Existence of a Higher CO_3 Oxide

The possible value of the frequency corresponding to the fluctuations of the C = O-binding can be roughly calculated according to the condition of equality of the power constants for this binding in CO_3- and HCOOH molecules and amounts to approximatively 1660 cm^{-1}. The authors do not give here the full emission spectrum of the diffusion flame of CO in O_2 which was observed in the infrared spectrometer IKS-11. In the frequency range of from 6000 to 400 cm^{-1} it contains up to 100 lines and stripes which are due to radiation of CO, OH, CO_2, H_2O and HO_2. If CO, O_2 and N_2 are dried carefully only stripes and lines of CO and CO appear in the spectrum of the flame. If, however, the picture of the flame basis is directed to the slits of the spectrometer (not higher than 3,5 mm from the burner in the case of a full height of the visible cone of from 15 to 17 mm) in the spectrum appears a stripe with a frequency of the intensity maximum at ν = 1615 cm^{-1} which is not effected by the radiation of one of the mentioned particles. Though the authors were first inclined to identify this stripe with HO_2-stripes it does not vanish when the flame is blown off with anhydrous oxygen. On the contrary, this stripe becomes more intensive by the manifold. On the strength of this analysis of the obtained experimental results the authors concluded that the carrier of the stripes ν = 1615 cm^{-1} is a higher oxide CO_3. In the spectrum

51-1-9-26/28

AUTHOR: Tagirov, K. B.

TITLE: On the Method of Measurement of the Spectral Coefficient of Reflection of Mirrors. (K metodike izmereniya spektral'nogo koeffitsiyenta otrazheniya zerkal)

PERIODICAL: Optika i Spektroskopiya, 1956, Vol.IV, Nr.1, pp.278-279 (USSR)

ABSTRACT: To measure the spectral reflection coefficient of mirrors in the infrared an IKS-11 spectrometer was used in the 1-25 μ region without a reflection standard. Metallic or other coatings whose reflection coefficient was measured were deposited on the surface of a concave glass lens with a 8-10 cm radius of curvature. A modified carborundum light source of special construction shown in Fig.1 was used. This source had an additional window diametrically opposite the main window. The source could be displaced perpendicularly to the optical axis of the instrument used by a distance of 2.5-3 mm. The apparatus used is shown in Fig.2. The source 1 is imaged by means of a plane mirror 2 and a concave mirror 4 on the monochromator slit 5. A spherical mirror 6, whose coefficient of reflection is to be measured, is

Card 1/3

[illegible] Method of Measurement of the Spectral Coefficient of Reflection of Mirrors.

placed behind the source at a distance equal to the radius of curvature of the reflecting surface of 0 in such a way as to make the centre of the mirror 0 coincide with the optical axis of the apparatus. When the mirror 0 is correctly positioned the real but inverted image of the source 1 formed by the mirror 0 coincides with the source itself. The source 1 is displaced by 2.2-2.5 mm at right angles to the optical axis and it now occupies a position 1'. By rotation of the spherical mirror 0 the image 1 (of the source 1') is positioned on the slit 3. Intensities of reflection are now measured for the same wavelengths for which intensities from the source itself were obtained earlier. The ratios of these intensities give the spectral coefficient of reflection by the mirror. The mirrors 5 and 6 are placed in front of the slit 3 to prevent heating of the latter. There are 2 figures, 4 references of which 2 are Soviet and 2 are translations of [illegible] into Russian.

51-2-26/28

On the Method of Measurement of the Spectral Coefficient of Reflection of Mirrors.

ASSOCIATION: Kazan'State University imeni V.I. Ul'yanov-Lenina (Kazanskiy gos. universitet im. V.I. Ul'yanova-Lenina)

SUBMITTED: May 29, 1957.

1. Mirrors-Infrared spectra 2. Mirrors-Reflective properties-Measurement

Card 3/3

SOV/51-6-2-2/39

AUTHOR: Tagirov, R. B.

TITLE: On the Cause of Infrared Emission-Band Shift in Flame Spectra (K voprosu o prirode smeshcheniya infrakrasnykh polos ispuskaniya v spektrakh plamen)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 2, pp 137-140 (USSR)

ABSTRACT: Paschen (Ref 1) pointed out that in the infrared emission spectrum of a Bunsen flame the maximum of the 2349.3 cm^{-1} band of CO_2 molecules has "red" snift compared with the absorption spectrum of atmospheric carbon dioxide. A similar "red" snift was reported by Julius (Ref 2) for HCl in $H_2 + Cl_2$ flame spectra, for CS_2 and SO_2 bands in $CS_2 + O_2$ flame spectra and so on. In view of contradictory explanations of this shift the present paper deals with the mechanism of excitation of CO_2 molecules in diffusion flames of CO in oxygen and with the cause of the infrared emission-band shift compared with the bands in tne absorption spectra. The infrared emission spectra were obtained by means of an infrared spectrometer IKS-11. To increase the emission intensity received by the spectrometer the author placed a spherical mirror behind the flame. Carbon moncxide used in the flame was obtained by reaction of formic acid with sulphuric acid and was stored over water. It was

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On the Cause of Infrared Emission-Band Shift in Flame Spectra

burned without any preliminary drying. The spectral curves, uncorrected for the atmospheric absorption, obtained in the region 6000-400 cm^{-1} are given in Fig 1. Curves a, b and c were obtained using LiF, NaCl and KBr prisms respectively. Some of the bands shown in Fig 1 were reported also by other authors. Comparison of Fig 1 with the absorption spectra at room temperature shows that maxima of some CO_2 bands exhibit "red" shift while other bands have "violet" shift. Maximum of a CO emission band is displaced towards shorter wavelengths compared with the absorption spectrum (Fig 2). To elucidate the mechanism of excitation of CO_2 molecules in diffusion flames of CO in CO_2, the authors used the well-established fact that H_2O molecules in hydrogen-oxygen flames are excited thermally (Ref 4). The author studied the temperature and other dependences of infrared emission by H_2O molecules in diffusion flames of H_2 in O_2 and by CO_2 molecules in flames of CO in O_2. He found that CO_2 molecules are also thermally excited in flames of CO in O_2 or in air. The relevant experimental material used is given in Figs 3 and 4: Fig 3 shows the frequency dependence of the ratio of intensities of H_2O and CO_2 bands in spectra of H_2 and CO flames; Fig 4 shows the pressure dependence of CO_2 (curve 1) and H_2O (curve 2) bands emitted in CO and H_2 flames. The shifts of the CO_2 bands in

flames are due to asymmetry of these bands and formation of edges. The latter is shown in Fig 5 for 2349.3 cm^{-1} band of CO_2. Curve a shows the spectrum at small concentrations of CO_2 (atmospheric conditions) and curve b shows the band under conditions of high concentration of CO_2 (in flames). Increase of the CO_2 concentration produces an edge and displaces the band as a whole towards longer wavelengths (Fig 5). The observed shift of the 2349.3 cm^{-1} CO_2 band in flames of CO and hydrocarbons (e.g. Bunsen's flame) is also due to superposition of a 2142 cm^{-1} CO band. The "violet" displacement of the CO band shown in Fig 2 is due to asymmetry and temperature broadening. Acknowledgments are made to V.N. Kondrat'yev and V.V. Voyevodskiy for their advice. There are 6 figures and 11 references, 3 of which are Soviet, 5 English, 1 German, 1 Dutch and 1 translation.

SUBMITTED: April 19, 1957

TAGIROV, Salikh Mikhaylovich; CHERNYAGIN, B.M., kand.tekhn.nauk, retsenzent; ITKIN, I.M., inzh., red.; AKIMOVA, A.G., red. izd-va; CHERNOVA, Z.I., tekhn.red.

[Construction and assembling of watches] Konstruktsiia i tekhnologiia sborki mekhanicheskikh chasov. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1960. 243 p. (MIRA 13:11)

(Clockmaking and watchmaking)

24.3410
11.1000

69836
S/051/60/008/03/006/038
E201/E191

AUTHOR: Tagirov, R.B.

TITLE: On the Problem of Participation of H_2O in the Reaction of Combustion of Carbon Monoxide in Oxygen

PERIODICAL: Optika i spektroskopiya, 1960, Vol 8, Nr 3, pp 312-314 (USSR)

ABSTRACT: Kondrat'yev et al (Refs 1, 2) and other workers (Ref 3) reported that water molecules take active part in the process of combustion of carbon monoxide in oxygen at low pressures. Inside the combustion zone the following reaction occurs:

$$OH \xrightarrow{(+CO)} H \xrightarrow{(+O_2)} OH \xrightarrow{(+CO)} H \xrightarrow{(+O_2)} , \qquad (1)$$

As a result of this reaction the thermodynamic equilibrium concentrations of OH and H in the combustion zone will no longer be obtained. The present paper deals with the problem where the reaction given by Eq (1) takes place in hot diffusion flames of CO burning in O_2. For this purpose the author investigated the infrared emission of flames of CO in O_2 and of H_2 in O_2, using an infrared

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69836
S/051/60/008/03/006/038
E201/E191

On the Problem of Participation of H_2O in the Reaction of Combustion of Carbon Monoxide in Oxygen

spectrometer IKS-11. A spherical aluminized mirror was placed behind the flame at a distance equal to the radius of curvature of the mirror; this nearly doubled the emission intensity of the flame. The results obtained (Figs 1 and 2) show that, in the flames of $CO + O_2$ containing moisture, the water molecules are dissociated to a considerable extent (much more than in $H_2 + O_2$ flames) and take active part in the process of combustion of CO in O_2. Acknowledgements are made to V.N. Kondrat'yev and V.V. Voyevodskiy for their advice.
There are 2 figures and 11 references, of which 5 are Soviet, 2 English, 1 Dutch and 2 translations from English into Russian (Ref 5 is missing from the literature-cited list).

Card 2/2

SUBMITTED: May 21, 1959

TAGIROV, R.B.

Bimirrors for the IKS-11 infrared spectrometer. Prib. i tekh. eksp. 6 no.2:149-150 Mr-Ap '61. (MIRA 14:9)

1. Kazanskiy gosudarstvennyy universitet.
(Spectrometer)

S/120/63/000/001/029/072
E032/E314

AUTHOR: Tagirov, R.B.

TITLE: On the variation in the integral sensitivity of ФЭСС-У10 (FESS-U10) photoelements with time and diameter

PERIODICAL: Pribory i tekhnika eksperimenta, vol.8 no. 1, 1963, 120 - 121

TEXT: Use of the ИКС-11 (IKS-11) infrared spectrometer over the last six years has shown a large reduction in the integral sensitivity of FESS-U10 photoelements operating in conjunction with the ФЭОУ-15 (FEOU-15). Special measurements undertaken to investigate this effect showed that the reduction in the integral sensitivity of the FESS-U10 with time was largely due to the increase in the resistance of the semi-transparent metal film which served as the second electrode. It appears that the change in the properties of the metal film is due to diffusion of the semiconductor into the metal, and other factors. The metal film gradually assumes semiconductor properties, its resistance increases considerably and the central part of the photocell loses

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On the variation ....

its sensitivity. It is recommended that in order to prevent this effect a low-resistance grid be superimposed on the semi-transparent metal electrode. There are 2 figures.

ASSOCIATION: Kazanskiy gosudarstvennyy universitet
(Kazan' State University)

SUBMITTED: March 23, 1962

Card 2/2

[illegible]OV, [illegible].B.

Use of an SVD-1[illegible]A lamp in graduating IR-spectrometers.
Zav. lab. 31 no. 12:1536-1537 '65 ([illegible] 19:1)

1. Kazanskiy gosudarstvennyy universitet imeni Ul'yanova-Lenina.

L 31986-66 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AR6009965 SOURCE CODE: UR/0137/65/000/012/I033/I033

AUTHOR: Tagirov, R. B.; Stolov, A. L.; Mashkevich, S. A.

TITLE: Measurement of the work function of electrons for certain alloys

SOURCE: Ref. zh. Metallurgiya, Abs. 12I246

REF SOURCE: Sb. Itog. nauchn. konferentsiya Kazansk. un-ta za 1963 g. Sekts.: paramagnitn. rezonansa, spektroskopii i fiz. polimerov, radiofiz., astron., bion. Kazan', 1964, 25-27

TOPIC TAGS: steel, brass, bronze, molybdenum, electron interaction, monochromatic radiation, work function

ABSTRACT: The work function of electrons of a number of alloys has been measured by photoeffect observation using the coercive-field method. A sample, placed in the center of a spherical capacitor, was irradiated with monochromatic radiation. The measurements were carried out in vacuum $\leq 10^{-6}$ mm Hg over two wavelengths. The work function of electrons (ev) was measured for L-62 (3.9), LS-59-M (3.6), and L-63 (4.1) brass, St Kh18N9T (4.0) and St 10 (4.2) steel, B-2 (3.9) bronze, and Mo (3.8) molybdenum. For heat-resistant alloys with an Mo base, the work function of electrons

Card 1/2 UDC: 669.01:532.6

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ACC NR: AR6009965

ranges from 3.6 to 4.4 ev depending on composition and heat treatment. Heat treatment can increase or decrease the work function of electrons. G. Kovalev. [Translation of abstract]

[NT]

SUB CODE: 11, 20/ SUBM DATE: none

Physical Properties of alloys

Card 2/2

L 44819-66 EWT(d)/EWT(l)/T IJP(c) WW

ACC NR: AR6017240 SOURCE CODE: UR/0058/65/000/012/D038/D038

70
B

AUTHOR: Tagirov, R. B.

ORG: none

TITLE: Measurement of flame temperature from the infrared emission spectrum

SOURCE: Ref. zh. Fizika, Abs. 12D314

REF SOURCE: Sb. Itog. nauchn. konferentsiya Kazansk. un-ta za 1963 g. Sekts.: paramagnitn. rezonansa, spektroskopii i fiz. polimerov, radiofiz., astron., bion. Kazan' 1964, 40-42

TOPIC TAGS: flame temperature, temperature measurement, emission spectrum, IR spectrum

ABSTRACT: A method has been suggested for determining the temperature of non-equilibrium flames in comparing their spectra with the spectra of an equilibrium flame. [Translation of abstract]. [NT]

SUB CODE: 20/

LS
Card 1/1

L 08373-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JG

ACC NR: AR6028149 SOURCE CODE: UR/0058/66/000/005/H067/H067

AUTHOR: Tagirov, R. B.; Stolov, A. L.; Mashkevich, S. A. 68

TITLE: Measurement of the work function of electrons for several alloys

SOURCE: Ref. zh. Fizika, Abs. 5Zh477

REF. SOURCE: Sb. Itog. nauchn. konferentsiya Kazansk. un-ta za 1963 g. Sekts: paramagnitn. rezonansa. spektroskopii i fiz. polimerov, radiofiz., astron., bion. Kazan, 1964, 25-27

TOPIC TAGS: work function, photoeffect, brass, bronze, steel, molybdenum, surface finishing, refractory alloy

ABSTRACT: The method of delayed field and red boundary of the external photoeffect were used to measure the work function ϕ of different brands of brass, steel, bronze, and molybdenum. The measurements were made in an instrument constituting a spherical capacitor in vacuum of $\sim 10^{-6}$ mm Hg. It is established that in most cases ϕ decreases following surface finishing of the metal. When the surface is cleaned, the quantum yield γ greatly increases; γ decreases when the samples are kept in air, owing to the appearance of surface oxides. Investigations of a group of refractory alloys based on molybdenum revealed appreciable changes in ϕ, from 3.6 to 4.4 eV, depending on the composition and heat treatment conditions of the alloys. [Translation of abstract]

SUB CODE: 20

Card 1/1 nst

Source Code: UR/0048/66/030/006/1059/1061

Author: [illegible] P. A.; Potapov, A.P.; Tagirov, R. I.

Org: Institute of Metal Physics, Academy of Sciences, SSSR (Institut fiziki metallov Akademii nauk SSSR)

Title: Two-layer films of manganese and Permalloy with unidirectional anisotropy (Influence of the domain structure) [Report, All-Union Conference on the Physics of ferro- and antiferromagnetism held 2-7 July 1965 in Sverdlovsk]

Source: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 6, 1966, 1059-1061

Topic Tags: ferromagnetism, antiferromagnetism, ferromagnetic film, permalloy, manganese, magnetic domain structure

Abstract: In order to investigate the influence on domain structure of the exchange interaction between ferromagnetic and antiferromagnetic regions that is responsible for unidirectional anisotropy, the authors have recorded powder patterns of two-layer films of Permalloy and manganese, which, according to O. Massenet and R. Montmory (C.r.Acad. sci., 258, No.6, 1753 (1964)), can be made to exhibit unidirectional anisotropy at room temperature. The films of manganese and 82 Permalloy were successively vacuum deposited at 5×10^{-5} mm Hg to a thickness of 500 Å each onto a glass substrate held at 250° C in a magnetic field of 70 Oe. After deposition the films exhibited uniaxial magnetic anisotropy and a domain structure of the usual type, and magne-

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ACC NR: AP6029153

direction switching took place by nucleation followed by domain wall displacement. The domain walls exhibited cross-ties, i.e., they consisted of portions with right- and left-hand rotation of the spins in the plane of the film. Unidirectional anisotropy was induced in the films by annealing them for 1.5 hour at 350°, which resulted in the formation of an antiferromagnetic compound at the boundary between the manganese and the permalloy. The domain walls present in the film during the anneal were clamped, i.e., they could not be moved or destroyed by demagnetization in a decreasing alternating field. Switching took place by magnetization rotation in different directions, as was evinced by the appearance within the domains of walls perpendicular to the applied field. At saturation the positions of the original walls were marked by clusters of powder, and the walls reappeared in their original locations and with their original fine structures when the field was removed. The annealed films required much stronger fields for magnetization switching than did the unannealed ones. The clamping of the domain walls in the annealed films is explained as a result of the exchange interaction between the ferromagnetic and antiferromagnetic layers and the inability of moderately strong external fields to alter direction of the antiferromagnetism in the antiferromagnetic layers. Orig. art. has: 3 figures.

SUB CODE: 20 SUBM DATE: 00 ORIG. REF: 002 OTH REF: 002

L 50984-65 EWT(l)/EPA(s)-2/EWT(m)/EWP(i)/EWA(d)/T/EWP(t)/EWP(z)/EWP(b) Pt-7/Pi-4
IJP(c) JD/GG

ACCESSION NR: AP5011464 UR/0048/65/029/004/0706/0710

AUTHOR: Shur, Ya. S.; Glazer, A. A.; Tagirov, R. I.; Potapov, A. P.

TITLE: Concerning the nature of uniaxial anisotropy of thin ferromagnetic films /Report, Second All-Union Symposium on Thin Ferromagnetic Films held in Irkutsk 10-15 July 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 4, 1965, 706-710

TOPIC TAGS: ferromagnetic thin film, magnetic anisotropy, permalloy

ABSTRACT: While it is a familiar fact that thin ferromagnetic films prepared by vacuum evaporation onto substrates in a magnetic field exhibit uniaxial anisotropy, the nature and origin of this anisitropy are still obscure. Accordingly, the aim of the present work was to identify the possible reason for appearance of uniaxial anisotropy on the basis of investigation of some of the pertinent properties of Permalloy films. The results of a series of experiments showed that uniaxial anisotropy of Permalloy films, at any rate, is not connected with so-called "oriented superstructure". Note is made of the singular characteristics of the hysteresis loops of Permalloy films and the fact that the relative residual magnetization of films differs from that of bulk specimens. The effect of annealing at different

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L 50984-65

ACCESSION NR: AP5011464

temperatures on some of the magnetic and electric properties of Permalloy films is discussed (after annealing at 400° 79 Permalloy films become isotropic). It is concluded that the cause of uniaxial anisotropy in thin polycrystalline films is shape (geometric) anisotropy of the single domain grains, separated from each other by less magnetic boundaries. The size of the grains must be small (not over a few hundred Angstroms) so that the grains will be single domain ones and the volume of the intergrain boundries will be commensurate with the volume of the grains. It follows that uniaxial anisotropy need not be restricted to very thin films, but might be evinced even in "bulk" specimens, provided they are composed of sufficiently small grains of elongated shape and arrayed with their longest axes in the same direction. Orig. art. has: 2 figures.

ASSOCIATION: Institut fiziki metallov Akademii nauk SSSR (Institute of Physics of Metals, Academy of Sciences, SSSR)

SUBMITTED: 00 ENCL: 00 SUB CODE: EM, MM

NR REF SOV: 003 OTHER: 005

Card 2/2

ACC NR: AP6033565 SOURCE CODE: UR/0181/66/008/010/3022/3031

AUTHOR: Glazer, A. A.; Potapov, A. P.; Tagirov, R. I.; Shur, Ya. S.

ORG: Institute of Physics of Metals, AN SSSR, Sverdlovsk (Institut fiziki metallov AN SSSR)

TITLE: Exchange anisotropy in thin magnetic films

SOURCE: Fizika tverdogo tela, v. 8, no. 10, 1966, 3022-3031

TOPIC TAGS: manganese, permalloy, magnetic anisotropy, ferromagnetic film, antiferromagnetic material, magnetic hysteresis, hysteresis loop, metal diffusion

ABSTRACT: The purpose of the investigation was to study systematically the magnetic properties of two-layer manganese-permalloy films and especially to determine the regularities that result from exchange interaction between the ferromagnetic and antiferromagnetic regions in such substances. The samples were produced in the form of round spots of 18 mm dia. by successive sputtering of layers of manganese and 82-permalloy on discs cut from cover classes in a vacuum of 5×10^{-5} mm Hg. The sputtering was in a magnetic field of 70 Oe at a temperature 250C. The layer thickness was 400 - 1500 Å. The film characteristics measured were the hysteresis loops in different directions in the plane of the film, the torque curves, and the domain structure. The measurements were made after annealing at 350C and cooling in the magnetic field. The films so treated exhibit a domain structure and all the attributes characteristic of substances with exchange (unidirectional) anisotropy, namely a shift in

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ACC NR: AP6033565

the hysteresis loop, proportionality of the torque to the sine of the angle, and loss to rotational hysteresis in strong fields. This anisotropy is apparently due to exchange interaction between the permalloy layer with the antiferromagnetic regions produced by mutual diffusion of the iron, nickel, and manganese. The angular dependence of the magnetic properties can be qualitatively described in terms of the rotation theory, extended to the case of a uniaxial film. The rotational-hysteresis loss is due to inhomogeneity of the exchange anisotropy. The authors thank V. I. Khrabrov for processing the samples in pulsed magnetic fields and A. I. Mitsek for useful discussions. Orig. art. has: 7 figures and 6 formulas.

SUB CODE: 20/ SUBM DATE: 04Apr66/ ORIG REF: 004/ OTH REF: 004

Card 2/2

S/179/61/000/005/005/022
E031/E426

26.2111

AUTHOR: Tagirov, R.K. (Moscow)

TITLE: The determination of the base pressure and temperature when sonic or supersonic flow undergoes a sudden expansion

PERIODICAL: Akademiya nauk SSSR, Izvestiya, Otdeleniye tekhnicheskikh nauk, Mekhanika i mashinostroyeniye. no.5, 1961, 30-37

TEXT: It is assumed that the static pressure in the mixing region is equal to that of the undisturbed flow; that the base temperature is constant in the stagnation region with the exception of a thin layer at the walls and that the velocity profile of the boundary layer in the expansion wave is given by a power law. The method of solution is based on that of H.H.Korst (Ref.1: J. Appl. Mech. 1957, 23, no.4); it is assumed that empirical relations based on data given in Korst's paper, and the velocity profile are valid for isothermal and non-isothermal two-dimensional and axisymmetric flows. In the case of a sudden expansion of an axisymmetric flow from the axis, the position of the shock is determined from the intersection of the boundary of

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X

the ideal stream with the wall of the channel. If the expansion is towards the axis, the position of the shock can be determined approximately from the intersection of the zero stream line (the lower limit of the mixing region) with the axis of symmetry. There is a comparison between the calculated base pressure and experimental results which shows qualitative agreement. A method of calculating the base temperature is also given. There are 7 figures and 8 references, 1 Soviet-bloc, 1 Russian translation from non-Soviet-bloc publication and 6 non-Soviet-bloc. The four most recent references to English language publications read as follows: Ref.1: as quoted in text. Ref.2: Chow W.L. J. Aero Space Sci., 1959, 26, no.5; Ref.6: Kurzweg H.H. J. Aeronaut. Sci., 1951, v.18, no.11. Ref.7: Page R.H. ARS Journal, 1959, v.29, no.6.

SUBMITTED: April 11, 1961

Card 2/2

X

TAGIROV, R.K. (Moskva)

Calculating thermal flows in case of two different supersonic flows about a bend. Izv. AN SSSR. Mekh. i mashinostr. no.6:55-61 N-D '63. (MIRA 17:1)

L 29872-66 EWT(1)/EWP(m) WW

ACC NR: AP6013217 SOURCE CODE: UR/0421/66/000/002/0145/0148

AUTHOR: Tagirov, R. K. (Moscow)

ORG: none

TITLE: The effect of the initial boundary layer on the base pressure

SOURCE: AN SSSR. Izvestiya. Mekhanika zhidkosti i gaza, no. 2, 1966, 145-148

TOPIC TAGS: boundary layer theory, fluid flow

ABSTRACT: The article considers two cases of the problem: the first where the thickness of the initial boundary layer is equal to zero, and the second where it is greater than zero. In the first case (see Fig. 1)

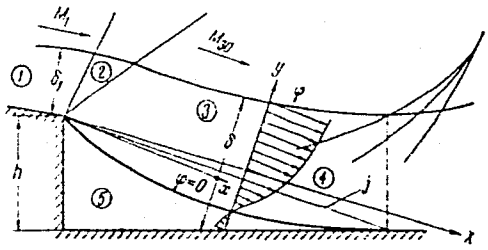

Figure 1

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ACC NR: AP6013217 O

it is assumed that the flow pattern consists of five parts: 1) the entering flow region; 2) the region of fan shaped expansion of the rarefaction wave; 3) the mixing region; 4) the region of increased pressure; 5) the base region. In the mathematical treatment of the case where the thickness of the initial boundary layer is greater than zero, the basic assumptions and the scheme of calculation are similar to the previous case. It was found that, in about half the cases, results of theoretical calculations were higher than the experimental data. Orig. art. has: 5 formulas and 3 figures.

SUB CODE: 20/ SUBM DATE: 090ct64/ ORIG REF: 004/ OTH REF: 007

Card 2/2

KITAYNIK, A.U.; LARIONOV, N.N., zhurnalist; BRATCHIKOV, B., zhurnalist; BYKOV, V., zhurnalist; VOLKOV, Ye., zhurnalist; VOSKRESENSKIY, N., zhurnalist; GERVASH, A., zhurnalist; GORDIN, A., zhurnalist; GILENKO, A., zhurnalist; DASHKOV, S., zhurnalist; DROBOTUSHENKO, A., zhurnalist; YERSHOV, N., zhurnalist; ZHULYABIN, A., zhurnalist; KRASNOV, I., zhurnalist; LUCHINETSKIY, Ye., zhurnalist; LYKOV, M., zhurnalist; MEYSAK, N., zhurnalist; PADERIN, G., zhurnalist; PAL'M, A., zhurnalist; PONOMAREV, P., zhurnalist; RUBINA, M., zhurnalist; TAGIROV, T., zhurnalist; TIMOFEYEV, B., zhurnalist; YANSHIN, V., zhurnalist; TRUBITSIN, N.A., ctv.red.; OMBYSH-KUZNETSOV, S., red.izd-va; TOBUKH, A., tekhn.red.

[Novosibirsk; a collection] Novosibirsk; sbornik. Novosibirskoe knizhnoe izd-vo, 1961. 180 p. (MIRA 15:5)

(Novosibirsk--History) (Novosibirsk--Description)

28685

24.7600 1043 1144 1385

S/181/61/003/009/017/039
B102/B104

AUTHORS: Tagirov, V. I., and Kuliyev, A. A.

TITLE: Study of the distribution coefficients of tantalum in germanium on its crystallization

PERIODICAL: Fizika tverdogo tela, v. 3, no. 9, 1961, 2669 - 2671

TEXT: The distribution of the elements of group V in germanium has hitherto been insufficiently studied although the knowledge of these rules is of scientific and technical interest. The Ta distribution in Ge has not been studied at all. The authors studied the distribution of Ta^{182} in Ge. Using the method by Burton et al. the authors determined the effective distribution coefficient of Ta during the crystallization of Ge as a function of the growth rate of the single crystal. K_{eff} was calculated by the equation $K_{eff} = K_o / \left[K_o + (1-K_o)\exp(-v\delta/D)\right]$ where K_o is the equilibrium distribution coefficient, v the growth rate, D the diffusion coefficient of the impurities in the liquid, δ the layer

Card 1/3

S/181/61/003/009/017/039
B102/B104

Study of the distribution coefficients...

thickness in the melt near the crystallization front. The authors used 2.5 g of pure germanium (resistivity 50 ohm.cm) which was melted together with 5 mg of Ta^{182} (specific activity 1000 mcuries/g) in a quartz ampul at 10^{-4} mm Hg and at 1000°C. In order to safeguard maximum even distribution it was kept in liquid state for a certain time and then well mixed. The thus obtained ligature was used for alloying pure Ge with Ta^{182}. The pure Ge was melted together with the ligature and the single crystals were then grown from the melt. First, the authors determined the dependence of the absorption of tantalum emission in germanium on the amount of germanium by a comparison with a standard specimen. It was found that absorption (in % of the maximum activity) exponentially decreased with increasing specimen weight. A study of the activity distribution along the specimen showed that the activity exponentially increased with increasing distance from the primary crystallization front. The main part of the tantalum impurity accumulated at the end of the specimen. K_{eff} as a function of the growth rate of the Ge single crystal proved to be a weakly nonlinearly increasing function and $\ln(1/K_{eff} - 1)$ as a function of

Study of the distribution coefficients...

v proved to be a descending straight intersecting the ordinate. The distance between point of intersection and origin is $\ln(1/K_o - 1)$ from wh[illegible] the coefficient of equilibrium distribution was calculated to be [illegible]. There are 4 figures and 2 non-Soviet references. They read as follows: [illegible] A. Burton, R. J. Prim, W. P. Slichter, J. Chem. Phys., 21, [illegible], 1953. [illegible] A. Burton, E. D. Kolb, W. P. Slichter, J. D. Struthers, J. Chem. Phys., 21, 11, 1991, 1953

ASSOCIATION: Institut fiziki AN AzSSR Baku (Institute of Physics of the Azerbaydzhanskaya SSR, Baku)

SUBMITTED April 10, 1961

Card 3/3

S/233/62/000/001/001/001
I033/I233

AUTHOR Tagirov, V. I., and Kuliyev, A.A

TITLE Diffusion of tantalum in germanium crystals

PERIODICAL Akademiya nauk Azerbaydzhanskoy SSR. Izvestiya. Seriya fiziko-matematicheskikh i tekhnicheskikh nauk, no. 1, 1962, 65-68

TEXT: The diffusion coefficient of Ta^{182} in single germanium crystals was investigated by slicing off thin layers. Samples were annealed for 15 to 60 hours. Diffusion experiments were carried out between 750–900°C and 800–900°C; the specific resistances of the samples were 10 and 45 ohm·cm, respectively. Values of diffusion coefficients are:

$$D_{\rho = 10\ \text{ohm·cm}} = 2.5 \cdot 10^{-6} \exp(-1.16/kT)\ \text{cm}^2/\text{sec}$$

and

$$D_{\rho = 45\ \text{ohm·cm}} = 0.2 \exp(-2.86/kT)\ \text{cm}^2/\text{sec}.$$

There are 2 figures.

Card 1/1

S/181/62/004/001/043/052
B111/B104

AUTHORS: Tagirov, V. I., and Kuliyev, A. A.

TITLE: Diffusion and solubility of thallium in germanium

PERIODICAL: Fizika tverdogo tela, v. 4, no. 1, 1962, 272 - 275

TEXT: The measurement was made with the isotope Tl^{204} (electron emitter, 2.71 years, 0.765 Mev) and with monocrystalline specimens of germanium (43 ohm·cm). First, the specimens were ground and then etched in boiling perhydrol. The diffusion was studied by removing thin layers and determining the distribution of Tl in them by a measurement of activity with an MCT-17(MST-17) end-window counter. When the concentration of Tl^{204} on the surface of the specimen is permanently constant, the concentration distribution is given by $c(x, t) = c_0(1 - \mathrm{erf}\, u)$, where c_0 is the solubility of Tl in Ge at a given temperature, $u = x/2\sqrt{Dt}$, x is the penetration depth, t is the duration of diffusion annealing, and D is the diffusion coefficient. A constant Tl concentration on the surface can be achieved by using saturated Tl vapor. Attempts to determine the temperature dependence

Card 1/3

Diffusion and solubility of ...

of the diffusion constant were made between 800 and 930°C. Alloys formed above 930°C rendered measurements impossible. The diffusion coefficient is given by $D = 1.7 \cdot 10^{3} \exp(-3.4/kT)$ cm^2/sec. The diffusion coefficients and the solubility of other elements of the same sub-group in germanium exhibit correlation as in the case of Tl. At ~917°C the solubility of Tl reaches a maximum of $9.5 \cdot 10^{18}$ at/cm^3. The activation energy arising in the diffusion of Tl in Ge is greater than the self-diffusion energy of Ge. The same is true for Cd, B, and Pb. It is therefore assumed that, like in the case of Cd, diffusion proceeds from vacancy to vacancy. G. B. Abdullayev, Corresponding Member AS Azerbaydzhanskaya SSR, and M. G. Shakhtakhtinskiy, Candidate of Physics and Mathematics, are thanked for discussions. There are 2 figures and 10 references: 4 Soviet and 6 non-Soviet. The four most recent references to English-language publications read as follows: F. M. Smits, Proc. IRE, 46, 6, 1958; B. Goldstein, Phys. Rev., 118, 4, 1960; R. A. Swalin, J. Appl. Phys., 29, 4, 1958; W. C. Dunlap, Phys. Rev., 94, 6, 1954.

Card 2/3

S/181/62/004/001/043/052
B111/B104

Diffusion and solubility of ...

ASSOCIATION: Institut fiziki AN Az. SSR Baku (Institute of Physics AS Azerbaydzhanskaya SSR, Baku)

SUBMITTED: July 1, 1961 (initially)
September 11, 1961 (after revision)

Card 3/3

ACCESSION NR: AP4012598 S/0233/63/000/005/0063/0068

AUTHORS: Tagirov, V.I.; Kuliyev, A.A.

TITLE: Electrical conductivity of germanium single crystals alloyed with tantalum and thallium

SOURCE: AN AzerbSSR. Izv. Ser. fiz.-matem. i tekhn. nauk, no. 5, 1963, 63-68

TOPIC TAGS: electrical conductivity, germanium, germanium alloy, tantalum, thallium, semiconductor germanium electrical conductivity radioactive thallium, solid state physics

ABSTRACT: The authors report the results of investigation of the effect of thallium and tantalum on the type and the magnitude of conductivity of germanium, and the relationship between the number of atoms of admixtures and that of the current carriers. Germanium was purified by zone melting. Ten to fifteen passes were sufficient to increase the resistivity from 1 to 60 ohm.cm. Radioactive thallums 204 and tantalum 182 were introduced as alloying elements.

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ACCESSION NR: AP4012598

The concentration of the current carriers was determined by the Hall-effect. The type of conductivity was determined by the sign of the emf. The concentration of the admixtures was found by the resistivity. The measurement of the resistivity of alloys as a function of temperature is given in diagrams. They are interpreted by means of the dependence of the number of current carriers (electron and holes) on the amount of admixtures.

ASSOCIATION: None

SUBMITTED: 00	DATE ACQ: 26Feb64	ENCL: 00
SUB CODE: PH, GE	NO REF SOV: 005	OTHER: 008

Card 2/2

L 5083-66 EWT(1)/EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD

ACC NR: AP5024563 UR/0070/65/010/005/0751/0754

548.5

44

B

AUTHOR: Tairov, S.I.; Tagirov, V.I.; Shakhtakhtinskiy, M.G.; Kuliyev, A.A.

TITLE: Preparation of single-crystal germanium-silicon alloys

SOURCE: Kristallografiya, v. 10, no. 5, 1965, 751-754

TOPIC TAGS: single crystal growing, germanium alloy, silicon alloy

ABSTRACT: The purpose of the work was to obtain homogeneous single crystals of a germanium-silicon alloy containing 15 at.% silicon, inasmuch as a pronounced change in the physical properties of Ge-Si alloys is observed in this region. Experiments showed that without a single-crystal seed of the alloy itself, single crystals of the Ge-Si system could be obtained only at extremely slow pulling rates which are very difficult to achieve in practice. The main difficulty, in addition to liquation, is the lack of a suitable seed. Single crystals of the Ge-Si alloy containing 15 at.% Si were grown by using a single-crystal seed of this alloy, and liquation was eliminated by selecting the melt composition in accordance with the composition of the grown solid phase based on the phase diagram, and by growing the crystal at a slow rate. The homogeneity of the sample was achieved by keeping the content of the melt constant. Orig. art. has: 2 figures.

ASSOCIATION: Institut fiziki AN Azerb. SSR (Institute of Physics, AN Azerb. SSR)

SUBMITTED: 09Feb65 ENCL: 00 SUB CODE: SS, MM

NO REF SOV: 006 OTHER: 004

Card 1/1

0901 0198

ACC NR: AP6023951 SOURCE CODE: UR/0233/65/000/006/0084/0088

AUTHOR: Tairov, S. I.; Tagirov, V. I.; Kuliyev, A. A.

ORG: none

TITLE: Preparation of single crystals of solid solutions of the germanium-silicon system and study of their electric properties

SOURCE: AN AzerbSSR. Izv. Ser fiz-tekhn i matem n, no. 6, 1965, 84-88

TOPIC TAGS: single crystal growing, silicon alloy, germanium alloy, semiconductor conductivity, Hall constant

ABSTRACT: Single crystals of solid solutions of the Ge-Si system were prepared by Czochralski's method. Liquation was elminated by selecting (on the basis of the phase diagram) a melt composition corresponding to the composition of the grown solid phase, and by growing the crystal at a slow rate. The electrical measurements were carried out on specimens of such shape that the contacts did not affect the results. The temperature dependence of the electrical conductivity σ and of the Hall constant R were measured on p-type specimens containing 4.4 at. % Si (see Fig. 1). From the slope of the curve $\log |R|T^{3/2}$ vs. 1000/T, the value of the forbidden gap width was found to be $\Delta E = 0.78 \pm 0.02$ eV. The ratio U_n/U_p (where U_n is the electron mobility and U_p the hole mobility) was found to be 1.8. The linearity of the curve representing U_p vs. 3/2 log T indicates a lattice scattering mechanism. The temperature de-

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L 04970-67

ACC NR: AP6023951

pendence of the hole mobility may be expressed by the formula

$$U_p = 8.1 \times 10^6 T^{-3/2} \text{ cm}^2/\text{V sec.}$$

Orig. art. has: 6 figures and 2 formulas.

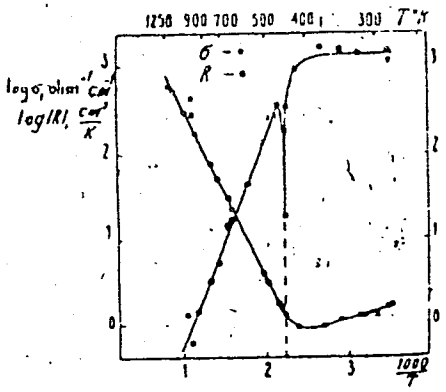

Fig. 1. Temperature dependence of the electrical conductivity (σ) and Hall constant (R) for p-type samples containing 4.4 at. % silicon.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 006

Card 2/2

ACC NR: AP6033269 SOURCE CODE: UR/0020/66/170/004/0822/0824

AUTHOR: Davzhanov, Kh.; Shakhtakhtinskiy, M. G.; Tagirov, V. I.; Aliyeva, B. S.; Shilkin, A. I.; Kuliyev, A. A.

ORG: Institute of Physics, Academy of Sciences, AzerbSSR)

TITLE: High temperature inversion of the Hall coefficient in tellurium

SOURCE: AN SSSR. Doklady, v. 170, no. 4, 1966, 822-824

TOPIC TAGS: tellurium, Hall coefficient, temperature dependence, energy band structure, impurity conductivity

ABSTRACT: To obtain more information on the band structure and on the mechanism of impurity conductivity of tellurium, the authors measured the electric conductivity and the Hall coefficient of tellurium doped with thallium. In view of the low solubility of thallium in tellurium, the impurity concentration was determined by a radioactive tracer method. The apparatus and technique used to grow the tellurium single crystals were described elsewhere (Pribory i tekhn. experimenta no. 5, 172, 1961). The measurements were made by a standard method in the temperature interval 77 - 530K, both in the direction of the principal axis of the crystal and perpendicular to it. The results show that the Hall coefficient is independent of the direction of the crystallographic axes, but the electric conductivity is. In spite of the similarity between selenium and tellurium in structure, thallium has a different effect on the electric properties of tellurium than of selenium. The admixture of thallium greatly

Card 1/2 UDC: 539.293: 537

ACC NR: AP6033269

increases the electric conductivity of the tellurium, which remains of the p-type regardless of the thallium content. With increasing thallium content, the low temperature inversion point of the Hall coefficient shifts toward higher temperatures. The high temperature inversion point is shifted toward lower temperatures with increasing thallium concentration. A table of inversion temperatures as functions of the concentration is included. Although the number of holes per thallium atom is on the average 0.5, this still does not mean that the thallium atoms are direct acceptors in the tellurium lattice. The change in the second inversion point of the Hall coefficient of tellurium can be attributed either to the deformation of the energy band during the alloying of tellurium by thallium, or to the change of the density of states in the energy band. This report was presented by Academician N. P. Sazhin 10 January 1966. Orig. art. has: 2 figures and 1 table.

SUB CODE: 20/ SUBM DATE: 04Jan66/ ORIG REF: 005/ OTH REF: 005

Card 2/2

TAGIROVA, A. Kh.

Sulfate-ion determination. A. M. Vasil'ev and [illegible]. Trudy Kazan. Khim.-Tekhnol. Inst. im. S. M. Kirova 1954-55, No. 19-20, [illegible].—Detailed expts. to study the effect of the presence of chlorides of several elements on [illegible] of $BaSO_4$ were performed. The [illegible] $BaSO_4$ was [illegible] for 1 hr. [illegible] $6H_2O$ in [illegible]. The [illegible] amt. [illegible] pptd. with $BaSO_4$ in the form of [illegible] SO_4^{--}, but not in the Cl⁻ form. The [illegible] (up to 4.5%) of $BaSO_4$ ppt. was due to [illegible] and volatilization of [illegible]. The extra loss due to [illegible] H_2O was 0.5%. The addn. of [illegible] requires an [illegible] HCl in soln., therefore the pptn. of $BaSO_4$ was done in 4M HCl, which resulted in +6% error in the final [illegible] of $BaSO_4$. Addn. of [illegible] in the mol. [illegible] to 12:1, resulted in the same high error [illegible]. The results of addn. of VCl_3, $AuCl_3$, $InCl_3$, and [illegible] are given. The addn. of $NiCl_2.6H_2O$ must be done at 100° with 5 ml. of 10M HCl. Addn. of $CoCl_2$ has no effect on $BaSO_4$ ppt. The result with the addn. of [illegible] was not successful. Addn. of $MnCl_2$ has no effect on the $BaSO_4$ ppt. SO_4^{--} could be detd. directly in the presence of the following chlorides at the limiting mol. concn. ratios to H_2SO_4 listed: (a) $NiCl_2$ 14.4:1; (b) $CoCl_2$ 30:1; (c) $MnCl_2$ 15:1. 25 references. Alexis N. Pestoff

TAGIROVA, D.A.

Interrelationship between the function of kidneys and salivary glands. Vop. biol. i kraev. med. no.4:382-385 '63. (MIRA 17:2)

TURSUNOV, Z.T.; TAGIROVA, D.A.

Interrelationship between the functions of the kidneys and the salivary glands. Uzb. biol. zhur. 8 no.5:39-44 '64
(MIRA 18:2)

1. Institut krayevoy eksperimental'noy meditsiny AMN SSSR.

USSR/Chemical Technology -- Chemical Products and Their Application. Pesticides, I-7

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 1458

Author: Tagirova, E.

Institution: None

Title: Aerosols in the Control of Butterflies

Original Periodical: Zashchita rasteniy ot wrediteley i bolezney, 1956, No 1, 47-49

Abstract: Thermomechanical aerosols soncisting of an 8% solution of DDT or 8% DDT + 4% BHC in mineral oils were found to be effective in the control of the adults of the corn borer, mallow moth, cabbage butterfly, and the apple moth. With an application does of 8-10 l of solution per hectare, the kill-rate for the adults of the oak leaf roller is 85-99%. The kill-rate for the poplar moth is 100%. When the aerosols were used against the apple moth, fruit damage was reduced to less than 30%.

Card 1/1

TAGIROVA, E. F.

USSR/General and Special Zoology. Insects. Injurious Insects and Ticks. Pests of Cereal Crops

Abs Jour : Ref Zhur - Biol., No 11, 1958, No 49604

Author : Churakov A.I., Tagirova E.F.
Inst : -
Title : Aerosols in the Control of the Corn Borer

Orig Pub : Zashchita rast. ot vredit. i bolezney, 1957, No 2, 35

Abstract : The following were the indices of the aerosol treatment: the mist-forming power of AG-L6 was 3.6 litres per 1 minute, the rapidity of the machine's movement - not more than 4 km. per hour, the working range - 170-200m., the outlay of 6% oily DDT solution - 6-8 l/ha., the work - to be conducted at night (the maximum flight of the moths was from 10 p.m. to 2 a.m.). The first treatment was carried out at the emergence of 5-7% of the moths of the first generation and

Card : 1/2

POTEKHIN, V.V.; TAGIROVA, K.M.

Case of angiosarcoma of the clavicle. Zdrav. Turk. 8 no.2: 21-22 F'64 (MIRA 17:4)

1. Iz kafedry propedevticheskoy khirurgii (zav. - prof. N.M. Tachmuradov) i rentgenologii (ispolnyayushchiy obyazannosti zeveduyushchego V.V. Slesarev) Turmenskogo gosudarstvennogo meditsinskogo instituta i Turkmenskoy respublikanskoy klinicheskoy bol'nitsy imeni Pirogova) glavnyy vrach M.B. Shapiro)

VASIL'EV, A.A., inzh.; KHLEBNIKOV, N.I., inzh.; SIBAKOV, Yu.G., inzh.; FOMICHEV, V.A., inzh.; MELAMED, M.F., inzh.; POTAPOVA, T.I., inzh.; KOLYUZHNYY, G.G., inzh.; TAGIROVA, M.I., inzh.; SHIFMAN, O.I., inzh.; STORTS, A.A., inzh.; VASIL'EV, A.A., inzh., otv. za vypusk; KHITROV, P.A., tekhn. red.

[Safety engineering regulations for operating traction substations and sectionalization posts of electrified railroads] Pravila tekhniki bezopasnosti pri ekspluatatsii tiagovykh podstantsii i postov sektsionirovaniia elektrifitsirovannykh zheleznykh dorog. Moskva, Transzheldorizdat, 1962. 202 p. (MIRA 15:8)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye elektrifikatsii i energeticheskogo khozyaystva. 2. TsE Ministerstva putey soobshcheniya (for Khlebnikov). 3. TSentral'nyy komitet profsoyuza (for Fomichev). 4. Moskovskaya zheleznaya doroga (for Kolyuzhnyy). 5. Sverdlovskaya zheleznaya doroga (for Tagirova). 6. Yuzhno-Ural'skaya zheleznaya doroga (for Shifman). 7. Zapadno-Sibirskaya zheleznaya doroga (for Storts).

(Electric railroads--Safety regulations)

TAGIROVA, R. Kh.

Kh. Tagirova, and O. S. Ivanov
the temperatures of Phase Tr
Cooled γ- and β-Solid Solutions of

., and O. S. Ivanov. Effect of
king of Uranium Alloys

and O. S. Ivanov. Kinetics of
β-Phase Retained by Rapid (Water) Quen
Alloys With Aluminum, Silicon, Iron, Nick
Fissium

., and O. S. Ivanov. Study of the
Additions in Quenched Uranium Alloys
rious Temperatures

ov, O. S., G. N. Bargrov, and A. T. Semenchenkov.
the Phase Composition and Aging of Binary Uranium All
With up to 3-5 at% Zirconium or Molybdenum

IVANOV, O. S. Doctor of Chemical Sciences ed. Stroyeniye i svoystva splavov urana, toriya i XXXXXXXXXXXX tsirkoniya; sbornik statey (Structure and Properties of Uranium, Thorium and Zirconium Alloys; Collection of Articles) Moscow, Gosatomizdat, 1963.

TAGIROVA, R. Kh.

[illegible] (Cont.)

[illegible], and [illegible] I. Kuznetsova. Phase Diagram [illegible] Uranium-Chromium System

[illegible], and O. S. Ivanov. The [illegible] Structure of Uranium-[illegible] Alloys of the Uranium-[illegible] System at [illegible], 550°, and 600°C

[illegible] and R. Kh. Tagirova. Polythermal Section [illegible] Uranium-[illegible]-Molybdenum Ternary Phase Diagram [illegible]) Uranium

[illegible], and O. S. Ivanov. Decomposition [illegible] Solid Solution in Uranium-Niobium and Uranium-Zirconium [illegible] Alloys

[illegible]-Phase Region in the [illegible] Uranium-Niobium-Molybdenum System [illegible] Temperatures Below [illegible]

[illegible] Thorium, [illegible]
[illegible] of Articles) Moscow, Gosatom [illegible]
[illegible] copies printed.
[illegible] G. [illegible], R. Kh. [illegible], and O. S. Ivanov.
[illegible] Resistance and Mechanical Properties of Low-[illegible]
[illegible] Low-Tin Zirconium Alloys

[illegible]kov, A. T., O. S. Ivanov, and B. B. [illegible],
[illegible] Resistance of Low-Alloy Zr-Mo-Sn, Zr-Cr-
[illegible] Alloys

[illegible], V. B., [illegible]ovich. [illegible]
[illegible] of Zirconi[illegible] Alloys With Additions [illegible]
[illegible], Vanadium, [illegible]

[illegible] [illegible]shinevskiy, V. B., [illegible] Grigorovich. Study of Ter[illegible]
Zirconium-Aluminum-Tin Alloys

40. Gomozov, L. I., V. B. Mishinevskiy, O. S. Ivanov, and [illegible]
Grigorovich. Corrosion Resistance of Some Binary and
Ternary Iodide-, Magnesium-Reduced-, or Electrolytic Zirco-
nium-Base Alloys

Card 9/10

ACCESSION NR: AT4016522 S/2648/63/000/009/0003/0066

AUTHOR: Kask, L. I.; Tagirzyanov, A. T.

TITLE: Macrosynoptic conditions of extremely cold and extremely warm Aprils in Central Asia

SOURCE: Tashkent. Sredneaziatskiy nauchno-issledovatel'skiy gidrometeorologiche-skiy institut. Trudy*, no. 9(24), 1963. Voprosy* dolgosrochny*kh prognozov pogody* (Problems of long term weather prediction), 3-66

TOPIC TAGS: meteorology, climatology, climate, weather forecasting, long-range weather forecasting, local meteorological phenomenon, air temperature, atmospheric circulation, Central Asia climatology

ABSTRACT: A study was made of the macrosynoptic conditions of extremely cold and extremely warm Aprils in Central Asia. Section headings indicate organization of the presentation: Introduction. A. General regime of Aprils with temperature extremes. 1. Temperature characteristics. II. Synoptic processes causing extremely cold and extremely warm Aprils in Central Asia. 1. Extremely cold Aprils. 2.. Extremely warm Aprils. B. Prognostic indications for determination of Aprils with extreme temperatures. C. Additional prognostic indications. During the period 1900-1955 Aprils with extreme temperatures occurred in 46% of

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ACCESSION NR: AT4016522

all years; 25% were extremely cold and 21% extremely warm. The daily air temperature anomalies were: a) in extremely cold Aprils, -2C and below from 12 to 18 days and +2C and above from 2 to 5 days; b) in extremely warm Aprils, +2C and above from 11 to 18 days and -2C and below from 2 to 7 days. The absolute values of the mean daily air temperature were most frequently: a) in extremely cold Aprils, 6-10C in northern and 11-15C in central and southern regions; b) in extremely warm Aprils, 11-15C in northern regions and 16-20C in central and southern regions. Frosts in the air (decrease of temperature to 0C or lower) in the central and southern regions are observed: a) in extremely cold Aprils in 18-39% of the years in most southern and central regions and in 60-100% of the years in frost-prone regions, mostly in the first and second ten-day periods; b) in extremely warm Aprils in 0-14% of the years in most southern and central regions and in 25-40% of the years in frost-prone regions, mostly in the first 10-day period; c) in the northern regions, frosts in the air are observed in extremely cold Aprils in 75-100% of the years and in extremely warm Aprils in 75-91% of the years. The last frosts occur: a) in springs with an extremely cold April at times which mostly are average or close to late in comparison to the mean for Central Asia; b) in springs with an extremely warm April at times which mostly are average or close to early in comparison to the mean for Central Asia. The monthly precipitation total for most of Central Asia is: a) above or near the norm in extremely cold Aprils, but in certain years in central and southern

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ACCESSION NR: AT4016522

regions it is considerably above the norm; less than or near the norm in extremely warm Aprils, but in many years in the central regions it is considerably less than the norm. Extremely cold Aprils are caused by a predominance of three types of synoptic processes of a meridional character: a) processes with active anticyclonic activity over the European SSSR and cyclonic activity over Kazakhstan and Western Siberia; b) processes with active anticyclonic activity over Kazakhstan and Western Siberia. Extremely warm Aprils are caused by four types of synoptic processes, mostly associated with latitudinal circulation; but also with meridional processes in which southerly and southwesterly flow is maintained over Central Asia. If cold processes prevail in winter, the coming April will be extremely cold with a probability of 79%, but if, in addition, there are ultrapolar processes in the sector between 30-90°E in March, the probability increases to 89%. If such processes are not observed in this sector in March the mean monthly April air temperature will be above the norm with a probability of 75%. Temperatures also will be above the April norm, with a probability of 91%, if warm processes prevailed in winter and there were no ultrapolar processes in March. Neither an extremely cold winter nor an extremely warm March should be followed by an extremely cold April in Central Asia. Orig. art. has: 26 tables and 17 figures.

ASSOCIATION: SREDNEAZIATICHESKIY NAUCHNO-ISSLEDOVATEL'SKIY GIDROMETEOROLOGICHESKIY INSTITUT (Central Asian Hydrometeorological Scientific Research Institute)

Card 3/4

TAGIYEV, A.

Temporary sectional roads. Stroitel' no.1:29 Ja '61. (MIRA 14:2)
(Railroads, Narrow-gauge)

TAGIYEV, A.B.

Production of Cognac in Shamkhor and Khanlar regions. Za tekh.prog. 3 no.9:40-42 S '63. (MIRA 16:10)

1. Kirovabadskaya opytnaya stantsiya vinogradarstva i vinodeliya.

GAZIYAN, N.I.; TAGIYEV, A.E.

Lithophysical characteristics of oil-reservoir rocks of the Balakhan series of the region of Peschanyy Island. Azerb. neft. khoz. 38 no.2:5-9 F '59. (MIRA 12:5)
(Peschanyy Island--Petroleum geology)
(Peschanyy Island--Gas, Natural--Geology)

SERGEYEV, L.A.; SHAPIROVSKIY, N.I. [deceased]; BABAYEV, D.Kh.; GANBAROV, Yu.G.; AKHUNDOV, I.D.; TAGIYEV, Z.B.; TAGIYEV, A.I.; ISMAYLOVA, R.I.; UMANOVA, V.A.; GUSEYNOVA, N.N.; ALIZADE, Kh.A.; CHURLIN, V.V.; TOROPOVA, K.M.

First results of the use of the seismic method for the direct prospecting of oil and gas pools in the sea. Dokl. AN Azerb. SSR 20 no.9:27-31 '64. (MIRA 18:1)

1. Institut geologii i razrabotki goryuchkikh iskopayemykh AN SSSR i Azerbaydzhanskiy nauchno-issledovatel'skiy institut po dobyche nefti.

REGEL' A.R.; PAGIYEV, B.G.

Temperature dependence of the effect of a strong electric field in polycrystalline selenium. Fiz. tver. tela 5 no.10:2914-2921 O '63. (MIRA 16:11)

1. Institut poluprovodnikov AN SSSR, Leningrad, i Institut fiziki AN Az. SSR, Baku.

S/0181/64/006/004/1001/1005

ACCESSION NR: AP4028420

AUTHORS: Regel', A. R.; Tagiyev, B. G.

TITLE: Effect of bismuth impurities on the electrical conductivity of polycrystalline selenium in strong electrical fields

SOURCE: Fizika tverdogo tela, v. 6, no. 4, 1964, 1001-1005

TOPIC TAGS: semiconductor, selenium, bismuth, pulsed field, Frenkel formula, impurity effect, electric conductivity, electric field

ABSTRACT: Measurements were made with pulsed fields up to $4 \cdot 10^4$ V/cm in the temperature interval +20 to -130C. The choice of bismuth as the impurity was based on its use as a coating of selenium in the preparation of the latter as a rectifier on an aluminum base. Results of measurements show that bismuth impurities up to 0.1% by weight increase the electrical conductivity of selenium, but that further increase causes the conductivity to decline. Bismuth impurities diminish the coefficient β in Frenkel's formula $\sigma = \sigma_0 e^{\beta\sqrt{E}}$. The observed effects in a strong field, for pure selenium and bismuth-doped selenium, agree

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ACCESSION NR: AP4028420

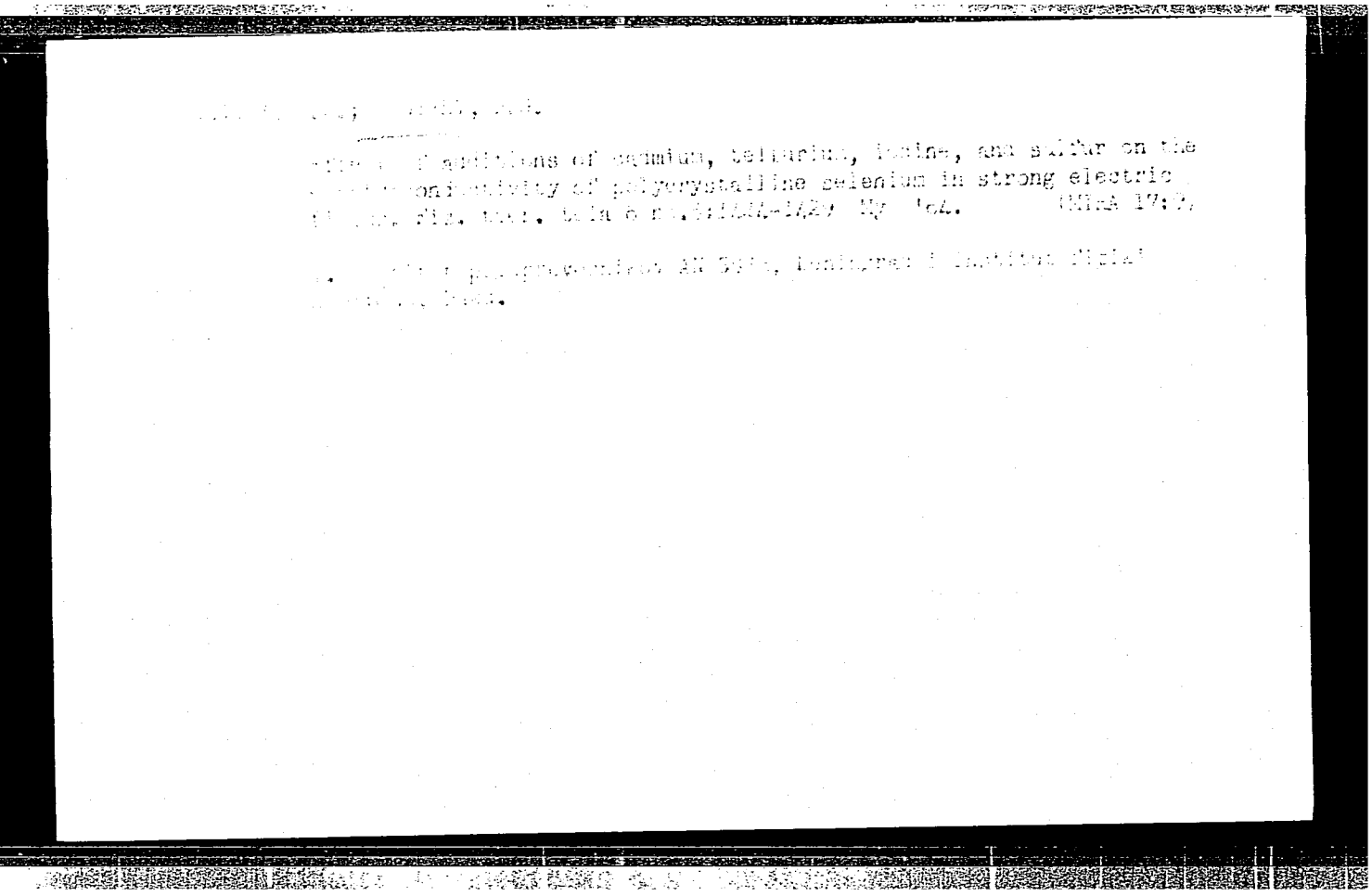
rather well with Frenkel's theory through a wide range of electrical field and of temperature. The effect of bismuth impurities, as with heat treatment, is expressed chiefly in increase in electrical conductivity of the selenium, and the dependence of this effect on the strength of the electrical field is rather weak. The authors conclude that the effect observed in bismuth-doped selenium is associated primarily with change in concentration of current carriers and not with change in mobility. Orig. art. has: 5 figures.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors AN SSSR); Institut fiziki AN Azerb. SSR, Baku (Institute of Physics AN Azerb. SSR)

SUBMITTED: 11Sep63 DATE ACQ: 27Apr64 ENCL: 00

SUB CODE: EC NO REF SOV: 014 OTHER: 010

Card 2/2



[redacted] A.I., [redacted] S.I.

Electroconductivity of a mixture of amorphous and crystalline selenium in strong electric fields. Fiz. tver. tela 7 no.3:928-930 Mr '65. (MIRA 18:4)

1. Institut poluprovodnikov AN SSSR, Leningrad i Institut fiziki AN Azerbaydzhanskoy SSR, Baku.

L 45187-65 EWT(l)/EWT(m)/EWP(e)/EWG(m)/EWP(t)/EWP(k)/EWP(z)/EWP(b) Pf-4 IJP(c)
RDW/JD
ACCESSION NR: AP5006914 S/0181/65/007/003/0928/0930

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B

AUTHOR: Regel', A. R.; Tagiyev, B. G.

TITLE: Electric conductivity of a mixture of amorphous and crystalline selenium in strong electric fields

27

SOURCE: Fizika tverdogo tela, v. 7, no. 3, 1965, 928-930

TOPIC TAGS: selenium, electric conductivity

21

ABSTRACT: The article presents experimental data on the electric conductivity of a mixture of polycrystalline and amorphous selenium in strong electric fields. These data make it possible to estimate more fully the role of the amorphous inclusions in samples of polycrystalline selenium and their effect on the conductivity. The samples were prepared from pulverized thoroughly mixed crystalline and amorphous selenium. The content of the amorphous selenium was 15, 35, and 50 wt.%. Rectangular plates 0.4--1.0 mm thick were prepared from the powder under pressure. The electric conductivity of the mixture was measured under pulsed conditions in strong electric fields up to 5 x 10^4 V/cm. The conductivity of six samples in each batch was measured in the temperature interval +20-- -100C, depending on the elec-

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tric field intensity. No noticeable change in the amorphous component was observed during the experiment. The measurements have shown that the electric conductivity decreases with increasing content of amorphous selenium. For example, at 10 kV/cm the electric conductivity of the polycrystalline selenium mixed with 0, 15, 35, and 50 wt.% of amorphous selenium was respectively 3×10^{-4}, 10^{-5}, 5×10^{-6}, and 3×10^{-6} $ohm^{-1}cm^{-1}$. In all the samples the electric conductivity of selenium increased with increasing electric field intensity. The results are discussed from the point of view of Frenkel's theory. It is concluded that the electric conductivity of polycrystalline selenium depends more strongly on the electric field than that of amorphous selenium. The effective activation energy of the carriers decreases with increasing electric field intensity and increases with increasing content of amorphous selenium. This is also in agreement with prevailing notions concerning the role of amorphous inclusions in polycrystalline selenium. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Institut poluprovodnikov AN SSSR, Leningrad (Institute of Semiconductors, AN SSSR); Institut fiziki AN AzSSR, Baku (Physics Institute, AN AzSSR)

L 45187-65

ACCESSION NR: AP5006914

SUBMITTED: 160ct64 ENCL: 00 SUB CODE: SS, EM

NR REF SOV: 007 OTHER: 004

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Card 3/3

AKHMEDOV, G.A.; ZEYNALOV, M.M.; SULTANOV, R.G.; TAGIYEV, E.A.

Correlating cross sections of the producing formation in the Apsheron Peninsula and southeastern Kobystan. Uch.zap. AGU. Geol.-geog.ser. no.4:81-88 '60. (MIRA 15:9)
(Apsheron Peninsula--Geology, Stratigraphic)
(Kobystan--Geology, Stratigraphic)

TAGIYEV, E.A.

Variation in thickness of the various stratigraphic units of the productive series of the area of Peschanyy Island. Dokl. AN Azerb. SSR 18 no.2:37-43 '62. (MIRA 15:7)

1. Gosudarstvennyy trest geologo-razvedochnykh predpriyatiy Azerbaydzhanskoy neftyanoy promyshlennosti. Predstavleno akademikom AN AzSSR M.V. Abramovichem.
(Peschanyy Island—Geology, Stratigraphic)

ALIYEV, A.K.; TAGIYEV, E.A.

Some geological data on the new oil- and gas-bearing region in the area of Peschanyy Island. Azerb. neft. khoz. 37 no.7:1-4 Jl '58. (MIRA 11:9)

(Apsheron region--Petroleum in submerged lands)
(Apsheron region--Gas, Natural--Geology)

SHARIFOV, E.F.; TAGIYEV, E.F.

Soil conditions and land improvement of industrial premises and problems of landscaping in Sumgait. Izv.AN Azerb.SSR.Ser.biol.i med.nauk no.5:59-67 '62. (MIRA 15:9)
(SUMGAIT--LANDSCAPE GARDENING)

SHAFIKOV, L.F.; TAGIYEV, E.F.

Mountain-forest Chestnut soils of the oak and hornbeam forests in the Shusha Forest Tract. Izv. AN AZe. b. Ser. biol. i med. nauk no. 2:73-78 '62. (MIRA 17:6)

TAGIYEV, E. I.

ZALKIN, S.L.; TAGIYEV, E.I.; GEL'FGAT, Ya.A., redaktor; REZNIK, A.A., redaktor; TITSKAYA, B.F., redaktor; POLOSINA, A.S., tekhnicheskiy redaktor.

[Double shaft drilling method for petroleum and gas well] Dvukhstvol'noe burenie neftianykh i gazovykh skvazhin. Moskva, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, 1954. 181 p. (MLRA 7:7)

(Petroleum--Well-boring) (Gas, Natural)

AID P - 3275

Subject : USSR/Mining

Card 1/1 Pub. 78 - 5/24

Authors : Tagiyev, E. I., D. D. Barkan, V. M. Slavskiy, F. F. Voskresenskiy, G. D. Vyskrebtsov

Title : Influence of vibrations on the speed of rotary drilling of hard formations by a three-cutter bit

Periodical : Neft. khoz., v. 33, #9, 20-28, S 1955

Abstract : At the All-Union Scientific Research Institute of Oil Drilling (VNIIburneft'), tests have been made to deterime the influence of forced vertical vibrations on the drilling speed of bits. An empiric formula has been devised in which the increase in speed of rotary drilling of hard formations by three-cutter bits due to forced vertical vibrations is calculated as a function of the parameters of the vibrator, the kind of drilling operations, the diameter of the bit, and specific properties of the drilled formations. Diagram, charts.

Institution : None

Submitted : No date

ZHIGACH, K.F., professor, otvetstvennyy redaktor; MURAV'YEV, I.M., professor, redaktor; TIKHOMIROV, A.A., kandidat ekonomicheskikh nauk, redaktor; YEGOROV, V.I., kandidat ekonomicheskikh nauk, redaktor; CHARYGIN, M.M., professor, redaktor; DUNAYEV, F.F., professor, redaktor; NAMETKIN, N.S., dotsent, redaktor; BIRYUKOV, V.I., dotsent, redaktor; YEGOROV, A.F., dotsent, redaktor; CHARNYY, I.A., professor, redaktor; CHERNOZHUKOV, P.I., professor, redaktor; KUZMAK, Ye.M., professor, redaktor; DOKHNOV, V.N., professor, redaktor; PANCHENKOV, G.M., professor, redaktor; ALMAZOV, N.A., dotsent, redaktor; TAGIYEV, K.I., redaktor; GUREVICH, redaktor; ZHIGACH, K.F., redaktor; DAYEV, G.A., vedushchiy redaktor; GENNAD'YEVA, I.M., tekhnicheskiy redaktor

[The tenth scientific and technical conference, 1955] Desiataia nauchno-tekhnicheskaia konferentsiia, 1955 g. Leningrad, Gos. nauchno-tekhn. izd-vo neftianoi i gorno-toplivnoi lit-ry, Leningradskoe otd-nie, 1956. 167 p. (MIRA 9:7)

1. Moscow. Moskovskiy neftyanoy institut. Nauchnoye studencheskoye obshchestvo
(Petroleum engineering) (Petroleum geology)

[illegible], V. I. (Prof.)

"Boring of Oil Wells,"

paper read at the Session of the Acad. Sci. USSR, on Scientific Problems of Automatic Production, 15-20 October 1956.
Avtomatika i telemekhanika, No. 2, p. 192-198, 1957.

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BARKAN, D.D.; VOSKRESENSKIY, F.F.; VYSKREBTSOV, G.D.; SLAVSKIY, V.M.; TAGIYEV, E.I.

Effect of vibrations on footage drilled by a single bit. Neft. khoz. 35 no.10:17-20 O '57. (MIRA 11:1)
(Boring machinery--Vibration)

CHERNOZHUKOV, N.I., prof., doktor tekhn.nauk, red.; ZHIGACH, K.F., prof., red.; MURAV'YEV, I.M., prof.,red.; TIKHOMIROV, A.A., kand.ekon. nauk, red.; YEGOROV, V.I., kand.ekon.nauk, red.; CHARYGIN, M.M., prof., red.; DUNAYEV, F.F., prof., red.; KUZMAK, Ye.M., prof., red.; CHARNYY, I.A., prof., red.; PANCHENKOV, G.M., prof., red.; DAKHNOV, V.N., prof., red.; NAMETKIN, N.S., doktor khim.nauk, red.; ALMAZOV, N.A., dotsent, red.; VINOGRADOV, V.N., kand.tekhn.nauk, red.; BIRYUKOV, V.I., kand.tekhn.nauk, red.; TAGIYEV, E.I., red.; GUREVICH, V.M., red.; ZAMARAYEVA, K.M., vedushchiy red.; MUKHINA, E.A., tekhn.red.

[Petroleum refining; articles] Pererabotka nefti; materialy. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry. Vol.2. 1958. 289 p. (MIRA 12:1)

1. Mezhvuzovskoye soveshchaniye po voprosam novoi tekhniki v neftyanoy promyshlennosti, Moscow, 1956. 2. Moskovskiy neftyanoy institut (for Chernozhukov, Panchenkov).
(Petroleum--Refining)

KUZMAK, Ye.M., prof. doktor tekhn. nauk, red.; TARAN , V.D.,prof., doktor tekhn. nauk, red.; ZHIGACH, K.F., prof.,red.; MURAV'YEV, I.M., prof.,red.; TIKHOMIROV,A.A., kand. ekon. nauk, red.; YEGOROV, V.I., kand. ekon. nauk, red.; CHARYGIN, M.M., prof., red.; DUNAYEV, F.F., prof., red.; CHERNOZHUKOV, N.I., prof., red.; CHARNYY,I.A., prof., red.; PANCHENKOV, G.M., prof., red.; DAKHNOV, V.N., prof., NAMETKIN, N.S., doktor khim. nauk, red.; ALMAZOV, N.A., dots., VINOGRADOV, V.N., kand. tekhn. nauk, red.; BIRYUKOV, V.I., kand. tekhn. nauk, red.; TAGIYEV, E.I., red.; GUREVICH, V.M., red.; GOR'KOVA, A.A., ved. red.; FEDOTOVA, I.G., tekhn. red.

[Proceedings of the conference of technical schools on the problems of new equipment for the petroleum industry] Mezhvuzovskoe soveshchanie po voprosam novoi tekhniki v neftianoi promyshlennosti. 1958: materialy... Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry. Vol. 3. [Manufacture of petroleum industry equipment] Neftianoe mashinostroenie. 1958. 222 p. (MIRA 11:11)
(Petroleum industry--Equipment and supplies)

TAGIYEV, R.I.

ZHIGACH, K.F., prof, red.; MURAV'YEV, I.M., prof. doktor tekhn.nauk, red.; TIKHOMIROV, A.A., kand.ekon.nauk, red.; YEGOROV, V.I., kand.ekon. nauk, red.; CHARYGIN, M.M., prof., red.; DUNAYEV, F.F., prof., red.; CHERNOZHUKOV, N.I., prof., red.; KUZMAK, Ye.M., prof., red.; CHARNYY, I.A., prof., red.; PANCHENKOV, G.M., prof., red.; DAKHNOV, V.N., prof, doktor geologo-mineralogicheskikh nauk, red.; NAMETKIN, N.S., doktor khim.nauk, red.; AIMAZOV, N.A., dots., red.; VINOGRADOV, V.N., kand.tekhn.nauk, red.; BIRYUKOV, V.I., kand.tekhn.nauk, red.; TAGIYEV, R.I., red.; GUREVICH, V.M., red.; DOBRYNINA, N.P., vedushchiy red.; MUKHINA, E.A., tekhn.red.

[Proceedings of an interschool conference on problems of new techniques in the petroleum industry] Materialy Mezhvuzovskogo soveshchaniya po voprosam novoy tekhniki v neftyanoy promyshlennosti. Moskva, Gos. nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry. Vo.1. [Prospecting and exploitation of oil and gas fields] Razvedka i razrabotka neftianykh i gazovykh mestorozhdenii. 1958. 311 p. (MIRA 11:4)

1. Mezhvuzovskoye soveshchaniye po voprosam novoy tekhniki v neftyanoy promyshlennosti.
(Petroleum engineering) (Gas, Natural--Geology)

SOV/93-58-8-5/15

AUTHOR: Tagiyev, E. I.; Dunayev, F. F.; Tomashpol'skiy, L. M.; Sereda, N. G.; and Mordvin, L. N.

TITLE: Increased Efficiency Resulting From the Drilling of Clusters of Multiple Oil Wells Through Level Type Formations (K voprosu ob effektivnosti sploshnogo razburivaniya mestorozhdeniy ravninnogo tipa kustami mnogostvol'nykh skvazhin)

PERIODICAL: Neftyanoye khozyaystvo, 1958, Nr 8, pp. 16-23 (USSR)

ABSTRACT: The All-Union conference on dual well drilling and inclined well operation, called by the Gosplan of the USSR, started in January and continued through February 1958. The conference noted that the extension of multiple well drilling in the Soviet Union is of great importance since this type of well completion will reduce capital investment and the consumption of metal and labor. Slepyan, Milovidov, Shandin, Ovanesov, and Mezhlumov, representing the Councils of the National Economy of the Bashkir ASSR, Azerbaydzhan SSR, Kuybyshev Oblast, and Stalingrad Oblast reported that they are

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preparing for expansion of the multiple well drilling method in their respective regions. The authors state that the increased importance of multiple well drilling calls for a more thorough analysis of the problems raised by M. G. Osipov and A. A. Kortatstsi in their article published in Neftyanoye khozyaystvo, 1957, Nr 8. The authors also note that the effect of multiple well drilling through level type formations had been studied at the Moskovskiy neftyanoy institut im. akad. I. M. Gubkina (Moscow Petroleum Institute im. Acad. I. M. Gubkin) by V. P. Banatov, G. I. Zhukova, L. G. Kasatkina, and N. L. Kolyubakin under the guidance of E. I. Tagiyev and F. F. Dunayev. Drilling data provided by the Al'met'yevburneft' and Tatburneft' of the Tatar ASSR show that the multiple well drilling method produces better results than the vertical well drilling method (Tables 1-3). Fig. 1 presents a well distribution scheme for multiple well drilling at the Yuzhno-Romashkino oilfield of the Tatar ASSR. This scheme will be used for oil well drilling during the Sixth Five Year Plan. Tables 4-6 show that the drilling of multiple

Increased Efficiency Resulting (Cont.)

wells according to this scheme of well distribution will lead to a reduction in capital investment and to a desirable decrease in time and labor consumption. The authors conclude that: 1) drilling clusters of dual wells through level type formations will reduce capital investment, labor and metal consumption, 2) the accumulated data on dual well drilling and on the operation of clusters of inclined wells a level type formations make it possible to recommend an expansion of this type of drilling, and 3) wide application of dual well drilling depends on the development of special drilling and operating equipment, and on the solution of individual technological problems. There are 6 tables and 1 figure.

1. Petroleum--Production 2. Well drilling--Costs

Card 3/3

TAGIYEV, E. I., IOANNESYAN, R. A., TREBIN, F. A., GUSMAN, M. I., OSTROVSKIY, A. P., TITKOV, N. I., SHMAREV, A. T., GELFGAT, Y. A., MININ, A. A., and SHASHIN, V. D.

"Progress of Turbodrilling and Studying New Methods of Drilling Wells in the USSR."

Report Submitted at the Fifth World Petroleum Congress, 30 May - 5 June 1959. New York City.

TAGIYEV, E.I.; KICHIGIN, A.V.

Effect of certain parameters of vibropercussion machines on rock desintegration speed. Izv. vys. ucheb. zav.; neft' i gaz 2 no.7:17-24 '59. (MIRA 12:12)

1.Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akad. I.M. Gubkina.
(Boring machinery)

TAGIYEV, E.I.; KICHIGIN, A.V.

Wear resistance of simple bits when using vibropercussion drilling machinery. Izv.vys.ucheb.zav.; neft' i gaz 2 no.11: 31-36 '59. (MIRA 13:4)

1. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti imeni akademika I.M.Gubkina.
(Boring machinery)

ZHIGACH, K.F., prof., otv.red.; MURAV'YEV, I.M., prof., red.; TIKHOMIROV, A.A., kand.ekonom.nauk; red.; VINOGRADOV, V.N., kand.tekhn.nauk, red.; SIDORENKO, N.V., red.; BRENTS, A.D., red.; CHARYGIN, M.M., prof., red.; DUNAYEV, F.F., prof., red.; CHARNYY, I.A., prof., red.; CHERNOZHUKOV, N.I., prof., red.; KUZMAK, Ye.M., prof., red.; DAKHNOV, V.N., prof., red.; PANCHENKOV, G.M., prof., red.; NAMETKIN, N.S., prof., red.; TAGIYEV, E.I., prof., red.; BIRYUKOV, V.I., kand. tekhn.nauk, red.; YEGOROV, V.I., kand.tekhn.nauk, red.; ALMAZOV, N.A., dotsent, red.; GUREVICH, V.M., red.; ISAYEVA, V.V., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Development of the gas industry of the U.S.S.R.; from the proceedings of the Interuniversity Scientific Conference on the Problems of the Gas Industry] Mezhvuzovskaia nauchnaia konferentsiia po voprosam gazovoi promyshlennosti. Razvitie gazovoi promyshlennosti SSSR; materialy. Moskva, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1960. 405 p. (MIRA 13:11)

1. Mezhvuzovskaya nauchnaya konferentsiya po voprosam gazovoy promyshlennosti. 2. Glavgaz SSSR (for Brents). 3. Moskovskiy institut neftekhimicheskoi i gazovoi promyshlennosti im. akad.Gubkina (for Charygin, Charnyy).

(Gas industry)

VOSKRESENSKIY, Fedor Fedorovich; KICHIGIN, Anatoliy Valentinovich; SLAVSKIY, Vasiliy Mikhaylovich; SLAVSKIY, Yuriy Nikolayevich; TAGIYEV, Eyyub Izmailovich; DUBROVINA, N.D., vedushchiy red.; FEDOTOVA, I.G., tekhn. red.

[Vibration and combination drilling] Vibratsionnoe i udarno-vrashchatel'noe burenie. By F.F.Voskresenskii i dr. Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 243 p. (MIRA 14:9)

(Boring)

TA[illegible]EV, [illegible], [illegible]V, S.V.

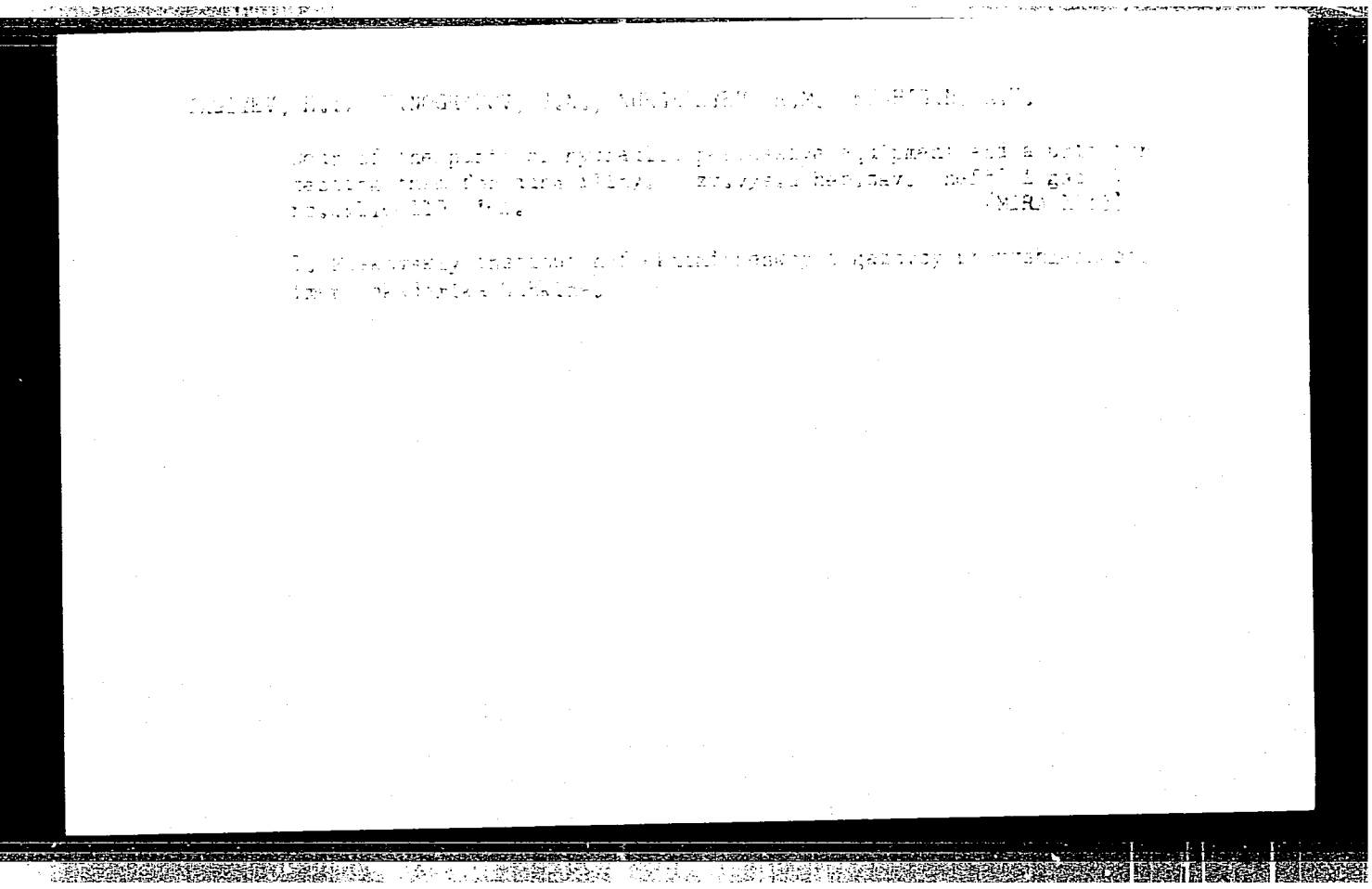
Increase of possible drilling depth. Izv.vys.ucheb.zav.; neft' i gaz 5 no.2:[illegible]1-1[illegible]5 '62. (MIRA 17:4)

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

TAGIYEV, Eyyub Izmaylovich

"Problems of deep-drilling"

report to be submitted for the 6th World Petroleum Congress, Frankfurt am Main, W. Germany, 19-26 Jun 63.



IOANNESYAN, R.A., GUSMAN, M.T., IAGIYEV, E.I.

Development of turbine drilling in the U.S.S.R. Neft. khoz. 42 no.9/10:107-114 S-O '64. (MIRA 17 12)

[illegible]ICHUGIN, Anatoliy Valentinovich; NAZAROV, Viktor Ivanovich; TAGIYEV, Eyyub Izmaylovich

[Percussive-rotary drilling of wells] Udarno-vrashchatel'noe burenie skvazhin. Moskva, Nedra, 1965. 165 p. (MIRA 19:1)

ACC NR: AR6020787 SOURCE CODE: UR/0044/66/000/002/V053/V054

AUTHOR: Shirinov, K. F.; Tagiyev, F. A.

TITLE: The transformation of a calculation algorithm and the accuracy of calculations

SOURCE: Ref. zh. Matem, Abs. 2V347

REF SOURCE: Tr. Vychisl. tsentra. AN AzerbSSR, v. 3, 1965, 17-19

TOPIC TAGS: algorithm, information processing, data processing, calculation

ABSTRACT: It is shown that in the case when the information is presented by multidigit numbers, the study of the accuracy reduces to the study of operations or, more exactly, pseudo-operations. The concept of normal and abnormal schemes consisting of a sequence of operators and predicates is introduced. The normality of the scheme may be re-established by transformation operators. An estimate is given for the normal scheme which allows conclusions concerning the expediency of a count of binary accuracy. [Translation of abstract] Bibliography of 2 titles. Yu. Bayskovskiy

SUB CODE: 12, 09

Card 1/1 UDC: 518.5:681.142

L 17706-66 EWT(d) IJP(c)

ACC NR: AP6005607 SOURCE CODE: UR/0233/65/000/003/0060/0067

AUTHOR: Tagiyev, F. A.

ORG: none

TITLE: Approximate solution of the Tricomi problem in a general case for the Lavrent'yev-Bitsadze equation

SOURCE: AN AzerbSSR. Izvestiya. Seriya fiziko-tekhnicheskikh i matematicheskikh nauk, no. 3, 1965, 60-67

TOPIC TAGS: differential equation, approximation calculation, partial differential equation, Tricomi problem

ABSTRACT: The author proves several theorems concerning approximate solutions of

$$\Delta U = \frac{\partial^2 U}{\partial x^2} + \frac{\partial^2 U}{\partial y^2} = 0, \quad (1)$$

$$lU \equiv \alpha'(x)\,\beta(x)\,U(x, +0) - \alpha(x)\,\beta(x)\,\frac{\partial U}{\partial x}^{(x,+0)} + \alpha^2 \frac{\partial U}{\partial y} = F, \quad (2)$$

$$U|_{\sigma} = \varphi(s). \quad (3)$$

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L 17706-66

ACC NR: AP6005607 O

where σ is a Jordan curve and D_1 is the elliptic part of the mixed region D. He shows uniqueness of the solution of an approximating difference scheme, as well as its convergence uniformly to the true solution. Orig. art. has: 30 formulas and 1 figure.

SUB CODE: 12/ SUBM DATE: 25Dec64/ ORIG REF: 007

Card 2/2 nst

S/877/62/001/000/001/005
D201/D308

AUTHORS: Shirinov, K.F. and Tagiyev, F.A.

TITLE: The problem of transformation of design algorithm

SOURCE: Akademiya nauk Azerbaydzhanskoy SSR. Vychislitel'nyy tsentr. Trudy, v. 1, 1962, 13-16

TEXT: The authors consider the most general case of an operator system, the final row of which consists of operators (A_K) predicates and auxiliary symbols, which is transformed by means of a special operator called the transform-operator A_{tr}. The transform-operator controls automatically the proper operation of the system and transforms it in accordance with the content of predicates. The working of A_{tr} is illustrated by the example in which it is introduced into the row in order to control the conditions required for the operation of subsequent operators. The content of the transform-operator depends on the content of the row.

Card 1/1

ACC NR: AT6027266 SOURCE CODE: UR/2877/65/000/003/0072/0084

AUTHOR: Tagiyev, F. A.

ORG: none

TITLE: On the numerical solution of the Lavrent'yev-Bitsadze problem in a multiply connected region

SOURCE: AN AzerbSSR. Vychislitel'nyy tsentr. Trudy, v. 3. Baku, 1965, 72-84

TOPIC TAGS: partial differential equation, gas dynamics, boundary value problem, numerical method

ABSTRACT: A numerical solution is given for the mixed second-order linear equation

$$Lu \equiv \frac{\partial^2 u}{\partial x^2} + \operatorname{Sgn} y \frac{\partial^2 u}{\partial y^2} = 0, \qquad (1)$$

under the following boundary conditions:

$$u|_{\sigma_1} = \varphi_1, \; u|_{\sigma_2} = \varphi_2 \qquad (2)$$

$$u|_{L_1} = \psi_1, \; u|_{L_2} = \psi_1. \qquad (3)$$

In the elliptic part of the region D, D_1, an algebraic system of equations must be solved. This system is derived, and a theorem is proved on its solvability and on the uniqueness of the solution. A convergence theorem is stated and proved. The solution for the hyperbolic subregion D_2 may be done by a quadrature. This solution is

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