

IL'INA, N.P., kand. tekhn.nauk [deceased]; IVANOVA, A.V., mlad.  
nauchn. sotr.; SMYSHLYAYEVA, T.N., st. nauchn. sotr.;  
TARASOVA, Ye.G., mlad. nauchn. sotr.; SMIRNOV, R.H.,  
red.izd-va; KHENOKH, F.M., tekhn. red.

[Manual on the repair of building facades by using oil-  
less (perchlorvinyl and lime) paints] Rukovodstvo po  
remontu fasadov zdaniy s primeneniem bezmaslianykh  
(perkhlorvinilovykh i izvestkovykh) krasok. Moskva, 1963.  
97 p. (MIRA 16:8)

1. Akademiya kommunal'nogo khozyaystva. 2. Sektor ekspluatatsii  
zhilykh i kommunal'nykh zdaniy Akademii kommunal'nogo kho-  
zyaystva im. K.D.Pamfilova (for Il'ina, Ivanova, Smyshlyayeva,  
Tarasova).

(Painting, Industrial)

~~SECRET~~

Drying plaster and walls of buildings by gas dryers. Nov. tekhn.  
zhil.-hor. khoz.: Zhil. khoz. no.2:28-34 '63.

(MIRA 18:6)

PRAVOVEROV, K.N.; SMYCHAYOVA, T.N.

Sanitary-hygienic and temperature-humidity conditions in space on the  
dehumidification of buildings with gas devices. Nauch. trudy AKKH no.23:  
82-96 '63. (MIRA 17:12)

SMYSHLYAYEVA, L.N.

Economic effectiveness of using gas apparatus for drying  
buildings in repair work. Nauch. trudy AKKH no.31:20-26 '64.  
(MIRA 18:9)

PISAREVSKIY, N.N. ; SMYSHLYAYEVA, T.V.

Equipment for graduating microphones at high levels of pressure due  
to sounds. Prom. aerodin. no. 18:54-64 '60. (MIRA 14:5)  
(Microphone)

TORBAN, M.A.; SMYSHLYAYEVA, V.I.

Colorimetric method for the determination of proline. Zhur.anal.khim.  
16 no.5:645-646 S-O '61. (MIRA 14:9)

1. Stavropol Scientific Research Institute of Vaccines and Serums.  
(Proline)

TORBAN, M.A.; <sup>A</sup>SMYSHLYAYEVA, V.I.

Method for determining reducing sugars in the presence of peptone  
and its use for the study of polysaccharides. Lab. delo 7 no.10:  
40-45 0 '61. (MIRA 14:10)

1. Stavropol'skiy institut vaktsin i syvorotok (dir. - V.M.Kruglikov).  
(PEPTONES) (POLYSACCHARIDES)

IMAYKINICH, A.Yu.; SMYSHLAYEVA, V.I.; RAKHMAN, E.E.; ASTAKHOVA, N.I.

Characteristics of toxin formation in various *Clostridium tetani*  
strains based on data of immunochemical analysis. Report No.1.  
Zhur. mikrobiol., epid. i immun. 71 no.12:48-53 E '64. (MIRA 18:3)

1. Stavropol'skiy institut vaktsin i syvorotok.



L 63351-65 EWA(b)-2/EWA(j)/EWT(1) JK  
ACCESSION NR: AP5011279

UR/0016/65/000/004/0073/0078 19  
18  
B

AUTHOR: Ilyutovich, A. Yu.; Smyshlyayeva, V. I.; Rakhman, E. Z.;  
Astakhova, N. I.

TITLE: Immunochemical investigation of tetanus culture filtrates during detoxication

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 4, 1965, 73-78

TOPIC TAGS: tetanus, bacteriologic culture method, detoxication, antitoxin, immunochemistry, amino acid, nitrogen amino acid, nitrogen compound, protein, molecule, precipitation

ABSTRACT: Amino acid composition changes of tetanus culture filtrates were investigated during detoxication with an antitoxin. Tetanus culture samples were taken at regular intervals (3 hrs up to 30 days) to determine the following: nitrogen of peptide fractions precipitated by different concentrations of trichloroacetic and phosphoromolybdenic acids, free amino acid levels, amino acid composition of acid hydrolyzates of nitrogen compounds, and the antigenic structure of

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ACCESSION NR: AP5011279

antitoxins by agar diffusion precipitation. Findings show that during tetanus detoxication, the nitrogen level of all peptide fractions (protein, albumose, peptone) increases, particularly in nitrogen compounds with medium sized molecules. The nitrogen increase in all peptide fractions coincides with a decrease in the number of precipitate lines formed. The free amino acid levels fluctuated without displaying any definite dynamics. However, the results for glutamic acid, alanine, phenylalanine, and tyrosine are more regular, indicating possible participation in the structural change of the protein molecule during detoxication. The amino acid composition changes of nitrogen fraction hydrolyzates reflect a constant structural rearrangement of the protein molecule. These changes also point to the complexity of the detoxication process which cannot be explained solely in terms of blocking the free amine groups. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Stavropol'skiy institut vaksin i syvorotok  
 (Stavropolsk Institute of Vaccines and Serums)

SUBMITTED: 11Jan64

ENCL: 00

SUB CODE: LS

NR REF SOV: 004

OTHER: 007

Card 2/2 KC

S/277/63/000/004/008/013  
A004/A127

AUTHOR:

Smyatel, M.

TITLE:

Device for testing the service life of bearing materials or  
antifriction bearings

PERIODICAL:

Referativnyy zhurnal. Otdel'nyy vypusk. 48. Mashinostroitel'-  
nyye materialy, konstruktssii i raschet detaley mashin, no.4,  
1963, 38, abstract 4.48.244 P. (Czech. pat. cl. 42k, 38/01,  
42k, 38/02, no. 101905, December 15, 1961)

TEXT:

The author suggests a device for evaluating the service life  
of bearing materials and assembled bearings at temperatures exceeding 200°C,  
measuring at the same time the test temperature and the moment of friction.  
The tests can be carried out by using liquid, gaseous or consistent lubricat-  
ion. The contact fatigue tests are performed until the contact surfaces are  
destroyed. The ball-shaped bearing material specimen is clamped in a chuck  
placed in the vertical hollow of a shaft rotated by an electric motor via  
belt transmission. The ball rotates on three other balls of the same dia-  
meter made of the same material; the balls are rooled on the bearing race.

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Device for testing the service life of...

S/277/63/000/004/008/013  
A004/A127

The loading rod, which is connected with the lower ball bearing surface, has cooling ribs and grooves for feeding and removing the lubricant and for feeding the thermocouple. Axial pressure is transmitted from a load via a loading and switching-off device mounted on the lower end of the loading rod. The working space is heated by a resistor-type furnace. When the specimen being tested chips or breaks, the motor is switched off automatically and an electromagnet is actuated stopping the axial pressure. The device is fitted with a recorder of the moment of friction.

[Abstracter's note: Complete translation.]

Card 2/2

60838-65 EWT(1)/EWT(m)/EPF(c)/EWA(d)/EWP(t)/EWP(z)/EWP(b) MJW/  
ACCESSION NR: AR5018409 JD/WB UR/0081/65/000/007/K004/K004 36  
B

SOURCE: Ref. zh. Khimiya, Abs, 11K23

AUTHOR: Miklashevskaya, V. S.; Zdyurenko, V. V.; Kovngr, M. L.; Smyslenov, A. M.  
44,55 44,55 44,55 44,55

TITLE: On the question of the corrosion resistance of silumin.

CITED SOURCE: Tr. Leningr. in-t aviats. priborostr., vyp. 43, 1964, 156-162.  
44,55

TOPIC TAGS: silumin, corrosion resistance

TRANSLATION: The corrosion resistance of samples of Al-Si alloy Al-2 was investi-  
gated. It was established that their corrosion resistance in a series of cases is  
considerably lower than normal for this alloy. This apparently is due to contamina-  
tion of the alloy with other admixtures. Methods of increasing corrosion resistance  
were recommended. Authors' abstract.

SUB CODE: MM

ENCL: 00

ilk  
Card 1/1

SMIRNOV, A.A., inzh.; SMYSLPNOV, V.N., inzh.

Mixtures solidifying by chemical means used in mold and core  
making for steel and iron founding. Trudy VNIINMASH no.1:5-16  
'59. (MIRA 13:5)

(Founding)

AUTHOR: Smyslov, A. A.

7-58-3 3/15

TITLE: Radioactive Elements in Igneous Rocks of North Kazakhstan  
(Radioaktivnyye elementy v izverzhennykh porodakh Severnogo  
Kazakhstana)

PERIODICAL: Geokhimiya, 1958, Nr 3, pp. 197 - 205 (USSR)

ABSTRACT: According to A. I. Senenov the development of the region is divided as follows: First- and early stages: development of the geosynclinal (PCn-Cn). Middle stages: development of the geosynclinal and its transition to the folded belt (O-S?) Late- and final stages: development of the folded belt and transition to a plain. The samples were collected by the author and other assistants of the team of A. I. Senenov: V.S. Malayavkin, N.N. Marochkin, Yu. M. Shuvalov. The easily soluble uranium was separated by means of sulfuric acid at 30 - 40°, it corresponds approximately to the hexavalent uranium. The samples were decomposed by means of a mixture of hydrochloric- and sulfuric acid and ammonium fluoride; uranium was determined by means of the luminescence analysis, thorium radiochemically. The investigation results are compiled in four tables; two

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Radioactive Elements in Igneous Rocks of North  
Kazakhstan

7 58 3 3/15

east-west sections show graphically the distribution of the radioactivity. The following final conclusions can be drawn:

- 1) During the magmatic activity the content of radioactive elements and the Th/U-ratio increase up to the end of the middle stages; in the late stages the thorium and uranium concentration and the Th/U-ratio decrease again. Similar phenomena were observed in other regions of the Soviet Union (Zapadnaya Tuva, Kandyktas mountains, etc.).
- 2) The igneous rocks of the various intrusion complexes and development stages in their content of radioactive elements differ to a great extent. The radioactive data can therefore be used for the distinction of the intrusion complexes.
- 3) Only in one massif of North Kazakhstan it was found that the radioactive elements were enriched in the roof of the intrusion body. Batholite-like intrusion massifs of the middle stage of development rather show a reduction of uranium in the upper parts. Uranium and possibly also thorium migrated into the depth during cooling down.
- 4) Also in various samples taken at depths of 100-200 m easily soluble uranium was found. It is very well possible that

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Radioactive Elements in Igneous Rocks of  
Kazakhstan

7-27-1958

already in the formation of the magmatic rocks hexavalent uranium is present as well. This is decisively important in the migration of uranium and in the formation of rocks with different Th/U-ratio. There are 4 figures, 4 tables, and 13 references, 10 of which are Soviet.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy geologicheskiy institut, Leningrad (Leningrad, All-Union Scientific Research Institute of Geology)

SUBMITTED: February 18, 1958

- 1. Rock--Radioactivity
- 2. Uranium--Determination
- 3. Thorium--Determination
- 4. Rock--Geology

Card 3/3

SMYSLOV, A.A.

Role of geophysical and geochemical methods in metallogenetic studies. Inform.sbor. VSEGEI no.22:97:106 '59.

(MIRA 14:12)

(Prospecting)

ABRAMOVICH, I.I.; SMYSLOV, A.A.

Some problems of radiogeophysics in connection with metallogenetic investigations. Trudy VSEGEI 95:4-11 '63.

(MIRA 17:11)

SEMENOV, A.I.; SMYSLOV, A.A.

Petrographic and geochemical characteristics of the granites of  
the Berkutinskiy Massif (northern Kazakhstan). Trudy VSEGEI 95:  
45-60 '63. (MIRA 17:11)

BARANOV, G.M.; SMYSLOV, A.A.; KHARLAMOV, M.G.

Content of radioelements in the intrusive rocks of the Selety-  
Korzunkol' region in central Kazakhstan. Trudy VSEGEI 95:61-69  
'63. (MIRA 17:11)

S/011/60/000/007/001/002  
A054/A129

AUTHOR: Smyslov, A. A.

TITLE: The importance of data on radioactivity and heat-conductivity of rocks in metallogenic investigations

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya geologicheskaya, no. 7, 1960, 32 - 45

TEXT: Metallogenic investigations are based on the magmatic activity and the thermal conditions of the earth's crust. The main source of thermal energy is assumed to be the radiogenic heat which is uninterruptedly generated as a result of the radioactive disintegration of uranium, thorium and potassium. However, most hypotheses formed on the thermal conditions of the earth's crust make no allowance for the varying heat-conductivity of rocks which form the crust. These problems can only be solved when the heat conditions of the various structural zones of the earth are dealt with for each structure and for the various stages of evolution separately. Moreover, the peculiarities of geologic and metallogenic evolution of platforms and geosynclines have also to be taken into consideration. With regard to magmatic activity, two "magmatic cycles" can be distinguished, based on the

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S/011/60/000/007/001/002  
A054/A129

The importance of data on radioactivity and...

uranium and thorium content of the intrusive and effusive formations of the moving zone. The first cycle contains the eruptive rocks of the initial, early and medium stages of the evolution of the moving zone and is characterized in that the content of uranium and thorium gradually increases in the younger rocks. The second magmatic cycle is also characterized - in the beginning and at the end of the cycle - by the presence of weakly radioactive eruptive rocks, moreover it contains the rocks of the later and final evolution stages of the moving zone. Metallogenic investigations show that there is a certain correlation between the situation of the supply area of magmatic foci and the thickness of weakly metamorphic and slightly dislocated sediments. In geosynclines the supply area of magmatic foci is placed higher in the earth-crust than in platform structures. With the increase in thickness of sedimentary layers during the evolution of the moving zones, the melting foci are rising into higher levels within granite and basalt layers. Besides radioactivity the thermal conductivity is also very important for metallogenic investigations. Table 1, which gives the content of radioactive elements of various layers of the earth-crust and their thermal conductivity, shows that sedimentary layers have a low thermal conductivity and therefore promote heat accumulation. With increasing metamorphism their thermal conductivity increases and approaches that of

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S/011/60/000/007/001/002  
A054/A129

The importance of data on radioactivity and...

crystalline rocks. In areas where the crystalline fundament crops out to the surface (Baltic, Canadian, African shields) the geothermal gradient values are high (80 - 150 m/degree) which means that at a depth of 12 - 15 km the temperature does not exceed 100 - 200°C. However, in platform-type areas covered with sedimentary layers (Russian Platform, Western Siberian Platform) the geothermal gradient is much lower (20 - 40 m/degree) and the temperatures at 12 - 15 km depths range from 300 - 400°C. A medium between these extremes is represented by paleozoic and kainozoic foldings having geothermal gradient values of 40 - 100 m/degree, and the Alpine zones with geothermal gradients of 15 - 25 m/degree. The value of heat flow, however, is nearly uniform in all strata of the crust and amounts to 1.0 - 2.0 · 10<sup>-6</sup> cal/cm<sup>2</sup>.sec. For calculating the thermal conductivity for platforms, shields and moving zones in the initial, early and medium stages of evolution Tikhonov's formulae are used [Ref. 19: A. N. Tikhonov, Vliyanie radioaktivnogo raspada na temperaturu zemnoy kory (Effect of radioactive disintegration on the temperature of the earth's crust), Izvestiya akademii nauk SSSR, ser. geogr. i geofiz., 1937, no. 3] for 2, 3, 4 and x-layer zones. An analogous calculation can be applied to radioactive layers. The heat flow on the earth's surface and the geothermal gradient in the upper layer can be calculated from

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A054/A129

The importance of data on radioactivity and...

$$Q_0 = P_2 \cdot l_1 + P_1 \cdot l_2 + \dots + P_n \cdot l_n \text{ and } q = \frac{K}{Q}$$

where  $l_1 \dots l_n$  = various layers; K - heat conductivity-coefficient; P - the heat generated. The heat distribution at various depths of the earth's crust has been determined for 6 types of structures separately (Table 2), making allowances for the radiogenic heat generated in peridotite, basalt and granite rocks. The table shows that under the covering layers of weakly metamorphized sediments a continuous accumulation of thermal energy takes place. As already mentioned before, the thicker the covering layer of sedimentary rocks, the higher the melting foci of the substratum will be situated. Actually this phenomenon represents the relation between the accumulation of sediments and magmatism established by S. S. Smirnov and Yu. A. Bilkin. The temperature data obtained for various evolution stages of the moving belts show that in the initial and early stages, when the thickness of sediments is relatively small as compared with the total thickness of the medium evolution stages, the melting foci develop only within the range of peridotite and basalt strata (structural types II and III, the best example of type II are some island arcs of the Pacific Ocean). In the medium evolution stages of the moving belt (structural type IV, Alps, Carpathian Mountains, Himalaya, etc.), when the thick

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S/011/60/000/007/001/002  
A054/A129

The importance of data on radioactivity and...

sedimentary layer is superimposed on granite and basalt strata, the possible melting foci of the substratum (areas of high temperatures) are lifted to higher levels of the earth crust. In this period all conditions for the evolution of granite magmas are present and this can be observed in most foldings. In the last evolution stages of the moving belt the melting foci of the substratum are slightly deeper due to the intensive scattering of heat energy caused by magmatic activity and increased heat conductivity of sedimentary rocks. The possible melting foci of the substratum are mainly found in the proximity of basalt and granite layer borders. The scattering on account of igneous activity and the increase in heat conductivity of sedimentary layers become so great that sectors of the earth's crust, displaying folds and magmatism, are gradually converted into platform-type stabilized areas. There are 4 figures, 2 tables and 26 references: 20 Soviet-bloc, 6 non-Soviet-bloc. ✓

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut (All-Union Scientific Research Institute of Geology) and Ministerstvo geologii i okhrany nedr SSSR, Leningrad (Ministry of Geology and Protection of Mineral Resources, USSR, Leningrad)

Card 5/8

SMYSLOV, Dmitriy Vasil'yevich; TRIPOL'SKIY, L.G., red.; FEKLISOVA, T.D.,  
tekhn.red.

[We are traveling across the Carpathian Mountains] My idem po  
Karpatah. Moskva, Gos.izd-vo "Fizkul'tura i sport," 1960. 91 p.  
(MIRA 13:6)

(Carpathian Mountains--Description and travel)

SMYSLOV, G. I.

Dvizheniye vody cherez vodosliv s shirokim porogom "Gidrotekhnicheskoye Stroitel'stvo"  
No. 1, 1948

SMYSLOV, I. G.

Baltic Sea--Trawls and Trawling.

Shortcomings in a pamphlet on trawling ("Technology of trawling in the Baltic Sea."  
I. G. Smyslov. Reviewed by Eng. V. V. Borishchev). Ryb. khoz. 28 No. 7, 1952.

Monthly List of Russian Accessions, Library of Congress, November 1952. UNCLASSIFIED.

SHANN, I. G.

"Investigation of Factors Determining the Equilibrium and the Opening of a Variable Depth Trawl." *Jani Tech Sci*, Moscow Technical Inst of the Fish Industry and Economy imeni A. I. Mikoyan, Moscow, 1955. (KL, No 16, Apr 55).

SO: Sum. No. 704, 2 Nov 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (16).

SMYSLOV, I.G., kand.tekhn.nauk

Studying factors determining the equilibrium and opening of various-  
depth trawls. Trudy VNIRO 41:34-56 '59. (MIRA 13:8)  
(Trawls and trawling)

NAGURSKIY, A.V., spets. red.; SMYSLOV, I.G., spets. red.; MILLER,  
B.N., spets. red.; MUKHINA, Ye.M., red.; POLUYEKHINA, N.I.,  
tekhn. red.

[Collection of abstracts of scientific works of the All-  
Union Scientific Institute of Maritime Fisheries and  
Oceanography; technology and mechanization] Sbornik anno-  
tatsii nauchnykh rabot VNIRO; tekhnologiya i mekhanizatsiya.  
Moskva, Rybnoe khoziaistvo, 1962. 49 p. (MIRA 16:4)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut  
morskogo rybnogo khozyaystva i okeanografii.  
(Fishery products) (Whale products)  
(Fishing--Equipment and supplies)



AUTHOR: Smyslov, I.I., Engineer.

110-9-20/23

TITLE: Apparatus CM-1 and its Application (Apparat SM-1 i ego primeneniye)

PERIODICAL: Vestnik Elektropromyshlennosti, 1957, Vol.28, No.9, pp. 76 - 77 (USSR)

ABSTRACT: The apparatus CM-1 is used in checking the windings of electrical machines and apparatus. Experience suggests other uses. When a satisfactory winding is connected to one branch of the circuit and a defective or unsuitable winding is connected to the other, two curves appear on the oscillograph screen. The following defects can be detected: wire break, incorrect number of turns, turn-to-turn short circuits and frame insulation. The apparatus applies identical voltage pulses to two branches connected in series and each branch receives an identical impulse in turn. If the tested winding is identical with the standard, a single curve is obtained. If the tested winding is damaged a different curve is obtained. Methods of interpreting the various differences between curves are explained; if a calibrated resistance standard is used the equipment can be employed to measure resistance. Inductance and capacitance can be measured on the same principle.

Apparatus CM-1 and its Application.

110-9-20/23

There are 2 figures.

SUBMITTED: January 17, 1956

AVAILABLE: Library of Congress.

Card 2/2

SMYSLOV, I.I.; SUBBOTIN, M.I.

Use of metal glue in manufacturing piezoelectric transducers.  
Prib. i tekhn. eksp. 9 no.1:220 Ja-F '64, (MIRA 17:4)

MOROZOV, V.I.; VCRONICHEV, N.M.; NAUDIN, Yu.V.; GARMAZA, V.A.; MEDVEDEV, G.I.;  
KAMENETSKIY, I.M.; IZOKH, V.V.; BARASHKOV, V.D.; EMPARAPULO, V.Kh.;  
RAYEVSKIY, N.P.; SHASHKOV, Yu.M.; GRISHIN, V.P.; SMYSLOV, I.I.;  
ROMANENKO, Yu.M.; SAKHAROV, B.B.

Innovations. Avtom. i prib. no.2:61-62 Ap-Je '65. (MIRA 18:7)

L 2646-66 EWT(d)/EWT(1)/EWP(v)/EWP(k)/EWP(h)/EWP(1)/EWA(h)

ACCESSION NR: AP5026110

UR/0119/65/000/010/0024/0025

621.3.083:62-278

50  
B

AUTHOR: Osipovich, L. A. (Candidate of technical sciences); Smyslov, I. I. (Engineer)

TITLE: Semiconductor miniature pressure sensor 25

SOURCE: Priborostroyeniye, no. 10, 1965, 24-25

TOPIC TAGS: pressure measuring instrument 14

ABSTRACT: A flat diaphragm 1 made from 0.1-mm beryllium bronze is soldered into the housing 2 of the pressure sensor (see Fig. 1 of Enclosure). Screw 3 presses against the free end of "beam" 4 made from a 0.5-mm thermally-treated beryllium bronze. The other end of the "beam" is constrained between plates 5. Strain-gage elements 6 made from dendritic p-germanium 0.2—0.35-mm foil are cemented with an epoxy adhesive to the both sides of the "beam". The diaphragm maximum deflection is 0.25 mm; the current-voltage characteristic of the sensor is almost linear. Other characteristics are: resonant frequency, 1200 cps; maximum working temperature, 70C; pressure measurement range, 0—400 torr; basic error,  $\pm 1\%$ ; strain-element resistance,  $50 \pm 1$  ohms; strain sensitivity factor, 45; and weight, 50 g. Orig. art. has: 7 figures and 1 formula. [03]

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L 2646-66  
ACCESSION NR: AP5026110

ASSOCIATION: none

SUBMITTED: 00

ENCL: 01

SUB CODE: IE

NO REF SOV: 006

OTHER: 001

ATD PRESS: 4124

0

Card 2/3

L 2646-66

ACCESSION NR: AP5026110

ENCLOSURE: 01

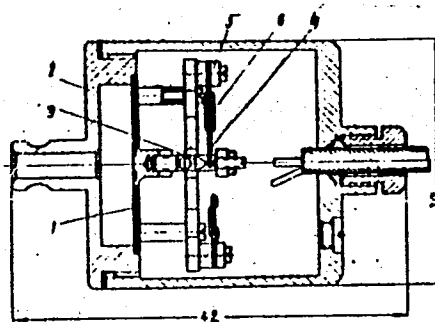


Fig. 1. Semiconductor pressure sensor

Card. 3/3 EP

COMB VICH, S.A., Ltd. to n. read; SINGLOV, T.T., 'ral.

18: lat re transfer pressure gauge. fiber optic to r.c. 10;

24:25 0 '65.

(INHA 19:1)



L 18871-66 EWT(m)/EWP(t) LJP(c) JD

ACC NR: AP6007595

SOURCE CODE: UR/0119/66/000/002/0014/0016

AUTHOR: Osipovich, L. A. (Candidate of technical sciences); Smyslov, I. I.  
(Candidate of technical sciences)

ORG: none

20  
B

TITLE: Process of manufacturing semiconductor strain gages from dendritic germanium

55

55, 27

SOURCE: Priborostroyeniye, no. 2, 1966, 14-16

TOPIC TAGS: strain gage, dendritic germanium

ABSTRACT: Dendritic strain gages are prepared by means of cutting up germanium ribbon with a corundum needle and soldering the leads (ohmic contacts) to the ends of each cut length. The resulting strain gages have these data: length, 5 and 10 mm; thickness, 0.2--0.3 mm; resistivity, 1 ohm.cm; gage resistance, 50--500 ohms; longitudinal sensitivity, 50--100; lateral sensitivity, 5%; maximum working temperature, 50C; other details given. Processing devices, solder composition, tolerances, and some manufacturing techniques are given. Orig. art. has: 3 figures and 2 tables. [03]

SUB CODE: 13. SUBM DATE: none / ORIG REF: 002 / OTH REF: 002/ ATD PRESS: 4217

Card 1/1

UDC: 658.512:621.315.592:531.781

L 23579-66 EWP(e)/EWT(m)/EWP(v)/EWP(j)/T/EWP(t)/EWP(k)/ETC(m)-6 IJP(c) JD/WH/HM/

ACC NR: AP6012703 RM/WH SOURCE CODE: UR/0119/66/000/004/0020/0020

AUTHOR: Osipovich, L. A. (Candidate of Technical Sciences);  
Smyslov, I. I. (Candidate of Technical Sciences)

58  
57  
B

ORG: none

TITLE: Prospects for the application of metallic adhesives

SOURCE: Priborostroyeniye, no. 4, 1966, 20

TOPIC TAGS: adhesive, metal joining, permanent joint, metal bonding

ABSTRACT: The paper deals with the relatively new method of metal bonding by metallic adhesives, frequently termed as "cold soldering" in Western literature. The technological operations involved (applying a paste-like compound to pretreated surfaces, curing, heat treating, setting, formation of solid solutions, which resembles the polymerization of organic adhesives) make the method of permanent joining comparable to gluing rather than to soldering, which is regarded as a commercial term. The authors call the adhesive compound capable of withstanding high-temperature operations "metallic glue" or "mekladin" (an acronym for a glue made at the Laboratory of Machine Dynamics). The most valuable and promising characteristics of mekladin to determine appropriate areas of use, include: a) capacity of producing strong

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L 23579-66

ACC NR: AP6012703

electroconductive joints for normal-temperature operation without fluxes; b) capacity of making strong bonds between parts of heterogeneous material, (metal to ceramics,<sup>5</sup> metal to polymer, etc.); c) capacity of expanding during setting, ensuring bonding of parts under tension; d) capacity of producing refractory materials at normal temperatures. [LD]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 002/

Card 2/2 BK

CHEREPKOV, I.F.; SYSLOV, N.I., red.

[Vapor pressure of nitrogen oxides over nitrose] Ob uprugosti parov  
okislov azota nad nitrozoi. Moskva, Laboratoriia nauchno-tekhn.  
informatsii, 1961. 11 p. (MIRA 15:12)  
(Nitrogen oxide) (Vapor pressure)

SMYSLOV, N.I.; SIPYAGINA, M.I.; KRASNUSHKIN, V.V.; LEVIN, M.N.

[Combined contact-tower process for sulfuric acid manufacture]  
Kombinirovannyi kontaktno-bashennyi protsess polucheniia ser-  
noi kisloty. Moskva, 1962. 39 p. (MIRA 16:2)

1. Moscow. Nauchnyy institut po udobreniyam i insektofungitsi-  
dam. 2. Laboratoriya bashennoy sernoy kisloty Nauchnogo instituta  
po udobreniyam i insektofungitsidam imeni prof. Ya.V.Samoylova  
(for Smyslov, Sipyagina). 3. Gosudarstvennyy institut po proyek-  
tirovaniyu zavodov osnovnoy khimicheskoy promyshlennosti (for  
Krasnushkin, Levin).

(Sulfuric acid)

NEYPERT, K.V.; GOLOVACHEVSKIY, Yu.A.; SHEVCHENKO, D.N.; SMYSLOV, N.I.

Use of a partially packed absorber with atomized sprayers  
in the production of tower acid. Khim. prom. no.5:390-392  
My '63. (MIRA 16:8)

SMYSLOV, N.V.

Improving operational properties of winches of a diesel-electric multibucket dredger, project No. 570, designed by the "Leninskaja Kuznitsa" Plant. Rech. transp. 18 no.4:45-47 Ap '59.  
(MIRA 13:1)

1. Komandir-nastavnik Kamskogo basseynovogo upravleniya.  
(Dredging machinery) (Winches)

SMYSLOV, V.

A universal tape recorder. Tekh.mol.23 no.10:22 0 '55.  
(Magnetic recorders and recording) (MLRA 9:4)



SOV/124-58 11-12354

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 11, p 57 (USSR)

AUTHORS: Strelkov, S. P., Smyslov, V. I.

TITLE: An Electrometric Flutter Model (Elektrometricheskaya model' flattera)

PERIODICAL: V sb. : Mezhvuz. konferentsiya po primeneniyu modelirovaniya v elektrotekhn. zadachakh i matem. modelirovaniya. Moscow, 1957, p 130

ABSTRACT: Bibliographic entry

Card 1/1

VAVILOVA, A.S., inzh.; LISOV, V.P.; ROKHLIN, I.A.; TROYANOV, A.V.; DOBRO-  
SMYSLOV, V.I., inzh., red.; STUPIN, A.K., red.izd-va; KORABLEVA,  
R.M., red.izd-va; TIKHANOV, A.Ya., tekhn.red.

[Catalog of parts of calculating perforator machines with 80  
column outfit] Katalog detalei schetno-perforatsionnykh mashin  
80-kolonnogo komplekta. Moskva, Gos.nauchno-tekhn.izd-vo  
mashinostroit.lit-ry, 1959. 163 p. (MIRA 12:12)

1. Nauchno-issledovatel'skiy institut schetnogo mashinostroyeniya.  
(Calculating machines)

SMESLOV, V.I. ; STRELKOV, S.I. (Moscow)

"Electromechanical models of flutter"

Report presented at the 2nd All-Union Congress on Theoretical and Applied Mechanics, Moscow 29 Jan - 5 Feb 64.

L 27264-66 EWP(j)/EWI(m)/ETC(m)-6/T IJP(c) RM/WW

ACC NR: AP6009532

SOURCE CODE: UR/0413/66/000/005/0067/0067

AUTHORS: Makharinskiy, Ye. G.; Smyslov, V. I.; Mironov, A. K.

28  
B

ORG: none

TITLE: Device for winding fiber glass pipes. Class 39, No. 179460

SOURCE: Izobreteniya, promyshlennyye obraztsey, tovarnyye znaki, no. 5, 1966, 67

TOPIC TAGS: fiberglass pipe, glass manufacturing machinery

ABSTRACT: This Author Certificate presents a device for winding fiberglass pipes. The device has a cylindrical fixture with the axis resting on bearings mounted on the frame of the device and connected to the drive through a universal joint which rotates the fixture. It also has upper clamping rollers which contact the outer cylindrical edges of the fixture and a lower support shaft which contacts the outer surface of the tube along its entire length. To improve the physical and mechanical characteristics of the pipes, the movable bearings supporting the fixture axis are mounted in vertical guides in the frame.

SUB CODE: 13/ SUBM DATE: 27Feb64

Card 1/1 (C)

UDC: 678.5:621.778.27:62-462

L 43832-66 E-T(m)/EMP(j)/T IJP(c) WW/RM

ACC NR: AP6030597

(A, N)

SOURCE CODE: UR/0413/66/000/016/0090/0090

INVENTOR: Makharinskiy, Ye. G.; Smyslov, V. I.; Mironov, A. K.; Shakhov, V. A.;  
Dimitriyenko, I. P.; Suminov, V. I.; Avdeyev, V. A.

35  
B

ORG: none

TITLE: Production process for cylinders of laminated plastics. Class 39, No. 185046  
[announced by the Independent Special Design and Technical Bureau (Samostoyatel'noye  
spetsial'noye konstruktorsko-tekhnicheskoye byuro); State Scientific-Research  
Institute of Plastics (Gosudarstvennyy nauchno-issledovatel'skiy institut  
plasticheskikh mass)]

b

15

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966, 90

TOPIC TAGS: reinforced plastic, laminated plastic

ABSTRACT: An Author Certificate has been issued for a production process for  
laminated plastic cylinders involving the winding of a pre-impregnated and dried  
strip of filler onto a rotating mandrel and molding of the laminated material. To  
enhance the mechanical strength of the cylinder walls, the molding is carried out by  
pressing between the mandrel and a heated roll. [SM]

SUB CODE: 11/ SUBM DATE: 14Jul64/ ATD PRESS: 5072

Card 1/1 fv

UDC: 678.027.2

USSR / Cultivated Plants. Fruit Trees. Small Fruit M  
Plants. Nut Trees. Tea.

Abs Jour : Ref Zhur - Biologiya, No 6, 1959, No. 25029

Author : Smyslov, V. K.

Inst : Not given

Title : Once Again About Designation of Varieties

Orig Pub : Sad i ogorod, 1958, No 9, 62

Abstract : No abstract given

Card 1/1

SMYSLOV, V.V., ~~z~~asluzhennyy vrach USSR (Belaya Tserkov')

Cases of salivary calculi. Stomatologiya no.3:45-46 My-Je '54.  
(MLRA 7:6)

(SALIVARY GLANDS, calculi,

\*case reports)

(CALCULI,

\*salivary, case reports)

SMYSLOV, V.V., doktor tekhn.nauk

Stopped wave in a turbulent flow. Izv. vys. ucheb. zav.; energ.  
7 no.3:104-110 Mr '64. (MIRA 17:4)

1. Kiyevskiy inzhenerno-stroitel'nyy institut. Predstavlena  
kafedroy vodosnabzheniya i kanalizatsii.



SMYSLOV, V. V.

Smyslov, V. V - "Hydraulic calculation of canals with horizontal bottoms", Investiya  
In-ta gidrologii i gidrotekhniki (Akad. nauk Ukr. SSR), Vol. IV, 1948, p. 18-29,  
(In Ukrainian, resume in Russian).

SO: U-3042, 11 March 1953, (letopis 'nykh Statey, No. 10, 1949).

SMYSLOV, V.V., kand. tekhn. nauk.

Theory of water-measuring flumes and discharge outlets. Izv. Inst.  
gidrol. i gidr. AN URSS 8:98-107 '51. (MIRA 11:4)  
(Irrigation canals and flumes)

SMYSLOV, V. V.

USSR/Engineering - Hydraulics, Flow Analysis Sep 51

"On the Critical Depth of Curvilinear Flow,"  
V. V. Smyslov, Cand Tech Sci

"Gidrotekh Stroi" No 9, pp 23-27"

Attempts to clarify problem of defining crit  
depth of curvilinear flow and concludes that  
Froude's number = 1 must be accepted as cri-  
terion of crit condition for both curvilinear  
and parallel flows. This requirement leads to

201T94

USSR/Engineering - Hydraulics Flow Sep 51  
Analysis (Contd)

conclusion that crit depth of convex flow is  
greater and crit depth of concave flow is  
smaller than that of parallel flow and, con-  
sequently, flow on descent is in turbulent  
state.

201T94

SMYSLOV, V.V., kand. tekhn. nauk.

Investigating forms of free surface in the flow of water through  
apertures of small bridges. Izv. Inst. gidrol. i gidr. AN URSSR  
9:111-136 '53. (MIRA 11:4)  
(Hydraulics) (Bridge construction)

1. SNYSLOV, V.V.
2. USSR (600)
4. Dams
7. Calculating the depth of an apron well, Gidr.strci. 22 no. 2, 1953.

9. Monthly List of Russian Accessions, Library of Congress, APRIL 1953, Uncl.

MOSTKOV, M.A.; YEGOROV, S.A.; ROZOVSKIY, I.L., kandidat tekhnicheskikh nauk;  
SMYSLOV, V.V., kandidat tekhnicheskikh nauk.

~~.....~~  
Coefficient of flow over an ideal spillway having a wide crest. Gidr.stroi.  
22 no.11:39-41 N-D '53. (MLBA 6:11)  
(Spillways)

SMYSLOV, V.V., kand. tekhn. nauk.

Hydraulic design of channels with a horizontal bottom. Trudy GGI  
no.37:18-29 '53. (MIRA 11:6)

(Hydraulic engineering)

SMISLOV, V.V.

Formation of the curved open surface of a stream above a drop.  
Dep. AN URSR no. 6:407-410 '54. (MLRA 9:9)

1. Institut gidrologii ta gidrotekhniki AN URSR. Predstaviv  
diysniy chlen AN URSR G.I. Sukhomel.  
(Hydrodynamics)



SMYSLOV, V.V., kandidat tekhnicheskikh nauk.

Selected weir calculations. Izv. Inst. gidrol. i gidr. AN URSS 11:  
1964, No. 4. (MLRA 8:4)

(Weirs)

Smyslov, V.V.

1822. Smyslov, V. V., Calculation of the curvature of the free surface of an open spillway with a wide apron (in Russian), *Izv. in-ta gidrol. i girrotekh. Akad. Nauk USSR* 11, 31-39, 1954; Rev. no. 819, *Ref. Zh. Mekh.* 1956.

Abstract

A method of construction of the curve of the free surface of the flow in an open spillway with a wide apron is examined. The analysis is based on the Bernoulli equation of a potential flow but with correction for the effect of centrifugal forces acting on account of the vertical curvature of the surface. Author finds that the motion in a spillway with a wide apron can be described by the energy and continuity conditions without correction for losses only for the case of a flow coefficient  $m < 0.385$  and  $b < b_{Kr}$ , but not for  $m = 0.385$  and  $b = b_{Kr}$ , as has hitherto been considered.

An expression is given characterizing the tangent of the angle of inclination of the free surface of a curvilinear flow to the hori-

L<sup>0</sup>

1/2

SMYSLOV, Viktor Viktorovich; ROZOVSKIY, I.L., kandidat tekhnicheskoy nauk,  
otvetstvennyy redaktor; KAZANTSEV, B.A., redaktor izdatel'stva;  
ZHUKOVSKIY, A.D., tekhnicheskoy redaktor

[Theory of broad-crested weirs] Teoriya vodosliva s shirokim porogom.  
Kiev, Izd-vo Akademii nauk USSR, 1956. 183 p. (MIRA 10:1)  
(Weirs)

SOV/124-58-4-3964

Translation from: Referativnyy zhurnal. Mekhanika, 1958, Nr 4, p 42 (USSR)

AUTHOR: Smyslov, V. V.

TITLE: Determination of the Gas-flow Capacity of a Pipe Line for High-speed Flow Conditions (Raschet propusknoy sposobnosti truboprovoda pri bol'shoy skorosti techeniya gaza)

PERIODICAL: V sb.: Novoye v stroit. tekhn. Nr 9. Kiyev, 1956, pp 137-142

ABSTRACT: Formulas for the determination of the flow capacity of a long pipe line exhausting into the atmosphere are derived on the basis of the equations of the motion of a gas through a cylindrical pipe. The author points out that the calculation of the flow capacity of a pipe line by the previously used formula for the discharge from an opening at the critical pressure ratio produces results deviating considerably from the exact values, even if a coefficient  $\phi$  is introduced to take care of the losses in the pipe line.

1. Gas flow--Velocity
2. Gas flow--Pressure
3. Mathematics
4. Pipelines--Performance

I. S. Simonov

Card 1/1

SMYSLOV, V.V.

ANUFRIYEV, V.Ye., dotsent, kand.tekhn.nauk; KURDYUMOV, M.D., inzh.,  
retsenzent; SMYSLOV, V.V., kand.tekhn.nauk, retsenzent; KOSYURA,  
G.G., kand.tekhn.nauk, retsenzent; BULAVA, M.M., dots., retsenzent;  
DRAINNIKOV, A.M., doktor geol.-mineralog.nauk, retsenzent; KIRICHKO,  
I.M., dotsent, retsenzent; POBEGAYLO, I.M., inzh., retsenzent;  
UCHITEL', I.Z., red.; GUROVA, O.A., tekhn.red.

[Hydraulic engineering structures for cities] Gorodskie gidro-  
tekhnicheskie sooruzhenia. Moskva, Izd-vo M-va kommun.khoz.,  
1957. 264 p. (MIRA 11:7)  
(Hydraulic engineering)

AL'TSHUL', A.D.; SMYSLOV, V.V., kandidat tekhnicheskikh nauk.

Head losses during uniform movement of a fluid in pressure pipes. Gidr.  
stroi. 26 no.5:47-48 My '57. (MIRA 10:6)  
(Hydraulics)

SMYSLOV, V.V., kand.tekhn nauk.

Letter to the editors. Gidr.stroi. 26 no.9:56 S '57. (MIRA 10:10)  
(Hydraulics)

SMYSIOV, V.V., dots., kand.tekhn.nauk

Calculating standing waves in an uniform open flow. Nauch.dokl.vys.  
shkoly; stroi. no.1:219-222 ' 58. (MIRA 12:1)

1. Rekomendovana kafedroy vodosnabzheniya i kanalizatsii Kiyevskogo  
inzhenerno-stroitel'nogo instituta.  
(Waves) (Fluid mechanics)



AUTHOR: Smyslov, V V. SOV-21-58-4-9/29

TITLE: On the Effect of Stream Curvature on the Depth and Discharge Coefficient of a Non-Submerged Broad-Crested Spillway ( O vliyanii iskrivleniya struy vkhodnogo uchastka na glubinu i koeffitsiyent raskhoda nezatoplenno go vodosliva s shirokim porogom)

PERIODICAL: Dopolvidi Akademii nauk Ukrain's'koi RSR, 1958, Nr 4, pp 393-396 (USSR)

ABSTRACT: The problem in question was studied by many investigators including B.A. Bakhmetev [Ref. 3], G.I. Sukhomel, I.L. Rozovskiy [Ref. 5] and M.D. Chertousov [Ref. 7]. Belangers's solution, which yields the value  $h_c = 0.67H_0$  for the depth and the value 0.385 for the coefficient of discharge, does not take into account an effect of the curvature of an inflowing stream, and experimental data [Ref. 4] show that the actual values are lower than the above theoretical ones. The author considers this effect starting from the differential equation of a free curved surface and the given initial conditions. The quantitative solutions are obtained for the limiting case of a round-edged crest of infinite height and for the case of a sharp-edged spillway (in the latter case by applying the equation of

Card 1/2

SOV-21-58-4-9/29

On the Effect of Stream Curvature on the Depth and Discharge Coefficient of a Non-Submerged Broad-Broad-Crested Spillway

momentum). Present investigation shows that the expression for the discharge coefficient can be written as follows:

$$m = \sigma_{\kappa} \sigma_{\eta} \cdot 0.385$$

where  $\sigma_{\kappa}$  is a correcting coefficient taking into account the effect of stream curvature, and  $\sigma_{\eta}$  is a correcting coefficient taking into account the loss of head. Their limiting values are 0.90 and 0.86 respectively. There is 1 figure and 7 references, 5 of which are Soviet and 2 French.

ASSOCIATION: Kiyevskiy inzhenerno-stroitel'nyy institut (Kiyev Engineering-Construction Institute)

PRESENTED: By Member of the AS UkrSSR, G.I. Sukhomel

SUBMITTED: July 4, 1957

NOTE: Russian title and Russian names of individuals and institutions appearing in this article have been used in the transliteration.

1. Inland waterways--USSR
2. Inland waterways--Control systems
3. River currents--USSR

Card 2/2

SMYSLOV, V.V.

Streamflow curves resulting from the stabilized, irregular, unevenly varying velocity of discharge in a prismatic race. Izv.vys. ucheb.zav.; stroi. i arkhitekt. no.5:107-118 '58. (MIRA 12:1)

1. Kiyevskiy inzhenerno-stroitel'nyy institut.  
(Stream measurements)

SMYSLOV, V.V. (Kiyev)

Using the grid (relaxation) method in determining the discharge coefficient for a spillway with a thin wall. *Prykl. mekh.* 5 no.4: 434-440 '59. (MIRA 13:3)

1.Kiyevskiy inzhenerno-stroitel'nyy institut.  
(Hydrodynamics)

SMYSLOV, V. V., Doc Tech Sci -- (diss) "Settled non-equilibrium motion of water in open waterways taking into consideration the effect of a twisting stream in the vertical plane." Kiev, 1960. 29 pp with charts; (Ministry of Higher and Secondary Specialist Education Ukrainian SSR, Kiev Order of Lenin Polytechnic Inst); 150 copies; price not given; list of author's works on pp 28-29 (18 entries); (KL, 51-60, 117)

SMYSLOV, V.V

S/021/61/000/006/003/009  
D247/D301

AUTHOR: Smyslov, V.V.

TITLE: Generalized graph of characteristic curvilinear currents in an open prismatic channel

PERIODICAL: Akademiya nauk Ukrayins'koyi RSR, Dopovidi, no. 6, 1961, 717 - 721

TEXT: The equation for the curvilinear flow of water in an open prismatic channel is:

$$\frac{dh}{dt} = \frac{i - i_l - \frac{v^2}{g} h \frac{dk}{dt}}{1 - \Pi_k}, \quad (1)$$

where  $i_l$  - friction slope;  $k$  - flow curvature;  $\Pi_k$  - kinetic parameter. By putting  $k = 1/X \frac{d^2H}{dt^2}$  and neglecting the difference of slopes, the equation reduces to

Card 1/5

Generalized graph of'...

S/021/61/000/006/003/009  
D247/D301

$$\frac{dh}{dt} = \pm \frac{\sqrt{\lambda}}{\Pi_m} \sqrt{-\frac{h'^3}{3} + \frac{h'^2}{2} - \Pi_m^2 \ln h' + C}, \quad (2)$$

where  $h' = \frac{h}{S}$  denotes non-dimensional depths;  $\vartheta$  - energy of the corresponding section and

$$\Pi_m = \frac{q}{\sqrt{2g\vartheta^{3/2}}}$$

is a loss parameter. Qualitative investigations of equation (2) enable one to fix the limits of various characteristic flows as shown on the generalized graph. The waterfall (diagram a) region (horizontal hatching). The initial depth of the waterfall curve is  $h'_c$ , whose maximum is the critical depth. When air gets under the stream (point E) the depth  $h'_E$  is found from

$$\frac{h'_E}{2} + \frac{\Pi_m^2}{h'^2_E} = 1. \quad (5)$$

Card 2/5

Generalized graph of ...

S/021/61/000/006/003/009  
D247/D301

The region of a single wave (diagram b) passing through the critical depth is shown by ascending hatching. The region of a wave-like current (diagram c) with a depth exceeding the critical is marked by descending hatching. The crest and trough depths,  $h'_S$  and  $h'_T$  are found from Eq. (2) at the boundary conditions and by assuming the wave to be symmetrical about the depth of a slowly changing flow. The region of wave jump (diagram d) is marked by vertical hatching. The depth of the first wave was found from the condition  $(dh/dl)A = 0$  and the assumption that the trough depth cannot be less than the corresponding critical depth of a curvilinear flow, which is obtained from

$$2h'_N - \frac{17}{h'^2_N} = 1. \quad (8)$$

The graph is useful for theoretical and practical purposes. It was plotted for a rectangular channel, but can be adapted for other

Card 3/5



Generalized graph of ...

S/021/61/000/006/003/009  
D247/D301

channel sections. There are 1 figure and 4 Soviet-bloc references.

ASSOCIATION: Kyivsk'yy inzhenerno-budivel'nyy instytut (Fiyev  
Civil Engineering Institute)

SUBMITTED: July 6, 1960

Card 4/5

ACCESSION NO: APL022650

S/0207/64/000/001/0053/0058

AUTHORS: Reznikov, B. I. (Leningrad); Smy\*slav, Yu. N. (Leningrad)

TITLE: Method for determining friction and heat flow in self-modeling problems of a boundary layer

SOURCE: Zhurnal priklad. mekhan. i tekhn. fiz., no. 1, 1964, 53-58

TOPIC TAGS: friction, heat flow, self-modeling problem, boundary layer, multi-parametric boundary problem, machine time, successive approximations, quadrature, iteration scheme, Blazius equation, Fokner-Sken equation

ABSTRACT: The authors propose a method for determining friction and heat flow not involving numerical integration of the boundary layer equations. They study the boundary value problem

§1. Consider

$$f^{(n)} + R[f, f', \dots, f^{(n-1)}] = 0 \quad (1)$$

$$f = a_0, f' = a_1, \dots, f^{(n-2)} = a_{n-2} \quad \text{for } \eta = 0, f^{(n-2)} = b \quad \text{for } \eta \rightarrow \infty \quad (2)$$

Card 1/2

ACCESSION NR: AP4022650

The proposed method allows them to reduce this problem to a Cauchy problem, which is essential for the use of numerical methods. Several examples of the method are given. The authors study the isothermal Blasius problem, getting some specific error bounds. They treat more complicated cases, like that of magnetohydrodynamic fluid flow with constant electrical conductivity in a neighborhood of a two-dimensional critical point in the presence of blowing in, and find some specific error bounds. They investigate a system of equations describing flow around the critical point by a compressible gas in the presence of blowing in. Comparisons show that for a more complicated case of the system of related equations the proposed methods allow computation of friction and heat flow fairly precisely. Orig. art. has: 2 tables and 49 formulas.

ASSOCIATION: none

SUBMITTED: 21Jul63

DATE ACQ: 08Apr64

ENCL: 00

SUB CODE: AI

NO REF SOV: 004

OTHER: 004

Card 2/2

ACCESSION NR: AT4041811

S/2563/64/000/230/0054/0058

AUTHOR: Smy\*slov, Yu. N.

TITLE: Linear streaming about a plate by blowing electroconducting gas through its surface in the presence of a magnetic field

SOURCE: Leningrad. Politekhnicheskii Institut. Trudy\*, no. 230, 1964. Tekhnicheskaya gidromekhanika (Technical hydromechanics), 54-58

TOPIC TAGS: aerodynamics, transpiration cooling, stagnation point, linear streaming, magnetohydrodynamic stagnation point flow, thermal ionization, sweat cooling, argon blowing, heat transfer reduction

ABSTRACT: An analysis has been made to determine the reduction in stagnation point flow when blowing and magnetic field act simultaneously. High-temperature argon containing a small amount of ionizing alkali metal (potassium) vapor was forced through the porous surface of a semi-infinite plate. Diffused into the hot stream flow, the vapors are subject to thermal ionization, and an electrically conducting edge layer interacting with the external magnetic field develops near the plate. The results of this study suggest that both surface friction

Card d 1/2

ACCESSION NR: AT4041811

and the heat flow can be substantially reduced by using the combined effect of vapor blowing and magnetic field. When blowing is intensified, much smaller magnetic fields are needed to achieve the same effect. Orig. art. has: 14 formulas and 4 figures.

ASSOCIATION: none

SUBMITTED: 00

ATD PRESS: 3054

ENCL: 00

SUB CODE: ME, TD

NO REF SOV: 003

OTHER: 003

ACCESSION NR: AP4028950

B/0057/84/034/004/0030/0636

AUTHOR: Smy\*slov, Yu.N.; Chekmarev, I.B.

TITLE: Magnetohydrodynamic boundary layer in a high temperature flow past a porous plate admitting additional easily ionizable vapor

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.4, 1964, 630-636

TOPIC TAGS: magnetohydrodynamics, magnetohydrodynamic boundary layer, magnetohydrodynamic friction reduction, magnetohydrodynamic nozzle cooling

ABSTRACT: The theoretical treatment is given of the boundary layer formed under the following conditions. A hot inert gas flows past a porous plate in the presence of a magnetic field. A flux of the same inert gas containing a small admixture of alkali metal vapor is forced in through the porous plate. The temperature is such that the metal vapor is ionized but the inert gas is not. The purpose of the study is to investigate possibilities of reducing friction and heat flux to the confining wall. In the calculations the diffusive separation of the alkali metal atoms, ions, and the resulting electrons is neglected, and these components are assumed to be in thermal equilibrium. The equations are expanded in powers of the magnetic field, and on-

Card 1/2

L 57551-65 EWT(1)/EWP(m)/EPR/FCS(k)/EWA(1) Pd-1/Pi-4 WW

ACCESSION NR: AP5018199

UR/0207/65/000/003/0085/0088

AUTHOR: Reznikov, B. I. (Leningrad); Smyslov, Yu. N. (Leningrad)

32  
B

TITLE: Investigation of equations of the laminar boundary layer of compressible gas near the stagnation line

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 3, 1965, 85-88

TOPIC TAGS: compressible gas, laminar boundary layer, stagnation point, asymptotic method, skin friction, heat transfer, injection parameter

ABSTRACT: A system of equations describing a laminar boundary layer in a compressible gas flow in the region of the stagnation line is investigated. The physical properties of the gas are defined as functions of the temperature. A system of equations for skin friction and heat transfer are obtained by repeated integration, with boundary condition taken into account; the accuracy with which their magnitude is determined does not depend on the parameter of gas injection into boundary layer. Since the numerical solution of the initial system of equations is known for a limited number of parameters, the analytical expressions presented here make it possible to trace the influence of each parameter separately. The accuracy of the

Card 1/2

L 57551-65

ACCESSION NR: AP5018199

computations is ascertained through evaluating successive terms of asymptotic transformations. A comparison with the numerical solutions for certain parameters shows satisfactory agreement. Orig. art. has: 22 formulas and 3 tables. [AB]

ASSOCIATION: none

SUBMITTED: 15Jun64

ENCL: 00

SUB CODE: ME

NO REF SOV: 003

OTHER: 001

ATD PRESS: 4039

*27p*  
Card 2/2



MUKHIN, Aleksandr Ivanovich; SMYSLOV, Yu.V., red.; YERKHOVA, Ye.A.,  
tekhn. red.

[German Democratic Republic; its economic geography]Germanskaia  
Demokraticheskaia Respublika; ekonomicheskaja geografia. Izd.2.,  
dop. i perer. Moskva, Izd-vo IMO, 1962. 225 p. (MIRA 16:2)  
(Germany, East--Economic geography)

DRACHEVA, Nadezhda Pavlovna; POPOV, Nikolay Nikolayevich; SMYSLOV,  
Yu.V., red.

[The German Democratic Republic in the system of the  
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L 44273-65 EWT(m)/EWP(j) Pc-4 RM

ACCESSION NR: AP5009910

UR/0032/65/031/004/0421/0422

AUTHORS: Yemelina, Ye. A.; Smyslova, N. F.

TITLE: Determination of maleic acid and maleic anhydride in chlorendic anhydride

SOURCE: Zavodskaya laboratoriya, v. 31, no. 4, 1965, 421-422

TOPIC TAGS: chlorendic anhydride, maleic acid, maleic anhydride / LP 58 instrument

ABSTRACT: A method is proposed for determining maleic acid and maleic anhydride in chlorendic anhydride, based on potentiometric titration of the acid salt of maleic acid by an alcohol solution of alkali in a water-acetone medium. It permits determination of less than 0.1% maleic acid and maleic anhydride. A 2-g sample is placed in a 150-ml flask; 15 ml of 1N NaOH is added, and the mixture is hydrolyzed by immersing in hot water until the sample is completely dissolved. The solution is cooled, diluted by drops of concentrated HCl until turbid after color change with phenolphthalein. To this is added 5 ml of maleic acid (concentration of 3 mg/ml), 5 ml of distilled water, and the contents of the flask are transferred to a 200-ml beaker. Acetone (150 ml) is then added, rinsing the flask, and titration is carried out on an LP-58 instrument with 0.1N KOH,

Card 1/2



L 44273-65

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using mercurous chloride and glass electrodes. For making a blank run, before titration, 10 ml of distilled water are added. Two potential jumps appear on the titration curves. The contents of maleic anhydride and maleic acid may then be computed by the formula

$$\frac{[(V_1 - V_2) - (V_2' - V_1')]}{H \cdot 1000} \cdot N \cdot 98.03 \cdot 100$$

where  $V_1 V_2$  and  $V_1' V_2'$  represent the quantity of 0.1N alcohol solution of alkali used in the titration to the first and second jumps in potential in the test solution and the blank respectively; N is the normality of the alcohol solution of KOH; H is the weight of the chlorogenic anhydride in g; and 98.03 is the equivalent weight of maleic anhydride. When the content of the investigated components is about 0.5%, the error of determination is about 5%. Orig. art. has: 1 figure and 1 formula.

ASSOCIATION: Vladimírskiy nauchno-issledovatel'skiy institut sinteticheskikh smol (Vladimir Scientific Research Institute of Synthetic Resins)

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SUB CODE: OC, GC

NO REF SOV: 001

OTHER: 000

BSS  
Card 2/2

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