

BALASHOV, M.A.; VORONKOV, B.S.; YELAGIN, Ye.B.; KISELEV, L.N.; KOLOSOV, S.P.; LEONT'YEVA, V.P.; NEFEDOVA, V.I.; STROMILOV, V.M.; SOKOLOV, N.I.; TISHCHENKO, N.M.; UDALOV, N.P.; PETROV, B.N., akademik, red.; GRIGORASH, K.I., red. izd-va; ROZHIN, V.P., tekhn. red.

[Handbook on the design of components and systems of automatic control; a manual for the preparation of course and diploma projects] Rukovodstvo po proektirovaniu elementov i sistem avtomatiki; posobie po kursovomu i diplomnomu proektirovaniu [By] M.A.Balashov i dr. Pod red. B.N.Petrova. Moskva, Gos. nauchno-tekhn. izd-vo Oborongiz. No.4. 1961. 311 p.

(MIRA 15:3)

1. Moscow. Aviatsionnyy institut imeni Sergo Ordzhonikidze.
(Automatic control) (Electronics)

S/194/62/000/002/059/096
D273/D301

9, 2540

AUTHOR: Kiselev, L. N.

TITLE: Computing converters of potential based on transistors

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 2, 1962, abstract 2-5-51a (V sb. Poluprovodnik, pribory i ikh primeneniye, no. 7, M., "Sov. radio", 1961, 275-288)

TEXT: Analysis of two-emitter semiconducting converters has been carried out for two cases, when the permeability of the core does not depend on the magnetizing current (core with air gap) and when the transistor core has an ideal square magnetization curve (toroidal cores). Most applications use converters based on toroidal permalloy cores. Computation of the working rate of such converters is made from the given voltage supply, the voltage and power outputs, and the frequency of the converter. The working rate of the converters and the elements of the inverter circuit are determined; transistor calculations are carried out. The computation method

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Computing converters of ...

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gives good agreement with practical tests for converters working in
the 5 - 500 watt range. 5 references. [Abstracter's note: Complete
translation.]

✓
B

Card 2/2

KISELEV, Lev Nikolayevich; NIKITIN, Viktor Borisovich

Frequency control of a square-wave voltage self-oscillator. Izv.
vys.ucheb.zav.; elektromekh. 7 no.10:1225-1230 '64.

(MIRA 18:1)

1. Starshiys inzh. Moskovskogo aviatsionnogo instituta.

S/194/62/000/004/014/105
D222/D309

9,2530

AUTHOR: Kiselev, L. N.

TITLE: Transistor-magnetic average-current pulse amplifier

PERIODICAL: Referativnyy zhurnal, Avtomatika i radioelektronika, no. 4, 1962, abstract 4-2-10y (Poluprovodnik: pribory i ikh primeneniye, no. 7, M., Sov. radio, 1961, 207-228)

TEXT: Some variants of average-current pulse amplifier circuits supplied from a DC voltage source are considered. A classification of such circuits is given. A comparative analysis of the following amplifier circuits is carried out: Pulse amplifiers with ohmic-inductive loading, magnetic amplification with pulse duration modulation. The circuit of a controllable oscillator with current transformer and differential loading, and that of a magnetic amplifier supplied by a DC voltage, are given. It is shown that these pulse amplifier circuits for average-current amplification have a greater efficiency, good linearity and considerable lifetime com-

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Transistor-magnetic ...

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pared with other types. Computational formulas are given for transistors working in the switching regime. The basic relationships for the design of the given circuits are derived. The choice of a suitable circuit depends on the actual amplification requirements. 11 figures. 6 references. /-Abstracter's note: Complete translation. 7

✓
B

Card 2/2

KISELEV, L.N., inzh.; MASHUKOV, Ye.V., inzh.

Transistor pulse-type voltage stabilizer. Vest. elektroprom. 33 no.8:
66-68 Ag '62. (MIRA 15:7)

(Voltage regulators) (Pulse circuits)

YEVDOKIMOV, V.G.; PETYGIN, V.I.; PYZHOV, V.S.; prinalni uchastiye: SMIRNOV,
V.M.; KISELEV, L.M.; SHUMILOV, A.S.; VINOKUROV, V.K.; TIKHONOV, N.A.

Investigating granulators as controlled systems. TSvet. met. 35 no.6:
41-46 Je '62. (MIRA 15:6)
(Ore dressing) (Granular materials)

KISELEV, L.N., inzh.

Possibility for the generation of negative input resistance
in junction transistors. Trudy MAI no.145:99-104 '62.

(MIRA 15:9)

(Junction transistors)

GEVONDYAN, T.A.; KISELEV, L.T.; ZAYTSEVA, K.Ya., redakter.

[Machinery parts in precision mechanics] *Detali mekhanizmov tochnoi mekhaniki. Moskva, Gos. izd-vo obor. promyshl., 1953. 228 p. (MIRA 7:8)*

GEVONDYAN, Tigran Arutyunovich; KISELEV, Lev Timofeyevich; RYABOV, B.A.,
doktor tekhn. nauk, prof., retsenzent; ZAKAZNOV, N.P., kand.
tekhn. nauk, retsenzent; DOBROGURSKIY, S.O., doktor tekhn.
nauk, prof., zasl. deyatel' nauki i tekhniki, red.;
YELISEYEV, M.S., red. izd-va; MODEL', B.I., tekhn. red.

[Devices for measuring and recording vibrations] Pribory dlia
izmereniia i registratsii kolebanii. Moskva, Mashgiz, 1962.
467 p. (MIRA 15:4)

(Vibration--Measurement)

GERASHCHENKO, Ye.I.; KISELEV, L.V.

Stability of a control system with accelerated sliding mode
of operation. Dif. urav. 1 no. 12:1568-1577 D '65.

(MIRA 18:12)

1. Matematicheskiy institut imeni Steklova, Sverdlovskoye
otdeleniye. Submitted May 12, 1965.

KISELEV, L.V., inzh.

Mechanized tank of a sawmill. Der. prom. 12 no.9:20 S '63. (MIRA 16:10)

SOV/96-59-6-2/22
AUTHORS: Deych, M.Ye., (Dr. Tech.Sci.), Kazintsev, F.V.,
Abramov, V.I., Kiselev, L.Ye. and Filippova, V.G.
(Engineers)

TITLE: An Investigation of Turbine Stages with Long Blades of
Constant Profile under Variable Conditions (Issledovaniye
peremennogo rezhima turbinnykh stupenei s dlinnymi
lopatkami postoyannogo profilya)

PERIODICAL: Teploenergetika, 1959, Nr 6, pp 8-17 (USSR)

ABSTRACT: This article describes the results of tests on four
single-row stages with relatively long blades of constant
profile, fitted to an experimental turbine. The
efficiency of single-row stages depends on a number of
geometrical and operating conditions: the configuration,
pitch and angles of installation of the blades, the ratio
of the flow areas, the velocity ratio and the Mach and
Reynolds numbers. The tests described here were made to
study the influence of these factors on the efficiency.
The stages had a d/l ratio + 7.73 which is the limiting
value for cylindrical blading. The four stages investi-
gated employed two types of guide vanes (TS-1A and TS-2A)
and two types of working blades (TR-2A and TR-3A).

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An Investigation of Turbine Stages with Long Blades of Constant Profile under Variable Conditions

The principal geometrical characteristics of the blading are given in Table 1. All the stages used welded diaphragms of 400 mm mean diameter with guide vanes 48 mm high and working blades 51.7 mm high. The measuring equipment used is briefly described. The stages were tested with ratios of back pressure to inlet pressure of 0.9 to 0.54, which corresponds to a Mach number range of 0.4 to 1.0. The tests were made with constant back pressure. The influence of diaphragm leakage on the efficiency and the degree of reaction at root and tip sections were investigated. The quantity of leakage steam ranged from 0.8 to 3.5% of the flow through the guide vanes. The influence of the Reynolds number on the stage characteristics was investigated in three of the stages, with Reynolds numbers ranging from 3×10^7 to 7×10^5 . The maximum error in determining the stage efficiency was between 0.4 and 0.6%. The influence of compressibility on the stage efficiency and degree of reaction is then considered. Stage efficiency graphs as functions of velocity and pressure ratios are given in

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An Investigation of Turbine Stages with Long Blades of Constant Profile under Variable Conditions

Fig 1: it will be seen that for each stage there is a pressure ratio that gives maximum efficiency. Values of the best pressure ratio, the highest efficiency, and the change in efficiency as the pressure ratio deviates from the optimum value, are tabulated in Table 2. The curves in Fig 1 show that the efficiency is fairly stable as the velocity ratio changes, indicating that stages with guide vanes type TS-2A have a flatter characteristic as a function of the velocity ratio. This is because the ratio of the blade area to the guide-vane area is lower and there is consequently more reaction in stages with these guide vanes. Curves of stage efficiency as a function of M_0 with constant velocity ratio are given in Fig 2a, and curves of efficiency as function of the available heat drop with the speed constant in Fig 2b. From consideration of these curves it is concluded that the stage efficiency is reasonably stable. Curves of the pressure distribution over the pitch of the guide vanes at the tip and root sections respectively are given in Figs 3a and 3b. Corresponding curves under static

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An Investigation of Turbine Stages with Long Blades of Constant Profile under Variable Conditions

conditions and in the presence of a working wheel are given in Fig 3c. It will be seen that the static pressure field is very irregular. Graphs of the reaction at root and tip sections as a function of the velocity ratio are given in Fig 4. It will be seen that in most cases the reaction is negative at the blade roots. These tests were made in the absence of diaphragm leakage. The presence of negative reaction at the blade roots has no appreciable influence on the stage efficiency. The curves of distribution of reaction over the radius for stages KD-2-2A and KD-2-3A at various values of velocity ratio and constant pressure ratio are given in Fig 5. The curves were constructed from experimental values of the loss factors at different sections of the guide vanes and reaction in the root section, using formula (2). It will be seen that the agreement between the experimental and calculated values of reaction is satisfactory. Graphs of the relative difference of root and tip reaction as a function of the relative change in the velocity ratio are given in Fig 6. Over the range

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An Investigation of Turbine Stages with Long Blades of Constant Profile under Variable Conditions

of change of velocity ratio from - 0.2 to + 0.2 this relationship is given by formula (3). It was found that there is a certain range of Reynolds and Mach numbers and of diaphragm leakage for which formula (3) remains valid, as will be seen from the results plotted in Fig 6. Formula (3) can serve as a basis for two methods of designing stages with long blades operating under variable conditions, as is briefly explained. The influence of Reynolds number on the stage efficiency is then considered. A series of tests was made on the three stages. The influence of the Reynolds number was thereby evaluated in stages having different degrees of reaction at the root and middle sections. The test results, plotted in Fig 7, are discussed at some length. It is found that the influence of the Reynolds number is greatest when the velocity ratio is high. Graphs of the relationship between the maximum stage efficiency and the Reynolds number appear in Fig 8, and graphs showing the influence of the Reynolds number on the reaction at the root and tip sections of the three stages are plotted in

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An Investigation of Turbine Stages with Long Blades of Constant Profile under Variable Conditions

Fig 9. Graphs of the flow coefficients as a function of Reynolds number are plotted in Fig 10. The influence of diaphragm and leakage is then considered. In order to determine the influence of diaphragm leakage on the stage characteristics, steam was delivered from the steam chest to the space between the disc and diaphragm in amounts up to 5% of the main flow. Graphs of the changes in efficiency as functions of leakage are plotted in Fig 11. Graphs of tip and root reaction, and flow coefficient as function of velocity ratio and a graph of the influence of leakage on the change in stage reaction, are plotted in Figs 12a and 12b respectively. It is found that increase in Reynolds number and decrease in leakage reduces both root and tip reaction. The results of a detailed study of the flow structure in stage KD-2-2A are discussed. The main conclusions are that the ratio of the flow area of the working blades to that of the guide vanes has a considerable influence on stage efficiency. Alterations of the blade root reaction from + 5% to zero had little influence on the stage efficiency. The presence of low negative reaction

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An Investigation of Turbine Stages with Long Blades of Constant Profile under Variable Conditions

caused some reduction in stage efficiency. With increase in the compressibility (Mach number) the efficiency first rises and then falls. The optimum value of the Mach number depends on the stage geometry and particularly on the area ratio and the type of blades used. As the Mach number increases, so does the reaction. Detailed investigation of the flow structure showed that alteration of the area ratio alters the losses in the working blades and the discharge velocity loss. The flow was found to be very uneven at the outlet section of the guide vanes. It was established that over a certain range of Mach numbers, rotation of the runner has no important influence on the velocity distribution over the pitch of the guide vanes. It follows from this that stage calculations based on static steam tests on full-scale diaphragms are

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An Investigation of Turbine Stages with Long Blades of Constant Profile under Variable Conditions

reliable provided that the Mach and Reynolds numbers are equal in the actual and model conditions.

There are 12 figures, 2 tables and 5 Soviet references.

ASSOCIATION: Moskovskiy energeticheskiy institut
(Moscow Power Institute)

Card 8/8

TROYANOVSKIY, B.M., kand.tekhn.nauk; KISELEV, L.Ye., inzh.; FILIPPOVA, V.G.,
inzh.

Methods for calculating two-row velocity stages. Energomashi-
nostroenie 6 no.5:3-6 My '60. (MIRA 13:9)
(Steam turbines)

DEYCH, M.Ye., doktor tekhn. nauk, prof.; TROYANOVSKIY, B.M., kand. tekhn.
nauk, dotsent; ABRAMOV, V.I., inzh.; KAZINTSEV, P.V., inzh.;
KISELEV, L.Ye., inzh.

Studying the partial admission in two-row speed stages.
Energomashinostroenie 7 no.3:24-27 Mr '61. (MIRA 16:8)
(Steam turbines—Testing)

TROYANOVSKIY, B.M., kand.tekhn.nauk, dotsent; KAZINISEV, F.V., inzh.;
KISELEV, L.Ye., inzh.; KRUPENNIKOV, B.N., inzh.

Studying the last stages of condensation steam turbines.
Energomashinostroenie 8 no.3:26-29 Mr '62. (MIRA 15:2)
(Steam turbines--Testing)

L 39483-65

ACCESSION NR: AP5011717

UR/0096/64/000/011/0026/0030

AUTHOR: Deych, M. Ye. (Doctor of technical sciences, Professor); Troyanovskiy, I. S. M. (Candidate of technical sciences); Kiselev, L. Ya. (Engineer); Krupennikov, B. N. (Engineer)

TITLE: Investigation of an annular turbine grill of large fan shape

SOURCE: Teploenergetika, no. 11, 1964, 26-30

TOPIC TAGS: electric power engineering, power plant component

ABSTRACT: In the Laboratory of Steam and Gas Turbines of the Moscow Power Engineering Institute (MPEI), investigations were made of annular multi-nozzle grills with $d_{cp}/l = 2.5$ at various angles of taper of the peripheral meridian line. The tests were conducted in a circular wind tunnel in air at a maximum subsonic speed of $M = 0.84$. A grill with a variable chord and $t = \text{const}$ proved to be highly effective (up to $M = 0.86$) during the regimes considered. Separation of flow was not observed in any of the grills, which differs from Bammert's conclusions [K. Bammert, H. Klaukens, Ingenieur-Archiv, Bd XVII, 1949]. This confirms the explanation by the present writers of the separation in certain annular grills, by the flow

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ACCESSION NR: AP5011717

in the root zone -- by the presence in it of diffusion sections. Down to the angle of opening of the peripheral line $\psi_p = 32^\circ$, the losses in the grill proved to be small, which is explained by the optimum grill configuration with respect to height ($t = \text{const}$, $b = \text{var}$) and the high effectiveness of the initial grill TS-IA MPEI. The tests showed a large divergence in the distributed parameters of the flow with respect to height in comparison with the most prevalent calculation with a simplified Euler formula. The method of calculation used provides satisfactory conformity with the experimental results. Orig. art. has: 7 formulas, 1 figure, and 6 graphs.

ASSOCIATION: Moakovski energeticheskiy institut (Moscow Power Engineering Institute)

SUBMITTED: 00

ENCL: 00

SUB CODE: EE

NO REF SOV: 004

OTHER: 001

JPRS

Card 2/2 *ks*

DEYCH, M.Ye., doktor tekhn. nauk, prof.; TROYANOVSKIY, B.M., kand. tekhn.
nauk; KISELEV, L.Ye., inzh.; KRUPENNIKOV, B.N., inzh.

Study of an annular large-fan turbine cascade. Teploenergetika
11 no.11:26-30 N '64. (MIRA 17:12)

1. Moskovskiy energeticheskiy institut.

DEYCH, M.Ye., doktor tekhn.nauk, prof.; KISELYN, I.Ye., inzh.; KRUPENNIKOV, B.N.,
inzh.

Effect of the angle of departure on the characteristics of annular
turbine lattices with large fan pattern. Izv.vyslucheb.zav.; energ.
8 no.10:56-62. 0 '65. (MIRA 18:10)

1. Moskovskiy ordena Lenina energeticheskii Institut. Nedatavlena
kafedroy parovykh i gazovykh turbin.

L 18564-66 EWT(m)/EWP(w)/EWP(v)/T-2/EWP(k)/ETC(m)-6 EM
ACC NR: AP6006428 SOURCE CODE: UR/0143/65/000/010/0056/0062

AUTHOR: Deych, M. Ye. (Doctor of technical sciences, Professor); Kiselev, L. Ye. (Engineer); Krupennikov, B. N. (Engineer) 50
B

ORG: Moscow "Order of Lenin" Power Engineering Institute (Moskovskiy ordena Lenina energeticheskii institut)

TITLE: Effect of the departure angle on the characteristics of radially expanding turbine blading 2

SOURCE: *de* IVUZ. Energetika, no. 10, 1965, 56-62

TOPIC TAGS: turbine blade, flow angle, turbine design

ABSTRACT: The characteristics of radial turbine blading with a d/l ratio of 2.5 were studied in subsonic air streams at departure angles of 9, 12, 15 and 18°. The wheels studied were made up of 30 vanes with a height $l=100$ mm and identical geometric characteristics in all cases with the exception of the departure angle. The flow parameters were measured in front of and behind the blading. Measurements were made at ten points between blades, in 15-25 sections along the height of the blade and at distances $s=5, 15, 25$ mm from the outlet edge of the blades which corresponds to

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L 18564-66

ACC NR: AP6006428

$\bar{z}=z/b=0.125, 0.375, 0.625$. The resultant data were used for determining the distribution of the following parameters with respect to the height of the blading: breaking pressure p_{01} , static pressure p_1 , and flow departure angles α_1 and α_2 in the meridian direction. Angle α_1 is measured between the projection of velocity c_1 on the cylindrical surface and the direction of the peripheral component of velocity c_{1u} ; angle α_2 is measured between the vector of velocity c_1 and its projection on the cylindrical surface. It was found that an increment in the effective angle of departure increases the difference between the static pressures at the periphery and root of the blading due to a reduction in energy losses and a corresponding increase in the velocity of the departing air at the root section. Measurements of departure angles α_1 show that they are greater than the effective departure angles. When the effective departure angle is increased, the difference between the average value of the measured angle and the effective angles is reduced, which may also be explained by a reduction in energy losses and less redistribution in the rate of air flow with respect to height. The average values of the meridian angles with respect to blading height $(\alpha_2)_{av}$ are a linear function of the effective departure angle:

$(\alpha_2)_{av} = 0^\circ$ for $\bar{z}=0.125$ at an effective departure angle of 15° . At smaller effective departure angles, the average values of α_2 are positive, which corresponds to de-

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ACC NR: AP6006428

flection of the line of flow from the root to the periphery. This is due both to a high degree of twisting in the stream and to the highly developed region of energy losses in the lower half of the turbine blading. The effective departure angle has a considerable effect on the distribution of energy losses, particularly in the root section. There is a sharp reduction in energy losses with an increase in the effective angle of departure, especially at great distances from the vanes. Experimental data show a predetached flow and extremely high energy losses in radially expanding turbine blading arrangements with effective departure angles of less than 15°. Orig. art. has: 7 figures.

SUB CODE: 10,13/ SUBM DATE: 18Jul64/ ORIG REF: 000/ OTH REF: 000

Card 3/3

SM 95

KISELEV, L.Ye.; SHESTOVA, L.M., red.

[The North opens up its wealth; from the history of the industrial development of the Soviet Far North] Sever raskryvaet bogatstva; iz istorii promyshlennogo razvitiia Sovetskogo Krainego Severa. Moskva, Izd-vo "Mysl'," 1964.
108 p. (MIRA 17:6)

KISELEV, M.

Mobile hoists. Khol.tekh. 31 no.4:66-67 O-D '54. (MLBA 8:1)

1. Starshiy elektrik Bakinskogo kholodil'nika.
(Hoisting machinery)

WBI, TZU-CH'U; ~~KISELEV, M.A.~~ [translator]; ASTAP'YEV, G.V., otvetstvennyy redaktor; USVIATSOV, A.Ye., redaktor izdatel'stva; ASTAP'YEVA, G.A., tekhnicheskiy redaktor

[Capital investments of the imperialists in China (1902-1945).
Translated from the Chinese] Kapitalovlozheniia imperialistov v
Kitae (1902-1945). Peresvod s 3-go kitaiskogo izd. M.A.Kiseleva.
Moskva, Izd-vo Akademii nauk SSSR, 1956. 48 p. (MLRA 9:8)
(China--Foreign economic relations)

-- History)

KISELEV, M. A.

A book on the foreign trade of the Chinese People's Republic ("Basic data on the foreign trade of the Chinese People's Republic" [in Chinese] by Ch'i Hsiao-ssu. Reviewed by M. Kiselev). Vnesh. torg. 29 no.4:30-31 '59. (MIRA 12:6)

(China--Commerce)

(Ch'i Hsiao-ssu)

KISHLEV, M. A. (Engr)

KISHLEV, M. A. (Engr) -- "Utilization of Experience in the Acclimatization of Varieties of Trees and Bushes of Orlovskaya Oblast in Shelter Belt Planting." Sub 5 Jan 53, Moscow Forestry Engineering Inst. (Dissertation for the Degree of Candidate in Agricultural Sciences).

So: Vechernaya Moskva January-December 1952

KISELEV, M.M.

DERYUGIN, Sergey Matveyevich; KISELEV, M.A., retsenzent; ZAYTSEVA, T.M., red.;
KOGAN, V.V., tekhn.red.

[Operation and maintenance of spinning machinery; comb spinning of
thin wool] Ustroistvo i obsluzhivanie priadil'nykh mashin;
grebennoe pradenie tonkoi shertsai. Moskva, Gos.nauchno-tekhn.
izd-vo lit-ry po legkoi promyshl., 1957. 150 p. (MIRA 11:1)
(Spinning machinery)

KISELEV, M. A.
GORBUNOV, Ye.; KISELEV, M.

Labor standards for continuous machinery production lines. Sots.
trud no. 3:68-73 Mr '57. (MLRA 10:4)
(Machinery industry--Production lines)

KOVALEV, F.L., kand. tekhn. nauk, red.; GAMBURG, Ya. Yu., retsenzent;
FORMAL'SKIY, M.I., retsenzent; KISELEV, M.A., retsenzent; PLEMYANNIKOV,
M.N., red.; SOKOLOVA, V. Ye., red.; LIKHOV, A.G., red.; KNAKIN,
M.T., tekhn. red.

[Manual on wool spinning] Spravochnik po sherstopriadeniiu.
Pod red. F.L. Kovaleva. Izd. 2., perer. i dop. Moskva, Izd-vo
nauchno-tekhn. lit-ry RSFSR, 1960. 785 p.

(MIRA 13:12)

1. Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut
sherstyanoy promyshlennosti.

(Woolen and worsted spinning)

KISELEV, M. [Kysel'ov, M.], inzh.

Birth of pure steel. Znan. ta pratsia no. 10:4 0 '60.

(MIRA 14:4)

(Zaporozh'ye—Steel industry)

KISELEV, M. [Kisel'ov, M.], inzh. (g.Zaporozh'ye)

"Pianino" for forgery. Znan. ta pratsia no. 3:12-13 Mr '61.

(MIRA 14:5)

(Ukraine—Forging machinery)

KISELEV, M. F.

Cand Geolog-Minerog Sci

Dissertation: "Swelling of Grounds Due to Freezing and Its Effect
on the Stability of Foundations."

26 May 49

Moscow Order of Lenin State V imeni M. V. Lomonosov

SO Vecheryaya Moskva
Sum 71

KISELEV, M. F.

"Swelling of Grounds Due to Freezing and Its Effect on the Stability of Foundations."
Thesis for degree of Cand. Geological - Mineralogical Sci. Sub 26 May 49, Moscow Order
of Lenin State U imeni M. V. Lomonosov

Summary 82, 18 Dec 52, Dissertations Presented for Degrees in Science and Engineering in
Moscow in 1949. From Vechernyaya Moskva. Jan-Dec 1949

KISILEV, M.F., kandidat geol.-min.nauk.

Physical principles of the compactness of sandy soils. Stroi.prom.
32 no.11:41-42 N '54. (MIRA 7:11)
(Soil mechanics)

KISELEV, M.F.

Swelling of ground due to freezing. Trudy NII osn.1 fund. no.26:
4-12 '55. (MLRA 9:8)
(Soil freezing) (Soil mechanics)

SECRET, AMF
KISELEV, M.F.; GOLUBENKOVA, L.A., red.izd-va; EL'KINA, E.M., tekhn.red.

[Calculating the setting of foundations on thawing soil beds]
K raschetu osadok fundamentov na ottaiyaiushchikh gruntakh-osnova-
niakh. Moskva, Gos. izd-vo lit-ry po stroit. i arkhit., 1957.
39 p. (MIRA 11:3)

(Foundations) (Soil mechanics)

KISELEV, M.F., kandidat geologo-mineralogicheskikh nauk.

Evaluating suitability of frozen grounds for laying foundations.
Stroi.prom.35 no.2:37-39 P '57. (MLRA 10:3)
(Foundations) (Frozen ground)

Handwritten: Kiselev, M.F.
KISELEV, M.F.

Building on frozen grounds. Stroi. prom. 35 no. 12:22-26 D '57.
(Frozen ground) (Foundations) (MIRA 11:1)

KISELEV, M.F.

14(10)

PHASE I BOOK EXPLOITATION

SOV/1521

Akademiya stroitel'stva i arkhitektury SSSR. Institut osnovaniy i podzemnykh sooruzheniy

Instruktsiya po opredeleniyu raschetnoy glubiny ottaivaniya merslykh gruntov v osnovanii sooruzheniy i po opredeleniyu raschetnykh teplofizicheskikh koeffitsiyentov gruntov (Instructions for Estimating the Depth of Permafrost Thawing When Laying Building Foundations and for Estimating the Thermophysical Coefficients of Soils) Moscow, Gosstroyizdat, 1958. 16 p. 5,000 copies printed.

Ed.: M.F. Kiselev, Candidate of Geological and Mineralogical Sciences; Ed. of Publishing House: A.P. Mamits.; Tech. Ed.: L.M. Solntseva.

PURPOSE: This booklet is intended for civil engineers and builders, particularly those encountering permafrost conditions.

COVERAGE: These instructions include methods for estimating the depth to which permafrost thaws when the foundations for buildings and other structures are laid. A method of computing the thermophysical characteristics of soils without conducting field or laboratory tests requiring special equipment is also included. Test situations and examples are given to illustrate the

Card 1/2

SHAL'NOV, A.P., kand.tekhn.nauk; KISEL'N, M.F., inzh.

Trenchless laying of reinforced concrete pipes by the forcing-
in method. Stroi.truboprov. 3 no.11:21-23 N 158.

(MIRA 11:12)

(Pipelines) (Barthwork)

KISELEV, M.F., kand.geologo-mineral.nauk; KHAVIN, B.N., red.izd-va;
SOLITSEVA, L.N., tekhn.red.

[Instructions for organizing and conducting observations
of changes in the water and temperature in permanently
frozen ground for the purpose of building foundations]
Ukazaniia po organizatsii i vedeniiu nabludeniia za
izmeneniiem vodno-temperaturnogo rezhima vechnomerzlykh
gruntov dlia tseli fundamentostroeniia. Moskva, Gos.izd-vo
lit-ry po stroit., arkh. i stroit.materialam, 1959. 26 p.
(MIRA 12:6)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut
osnovaniy i podzemnykh sooruzheniy.
(Frozen ground)

KISELEV, M. F.: Doc Tech Sci (diss) -- "The theory of compressibility of melting soil". Moscow, 1959. 33 pp (Acad Construction and Architecture USSR, Sci Res Inst of Foundations and Underground Structures), 150 copies (KL, No 13, 1959, 103)

KISELEV, M. F.
14(10); 3(5) P. 2

PHASE I BOOK EXPLOITATION

SOV/2843

Soveshchaniye po ratsional'nym sposobam fundamentostroyeniya na
vechnomerzlykh gruntakh

Trudy... (Transactions of the Conference on Efficient Methods of
Building Foundations on Permafrost Soils) Moscow, Gosstroyizdat,
1959. 131 p. Errata slip inserted. 1,200 copies printed.

Ed. of Publishing House: N. M. Borshchevskaya; Tech. Ed.: Ye. L.
Temkina.

PURPOSE: This book is intended for construction engineers, indus-
trial planners and builders.

COVERAGE: This book contains reports originally read in Vorkuta in
1958 on experience gained in planning and building foundations
in permafrost regions of the USSR. The reports were prepared
for publication in the NIIOSP (Scientific Research Institute
for the Study of Foundations and Underground Structures). The
Introduction was written by Professor V. G. Bulychev. No
references are given.

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Transactions of the Conference (Cont.)

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Card 3/4

KISELEV, M.F.

Plan for new norms and technical specifications for designing
natural foundations for buildings and structures to be built
on permafrost. Osn., fund. i mekh. grun. no.3:16-18 '59.
(MIRA 12:8)

(Foundations)

(Frozen ground)

KISHLEV, M.P.

Effect of the heave due to freezing conditions on the stability
of buildings and structures. [Trudy] NIIOGP no.38:9-24 '59.

(MIRA 13:6)

(Soil mechanics) (Frozen ground) (Foundations)

KISELEV, M.F.

Determining the average temperature of permafrost soil surrounding
a pile foundation. Osn., fund. i mekh. grun. 3 no.4:30 '61.
(MIRA 14:8)

(Piling (Civil engineering)) (Frozen ground)
(Soil temperature)

KISELEV, M.F.

Calculating the normal forces of frost heave of foundations.
Osn., fund. i mekh. grun. 3 no. 5:23-24 '61. (MIRA 14:11)
(Frozen ground) (Foundations)

KISELEV, M.F.

Suggestions for making more precise the depth for foundations in ground
subject to frost heave. Osn., fund. i mekh grun. 5 no.2:15-16 '63.
(MIRA 16:3)

(Foundations)

(Frozen ground)

CHEKOTILOV, A.M.; KISELEV, M.F.

Reviews and bibliography. Osn., fund. i mekh. grun. 5
no.4:31-32 '63. (MIRA 16:11)

KISELEV, M.F., elektromekhanik; GUMBURG, D.M.

Discussion of the article "Instructions should be reviewed."
Avtom., telem. i aviaz' 7 no.11:37-39 N '63. (MIRA 16:12)

1. Lishtinskaya distantsiya signalizatsii i svyazi Yugo-Vostochnoy dorogi (for Kiselev). 2. Nachal'nik otdela signalizatsii, tsentralizatsii i blokirovki sluzhby signalizatsii i svyazi Severnoy dorogi (for Gumburg).

KISELEV, M.F.

Frost heaving and measures to decrease the deformations of foundations
on heaving soils. [Trudy] NII osn. no. 52:5-41 '63. (MIRA 17:2)

KISELEV, M.F.

Remarks on paragraph 3, "Selecting the depth in foundation
laying," of the fourth chapter of the manual "Foundation beds
and foundations." Osn., fund. i mekh. grun. 7 no. 6:32 '65.
(MIRA 18:12)

DZHAVAKHYAN, Tigran Vaganovich, inzhener ; KISELEV, Mikhail Grigor'yevich,
inzhener; GALANOVA, M.S., inzhener, redaktor; YUDZON, D.M., tekhnicheskii redaktor.

[Work practice of departments handling automatic train stops in locomotive repair shops] Opyt raboty sekhnov avtostopov lokomotivnykh depo. Moskva, Gos.transp.shel-dor. izd-vo, 1955. 86 p.
(Locomotives--Repairs) (MLRA 8:11)

KISELEV, M.G.

Contact-recording system for the "Teilok" speedometer.
Elek.i tepl.tiaga 6 no.2:31-33 F '62. (MIRA 15:2)

1. Vedushchiy konstruktor proyektno-konstrukorskogo byuro
Glavnogo upravleniya lokomotivnogo khozyaystva Ministerstva
putey soobshcheniya.

(Speedometers)

KISELEV, Maksim Grigor'yevich; GERASIMOV, Nikolay Pavlovich; VLASOV,
I.L., red.; KANEVSKAYA, M.D., red.; FAYNSHMIDT, F.Ya., tekhn.red.

[What everyone should know about antiaircraft defense in the
cities] Chto nado snat' naseleniu o protivovozdushnoi oborone
gorodov. Moskva, Izd-vo DOSAAF, 1959. 39 p. (MIRA 13:2)
(Air defenses)

BABKIN, I.A.; VELUGO, V.M.; DIVAKOV, P.D.; ZAPOL'SKIY, G.N.; KIPRIYAN,
K.M.; KISHINEV, M.G.; KORABLEV, M.D.; SILKOV, G.A.; SMORODIN, I.Ya.;
KANEVSKAYA, M.D., red.; GERASIMOVA, V.N., tekhn.red.

[Manual for training and testing for a first-class rating in the
organization "Ready for Antiaircraft Defense."] Uchebno-meto-
dicheskoe posobie po provedeniiu trenirovok i priemu norm "Gotov
k PVO" 1-i stupeni. Moskva, Izd-vo DOSAAF, 1959. 110 p.
(MIRA-12:5)

1. Vsesoyuznoye dobrovol'noye obshchestvo sodeystviya armii,
aviatsii i flotu.

(Civil defense)

KISELEV, M. ^{G.}; SILKOV, G.

How to conduct training in antiaircraft defense, stage one of de-
fense. Voen.znan. 35 no.4:34-37 & p '59. (MIRA 12:7)
(Air defense) (Air raid shelters)

Kiselev, M.I.

PODDUBNAYA, N.A.; GAVRILOV, N.I.; KISELEV, M.I. [deceased]

Structure of gramicidin. S. Part 4: Studies of its copper complexes.
Zhur.ob.khim. 26 no.6:1779-1786 Je '56. (MIRA 11:1)

1. Moskovskiy gosudarstvennyy universitet.
(Gramicidin) (Copper compounds)

ISSUE I BOOK REVISIONS 007/762

Mathematical models of magnetohydrodynamics. Rep. 1978.

Topics: magnetohydrodynamics; linear plasma theory; nonlinear theory; magnetohydrodynamics and plasma dynamics; numerical solutions of a magnetohydrodynamic problem. Rep. 1979. 343 p.

Abstracts: 1,000 copies printed.

Organizing Agency: Institute for Theoretical Physics, Institute for Theoretical Physics, Department of Physics and Mathematics, University of Maryland, College Park, Md. 20742. Organizers: J.K. Kluwe, Director of Theoretical Physics, and V.I. Pavlov, Candidate of Physics and Mathematics, M.V. Lomonosov State University, Moscow, U.S.S.R.

M.S. A. Syrovatskiy, Soc. Sci. A. Kuvshinov

Abstracts: This book is intended for physicists working in the field of magnetohydrodynamics and plasma dynamics. It contains the proceedings of a conference held in Riga, Latvia, in 1979, on problems in applied theoretical magnetohydrodynamics. The subjects of the conference include: the investigation of the basic trends in the development of the theory of magnetohydrodynamics, establishing contact between the theory and experiment in different branches of magnetohydrodynamics, and the participation of theoretical physicists in problems in applied magnetohydrodynamics. More than 160 persons from different parts of the world took part in the conference, and 55 papers were read. Similar conferences are to be held regularly in the future; the next such conference is scheduled to be held in Riga in June 1980. In this present collection of the transactions of the conference, most of the papers and comments are divided into two parts: abstracts themselves in an extended form, and the full text of the papers. The first part deals with problems in applied theoretical magnetohydrodynamics and plasma dynamics, and contains the proceedings of the conference. The second part deals with the investigation of cosmic-ray variations (L.I. Dorman), the investigation of the stability of a magnetic field (G.V. Ostapov and A.I. Osipov), the investigation of shock waves and magnetohydrodynamics (A.I. Akhiezer). The second part, consisting of 33 articles, deals with problems of experimental magnetohydrodynamics, including the application of physical models to the investigation of electromagnetic processes in liquid metals (L.K. Selin) and the development of electromagnetic pumps (D.O. Kuvshinov), as well as articles devoted to laboratory studies of plasmas, laboratory studies of electromagnetic structures for solenoid coils, and their application in the design of industrial devices including schematic diagrams of electric power-energy systems. References are given at the end of each of the articles.

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KISELEV, M. I.

AUTHORS: Kiselev, M. I., Tsepilyayev, V. I. SOV/56-34-6-29/51

TITLE: Inclined Shock Waves in a Plasma With Finite Conductivity
(Naklonnyye udarnyye volny v plazme s konechnoy provodimost'yu)

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,
Vol. 34, Nr 6, pp. 1605-1609 (USSR)

ABSTRACT: This paper investigates the structure of the front of an inclined shock wave for arbitrary orientations of the field before the front in a plasma with finite conductivity. This plasma is assumed to have a constant and isotropic conductivity σ which is high enough for the displacement current to be neglected. The authors obtain the conditions for the possibility of neglecting the kinematic viscosity ν and the thermal conductivity due to the electrons κ . (ν and κ are neglected with respect to the magnetic viscosity ν_m in the system of the equations of magnetic hydrodynamics).^m This condition $\nu_m \gg \nu$ is specialized also for a special case. Then the authors give the particular integrals of the equations of magnetic hydrodynamics. The second part of this paper deals

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SOV/56-34-6-29/51

Inclined Shock Waves in a Plasma With Finite Conductivity

with the structure of an inclined shock wave in a plasma with finite conductivity. The above mentioned particular integrals of motion are specialized to this case. One integral is computed numerically and an expression is obtained for the breadth of the front. The last part of this paper calculates the limit angle of the propagation of the inclined shock wave in a plasma with infinite conductivity. The boundary conditions are given also for this case. In the presence of a magnetic field, the above mentioned limit angle is larger than in the case where there is no magnetic field. The author thanks K. P. Stanyukovich who proposed this problem and was constantly interested in this paper. There are 2 figures and 4 references, 2 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet (Moscow State University)

SUBMITTED: January 20, 1958

Card 2/2

10 (4)

AUTHOR:

Kiselev, M. I.

SOV/20-126-3-18/69

TITLE:

On the Calculation of Shock Waves in Magnetic Hydrodynamics
(K raschetu udarnykh voln v magnitnoy gidrodinamike)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 3,
pp 524-527 (USSR)

ABSTRACT:

The calculation of the parameters of a magneto-hydrodynamic shock wave in perfect gases meets with considerable difficulties, because the algebraic equations are of the third and higher degrees. Thus, the boundary condition in the front of a perpendicular magneto-hydrodynamic shock wave is a cubic equation. This equation may, however, be reduced to a quadratic equation providing that it contains all quantities with the index 1 (characterizing the parameters of the medium before the front) as trivial solutions. The system of equations (1) shows the already reduced equations for the velocity of the medium, for its density, and for the magnetic field. The Prandtl-relation and the Mach number are then briefly dealt with. The same is then done with the adiabatic curves and the propagation of the wave front. Finally, inclined magneto-hydrodynamic shock waves are investigated. Figure 1 shows the

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On the Calculation of Shock Waves in Magnetic
Hydrodynamics

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family of impact polars, from which it follows that the angle of inclined fronts of the shock waves increases, and that the angle of rotation of the flow is reduced. Finally, the geometric interpretation of the onedimensional hydrodynamic impact-transition is dealt with and a diagram is given. The author thanks Professor K. P. Stanyukovich for discussions and advice, and G. S. Golitsyn for looking over the manuscript. There are 2 figures and 6 references, 4 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

PRESENTED: February 13, 1959, by N. N. Bogolyubov, Academician

SUBMITTED: February 10, 1959

Card 2/2

69502

10.2000A
AUTHORS:Kiselev, M. I., Kolosnitsyn, N. I.S/020/60/131/04/016/073
B013/B007

TITLE: Calculation of Inclined Shock Waves in Magnetic Gas Dynamics

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 131, Nr 4, pp 773-775 (USSR)

TEXT: The tangential component of the magnetic field behind the front of an inclined shock wave can be calculated from the cubic equation (1):

$$h_{2y}^3 + h_{1y} \left[1 - (2-k) \left(1 - \frac{u_{1x}^2}{v_{1x}^2} \right) \right] h_{2y}^2 + q_1 \left(1 - \frac{u_{1x}^2}{v_{1x}^2} \right) (v_{1x}^2 - a_{1Mx}^2) (k+1) h_{2y} -$$

$$- (k+1) v_{1x}^2 h_{1y} q_1 \left(1 - \frac{u_{1x}^2}{v_{1x}^2} \right) = 0 .$$

The intensity of the compression shock is

determined by the Mach number $M_{Mach} = u_x/v_x$ and by the parameter $v_x^2 - a_{Mach}^2$.
The amount of the velocity component u_{1y} which is parallel to the front has no influence on the compression shock of the field. By means of linear and broken, linear substitutions it is possible to obtain cubic equations from equation (1),

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Calculation of Inclined Shock Waves in Magnetic Gas Dynamics

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B013/B007

which are used to determine the velocities u_{2x} , u_{2y} and the density ρ_2 . The accelerated shock waves are described by that branch of the roots of these cubic equations which has a positive real part. These shock waves pass over into the inclined shock waves of non-magnetic gas dynamics if the field strength tends to zero. The delayed shock waves (which vanish in perpendicular fields) are described by the branch of roots having a negative real part. With $M_{\text{Mach}} = 1$ the afore-mentioned equation (1) is solved by the rotational discontinuity $h_{2y} = -h_{1y}$. Figure 1 shows u_{2y} as a function of u_{2x} . The energy of the magnetic field is higher than or equal to the internal and kinetic energy of the gas. Whereas the field strength behind the front varies in a monotone manner, the dependence of u_{2y} on u_{2x} has the character of a hump the peak of which corresponds to a certain "resonant slope" of the magnetic field. In solving the problem of a piston, the collisions between the inclined shock waves and their reflections from the wall are the most interesting kinds of behavior in the neighborhood of the "resonant slope" of field strength. These considerations also permit an explanation of the prominences in the neighborhood of sunspots. By means of the results obtained here it is also possible to

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Calculation of Inclined Shock Waves in Magnetic Gas Dynamics

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B013/B007

set up a nomogram for calculating the flow of a conducting supersonic flow around a wedge, which is explained here in detail. In the case of a perpendicular wave it is easily possible to determine the discontinuous change in temperature and entropy in an explicit manner. This discontinuous change decreases with increasing field strength with otherwise equal parameters. The

unsteadiness becomes weak with the field strength $h = \sqrt{q(u^2 - c^2)}$. The authors thank Professor K. P. Stanyukovich for a discussion of the results obtained in this paper. There are 4 figures and 4 references, 3 of which are Soviet.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova
(Moscow State University imeni M. V. Lomonosov)

PRESENTED: December 11, 1959, by N. N. Bogolyubov, Academician

SUBMITTED: December 10, 1959

X

Card 3/3

31273

S/188/62/000/001/005/008
B125/B138

26.1410

AUTHOR: Kiselev, M. I.

TITLE: Theory of the magnetogasdynamic generator

PERIODICAL: Moscow. Universitet. Vestnik. Seriya III. Fizika,
astronomiya, no. 1, 1962, 63-68

TEXT: The author studies the influence of the channel profile on the efficiency of the thermal to electric energy conversion and on the dimensions of a magnetogasdynamic generator for the two plane flows in cylindrical coordinates I) $\{v_r, H_z, j_z\}$; II) $\{v_r, H_\theta, j_z\}$ and the spatial flow III) $\{v_r, H_\theta, j_z\}$ in spherical coordinates. The set of equations

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Theory of the magnetogasdynamic ...

$$\begin{aligned} \frac{dx}{dt} &= A\psi^n \frac{(\gamma-1) \left(y - \frac{C_{1,2}}{t^m\psi}\right)^2 \frac{1}{t^N} - \frac{N\gamma}{A} \frac{xy}{t^{N+1}\psi^2} + \left(y - \frac{C_{1,2}}{t^m\psi}\right)x}{y/t^N - x\gamma B/A} \\ \frac{dy}{dt} &= -B\psi^n \frac{(\gamma-1) \left(y - \frac{C_{1,2}}{t^m\psi}\right)^2 - \frac{N\gamma}{A} \frac{xy}{t^{N+1}\psi^2} + \left(y - \frac{C_{1,2}}{t^m\psi}\right)y}{y/t^N - x\gamma B/A} \quad (1) \\ \frac{dz}{dt} &= B\psi^n \frac{(\gamma-1) \left(y - \frac{C_{1,2}}{t^m\psi}\right)^2 \frac{1}{y^2 t^N} - \frac{N}{B} \frac{1}{t^{2N+1}\psi^2} + \left(y - \frac{C_{1,2}}{t^m\psi}\right)z}{y/t^N - x\gamma B/A} \\ &\quad \partial \frac{1}{t^m} \frac{\partial}{\partial t} (t^m \tau) = Re_M \psi \left(y - \frac{C_{1,2}}{t^m\psi}\right), \end{aligned}$$

with $\psi = +$; $n = 0, \psi = -1$ for I), $n = 1, \psi = -1$ for II) and III)
which holds if the equipotential surfaces of the electric field induced
in the gas flow lie on the conducting wall of the channel, has the first
integral $yzt^N = +1$. The minus sign is for the convergent and the plus
sign for the divergent duct flows. The variables $x = p/p_0$, $y = u/u_0$,

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Theory of the magnetogasdynamics ...

$t = p/p_0$, $t = r/r_0$, $\psi = (H+h)/H_0$ denote the dimensionless quantities pressure, velocity, density, radius, and magnetic field strength, j is the dimensionless inducing field, i is the induced field and ψ is the sum of these fields. In the current density $j = \sigma \left[\frac{U(H+h)}{c} - \frac{V}{ar} \right]$ for I and III and $j = \sigma \left[\frac{U(H+h)}{c} - \frac{V}{I} \right]$ for II, α denotes the divergence angle of the diffuser, l the distance between the two walls in case II. For small magnetic Reynolds numbers the induced field may be neglected and the magnetic field may be regarded as given. The first, second and third terms in the numerators of the equations of system I describe the thermal, geometrical, and mechanical influence on the gas flow. The speed of sound can also be exceeded without a shock wave forming. In the critical cross section relation

$$(\gamma - 1) \left(y - \frac{c_{1,2}}{f^m \psi} \right)^2 - \frac{N y^2}{B f^{N+1}} + \left(y - \frac{c_{1,2}}{f^m \psi} \right) \frac{y}{f^N} = 0. \quad (2)$$

holds for I, II, and III. In convergent ducts, and divergent ducts with

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Theory of the magnetogasdynamic ...

quite small divergence angles the subsonic flow releases energy on cooling. In wider-angle diffusers the gas is decelerated on flowing out and the energy conversion is "suppressed" by the geometrical action. In converging ducts and small-angle diverging ducts supersonic flows strike a magnetic wall and are decelerated. The profiles which are best for raising the efficiency of the energy transformation in the subsonic region also increase the kinetic energy of the flow and reduce its internal energy. The current passing through the load is equal to the integral of the current density at the conducting wall with the area Σ wall. The efficiency of the generator is

$$\eta = \frac{IV}{\sum_{i=1,2} \rho_0 u_0 \left(\frac{\gamma p_0}{(\gamma-1)\rho_0} + \frac{u_0^2}{2} \right)} = \text{Re}_M \frac{S_{em}}{S_r} I_{1,2,3} = \frac{2C_{1,2} B}{\frac{2}{\gamma-1} \frac{1}{M_0^2} + 1} I_{1,2,3} \quad (4)$$

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Theory of the magnetogasdynamic ...

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where S_r and S_{em} are the Poynting vectors of the gas and the induced field at the channel opening. With $Re_M \ll 1$, $H = \text{const}$, $\gamma = 5/3$ the efficiency is about two thirds of the initial energy flux in the range $2 \ll M \ll 6$. In the range $Re_M \gg 1$ the effect of the profile shape increases and the effect of the Joulean heat can be neglected in first approximation. Optimum efficiency can only be calculated by means of more realistic models (dissipation in boundary layers, effect of space charge) etc. Professor K. P. Stanyukovich, Professor V. L. Granovskiy are thanked for discussing the results; G. S. Aravin, N. I. Kolosnitsyn, V. P. Shevelev, and I. I. Nochevkina for numerical computations. The Monograph of Bulis L. A. Gazovaya dinamika. M., 1949 is quoted. There are 3 figures and 5 references: 4 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: Neuringevr L. J. Fluid Mech., 7. No 2, 287, 1960.

ASSOCIATION: Kafedra statisticheskoy fiziki i mekhaniki (Department of Statistical Physics and Mechanics)

Card 5/85

KISELEV, M.I., (Moskva)

Dynamics of a conductive continuum in a strong magnetic field.
Inzh. zhur. 3 no.3:468-471 '63. (MIRA 16:10)

(Magnetohydrodynamics)

L 65080-65 EIT(m)/EIA(h)/EIP(b)/EIP(t) JD

ACCESSION NR: AP5021985

UR/0286/65/000/014/0059/0059
621.365.69.013 : 534.8.004

AUTHOR: Kiselev, M. I.; Makarov, A. M.; Fekhtistov, V. A.

41
3

TITLE: A method for heating electrically conductive materials. Class 21,
No. 172926

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 14, 1965, 59

TOPIC TAGS: magnetic field, electric conductivity, heating, magnetic effect,
ultrasonic effect, ultrasonic vibration

ABSTRACT: This Author's Certificate introduces: 1. A method for using a magnetic field to heat electrically conductive materials. The heating is intensified by excitation of ultrasonic oscillations in the material being heated in a direction perpendicular to the lines of force of the magnetic field. 2. A modification of this method in which residual stresses are eliminated in the material being heated by removing the magnetic field before killing the ultrasonic oscillations.

ASSOCIATION: none
SUBMITTED: 01Nov63
NO REF SOV: 000

ENCL: 00
OTHER: 000

SUB CODE: EM

Card 1/1

L 56552-65 EWP(m)/EWG(v)/EWT(l)/FS(v)-3/EEC(a)/EEC(j)/EEC(r)/EWA(d) Pa-5/
Pg-4/Po-4/Pq-4 GW

UR/0293/65/003/003/0391/0394
629.19:531.38

ACCESSION NR: AP5015667

AUTHORS: Galitskaya, E. B.; Kiselev, M. I.

53
51
6

TITLE: Radiation orientation of cosmic devices

SOURCE: Kosmicheskiye issledovaniya, v. 3, no. 3, 1965, 391-394

TOPIC TAGS: radiation balance, satellite orientation, satellite orientation stability, solar radiation absorption, solar radiation effect, space vehicle design

ABSTRACT: An analysis was made of the basic principles involved in using solar radiation pressure to control the orientation and stability of space craft. This idea was first proposed in 1961; since it is now feasible to build space craft with large enough dimensions to provide the necessary orientating rotational moments, the idea is explored further. The mathematical analysis is on a model consisting of three pairs of flat blades, one lying in each plane of the coordinate system. The orientation between the moving reference system attached to the object and the earth's fixed coordinate system is established on the basis of Euler angles. By using matrix transformations, the expressions for the rotational moments are developed. These expressions indicate that light striking a blade

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at an angle provides the necessary controlling turn to orientate the space craft as desired. It is noted that a "radiation precession" also arises and must be considered in the controlling problem. An investigation of small perturbations of a spherically symmetrical object about the ideal orientation reveals that the ratio of the maximum auxiliary rotational moments to the controlling moments is equal to 3.5% of the basic controlling moments for each degree of deflection from equilibrium. A "radiation propeller" (see Fig. 1 on the Enclosure) was studied to evaluate the magnitude of the rotational moment and the coefficient of utilization of the solar pressure. Two blades with an angular span α lie in the XOY plane. The blades are free to turn to an angle β about an axis lying in the XOY plane. The light strikes along OZ. The rotational moment results from the forced component perpendicular to OZ. The rotational moment, therefore, is 0 with $\beta = 0$ or $\pi/2$ and is shown to be a maximum when $\beta \approx 35$ degrees. With β at 35 degrees, an ideal perfect reflector would give a maximum coefficient of solar pressure utilization of 38.5%. A half white, half black coating of a space craft would harness this solar pressure to provide an orientation with the white (reflecting) side of the space craft to the sun. This would have the additional advantage of improving the space craft's radiation balance. The expression is presented for the condition of stabilization of a black-white sphere provided with "a radiation propeller" in respect to the "radiation precession." The spectral dependency of

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the absorption also was considered. The authors thank K. P. Stanyukovich and G. A. Skuridin. Orig. art. has: 3 figures and 20 formulas.

ASSOCIATION: none

SUBMITTED: 20 May 64

ENCL: 01

SUB CODE: NG, SV

NO REF SOV: 003

OTHER: 005

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ACCESSION NR: AP5015667

ENCLOSURE: 01

0

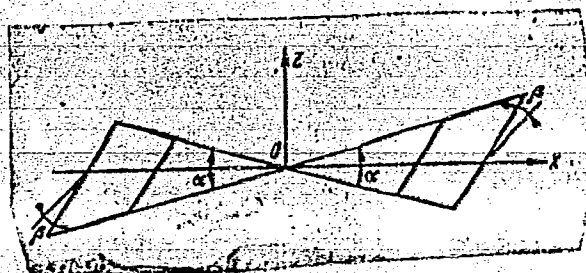


Fig. 1.

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ACC NR: AP6019603

SOURCE CODE: UR/0293/66/004/003/0492/0493

AUTHOR: Kiselev, M. I.

APPROVED FOR RELEASE: 09/17/2001

CIA-RDP86-00513R000722810005

ORG: none

TITLE: Effect of optic absorption on radiation orientation of spacecraft

SOURCE: Kosmicheskiye issledovaniya, v. 4, no. 3, 1966, 492-493

TOPIC TAGS: space orientation, satellite orientation

ABSTRACT: An orientation control system for spacecraft based on the utilization of solar radiation pressure on a system of control vanes forming a "solar propeller" is considered. The results of a previous article by E. B. Galitskaya and M. I. Kiselev (Kosmich. issled., 3, No. 3, 391, 1965), in which ideal reflection was considered, is extended to include the effects on the radiation rotational device of absorption by the vane material. Expressions are found for the torques acting on the pair of symmetric vanes, which effect control by rotating the spacecraft about the OZ axis and create a secondary torque about the OX axis with oblique incidence of the light. If the incident light is parallel to the OZ axis, the secondary torque M_x vanishes and the control torque is

$$M_z = -4B(1-s)\cos^2\mu \sin\mu,$$

where the coefficient B is determined by the geometry and dimensions of the vanes and

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UDC: 629.196.3

L 26535-66 EWP(m)/EWT(1)/EWT(m)/ETC(m)-6/T/EWA(d)/EWA(1) IJP(c) WW/DJ

ACC NR: AF6011512

SOURCE CODE: UR/0382/66/000/001/0051/0054

AUTHOR: Kiselev, M. I.

ORG: none

TITLE: On magneto-elastic flutter

SOURCE: Magnitnaya gidrodinamika, no. 1, 1966, 51-54

TOPIC TAGS: *magnetohydrodynamics, mhd instability, elastic oscillation, homogeneous magnetic field, incompressible fluid, cylindrical shell structure, flow velocity*

ABSTRACT: The author investigates in the linear approximation the instability of flow of an incompressible non-conducting liquid in a thin-wall elastic conducting tube, placed in a constant homogeneous magnetic field parallel to the tube axis. The induced magnetic field and the viscosity of the liquid are neglected. The purpose of the investigation is to study the spontaneous occurrence of oscillations in current-carrying elements which are cooled by large streams of non-conducting liquid, such as in large-current installations used to produce magnetic fields. The behavior of the cooling tube is described in the approximation of elastic cylindrical shell under the influence of small perturbing radial oscillations. It is shown that there is a limiting flow velocity, beyond which flutter is excited; this limiting velocity is determined by the elastic properties of the shell material, by its radius, by its thickness, and by the density of the liquid. If the radius of the tube is allowed to increase to infinity, the results of the present analysis lead to a solution of the problem of excitation of oscillations in a system made up of an elastic conducting

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UDC: 533.95:538.4

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ACC NR: AF6011512

plate bounding on a half space filled with flowing incompressible non-viscous liquid and placed in a constant homogeneous magnetic field. The author thanks R. N. Ovakinyan for discussions. Orig. art. has: 17 formulas and 1 figure.

SUB CODE: 20/ SUBM DATE: 28Oct65/ ORIG REF: 003

Card 2/2 CC

E 31525-66 EWT(I) NW

ACC NR:

AP6008832

SOURCE CODE: UR/0294/66/004/001/0087/0091

AUTHOR: Kiselev, M. I. (Moscow); Stanyukovich, K. P. (Moscow) 61

ORG: None

TITLE: Contribution to the theory of nonlinear skin effect

SOURCE: Teplofizika vysokikh temperatur, v. 4, no. 1, 1966, 87-91

TOPIC TAGS: heat conductivity, skin effect, magnetic field, metal conductivity, metal heating

ABSTRACT: The authors investigate some solutions of the nonlinear equation of heat conductivity applicable to the description of skin effect phenomena in highly magnetic fields. Two possible versions of the evaluation of the depth of penetration of an electromagnetic field into a metal are studied for the case when the Joule heat release is so high that it is necessary to take electrical conductivity variations with the temperature into consideration. Such evaluations may prove to be interesting for technical applications in heating metal by means of high frequency currents or high-current pulses, in interpreting data in an electrophysical experiment, and in describing transient processes in the critical point of superconductivity. Orig. art. has: 1 figure and 24 formulas.

SUB CODE: 11,20 / SUBM DATE: 06Jan65 / ORIG REF: 002 / OTH REF: 001

Card 1/1 LC

UDC: 538.6:537.29

L 07139-67 EWT(1)/EWP(m) IJP(c)

ACC NR: AP7001038

SOURCE CODE: UR/0294/66/004/003/0452/0453

KISELEV, M.I. (Moscow)

51
B

"Self-Similar Motion in Magnetogasdynamics with Variable Conductivity"

Moscow, Teplotfizika Vysokikh Temperatur (High-Temperature Physics),
Vol. 4, No. 3, May-June 1966, pp 452-453

Abstract: In real processes magnetic conductivity and consequently, "magnetic viscosity" vary together with the thermodynamic parameters of a medium. It is shown that in many cases it is possible to find self-similar motion in a medium that has variable conductivity. The author introduces a system of equations for symmetrical flow and assumes that magnetic viscosity depends on pressure, density, and the magnetic field. Under certain assumptions, the system of equations has self-similar solutions for motion in a conducting medium in a strong field. The limitations of the approach are given, as well as the condition of current distribution in an unperturbed medium for self-similar motion to exist. The author thanks K.P. Stanyukovich for discussing the results. Orig. art. has: 7 formulas. [JPRS: 37,872]

ORG: none

TOPIC TAGS: magnetogasdynamics, magnetic viscosity

SUB CODE: 20 / SUBM DATE: 10Apr65 / ORIG REF: 004 /

Card 1/1 *egh*

0924 0046

KISELEV, M.I.

Organization of technological information and propaganda in a
research institute. Opyt rab. po tekh. inform. i prop. no.2:
8-10 '63. (MIRA 16:12)

1. Zamestitel' nachal'nika Otdela nauchno-tekhnicheskoy informatsii
Nauchno-issledovatel'skogo proyektno-konstruktorskogo instituta
tekhnologii mashinostroyeniya Soveta narodnogo khozyaystva
Leningradskogo ekonomicheskogo rayona.

KISILEV, M.I., inzhener.

Improving the reliability of FS-10 drives. Prom. energ. 11 no.10:12
0 '56. (MIRA 9:11)
(Electric driving)

KISELEV, M.I., inzhener.

Using VMG-133 circuit breakers in electric arc furnaces.
Prom.energ. 11 no.7:10-11 J1 '56.

(MLRA 9:10)

(Electric circuit breakers) (Electric furnaces)

KISELEV, M.I.

SAVIN, M.A.; KISELEV, M.I.; YERMAKOV, A.S.

Revision of "Safety regulations." Prom.energ. 12 no.1:7-10
Ja '57. (MLRA 10:2)

1. Naagrosbyt Leningradskoy elektroenergeticheskoy sistemy
(for Savin) 2. Zavod "Sibelektrostal'" (for Kiselev) 3. Sverdlovskiy
podshipnikovyy zavod (for Yermakov).
(Electric engineering--Safety measures)

KISBEV, M.I., inzhener.

Single lever arrangement for the PRZ-35 drive of grounding
blades. Prom. energ. 12 no.5:12 My '57. (MLBA 10:6)
(Electric currents--Grounding)

~~KISELEV, M.I.;~~ YERMILOV, A.A., inzhener.

Operation of the VMG-133 cut-out switch in arc furnaces. Prom.
energ. 12 no.6:6-8 Je '57. (MIRA 10:7)

1. Krasnoyarskiy zavod (for Kiselev). 2. Gosudarstvennyy politekhnicheskii institut Tyashpromoelektrouyekt.
(Electric cutouts)

KISELEV, M.I.

AUTHOR: Kiselev, M.I.

94-3-7/26

TITLE: The Use of Selsyns to Indicate Level (Primeneniye sel'sinov dlya ukazaniya urovney)

PERIODICAL: Promyshlennaya Energetika, 1958, Vol. 13, No. 3, pp. 12 - 13 (USSR).

ABSTRACT: Although float-operated limit switches are often used to indicate the level of liquid in tanks, float-operated relays for continuous indication of the liquid level over a wide range are not very satisfactory. However, a pair of selsyns, type CC-404, of 110 V and 0.42 A, were successfully used for this purpose. The rotor of one selsyn was geared to the shaft of the float switch pulley and the rotor of the other to the instrument needle. The only disadvantage of the method is that it requires five wires. The device is reliable and cheap. There is 1 figure.

ASSOCIATION: Sibelektrostal' Works (Zavod "Sibelektrostal'")

AVAILABLE: Library of Congress
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