

L 9919-63

ACCESSION NR: AP3000006

2
only, that is, the direction of propagation of the disturbance coincides with the direction of the plasma non-uniformity; 5) the plasma non-uniformity is local, extending over a distance not exceeding a few ionic Larmor radii. This result conflicts with the conclusions of Pfirsch, D. and Biermann, L. (Zs. Naturforsch., 15a, 14, 1960). For proof the plasma is described by the kinetic (Liouville) equation with self-consistent field. The perturbation to the electron distribution function satisfies a linearized kinetic equation involving the fields of the disturbance, and these fields, in turn, satisfy Maxwell's equations in which the current is determined by the perturbed distribution function. The fields are subjected to a Fourier transformation with respect to the coordinate x and to a Laplace transformation with respect to time; and ordinary and extraordinary waves are distinguished, the ordinary waves being those with the electric vector parallel to the external magnetic field. It is shown, without using condition 5), that the ordinary waves involve only purely imaginary values of the Laplace transformation parameter and are therefore stable. For the extraordinary waves it is shown that either the Laplace transformation parameter is imaginary (stable waves), or, now making use of 5), that the wavelength is long compared with the ionic Larmor radius. In the latter case the hydrodynamic approximation is applicable, so that these waves also are stable. The author takes the occasion to thank V. I. Kogut, V. D. Shafranov,

Card 2/3

L 9919-63

ACCESSION NR: AP3000008

and L. I. Rudakov for suggesting the topic and discussion." Orig. art. has:
19 equations.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering and
Physics Institute)

SUBMITTED: 02Mar62 DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: PH

NR REF SCV: 002

OTHER: 001

Card

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3/3

L 15216-65

ACCESSION NR: AP4048255

inhomogeneous neutral plasma. It is also shown that short-wave perturbations in a rarefied plasma are potential. It is shown that a strongly inhomogeneous plasma, in which the particle density has a sufficiently deep minimum as a function of a coordinate, can support oscillations with a frequency approximately half the ion gyrofrequency. "The author is grateful to V. I. Kogan for discussions and valuable advice." Orig. art. has: 15 formulas.

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy Institut (Moscow Engineering Physics Institute)

SUBMITTED: 00

SUB CODE: ME

IR RUF SOV: 006

ENCL: 00

OTHER: 002

Card 2/2

ACCESSION NR: AP4041139

S/0020/64/156/004/0766/0769

AUTHOR: Arsenin, V. V.; Leontovich, M. A.

TITLE: Beam instability of a rarified inhomogeneous plasma

SOURCE: AN BSSR. Doklady*, v. 156, no. 4, 1964, 766-769

TOPIC TAGS: plasma beam instability, plasma rim instability, rarified inhomogeneous plasma, plasma, magnetic field

ABSTRACT: The author investigates the instability connected with the plasma inhomogeneity at the rim of a beam of finite width, in a magnetic field. The starting point is a system of linearized kinetic equations with self-sufficient field for electrons and ions, and the Maxwell field equations; collisions are disregarded. For simplicity, the cases of ionic and electronic inhomogeneity are considered separately. It turns out that the rims of the beam are unstable with respect to short wavelength perturbations which do not appear in a homogeneous plasma, even if the beam velocity is smaller than the thermal velocity of the particles. The typical size of the inhomogeneity is taken to be comparable to the average Larmor ionic radius. The author is grateful to V. I. Kogan for

Card 1/2

ACCESSION NR: AP4041139

discussions and valuable suggestions. Orig. art. has: no figures, 8 equations.

ASSOCIATION: Moscovskiy inzhenerno - fizicheskiy institut (Moscow Engineering Physics Institute)

SUBMITTED: 10Jan64

SUB CODE: ME

NO REF SOV: 004

ENCL: 00

OTHER: 001

Card 2/2

1 14076-66 INT(1)/INT(1)/INT(n)-2/INT(n) INT(e) RT
ACC NR: AP8003240
SOURCE CODE: UR/0020/65/165/006/1269/1272

AUTHOR: Arsenin, V. V.

ORG: Moscow Engineering Physics Institute (Moskovskiy inzhenerno-fizicheskiy institut)

21,44,55
TITLE: Stability of a rarefied plasma in short traps

SOURCE: AN SSSR. Doklady, v. 165, no. 6, 1965, 1269-1272

TOPIC TAGS: plasma physics, plasma electron temperature, plasma instability, rarefied plasma

ABSTRACT: Drift and channel instability of a rarefied nonhomogeneous plasma are analyzed in a trap which is "long" with respect to ions and "short" with respect to electrons. In this case, the electron is affected by the average perturbation field with respect to the length of the trap, and the oscillation equations differ considerably from those for a system of infinite length. The author limits himself to the idealized case where the magnetic lines of force are assumed to be straight throughout the entire length of the trap, and the trap is bounded at the ends by walls

Card 1/2

DOC: 533.951.7

L 14076-66

ACC NR: AP6003240

which are perfect reflectors with respect to the particles. The boundary conditions for the ends are given and the characteristics which distinguish the given system from a trap of infinite length are discussed. An equation is derived for oscillations of a plasma of given density in a metal cylinder of given radius. A solution for this equation is found which satisfies the predetermined boundary conditions. It is shown that the integral electron term has no effect on the frequency of the oscillations, and therefore that drift instability takes place in a "short" trap. This conclusion may be extended to all cases where the longitudinal and transverse electron temperatures are equal. It is found that the criterion for drift instability in the finite system coincides with that derived for the system of infinite length even when the longitudinal electron temperature is much less than the transverse temperature. Conditions for aperiodic instability in a short trap are discussed. Orig. art. has: 10 formulas.

SUB CODE: 20/ SUBM DATE: 26Apr65/ ORIG REF: 001/ OTH REF: 001

PC
Card 2/2

ARSENIN, V. Ya.

Priroda proyektsey nekotorykh V mozhestv. IAN, ser. matem., 4(1940),
403-410

SO: Mathematics in the USSR, 1917-1947
edited by Kurosh, A. G.,
Markushevich, A. K.
Rashevskiy, P.K.
Moscow-Leningrad, 1948

[illegible]

100-100000

ARGENTINA, Vol.

[illegible]

present a detailed survey of the theme of the novel. The then all-embracing Scotland of the novel is the mother to a new life, life in a new world, and this city, Edinburgh, is the place where the new life is reviewed and

$$f = f(\sigma_{11}, \sigma_{22}, \sigma_{33}, \sigma_{12}, \sigma_{13}, \sigma_{23})$$

15-00000

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1432
 AUTHOR ARSENIN, V.JA., JANENKO, N.N.
 TITLE On the Interaction between Shock Waves and Propagated Waves.
 PERIODICAL Dokl. Akad. Nauk, 109, fasc. 4, 713-716 (1956)
 Issued: 10 / 1956 reviewed: 10 / 1956

For the two-dimensional flow of a perfect isothermal gas it is true that:

$$q \left(\frac{\partial v}{\partial t} + v \frac{\partial v}{\partial u} \right) + c^2 \frac{\partial q}{\partial u} = 0; \quad \frac{\partial q}{\partial t} + v \frac{\partial q}{\partial u} + q \frac{\partial v}{\partial u} = 0 \quad (1)$$

Here $c^2 = aT$; $p = c^2 q$, p - pressure of the gas, q - density, v - velocity, T - temperature, u - Euler's coordinate. Herefrom results, by the introduction of RIEMANN'S invariants $r = c \ln q + v$ and $s = -c \ln q + v$, the following system of "equations of invariants":

$$\frac{\partial r}{\partial t} + \left(\frac{r+s}{2} + c \right) \frac{\partial s}{\partial u} = 0; \quad \frac{\partial s}{\partial t} + \left(\frac{r+s}{2} - c \right) \frac{\partial r}{\partial u} = 0. \quad (2)$$

To the system (1)(2) there correspond two families of characteristics:

- I. The r -characteristics: $du/dt = v + c = \frac{r+s}{2} + c$
- II. The s -characteristics: $du/dt = v - c = \frac{r+s}{2} - c$

The HUGONIOT'S conditions for the front of a shock wave, which are valid in this case, are given and expressed by the invariants.

A motion is a propagated wave only if even only one of the invariants r, s remains constant in the zone of this motion. The propagated wave may be a rarefaction- or a compression wave. Here the propagated wave is written down in RIEMANN'S form.

On the occasion of the passage of a shock wave past a propagated wave another propagated wave occurs behind the front of the shock wave in the zone of

Dokl.Akad.Nauk, 109, fasc.4, 713-716 (1956)

CARD 2 / 2

PA - 1432

which the invariant remains constant. Here the case is investigated in which a shock wave moves over a background with decreasing pressure and increasing velocity. The velocity jump and the force of the shock wave, i.e. the ratio of pressures on the front of the shock wave remain constant as regards time. Consequently, also the velocity of the propagation of the shock wave in the material remains constant. Next, the velocity of the shock wave is expressed as a function of time.

In the case of a shock wave overtaking a propagated expansion wave a propagated compression wave is produced behind the shock wave. The corresponding formula is written down and specialized for automodellike waves. The problem is solved in a similar manner if a shock wave moves along a propagated compression wave. On the occasion of interaction between shock waves moving against one another over a constant background their force remains constant.

INSTITUTION: Department for Applied Mathematics of the Mathematical Institute "V.A.STEKLOV" of the Academy of Science in the USSR.

24(0)

PHASE I BOOK EXPLOITATION

80V/3104

Moscow. Inzhenerno-fizicheskiy institut. Kafedra matematiki

Sbornik nauchnykh rabot (Collection of Scientific Works) [Moscow]
Atomizdat, 1958. 194 p. 1,000 copies printed.

Tech. Ed. R.A. Negrinovskaya.

PURPOSE: This book is intended for applied mathematicians and theoretical physicists.

COVERAGE: This book contains a collection of articles by leading Soviet mathematicians and physicists on topics in atomic physics. The Thomas-Fermi generalized model of the atom, distributions, compression of an isothermic gas, boundary value problems, etc. are discussed. The book was published under the auspices of the Department of Mathematics of the Moscow Engineering-Physics Institute. No personalities are mentioned. References accompany individual articles.

Card 13

Collection of Scientific Works

SOV/3104

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Card 2/3

Collection of Scientific Works

Rozhdestvenskiy, B.L. On Certain Formulas of Quadratures

SOV/3104

137

Yanenko, N.N. Asymptotic and Approximation Formulas for the
Pressure and Internal Energy of Matter in the Thomas-Fermi
Generalized Model of the Atom

144

AVAILABLE: (Library of Congress (QA3.M72)

Card 3/3

AC/EMP
3-21-60

32376

S/124/61/000/012/008/038
D237/D304

10 1410

13:7

AUTHORS: Samarakiy, A. A., and Arsenin, V. Ya.

TITLE: On numerical solutions of gas-dynamic equations with various types of viscosity

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 12, 1961, 17, abstract 12B92 (Zh. vychisl. matem. i matem. fiz., 1961, 1, no. 2, 357-360)

TEXT: Finite-difference schemes of continuous calculation (in which lines of discontinuity do not appear) are considered for the equations of gas-dynamics of a plane, one-dimensional isentropic gas flow with various types of viscosity. Viscosity is subject to the following conditions: The system of equations should have a continuous solution, influence of viscosity should be vanishingly small within the shock layer, and, in the region of rarefaction wave, gyugonio [Abstracter's note: Transliteration] conditions should be fulfilled on the boundary of the layer

HUGO/V101

Card 1/2

SAMARSKIY, A.A. (Moskva); ARSENIN, V.Ya. (Moskva)

Numerical solution of the equations of gas dynamics involving
different types of viscosity. Zhur. vych. mat. i mat. fiz. 1
no.2:357-360 Mr-Apr '61. (MIRA 14:8)
(Differential equations--Numerical solutions)
(Gas dynamics)

ARSENIN, V. Ya.; VLADIMIROV, L. A.; PORCEMENT, G. J.; LUKINA, A. A.; LUKINOV, A. N. 7

"Concerning the Question about Working up the Spectra of Gamma Rays and Fast Neutrons Measured with the Help of Single Crystal Scintillation Spectrometers."

report submitted for All-Union Conf on Nuclear Spectroscopy, Tbilisi, 14-22 Feb 64.

MIFI (Moscow Engineering Physics Inst)

TIKHONOV, A.N., ARSEVIN, V.Ye. (Moskva)

On certain nonlinear functionals. Mat. stor. 65 no.4: 612-6.
521.1D: 164. '64. (MIRA 1811)

L 2283-66 EWT(m)/EPT(n)-2/3WA(h) DM

ACCESSION NR: AP5016927

UR/0089/05/018/006/0588/0593
621.039.519.22

AUTHORS: Tikhonov, A. N.; Arsenin, V. Ya.; Duncova, A. N.; Mayorov,
L. V.; Mostovoy, V. I.

TITLE: New method of reconstruction of true spectra

SOURCE: Atomnaya energiya, v. 18, no. 6, 1965, 528-593

TOPIC TAGS: neutron spectrum, neutron energy distribution, nuclear reactor characteristic, integral equation, Fredholm equation

ABSTRACT: The article presents two examples of the use of a new method of solving problems based on incomplete experimental data, which arise in the reduction of results of experiments on nuclear reactors. This method was developed by one of the authors (Tikhonov, DAN SSSR v. 149, 529, 1963) for Fredholm equations of the first kind. The first example considers the reconstruction of the true energy spectrum of epithermal neutrons in a uranium block of a reactor from the results of measurements with the aid of a mechanical selector.

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L 2283-66

ACCESSION NR: AP5016927

The second example is devoted to the calculation of the scalar energy flux of thermal neutrons in a heterogeneous lattice moderator, from measurements of the directional flux. The examples illustrate the possibility of solving some problems in reactor physics in which the experimentally obtained spectra are distorted because of shortcomings of the measurement apparatus or of the method. Orig. art. has 4 figures and 9 formulas

ASSOCIATION: None

SUBMITTED: 15Jun64

ENCL: 00

SUB CODE: NP

NR REF SOV: 004

OTHER: 003

Card 2/2 DP

TIKHONOV, A.N.; ARSEENIN, V.A.; VLADIMIROV, L.A.; DOROSHENKO, G.G.; DUMOVA, A.A.

Processing of spectra of gamma quanta and fast neutrons measured
by means of single-crystal scintillation spectrometers. Izv. AN
SSSR, Ser. fiz. 29 no. 5: 315-318 My '65. (MIRA 18:5)

~~KERLIDZE~~, M.A.; ARSENISHVILI, A.Yu.; PEROVA, V.V.; MANDZGALADZE, S.N.

Metallurgical characteristics of Sadakhlo, Adshani, Darkveti, and
Motsameti limestones [in Georgian with summary in Russian]. Trudy
Inst. met. i gor. deln AN Gruz. SSR 2:175-197 '69. (MIRA 11:1)
(Georgia--Limestone)

✓ Ferromanganese production from the Chelivir'inskii
carbonate ore. A. A. Arsenovskii, S. G. Bolbo, M. A.
Kekeliche, V. V. Pajva, B. F. Pikhonko, and A. M.
Taritsyn. *Izv. Akad. Nauk S.S.S.R., Otd. Tekh. Nauk* 1955, No. 11, 6-12. The Mn carbonate ore is
hydrous and cannot be beneficiated by any of the
beneficiation methods used locally, owing to the ignorance
regarding its metallurgical properties. It has found no industrial
applications until recently, and was left on the mine and
lost. The Mn content in the crude ore varies between 9
and 32%; in the sintered ore between 18 and 30%. Lab.
and large-scale blast furnace tests of the carbonate ore
proved it to be well suited for the production of ferroman-
ganese. W. M. Sturges

(5)

within the department in respect to their suitability for
to assistance consisting of M. A. Kakhelidze, A. M. J. Kakhelidze,
and M. A. Kakhelidze, and M. A. Kakhelidze, and M. A. Kakhelidze,
department of the State Security, S. M. R. 10, Box 1, M. A. Kakhelidze,
M. A. Kakhelidze, and M. A. Kakhelidze. The Kakhelidze brothers, who are M. A. Kakhelidze,
and M. A. Kakhelidze, with their M. A. Kakhelidze, and M. A. Kakhelidze, for the light
of the fact that M. A. Kakhelidze, and M. A. Kakhelidze, identified the Kakhelidze
brothers as being the same, although it tended to have high
lighting of the Kakhelidze, and M. A. Kakhelidze, and M. A. Kakhelidze, and M. A. Kakhelidze,
up for document. This substantiated a certain degree of
existing before use. M. A. Kakhelidze

3

1. The purpose of this study is to determine the effect of the use of the word "MURDER" in the title of a document on the reader's perception of the document's content. The study was conducted by a group of 100 subjects who were asked to read a document titled "MURDER" and then to answer a series of questions about the document's content. The results of the study show that the use of the word "MURDER" in the title significantly increased the number of correct answers to the questions.

AUTHOR: Arsenishvili, A. Yu. (Tbilisi)

24-9-16/33

TITLE: On the smelting of the "KMK" (Si-Ca-Mn) alloy.
(O vyplavke splava KMK)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1957, No.9, pp.110-113 (USSR)

ABSTRACT: The process of producing Si-Ca-Mn alloys is based on the reaction of simultaneous reduction of the oxides of Ca, Si and Mn as expressed by eq.(1), p.110. The process of reduction of these oxides should proceed without them getting into the liquid state, i.e. the smelting of this alloy from the respective oxides inside an electric furnace should proceed by means of a slagless process or with a practically minimum quantity of slag. Owing to the selective reduction of manganese and formation of high melting point compounds with melting points above the reduction temperature, the process of smelting of this alloy can be effected without slag formation. Since the reduction processes should precede slag formation, the surface of contact of the reducing agent with the oxides to be reduced is of great importance and also the speed of heating to the reduction temperature. The experiments described in this paper were carried out at various

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On the smelting of the "KMK" (Si-Ca-Mn) alloy. 24-9-16/33

voltages in a 25 kVA electric arc furnace of the open type with a conducting bottom. As raw materials waste slags of medium carbon ferro-manganese and silicon-manganese, quartz sand, limestone and fine coke were used, the analyses of which are given in Table 1, p.112. The first series of tests were carried out with a charge containing medium carbon ferro-manganese slag, quartz sand and limestone using an initial voltage of 25 V, a current intensity of 900 to 950 A and a specific power of 9.45 kVA/dm² of the furnace bottom; after five heats it became necessary to clean the furnace by means of manganese ore and to change the voltage to 30 V and the current intensity to 800 to 850 A, at which the furnace worked fully normally; the chemical analyses of the obtained alloys are given in Table 2, p.112; Table 3, p.113, gives the analyses of a second series of smelting tests using for the charge a Si-Mn slag, quartz sand and limestone. The results show that it is advisable to control the smelting in such a way as to avoid or at least to obtain a very low slag formation. The ratio of the reduced oxides in the charge should be selected so as to obtain high melting compounds with

Card 2/3

On the smelting of the "KMX" (Si-Ca-Mn) alloy.

24-9-16/33

melting point temperature not much higher than the temperature of their reduction with carbon. The quantity of the reducing agent must be calculated so as to obtain a complete reduction of all the oxides in the charge, taking into consideration losses. The process should proceed with high specific power with the appropriate electric parameters and dimensions of the melting space. In the case of formation of a high melting point lining and formation of a deposit in the hearth, periodic cleaning with manganese ore or limestone is necessary. The author recommends repetition of the experiments on a semi-industrial scale. There are three tables.

SUBMITTED: July 10, 1957.

AVAILABLE: Library of Congress.

Card 3/3

SOV/137-58-10-20784

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 10, p 62 (USSR)

AUTHORS: Kekelidze, M.A., Arsenishvili, A.Yu.

TITLE: Experiments in the Smelting of a Silicon-manganese-calcium Alloy (Kuznetsk Metallurgical Kombinat) [Opyty po vyplavke kremne-margantsovo-kal'tsiyevogo splava (KMK)] in Georgian

PERIODICAL: Soobshch. AN GruzSSR, 1957, Vol 19, Nr 2, pp 197-202

ABSTRACT: An experimental single-phase 25-kva arc furnace with graphite electrode and conducting hearth was used to conduct experiments in the reducing smelting of slags from the melting of medium carbon Fe-Mn of the following % composition: SiO₂ 31.75, Al₂O₃ 1.75, CaO 26.6, MgO 2.5, Fe 0.84, Mn 29.35, P 0.07, SO₃ 0.22 with the object of producing an Si-Mn-Ca alloy useful as a complex deoxidizer of steel. When the slag is melted with 20% coke breeze, alloys having the following % composition are obtained: SiO₂ 22-26, Mn 57-63, Ca 0.8-1.1, Al 2-2.5, since the slags were melted at comparatively low temperature, and this inhibited total reduction of the CaO.

Card 1/2 Addition of Fe to the charge did not promote a higher degree of

SOV/137-58-10-20784

Experiments in the Smelting of a Silicon-manganese-calcium Alloy

reduction of the CaO. Addition of quartz sand, and of up to 26% CaC_2 to the mix yielded alloys with the following % composition: Si 35-45, Mn 29-49.5, Ca 6-7.65, but this yielded a very high-melting slag that flowed out of the furnace with difficulty. Better results were yielded by a mix consisting of slag, limestone, and quartz sand, calculated from the reaction:

$2\text{SiO}_2 + \text{CaO} + \text{MnO} + 6\text{C} = 2\text{Si} + \text{Ca} + \text{Mn} + 6\text{CO}$. This yielded alloys of the following % composition: Si 44-50, Mn 25-32, Ca 10-15.5, Al 1.5-2, P 0.02-0.026, C 0.45-0.75. The percentages recovered in the alloy were: Si 40, Mn 63, Ca 20, the consumption of electrical energy being 20 kwh/kg alloy. The melting must be run with rapid heating of the mix until the onset of the reactions of reduction.

Ye.Z.

1. Calcium-manganese-silicon alloys--Production
2. Slags--Processing
3. Furnaces--Operation

Card 2/2

KEKELIDZE, M.A.; ARSENISEVILI, A.Yu.; PEROVA, V.V.; ROYKO, S.G.; TSARITSYN, A.N.

Replacing ordinary Chiatura manganese ores by Chiatura carbonate manganese ores in the burden of pig iron used for steel manufacture. Trudy Inst.net. AN Grus.SSR 9:43-47 '58. (MIRA 12:8)
(Chiatura--Manganese ores) (Cast iron--Metallurgy)

KEKELIDZE, M.A.; ARSENISHVILI, A.Yu.; PEROVA, V.V.; KULIKOV, A.P.; TKACH, I.T.

Using Chiatura carbonate manganese ores for the production of
pig iron used in steel manufacture. Trudy Inst.met. AN Gruz.
SSR 9:49-57 '58. (MIRA 12:8)
(Chiatura--Manganese ores) (Cast iron--Metallurgy)

ARSENISHVILI, A.Yu.

Experiments on the smelting of silicon-manganese high in silicon.
Trudy Inst. met. AN Gruz. SSR 10:29-38 '60. (NIRA 13:12)
(Silicon-manganese alloys--Metallurgy)

MIKIASHVILI, Sh.M.; ARSENISHVILI, A.Yu.; BUKHRASHVILI, A.G.

Viscosity of the molten system $\text{CaO} - \text{MnO} - \text{SiO}_2$. Soob. AN Gruz.
SSR 27 no.3:313-320 S '61. (MIRA 15:3)

1. Akademiya nauk Gruzinskoy SSR, Institut metallurgii, Tbilisi.
Predstavleno akademikom F.N.Tavadze.
(Slag) (Viscosity)

ARSENISHVILI, A.V.

Making silicon-manganese-calcium alloys (KKh) from a briquetted
charge. Trudy Inst. met. AN Gruz. SSR vol. 13:45-50 '62.
(MIRA 17:9)

ARSENHSHVILI, A.Yu.; BOGDANOV, M.N.; GORIZONTOVA, Ye.A.; YERSHOVA, Ye.I.;
YELENBAUM, N.I.; IOFE, N.Sh.; KARAVAYEV, A.M.; KOLOBOV, G.M.;
LOBIN, N.V., kand. sel'khoz. nauk; KUSHNER, Kh.F., doktor biolog.
nauk; MISHIN, P.N.; PATRIK, I.A., kand. sel'khoz. nauk; KEDIKH,
V.K., kand. sel'khoz. nauk; SEMTNEV, S.I., akademik; SAMOLETOV,
A.I.; FILASOV, V.7.; SHKUDOVA, R.I.; SOKOLOVA, G.S., red.;
ROMANOVICH, Ye.F., red.; LEVINA, L.G., tekhn. red.

[Chickens for meat] Tsyplyata na miaso. Moskva, Izd-vo M-va
sel'khoz. RSFSR, 1960. 197 p. (MIRA 15:1)
(Poultry)

137-58-6-11278

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 3 (USSR)

AUTHORS: Kekelidze, M. A., Arsenishvili, A. Yu.

TITLE: An Investigation of the Manganous Sandstones of Chiatura (Issledovaniye chiaturskikh margantsovistykh peschanikov)

PERIODICAL: Tr. In-ta metalla i gorn. dela. AN GruzSSR. 1957, Vol 8, pp 53-58

ABSTRACT: The object of this work is a study of the chemical and mineralogical composition and of certain physical and mechanical properties of the low-grade manganous sandstones (MS) of Chiatura. Methods of utilizing them in the smelting of silicon-manganese are outlined in this work. The MS of Chiatura are characterized by low Mn contents (11-18%) and high silicon contents (50-67%). The Al_2O_3 , CaO, and F contents vary widely. The major non-orebearing minerals are quartz and calcite. The Mn minerals are pyrolusite, recrystallized Mn hydroxides and psilomelane. The average sp. gr. of the MS is 2.3-2.7, volumetric weight is 2.0-2.5, porosity is 5.2-16.2. Pulverizability tests of the MS showed the amount of <5 mm fines to be 6.6-10.0% and the $\sigma_{bcompress}$ to be 99-473 kg/cm². When the use

Card 1/2

137-58-6-11278

An Investigation of the Manganous Sandstones of Chiatura

of chalcedony was supplanted completely by that of MS, grade CuMn-20
silicon-manganese was obtained.

1. Manganese ores--Properties 2. Manganese ores--Applications 3. Rock--Analysis A. Sh.

Card 2/2

USSR/Georgian SSR, Tbilisi

Subject : USSR/Hydraulic Engineering Construction AID P - 1798,
Card 1/1 Pub. 35 - 10/17
Author : Arsenishvili, K. I.
Title : ~~USSR/Georgian SSR, Tbilisi~~ Study of effects of rolling waves on hydraulic structures
Periodical : Gidr. stroi., v.24, no.1, 34-37, 1955
Abstract : A series of tests made on canals with steep inclines is described with the help of equations. The canals are divided into two groups by shape: 1) waveless - with sector and triangular cross-sections, 2) wave-forming, with rectangular and trapezoidal cross-sections. In order to eliminate the impediment in operation created by waves in the canal, it is suggested that special wave absorbers be installed over the outlet into the bucket. One table, 2 photos and 3 diagrams are given. Russian references dated 1931, 1946, and 1954 are mentioned.
Institution: None
Submitted : No date

Arsenishvili, K. I.

124-1957-10-11623 D

Translation from: Referativnyy zhurnal, Mekhanika, 1957, Nr 10, p 61 (USSR)

AUTHOR: Arsenishvili, K. I.

TITLE: The Action of Waves Impinging upon Hydrotechnical Structures
(Vozdeystviye nabegayushchikh voln na gidrotekhnicheskiye sooruzheniya)

ABSTRACT: Bibliographic entry on the Author's dissertation for the degree of Doctor of Technical Sciences, Azerb. Industr. In-t (Azerbaijan Industrial Institute), Tbilisi, 1956.

ASSOCIATION: Azerb. industr. in-t (Azerbaijan Industrial Institute), Tbilisi

Card 1/1

ARSENISHVILI, K.I., kandidat tekhnicheskikh nauk.

Criteria of wave formation in channels with wide slopes. Gidr.
stroil. 25 no.3:41-44 Ap '56. (MIRA 9:9)
(Waves)

Arzenishvili, I.I.
SUBJECT: USSR/Irrigation

79-7-3/14

AUTHOR: Arzenishvili, I.I., Candidate of Mechanical Sciences and
Matishvili, O.S., Candidate of Mechanical Sciences

TITLE: "Bottom-type Vortex Discharge Gate For Fast Flowing Canals"
(Vikhrevoy vodovypusk tipa donnogo kolodtsa dlya kanalov
s bol'shimi uk'lonami)

PERIODICAL: Gidrotekhnika i Melioratsiya", 1957, # 7, pp 16-19, (USSR)

ABSTRACT: The majority of canals in the mountainous regions have strong currents, which render measurements of water deliveries both difficult and inaccurate. Laboratory tests have shown that satisfactory results can be obtained with bottom-type gates, which give exact measuring data and are not influenced by turbulent water surfaces. Besides, the whirling effect at this type of head-gates prevents silting. These gates function satisfactorily at high rates of discharge as well as at turbulent water conditions. An additional advantage is its low cost of construction as compared with the other types of gates.

Card 1/2

TITLE:

99-7-3/14
"Bottom-type Vortex Discharge Gate For East Flowing Canals"
"Vikhrevoy vodovypusk tipa donnogo kolodtsa dlya kanalov s
bol'shimi uklonami)

The article contains 1 figure and 1 table.

ASSOCIATION: Georgia Scientific Research Institute for Hyrotechnics and
Melioration (Gruzinskiy nauchno-issledovatel'niy Institut
gidrotekhniki i melioratsii)

PRESENTED BY:

SUBMITTED:

AVAILABLE: At the Library of Congress.

Card 2/2

ARSENISHVILI, K.I.

Some characteristics of advancing waves. Trudy GruzNIIGIM
no.20:173-184 '58.

(MIRA 15:5)

(Waves) (Canals)

ARSENISHVILI, K.I., doktor tekhn. nauk, prof.; DZORDZHANELI, G.,
red.; KHUTSISHVILI, V., tekhn. red.

[Effect of roll-waves on hydraulic structures] Vozdeistvie nabegaiushchikh voln na gidrotekhnicheskie soorusheniia. Tbilisi, Gos.izd-vo "Sabchot. Sakartvelo," 1961. 183 p. (MIRA 15:6)
(Waves) (Hydraulic structures)

ARSENISHVILI, R.I.

Waveless profiles of streams. Trudy Gruz NIIGIM no.21:195-202
'60. (MIRA 16:1)
(Hydrology)

ARSENISHVILI, V.G.

Studying changes in the vegetation cover of saline soils in the
Alazan' Valley. Soob. AN Gruz. SSR 27 no.6:739-746 D '61.
(MIRA 15:2)

1. Institut zoologii AN Gruzinskoy SSR, Tbilisi. Predstavleno
akademikom N.N.Ketakhoveli.

(Alazan' Valley—Plant succession)
(Saline and alkali soils)

ARSENISHVILI, V.G.

Forests adjacent to seaside statives of the Alaxani Valley.
Soob. AN GruzSSR 37 no.2:411-414 F '65.

(MIRA 18:3)

ARSENIYEV, V.I.

Determination of lithium hydroxide in the electrolyte of alkaline storage batteries. Zav.lab. 29 no.7:807 '63. (MIRA 16:8)

1. Dorozhnaya khimiko-tehnicheskaya laboratoriya parovoznoy sluzhby
Yuzhnoy zheleznoy dorogi.
(Lithium hydroxide) (Storage batteries)

ArSENIJEV, Boris, Inz.

Nomogram for calculation of network transformers with output
up to 1 kw. Sdel test 12 no.8:320, 3 of cover Ag '64

L 65083-65
ACCESSION NR: AP5011223

able-electrode rods. Dendrite directivity was determined by examining transverse and longitudinal macrosections of the ingots. Tool hardness was examined by cutting out 15x10x9 mm pieces from the ingots, on taking into account dendrite directivity, grinding the pieces on wheels, and then operating them as part of grinding machines. The results of the experiments have determination of the wear and blunting time of the tools. The results of the experiments have determined that tools fabricated from small ingots (diameter up to 100 mm) obtained as a result of the electroslag remelting of the wastes of high-speed steel are even when the dendrite directivity is not optimal, some 50 percent harder than cutting tools fabricated from rolled metal. An efficient utilization of the directivity of the principal dendrite axis makes it possible to enhance the hardness of metal 1.5 times. The peening of small ingots of steel remelted by the electroslag method increases the plasticity of the cutting tools but reduces their hardness to values roughly the same as the hardness of cutting tools made of the same high-speed steel but without electroslag remelting. The higher hardness of the tools obtained by the electroslag method is due to the more uniform distribution of the electroslag melting and crystallization of small ingots, and also to a more discrete and dislocation distribution of the carbides and other compounds throughout the ingot cross section. The clarification of these questions is the subject of special studies. Orig. aut. name

Card 2/3

3 figures, 1 table.

ASSOCIATION: Altayskiy politekhnicheskii institut im. I. I. Polzunova (Altay
Polytechnic Institute) 44.55

SUBMITTED: 18Feb66

ENCL: 00

SUB CODE: 184. IS

NO REF SOV: 005

OTHER: 000

M-LR
Card 3/3

RADCHENKO, V.G.; ARSENKIN, I.T.; ZOTKIN, I.A.

Electric slag remelting of tool steel scrap. Avtom. svar. 16
no.6:63-65 Je '63. (MIRA 16:7)

1. Altayskiy politekhnicheskii institut im. I.I. Polzunova.
(Tool steel--Electrometallurgy)
(Scrap metals--Electrometallurgy)

RADCHENKO, V.G.; ARSENKIN, V.T.; SHABALIN, V.M.; LIKHOSIERSTOV, D.M.

Increasing the resistance of a cutting tool by electrosag
remelting. Avtom. svar. 18 no.8:34-36 Ag '65. (MIRA 18:11)

1. Altayskiy politekhnicheskii institut imeni Polzunova.
Submitted February 18, 1965.

ARSENKOV, P.T.

Chromium plating of titanium and its alloys. Mashinostroitel'
no.9:34 S '65.
(MIRA 12:12)

L 20930-66 EWT(n)/EWP(s)

4H

ACC NR: AP6002574

(N)

SOURCE CODE: UN/0285/65/000/023/0062/0062

AUTHORS: Vinogradov, S. M.; Mikhlin, G. Ye.; Arsenkov, R. I.; Savopulo, L. A.

ORG: none

TITLE: Method for fabricating ceramic rings for hydroacoustic apparatus. Class 42, No. 176729 6

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 62

TOPIC TAGS: ceramic product, ceramic material

ABSTRACT: This Author Certificate presents a method for fabricating ceramic rings for hydroacoustic apparatus. The rings are assembled from ceramic blanks in the form of prisms whose adjacent surfaces are covered with an adhesive compound and subjected to polymerisation. To produce prestressing of the rings, the ceramic blanks with the adhesive compound applied to their adjacent surfaces are mounted on a band and are centrifuged at a temperature no greater than 60C.

SUB CODE: 11/ SUBM DATE: 13Jul66

Card 1/1

ULR

UDC: 621.372.631.666.727

PAL'CHENSKIY, V.V.; ARSENIYEV, R.T.

Spectrophotometric determination of the dissociation constants
of a dibasic acid. Vest.LGU 15 no.10:98-103 '60.

(MIRA 13:5)

(Acids--Basicity) (Benzoic acid--Spectra)

ARSENOIU, Constantin I.

Organizing the stimulation and popularization of the excellent workers in socialist competition. Munca sindic 7 no.11:22-25, N '63.

1. Presedintele comitetului intreprinderii de foraj, Bascov, regiunea Arges.

76-32-5-32/47

AUTHORS: Sunarokova, T. N., Arsenov, G. I.
TITLE: Methods of Cryoscopic Measurements (Metodiki krioskopicheskikh izmereniy)
PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol. 32, Nr 5, pp. 1153-1154 (USSR)

ABSTRACT: The usual method of determination based on the measurement of the maximum temperature rise gives wrong results, as can be seen from a given diagram, as the measuring values do not correspond to the real freezing point of the solutions. In determinations according to M. Bakeyev (Ref 2) which are based on the determination of the heating curves the error by undercooling is removed, however, errors due to insufficient mixing occur. An electromagnetic arrangement of mixing is described, using a multivibrator with two lamps L₁-6218 and L₂-6P3 as well as a transformer KIS-2. In order to improve the distribution of the crystals the cryoscope has an elevated bottom. In order to determine the freezing temperature the heating curves are taken by plotting the temperature on the ordinate and the time on the abscissa. By

Card 1/2

Methods of Cryoscopic Measurements

76-32-5-32/47

means of an example, a solution of benzylalcohol in benzene, the obtained diagrams are represented, the melting temperatures (crystallization) being determined by the point of intersection of two straights. The described electromagnetic mixer can also be used for other purposes. There are 4 figures and 3 references, 3 of which are Soviet.

ASSOCIATION: Akademiya nauk Kazakhskoy SSR, Institut khimii, Institut energetiki
(Institutes of Chemistry and Power Engineering, AS Kazakhskaya SSR)

SUBMITTED: May 3, 1957

1. Liquids---Freezing 2. Freezing points---Determination

Card 2/2

ARSENOV, I.. inzhener.

Dry dust-catching in preparatory mining stopes. Mast.ugl.3 no.3:19 Nr '54.
(MIRA 7:4)

(Mine dusts)

SAVOV, Dr.; IANOV, D.; APENIKOV, L.

Application of certain antibiotics in the control of the
European foulbrood. Izv Vet inst zarns parazit 7 173-180
'63.

SAVOV, Dr.; ARSENOV, L.

Action of some chemical and physical substances on the American
foulbrood. Izv Vet Inst zoon parasit 8:195-202 '64

ARSENOV, L.

Spread of the American foulbrood in the area of the V. Darnovo
District Veterinary Institute. Inv Vet inst saras parasit 8:
203-211 '64

DORIC, Radmila; MOCIC, Mirjana; PAVLOVIC, Jovan; BOZOVIC, Mariola;
ARSENOVIC, Aleksandar

Our experience with the epidemic of poliomyelitis in Serbia in
1956. Srpski arh. celok. lek. 88 no.5:489-504 My '60.

1. Klinika za infektivne bolesti Medicinskog fakulteta Univerziteta
u Beogradu. Upravnik: akademik prof. dr Kosta Todorovic.

(POLIOMYELITIS epidemiol)

ARSENOVIC, V.

Wage rates in Galenika Enterprise in Zemun. p. 1509

TEHNIKA, Beograd, Vol 10, No. 10, 1955

SO: ZEAL, Vol 5, No. 7, July 1956

ARSENOVIC, V.

Premiums and funds as factors in the further development of workers management. p. 668.
(Tehnika, Vol. 12, no. 4, 1957. Beograd, Yugoslavia)

SO: Monthly List of East European Accessions. (REAL) LC. Vol. 6, No. 7,
July 1957. Uncl.

MEKRYAN, G.M.; PAPAZYAN, N.A.; KAZARYAN, R.A.; ARSENYAN, G.S.

1. 20 derivatives of dienes. Part 1: Some chloro derivatives of
butadiene. Izv. AN Arm.SSR. Khim.nauki 18 no.1:50-59 '65.

(MIRA 18:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut polimernykh
produktov.

Cauchy problem for the linearized Boltzmann equation.

Cauchy problem for the linearized Boltzmann equation. Dokl. AN SSSR
161 no. 3:1104-1106 Ag '65. (MIRA 18:8)

L. Markovskiy grad. in physics university. Submitted January 4, 1965.

ARSEN'YEV, A.A.

Fracture tectonics and the diamond potential of the eastern
part of the Siberian Platform. Trudy IAFAN AN SSSR Ser. geol.
no.9:39-44 '63. (MIRA 16:12)

ARSEN'YEV, A.A.

Asymptotic properties of the trace of the spectral function
of a self-adjoint elliptic differential operator of second
order. Dokl. AN SSSR 157 no.4:761-673 Ag '64 (NIRA 17:8)

1. Moskovskiy gosudarstvennyy universitet Im. M.V. Lomonosova
Predstavleno akademikom S.L. Sobolevym.

L 27776-65 EPR/EN(v)/ENG(s)/ENT(d)/ENT(i)/ENT(m)/HPA(H)/T-2/T-3/HA(d)/ENG(w)/
 ENP(g) P₅/P₄/w₄ EN/IN
 ACCESSION NR: AT503385 8/2563/64/000/231/0026/0010

AUTHOR: Arsen'yev, L. V.; Kantor, S. A.; Orlov, R. V.

TITLE: Improvement of the static and dynamic properties of a transportable gas turbine motor using a controllable nozzle device within the power turbine

SOURCE: Leningrad Polytechnical Institute. Trudy, no. 232, 1964. Turbomashiny (Turbomachines), 26-30

TOPIC TAGS: gas turbine; movable gas turbine, variable low gas turbine, variable compression gas turbine, constant temperature gas turbine, gas turbine efficiency

ABSTRACT: Movable gas turbines in the Soviet Union are still in the experimental phase, and the greatest difficulties are encountered in connection with the poor efficiency of engines operating against variable loads. The article presents the variable operating characteristics of a movable gas turbine designed according to the block diagram shown in Fig. 1 of the Enclosure. All calculations of the turbine flows were carried out at the average vane radii. Mechanical and gas losses were taken care of by the appropriate efficiencies which were assumed constant under all operating conditions. The effect of the incident angle on vane energy losses

Card 1/3

L 27716-65

ACCESSION NR: AT5003385

was taken into account by utilizing only that component of the inlet velocity from the compressor turbine which coincides with the tangent to the mean line of the profile at the entrance edge of the nozzle blades. Finally, the heat capacity of the working parts under all loads was assumed constant and independent of temperature. The calculations of the variable load operation assumed a constant angle setting of the nozzle blades of the power turbine, a constant rotational frequency of the turbo-compressor block (as a result of the rotational adjustment of the pertinent nozzle blades), and the constancy of the initial gas temperature (achieved, again, by rotating the nozzle blades of the power turbine). This constant gas temperature, maintained even during partial loads, makes the engine very economical although at the expense of its pick-up response. This last drawback can be eliminated by operating the turbo-compressor at constant rotational frequency. However, this, in turn, reduces the efficiency of the device. Orig. art. has: 4 figures.

ASSOCIATION: Leningradskiy politehnicheskii institut Imeni M. V. Kalinina (Leningrad Polytechnic Institute)

SUBMITTED: 00

ENCL: 01

FILE CODE: PR

NO REF SCV: 000

OTHER: 000

Card 2/3

L 27776-65
ACCESSION NR: AT503385

ENCLOSURE: 01



Figure 1. Block diagram of a transportable gas-turbine engine: C - compressor; CC - combustion chamber; OT - compressor turbine; PT - power turbine; L - consumer (load)

Cont. 3/3

ACC NR: AT7005792

(N)

SOURCE CODE: UR/3240/66/000/002/0012/0018

AUTHORS: Aleksapol'skiy, D. Ya.; Arsen'yev, V. M.

ORG: Kharkov Polytechnic Institute (Khar'kovskiy politekhnicheskii institut)

TITLE: The effects of manufacturing tolerances of impeller components on the characteristics of a pump stage

SOURCE: Kharkov. Politekhmicheskii institut. Energeticheskoye mashinostroyeniye, no. 2, 1966. Gidroturbiny i drugiye gidromashiny (Hydraulic turbines and other hydraulic machines), 12-18

TOPIC TAGS: centrifugal pump, impeller design, *blade profile*

ABSTRACT: To determine the effects of manufacturing tolerances (which are reflected in machining costs) on pump performance, experiments were performed with a centrifugal pump of low specific speed ($n_s = 65$) using impellers with inaccurate outside pitch, blade edge profiles, and blade body profiles. The model impellers were $D_2 = 0.254$ m in diameter with 7 cylindrical blades spaced equally 46° apart. To evaluate the effects of pitch inaccuracy, three modifications with $\sum \Delta t = 0.008, 0.015$, and 0.025 and with $\Delta \rho_s = 0.516, 0.966$, and 1.61° respectively were tested for

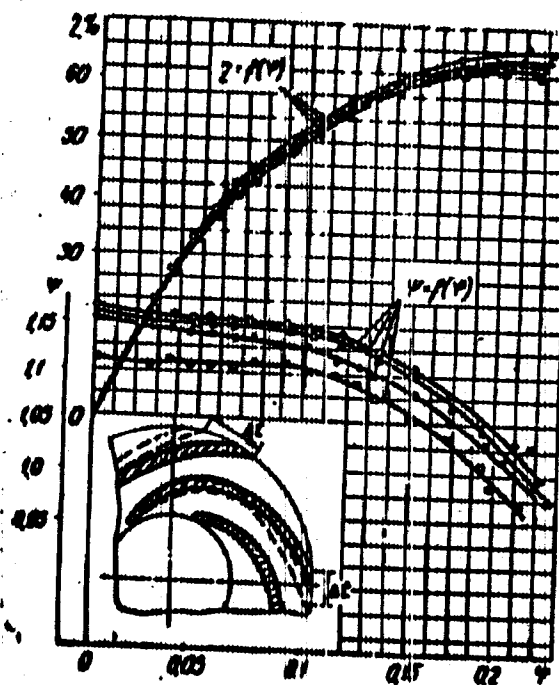
$$\Delta \rho_s = \frac{\sum \Delta t \cdot 360}{D_2}$$

Δt is shown in Fig. 1. The pump characteristics are also shown in Fig. 1,

Card 1/5

ACC NR: A17005792

Fig. 1. Effects of pitch variations on pump characteristics: o - model impeller; Δ , $\circ$, $\square$ - modifications 1, 2, and 3 respectively



Card 2/5

ACC NR: AT7005792

where

$$\varphi = \frac{60Q}{\pi^2 D_2^3 n}$$

$$\psi = \frac{71 \cdot 10^3 g H}{\pi^2 D_2^3 n^2}$$

Q - m³/sec; b - impeller width, m; n - rpm; H - m of water. The pressure loss coefficient

$$\epsilon = \left(1 - \frac{\psi_{i, opt}}{\psi_{opt}}\right) 100\%$$

was found empirically for $n_g = 65--100$ to be

$$\epsilon = (0.786 - 0.0028n_g) \Delta\psi_i + (1.91 - 0.017n_g) \Delta\psi_o,$$

where $\psi_{i, opt}$ and ψ_{opt} are the pressure coefficients of the tested and model impellers respectively. Five modifications of blade inlet profiles were studied (see Fig. 2). Here, modification c profile was obtained by conformal representation of a cylinder; modifications d and e have straight leading edges with ratios $l/s = 1.5$ and 4 respectively. The coefficients

$$K_0 = \frac{Q_{opt} Q_{H, max}}{Q_{opt}}$$

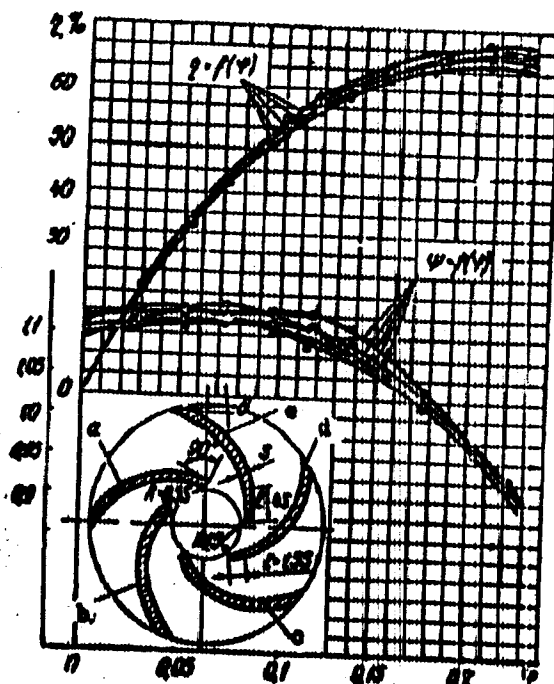
and

$$K_1 = \frac{H_{max}}{H_{max}} = \frac{H_{max}}{H_{Q=0}}$$

Card 3/5

ACC NR: AT7005792

Fig. 2. Effects of blade inlet profile: $\circ$, Δ , $\diamond$, $\square$, D - modifications a, b, c, d, and e respectively



Card 4/5

ACC NR: AT7005792

(where Q_{opt} -- flow corresponding to best efficiency; $Q_{H max}$ -- flow corresponding to highest pressure) were calculated and are tabulated. It was found that, although modification c (conformal representation) was best, modification e would be most practical. Several blade profile modifications were tested, and an empirical equation for the pressure loss coefficient ($n_p = 60-70$ only) was found to be

$$\epsilon = (0.32 + 15.83) (11.84 - 4.88 \epsilon_p)$$

where

$$\epsilon = \frac{z'}{z}$$

$$\epsilon = \frac{z' - z}{\exp(z' - z)}$$

(where z' - number of blades with changed profile). It is concluded that the significant effects of the tested variations warrant further investigation of other inaccuracies and tolerances in other pump components. Orig. art. has: 6 formulas, 5 figures, and 2 tables.

SUB CODE: 1380/SUBM DATE: none/ ORIG REF: 001/ OTH REF: 001

Cord 5/5

ACC NR: AT/000794

(N)

SOURCE CODE: UR/5240/16/000/002/0059/0004

AUTHORS: Aleksapol'skiy, D. Ya.; Arsen'yev, V. M.; Malyushenko, V. V.

ORG: /Aleksapol'skiy and Arsen'yev/ Kharkov Polytechnic Institute (Khar'kovskiy politekhnicheskii institut); /Malyushenko/ Sum'ska Pump Works (Sum'skoy nasosnyy zavod)

TITLE: On the effect of the smoothness of machining the rotor on losses in a pump

SOURCE: Kharkov. Politekhnicheskii institut. Energeticheskoye mashinostroyeniye, no. 2, 1966. Gidroturbiny i drugiye gidromashiny (Hydraulic turbines and other hydraulic machines), 59-64

TOPIC TAGS: centrifugal pump, pressure gradient, friction, friction loss, drag coefficient, metal machining, surface roughness/ 5P6 X 8 centrifugal pump

ABSTRACT: The effect of the smoothness of the water ducts in a centrifugal pump rotor on the pump power is determined experimentally. Comparative tests of the rotor of a 5P6 X 8 pump with $n = 2950$ rpm, $D_2 = 260$ mm, and $Q = 1.66$ m³/min and a rotor with an enamel coating were made. In the low-delivery zone, the actual friction losses considerably exceeded the calculated ones. The difference between the disk-friction power of the completely machined disks and the disks machined to $D_x = 0.7 D_2$ was found to be reduced with an improvement in the surface smoothness (see Fig. 1). The smoothness of machining of the rotor ducts has a substantial influence on friction.

Card 1/2

ACC NR: 47005794

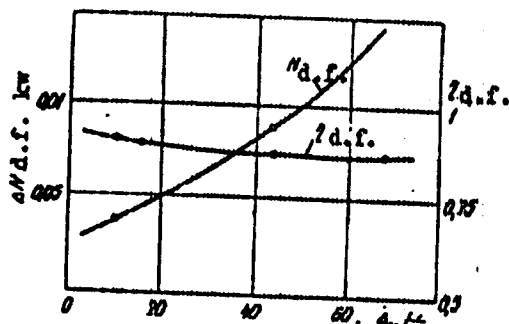


Fig. 1. Specific and relative disk-friction losses versus roughness

The optimal value of surface roughness is found to be 30--40 μ or $\nabla 4$ -- $\nabla 5$. Orig. art. has: 7 formulas and 4 graphs.

SUB CODE: 13/ SUBM DATE: none/ ORIG REF: 005

Card 2/2

ABSEFT'YEV, A.A.

Case of recovery from tetanus. Fel'd. 1 akush. 25 no.3:41
Mr '60. (MIRA 13:6)

1. Churachikskaya uchastkovaya bol'nitsa, Chuvashskaya ASSR.
(TETANUS)

ARSEN'YEV, A.A.

Fourier transformation of a slowly decreasing function.

Dokl. AN SSSR 154 no.2:251-253 Ja'64.

(MIHA 17:2)

1. Predstavleno akademikom A.N. Kolmogorovym.

8/0120/64/000/003/0123/0125

ACCESSION NR: AP4041032

AUTHOR: Potapov, V. K.; Arsent'yev, A. G.; Kazakevich, V. Ye.;
Piskunov, A. K.; Chishevskaya, N. N.

TITLE: Automatic recording of ionization curves

SOURCE: Pribury* i tekhnika eksperimenta, no. 3, 1964, 123-125

TOPIC TAGS: spectrometer, mass spectrometer, MKh-1303 mass spectrometer,
ionization curve recording

ABSTRACT: A device for automatic recording of ionization curves (up to one minute) in an MKh-1303 mass spectrometer is described. The ion-source electron gun generates 5-30-ev electrons for ionizing gases or vapors. The ionization and ion-extraction processes are time-separated. Resonance amplification of the ion current corresponding to the electron ionization with a specified energy scatter, synchronous detecting, and the direct recording of ionization

Cord

1/2

ARSEN'T'YEV, Aleksandr Ivanovich; POLYAKOV, I., red.; FISHKO, A.,
tekhn.red.

[Stars over China] Zvezdy nad Kitsem. Simferopol', Krym-
izdat, 1959. 117 p. (MIRA 13:7)
(China--Description and travel)

ARSENT'YEV, A.I.; YUMATOV, B.P., redaktor; SHUSTOVA, V.I., redaktor;
~~MIKHAYLOVA~~, V.V., tekhnicheskii redaktor

[Earthwork by means of tractor and scraper units] Razrabotka
mestoroshdenii traktorno-skrepernykh agregatami. Moskva, Gos.
nauchno-tekhn. izd-vo Lit-ry po cherno i tsvetnoi metallurgii.
1955. 135 p. (MIRA 8:6)
(Earthwork)

KAPLUNOV, Rodion Pavlovich, professor, doktor; PROKOP'YEV, Yevgeniy Petrovich, professor, doktor; STARIKOV, Nikolay Antonovich, professor, doktor; BRICHKIN, Aleksandr Vasil'yevich, professor, doktor; MALAKHOV, G.M., professor, doktor, retsentsent; STREKHENKO, A.I., retsentsent; KENDIN, V.V., professor, doktor, retsentsent; MARTYNOV, V.K., kandidat tekhnicheskikh nauk, retsentsent; ANTONOV, YEV, A.I., kandidat tekhnicheskikh nauk, retsentsent; KULIKOV, V.V., kandidat tekhnicheskikh nauk, retsentsent; DENIN, N.S., doktor tekhnicheskikh nauk, retsentsent; TARASOV, L.Ya., redaktor; PANTSEVSKIY, V.N., redaktor; BEKKER, O.G., tekhnicheskii redaktor

[Underground workings of ores and deposits] Podzemnaya razrabotka rudnykh i rossypnykh mestorozhdenii. Moskva, Gos.nauchno-tekhn. izd-vo lit-fy po cherno i svetnoi metallurgii, 1955. 680 p.
(Mining engineering) (MIRA 9:3)

ARSEN'YEV, A.I., kandidat tekhnicheskikh nauk; KITACH, G.M., gornyy inzhener;
RESACHENKO, A.A., gornyy inzhener

Two-level excavator terraces. Gor.shur. no.6:16-19 Ja '55. (MIRA 8:8)
(Krivoy Rog—Iron mines and mining) (Mine haulage)

ZHURAVLEV, S.P.; TARAN, N.N.; MALAKHOV, G.M.; MEDIN, V.V.; KUDRYASHOV, K.V.;
ZHUKOV, M.N.; KADYRBAYEV, R.A.; SHOSTAK, A.G.; RIMSKIK, V.S.; KOSTYUK, A.M.;
ARSEN'TYEV, A.I.; SHUTENKOV, T.S.; SERYAKOV, G.V.

"Mining ore deposits." M.I. Agoshkov. Reviewed by S.P. Zhuravlev and
others. Gor.zhur. no.7:63-64 J1 '55. (MIRA 8:8)
(Mines and mineral resources) (Agoshkov, M.I.)

ARSENT'YEV, A.I., kandidat tekhnicheskikh nauk; KITACH, O.M., gerany
insheher; YESHCHENKO, A.A., gerany insheher.

Practice of trench digging in rock. Ger.shar. no.12:16-23 D '55.
(Krivy Rog--Strip mining) (MIRA 9:4)

AUTHOR: Arsent'yev, A.I., Candidate of Technical Sciences 127-12-6/28

TITLE: A Method to Model the Development of Mining Operations in the YuGOK Open Pit (Sposob modelirovaniya razvitiya gornyykh rabot na kar'yere YuGOK)

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ABSTRACT: In order to visualize the correct course of mining in an open pit and the relationship of the opening and exploitation processes, the author has made a cardboard model of the mining development of the YuGOK open pit of a scale of 1:5,000. The outlines of the open pit and geological data were designated on each level of the model. This method made it possible to determine the minimum amount of mining development which would be necessary to ensure reliable progress of an open pit and the maintenance of normal working areas. On the basis of these data a graph was constructed from which can be concluded that it is expedient to divide the mining operations in the YuGOK open pit into 3 periods:

1. The starting period when the exploitation coefficient of opening must be no less than $2.2 \text{ m}^3/\text{m}^3$;
2. The normal exploitation period when mining operations will go down to the level of ± 0 and the value of exploitation co-

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efficient of opening will be no less than $0.64 \text{ m}^3/\text{m}^3$;
3. The period when the mining operations will lower to the level of -45 m and the opening coefficient must be no less than $0.27 \text{ m}^3/\text{m}^3$.

The durations of these periods are as follows: the first - dependent on the intensity of operations during the starting time; the second period will last more than 10 years, and the third period will last about 16 years. The average coefficient of opening will amount to $0.53 \text{ m}^3/\text{m}^3$. The article contains 1 graph and 1 calendar plan of mining operations.

ASSOCIATION: Krivoy Rog Mining Ore Institute (Krivoroshskiy gornorudnyy institut)

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