

L 4107C-66

ACC NR: AP6018619

12

naphtha at 410--420C and 0.75hr⁻¹ space velocity, thus reducing 8-fold the amount of required blending stocks for production of type A-66 gasolines. The following were among those who participated in laboratory and industrial experiments: G. I. Chmutov, S. G. Prokopyuk, R. M. Karponosova, M. N. Mukhametov, Ye. M. Varfolomeyeva, B. N. Rays, K. F. Pryakhina, M. R. Polinskaya, A. V. Tenikova, L. F. Yevstifeyev, and A. S. Kononov. Orig. art. has: 1 figure and 4 tables.

SUB CODE: 11, 21/ SUBM DATE: none/ ORIG REF: 022

Card

L 52729-65 LWT(m)/EPP(c)/T Pr-4 DJ

ACCESSION NR: AP5016030

UR/0065/64/000/011/0042/0046

AUTHOR: Kalantar, N. G.; Masagutov, R. M.; Gal'perina, M. A.; Glazunov, V. I.; Akhmetshina, M. N. 19/18 E

TITLE: Gas-stable insulating oils from extracts of selective purification

SOURCE: Khimiya i tekhnologiya topliv i masel, no. 11, 1964, 42-46

TOPIC TAGS: insulating material, petroleum refinery product

Abstract: The basic components which cause a breakdown of the electrical characteristics of phenol extracts of Tuymazy transformer distillate are resinsulfur compounds of the sulfide type and aromatic hydrocarbons with high molecular structure. The use of selective processing these extracts to gas-stable oils of the kerosene type with good electrical and dielectric properties can be used to achieve this purpose. Reprocessing of the extracts to gas-stable insulating oils permits a substantial increase in the coefficients of utilization of the initial raw material and provides the electrotechnical industry with gas-stable dielectrics. Orig. art. has 1 table and 4 graphs.

Card 1/2

L 52729-65

ACCESSION NR: AP 016030

ASSOCIATION: BashFAN SSSR

SUBMITTED: 00

ENCL: 00

SUB CODE: FF

NO REF SOV: 003

OTHER: 003

JPRS

183
Card 2/2

AKHMET'YEV, L.N.; NIKUL'SHIN, K.Ye.

A new trailer for heavy loads. Stroi.i dor.mash. 7 no.10:9-10
0 '62. (MIRA 15:11)

(Truck trailers)

AKHMET'YEV, M.A.

New data on the stratigraphy of Miocene sediments in the
northeastern part of the Sikhote-Alin' Range. Sov. geol.
8 no.4:133-135 Ap '65.

(MIRA 18:7)

YEREMEYEVA, A. S.; AKHMET'YEV, N. M. (Moskva)

Carcinoid of the bronchus in a child. Arkh. pat. no.4:68-70 '62.

1. Iz patologoanatomicheskogo otdeleniya (zav. N. I. Soboleva)
bol'nitsy imeni Filatova (glavnyy vrach L. A. Vorokhobov) i
otolaringologicheskoy kliniki (zav. - prof. I. I. Shcherbatov)
pediatricheskogo fakul'teta II Moskovskogo meditsinskogo instituta.

(BRONCHI--CANCER)

AKHMET'YEV, N.M.

[Chronic pneumonia in children] Khronicheskaiia pnevmonia u
detei. Moskva, Medgiz, 1958. 73 p. (MIRA 13:2)
(PNEUMONIA)

AKHMETZHANOV, Abdulkadir Abdurakhmanovich; KHLIUPIN, G.D., kand.
tekh.nauk, retsenzent; GEDE, I.G., inzh., red.; MOROZOVA,
P.B., red. izd-va; ORESKINA, V.I., tekhn. red.

[Synchronous tracking systems of greater accuracy] Sinkhronno-
slediaschie sistemy povyshennoi tochnosti. Moskva, Oborongiz,
1962. 211 p. (MIRA 15:9)
(Automatic control) (Servomechanisms)

KALANTAR, N.G.; Primali uchastiye: MANNAFOVA, V.S.; GLAZUNOV, V.I.;
GABSATAROVA, S.A.; KUL'MURZINA, L.Kh.; AKHMETZIANOV, Ch.R.

Turbine oil 22 from Tuymazy crudes. Khim.i tekhn.topl.i masel 7
no.9:29-34 S '62. (MIRA 15:8)

1. Bashkirskiy filial AN SSSR.
(Insulating oils)

KALANTAR, N.G.; GLAZUNOV, V.I.; MANNAFOVA, V.S.; Primali uchastiye:
GABSATTAROVA, S.A.; OKUNEV, I.Ye.; KUL'MURZINA, L.Kh.;
AKHMETZIANOV, Ch.R.

Composition and properties of turbine distillates from
Tuymazy crudes. Khim. i tekhn. topl. i masel 8 no.9:31-38
S '63. (MIRA 16:11)

1. Bashkirskiy filial AN SSSR.

L 43762-66 EWT(1)

ACC NR: AP6029880

SOURCE CODE: UR/0413/66/000/015/0043/0043

INVENTOR: Akhmetzyanov, K. G.; Petrovichev, V. I.; Rudakov, R. F.

44
B

ORG: none

TITLE: A waveguide device for concentrating an SHF electric field in a piezoelectric sample. Class 21, No. 184298 [announced by the Moscow Engineering Physics Institute (Moskovskiy inzhenerno-fizicheskiy institut)]

SOURCE: Izobret prom obraz tov zn, no. 15, 1966, 43

TOPIC TAGS: rectangular waveguide, high voltage line, piezoelectric crystal

ABSTRACT: This Author Certificate presents a waveguide device for concentrating an SHF electric field in a piezoelectric sample. To achieve a strong field within the

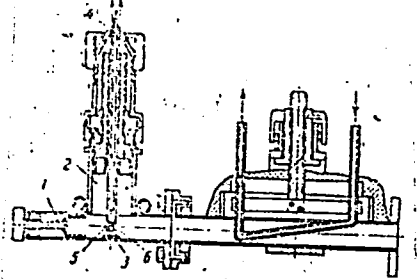


Fig. 1. Waveguide device

1 - Shorted rectangular waveguide; 2 - coaxial stub; 3 - flat capacitor; 4 - central conductor of the coaxial stub; 5 - spark gap; 6 - ceramic rod.

Card 1/2

UDC: 621.372.855.4: 621.372.88

L 43762-66

ACC NR: AP6029880

sample, a coaxial stub (see Fig. 1), connected to the broad side of a rectangular waveguide, has a broken center conductor that forms a spark gap within the waveguide; the broken ends of the center conductor are joined together with a ceramic rod. A piezoelectric sample is placed between a flat capacitor formed by the center conductor and the broad side of the waveguide. Orig. art. has: 1 figure. [IV]

SUB CODE: 09/ SUBM DATE: 15Mar65 / ATD PRESS: 5069

L 42101-65

ACCESSION NR: AT5000001

00000000000000000000000000000000

AUTHORS: Imayev, M. G.; Akhmetzhanov, I. S.

TITLE: Benzene stabilization by tributylphosphite thermal cracking

SOURCE: AN SSSR. Bashkirskiy filial. Khimiya seryoorganicheskikh soyedineniy, soderezhashchikhsya v neftyakh i nefteproduktakh, v. 11, 1981, 107-111

TOPIC TAGS: benzene, petroleum industry, phosphite, sulfur

ABSTRACT: The possibility of benzene stabilization was investigated experimentally

of tributylphosphites with thiophene and dibenzyl sulfide was investigated. This
investigation is intended to determine the possibility of using phosphites as stabilizers
of benzene in the presence of sulfur compounds. It is shown that the addition of
tributylphosphite to benzene containing thiophene or dibenzyl sulfide leads to a
marked increase in the stability of the mixture. The effect of the phosphite is
more pronounced in the case of dibenzyl sulfide. The results of the investigation
show that the treatment of benzene with phosphite leads to a marked increase in
the stability of the mixture. This is due to the fact that phosphite reacts with
the sulfur compounds and forms a protective film on the surface of the metal
scale-forming process in engines. Orig. art. in Russian.

Card 1/2

L 42101-65

ACCESSION NR: AT5008631

ASSOCIATION: Bashkirekiy gosudarstvennyy universitet (Bashkirian State University)

SUBMITTED: 00

ENCL: 00

SUB CODE: 00, 00

NO REF SCHE: 000

OTHER: 000

Card 2/2

ACC NR: AP6005925 SOURCE CODE: UR/0079/66/036/001/0085/0087

AUTHOR: Imayev, M. G.; Akhmetzhanov, I. S. 26
B

ORG: All-Union Scientific Research Institute of Synthetic Fat Substitutes
(Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskikh zhirozameniteley)

TITLE: The reaction of trialkyl (aryl) phosphites with mercaptans 14455

SOURCE: Zhurnal obshchey khimii, v. 36, no. 1, 1966, 85-87

TOPIC TAGS: phosphite ester, mercaptan, free radical, catalysis

ABSTRACT: This work represents an attempt to investigate the activities of a number of trialkyl or triaryl phosphites $(RO)_3P$, where R = straight-chain alkyls C_1-C_{10} , or phenyl, and to confirm a previously advanced suggestion concerning the catalytic effect of atmospheric oxygen on the reaction between trialkyl phosphites and mercaptans in the absence of other free-radical initiators. It was found that the activity of the above phosphites in radical chain reactions with mercaptans is almost independent of the size of the alkyl group. The lower trialkyl phosphites with an odd number of carbon atoms in the alkyl group have somewhat lower activity. The activity of triphenyl phosphite is considerably lower than those of the trialkyl phosphites. It was shown that in the absence of other catalysts the reaction of trialkyl or triaryl phosphites is promoted by atmospheric oxygen. Orig. art. has: 1 table. [VS]

SUB CODE: 07 SUBM DATE: 22Oct64/ ORIG REF: 005/ OTH REF: 006/ ATD PRESS: Card 1/1 UDC: 546.183:547.269.1 4194

YUSUPOV, I.G.; SHEVALDIN, I.Ye.; AKHMETZYANOV, E.K.

Evaluating rock cavitation on the basis of logging data. Burenie
no.3:17-19 '65. (MIRA 18:5)

1. Tatarskiy neftyanoy nauchno-issledovatel'skiy institut.

AKHMETZHANOV, I.S.; ZAGIDULIN, R.N.; IMAYEV, M.G.

Reaction of triethyl phosphite with hydrogen sulfide. Dokl. AN SSSR
163 no.2:362-364 J1 '65. (MIRA 18:7)

1. Bashkirskiy gosudarstvennyy universitet i Vsesoyuznyy nauchno-
issledovatel'skiy i proyektnyy institut sinteticheskikh zhiroza-
meniteley. Submitted January 7, 1965.

ZOMMER, I.E.; AKHMETZHANOV, Kh.S.

Taking into account the effect of relief in gravimetric surveying.
Geofiz.razved. no.7:56-61 '62. (MIRA 15:7)
(Gravity prospecting)

KORZENKO, V.N.; SAYKOVSKAYA, V.A.; PROTASENYA, S.G.; KOLIYEV, M.F.
(Severo-Osetinskaya ASSR); FEDYUSHKIN, M.Ye.; FEYTENGEYMER,
V.A., kand. veter. nauk; YAMASHEV, S.G., kand. veter. nauk;
AKHMETZYANOV, F.Kh., mladshiy nauchnyy sotrudnik; SHVETSOV,
K.A., veterinarnyy vrach; GANIYEV, M.K., prof.; FARZALIYEV,
I.A., dotsent

Smallpox in cattle. Veterinariia 41 no.7:31-34 JI '64.

(MIRA 18:11)

1. Belorusskiy institut epidemiologii i gigiyeny (for Korzenko, Saykovskaya, Protasenia).
2. Direktor Severo-Osetinskoy respublikanskoy veterinarnoy laboratorii (for Fedyushkin).
3. Kazanskiy veterinarnyy institut (for Feytengeymer, Yamashev, Akhmetzyanov, Shvetsov).
4. Azerbaydzhanskiy nauchno-issledovatel'skiy veterinarnyy institut (for Ganiyev, Farzaliyev).

KARATAYEV, G.I.; AKHMYATZHANOV, Kh.S.

Use of geophysical anomalies in studying the tectonics of
sedimentary cover in the West Siberain Plain. Trudy
SNIIGGIMS no.17:70-84 '61. (MIRA 15:9)
(West Siberian Plain--Geology, Structural)
(West Siberian Plain--Prospecting--Geophysical methods)

AKHMETZHANOV, Kh.S.; KARATAYEV, G.I.; KUTUKOV, A.V.

Relationship between the geophysical anomalies and the geology
of folded areas on the borders of the West Siberian Plain.
Trudy SNIIGGIMS no.7:40-45 '61. (MIRA 16:7)

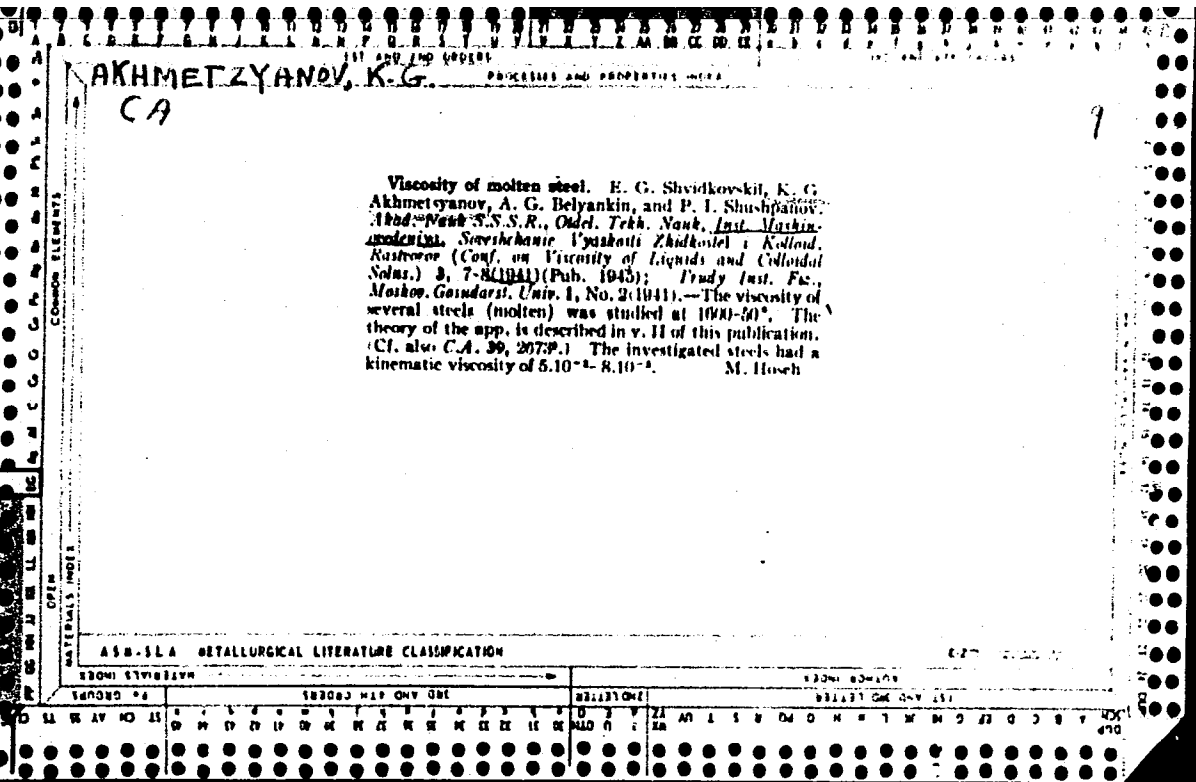
(West Siberian Plain--Geology, Structural)
(West Siberian Plain--Prospecting--Geophysical methods)

AKHMETZYANOV, K. G.

CA

Viscosity of molten steel. E. G. Shvidkovskii, K. G. Akhmetzyanov, A. G. Belyankin, and P. I. Shushpaliyov. *Izvestiya S.S.S.R., Otdel. Tekh. Nauk, Inst. Mashinostroeniya, Sovetskaya Vysshaya Zhidkosti i Kolloid. Rasstvor (Conf. on Viscosity of Liquids and Colloidal Solns.)* 2, 7-8(1941) (Pub. 1943); *Trudy Inst. Fiz. Mosk. Gosudarst. Univ.* 1, No. 2(1941).--The viscosity of several steels (molten) was studied at 1600-20°. The theory of the app. is described in v. II of this publication. (Cf. also C.A. 39, 2073P.) The investigated steels had a kinematic viscosity of $5 \cdot 10^{-2}$ - $8 \cdot 10^{-2}$. M. Hosh

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION



AKHMETZ'YANOV, K. G.

9

Viscosity of molten steel. E. G. Shvidkovskii, K. G. Akhmetz'yanov, A. G. Belyankin, and P. I. Shushpanov. *Uchenye Zapiski, Moskovskogo Ordenskogo Leninskogo Universiteta*.

M. P. Lomonosov, *Fizika* 74, 115-60(1911). A Meyer viscometer (C.A. 39, 2074) was used. The crucible (cylinder) was of Al₂O₃ and the furnace filled with a mixt. of C and CO; the C content of the steel did not change during an expt. The following values ($\times 10^4$) were found for the kinematic viscosity: steel "B1" 10" (C 1.0, Si 0.30, Mn 0.30, S 0.0180, P 0.0105%) 0.30 at 1320°, 5.32 at 1540°; "1010" (C 0.60, Si 0.01, Mn 0.17, S 0.025, P 0.030, Ni 0.05, Cr 0.04%) 5.7 at 1400°, 3.9 at 1655°; "BKTM" (C 0.30, Si 0.10, Mn 0.65, S 0.001, P 0.015, Ni 0.12, Cr 1.20, Mo 0.18) 5.04 at 1500°, 5.12 at 1303°; "EYaZS" (C 0.40, Si 2.52, Mn 0.67, S 0.012, P 0.031, Ni 23.47, Cr 17.30%) 0.24 at 1465°, 3.50 at 1650°; "BKb 12" (C 2.10, Si 0.21, Mn 0.19, S 0.015, P 0.021, Ni 0.30, Cr 11.75%) 7.70 at 1425°, 6.60 at 1585°; "ShKh 12" (C 1.05, Si 0.21, Mn 0.32, S 0.011, P 0.022, Ni 0.03, Cr 1.01) 5.90 at 1488°, 5.51 at 1641°; and "1016" (C 0.40, Si 0.31, Mn 0.60, S 0.020, P 0.012, Ni 0.07, Cr 0.18%) 7.41 at 1481°, 5.17 at 1637°.

I. I. Bukerman

ASB-55A METALLURGICAL LITERATURE CLASSIFICATION

EXACT NUMBER

EXACT ONE ONE 111

AKHMETZYANOV, K. G.

"Investigation of the Velocity of the Propagation of Ultrasonic Waves in Alcohols and in Its Vapors for a Wide Range of Temperatures and Pressures, Including the Critical Area." Sub 6 Jun 51, Moscow Order of Lenin State U imeni M. V. Lomonosov.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.

AKHMETZYANOV, K.G.

Sound velocity in chemically active gaseous mixtures. Prim.
ul'traakust. k'issl. veshch. no.13:45-53 '61.

(MIRA 16:6)

(Ultrasonic waves—Speed)
(Gases—Acoustic properties)

AKHMETSYANOV, K. G.

38176

S/058/62/000/004/083/160
A061/A101

11.7300

AUTHOR: Akhmetzyanov, K. G.

TITLE: Sound velocity in reactive gaseous mixtures

PERIODICAL: Referativnyy zhurnal, Fizika, no. 4, 1962, 39, abstract 40327 (V sb. "Primeneniye ul'traakust. k issled. veshchestva", no. 13, Moscow, 1961, 45-53)

TEXT: The frequency dependence of the sound velocity in an oxygen-hydrogen gaseous mixture was experimentally studied at increased pressures and temperatures. For this mixture, which is widely used in practice, no test results are available in the range of high frequencies and pressures. The velocity was measured by the method of light diffraction due to ultrasonic waves. It is shown that, within the limits of measurement errors (0.4%), the sound velocity in the mixture is independent of frequency in the range from acoustic to 16 Mc frequencies. The sound velocity in the mixture was also measured as a function of hydrogen concentration and temperature. In the latter case, the operating frequency was 15.322 Mc, pressure was up to 40 atm, and temperature ranged between 20 and 85°C. There are 11 references.

Ye. Romanenko

[Abstracter's note: Complete translation]

Card 1/1

AKHMETZANOV, K. G.

TITLE: Seminar on refractory metals, compounds, and alloys (Kiev, April 1963).

SOURCE: Atomnaya energiya, v. 15, no. 3, 1963, 266-267

ACCESSION NR: AP3008085

composition on thermal stresses.

T. A. Sultanyan. Electron-microscope investigation of the nature of fracture.

N. S. Pozdnyak, K. G. Akhmetzanov. Heat and electric conductivity of high-purity tantalum and niobium.

O. A. Krayev, A. A. Stel'makh. Thermal diffusivity of tungsten and molybdenum at high temperatures.

S. P. Rusin, O. S. Gurchik. Heat conductivity of loose refractory powders in vacuum and inert gas.

L. F. Mal'tseva, E. N. Marmer. Heat and electric conductivity of refractory compounds.

V. B. Fedorov, V. I. Akimov. Heat capacity of metals at high temperatures.

Card 9/11

AKHMETZANOV, K. G.

ACCESSION NR: AP4000408

S/0294/63/001/001/0156/0156

AUTHOR: Petrov, V. A.

TITLE: Seminar on production methods, physical properties, and electron structure of refractory metals, compounds, and alloys

SOURCE: Teplofizika vy*sokikh temperatur, v. 1, no. 1, 1963, 156

TOPIC TAGS: refractory metal, refractory compound, refractory alloy, thermal conductivity, electric conductivity, thermal diffusivity, tantalum, niobium, tungsten, molybdenum, emission capacity, thermal expansion, chromium, zirconium

ABSTRACT: A seminar on extraction methods, physical properties, and electron structure of refractory metals, compounds, and alloys, organized by the Institut metallokeramiki i spetsplavov AN USSR (Institute of Powder Metallurgy and Special Alloys AN USSR) was held in Kiev from 25 to 29 April 1963. The thermophysical properties of refractory materials at high temperatures were discussed in the following papers: "Investigation of the temperature dependence of heat and electrical conductivity and thermal diffusivity of tantalum

ACCESSION NR: AP4000408

and niobium" (N. Z. Pozdnyak and K. G. Akhmetzanov); "Thermal diffusivity of tungsten and molybdenum at high temperatures" (O. A. Krayev and A. A. Stel'makh); "Experimental determination of integral emissivity and monochromatic emissivity of metals at high temperatures" (V. A. Petrov, V. Ya. Chekhovskoy, and A. Ye. Sheyndlin); "The application of electron beam heating in the investigation of integral blackness of heat-resistant alloys and compounds" (D. L. Timrot, V. E. Peletskiy, and V. Yu. Voskresenskiy); "Measuring of emissivity of solids at temperatures over 1000C" (L. A. Novitskiy, L. V. Trushchitsina, and V. I. Akimov) "On the thermal expansion of chromium-base alloys" (N. V. Ageyev and M. S. Model); "Investigation of thermal expansion of tungsten, molybdenum, tantalum, niobium, and zirconium at high temperatures" (V. M. Amonenko, P. N. V'yugov, and A. S. Gumenyuk); "Determination of the true heat capacity of metals at high temperatures" (V. B. Fedorov and V. I. Akimov); "Heat capacity of tungsten, tantalum, and niobium at high temperatures" (Ya. A. Kraftmakher); "Heat conductivity of materials in vacuum and inert gases" (S. P. Rusin and O. S. Gurvich); "Results of the investigation of electrical and heat conductivity of certain refractory compounds" (L. F. Mal'tseva and E. N. Harner). Considerable attention was given to the development of experimental

Card 2/3

ACCESSION NR: AP4000408

equipment for investigation of the thermophysical properties of substances in a wide range of temperatures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 13Dec63

ENCL: 00

SUB CODE: PH, ML

NO REF SOV: 000

OTHER: 000

Card 3/3

ACCESSION NR: AP4004155

S/0294/63/001/002/0316/0318

AUTHORS: Pozdnyak, N. Z.; Akhmetzyanov, K. G.

TITLE: Thermal and electric conductivity of tantalum and niobium

SOURCE: Teplofizika vy*sokikh temperatur, v. 1, no. 2, 1963, 316-318

TOPIC TAGS: tantalum thermal conductivity, niobium thermal conductivity, tantalum electric conductivity, niobium electric conductivity, temperature dependence, tantalum, niobium, tantalum physical property, niobium physical property, tantalum electrical property, niobium electrical property

ABSTRACT: Since the published data on the thermal conductivity and electric conductivity of tantalum and niobium are contradictory, these quantities were measured by the authors at the temperature range 293--1273K, using apparatus constructed by V. Ye. Mikryukov

Card

1/83

ACCESSION NR: AP4004155

and based on the Kohlrausch method (V. Ye. Mikryukov, N. Z. Pozdnyak, Collection: Poroshkovaya metallurgiya (Powder Metallurgy) Metallurgizdat, 1954, p. 37; V. Ye. Mikryukov, Teploprovodnost' i elektroprovodnost', Metallurgizdat, Moscow, 1956). The results show that the thermal conductivity of tantalum and niobium increases with increasing temperature, and the experimental data are 20% lower than those published at temperatures up to 400K and 10% higher above 800K. The electric conductivity of these metals decreases with increasing temperature and the values obtained agree with the published data. The experimental results show that the thermal conductivity in tantalum and niobium is effected by carriers with the same conductivity as the host, and the electric conductivity is low. Orig. art. has: 3 figures and 2 tables.

ASSOCIATION: Vsesoyuznyy' zaochnyy' politekhnicheskiiy institut
(All-Union Extension Polytechnic Institute)

Card

2/53

ACCESSION NR: AP4004155

SUBMITTED: 30May63

DATE ACQ: 26Dec63

ENCL: 02

SUB CODE: MA, AP

NO REF SOV; 008

OTHER: 003

Card

3/5 3

L 51887-65 EWP(e)/EWT(m)/EWP (w)/EWA(d)/T/EWP(t)/EWP(g)/EWP(l)/EWP(s)/EWP(v)/EWP(x)

AUTHORS: Mikryukov, V. Ye.; Pozdnyak, N. Z.; Akhmedov, K. F.

TOPIC TAGS: powder metallurgy, sintered metal, iron, copper, nickel

... produced in hydrogen or in ammonia atmosphere are compared. For the determination of thermal and electric conductivity, cylindrical specimens of 4-mm diameter and 10-mm length were used. The temperature range was 100-1000°C. For the determination of the linear expansion coefficient, specimens of 4-mm diameter and 10-mm length were used with a slightly larger temperature interval. The following properties are plotted graphically as functions of the temperature: thermal conductivity, expansion coefficient.

L 51887-65

ACCESSION NR: AP5008269

... electric conductivity, electrical resistance, and Lorentz model number.
... iron-copper material with ...

... M ...

... Office ...

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Card 2/2

AKHNAZARYAN, A.A.; SHAKHNAZARYAN, G.M.; AKHUMYAN, V.A.; DANGYAN, M.T.

Synthesis of 1,6-disubstituted 3-chloro-3-hexeno-1,6-dicarboxylic acids. Izv. AN Arm. SSR, Khim. nauki 17 no.6:656-659 '64.

Synthesis and transformations of dilactones. Part 1: Preparation of dilactones of 1,6-disubstituted 3-oxohexano-1,6-dicarboxylic acids. Ibid.:660-664 (MIRA 18:6)

1. Yerevanskly gosudarstvennyy universitet, kafedra organicheskoy khimii.

PANTELEYMONOV, L.A.; NESTEROVA, O.P.; GUTS, Z.A.; ~~AKHMETZ'YANOV, K.G.~~
SOKOLOVA, I.G.

Reaction of niobium with ruthenium. Vest. Mosk. un. Ser. 2:
Khim. 20 no.6:57-62 N-D '65. (MIRA 19:1)

1. Kafedra obshchey khimii. Submitted April 25, 1965.

PANTELEYMONOV, L.A.; NESTEROVA, O.P.; AKHMETZANOV, K.G.; SOKOLOVA, I.G.

Reaction of ruthenium with tantalum. Vest. Mosk. un. Ser. 2:
Khim. 20 no.6:63-68 N-D '65. (MIRA 19:1)

1. Kafedra obshchey khimii Moskovskogo universiteta. Submitted
April 25, 1965.

L 21820-66 EWP(k)/EWT(d)/EWT(m)/EWP(h)/T/EWP(l)/EWP(e)/EWP(w)/EWP(v)/EWP(t)
ACC NR: AT6008649 IJP(c) WW/JD/HW/GS SOURCE CODE: UR/0000/65/000/000/0038/0042

AUTHORS: Pozdnyak, N. Z. (Moscow); Akhmetzyanov, K. G. (Moscow)

ORG: none

TITLE: A study of the dependence of the durability and impact strength of metal-ceramic iron-nickel-graphite alloys upon temperature

SOURCE: Vsesoyuznoye soveshchaniye po voprosam staticheskoy i dinamicheskoy prochnosti materialov i konstruktsionnykh elementov pri vysokikh i nizkikh temperaturakh, 3d, Termoprochnost' materialov i konstruktsionnykh elementov (Thermal strength of materials and construction elements); materialy soveshchaniya. Kiev, Naukova dumka, 1965, 38-42

TOPIC TAGS: iron nickel alloy, powder alloy, high temperature alloy, tensile test, metallurgic testing machine, impact strength/ R-5 metallurgic testing machine, IM-12 metallurgic testing machine

ABSTRACT: The results of strength tests of iron-nickel-graphite alloys are given. The work was done to determine the temperature dependence of the strength of the alloys upon the amounts of nickel added. The temperature range of the test was

Card 1/2

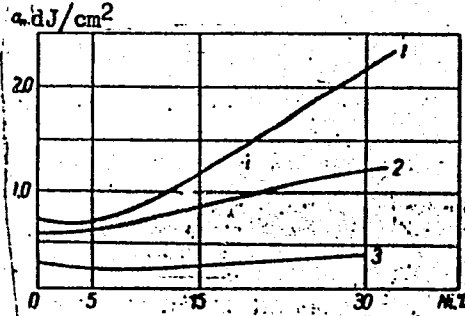
L 21820-66

ACC NR: AT6008649

2 6

from normal to 1100K. Before being mixed for 6 hrs at 50 rpm, the nickel powder was reduced at 673K and the iron powder at 1100K. The tensile tests of the pressed specimens at normal temperatures were made with an R-5 machine, at 673 and 1100K with an IM-12 machine. Additions of 5--30% nickel were found to increase the strength of the alloys by 20--60%. The impact strength of an alloy with 5% nickel is lower than that of an alloy without nickel. The iron-nickel-graphite alloys have higher thermal stability at temperatures to 673K than those without nickel (see Fig. 1).

Fig. 1. Isotherms of impact strength as a function of nickel content at:
 1 - normal temperature; 2 - 673K;
 3 - 1073K.



Orig. art. has: 2 graphs and 2 tables.

SUB CODE: 11/ SUBM DATE: 19Aug65/ ORIG REF: 012

Card 2/2 PB

L 21991-66 EWP(e)/EWT(m)/T/EWP(t) IJP(c) JD/WW/HW/JG/WH

ACCESSION NR: AP5025983

UR/0294/65/003/005/0695/0699

AUTHOR: Mikryukov, V. Ye^(deceased); Pozdnyak, N. Z.; Akhmetzyanov, K. G.

83
81
2

TITLE: Thermal conductivity, electric resistance, and mechanical properties of an iron-copper cermet ^{15,44}

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 5, 1965, 695-699

TOPIC TAGS: high temperature cermet material, iron base alloy, copper containing alloy, nickel containing alloy, heat conductivity, electric resistance, tensile strength, impact strength, thermal expansion, ductility

ABSTRACT: The object of the work was to investigate the results of increased additions of ²¹nickel to iron-copper ²¹cermets. The initial composition of the two alloys investigated was (in %): No. 3: 0.98 carbon, 9.90 copper, 0.13 silicon, 0.18 manganese, traces of sulfur, traces of phosphorous, 21.4 nickel, remainder iron; No. 4: 1.02 carbon, 9.87 copper, 0.14 silicon, 0.13 manganese, traces of sulfur, traces of phosphorous, 29.80 nickel, remainder iron. The samples were prepared by methods of powder metallurgy. The iron and copper powders were first reduced in a hydrogen atmosphere at 1100 and 700 K, respectively. The

Card 1/3

2

L 21991-66

ACCESSION NR: AP5025983

powders were mixed for 6 hours and the samples were pressed on a 100 ton hydraulic press. Microstructural analysis of both alloys showed a complex homogeneous four component solid solution of iron, copper, nickel, and carbon. It was found that addition of 21.4% nickel increases the hardness of the alloy by approximately 30-40% compared to an alloy without nickel. Addition of nickel up to 30% does not increase hardness further, but mechanical properties (tensile and compression strengths, impact strength) are increased by 15-30% compared to alloy No. 3. Sintering in an atmosphere of dissociated ammonia, other conditions being equal, decreases mechanical strength and impact strength by approximately 10-15%, and somewhat lowers ductility, compared to alloys sintered in a hydrogen atmosphere. At 673 K tensile strength and impact strength are decreased only insignificantly. With an increase in nickel content, thermal conductivity and electric resistance decrease by two times with additions of nickel up to 15% and by 30-40% more with nickel additions from 15 to 30%. The coefficient of linear thermal expansion rises only slightly at the start with an increase in temperature, but starting at temperatures from approximately 600C it rises sharply. With an increase in the nickel content, the impact strength at first decreases (at 5% nickel), and then rises slowly; at 30% nickel, its value is the same as for an

Card 2/3

L 21991-66

ACCESSION NR: AP5025983

2

iron-copper-graphite alloy with 10% copper but without nickel. Orig. art. has:
2 figures and 6 tables

ASSOCIATION: Vsesoyuznyy zaachnyy politekhnicheskij institut (All-Union Poly-
technic Correspondence Institute); Moskovskiy gosudarstvennyy universitet im.
M. V. Lomonosova (Moscow State University)

SUBMITTED: 02Nov64

ENCL: 00

SUB CODE: //

NR REF SOV: 007

OTHER: 000

Card 3/3 FV

L 29605-66 EWT(m)/EWP(t)/ETI IJP(c) WH/JD/JG/GD

ACC NR: AT6013550

(A)

SOURCE CODE: UR/0000/65/000/000/0048/0051

AUTHOR: Pozdnyak, N. Z.; Akhmetzyanov, K. G.

77
B+1

ORG: All-Union Correspondence Polytechnic Institute (Vsesoyuznyy zaachnyy politekhnicheskiy institut)

TITLE: Investigation of temperature dependence of thermal and electric conductivity of tantalum and niobium

SOURCE: AN UkrSSR. Institut problem materialovedeniya. Vysokotemperaturnyye neorganicheskiye soyedineniya (High temperature inorganic compounds). Kiev, Naukova dumka, 1965, 48-51

TOPIC TAGS: niobium, tantalum, heat conductivity, electric conductivity

ABSTRACT: The thermal (λ) and electrical (χ) conductivities of tantalum and niobium were examined in the 273°-1573°K range. The metal samples were 4 mm in diameter and 10 mm in length. The tantalum samples contained 5.0% Nb and the niobium samples contained 0.5% Ta. Both samples contained small amounts of C, Fe, Ti, Si, W, and Mo. The thermal conductivity of tantalum and niobium was found to increase with temperature; below 400°K the values were 10% higher than the corresponding values reported in the literature. The electrical conductivity of Ta and Nb declines with increasing temperature; the values found in this work well agree with those reported in the literature.

Card 1/2

L 29605-66

ACC NR: AT6013550

It was found that the thermal conductivity of Ta and Nb depends upon their electron conductivity and upon conductivity of their crystal lattices. Data on thermal conductivity (λ), electrical conductivity (χ) and the λ/χ ratio for Ta and Nb are given in a table. Orig. art. has: 2 figures, 2 tables. 0

SUB CODE: 11/

SUBM DATE: 03Jul65/

ORIG REF: 006/

OTH REF: 003

Cord 2/2

cc

L 30231-66 EWT(m)/I/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6013824

(N)

SOURCE CODE: UR/0189/65/000/006/0057/0062

AUTHOR: Panteleymonov, L. A.; Nesterova, O. P.; Guts, Z. A.; Akhmetzyanov, K. G.;
Sokolova, I. G.

ORG: Chair of General Chemistry, Moscow State University (Kafedra obshchey khimii,
Moskovskiy gosudarstvennyy universitet)

TITLE: Interaction of niobium and ruthenium

SOURCE: Moscow. Universitet. Vestnik. Seriya II. Khimiya, no. 6, 1965, 57-62

TOPIC TAGS: ruthenium alloy, niobium alloy, alloy phase diagram, annealing,
crystal lattice structure, x ray analysis

ABSTRACT: Alloys of the niobium-ruthenium system were studied by methods of micro-
scopic and x-ray analyses, hardness and microhardness, and determination of melting
point, electrical conductivity in the 50-700°C range, and thermal conductivity in the
25-500°C range. Homogenized specimens were quenched from 1500° in water after being
kept for 10 hr at this temperature. Annealing was carried out for 1500 hr at 800° in
evacuated quartz ampoules. The phase diagram of the system is given. Visual obser-
vations of the start of fusion of homogenized specimens established that the compound
NbRu melts at 1900°C, a eutectic equilibrium takes place at 1760°C (the eutectic point
corresponds to 66% Ru) and the minimum on the solidus curve is located at about 40% Ru
and 1800°C. X-ray analysis of the alloy corresponding in composition to the compound

UDC: 669.017.11

Card 1/2

L 30231-66

ACC NR: AP6013824

NbRu and quenched from 1500° showed the presence of a primitive rhombic lattice with lattice parameters $a=4.351\pm 0.005 \text{ \AA}$, $b=4.226\pm 0.005 \text{ \AA}$, and $c=3.365\pm 0.005 \text{ \AA}$. The alloy with 47% Ru has an ordered tetragonal lattice with $a=3.090\pm 0.005 \text{ \AA}$, $c=3.292\pm 0.005 \text{ \AA}$, $c/a=1.065$. The alloy with 40% Ru has a body-centered cubic lattice, and the one with 42% Ru, an ordered tetragonal lattice. The alloy containing 76% Ru, quenched from 1700°C, has a hexagonal lattice with $a=8.340\pm 0.005 \text{ \AA}$, $c=13.440\pm 0.005 \text{ \AA}$, $c/a=1.537$. Hence, the high-temperature modification of ruthenium has a hexagonal lattice (the low-temperature one having a hexagonal close-packed lattice). Orig. art. has: 7 figures.

SUB CODE: 11,20,13/ SUBM DATE: 25Apr65/ ORIG REF: 002/ OTH REF: 004

Card 2/2 CC

L 45805-66 ENT(1)/T/EWP(k) JW

ACC NR: AR6023302

SOURCE CODE: UR/0058/66/000/003/H071/H071

AUTHOR: Akhmetzyanov, K. G.; Petrea, I. K.

TITLE: Velocity and absorption of ultrasound in a binary mixture of ethyl alcohol and water at relatively low temperatures

SOURCE: Ref zh. Fizika, Abs. 3Zh495

REF. SOURCE: Tr. 1-y Mezhvuz. nauchn. konferentsii po primeneniyu molekul. akust. k issled. veshchestva i v nar. kh-ve. Tashkent, 1964, 125-132

TOPIC TAGS: ultrasound absorption, ultrasonic velocity, ethyl alcohol, aqueous solution, optic method, light diffraction, temperature dependence

ABSTRACT: An optical diffraction method was used to measure the velocities and absorption of ultrasound in aqueous solutions of ethyl alcohol with different concentrations, at ultrasound frequencies 15 -- 20 Mcs and at temperatures from -20 to +20C. The results obtained confirm and supplement the known published data. In the concentration region 14 -- 16%, the temperature coefficient of ultrasound velocity reverses sign; here all the velocity vs. concentration curves in this region (and not at

Card 1/2

L 45805-66

ACC NR: AR6023302

0
a 17% concentration as given with decreasing temperature, the absorption of ultra-
sound in the solutions increases; the increase is especially strong at concentrations
42% -- 48%. In the entire temperature range, these concentrations correspond to an
absorption peak which becomes smoothed out with increasing temperature and shifts
slightly towards larger concentrations. V. Shutilov. [Translation of abstract]

SUB CODE: 20

WS
Card 2/2

L 30229-66 EWT(m)/I/EWP(w)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AP6013825 (N) SOURCE CODE: UR/0189/65/000/006/0063/0068

AUTHOR: Panteleymonov, L. A.; Nesterova, O. P.; Akhmetzhanov, K. G.; Sokolova, I. G.

ORG: Chair of General Chemistry, Moscow State University (Kafedra obshchey khimii, Moskovskiy gosudarstvennyy universitet)

TITLE: Interaction of ruthenium¹¹ and tantalum²¹

43
B

SOURCE: Moscow. Universitet. Vestnik. Seriya II. Khimiya, no. 6, 1965, 63-68

TOPIC TAGS: ruthenium alloy, tantalum alloy, alloy phase diagram, x-ray analysis, hardness, annealing, crystal lattice structure

ABSTRACT: Alloys of the ruthenium-tantalum system were investigated by microscopic and x-ray analyses, measurements of hardness and microhardness, and determination of the melting point and electrical conductivity in the 50-700°C range. Homogenized specimens were quenched in water from 1800, 1500, and 1400°C after being first kept at these temperatures for 10-15 hrs. Annealing in evacuated quartz ampoules lasted 1500 hr. The phase diagram of the system is given. The crystal structures of cast, quenched, and annealed alloys of various Ru contents are described. The microhardness curve showed that the solubility of ruthenium in the compound TaRu at 1800 and 800°C is 21 and 18%, respectively. Visual observation of the start of fusion of homogenized specimens showed that the compound TaRu melts at 2050°C, a eutectic equilibrium takes place at 1950°C (eutectic point at 70% Ru), and the minimum of the solidus curve is

UDC: 669.017.11

Card 1/2

L 30229-66

ACC NR: AP6013825

located at about 44-45% Ru and 1970°C. The lattice constants of the various alloys were determined by the powder method. It was noted that in the 0-50% Ru range, the minimum of the solidus curve, maximum of the hardness curve, and transition of the body-centered cubic lattice to a tetragonal lattice correspond to the same composition (44-45% Ru). Orig. art. has: 6 figures.

SUB CODE: 11,10,13/ SUBM DATE: 25Apr65/

ORIG REF: 002/

OTH REF: 003

Card 2/2 NC

AKHMETZIANOV, K. T. and SHIRKEVICH, M. G.

"Propagation of Ultrasound in Ethyl Alcohol Vapors."

report presented at the 6th Sci. Conference on the Application of Ultrasound
in the Investigation of Matter, 3-7 Feb 1958, organized by Min. of Education
RSFSR and Moscow Oblast Pedagogic Inst. im N. K. Krupskaya.

AKHMETZYANOV, M. (Bavlinskiy rayon, Tatarskaya ASSR)

Cooperative work. Pozh.delo 3 no.4:21 Ap '57. (MIRA 10:7)
(Tatar A.S.S.R.--Petroleum industry--Fires and fire prevention)

ALEKSANDROV, A.Ya., prof.; AKHMETZ'YANOV, M.Kh., inzh.; KRASNOV, L.A., inzh.

Using the photoelastic method for investigating triple hinged
plated disk-shaped arches. Trudy NIIZHT no.14:53-98 '58.
(MIRA 12:1)

1. Novosibirskiy institut inzhenerov zheleznodorozhnogo transporta.
(Photoelasticity) (Arches)

S/207/61/000/006/012/025
A001/A101

AUTHORS: Aleksandrov, A.Ya., Akhmetzyanov, M.Kh. (Novosibirsk)
TITLE: Investigation of plane elastic-plastic problems by means of photo-elastic coatings
PERIODICAL: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 6, 1961, 99 - 110

TEXT: This article deals with investigations of elastic-plastic problems by the polarization-optical method using photoelastic coatings applied to metallic bodies being investigated. The authors propose and experimentally test some general methods for separating strains and determining stresses in both elastic and plastic regions of the bodies being deformed. Stresses in the elastic region are found by means of the optical difference of polarized light beams passing normally through the coating and by using the Hooke law. To separate main strains, various methods can be employed: the method of transverse strain (in case of investigating bodies being in the plane strained state), methods of graphical integration of differential equilibrium equations, and the method based on using equations for joint strains. The elastic region of the body being investigated can

S/207/61/000/006/012/025
A001/A101

Investigation of plane elastic-plastic problems ...

be distinguished from its plastic region by using the phenomenon of change of Poisson coefficient, associated with appearance of plastic deformations. In plastic regions stresses can not be inferred from the knowledge of patterns of strained state without one of the assumptions following from various theories of plasticity, such as deformation theory and theory of flow. The authors then list the basic assumptions made and describe the methods of determining stresses when each of them is employed; they are as follows: 1) directions of main normal stresses and strains coincide; 2) intensity of stress is a known function of strain intensity, independent of the form of the strained state; 3) volume strain is proportional to mean normal stress, and 4) main tangential stresses are proportional to main shears. Techniques of experiments are described. Epoxy resin ЭД-6 (ED-6) was applied as a material for photoelastic coatings, and its properties and methods of application are enumerated. Two devices of one-sided arrangement were used for polarization analysis of strains in the photoelastic coatings. Their principle of operation is described. As an example the authors present graphically the results of investigating a strip with a circular aperture subjected to tension, employing two of the mentioned assumptions. It turned out that the assumption of coincidence of directions of main stresses and strains is unfit for this case, whereas the assumption on a functional relation between intensities

Investigation of plane elastic-plastic problems ...

S/207/61/000/006/012/025
A001/A101

of strains and stresses yields satisfactory results. The conclusion has been drawn that with development of plastic deformations, directions of main stresses turn relative to directions of main strains. There are 7 figures and 23 references, 13 of which are Soviet-bloc.

SUBMITTED: August 15, 1961



Card 3/3

AKHMETZIANOV, M.Kh., inzh.

Separation of stresses without using an isoclinal line. Trudy
NIIZHT no.24:153-161 '61. (MIRA 16:5)
(Strains and stresses)

AKHMETZYANOV, M.Kh., inzh.

Measuring elastoplastic deformations using photoelastic coatings.
Trudy NII ZHT no.24:163-173 '61. (MIRA 16:5)
(Deformations (Mechanics)) (Photoelasticity)

S/179/63/000/001/022/031
E081/E141

AUTHOR: Akhmetzyanov, M.Kh. (Novosibirsk)
TITLE: Investigation of the stress concentration in the plastic region with the aid of photoelastic coatings
PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye tekhnicheskikh nauk. Mekhanika i mashinostroyeniye, no.1, 1963, 159-162

TEXT: The paper is a continuation of previous work (A.Ya. Aleksandrov, M.Kh. Akhmetzyanov, PMTF, no.6, 1961). Preliminary experiments were carried out to assess the effect of non-uniform strain distribution in the photoelastic coating on the results obtained. The errors were found to be small, except in regions of high stress concentration. The main experiments were carried out on Dural D-1T (D-1T) in tension and Dural D-16AM (D-16AM) in bending; the photoelastic coating was of the type ED-6M (ED-6M). The stress concentration factor is plotted as a function of stress in the plastic region for specimens containing circular holes and semicircular notches of varying radii. The general picture is one of constant stress
Card 1/2

Investigation of the stress ...

S/179/63/000/001/022/031
E081/E141

concentration factor in the elastic region, and decreasing stress concentration factor with increasing stress in the plastic region. The experimental results are compared with the relationship proposed for two-dimensional shear stress distribution by G. Neyber (Sb. per. "Mekhanika" no. 4, 1961) and good agreement is obtained for tensile specimens. In bending, the discrepancies are rather larger, but do not exceed 10%. There are 6 figures and 1 table.

SUBMITTED: May 3, 1962

Card 2/2

ACCESSION NR: AP4018446

S/0179/64/000/001/0199/0201

AUTHOR: Akhmetzyanov, M. Kh. (Novosibirsk)

TITLE: Application of the photoelastic coating method for determination of stresses and deformations in plates and shells

SOURCE: AN SSSR. Izv. Otd. tekhn. nauk. Mekhanika i mashinostroyeniye, no. 1, 1964, 199-201

TOPIC TAGS: photoelastic coating, photoelasticity, photoelastic stress determination, photoelastic stress analysis, photoelastic stress determination method, photoelastic shell investigation, photoelastic plate investigation, elasticity, elastic shell, elastic plate, stress analysis, stress, strain, deformation

ABSTRACT: The use of existing methods for determination of stresses in flexible plates and shells according to the data of normal x-ray examination of models made of an optically active material through their entire thickness (See Aben, Kh. K. and Saks, E. G., Opticheskiye yavleniya pri prosvechivani obolochek, Sb. "Polarizatsionno-opticheskiy metod issledovaniya napryazheniy", LGU, 1960) or through their middle surface (See Monch, E., Photoelastic Investigation of Shells by Means of a Model in whose Middle Surface a Semitransparent Mirror Layer is Inbedded. Actes

Card 1/2

ACCESSION NR: AP4018446

IX Congr. Internat. Mecon. Appl., 1957, vol. 8) is complicated by the necessity for taking into account the effect of rotation of the quasiprincipal axes through the thickness of the model and is possible only for purely elastic problems. In the present work there is an examination of a method for studying these structures with the help of photoelastic coatings. It is shown that the problem of determination of stresses and deformations in flexible elastic plates and shells according to the data of a polarization-optical study of the coatings is solved quite simply and completely. The samples examined were made of brand D16AM duralumin with a coating of ED-6M material. Photographs of the surfaces under loading are given. "The author expresses gratitude to A. Ya. Aleksandrov for setting up the given problem." Orig. art. has: 2 figures, 10 formulas.

ASSOCIATION: none

SUBMITTED: 18Aug62

DATE ACQ: 23Mar64

ENCL: 00

SUB CODE: AP

NO REF SOV: 004

OTHER: 001

Card 2/2

ACC NR: AP6002322 SOURCE CODE: UR/0373/65/000/006/0084/0086

AUTHOR: Akhmetzyanov, M. Kh. (Novonibirsk)

ORG: none

48
13

TITLE: On application of photoelastic films for investigation of shells

SOURCE: AN SSSR. Izvestiya. Mekhanika, no. 6, 1965, 84-86

24

TOPIC TAGS: photoelasticity, elasticity theory, shell theory, shear stress, bending stress, error measurement

ABSTRACT: It is shown that errors introduced by rotating the principal deformation direction along the film thickness depend on the relative shell and film thickness and can be reduced by reducing the film thickness to permissible levels. The angle between the direction of the principal deformation on the outside and the inside of the film is given by

$$\phi_0 = \frac{d}{2t} \frac{k \sin 2\beta}{1 + 2k\eta_0 \cos 2\beta + k^2\eta_0^2} \quad \left(\eta_0 = \frac{s_0}{t} \right)$$

where d is the film thickness. It is shown that the maximum rotation

$$\phi_{0 \max} = \frac{d}{4t} \operatorname{tg} \beta \quad (s > 0), \quad \phi_{0 \max} = \frac{d}{4t} \operatorname{ctg} \beta \quad (s < 0)$$

occurs at $k = \pm t/z_0$. To determine the rotation-introduced errors, it is assumed

Card 1/2

L 13343-66

ACC NR: AP6002322

that the characteristic direction coincides with the direction of the principal axis of deformation that rotates with it. Expressions are then derived for the relative error in determining the difference between longitudinal bending and shear deformations $\Delta(\epsilon_x - \epsilon_y)_n$, $\Delta(\epsilon_x - \epsilon_y)_m$, $\Delta\gamma_{xy,m}$ where subscripts n and m indicate membrane and bending deformations, respectively. Under maximum rotation conditions, these expressions are approximated by

$$\Delta(\epsilon_x - \epsilon_y)_n = \Delta\gamma_{xy,m} = 1 - (1 - N^{-1})^{1/2}, \quad \Delta(\epsilon_x - \epsilon_y)_m = 1 - (1 - N^{-1})^{-1/2}$$

correct to order N^{-2} . The percent errors in the membrane and bending deformations for $N = 10$ are tabulated for several values of k and β . Orig. art. has: 11 equations and 1 table.

SUB CODE: 13, 20/ SUBM DATE: 29Apr65/ ORIG REF: 003

Cord 2/2 Fw

L 29829-66

EWT(d)/EWT(m)/EWP(w)/EWP(v)/EWP(x) IJP(c)

SOURCE CODE: UR/0198/66/002/003/0001/0009

ACC NR: AP6011327

AUTHORS: Aleksandrov, A. Ya. (Novosibirsk); Akhmetzyanov, M. Kh.; Rakin, A. S. 43
B

ORG: Novosibirskiy Institute of Railroad Transport Engineers (Novosibirskiy institut inzhenerov zhel.-dor. transporta)

TITLE: A study of elastoplastic deformation of shells with openings and reinforcements by the method of photoelastic coverings 26

SOURCE: Prikladnaya mekhanika, v. 2, no. 3, 1966, 1-9

TOPIC TAGS: shell, cylindric shell, photoelasticity, stress measurement M

ABSTRACT: Experiments were performed to study the stressed state of cylindrical shells with reinforced and nonreinforced circular, square, and rectangular openings in tension and in torsion. The experimental method used is the one of photoelastic coverings, in which the surface of the shell is covered with a thin covering of an optically active material. Shell deformations under loading are transmitted to the photoelastic covering and are manifested in the covering as the dual wave radiation, which is measured with the aid of a polarization device for reflected light. The equation

$$\delta = 2C \int_0^d (\epsilon_1 - \epsilon_2) dz'$$

expresses the relationship of the optical difference of shift δ with the difference of

Card 1/2

ACC NR: AT7002105

(N)

SOURCE CODE: UR/0000/66/000/000/0196/0205

AUTHOR: Akhmetzyanov, M. Kh.

ORG: none

TITLE: The study of complex shape work pieces in elastoplastic equilibrium by photoelastic coating method

SOURCE: Vsesoyuznaya konferentsiya po polarizatsionno-opticheskomu metodu issledovaniya napryazheniy. 5h, Leningrad, 1964. Polarizatsionno-opticheskiy metod issledovaniya napryazheniy (Polarizing-optical method of investigating stresses); trudy konferentsii. Leningrad, Izd-vo Leningr. univ., 1966, 196-205

TOPIC TAGS: photoelasticity, stress analysis, nondestructive test, test method

ABSTRACT: Peculiarities of application of photoelastic coating method in the study of work pieces with complex shapes characterized by curved surfaces are described. Special methods of applying birefringent materials are described which differ if tests are to be conducted at room or freezing temperatures. In the former case ED5 epoxy resins with polyethylene-polyamine hardener are applied at temperatures of 18--20C permitting maximum deformations of 1.5--2% to be measured. In the latter, the same coating is applied at temperatures of 120C. Two types of polariscopes suitable for these tests are described: a 6 degree-of-freedom oblique-incidence and a direct incidence polariscope (model PP-1). Since the normals to the work

Card 1/2

ACC NR: AT7002105

piece surfaces differ at different points the observations must be carried out point by point. The deformations are then divided into appropriate coordinates using Cauchy, Saint Venant, and other methods based on superposition of deformations. Mathematical equations are also given for differentiating between plastic and elastic deformation regions. The design of the polariscope discussed was developed by Engr. A. S. Rakin. Orig. art. has: 12 formulas and 6 figures.

SUB CODE: 14/ SUBM DATE: 14Jun66/ ORIG REF: 002/ OTH REF: 001

Card 2/2

AKHMEYEV, G.

Economic efficiency of intercollective-farm production cooperatives.
Vop. ekon. no.8:151-155 Ag '61. (MIRA 14:7)
(Ukraine--Collective farms--Interfarm cooperation)

VARSHAVSKIY, K. (Leningrad); KONOPLEVA, V. (Moskva); AKHMEYEV, G. (Cheboksary)

Study of the problem of the transition to communism. Sots. trud
8 no.9:149-155 S '63. (MIRA 16:10)

AKHMEYEV, Guriy Nikolayevich, kand. ekon.nauk; KOGAN, Ye.L., red.

[Labor cooperation] Kooperatsiia truda. Moskva, Znanie,
1964. 31 p. (Novce v zhizni, nauke, tekhnike. III Seria:
Ekonomika, no.21) (MIRA 17:11)

SUKHANOVSKIY, S.I.; AKHMINA, Ye.I.

Effect of the chemical composition of hydrolytic lignin on the
physicomechanical properties and structure of granulated coals.
Zhur.prikl.khim. 35 no.12:2754-2760 D '62. (MIRA 16:5)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gidroliznoy
i sul'fitno-spirtovoy promyshlennosti.
(Lignin) (Coal)

SUKHANOVSKIY, S.I.; AKHMINA, Ye.I.; MILOVANOV, A.V.

Granulated coal from the hydrolysis lignin of cottonseed hulls.
Gidroliz. i lesokhim. prom. 16 no.5:24-26 '63. (MIRA 17:2)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gidroliznoy
i sul'fitno-spirtovoy promyshlennosti.

SUKHANOVSKIY, S.I.; AKHMINA, Ye.I.; PODGORNAYA, T.A.; BEZMOZGIN, E.S.; NEMCHENKO, A.G.; YUDKEVICH, Yu.D.

Contact pyrolysis of the settled tar from the thermalysis of hydrolyzed lignin. *Gidroliz. i lesokhim. prom.* 17 no.5:17-18 '64.

(MIRA 17:10)

1. Gosudarstvennyy nauchno-issledovatel'skiy institut gidroliznoy i sul'fitno-spirovoy promyshlennosti (for Sukhanovskiy, Akhmina, Podgornay).
2. Vsesoyuznyy nauchno-issledovatel'skiy institut topliva (for Beamozein, Nemchenko, Yudkevich).

SUKHANOVSKIY, S.I.; AKHMINA, Ye.I.; YEVSTIFEYEVA, E.B.; KHARLAMOVA, M.V.

Chemical composition of the organic and ash parts of hydrolysis
lignins. *Gidroliz. i lesokhim. prom.* 18 no.5:15-17 '65.
(MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut gidroliznoy
i sul'fitno-spirtovoy promyshlennosti.

AKHMYLOVSKAYA, V. S.

"Soviet Fine-Scale Maps and Atlases." Cand Geog Sci, Leningrad State U,
Leningrad, 1954. (RZhGeol, Nov 54)

Survey of Scientific and Technical Dissertations Defended At USSR Higher
Educational Institutions (11)

SO: Sum. No. 521, 2 Jun 55

AKHMINEYEV, G. Ya.

KURUKLIS, G.L.; AKHMINEYEV, G. Ya.

[Hardening tool steel in electrolyte] Zakalka v elektrolite instrumental'nykh stali. Moskva, Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry [Urals-Sibirskoe otd-nie] 1952. 25 p.
(Tool steel -- Electrometallurgy) (MIRA 8:5)

AKHMYLOVSKAYA, V.S.

A good textbook of geodesy ("Geodesy" by S.A. Murashev, N.A. Paizanskii,
K.P. Panova. Reviewed by V.S. Akhmylovskaya). Geod. i kart.
no. 4:75-76 Ap '61. (MIRA 14:5)
(Surveying) (Murashev, S.A.) (Paizanskii, N.A.)
(Panova, K.P.)

ACCESSION NR: AR4023282

S/0270/64/000/002/0013/0013

SOURCE: RZh. Geodesiya, Abs. 2.52.39

AUTHOR: Alduy*lovskaya, V. S.

TITLE: On the problem of the accuracy and ultimate accuracy of scale

CITED SOURCE: Uch. zap. Dal'nevost. un-t, vy*p. 6, 1963, 53-56

TOPIC TAGS: geodesy, topology, trigonometry

TRANSLATION: A definition of the concepts of "accuracy of scale" and "ultimate accuracy of scale" is given. The first term occurs only in the use of graphic (linear and lateral) scales, but we apply the second to all scales. Accuracy of scale is a linear quantity in a locality corresponding to the least division of the given scale. Accuracy of scale is a variable quantity even for one and the same numerical scales and depends upon the method of constructing the linear and lateral scales. Ultimate accuracy is the length of a line in a locality corresponding to graphic accuracy (0.02 mm). This quantity is constant for the

Card 1/2

ACCESSION NR: AR4023282

given cartographic publication of the scale determined and does not depend upon the method used to construct it. It is noted that in different textbooks these concepts are treated differently and not adequately accurately. Examples are given of an unfortunate definition of the terms. Bibliography of 11 titles. I. Mityashkin.

DATE ACQ: 06Mar64

SUB CODE: AS, MM

ENCL: 00

Card 2/2

IVANOV, N.G., kontr-admiral; AKHMYLOVSKIY, I.Ye., kapitan 2-go ranga

For close cooperation of navigators and hydrographers. Mor.
sbor. 48 no.7:59-61 Ji '65. (MIRA 18:8)

WADCO, V.V.; ALHABIBOVA, S.L.

Analysis of ammonia and ammonium nitrate losses during neutralization in the production of ammonium nitrate. Khim. prom. 41 no.1: 15-18 Ja '65. (HIRA 18:3)

AKHNAZAROVA, S.I., inzh.; KAFAROV, V.V., doktor tekhn. nauk

Automatic control of the neutralizer used in the production ammonium
nitrate. Mekh. i avtom. proizvod. 19 no.8:25-27 Ag '65.
(MIRA 18:9)

L 16787-66 EWT(m)/EPF(n)-2/EWP(t) IJP(c) JD

ACC NR: AP6002507 (A)

SOURCE CODE: UR/0286/65/000/023/0016/0016

AUTHORS: Akhazarova, S. L.; Kafarov, V. V.; Ordyan, V. A.; Kalashyan, V. M.

ORG: none

TITLE: A method for automatically regulating the process of neutralizing nitric acid in the production of ammonium niter. Class 12, No. 176572

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 16

TOPIC TAGS: niter, nitrogen compound, ammonium, nitric acid

ABSTRACT: This Author Certificate presents a method for automatically neutralizing nitric acid in the production of ammonium niter. The method involves adjusting pH of the alkali by changing the feeding rate of nitric acid and correcting the concentration of nitric acid. To optimize the process, the pressure of the liquor vapor is also adjusted. 21

SUB CODE: 07/ SUBM DATE: 13Mar65

Card 1/1 M/S

UDC: 66.-503.51:661.525.3 2

MAMEDALIYEV, Yu.G.; GUSEYNOV, M.M.; MEKHTIYEVA, F.A.; AKHNAZAROVA, Sh.S.

Production of chlorinated hydrocarbons by ethane chlorination
in a fluidized catalyst bed. Dokl. AN Azerb. SSR 18 no.5:11-15
'62. (MIRA 15:7)

1. Institut neftekhimicheskikh protsessov AN AzSSR.
(Hydrocarbons) (Chlorination)

AKHNAZAROVA, V. D.

Dissertation: "On the Question of Suprarenal Inflammation During Experimental
Diphtherial Intoxication." Cand Med Sci, Acad Med Sci USSR, 22 Jun 54.
(Vechernyaya Moskva, Moscow, 11 Jun 54)

SO: SUM 318, 23 Dec. 1954

AKHMAZAROVA, V.D.

The effect of high temperature of the environment on the resistance of animals to dysenterial toxin. Zhur. mikrobiol. epid. i immun. 27 no.2:76-78 F '56. (MLRA 9:5)

1. Iz laboratorii fiziologii immuniteta Instituta normal'noy i patologicheskoy fiziologii AMN SSSR.

(DYSENTERY, exper.

eff. of high temperature on resist. of rabbits to dysenterial toxins)

(TEMPERATURE, eff.

on)

(HEAT, eff.

on resist. of rabbits to dysenterial toxins)

AKHNAZAROVA, V.D.

Effect of environmental high temperature on immunological reactivity
in animals; author's abstract. Zhur. mikrobiol. epid. i immun. 29
no.7:109 J1 '58 (MIRA 11:8)

1. Is Instituta normal'noy i patologicheskoy fiziologii AMN SSSR.
(DYSENTERY, BACILLARY, immunology,
eff. of heat in animals (Rus))
(HEAT, effects,
on dysenterial immunol. in animals (Rus))

AKHNAZAROVA, V.D.

Role of the pituitary in the mechanism of development of structural tissue lesions in diphtherial intoxication; preliminary communication. Zhur.mikrobiol.epid. i imun. 30 no.1:102-105 Ja '58.

(MIRA 12:3)

1. Iz Instituta normal'noy i patologicheskoy fiziologii AMN SSSR.
(PITUITARY GLAND, effect of excision,
on histol. reactions to diphtherial toxins (Rus))
(CORYNEBACTERIUM DIPHTHERIAE,
toxin, histol. eff in hypophysectomized animals
(Rus))

AKHNAZAROVA, V.D.

Influence of hypophysectomy on the reactivity of the body
in diphtheria intoxication. Biul. eksp. biol. i med. 52
no.9:32-36 S '61. (MIRA 15:6)

1. Iz laboratorii fiziologii immuniteta (zaveduyushchiy -
doktor biolog.nauk D.F. Pletsityy) Instituta normal'noy
i patologicheskoy fiziologii (direktor - deystvitel'nyy
chlon AMN SSSR V.V. Parin) AMN SSSR, Moskva. Predstavlena
deystvitel'nyy chlenom AMN SSSR V.V. Parinym.
(HYPOPHYSECTOMY) (DIPHTHERIA)

DANGYAN, M.T.; AKHNAZARYAN, A.A.; KAZARYAN, S.A.

Synthesis of some new barbiturates and thiobarbiturates.
Report No.1: Production of 5-alkyl (aryl)-5-(δ -methoxymethyl- γ -chlorocrotyl)-barbituric and thiobarbituric acids. Izv.AN Arm.
SSR.Khim.nauki 14, no.1:63-65 '61. (MIRA 15:5)

1. Yerevanskiy gosudarstvennyy universitet, kafedra organicheskoy khimii.

(Barbituric acid)

88406

S/020/61/136/004/014/026
B016/B075

11.12.40

AUTHORS: Mikhaylov, B. M., Akhnazaryan, A. A., and Vasil'yev, L. S.

TITLE: Synthesis and Properties of Tetra-n-propyl Diborane and Tetra-n-butyl Diborane

PERIODICAL: Doklady Akademii nauk SSSR, 1961, Vol. 136, No. 4, pp. 828 - 831

TEXT: The authors studied the reaction of diborane with tri-n-propyl boron and tri-n-butyl boron in etheric solution, and determined the following facts: 1) When passing 1 mole of diborane through a 4-mole solution of boron trialkyl at room temperature, tetraalkyl diboranes are produced in a yield of 70-85%, i.e., tetra-n-propyl or tetra-n-butyl diborane. 2) When using an equimolecular quantity of diborane, an asymmetric di-n-propyl diborane is isolated by distilling the reaction products. The second synthesis method is based on the reaction between diborane and olefins (Ref.4). This reaction is catalyzed by different ethers. Reaction of diborane with propylene-1 and butene-1 (ratio 1 : 4) at -70 to -30°C in an etheric medium resulted in a 48% yield of tetraalkyl diboranes. The latter

Card 1/3

88406

Synthesis and Properties of Tetra-n-propyl
Diborane and Tetra-n-butyl Diborane

S/020/61/136/004/014/026
B016/B075

are completely stable up to 100°C and can be distilled in vacuo. In benzene solution they are partly dissociated into dialkyl borane. Tetraalkyl diboranes spontaneously inflame in the open air. They are highly reactive and react with alcohols under the formation of dialkyl boric acid esters. With aniline they form dialkyl phenyl amino boron. Under the action of mercaptans, tetraalkyl diboranes are converted to dialkylthio boric acid. Such reactions are convenient preparation methods for synthesizing organoboron compounds, since only small quantities of side-products are formed. Tetra-n-butyl diboranes more difficultly react with glycol. In this case, almost equal quantities of glycol esters of di-n-butyl boron and n-butyl boric acid are formed, and, in addition, tri-n-butyl boron. From the formation of the latter, the following was concluded: The action of nucleophilic reagents causes a substitution of hydrogen atoms by tetraalkyl diboranes, and also a disproportionation of tetraalkyl diboranes into boron trialkyls and alkyl boranes. Under the action of a nucleophilic reagent, the alkyl borane thus forming results in an organoboron compound with a radical on the boron atom. On the other hand, boron trialkyl remains either unchanged (e.g., in the reaction with glycol), or enters into reaction and, e.g., with mercaptan, forms an

Card 2/3

AKHNAZARYAN, A.A.; SHAKHNAZARYAN, G.M.; KAZARYAN, S.A.; DANGYAN, M.T.

Synthesis and transformations of α -substituted
 δ -methyl- δ -hydroxy- γ -caprolactones. Zhur. ob. khim. 34
no. 5:1413-1419 My '64. (MIRA 17:7)

1. Yerevanskiy gosudarstvennyy universitet.

AKHNAZARYAN, A.A.; KAZARYAN, S.A.; SHAKHANAZARYAN, G.M.; DANGYAN, M.T.

Synthesis and transformations of diethyl esters of substituted
 δ -methoxymethyl- γ -chlorocrotyl malonic acids. Zhur. ob. khim.
34 no.11:3561-3565 N '64 (MIRA 18:1)

PROCESSES AND PROPERTIES INDEX

AKHNAZARIAN, Kh. M.

9

**Regeneration of exhausted sodium carbonate cemen-
tation mixture.** Kh. M. Akhazarjan. *Vestnik Metallur-*
gi, 13, 66-7 (1937); *Chem. & Industry* 30, 833.—The
chemistry of the cementation reaction can be expressed by
the equations: $3Fe + 2CO = Fe_3C + CO_2$; $CO_2 + C =$
 $2CO$. The latter reaction takes place only in the absence
of H_2O , which reacts with CO to give CO_2 and H_2 . The
activity of cementation increases with the CO content of
the gas. To produce CO_2 , 15-30% Na_2CO_3 is added to
the cementation mixt., its decompos. at high temp. liber-
ating CO_2 . The regeneration of the exhausted mixt. is
based on carbonation of Na_2O in the air; to this end it is
slightly moistened and allowed to stand in the air until the
mass is covered with a white coating of Na_2CO_3 crystals.
Before use, the regenerated mixt. is dried and mixed
with 10-15% sawdust or charcoal. Cementation mixts.
contg. K_2CO_3 or Na_2CO_3 instead of Na_2CO_3 can be regener-
ated in the same way. A. Paulneau-Conture

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

REGION 1															REGION 2															REGION 3															REGION 4															REGION 5														
SUB-REGION 1															SUB-REGION 2															SUB-REGION 3															SUB-REGION 4															SUB-REGION 5														
SUB-SUB-REGION 1															SUB-SUB-REGION 2															SUB-SUB-REGION 3															SUB-SUB-REGION 4															SUB-SUB-REGION 5														

AKHNAZARYAN, N.G.; MESCHYAN, S.R.

A factor affecting the consolidation of loam. Izv. AN Arm.
SSR. Ser. fiz.-mat. nauk 15 no.3:115-125 '62. (MIRA 15:9)

1. Institut matematiki i mekhaniki AN Armyanskoy SSR.
(Loam soils)

KAZUMOV, N.B.; ALAVERDYAN, M.B.; AKHNAZARYAN, R.N.

Madeirizing wines of varied composition. Izv. AN Arm. SSR. Biol. i
sel'khoz. nauki 9 no.9:103-107 S '56. (MLBA 9:11)

1. Institut vinogradarstva i vinodeliya Akademii nauk Armyanskoy SSR.
(MADEIRA WINE)

NIKOLAYEV, L.A., doktor khimicheskikh nauk; AKHNAZAR'YANTS, N.A., assistant.

Investigation of foam inhibitors. Trudy MIIT no.82/83:88-93 '55.
(MLBA 9:8)

(Locomotive boilers)