PELETMINSKIY, V.N.

Refinery output and sugar losses with reference to the regularity of operations. Sakh.prom.30 no.2:10-17 F '56. (MLRA 9:7)

1.Krasno-Yaruzhskiy sakharnyy zaved.
(Sugar industry)

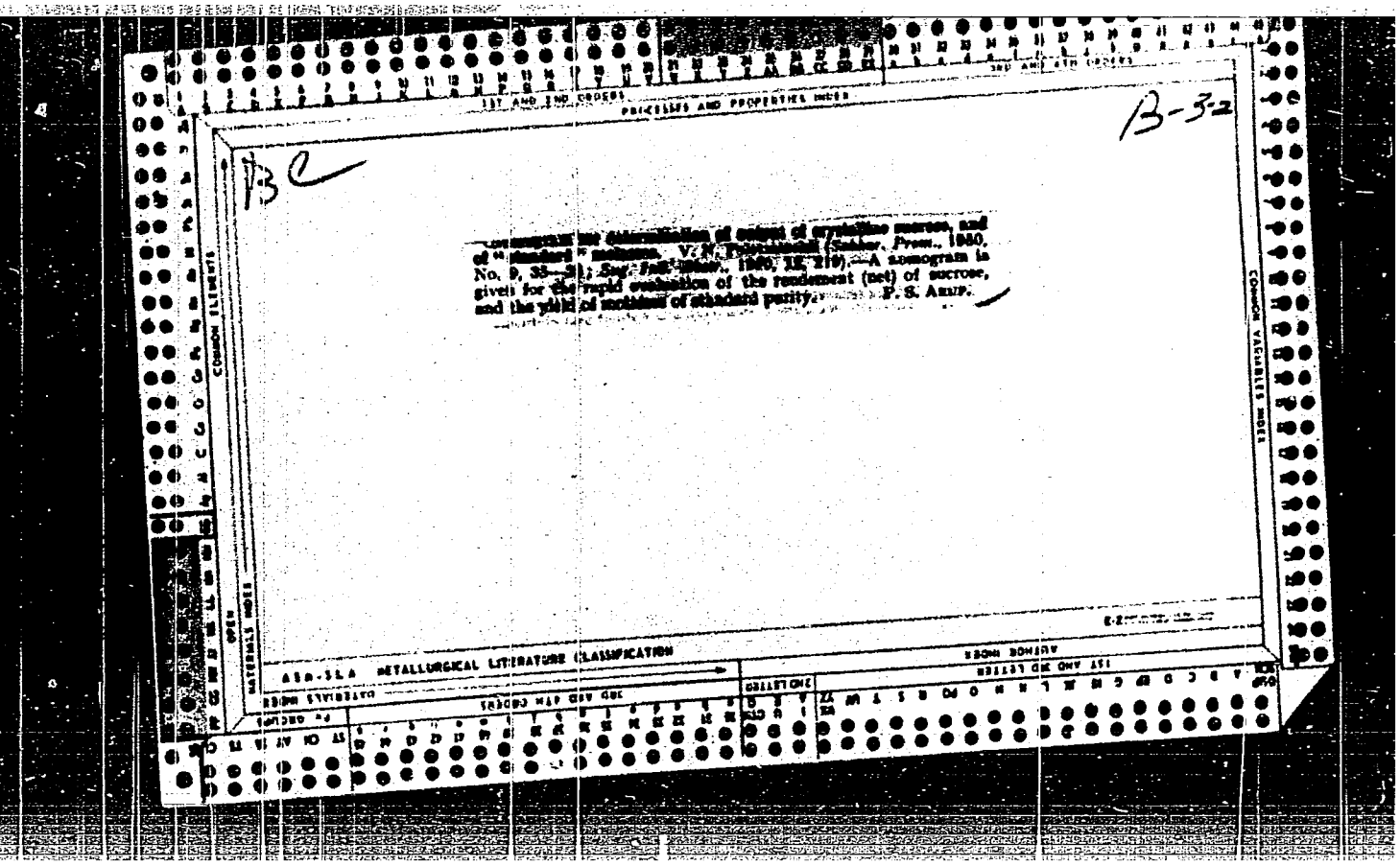
PELETMINSKIY, V.N.

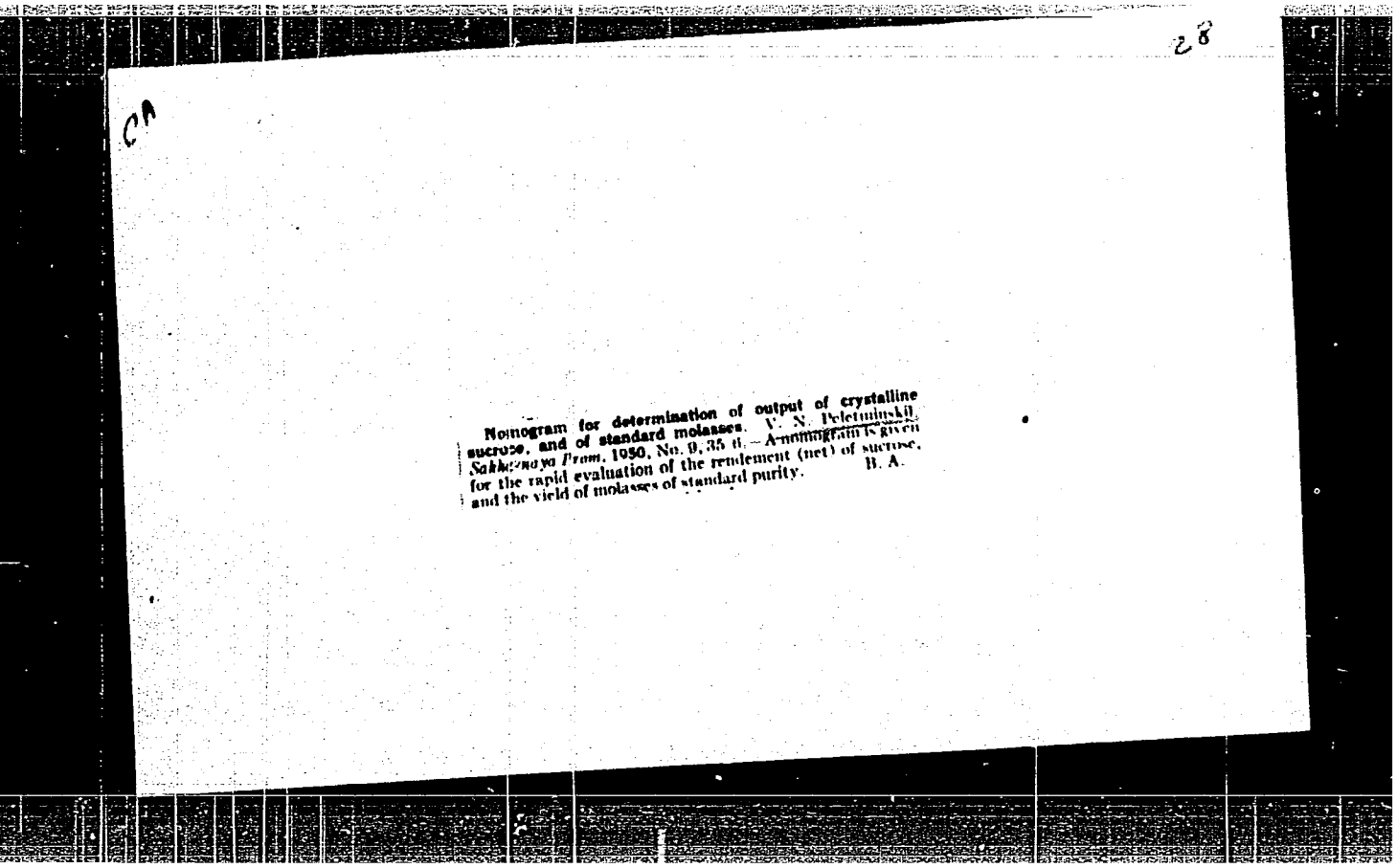
Hydropneumatic testing of the trays of saturation juice separators. (MIRA 16:5)
Sakh.prom. 37 no.6:64-65 Je '63.
(Sugar machinery--Testing)

PELETMINSKIY, V.N.

Modernizing standard settling tanks of the drain piping for wash waters. Sakh.prom. 34 no.2:11-13 F '60.
(MIRA 13:5)

1. Krasno-Yaruzhskiy sakharnyy zavod.
(Sugar industry--Equipment and supplies)





28

CA

Nomogram for determination of output of crystalline sucrose, and of standard molasses. V. N. Peletminskii. *Sakharnaya Prom.* 1950, No. 9, 35 ff. — A nomogram is given for the rapid evaluation of the rendement (net) of sucrose, and the yield of molasses of standard purity. B. A.

PELETSKAS, Yu. [Peleckas, J.]

Our independent club. Kryl.rod. 13 no.12:6 D '62.
(MIRA 16:2)

1. Nachal'nik Klaypedskogo samodeyatel'nogo planernogo kluba.
(Memel--Aeronautical societies)

ACC NR: AP7003170 (A) SOURCE CODE: UR/0294/66/004/006/0874/0875

AUTHOR: Timrot, D.L.; Peletskiy, V.E.; Voskresenskiy, V.Yu.

ORG: Scientific Research Institute of High Temperatures (Nanchno-issledovatel'skiy institut vysokikh temperatur)

TITLE: Thermal conductivity and emissivity of iodide hafnium

SOURCE: Teplofizika vysokikh temperatur, v. 4, no. 6, 1966, 874-875

TOPIC TAGS: iodide, hafnium, ~~hafnium thermophysical property, hafnium, hafnium thermal conductivity~~ thermal conduction, black body radiation, temperature dependence, emissivity

ABSTRACT: The total hemispherical emissivity of a high-purity cylinder, 12 mm in diameter and 65 mm long, was found to increase linearly with increasing temperature (solid line in Fig. 1). The coefficient of thermal conductivity of hafnium was found to increase linearly from 23.2 $w \cdot m^{-1} \cdot degree^{-1}$ at 1300K to 28.8 $w \cdot m^{-1} \cdot degree^{-1}$ at 2000K. Orig. art. has: 2 figures. [TD]

UDC: 536.21+536.3:535.34

Card 1/2

L 6217-65 EWI(1)/EWI(m)/EWP(v)/EPF(n)-2/EWA(d)/T/EWP(t)/EEC(b)-2/EWP(b) Pq-4/Pi-4/
ACCESSION NR: AP5010461 UR/0294/65/003/002/0223/0227
Pu-4 IJP(c) JD/WW/JG 546.831:536.21.022 + 535.346.1

AUTHORS: Timrot, D. L.; Peletskiy, V. E.

TITLE: Investigation of the integral degree of blackness and of the coefficient of thermal conductivity of zirconium

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 2, 1965, 223-227

TOPIC TAGS: zirconium, black body radiation, integral blackness, thermal conductivity coefficient, temperature variation

ABSTRACT: The article describes an investigation of the thermal conductivity and the integral degree of blackness of zirconium iodide, carried out at temperatures above 1,000K at the Nauchno-issledovatel'skiy institut vysokikh temperatur (Scientific Research Institute of High Temperatures). The experiments were carried out with an improved variant of the electronic heating method used by the authors earlier (Teplofizika vysokikh temperatur v. 1, No. 2, 168, 1963). The modi-

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L 62179-65

ACCESSION NR: AP5010461

fication of the apparatus was such that only one sample had to be used for both stages of the experiment. The measurements were made in the temperature interval 1200 -- 1900K. The results are presented in Fig. 1 of the Enclosure. The data obtained for the integral degree of blackness deviate noticeably from the results of I. H. Boer and J. D. Fast (Ind. chim. v. 19, 1256, 1927) at low temperatures, probably because of insufficient purification of the material surface. There are no published data on the coefficient of thermal conductivity of zirconium above 1,000K. Original article has: 5 figures, 4 formulas, and 1table

ASSOCIATION: Nauchno-issledovatel'skiy institut vysokikh temperatur (Scientific Research Institute of High Temperatures)

SUBMITTED: 20Jun64 ENCL: 01 SUB CODE: EM, MM

NR REF SOV: 001 OTHER: 003

Card 2/3

L 62179-65
ACCESSION NR: AP5010461

ENCLOSURE: 01

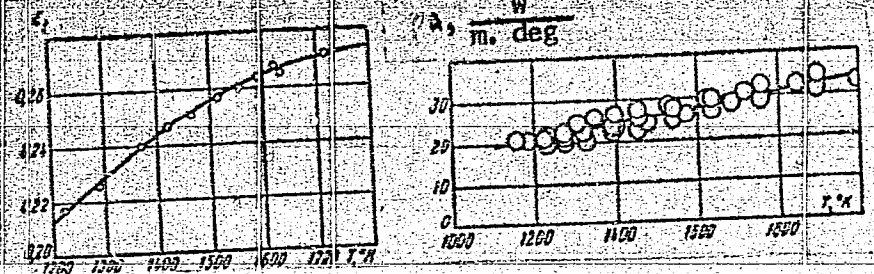

Fig. 1. Integral degree of blackness (left) and coefficient of thermal conductivity of zirconium iodide.

Card 3/3

L 24714-66 EWT(m)/EWA(d)/EWP(t) IJP(c) JD/JG/JT

ACC NR: AP6014082 SOURCE CODE: UR/0294/66/004/002/0296/0296

AUTHOR: Peletskiy, V. E.; Voskresenskiy, V. Yu.

ORG: Scientific Research Institute of High Temperatures (Nauchno-issledovatel'skiy institut vysokikh temperatur)

TITLE: Thermophysical properties of heat-resistant VR-27-VP tungsten-rhenium alloy

SOURCE: Teplofizika vysokikh temperatur, v. 4, no. 2, 1966, 296

TOPIC TAGS: refractory alloy, tungsten alloy, rhenium containing alloy, alloy physical properties, refractory alloy resistivity, refractory alloy emissivity, alloy thermal conductivity/VR-27-VP

ABSTRACT: The Scientific Research Institute of High Temperatures has determined the thermophysical properties of tungsten-rhenium VR-27-VP alloy (27% Re) developed by the Institute of Metallurgy imeni Baykov. The vacuum-arc melted alloy (melting temperature 3300K; recrystallization range 1800—2200K) had a tensile strength of 30—35 kg/mm^2 at 1800K and approximately 15 kg/mm^2 at 2100K. Forged and polished specimens vacuum annealed for 2 hr at 2200K and investigated in vacuum $(1—5)\cdot10^{-5}$ mm Hg at 1200—3000K had a thermal conductivity of 54.4—67.7 $Wm^{-1}\cdot deg^{-1}$, a resistivity of 60.4—107.2 10^6 ohm·cm, an integral hemispherical emissivity of 0.211—0.347, and a monochromatic emission (at wavelength 0.65 μ) of 0.434—0.402. [WW]

SUB CODE: 11/ SUBM DATE: 15Jul65/ ORIG REF: 006/ ATD PRESS: 4248

Card 1/1

L 32839-66 EWT(l)/EWT(m)/EWP(t)/ETI IJP(c) JD/WW

ACC NR: AP6008827 SOURCE CODE: UR/0294/66/004/001/0046/0049

AUTHOR: Voskresenskiy, V. Yu.; Peletskiy, V. E.; Timrot, D. L.

ORG: Scientific Research Institute of High Temperatures (Nauchno-issledovatel'skiy institut vysokikh temperatur)

TITLE: Thermal conductivity and degree of blackness of niobium at temperatures above 1000C

SOURCE: Teplofizika vysokikh temperatur, v. 4, no. 1, 1966, 46-49

TOPIC TAGS: [redacted], niobium, optic black body, thermal conductivity

ABSTRACT: An experimental study of the temperature dependence of the thermal conductivity coefficient and integral degree of blackness of niobium was carried out. The specimens were first fired for 4 hr at 2000—2200K. The temperatures were measured in the 1400—2500K range with an OMP-043M optical pyrometer. The integral degree of blackness was calculated from the formula

$$\epsilon = q_{rad}/\delta T_{av}^4,$$

Card 1/3 UDC: 536.2.212+536.3.006.5

where $q_{rad} = VI/F$; V, I are respectively the potential difference between the anode and cathode and the anode current; F is the total surface area of specimen; T_{av} is the average temperature to which the specific radiation q_{rad} and degree of blackness ϵ pertain. The thermal conductivity coefficient was calculated from the formula

$$\lambda = \left[4 \int_{x}^{L_{eff}} q_{rad}(x)\, dx\right] \Big/ \left[D \left|dT/dx\right|_x\right]$$

where $\int_{x}^{L_{eff}} q_{rad}(x)\, dx$ corresponds to the flux scattered by the radiation on the x-L_{eff} portion of the specimen, and hence, to the heat transfer brought to this portion via section x; $(dT/dx)_x$ is the gradient in section x; L_{eff} is the effective length of the specimen, allowing for the contribution of losses from end surfaces, $L_{eff} = L + \frac{D}{2}$, and D is the

L 32839-66

ACC NR: AP6008827

3

diameter of the specimen. The data obtained are extensively compared with those of other authors. The discrepancies found show the need for further studies of the thermal conductivity of niobium and its alloys. Members of the laboratory staff I. M. Mindova, G. D. Kiselev, and L. A. Olimpiyeva participated in this work. Orig. art. has: 1 figure, 2 tables, and 2 formulas.

SUB CODE: 11 / SUBM DATE: 10Mar65 / ORIG REF: 007 / OTH REF: 004

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Card 3/3

PELETSKIY, V. E. VOSKRESENSKIY, V. Yu. and TIMROT, D. L.

"The application of electron beam heating in the investigation of integral blackness of heat-resistant alloys and compounds"

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

ACCESSION NR: AP4004135 S/0294/63/001/002/0168/0172

AUTHORS: Timrot, D. L.; Peletskiy, V. E.

TITLE: Use of electron beam heating in determination of thermal conductivity of refractory alloys and compounds

SOURCE: Teplofizika vy*sokikh temperatur, v. 1, no. 2, 1963, 168-172

TOPIC TAGS: refractory alloy, thermal conductivity, refractory alloy thermal conductivity, tungsten thermal conductivity, electron beam heating, refractory material, refractory compound, thermal conductivity measurement, thermal conductivity determination, electron beam

ABSTRACT: A method is described for electronic heating of refractory metal alloys and compounds to extremely high temperatures so as to permit measurements of the coefficient of thermal conductivity.

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ACCESSION NR: AP4004135

This quantity cannot be calculated theoretically for most materials employed in technology, and even most modern experimental methods are frequently inapplicable. The theory of electronic beam heating is first developed and it is shown that the calculation of the thermal conductivity coefficient calls for the experimental determination of the specific radiation and for a plotting of temperature fields in a cylindrical specimen heated on one end under different heat conditions. It is then shown that such an experiment is made feasible by electronic heating, which yields high temperature limited only by the properties of the tested material itself. The experimental set-up is described and the various experimental errors discussed. The method was tested with pure tungsten containing not more than 0.1% impurities. In the temperature range 1500--2500°K the data agree with those of Forsythe and Worthyng (Astrophysics Journal, v. 61, 152, 1925). It is concluded that the method is quite effective and the simple geometry of the working samples makes it particularly suitable for materials obtained by power metallurgy. The smoothed

Card 2/3

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ACCESSION NR: AP4004135

values of the thermal conductivity coefficients are:

T, °K	1200	1400	1600	1800	2000	2200	2400	2600	2800	3000°
λ, W/cm.°	1,12	1,10	1,08	1,06	1,03,	1,01,	0,99	0,97	0,96	0,93,

Orig. art. has: 3 figures and 8 formulas.

ASSOCIATION: Nauchno-issledovatel'skiy institut vy*sokikh temperatur (Scientific Research Institut of High Temperatures).

SUBMITTED: 28Jun63 DATE ACQ: 26Dec63 ENCL: 00

SUB CODE: PH, MA NO REF SOV: 001 OTHER: 005

Card 3/3

L 15667-66 EWT(d)/EWT(l)/EWP(v)/T/EWP(t)/ETI/EWT(m) IJP(c) JD/WW/HW

ACC NR: AP6021210 (N) SOURCE CODE: UR/0294/66/004/003/0336/0342

AUTHOR: Peletskiy, V. E.; Voskresenskiy, V. Yu. 82 77 B

ORG: Scientific Research Institute of High Temperatures (Nauchno-issledovatel'skiy institut vysokikh temperatur)

TITLE: Thermophysical properties of tantalum at temperatures above 1000°C

SOURCE: Teplofizika vysokikh temperatur, v. 4, no. 3, 1966, 336-342

TOPIC TAGS: tantalum, high temperature research, black body radiation, heat conductivity

ABSTRACT: Clean tantalum samples (99.61% purity) were used for determination of electrical and thermal conductivities and degree of grayness in the 1300-2900°K temperature range by a method described by V. S. Gumenyuk, V. V. Lebedev and V. Ye. Ivanov in *PTE*, No. 1, 1962. The heating and diagnostic method is described, showing that resulting errors were ±10% and ±12% for the degree of grayness and thermal conductivity, respectively. Much better electrical conductivity measurements were made. Tables summarizing the results, and comparing the resulting Lorentz numbers with those of other authors are presented. It is noted that thermal conductivity increases with temperature, although at a slow rate and compares with the results of the work done on less pure samples. The thermal conductivity together with electrical conductivity measurements allowed comparison with the Franz-Wiedman law in the regime where auth-

Card 1/2 UDC: 546.882:536.24+537.311

L 45667-66

ACC NR: AP6021210

ors of the above work found considerable discrepancy. This discrepancy has been ascribed to the systematic errors, which have been eliminated in this work. The spectrally integrated measurement of the black body emissivity indicates good agreement of the results with computed values within experimental errors. The errors in the range of 1200°K to 2000°K must be further reduced. The author thanks D. L. Timrot for constant interest in the work. I. S. Mindova and G. D. Kiselev took part in the experiments and in processing the results. Orig. art. has: 4 figures, 2 tables, 5 formulas.

SUB CODE: 20/ SUBM DATE: 23Jul65/ ORIG REF: 004/ OTH REF: 004

Card 2/2

PELEVAN, V.S.

Determining the location of the maximum temperature and propagation velocity of a flame in turbulent flow of a homogeneous mixture. Inzh.-fiz.zhur. 5 no.12:9-15 D '62.
(MIRA 16:2)

1. Energeticheskiy institut imeni G.M.Krzhizhanovskogo, Moskva.
(Flame) (Thermodynamics)

PELEVIN, A.

Introducing radio on virgin lands. Radio no.10:18 O '54. (MLRA 7:11)

1. Nachal'nik Altayskoy krayevoy direktsii radiotranslyatsionnoy seti.
(Altai Territory--Radio) (Radio--Altai Territory)

USSR/ Miscellaneous - Radiofication

Card 1/1 Pub. 89 - 12/40

Authors : Pelevin, A., Chief of the Radio-Relay Network Administration of the Altai Province

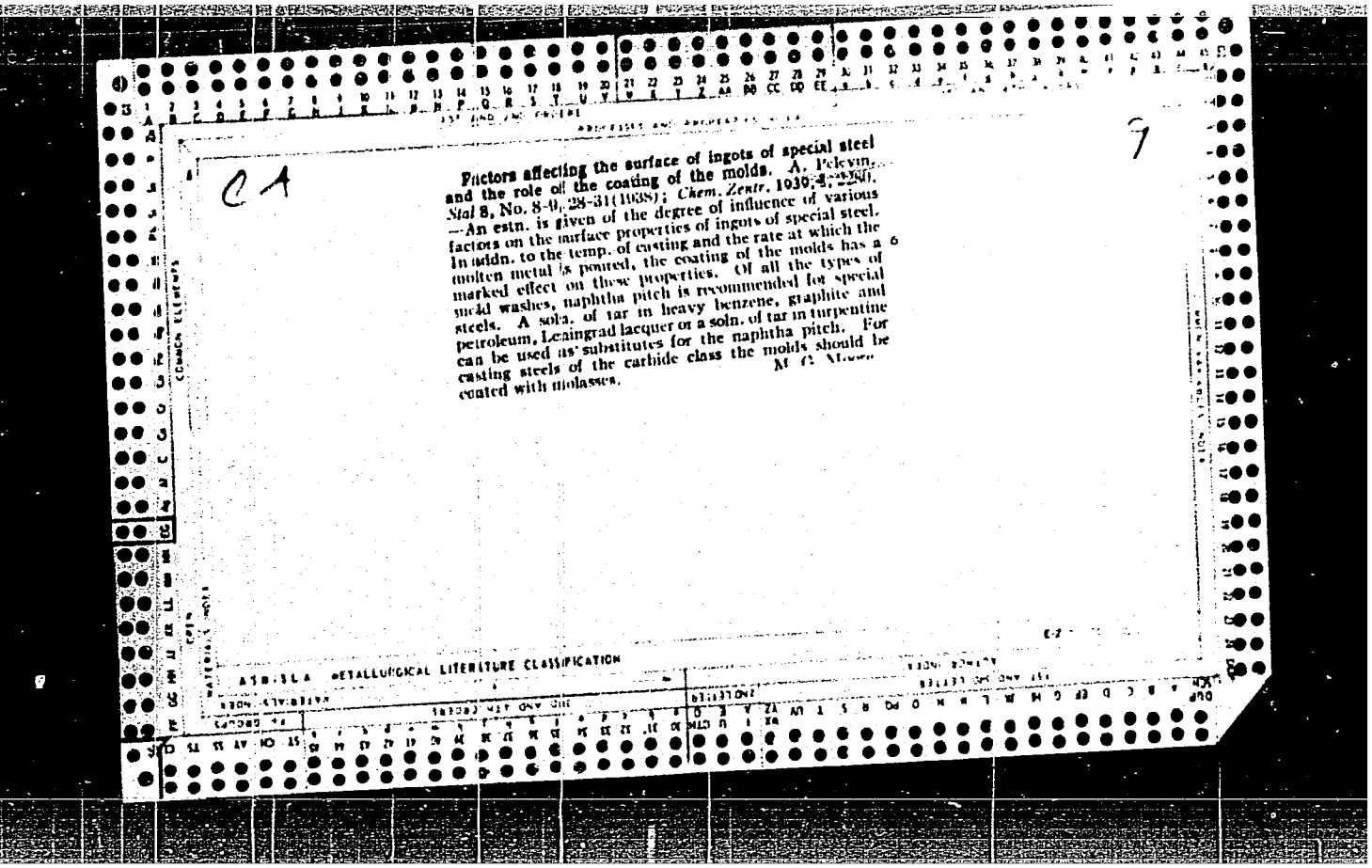
Title : Radiofication of "virgin-soil" regions

Periodical : Radio 10, page 18, Oct 1954

Abstract : Radiofication of "virgin-soil" regions (plowed for the first time) in the Altai Province is described. The lack of full cooperation between the regional centers and the radiofied localities is pointed out. The number of newly organized Kolkhozes and radio outlet points is listed. Illustrations.

Institution: .....

Submitted: .....



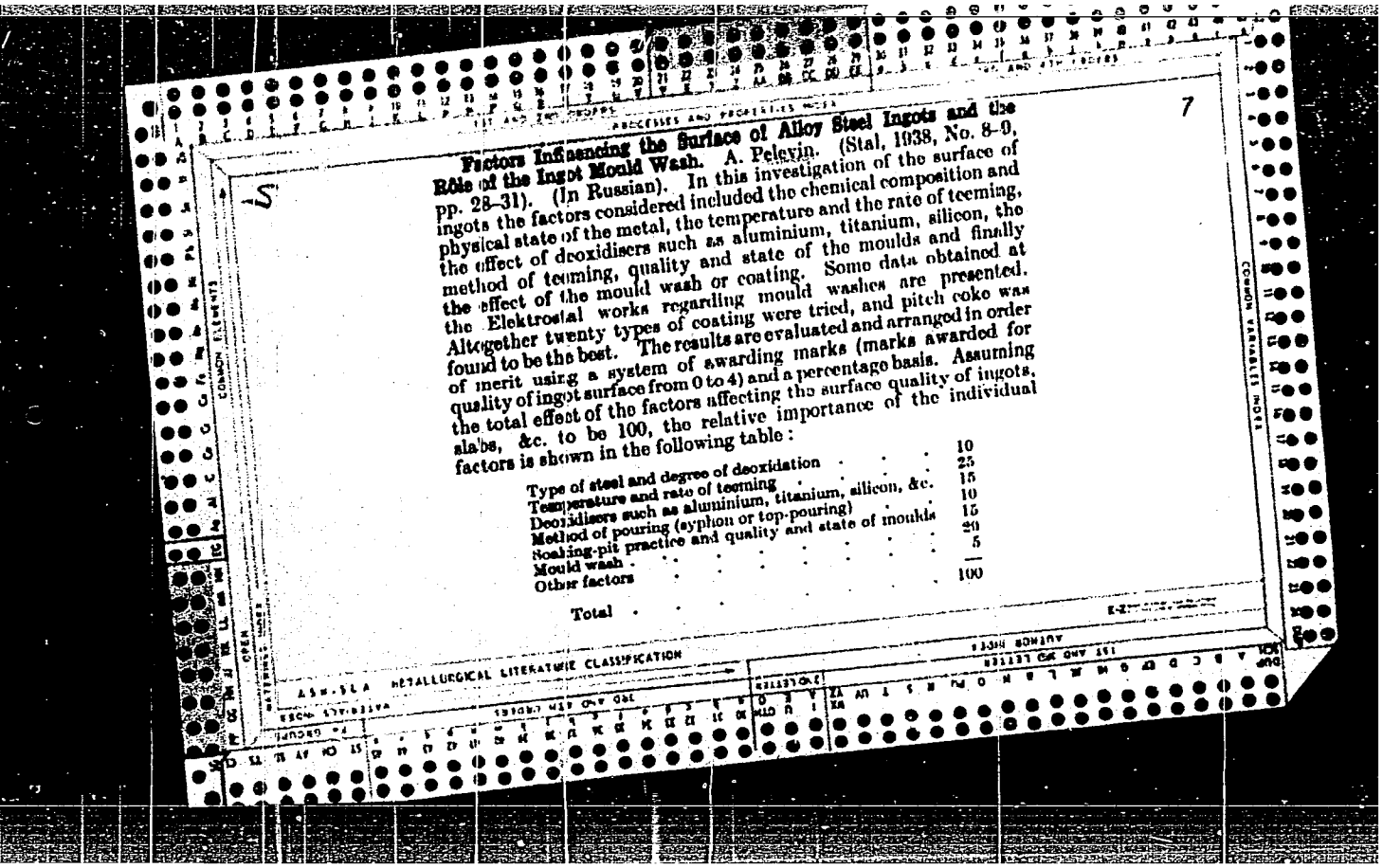
C A

7

Factors affecting the surface of ingots of special steel and the role of the coating of the molds. A. Pelevin. *Stal* 8, No. 8-9, 28-31(1938); *Chem. Zentr.* 1939, I, 2350. —An estn. is given of the degree of influence of various factors on the surface properties of ingots of special steel. In addn. to the temp. of casting and the rate at which the molten metal is poured, the coating of the molds has a marked effect on these properties. Of all the types of mold washes, naphtha pitch is recommended for special steels. A soln. of tar in heavy benzene, graphite and petroleum, Leningrad lacquer or a soln. of tar in turpentine can be used as substitutes for the naphtha pitch. For casting steels of the carbide class the molds should be coated with molasses.

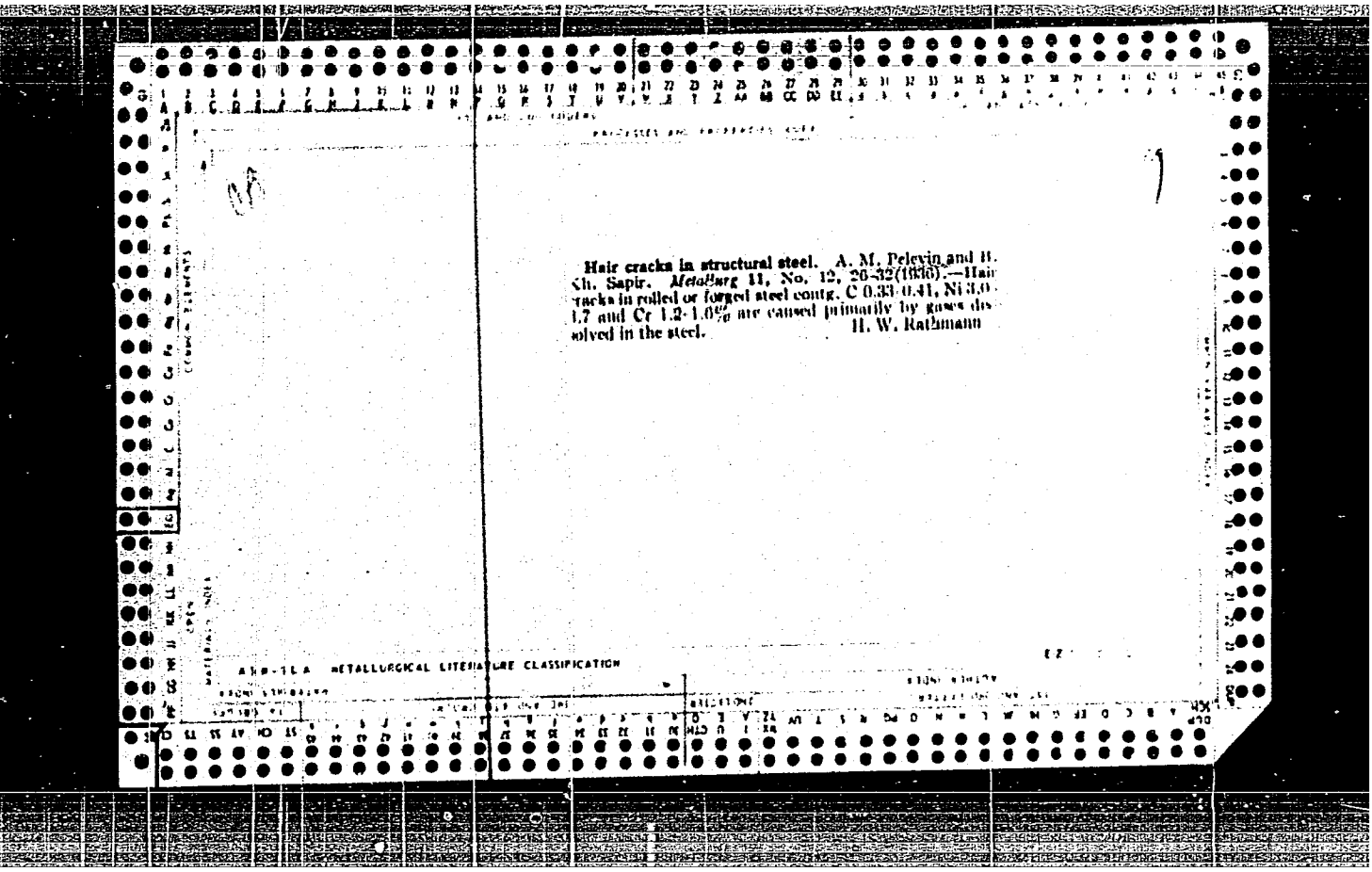
A. G. Morev

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



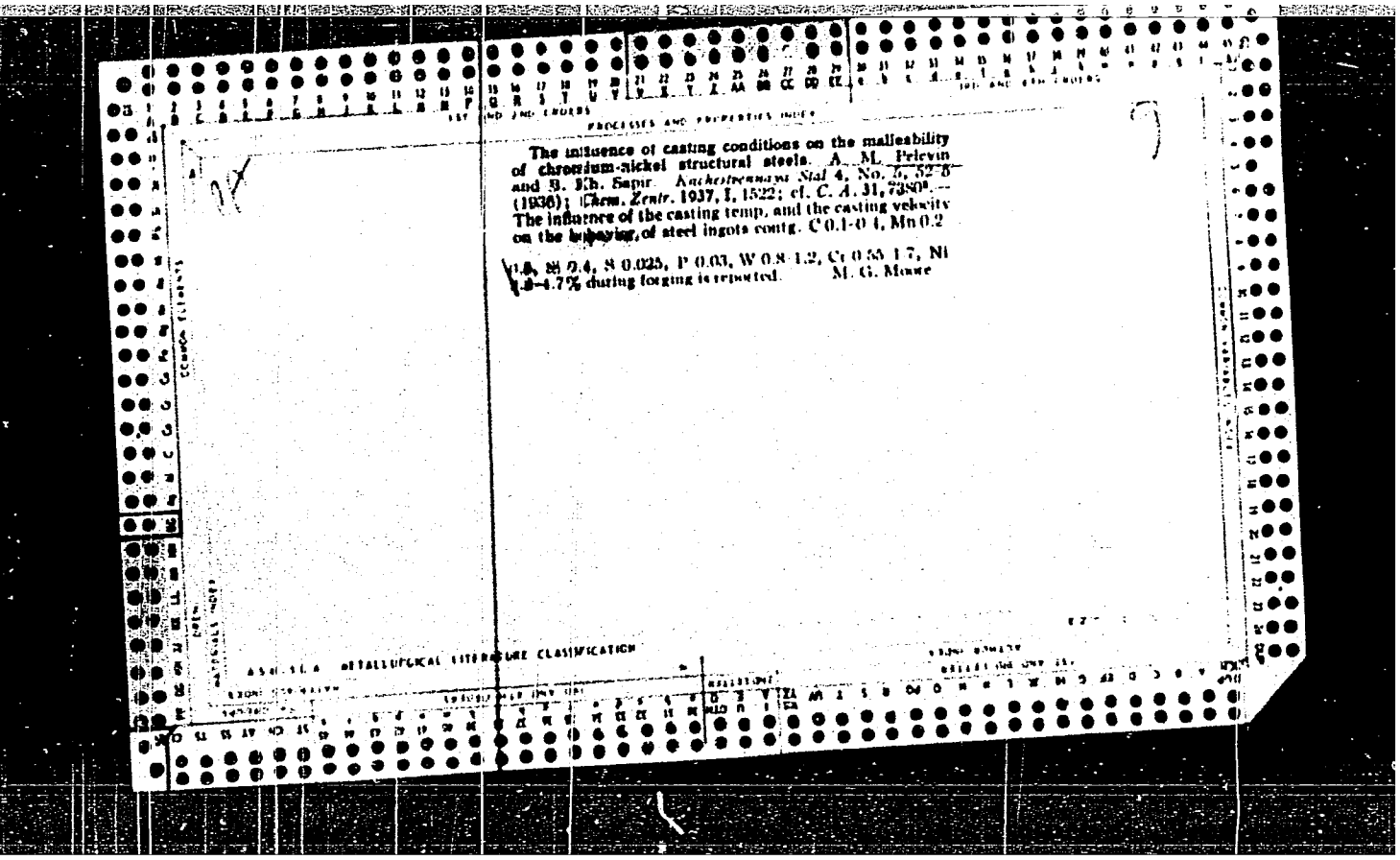
Factors Influencing the Surface of Alloy Steel Ingots and the Rôle of the Ingot Mould Wash. A. Pelevin. (Stal, 1938, No. 8–9, pp. 28–31). (In Russian). In this investigation of the surface of ingots the factors considered included the chemical composition and physical state of the metal, the temperature and the rate of teeming, the effect of deoxidisers such as aluminium, titanium, silicon, the method of teeming, quality and state of the moulds and finally the effect of the mould wash or coating. Some data obtained at the Elektrostal works regarding mould washes are presented. Altogether twenty types of coating were tried, and pitch coke was found to be the best. The results are evaluated and arranged in order of merit using a system of awarding marks (marks awarded for quality of ingot surface from 0 to 4) and a percentage basis. Assuming the total effect of the factors affecting the surface quality of ingots, slabs, &c. to be 100, the relative importance of the individual factors is shown in the following table:

Type of steel and degree of deoxidation	10
Temperature and rate of teeming	25
Deoxidisers such as aluminium, titanium, silicon, &c.	15
Method of pouring (syphon or top-pouring)	10
Soaking-pit practice and quality and state of moulds	15
Mould wash	20
Other factors	5
Total	100



Hair cracks in structural steel. A. M. Pelevin and B. Sh. Sapir. *Metallurg* 11, No. 12, 26-32(1936).—Hair cracks in rolled or forged steel contg. C 0.33-0.41, Ni 3.0-3.7 and Cr 1.2-1.6% are caused primarily by gases dissolved in the steel. H. W. Rathmann

ASM-TLA METALLURGICAL LITERATURE CLASSIFICATION



The influence of casting conditions on the malleability of chromium-nickel structural steels. A. M. Pelevin and S. Sh. Sapir. *Kachestvennaya Stal* 4, No. 5, 52–5 (1936); *Chem. Zentr.* 1937, I, 1522; cf. *C. A.* 31, 7380⁹. — The influence of the casting temp. and the casting velocity on the behavior of steel ingots contg. C 0.1–0.4, Mn 0.2–0.8, Si 0.4, S 0.025, P 0.03, W 0.8–1.2, Cr 0.55–1.7, Ni 1.8–4.7% during forging is reported. M. G. Mesne

PELEVIN, A.M.

Vliianie metallurgicheskogo faktora no obrazovanie shlifovochnykh treshchin. Vestn. Mash., 1948, no. 11, p. 45-47

Influence of the metallurgical factor upon grinding cracks.
DLC: TN4.V4

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

PELEVIN, A. M.

"Effect of Metallurgical Factors on the Creation of Cracks Caused by Grinding," Vest. Mashinostroy., No. 11, 1948, Engr.

PELEVIN, G., inzhener.

Providing special-purpose aviation with radio communication. Grazhd.av. 14 no.1:22 Ja '57. (MLRA 10:4)
(Radio in aeronautics)

PELEVIN, I. F. and SHILYAMEV, B. A.

"Control and Preparation of Raw Materials at Electrometallurgical Works," Stal', No.6, pp 45-46, 1946

Evaluation B-60428

SOKOLOVSKIY, M.V.; KAUROV, V.V.; PYATNITSKIY, A.A., prof., retsenzent; PELEVIN, N.N., inzh., red.; TIKHANOV, A.Ya., tekhn. red.

[Manufacture of cylindrical reductors for general use] Proizvodstvo tsilindricheskikh reduktorov obshchego naznacheniia. Moskva, Mashgiz, 1963. 169 p. (MIRA 17:2)

EMANUEL', N.M.; LIPCHINA, L.P.; PELEVINA, I.I.

Selective decrease in the ribonucleic acid content of tumor cells and their loss of transplantability following in vitro action of chain reaction inhibitors. Dokl.AN SSSR 125 no.2: 411-413 Mr '59. (MIRA 12:4)

1. Chlen-korrespondent AN SSSR (for Emanuel').
(TUMORS) (NUCLEIC ACIDS) (GALLIC ACID)

17(3)

AUTHORS: Emanuel', N. M., Corresponding Member, AS USSR, Lipchina, L. P., Pelevina, I. I., Lipatova, T. E.

SOV/20-124-5-56/62

TITLE: The Selective Inhibition of the Activity of Reduction-Oxidation Enzymes in Tumoral Cells When Acted Upon With Inhibitors of Chain Reactions (Izbiratel'noye podavleniye aktivnosti okislitel'no-vosstanovitel'nykh fermentov v opukholevykh kletkakh pri vozdeystvii ingibitorov tsepnykh reaktsiy)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 124, Nr 5, pp 1157-1159 (USSR)

ABSTRACT: Since many years the idea of a selective inhibition of fermentative processes in tumoral cells, as a rational principle in cancer chemotherapy, focuses the interest of the scientists (Ref 1). The first two authors (Ref 2) proved an inhibition and a retrogression of leucosis in mice under the action of non toxic inhibitors of the oxidative chain reactions (butyl-oxy-anisole, ionone, propyl gallate)(Ref 2). There were reasons (the radical mechanism of the reduction-oxidation processes) for assuming that the inhibition mentioned in the title is one of the reasons of the tumor inhibiting effect of the mentioned substances. This disturbs the formation processes of some energy-rich compounds which are necessary for the

Card 1/3

intense biosynthesis in the neoplastic growth. In the present paper results could be obtained which confirm the above assumption. The authors investigated enzymes of the succinoxidase system. The ascitic cancer of Ehrlich (Erlikh) in mice, leucosis of black mice (line C-57, strain LA), acridine sarcoma of mice and the Braun-Pirs tumor of rabbits served for the experiments. Cells of the ascitic cancer as well as tumoral tissues of other new formations reduced to small pieces were incubated for 30 minutes in 0.75, 0.15 and 0.075% propyl gallate solution. These concentrations inhibit the activity of succine dehydrogenase in the cells of all tumors investigated (Figs. 1, 2). The activity of this enzyme is not suppressed in healthy liver and spleen cells by propyl gallate solutions of 0.15 and 0.075% (Figure 3). Incubation in a 0.75% solution is, however, inhibiting. This inhibition is reversible in afflicted as well as in sound cells. The differences in the propyl gallate effect on the reduction-oxidation processes in normal and tumoral cells are probably due to a different permeability of the cells and their components (e.g. mitochondria)

to propyl gallate. Thus, propyl gallate has a selective effect on tumoral cells in certain concentrations. This is expressed by the inhibition of the activity of dehydrogenases which participate in various reduction-oxidation processes as well as of cytochromoxidase. The thus influenced cells loose their implantation power. There are 3 figures and 6 references, 5 of which are Soviet.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR
(Institute of Chemical Physics of the Academy of Sciences, USSR)

SUBMITTED: November 25, 1958

PELEVIN, I.I.

Operating methods of the Grozny Acetone-Butyl Plant. Spirt. prom. 21 no.4:24-26 '55. (MLRA 9:3)

1Groznenskiy atsetone-butilovyy zavod.
(Grozny--Acetone)

ZHDANOVA, Antonina Vasil'yevna; KVITNITSKIY, A.V., inzh., red.; PELEVIN, I.N., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Mechanisms for the transmission of rotary motion]Mekhanizmy peredachi vrashchatel'nogo dvizheniia. Moskva, Mashgiz, 1962. 78 p. (MIRA 16:2)
(Gearing) (Chains) (Belts and belting)

PELEVIN, K.A.

Thread separator for P-83 twisters. Obm.tekh.opyt. [MLP] no.16: 77-78 '56. (MIRA 11:11)
(Spinning--Equipment and supplies)

PELEVIN, K.A.

PELEVIN, K.A.; RUBTSOVA, P.M.

Enlarging packages in spinning. Tekst. prom. 18 no.1:47-49 Ja '58. (MIRA 11:2)

1. Zaveduyushchiy fabrikoy "Vozhd' proletariata" (for Pelevin).
2. Zaveduyushchaya laboratoriyey fabriki "Vozhd' proletariata" (for Rubtsova).

(Spinning)

KAZAK, M.A., inzh.; LUGOVTSOV, N.P., inzh.; PELEVIN, K.I., inzh.

Manufacturing warped blades for steam turbines. Energomashinostroenie 4 no.3:36-39 Mr '58. (MIRA 11:5)
(Steam turbines--Blades)

SALIMZHANOV, E.S.; GOFLIN, V.A.; PELEVIN, L.A.

Optimal operation of flooded wells. Izv.vys.ucheb.zav.; neft' i gaz 6 no. 12:39-43 '63. (MIRA 17:5)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akademika I.M.Gubkina.

ROSTE, Z.A.; PELEVIN, L.A.; NUGAYEV, R.Ya.; FEDOTOV, K.V.

Results of preliminary tests of the BGN-5 rodless hydraulic piston pump controlled from the surface. Neft. khoz. no.11:13-16 N '64 (MIRA 18:2)

SOV/92-58-1-10/22

AUTHOR: Pelevin, L. A., Chief of the Technical and Production Department of the Tuymazaneft' NPU

TITLE: Comments on Gathering, Transporting, and Storing Petroleum in Oilfields (O sbore, transporte i khranenii nefti na promyslakh)

PERIODICAL: Neftyanik, 1958, Nr 1, pp. 15-16 (USSR)

ABSTRACT: The author states that operations at the Tuymazaneft' oilfields have proved that it is advisable to use the small tanks of 450 cu. m. capacity for settling marketable petroleum. When large tanks are filled with preheated petroleum in winter, serious difficulties may arise due to the thermal expansion of these tanks. It appears that this fact has been overlooked by designers and planning engineers. Moreover, devices permitting the tank to breath are not suitable for handling preheated petroleum, and vapors with volatile fractions are very often ejected through valves, along with the air. The resulting pressure fluctuation creates a danger because it may shatter the tank roof. Designers and planning engineers should also keep in

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Comments on Gathering, Transporting, and Storing in Oilfields

mind that the heating of petroleum promotes the corrosion of metal, and that the present anticorrosion coatings are not entirely satisfactory. In 1953, following the suggestion of V. I. Styuf, jet water pumps were introduced in oilfields for removing paraffin deposits and mechanical impurities. Although they facilitated the job of tank cleaning, the problem of mechanizing this operation has not been solved. The analysis of operations at the Tuymazaneft' oilfields revealed that light fraction losses incurred in the course of petroleum treatment during the last six months amounted to 3,000 tons. Therefore, it is recommended that designers and construction engineers study not only the problem of petroleum dehydration and desalting, but also the problem of petroleum stabilization. The hermetic sealing of tanks could be improved if pressure regulating devices and packers were manufactured in quantity. The recovery of slop oil is handled unsatisfactorily and slops still contain a substantial quantity of petroleum products and paraffinic residues (Fig. 1). The trap cleaning is difficult because this operation is not yet mechanized. Therefore, the proposal of Tseydler concerning the additional settling of emulsions in usual tanks deserves attention.

Comments on Gathering, Transporting, and Storing Petroleum in Oilfields

This suggestion could be put into effect as shown by the sketch in Fig. 2. Emulsions from the marketable oil tanks have to be drained to special reservoirs of 1000-2000 cu. m. capacity. The recovery of slop oil carried out as shown in Fig. 2 has a number of advantages. It prevents petroleum losses in traps and collecting pools and does not require excessive investment in construction. Designing and planning organizations should seriously study the problem of centralizing petroleum gathering in oilfields, and should review methods of petroleum treatment. There are 2 figures.

ASSOCIATION: Proizvodstvenno-tekhnicheskiy otdel NPU Tuymazaneft' (Production and Technical Department of the Tuymazaneft' Petroleum Production Administration)

1. Petroleum—Storage 2. Petroleum—Transportation
3. Petroleum—Hazards 4. Storage tanks—Design
5. Storage tanks—Corrosion

PELEVIN, L.; NAYANZIN, I., inzh.; BATURIN, N.; RMY, Yu., tekhnolog (g.Khar'kov); TSIPERFIN, I.; KARLENKOV, B., aktivist; KAL'MANOVICH, M.; SERGIYENYA, E., normirovshchik; IGNATOV, L. (g.Tashkent)

From readers' letters. Izobr.i rats. no.6:38-40 Je '59. (MIRA 12:9)

1. Nachal'nik proizvodstvenno-tekhnicheskogo otdela neftepromyslovogo upravleniya "Tuymazyneft'", g.Oktyabr'skiy, BashASSR (for Pelevin). 2. Proizvodstvenno-tekhnicheskiy otdel neftepromyslovogo upravleniya "Tuymazyneft'", g.Oktyabr'skiy, BashASSR (for Nayanzin). 3. Starshiy inzhener tekhnicheskogo otdela parovozno-vagonnogo zavoda, g.Ulan-Ude (for Baturin). 4. Nachal'nik Byuro sodeystviya ratsionalizatsii i izobretatel'stvu Odesskogo zavoda zapasnykh chastey, g.Odessa (for TSiperfin). 5. Nachal'nik Byuro sodeystviya ratsionalizatsii i izobretatel'stvu Penzenskogo dizel'nogo zavoda, g.Penza (for Karlenkov). 6. Nikolayevskiy oblastnoy sovet Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov, g.Nikolayev (for Kal'manovich). 7. Khar'kovskiy traktornyy zavod, g.Khar'kov (for Sergiyenya).

(Efficiency, Industrial)

SALIMZHANOV, E.S.; BELOV, A.M.; PELEVIN, L.A., ROSTE, [illegible].A.; GAZIZOV, Z.S.; BAYMUKHAMETOV, K.S.; VALEYEV, F.V.; RUSSKIKH, V.N.

Maximum overall petroleum yield of a flooded well. Izv.vys.ucheb. zav.; neft' i gaz 5 no.12:39-44 '62. (MIRA 17:4)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika Gubkina.

Pelevin, L.A.

PELEVIN, L.A.

Collecting, transporting, and storing oil in the field. Neftianik 3 no.1:15-16 Ja '58. (MIRA 11:2)

1.Nachal'nik proizvodstvenno-tekhnicheskogo otdela Neftepromyshlennogo upravleniya Tuymazaneft'.
(Tuymazy region--Petroleum industry)

KAMINIK, P.S., inzh.; PELEVIN, M.A., inzh.

Stand for running in reducing gears. Stroi.i dor.mash. 6 no.4:34 Ap '61. (MIRA 14:3)
(Gearing) (Odessa—Cranes, derricks, etc.)

PELEVIN, M.A., inzh.; SHVARTSBURD, M.P., inzh.

Universal equipment for hardening parts by high-frequency currents. Stroi.i dor.mashinostr. 4 no.5:33-35 My '59. (MIRA 12:7)
(Metals—Hardening)

MILOVIDOVA, L.I.; PELEVIN, N.F., kand. fil. nauk

[Translation of English botanic terms and names into Russian; author's abstract of a dissertation for the degree of Candidate of Philological Sciences] O perevode angliiskikh botanicheskikh terminov i nazvanii na russkii iazyk; avtoreferat dissertatsii na soiskanie uchenoi stepeni kandidata filologicheskikh nauk. Leningrad, Leningr. gos. univ., 1964. 22 p. (MIRA 18:9)

MAL'TSEV, V.F., doktor tekhn. nauk, prof.; ZABLONSKIY, K.I., kand. tekhn. nauk, dots., retsenzent; PELEVIN, N.N., inzh., red.

[Impulse-type variable speed transmission] Impul'sivnye veriatory. Izd.2., ispr. i dop. Moskva, Mashgiz, 1963. 278 p. (MIRA 17:8)

LUK'YANOV, Vladlen Panteleymonovich; SHAPOVALENKO, A.G., kand.tekhn.nauk, retsenzent; PELEVIN, N.N., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Automatic control of production processes] Avtomaticheskoe upravlenie proizvodstvennymi protsessami. Moskva, Mashgiz, 1963. 99 p. (MIRA 16:6)
(Automatic control)

TKACH, Vasiliy Denisovich; ORENBOYM, Boris Danilovich; GURBAN, Vasiliy Yustinovich; YEREMENKO, Konstantin Prokof'yevich; POPOV, Ya.Ya., inzh., retsenzent; PELEVIN, N.N., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn.red.

[E-153, E-153A, and E-153ASh hydraulic excavators; a manual on their maintenance and operation] Gidravlicheskie ekskavatory E-153, E-153A, E-153ASh; rukovodstvo po ukhodu i ekspluatatsii. Moskva, Mashgiz, 1963. 160 p.

(MIRA 16:6)

(Excavating machinery)

GRODZIYEVSKIY, Veniamin Isaakovich; BARABASH, M.L., kand. tekhn. nauk, retsenzent; PELEVIN, N.N., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Reaction centrifuges for cleaning oil in internal combustion engines; design and calculations] Reaktivnye tsentrifugi dlia ochistki masla v dvigateliakh vnutrennego sgoraniia; konst uktsii i raschet. Moskva, Mashgiz, 1963. 86 p. (MIRA 16:8)

(Internal combustion engines—Lubrication)
(Centrifuges)

MAL'TSEV, V.F., doktor tekhn. nauk, prof.; ZABLONSKIY, K.I., kand. tekhn. nauk, dots., retsenzent; PELEVIN, N.N., inzh., red.; KOZLOV, A.P., red.izd-va; UVAROVA, A.F., tekhn. red.

[Impulsive speed variators] Impul'sivnye variatory. Izd.2. ispr. i dop. Moskva, Mashgiz, 1963. 278 p. (MIRA 16:11)

(Gearing)

PODGAYETSKIY, Vladimir Vladimirovich; ROSSOSHINSKIY, A.A., kand. tekhn. nauk, retsenzent; PELEVIN, N.N., inzh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Nonmetallic inclusions in welded joints] Nemetallicheskie vkliucheniia v svarnykh shvakh. Moskva, Mashgiz, 1962. 83 p. (MIRA 15:7)

(Welding--Defects)

L 26455-66 EWT(l)/EWT(m)/T/EWP(t) IJP(c) GG/JD

ACC NR: AP6017367 SOURCE CODE: UR/0363/66/002/003/0409/0412

AUTHOR: Pelevin, O. V.; Voronkov, V. V.; Mil'vidskiy, M. G.; Belyayev, A. I. 37 B

ORG: Giredmet

TITLE: Distribution of volatile impurities in growing crystals by oriented crystallization

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 3, 1966, 409-412

TOPIC TAGS: crystal growing, semiconducting material, crystallization, single crystal, impurity level

ABSTRACT: Inasmuch as alloying of crystals of decomposed semiconductor compounds are usually conducted with volatile impurities, and many impurities form stable compounds with one of the basic components, it was of interest to examine the distribution of volatile impurities in crystals grown by oriented crystallization in the presence of the condensed phase of such a compound. The conditions necessary for obtaining alloyed single crystals with equal distribution of the impurity are analyzed. Orig. art. has: 14 formulas. [JPRS]

SUB CODE: 20 / SUBM DATE: 19Aug65 / OTH REF: 001

Card 1/1 PB UDC: 548.55

ACCESSION NR: AT4040554 S/2564/64/004/000/0095/0100

AUTHOR: Maslov, V.N.; Pelevin, O.V.; Yepifanova, K.I.; Davy*dov, A.A.

TITLE: Crystallization of a film between germanium dendrites growing in parallel

SOURCE: AN SSSR. Institut kristallografii. Rost kristallov, v. 4, 1964, 95-100

TOPIC TAGS: germanium, germanium film, interdendritic film, film growth, germanium dendrite, germanium crystallization

ABSTRACT: The structure of interdendritic germanium films, grown in a symmetrical temperature field in a laboratory assembly with a melting capacity of 120 g of germanium, using argon as the atmosphere, was studied microscopically and metallographically. The assembly was suited for the preparation of 1.0-1.5 mm wide and 7-80 μ thick films at a rate of 60-90 mm/min at melt temperatures of 10-15C below the melting point. The process of crystallization of an interdendritic film is believed to consist of three stages: (1) the initial formation of the interdendritic film as an outgrowth of the base lamella from one dendrite into the interspace, until it merges with the parallel growing dendrite; (2) further

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L 7911-66 EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/JG
ACC NR: AP5025777 SOURCE CODE: UR/0363/65/001/009/1454/1458

AUTHOR: Mul'vidskiy, M. G.; Pelevin, O. V.

ORG: Giredmet

TITLE: Method for determining the distribution coefficients of the volatile components in growing single crystals of gallium arsenide by directed crystallization

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 1, no. 9, 1965, 1454-1458

TOPIC TAGS: arsenide, gallium compound, single crystal, crystallization, selenium, tellurium, zinc

ABSTRACT: Alloying of gallium arsenide is generally done with very strongly volatile additives: selenium, tellurium, and zinc. Growing of the single crystals is done in a hermetically sealed thermostatted apparatus in the presence of a stable gas phase of arsenic and with the alloying additive over the solution. Under these conditions, the distribution of the alloying additive along the length of the ingot is determined not only by the distribution of the alloying additive between the

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crystal and the melt, but also between the melt and the gas phase. The distribution equation for this case has been given in the following form:

$$c = K \cdot c_0 \left(1 - \frac{g}{\alpha + 1}\right)^{K-1} \qquad (2)$$

where alpha = V/v.K'; here V and v are the volumes of the gas and the condensed phases, respectively; K' is the distribution coefficient of the additive between the liquid and gas phases. The article demonstrates by mathematical development that, in the growing of gallium arsenide crystals by directed crystallization, the distribution of the volatile additives along the length of the ingot depends on the magnitude of the integral distribution coefficient (K_{int}). The value of the ratio K_{int}/K depends on the effective distribution coefficient, K, the partial pressure of the additive over the melt, the volumes of the gas and condensed phases, and the mean temperature of the gas phase. The distribution coefficients between the crystal and the melt for zinc and tellurium in gallium arsenide are equal to 0.415 and 0.046, respectively. The concentration of vacancies in samples of the

L 7911-66
ACC NR: AP5025777

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p-type coincides with the concentration of zinc atoms, in the concentration range from $1x10^{18}$ to $1x10^{20}/cm^3$. In crystals with tellurium, at a concentration of $5x10^{18}$, there is already observed a noticeable divergence with respect to the concentration of tellurium atoms. "In conclusion, we wish to express our indebtedness to S. M. Solodovnik, V. K. Lushinoy, and R. F. Makarovoy for the spectrum and chemical analysis, L. A. Kulikova for making the electrical measurements, and M. D. Shneyder for his participation in the calculations."
Orig. art. has: 6 formulas and 4 figures

SUB CODE:IC, MM/ SUBM DATE:19Mar65/ ORIG REF: 003/ OTH REF: 007

BC

Card 3/3

L 22931-66 EWT(m)/EWP(t) IJP(c) JD/JG

ACC NR: AP6013343 SOURCE CODE: UR/0363/66/002/004/0657/0658

AUTHOR: Fistul', V. I.; Omel'yanovskiy, E. M.; Pelevin, O. V.; Ufimtsev, V. B.

ORG: Giredmet

TITLE: The effect of the nature of dopant on electron scattering and polytropy of dopant in n-type gallium arsenide

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 4, 1966, 657-658

TOPIC TAGS: gallium arsenide, single crystal, semiconductor single crystal, activated crystal, donor impurity, electron mobility, carrier scattering, Hall mobility, impurity polytropy

ABSTRACT: The nature of the dopant was found to influence the electrical property of gallium arsenide single crystals doped with Te, Se, or S in widely varied concentrations in a manner analogous to that observed earlier in strongly doped semicondcutor Ge and Si. Single crystals were grown by an oriented crystallization technique under conditions which secured uniform distribution of impurity. Hall mobility at 300K was found to decrease in the sequence $u_{Te} > u_{Se} > u_S$ with increasing electron concentration in the sample. In agreement with theory this pattern of change in electron mobility reflected the effect of the nature of the dopant on scattering of electrons. Another effect of the nature of the dopant was detected in a study of the relation between electron concentration and atomic concentration of the dopant, as determined by

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ACC NR: AP6013343

chemical analysis. This effect was described as polytropy of impurity (dopant), i.e., the appearance of a part of impurity atoms in the crystal in a form, probably as a near order complex, deprived of the donor property. The polytropy was increasing in the sequence Te < Se < S at equal atomic concentration. Orig. art. has: 2 figures. [JK]

SUB CODE: 07/ SUBM DATE: 09Oct65/ ORIG REF: 002/ OTH REF: 004/ ATD PRESS: 4237

MIL'VIDSKIY, M.G.; PELEVIN, G.V.

Methods of determining the coefficients of distribution of volatile impurities in growing gallium arsenide single crystals by oriented crystallization. Izv. AN SSSR. Neorg. mat. 1 no.9: 1454-1458 S '65. (MIRA 18:11)

1. Gosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut redkometallicheskoy promyshlennosti, Moskva.

L 06592-67 EWT(m)/EWP(t)/ETI IJP(c) JD/WW/JW/JG
ACC NR: AP6029854 (A,N) SOURCE CODE: UR/0032/66/032/008/0968/0970

AUTHOR: Pelevin, O. V.; Mil'vidskiy, M. G.; Belyayev, A. I.; Khotin, B. A.; Shulepnikov, M. N.; Voronkov, V. V.

63
13

ORG: State Scientific Research and Planning Institute of the Rare Metal Industry (Gosudarstvennyy nauchno-issledovatel'skiy i proektniy institut redkometallicheskoy promyshlennosti)

TITLE: Determination of the vapor pressure of volatile substances

SOURCE: Zavodskaya laboratoriya. v. 32, no. 8, 1966, 968-970

TOPIC TAGS: vapor pressure, selenium, radioactive isotope, temperature dependence, diatomic molecule, thermodynamic analysis

ABSTRACT: A static method was developed for determining the vapor pressure from the radioactivity of the vapor, based on a proportional dependence of radioactivity to the quantity of material in the measured volume. In the proposed technique only the molecular composition of the vapor need be known. A schematic diagram of the experimental apparatus shows 13 components. The saturated vapor pressure of selenium was determined at temperatures ranging from 380 to 580°C. Quartz ampoules with weighed portions of Se^{75} were evacuated to a pressure of $1\text{-}3 \cdot 10^{-6}$ mm Hg and placed in the apparatus. Calibration curves were obtained by a series of experiments using different weights. Log

Card 1/2 UDC: 541.12.034.6

Card 2/2 NS

PELEVIN, S.N.

IL'IN, V.N.; NAZAROV, S.S.; FRENKEL', I.B.; PELEVIN, S.N.; PREOBRAZHENSKAYA, I.N.

Scouring woolen fabrics in water under pressure. Tekst.prom. 17 no.12:46-49 D '57. (MIRA 11:1)

1.Zamestitel' predsedatelya Bryanskogo sovnarkhoza (for Il'nin). 2.Direktor fabriki "Proletariy" (for Nazarov). 3.Glavnyy inzhener fabriki "Proletariy" (for Frenkel') 4.Direktor Kuntsevskoy sherstyanoy fabriki (Pelevin). 5.Glavnyy inzhener Kuntsevskoy sherstyanoy fabriki (for Preobrazhenskaya).

(Woolen and worsted manufacture)

STEPANOVA, O.V.; PELEVIN, S.V.

Improving the mechanisms. Put' i put.khoz. 7 no.7:30-31 '63.
(MIRA 16:10)

1. Starshiy inzh. Moskovsko-Ryazanskoy distantsii (for Stepanova).
2. Nachal'nik masterskikh Moskovsko-Ryazanskoy distantsii (for Pelevin).

PELEVIN, V.

Establishing the Komsomol'skaia Station. Mor. flot 18 no.7:25 Jl '58. (MIRA 11:7)

1. Nachal'nik Yuzhno-polyarnoy stantsii Komsomol'skaya. (Antarctic regions)

PELEVIN, V.

Writer, traveller, and scientist. Znan.sila 31 no.11:21-23 N '56.
(MLRA 9:12)

(Arsen'ev, Vladimir Klavdievich, 1872-1930)

STEPANOV, V.N., doktor geogr.nauk, otv.red.; BEZRUKOV, P.L., doktor geol.-mineral.nauk, red.; LONGINOV, V.V., kand.geograf.nauk, red.; RADZIKHOVSKAYA, M.A., kand.geograf.nauk, red.; PANFILOVA, S.G., kand.geograf.nauk, red.; KOZLYANINOV, M.I., kand.geograf.nauk, red.; PELEVIN, V.I., red.; TUGARINOV, D.N., red.izd-va; NOVICHKOVA, D.N., tekhn.red.

[Basic geological and hydrological features of the Sea of Japan] Osnovnye cherty geologii i gidrologii IAponskogo moria. Moskva, 1961. 223 p. (MIRA 14:3)

1. Akademiya nauk SSSR. Institut okeanologii.
(Japan, Sea of--Submarine geology)
(Japan, Sea of--Hydrology)

PELEVIN, V.I.; POPOVA, M.I., red.; MAKAROV, V.V., red.; KOZLOVSKAYA, M.D., tekhn. red.; KORNEYEVA, V.I., tekhn. red.

[Conservation] Ob okhrane prirody; sbornik statei. Moskva, Uchpedgiz, 1962. 205 p. (MIRA 16:6)
(Conservation of natural resources)

PELEVIN, V.I.

A.V. Peterburgskiy, V.I. Pelevin, N.A. Mansuryan, V pomoshch kolkhoznomu laborantu / Manual for the Kolkhoz Laboratory Worker/, Sel'khozgiz, 20 sheets.

This guide for the kolkhoz laboratory worker describes the arrangement and equipment of the kolkhoz laboratory, the methods of chemical, physical and other analyses of the most important complex substances encountered in the practice of socialist agriculture: water, soil, milk and dairy products. A short characterization of pest-control poisons and fertilizers is given, together with methods of identifying them, etc.

Intended for kolkhoz laboratory workers with special training, kolkhoz agronomists and kolkhoz activists.

SO: U-6472, 15 Nov 1954

PEREVIN, V.M.

For a thorough development of a primary processing industry for bast fiber. Tekst.prom. 14 no.10:1-3 O '54. (MLRA 7:10)

1. Nachal'nik Glavzagotl'noproma.
(Bast)

CHERNOZUBOV, S.A., inzh.; FRADKIN, B.P., inzh.; PELEVIN, V.M., inzh.

Converting a sand-lime brick plant to the production of large panels. Stroi. mat. 10 no.6:24-27 Je '64.
(MIRA 17:10)

PELEVIN, V.M., uchitel'; IVANOVA, Z.S., uchitel'

Organizing a local school society for the protection of nature.
Biol.v shkole no.5:75-76 S-O '59. (MIRA 13:8)

1. Srednyaya shkola No.70 g.Yaroslavlya.
(Student activities)
(Floriculture)

PELEVIN, V.M., uchitel'

Use this book ("When man was not there" by Dimitr Angelov. Reviewed by V.M. Pelevin). Biol. v shkole no.3:89-91 My-Je '60. (MIRA 13:7)

1. Shkola No. 70, g. Yaroslavl'.
(Man--Origin)

KABANOVA, Yu.G.; KOBLENTS-MISHKE, O.I.; PELEVIN, V.N.

Photosynthesis of marine phytoplankton at various depths. Okeanologiia 4 no.3:516-527 '64 (MIRA 18:1)

1. Institut okeanologii AN SSSR.

L 6319-65 EWT(1)/EPF(c) [illegible] WW/GG UR/0362/65/001/005/0539/0545
ACCESSION NR: AP5014225 551.463.5:535.341

AUTHOR: Pelevin, V. N.

TITLE: Measuring the true index of absorption of [illegible] in the sea

SOURCE: AN SSSR. Izvestiya. Fizika atmosfery i okeana, v. 1, no. [illegible], [illegible] 545

TOPIC TAGS: oceanography, absorption coefficient, ocean property

[illegible] Assuming that the sea is a plane-[illegible]

mining the true absorption [illegible] or of the function for [illegible] ment of spatial irradiance u(z) or of the function for [illegible] light in the sea [illegible] ducted by the Institute of [illegible] Hydrooptical Measurements in the Sea, [illegible]

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L 65198-65
ACCESSION NR: AP5014229

With additional suppositions on the form of the function $I(\theta, \phi, z)$ for the upper layers of the sea, an approximate formula is derived which may be used for calculating the true index of absorption, using the results of ordinary hydrooptical observations which have been accumulated for several [illegible]. The formula derived for the true index of refraction of the sea is true for any kind of daylight (various solar heights, cloudy weather, [illegible] vertical heterogeneity of the medium and for any depth z. A [illegible] is found between the index of absorption, the [illegible] direction of the medium and solar height [illegible] cloudy weather [illegible] this formula is required [illegible]

sulting from the use of this formula [illegible] for shallow depths. "The author is grateful to M. V. Keldysh [illegible] in the work and valuable consultation. [illegible] Academy of Sciences SSSR"

Card 2/2

PELEVIN, V. N., POROTNIKOV, A. A., KOSTYLEV, A. M. (Moscow)

"On Some Equipment for High Temperature Plasma Studies and Some Experimental Data Concerning Magnetohydrodynamic Phenomena."

report presented at the First All-Union Congress on Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb 1960.

PELEVIN, V.S., kand.tekhnicheskikh nauk

Blocking up of buildings with snow in Antarctica. Inform. biul. Sov. antark. eksp. no. 24:50-55 '60. (MIRA 14:5)

1. Vtoraya kontinental'naya ekspeditsiya.
(Antarctic regions—Snow)

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 2 p 3 (USSR) SOV/137-59-2-2238

AUTHORS: Gol'denberg, S. A., Pelevin, V. S.

TITLE: Effect of Pressure on the Flame Velocity in a Laminar Flow (Vliyaniye davleniya na skorost' rasprostraneniya plameni v laminarnom potoke)

PERIODICAL: V sb.: Issled. protsessov goreniya. Moscow. AN SSSR. 1958, pp 57-67

ABSTRACT: This effect was studied experimentally on methane-air and gasoline-air mixtures by combustion in a 16-mm diam burner; the flame velocity was determined by photographing the luminous inner cone. The data obtained show that, 1) in a broad range of concentrations an increase in pressure lowers the normal flame velocity and, 2) an increase in pressure narrows the limits of inflammability. The change in the mass rate m' of the flame was studied on the basis of these data. Since the minimal flame velocity cannot be physically equal to 0 in the proposed formula $m' = m'_o + A(P - P_o)^n$, where m'_o is the minimal mass rate at 760 mm Hg. The exponent n equals 0.78. The experimental data plotted in logarithmic coordinates satisfy

Card 1/2

Effect of Pressure on the Flame Velocity in a Laminar Flow SOV/137-59-2-2238

the given relationship.

M. M.

Card 2/2

PELEVIN, V. S.

24,5300

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S/124/60/000/01/05/011
A005/A001

Translation from: Referativnyy zhurnal, Mekhanika, 1960, No. 1, p. 33, # 279

AUTHORS: Gol'denberg, S. A., Pelevin, V. S.

TITLE: The Pressure Effect on the Flame Propagation Speed in a Turbulent Flow

PERIODICAL: V sb.: Issled. protsessov goreniya. Moscow, AN SSSR, 1958, pp. 68-76

TEXT: The authors present graphically the results of studying the effect of pressure on the propagation speed of a flame in the turbulent flow of a gasoline-air mixture. The test burner was 16 mm in diameter, the pressure varied from 760 to 100 mm of mercury, and the Reynolds number R varied from 4×10^3 to 20×10^3. The pressure effect is analogous to the flame propagation in a laminar flow: The propagation speed for invariable R is in inverse proportion to the pressure in the 0.25 power, but in case of invariable outflow speed, it increases proportionally to the square root of pressure. Considerations on theoretical substantiation of the obtained relationship are added. There are 4 references.

B. A. Fidman

Card 1/1

Lab of Combustion Physics, Power Engr. Inst. im G. M. Krzhizhanovskiy

PELEVIN, V.S.

AUTHORS: Gol'denberg, S. A. and Pelevin, V. S. (Moscow). 24-2-6/28

TITLE: Influence of the pressure on the normal velocity of flame propagation. (Vliyaniye davleniya na normal'nuyu skorost' rasprostraneniya plameni).

PERIODICAL: Izvestiya Akademii Nauk SSSR, Otdeleniye Tekhnicheskikh Nauk, 1958, No.2, pp. 33-41 (USSR).

ABSTRACT: The relation between the flame velocity and the pressure can be expressed by the following approximate equation:

$$U \approx p^{(\nu/2)-1} \qquad (2)$$

ν being the order of the reaction. In present day theories on tubulent flame propagation (Refs.5-11) and also on the criteria of flame stabilisation, the normal flame velocity is one of the predominant characteristics of the process. The published results of investigations of the influence of pressure on the normal flame velocity are contradictory and in most cases they are limited to the range of higher pressures and also as regards the range of investigated concentrations (Refs.15-27,32). The experimental data of some authors indicate that there is a definite relation between the flame speed and the pressure, namely, the linear velocity of the flame

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decreases with increasing pressures. However, Voronkov and Sokolik (Ref.15), Kolodtsev and Khitrin (Refs.17 and 18), Fiock and Marvin (Ref.19) did not observe any appreciable changes in the flame velocity with pressures in the case of mixtures of CO with oxygen; determination of the flame velocity by various methods (tube, bomb) for air and oxygen mixtures lead to the conclusion that the behaviour of these mixtures differs. A number of authors obtained contradictory results in investigating mixtures of various hydrocarbons with air; the data on the dependence of the flame velocity U on the pressure P are summarised in a table, p.34. The contradictions do not relate solely to experimental data. For instance, on the basis of the results obtained for acetylene-air mixtures and the results published by Pickering and Linnett (Ref.24), Gaydon and Wolfhard (Ref.26) arrived at the conclusion that the flame velocity does not depend on pressure. Analysing published results it can be concluded that, whilst for oxygen mixtures the indepen-
of the flame velocity on the

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various concentrations is graphed in Fig.3 for methane-air and in Fig.4 for the gasoline-air mixtures. Khitrin, L. N. (Ref.18) has shown that the mass velocity of the flame m is an important characteristic of the combustion process. Since in the here described experiments the changes in the fuel concentration are very slight, it can be assumed that the density of the mixture is constant. The mass flame velocities as a function of pressure for all the hydrocarbons referred to in the graph, Fig.7, are graphed in Fig.8 and it can be seen that the picture is the same as that obtained for methane-air and for gasoline-air mixtures, namely, the mass flame velocity decreases with decreasing pressure. According to Khitrin the dependence of the mass flame velocity on the pressure can be expressed by the following equation:

$$m' = m_o + A(P - P_o)^n \qquad (3)$$

where m_o is the limit mass velocity of the flame, P_o is the minimum pressure, A - a coefficient and n power index.

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Evaluation of the obtained experimental data by means of this formula using logarithmical coordinates, graphs Figs.9 and 10, indicates that the experimentally determined values are located on straight lines and that the value of n for methane and for gasoline equals about 0.78. For a number of hydrocarbon-air mixtures other authors also found that their experimental values are satisfactorily located on straight lines (Fig.11) and that the value of n changes between 0.7 and 0.75. Thus, it was established that the law of the changes of the mass velocities on the pressure remain equal for the entire range of pressure changes irrespective of taking into consideration the limit pressures and mass flame velocities; it can be seen from the graph, Fig.8, that some curves tend to intersect the origin of the coordinate system and in this particular case a much simpler relation will apply:

$$m \approx P^n \quad \text{or} \quad U \approx P^{n-1}.$$

The data obtained by the authors of this paper are plotted in logarithmic coordinates in the graphs, Figs.12 and 13. Thus, it can be considered an established fact that for a

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large number of mixtures of hydrocarbons which are not excessively poor or excessively rich, the flame velocity changes with the pressure in accordance with the following relation:

$$U \approx P^{-\gamma} \qquad (\gamma \quad 0.25 \text{ to } 0.3) \qquad (4)$$

This indicates that for air mixtures the effective order of reactions according to pressure, $\nu \approx 1.5$ to 1.4, whilst, as can be seen from the data of other authors (summarised in a table), in oxygen mixtures the flame velocity does not depend on the pressure and in this case $\nu = 2$.

Acknowledgments are made to A. S. Predvoditelev and L. N. Khitrin for their advice and assistance.

Card 7/7 There are 13 figures, 1 table and 32 references, 9 Russian, 23 English.

SUBMITTED: October 31, 1956.
This article was presented as one of the papers at the 16th
ASSOCIATION: Power Institute, Ac.Sc. USSR. (Energeticheskiy Institut AN SSSR)

PE LEVIN, V.S.

24(6) PHASE I BOOK EXPLOITATION SOV/3201

Akademiya nauk SSSR. Energeticheskiy institut

Gazodinamika i fizika goreniya (Gas Dynamics and Physics of Combustion) Moscow, Izd-vo AN SSSR, 1959. 170 p. Errata slip inserted. 3,000 copies printed.

Resp. Ed.: A.S. Predvoditelev, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: A.L. Bankvitser; Tech. Ed.: I.N. Guseva.

PURPOSE: The book is intended for physicists and engineers in various industries, interested in gas dynamics, combustion physics and related fields.

COVERAGE: This collection of articles represents the first attempts of the
laboratory to investigate supersonic wave flow processes of combustion
and explosion. The collection contains thirteen articles by personnel of
the combustion laboratory of the Power Engineering Institute, Academy of
Sciences, USSR, which treat the following aspects of combustion: 1) problems
of turbulent combustion of gas mixtures; 2) the influence of turbulization
of flow on the combustion process of gas mixtures; 3) theoretical inves-
tigations of inconsistencies in hydrodynamic theories of combustion and
explosion, and the methods of Riemann, Hugoniot and Haimard for describing
front processes. The editor states that strict criteria have been established
for separating from a class of physical phenomena a special class
characterized by the frontal wave motion process. These criteria pur-
portedly offer a new fundament to the identical and kinetic (compatability)
conditions of wave motion of Hadam... and permit their generalization for
the case of varying discontinuities of these or other physical quantities
of an explosion wave front. No personalities are mentioned. References
accompany each article.

SOV/24-59-2-4/30

AUTHORS: Gol'denberg, S. A., Pelevin, V. S. (Moscow)

TITLE: Influence of Pressure on the Propagation of Flames in Turbulent Flow (Vliyaniye davleniya na skorost' rasprostraneniya plameni v turbulentnom potoke)

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Energetika i avtomatika, 1959, Nr 2, pp 26-31 (USSR)

ABSTRACT: The process of flame propagation in well-mixed benzine-air mixtures at pressures below atmospheric has been investigated, using previously described experimental methods (Ref 1). The propagation velocity was measured photographically; the air pressure varied from 760 to 100 mm and the Reynolds number from 4000 to 20 000. Curves are given (Fig 1) showing the variation of flame velocity (u_T) with fuel concentration (C) at various pressures (p) and Reynolds numbers (R). Graphs of log u_T against log p indicate

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Influence of Pressure on the Propagation of Flames in Turbulent Flow

that u_T varies as $p^{-0.25}$. Similar analysis of the data in terms of Reynolds number suggests that u_T varies approximately as $R^{0.715}$. There are 4 figures and 12 references, of which 5 are Soviet, 6 English and 1 German.

ASSOCIATION: Energeticheskiy institut AN SSSR (Power Institute Academy of Sciences USSR)

SUBMITTED: November 16, 1956.

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AUTHOR: Pelevin, V. S.

TITLE: Alternating-current arc device for obtaining a high-temperature gas jet

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, no. 12, 1961, 32-36

TEXT: The author discusses arc-discharge processes and the main principles for generating a high-temperature gas jet with an a-c arc. Fig. 1 shows a device which has been constructed for this purpose. Regulation is operated of the vacuum system, the pressure in the ante-chamber, the water cooling of the arc chamber and the disk electrode. The following units are used to control the 220-v current to the carbon electrodes: (1) special reduction gear (V); distribution unit (XII); TCA-1000-3 (TSD-1000-3) transformer (XIII); and remote control panel (XIV). The commutation circuit of the transformers permits voltage and current regulation in two ways. At a constant current of 1200 a it is possible to vary the terminal voltage of the electrodes between 20 and 160 v, and at a constant voltage of 80 v, the current can be varied between 400 and 2400 a. The arc is fed with a

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Alternating-current arc device ...

50-cps current. The automatic control circuit is based on automatic regulation of the feeding rate of the carbon electrode as dependent on the arc voltage. If the device operates with water stabilization, the discharge occurring between the adjustable carbon electrode XVIII and the fixed disk electrode IV is connected to the arc chamber III. The cooling system protects the arc chamber against burnup, cools both electrodes, and increases the temperature of the gas jet leaving through an opening in the disk electrodes. There are 1 figure and 7 references: 6 Soviet and 1 non-Soviet

ASSOCIATION: Energeticheskiy institut im. G. M. Krzhizhanovskogo, g. Moskva (Power Engineering Institute imeni G. M. Krzhizhanovskiy, Moscow)

SUBMITTED: July 29, 1961

Fig. 1. Diagram of an alternating-current arc device with combined stabilization of the jet: (I) pressure chamber; (II) ante-chamber; (III) arc chamber; (IV) disk electrode; (V) automatic electrode feed mechanism; (VI) coil of the magnetic solenoid; (VII) magnet and shifting mechanism; (VIII) observation port; (IX) airtight cover; (X) needle valve;

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AUTHOR: Pelevin, V. S.

TITLE: Change of the combustion zone length of a homogeneous mixture in turbulent flow as dependent on pressure

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, no. 6, 1962, 3 - 7

TEXT: The visible, pressure-dependent change of the combustion zone length (L_{cz}) was studied with a well-blended gasoline-air mixture (gasoline B-70) fed through a tubular burner (diameter 16 mm) with ignition ring at the end. L_{cz} was determined from the CO_2 content along the flame axis. Two test series were carried out: (1) the air supply was constant and independent of falling pressure in the pressure chamber; (2) the air supply was varied corresponding to pressure. In both cases, the fuel concentration was equal (1.72 %) and constant. The limits of the thermal and chemical combustion zones were found to coincide: the maximum CO_2 content corresponded to the point of maximum temperature. When the pressure in the pressure chamber was reduced, the fuel mixture flowed out of the burner

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...tures with

constant velocity of flow, which corresponded to the theory (L. Landau, Ye. Lifshits Mekhanika sploshnykh sred (Mechanics of dense media). Gostekhizdat, M.-L., 1944) that one of the turbulence characteristics of flow is a scale of measurement for the turbulence, $l \sim p^{-0.5}$. There are 3 figures.

ASSOCIATION: Energeticheskiy institut im. G. M. Krzhizhanovskogo, g. Moskva (Power Engineering Institute imeni G. M. Krzhizhanovskiy, Moscow)

SUBMITTED: September 29, 1961

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1. Energeticheskiy institut imeni G.M.Krzhizhanovskogo, Moskva.

(Combustion) (Inflameable liquids)

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Change in the length of the combustion zone of a homogeneous mixture in a turbulent flow as dependent on pressure. Inzh.-fiz. zhur. 5 no.6:3-7 Je '62. (MIRA 15:12)

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(Fluid dynamics)

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Method of boring holes in the ice by means of a high-temperature gas jet. Inform.biul.Sov.antark.eksp. no.48:35-38 '64. (MIRA 18:2)

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EMANUEL', N.M.; LIPCHINA, L.P.; PELEVINA, I.I.; LIPATOVA, T.E.

Selective inhibition of the activity of oxidizing-reducing enzymes in tumor cells by chain reaction inhibitors. Dokl. AN SSSR 124 no.5:1157-1159 F '59. (MIRA 12:3)

1.Institut khimicheskoy fiziki AN SSSR. Chlen-korrespondent AN SSSR (for Emanuel').
(TUMORS) (OXIDATION, PHYSIOLOGICAL) (GALLIC ACID)