

Marking precise graduations on cylindrical part surfaces.  
Stan. i instr. 25 no.7:31-33 Jl '54. (MLRA 7:8)  
(Calibration)

AUTHOR: Levin, G.I., Engineer SOV/122-58-6-21/37  
TITLE: The Causes of Crack Formation in Grinding and Methods of Their Elimination (Prichiny pojavleniya treshchin pri shlifovanii i sposoby ikh ustraneniya)  
PERIODICAL: Vestnik Mashinostroyeniya, 1958, Nr 6, pp 55 - 57 (USSR)  
ABSTRACT: An investigation into the causes of cracks in thread plug gauges and in slip gauges is reported. It was found that the main condition of the metal prone to crack formation is an excessive percentage of residual austenite. This can be reduced by a higher tempering temperature. Finally, a temperature of 230°C was chosen followed by a second tempering process for stress-relieving purposes. Residual austenite can also be reduced by removing the plugs from the oil bath soon after quenching and completing the cooling in air or running water. It was found that Lingner thread grinding machines which permit the use of a calcinated soda solution (with an addition of 0.5% of sodium nitrate) as a coolant ensure a minimum of cracks. Excello thread grinders suffer from a rapid deterioration of the thread crests in the grinding wheel when a water coolant is used.

Card 1/2

SOV/122-58-6-21/37

The Causes of Crack Formation in Grinding and Methods of Their  
Elimination

The cooling capacity of "Sulfofresol" is inadequate to prevent dangerous heating. The crack formation in slip gauges was prevented after replacing furnace heating before quenching by salt-bath heating (40-48% sodium chloride, 46-48% calcinated soda and 3-4% sodium cyanide). There are 2 figures.

1. Gages--Production factors    2. Metals--Fracture Properties    3. Metals--Temperature  
Card 2/2

TREGUBOVA, Kh.L.; LEVIN, G.L.; ADO, M.A. (Moskva)

Primary amyloidosis with predominant lesions of the tongue & heart.  
Klin.med. 36 no.2:101-104 F '58. (MIRA 11:4)

1. Iz vtoroy kafedry terapii TSentral'nogo instituta usovershenstvovaniya vrachey (zav. - prof. B.Ye.Votchal) i patologoanatomiceskogo otdeleniya Bol'nitsy imeni S.P.Botkina (glavnnyy vrach - prof. A.N. Shabanov)

(AMYLOIDOSIS, pathol.  
heart & tongue lesions in primary dis. (Rus))

(HEART, pathol.  
in primary amyloidosis (Rus))

(TONGUE, pathol.  
same)

LEVIN, G.L., dissent.

Gull bladder disease. Med.sestra 18 no.7:27-33 J1 '59.  
(MIRA 12:10)

1. Iz bol'nitsy imeni S.P.Botkina, Moskva.  
(CALCULI, BILIARY)

LEVIN, G.L.

Current problems in the treatment of diseases of the stomach. Klin.  
med. 38 no. 4:147-152 Ap '60. (MIRA 14:1)  
(STOMACH—DISEASES)

LEVIN, G.L., kand.med.nauk; ABAYEV, A.I. (Moskva)

Use of the neuroblocking preparations gastrapon and gastrobamate. Klin.med. no.7:53-56 '61. (MIRA 14:8)

1. Is 2-y kafedry terapii (zav. - prof. B.Ye. Votchal) TSentral'-nogo instituta usovershenstvovaniya vrachey (dir. M.D. Kovrigina) na base Klinicheskoy ordena Lenina bol'nitsy imeni S.P. Botkina (glavnnyy vrach - prof. A.N. Shabanov).  
(PEPTIC ULCER) (AUTONOMIC DRUGS)

LEVIN, G.L., dotsent

Role of the nurse in the care of patients with myocardial infarct.  
Med. sestra 20 no.4:41-44 Ap '61. (MIRA 14:5)

1. Iz Klinichekoy ordena Lenina bol'nitsy imeni S.P.Botkina, Moskva.  
(HEART—INFARCTION) (NURSES AND NURSING)

LEVIN, G.L., dotsent

Role of the nurse in caring for the peptic ulcer patient. Med.  
sestra 20 no.10:43-47 0 '61. (MIRA 14:12)

1. Iz klinicheskoy ordena Lenina bol'nitsy imeni S.P.Botkina, Moskva.  
(PEPTIC ULCER) (NURSES AND NURSING)

LEVIN, G.L., dotsent; BELOUSOV, A.S., kand.med.nauk (Moskva)

Effect of tropacain on the secretory and evacuation activities  
of the stomach in patients with peptic ulcer. Klin.med. 39  
no.2:56-58 P '61. (MIRA 14:3)

1. Is 2-y kafedry terapii (zav. - prof. B.Ye. Votshal) TSentral'-  
nogo instituta usovershenstvovaniya vrachestva na base Klinicheskoy  
bol'nitsy imeni S.P. Botkina.  
(PEPTIC ULCER) (STOMACH) (SPASMOlyTICS)

LEVIN, G.L., dotsent (Moskva)

Chronic gastritis as a nosological form. Vrach. delo no.12:  
124-126 D. '63. (MIRA 17:2)

1. Kafedra terapii II (zav. - prof. B.Ye. Votchal) TSentral'-  
nogo instituta usovershenstvovaniya vrachey.

LEVIN, G.L.; BELOUSOV, A.S. (Moskva)

Electrogastrogram in gastric and duodenal stenosis. Klin. med.  
41 no.7:51-56 J1'63 (MIRA 16:12)

1. Iz 2-y kafedry terapii (zav. - prof. B.Ye. Votchal) TSen-  
tral'nogo instituta usovershenstvovaniya vrachey.

LEVIN, Georgiy L'vovich, dots.; KRAVTSOVA, Ye.F., red.

[Essays on gastric pathology] Ocherki zheludochnoi patologii. Moskva, Meditsina, 1964. 173 p. (MIRA 17:6)

1. TSentral'nyy institut usovershenstvovaniya vrachey (for Levin).

BABICH, G.I., inzh. (Borovichi Novgorodskoy oblasti); LEVIN, G.L., inzh.  
(Borovichi Novgorodskoy oblasti)

Adjustment of the gas control unit of a boiler system. Energetik. 13  
no. 7:11-13 Ju '65. (MIRA 18:8)

LEVIN, G.L., dotsent (Moskva)

What a nurse must know about laboratory analyses. Med.sestra  
21 no.8:43-45 Ag '62. (MIRA 15:9)  
(NURSES AND NURSING)

L 26381-66

ACC NR: AP6007684

SOURCE CODE: UR/0413/66/000/003/0062/0063

3  
BAUTHORS: Levin, G. I.; Malinin, K. B.

ORG: none

TITLE: Drafting device for laying out graphs of intermediate functions according to given graphs of boundary functions. Class 42, No. 178493

SOURCE: Izobreteniya, promyshlennyye obraztay, tovarnyye znaki, no. 3, 1966, 62-63

TOPIC TAGS: plotting board, drafting, engineering drawing

ABSTRACT: This Author Certificate describes a drafting device for laying out graphs of intermediate functions according to given graphs of boundary functions. The device features interlinked guide and scribe pins. For simplification of construction, the guide and scribe pins are joined by a system of rods which jointly make up a planar five-member unit mounted on a variable control line of a drafting table. Two rods are end-fastened in the unit by guide bars on the control line. The third and fourth bars are linked (see Fig. 1) with the free ends of the first two and with their guide bars. The fifth bar is linked with the first and second by adjustable hinges, each of which has a guide pin. The center of the

Card 1/2

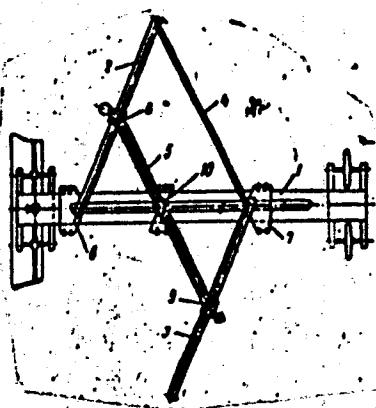
UDC: 744.346

2

L 26381-66

ACC NR: AP6007684

Fig. 1. 1 - control line; 2-5 - arms of pentagon; 6 and 7 - guide bars of the arms; 8 and 9 - adjustable hinges holding the guide pins; 10 - guide bar holding the scribe pin.



scriber pin divides the distance between the centers of the pins of the first and second bars in a constant given ratio. Orig. art. has: 1 figure.

SUB CODE: 14/ SUBM DATE: 10Jan64

Card 2/2 1A

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000929520011-2

LEVIN, G.L.

Methods for calculating control dimensions of gauges. Standartizatsiiia 26 no.7:18-21 Jl '62. (MIRA 15:7)  
(Gauges—Standards)

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000929520011-2"

L 38807-66  
ACC NR: AR6021026

CAT(d)/EXP(1)

IJP(c)

CG/EE

SOURCE CODE: UR/0058/56/000/002/A050/A050

AUTHOR: Levin, G. L.

16C

16U

TITLE: Systems of data readout from the screens of electrostatic storage tubes

SOURCE: Ref zh. Fiz, Abs. 2A410

55  
BREF SOURCE: Tr. 6-y Nauchno-tehn. konferentsii po yadern. radioelektron. T. 2. M.,  
Atomizdat, 1965, 109-119TOPIC TAGS: CATHODE RAY, COMPUTER CIRCUIT,  
~~ELA~~analyzer, computer component, computer storage device, storage tube, data readout/  
~~ELA~~analyzer, LN-8 storage tube

ABSTRACT: Methods of reading the information from cathode ray or electrostatic storage memory tubes are considered: a review and a comparative estimates are presented for various circuits used to separate the write and read signals: RC bridge circuit; circuit used in the type ELA-3 analyzer; circuit for frequency separation of signals; transformer circuit using a cable; transformer circuit with two windings; and transformer circuit with three windings. The requirements imposed on a readout signal amplifier are formulated. Circuits for the LN-8 storage tube are recommended. V. M.  
[Translation of abstract]

SUB CODE: 09

Card 1/1

H2

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000929520011-2

LEVIN, G.M. (Leningrad)

Arctic bramble. Priroda 50 no.6:114-115 Je '61. (MIRA 14:5)  
(Raspberries)

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000929520011-2"

LEVIN, G. M.

LEVIN, G. M., BARYSHNIKOV, V. D., I ABRAMOVICH, A. D.  
36189 Novyy reguljator podachi balansa dlya defibrerov. Bumazh. prom-st', 1949, No. 5  
S. 42-45.

SO: Letopsit Zhrunal'nykh Statey, No. 49, 1949

LEVIN, G.M.  
SA

SA

B64  
L

621.316.728 : 621.34 : 674  
877. Rotary-electrode power regulator for de-  
stressing equipment. V. D. BARTOVICH AND G. M.  
LYASH. From: Engg., No. 5, 7-9 (May, 1939) - R.

三

**Auxiliary.**  
It regulates the power demand on motors (up to 2,000 kW) driving wood-pulping stones by regulating the speed of motors driving endless screws serving and pressing the timber against the stone. It consists of a power measuring circuit and electronic amplifier controlling the self-excitation system of the generator supplying the motor of the timber drive. Use of this generator as a booster simplifies the electronic part of the regulator, which uses standard components.

J. L. LITASZEWICZ

## A&S 21A METALLOGRAPHICAL LITERATURE CLASSIFICATION

**APPROVED FOR RELEASE: 08/23/2000**

CIA-RDP86-00513R000929520011-2"

"APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000929520011-2

LEVIN, G.M. (Leningrad)

Cauliflory in an apple tree. Priroda 53 no.5:101 '64.  
(MIRA 17:5)

APPROVED FOR RELEASE: 08/23/2000

CIA-RDP86-00513R000929520011-2"

LEVIN, G.M.

Some characteristics of the growth of shoots and the  
development of dormant buds of apple trees in south-  
western Turkmenia. Izv. AN Turk. SSR. Ser. biol. nauk  
no.1&80-82 '64. (MIRA 17:9)

1. Turkmenskaya optytnaya stantsiya Vsesoyuznogo instituta  
rasteniyevodstva.

LEVIN, G. M.

G. M. Levin. The influence of the shape of transverse section of boiler pipes on the vapor formation in contours of low pressure. P. 552.

The S. M. Kirov  
Ural Polytechnical Institute  
May 24, 1950

SO: Journal of Technical Physics, Vol. XXI, No. 5, 1951

USSR/Physics - Graph of cooling

FD-3044

Card 1/1      Pub. 153 - 13/23

Author : Levin, G. M ; Malkova, E. M.; Semenova, A. K.

Title : Investigation of the character of graphs of simple cooling of bodies

Periodical : Zhur. tekhn. fiz., 25, February 1955, 270-279

Abstract : The authors state that the problem concerning the character of the breaks in graphs of cooling has not yet been solved conclusively and their causes have not been completely analyzed. The so called simple cooling of a solid is involved in tests of materials for their heat conduction, in determinations of thermal inertia of measuring instruments, in the finding of heat emission coefficient and other investigations carried out by methods of regular heat regime (G. M. Kondrat'yev, Trudy VNIIM, No 4(59), 1947), leading to the construction of the corresponding semilogarithmic graph  $\log\theta = f(t)$ , where  $\theta$  is the difference between the temperature  $u$  at a given point of the body and the temperature  $T$  of the surrounding medium, and  $t$  is the time; this equation becomes the straight line  $\log\theta = mt+B$  after the passage of a certain time after the beginning of simple cooling, when a regularization of the process of the variation of the temperature field occurs. The authors discuss the value of the general angular coefficient  $m$  and the derivative  $N=d(\log\theta)/dt$ . They thank G. M. Kondrat'yev. Six references.

Submitted : June 5, 1953

USSR/Physics - Thermometry

FD-3151

Card 1/1 Pub. 153 - 7/26

Author : Levin, G. M.; Malkova, E. M.; Semenova, A. K.

Title : Investigating the methods for the construction of characteristic curves of thermal inertia

Periodical : Zhur. tekhn. fiz., 25, No 9 (November), 1955, 2286-2295

Abstract : The authors study a concrete problem of the thermal inertia of instruments for measuring temperature, in particular mercury-glass thermometers. They conclude that the method of stationary regime employed up till now for determinations of coefficient alpha can give considerable errors in the construction of characteristic curves of thermo-receptors (short cylinders), and that the method of alpha-calorimeter and method of calculation of cooling process of two-composite cylinder of finite length give coincident results which can be considered reliable. The authors consider the present data of their article preliminary to further work. They thank Professor Dr. G. M. Kondrat'yev. Six references: e.g. G. M. Kondrat'yev, Trudy VIMS, No 10 (26), 1936; Trudy VNIIM, No 5 (50), 1941 and No 4 (59), 1947.

Institution :

Submitted : February 8, 1954

LEVIN, G.M.; VOL'MIR, V.I.

Thermal inertia of thermocouples in some temperature measuring  
instruments. Izm.tekh.no.5:54-56 S-0 '56. (MLRA 10:2)  
(Heat--Radiation and absorption) (Thermometers)

LEVIN, G.M.

- 24(0): 5(4); 6(2) PHASE I BOOK EXPLOITATION 507/2215  
 Vsesoyuzny nauchno-issledovatel'skiy rabotniy zhurnal No. 2 (Scientific Research Institute Collection of Articles, No. 2). Moscow, D.I. Mendeleyeva Standardizatsiya, 1958. 139 p. 1,000 copies printed.  
 Additional Sponsoring Agency: USSR. Komitet standartov, ser. 2 imernits'nykh priborov.
- Ed.: J. V. Reshetina; Tech. Ed.: N. A. Kondrat'yeva.  
 PRINCIPAL: These reports are intended for scientists, researchers, and engineers engaged in developing standards, measures, and bags for the various industries.
- CONTENTS: The volume contains 123 reports on standards of measurement and control. The reports were prepared by scientists of institutes of the Komitet standartov, ser. 1, imernits'nykh priborov pri Sovete Ministerov SSSR (Commission on Standards, Measures, and Measuring Instruments under the USSR Council of Ministers), The Participating Institutes are: VNIIM - Vsesoyuzny nauchno-issledovatel'skiy metrologicheskii inst. D.I. Mendeleyeva (All-Union Scientific Research Institute of Metrology); VNIIM - Vsesoyuzny nauchno-issledovatel'skiy nauchno-tekhnicheskii komitets'nyi standartov, ser. 1 imernits'nykh priborov (All-Union Scientific Research Institute of the Committee on Standards, Measures, and Measuring Instruments), created from NIIKMP - Novosibirskiy standartnomyi institut ser. 1 imernits'nykh priborov (Novosibirsk State Institute of Measures and Measuring Instruments) October 1, 1955; VNIIM - Vsesoyuzny nauchno-issledovatel'skiy institut fiziko-tekhnicheskikh radioelektronicheskikh izmerenii (All-Union Scientific Research Institute of Physico-technical and Radio-engineering Measurements) in Moscow; NIIKMP - Kharkovskiy standartnomyi institut ser. 1 imernits'nykh priborov (Kharkov State Institute of Measures and Measuring Instruments); and NOKRI - Novosibirskiy standartnomyi institut ser. 1 imernits'nykh priborov (Novosibirsk State Institute of Measures and Measuring Instruments). No personalities are mentioned. There are no references.
- Zemtsev, V. V., Yu. V. Yerofeyev, P. N. Cherkasov, A. G. Chernova, and T. A. Berezina (editors) - Measuring the Free Combustion Temperature of Solid Industrial Fuels 30
- Korzhik, G. M., A. I. Semenova, and V. I. Volkov, (Sverdlovsk Branch of VNIIM) - Studying Characteristic Curves of Thermal Inertia in Thermal Sensing Devices 87
- Goncharenko, K. N. (Sverdlovsk Branch of VNIIM) - Determining Thermal Capacity of Solids at High Temperatures 87
- Lavrent'ev, G. N., and E. M. Mal'kova (Sverdlovsk Branch of VNIIM) - Studying Methods for Determining Thermal Characteristics of Materials on the Basis of the Theory of Regular Thermal Combinations 89
- Ioselevich, O. L., and B. S. Zatrin (NIIKMP) - Developing and Creating an Automatic Thermostat for Gaseous Standard Thermometers With Values of Deviations 0.1°C or Less 90

Card 13/27

SOV-10-58-1-24/43

AUTHOR: Levin, G. M.

TITLE: Determination of the Coefficient of Thermal Conductivity  
of Gases using a Universal Plane Bicalorimeter.  
(Opredeleniye koefitsiyenta teploprovodnosti gazov  
universal'nym ploskim bikalorimetrom)

PERIODICAL: Pribory i Tekhnika Eksperimenta, 1958, Nr 1,  
pp 102-105 (USSR)

ABSTRACT: A new calorimeter is described. This universal, plane bicalorimeter is shown in Fig.1, and it is universal because it can be used to measure the coefficient of thermal conductivity of gases and liquids as well as solids. A nickel core, 1 (cf Fig.1), 9 cm in diameter and 0.85 cm high is attached to a guard ring 2 made of polystyrene. This is then inserted into a brass box 3 and sealed off. A thermocouple 13 can be inserted into a hole drilled into the core as shown in Fig.1. The logarithm of the deflections of a galvanometer connected in series with the thermocouple is plotted as a function of time. The slope of this curve is the experimentally determined quantity which is used to calculate the thermal conductivity of the specimen. An expression is derived which connects the latter quantity with the experimentally measured slope of the above graph

Card 1/3

SOV-120-58-1-24/43

Determination of the Coefficient of Thermal Conductivity of Gases using a Universal Plane Bicalorimeter.

and the parameters of the setup. The following values of the coefficient of thermal conductivity have been obtained:

Air	--	0.0224
Oxygen	--	0.0230
Argon	--	0.0156
Hydrogen	--	0.152

These values are in excellent agreement with the accepted values and differ only in the 4th place after the decimal point ( $t = 23^{\circ}\text{C}$ ). Typical graphs obtained for air are

Card 2/3

SOV-120-58-1-24/43

Determination of the Coefficient of Thermal Conductivity of Gases using a Universal Plane Bicalorimeter.

shown in Fig.3, in which the logarithm of the deflections is plotted as a function of time under different conditions. There are 3 figures, 1 table and 10 references, all of which are Soviet.

ASSOCIATION: Sverdlovskiy filial VNIIM (Sverdlovsk Branch of VNIIM)

SUBMITTED: March 22, 1957.

1. Gases--Heat transfer    2. Colorimeters--Design    3. Colorimeters  
--Performance

Card 3/3

AUTHORS: Levin, G.M., Vol'imir, V.I. SOV/115-58-6-26/43

TITLE: Characteristic Curves of Thermal Inertia of Standard Thermocouples and Resistance Thermometers (Kharakteristicheskiye krivyye teplovoy inertsii standartnykh termoper i termometrov soprotivleniya)

PERIODICAL: Izmeritel'naya tekhnika, 1958, Nr 6, pp 61-64 (USSR)

ABSTRACT: The heat inertia of thermocouples and resistance thermometers depends on the coefficient of heat emission ( $\text{Kcal}/\text{sq m} \cdot \text{h} \cdot \text{degree}$ ). This dependence is shown in Reference 1 and Figures 1, 3, and 4. A good contact between the heat-sensitive element and the cover is regarded as the best means for reducing the thermal inertia. There is, however, a considerable influence of the size, form, position, etc. of the different parts of a thermocouple on its inertia. The different characteristics of the low-inertia thermocouples of type TKhK-UKhV, TKhA-UKhV, and of the resistance thermometer ETP-KhKhII are given in Table 2. These instruments have a low inertia in those cases where the heat emission is high. At lower values of heat emission their inertia is even higher than in the usual thermocouples. The data for the standard thermocouple TKhA-KhIII (TP-2), for the same instrument with

Card 1/2

SOV/115-58-6-26/43

Characteristic Curves of Thermal Inertia of Standard Thermocouples and Resistance Thermometers

a foil between the element and the cover TP-2 (f) and for thermocouples filled with alcohol TP-2 (s) is given in Figure 3. At temperatures of 600-700°C the inertia is lower than at room temperature (Table 3). There are 4 graphs, 3 tables and 5 Soviet references.

Card 2/2

LEVIN, O.M.

Effect of certain factors on the accuracy in determining the  
thermal inertia of temperature measuring instruments [with summary  
in English]. Inzh.-fiz. zhur. no. 9:45-51 S '58. (MIRA 11:10)  
(Heat--Radiation and absorption)  
(Thermometers)

AUTHOR:

Levin, G.M.

32-24-4-25/67

TITLE:

The Determination of Thermophysical Characteristics of Rubber and Slag Wool (Opravleniye teplofizicheskikh kharakteristik reziny i shlakovoy vaty)

PERIODICAL:

Zavodskaya Laboratoriya, 1958, Vol. 24, Nr 4, pp. 439-442 (USSR)

ABSTRACT:

The determinations of the temperature conductivity coefficient ( $\alpha$ ) by the method of the "acalorimeter" as well as of heat conductivity ( $\lambda$ ) according to the "bicalorimeter" method were carried out in the water thermostat. Measuring of thermal capacity ( $c$ ) with a microcalorimeter and of thermal conductivity by means of the lambda calorimeter was carried out in a quiescent air chamber. Cooling temperature was kept strictly on the level of  $\pm 0.1^\circ$ . The temperature difference (sample-medium) was measured by means of a thermocouple element by way of a mirror galvanometer (type GPZ-2). As a basic measuring quantity the "cooling down velocity" was taken. E.M. Malkova and M.V. Loginova assisted in investigations of rubber, and V.I. Vol'mir and his collaborators at Staroukkinskiy and Satkinskiy Metallurgical Plants assisted in investigating slag wool. Both

Card 1/3

The Determination of Thermophysical Characteristics  
of Rubber and Slag Wool

32-24-4-25/67

vulcanized and not vulcanized samples were investigated, and were formed and adapted in different manners according to the four methods. Detailed data concerning the dimensions of the samples as well as concerning the microcalorimeter and the "bocalorimeter" are given. Three different kinds of slag wool were investigated, which were previously dried. Results obtained by both investigation groups are given in tables from which it may be seen that they agree with GOST standards. From the results obtained the conclusion may be drawn that the accuracy of determination as given by the relative quadratic average error of the result  $S_0$  is satisfactory. For the "acalorimeter" and the flat "bocalorimeter" it is true that  $S \leq 3\%$  and for the microcalorimeter  $S_0 \leq 5\%$ . The error limit standardized at  $\pm 3\%$  was reduced to  $\pm 2\%$ . Determinations were carried out also with gypsum, alabaster, paraffin, naphthalene, sugar, etc., on which occasion the specific weight thermal capacity was found to be the most favorable order, which showed the best agreement with the data obtained by other investigations in the case of sugar. In measurements carried out with the microcalorimeter and the lambda calorimeter reference is made to the measuring correctness of the coefficient of heat transfer. There are 4 tables, and 5 references, which are Soviet.

Card 2/3

The Determination of Thermophysical Characteristics  
of Rubber and Slag Wool

32-24-4-25/67

ASSOCIATION: Sverdlovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta metrologii im. D.I. Mendeleyeva (Sverdlovsk Branch of  
the All-Union Scientific Research Institute for Metrology imeni  
D.I. Mendeleyev)

1. Rubber--Thermodynamic properties
2. Woolen textiles--Thermo-dynamic properties
3. Rubber--Calorimetric analysis
4. Woolen textiles--Calorimetric analysis
5. Calorimeters--Performance

Card 3/3

24(8)

SOV/170-59-4-17/20

AUTHOR:

Levin, G.M. .

TITLE:

Some Results of the Investigation of the Spherical Bicalorimeter Method (Nekotoryye rezul'taty issledovaniy metoda sharo-vogo bikalorimetra)

PERIODICAL:

Inzhenerno-fizicheskiy zhurnal, 1959, Nr 4, pp 112-115 (USSR)

ABSTRACT:

The method of spherical bicalorimeter, based on the theory of regular thermal behavior, found a wide application, in particular for determination of heat conductivity of various thermal insulators and refrigeration reagents. Bicalorimeters have different dimensions and shapes depending on the kind of measurements, and the measuring thermocouples are placed either into a material to be tested or into the metallic core. The author carried out experiments to elucidate the question of how various ways of measuring the temperature within the device affect the correctness and accuracy of determinations of heat conductivity coefficient. The experiments were carried out by the author together with E.M. Malkova. As a result of experiments, it turned out that the setting of the thermocouple inside the metallic core of the bicalorimeter makes it possible

Card 1/2

LEVIN, G.M.

Analysis of characteristic curves of thermal inertia and some factors in the theory of a regular heat cycle. Inzh.-fiz. zhur. no.1:10-17 Ja '60. (MIRA 13:4)

1. Otdeleniye laboratorii dvigateley AN SSSR, g.Kaliningrad.  
(Heat--Transmission)

S/115/60/000/04/016/041  
D002/D006

AUTHOR: Levin, G.M., Vol'mir, V.I.

TITLE: On Methods of Investigating the Thermal Inertia of Thermo-Couples and Resistance Thermometers

PERIODICAL: Izmeritel'naya tekhnika, 1960, Nr 4, pp 27-30 (USSR)

ABSTRACT: The authors point out that the methods given in the standards for thermo-couples ("GOST" 6616-53) and resistance thermometers ("GOST" 6651-53) are inadequate, because the thermal inertia obtained can only be used for evaluating the quality of the devices' assembly, and is not a reliable characteristic of their exploitation /Ref. 17/. These methods are based on a false conception of the onset of the regular heat at the moment when the device's heat receiver is placed into the thermostatic medium. They

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S/115/60/000/04/016/041  
D002/D006

On Methods of Investigating the Thermal Inertia of Thermo-Couples  
and Resistance Thermometers

do not take into account the dependence of the inertia on heat exchange conditions, and only cover investigations at high heat-release coefficients. The method which eliminates these deficiencies is the improved and supplemented universal method of regular heat /Ref. 2, G.M. Kondrat'yev<sup>7</sup>, giving reliable thermal inertia criteria and characteristic lagging curves. Detailed information on it is given by means of an example: the thermal inertia of P.G. Strelkov reference resistance thermometer (the "TS-0") is compared to the inertia of a copper-constantan thermo-couple ("TP-0"), both devices being placed in quartz hoods 5 mm in diameter. There are 1 diagram, 4 graphs, 4 tables, and 7 Soviet references.

(V)

Card 2/2

LEVIN, G. M.

Effect of the inertia of a mobile galvanometer system on the  
correctness of determining the cooling rate of bodies. Izv.  
AN Mold. SSR no.9:29-37 '62. (MIRA 16:1)

(Galvanometer) (Temperature—Measurement)

BOLOGA, M.K.; LEVIN, G.M.; PAUKOV, Yu.N.

Effect of vibration on convective heat transfer. Izv. AM Mold.  
SSR. no.3:82-98 '63. (MIRA 17:12)

LEVIN, G.M., kand.tekhn.nauk; BAKALIN, Yu.I., inah.

Heat exchange during the boiling of water in a circular slot with  
natural circulation. Izv. vys. ucheb. zav.; energ. 6 no.12:119-122  
D '63. (MIRA 17:1)

1. Kaliningradskiy tekhnicheskij institut rybnoy promyshlennosti i  
khozyaystva. Predstavlena kafedroy kholodil'nykh i kompressornykh mashin  
i ustanovok.

EWT(d)/EMP(v)/EW-K  
11-145

ACCESSION NR AM5011012 BOOK EXPLOITATION

5/

Levin, Gavriil Mikhaylovich; Gol'dental', Moisey Emmanuilovich

Reversible ion electric drive (Reversivnyy ionnyy elektroprivod), Moscow, Izd-vo "Energiya", 1964, 90 p. illus., biblio. 12,500 copies printed. Series note: Biblioteka po avtomatike, vyp. 118.

TOPIC TAGS: blooming mill, mercury switch, reversible ion electric drive

PURPOSE AND COVERAGE: Using the example of reversible ion electric drive of a blooming mill, the basic features of similar circuits and methods permitting optimal operation of the drive in transient regimes are examined. A new system of control based on the use of inertialess elements of ion electric drive and special equipment to set the regimes of starting, reverse, and braking is presented. A semiconductor system of grid control with a wide range of regulation and strict symmetry of grid pulses independent of the parameters of the power source is described. The book is intended for engineers and technicians concerned with the design, tuning, and use of automated electric drive.

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SUBMITTED: 02Oct64

SUB CODE: EE, MM

NR REF Sov: 013

OTHER: 004

LL  
Card 2/2

LEVIN, G.M.

Dormancy period in woody plants. Izv.AN Turk.SSR,Ser.biol.nauk  
no.4:56-59 '65.  
(MIRA 18:9)

1. Kara-Kalinskaya opytnaya stantsiya Vsesoyuznogo nauchno-  
issledovatel'skogo instituta Zasteniyevodstva, Leningrad.

LEVIN, G.M., kand.tekhn.nauk; BLINCHENSKIY, I.M., inzh.

Scalo formation in the evaporation of sea water. Izv.zh.vestn.nauk. i  
energ. 8 no.12:58-63 D 165. (Mikr. 1:1)

1. Kaliningradskiy tekhnicheskiy institut rybnoy promyshlennosti  
i khozyaystva. Submitted July 18, 1964.

LEVIN, G.M.

Abnormalities in apple flowers and fruits in southwestern  
Turkmenia. Izv. AN Turk. SSR. Ser. biol. nauk no.5:54-58  
'63. (MIRA 17:10)

1. Turkmeneskaya opytnaya stantsiya Vsesoyuznogo instituta  
rasteniyevodstva.

LEVIN, Gavril Mikhaylovich; GOL'DENTAL', Moisey Emanuelovich;  
ZIMIN, Ye.N., red.

[Reversing electric drive with mercury-arc rectifiers] Re-  
versivnyi ionnyi elektroprivod. Moskva, Energiia, 1964. 90 p.  
(Biblioteka po avtomatike, no.118) (MIRA 18:3)

LEVIN, G.M.

Investigating the efficiency and reliability of natural circulation  
contours with steam formation in the radial clearance. Trudy  
Inst. dvg. no.6:30-41 '62. (MIRA 16:5)  
(Boilers, Water-tube)

LEVIN, G. M., agronom

Apple clearwing moth in the orchard of a collective farm.  
Zashch. rast. ot vred. i bol. 5 no. 10:54 0 '60.  
(MIRA 16:1)

1. Sovkhoz imeni Gereyhanova, Dagestanskaya ASSR.

(Apple—Diseases and pests)  
(Clearwing moths—Extermination)

LEVIN, G. M., agronom

Rodent control in an orchard. Zashch. rast. ot vred. i bol. 5  
no. 11:44 N '60. (MIRA 16:1)

1. Sovkhoz imeni Gereykhanova, Kasumkentskiy rayon, Dagestanskoy  
ASSR.

(Fruit—Diseases and pests) (Rodent control)

LEVIN, G.M.

Biological characteristics of the apple tree in Turkmenia. Izv. AN  
Turk. SSR. Ser. biol. nauk no.4:13-19 '64. (MIRA 17:11)

l. Turkmeneskaya optychnaya stantsiya Vsesoyuznogo nauchno-issledovatel'skogo instituta rasteniyevodstva.

LEVIN, G.M., inzh. (Leningrad)

Dynamics of the self-regulation of multimotor electric drives of  
papermaking machines. Elektrichestvo no.6:49-53 Je '61.  
(MIRA 14:10)

(Papermaking machinery--Electric driving)

IGAYEV, P.I.; LEVIN, G.M.

Letters to the editor. Zashch. rastenij vred. i bol. 6 no.3:11  
Mr '61. (MIRA 15:6)

1. Glavnyy agronom po zashchite rasteniy Kurganskogo oblastnogo  
upravleniya sel'skogo khozyaystva, g. Kurgan (for Igayev).  
(Plants, Protection of)

LEVIN, G.M., agronom (Kasumkentskiy rayon)

On a piedmont state farm in Daghestan. Zashch.rast.ot vred.i  
bol. 5 no.3:38 Mr '60. (MIRA 16:1)  
(Daghestan—Fruit—Diseases and pests)

L 07489-67 EWT(m)/EWP(t)/ETI IJP(c) JD/MW/JW/JWD

ACC NR: AP6035824

SOURCE CODE: UR/0413/66/000/020/0030/0030

INVENTOR: Levin, G.-N., L.; Rozlovskiy, A. I.; Ryabtsev, I. I.; Lyakhovitskiy, M. Sh.; Rodin, Ye. P.

ORG: none

50  
13

TITLE: Preparative method for nitrogen oxides. Class 12, No. 186984 [announced by the State Scientific Research and Planning Institute of the Nitrogen Industry and Products of Organic Synthesis (Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy Institut azotnoy promyshlennosti i produktov organicheskogo sinteza)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 20, 1966, 30

TOPIC TAGS: nitrogen oxide, nitrogen oxide preparation, combustion product

ABSTRACT: An Author Certificate has been issued for a method of preparing nitrogen oxides from the elements by burning fuel gases in excess oxygen [percentage unspecified] followed by separation of the oxides from the cooled gaseous combustion products. To increase the rate of separation of the nitrogen oxides and the nitric oxide yield without increasing the combustion temperature, the process is conducted in two steps: 1) combustion with an oxygen concentration of 50-60%; and 2) after the separation of nitrogen oxides, the combustion is continued until the excess oxygen has been used up.

SUB CODE: 07 21 SUBM DATE: 09Aug65/ ATD PRESS: 5104  
Card 1/1/mle UDC: 661.98:66.071.7

ACC NR: AP7000315

SOURCE CODE: UR/0413/66/000/022/0035/0035

INVENTOR: Levin, G-N. L.; Ryabtsev, I. I.; Rozlovskiy, A. I.; Rodin, Ye. P.; Sheyndlin, A. Ye.; Prokudin, V. A.; Pishchikov, S. I.; Chernov, I. A.

ORG: none

TITLE: Method of preparing nitrogen oxides. Class 12, No. 188486 [announced by the State Scientific-Research and Design Institute for the Nitrogen Industry and Organic Synthesis Products (Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut azotnoy promyshlennosti i produktov organicheskogo sinteza)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 22, 1966, 35

TOPIC TAGS: nitrogen oxide, tempering, alkali metal, magnetohydrodynamics, combustion chamber

ABSTRACT: A method has been introduced for preparing nitrogen oxides at high temperature and pressure. The method is based on burning fuel and air in a combustion chamber using a nozzle for injecting water into the reaction products and "stabilizing" the oxides. To upgrade the "stabilization" and raising the energy efficiency of the process, an addition of alkali metal salt is introduced in the

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UDC: 546.17-31.05