L 04981-67 EWT(m)/EWP(j)/T LJP(c) RM

ACC NR: AP6031518 SOURCE CODE: UR/0073/66/032/009/0979/0982

AUTHOR: Tarasenko, Yu. G.; Bondarenko, S. V.; Gordiyenko, S. A.; Uskov, I. A.; Solomko, V. P.; Vdovenko, N. V.; Ovcharenko, F. D.

ORG: Kiev State University im. T. G. Shevchenko (Kiyevskiy gosudarstvennyy universitet); Institute of General and Inorganic Chemistry, AN UkrSSR (Institut obshchey i neorganicheskoy khimii AN UkrSSR)

TITLE: Hydrophobic fillers in amorphous polymers

SOURCE: Ukrainskiy khimicheskiy zhurnal, v. 32, no. 9, 1966, 979-982

TOPIC TAGS: kaolinite, filler, modified kaolinite, polymethylmethacrylate, kaolin, amorphous polymer

ABSTRACT: Nonmodified kaolinite is an active filler for poly(methyl methacrylate) [PMMA]. A study has been made of the effect of modified kaolinite on the properties of PMMA. Treatment of kaolinite with hydrolyzed polyacrylamide [HPAA] did not change the size of kaolinite particles and had no effect on their aggregation, but considerably affected the surface properties of the modified product. It was shown that introduction of small amounts of HPAA in the surface layer of the filler lowers its capacity to form hydrogen bonds with PMMA macromolecules, while large amounts of HPAA screen the OH surface groups of

Card 1/2 UDC: 678.046+541.183

L 04981-67

ACC NR: AP6031518

the filler and render it incompatible with PMMA. Thus, imparting water repellency (even with simultaneous "organophylization") to a filler does not necessarily increase its activity with respect to polymers containing polar groups. Orig. art. has: 4 figures. [BO]

SUB CODE: 11,07/SUBM DATE: 25Dec64/ ORIG REF: 010/ OTH REF: 002

Card 2/2 bdk

ACC NR: AP7004064 (A) SOURCE CODE: UR/0100/67/009/001/0040/0044

AUTHOR: Solomko, V. P.; Molokoyedova, T. A.; Uskov, I. A.; Polichkovskaya, T. V.

ORG: Kiev State University im. T. G. Shevchenko (Kiyevskiy gosudarstvennyy universitet)

TITLE: Effect of nonmodified and modified fillers on the morphology and dimensions of spherulites, and mechanical properties of polycaproamide and polyethylene

SOURCE: Vysokomolekulyarnyye soyedineniya, v. 9, no. 1, 1967, 40-44

TOPIC TAGS: filler, morphology, spherulite, mechanical property, film

ABSTRACT: An investigation has shown that modified and nonmodified fillers significantly affect the dimensions and morphology of spherulites in methyl-polysiloxane, modified and aminated aerosil, silica, kaoline and glass fiber. Surface modification of fillers induces a more pronounced interaction with a given polymer, as compared with nonmodified filler-polymer interaction. Addition of

UDC: 678.01:53+678.678.675+678.742

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ACC NR: AP7004064

optimum concentrations of fillers induces . "umber of changed in spherulites such as morphological and dimensional, while a concentration of fillers exceeding optimum levels does not have any significant effect. Mechanical properties of the filled films are determined by the size of spherulites only at very low filler concentrations, when the filler acts primarily as a nucleation center. In the case of increased filler concentrations, its effect on the mechanical properties of a film becomes predominant. Orig. art. has: 3 figures. [AM]

SUB CODE: 20/SUBM DATE: 26Oct65/ORIG REF: 005/

Card 2/2

ACC NR: AT7006297 (N) SOURCE CODE: UR/0000/66/000/000/0153/0162

AUTHOR: Solomko, V. P.; Zhigotskiy, A. G.; Uskov, I. A.

ORG: none

TITLE: Mechanical properties of polymer films filled with glass and viscose fiber

SOURCE: AN UkrSSR. Sintez i fiziko-khimiya polimerov (Synthesis and physical chemistry of polymers). Kiev, Naukova dumka, 1966, 153-162

TOPIC TAGS: glass fiber, viscose, polystyrene, polymethylmethacrylate, polyethylene, polyvinyl alcohol, polyvinyl acetate, polyvinyl butyral

ABSTRACT: The authors studied the dependence of the mechanical properties (breaking stresses σ_b and breaking elongations σ_b) of polystyrene, polymethyl methacrylate, polyethylene, polyvinyl alcohol, polyvinyl butyral and polyvinyl acetate on the concentration of viscose fiber, and the dependence of the same properties of polyvinyl alcohol, polyvinyl butyral and polyvinyl acetate on the concentration of glass fiber up to 20 wt. % inclusive at deformation rates of 0.3, 3 and 30 mm/min. Depending upon the nature of the polymer, the introduction of the fiber either increases or decreases σ_b as the filler concentration rises, while ϵ_b declines. In all cases, films filled with glass fiber are characterized by a higher strength than films filled with viscose fiber. The nature of the dependence of σ_b on the fiber concentration is the same for both types of fibers. The mechanical properties of the

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ACC NR: AT7006297

filled polymer films are much more sensitive to changes in the deformation rate than those of unfilled films. As a rule, a decrease in the deformation rate in the range of rates studied leads to an increase of σ_b and decrease of ϵ_b in unfilled polymer films. The data obtained are explained in terms of the relaxational character of the deformation of filled polymers, the kinetics of development of defects, and the reinforcing role of the three-dimensional structural network formed by the fiber in the polymer medium. Orig. art. has: 6 figures and 3 tables.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 019

Card 2/2

MELENCHUK, I.P.; GUKOV, I.A.

Critical evaluation of the method of radioisotope diagnosis of diseases of the breast using P^{32}. Med. rad. 10 no.9:68-75 S '65. (MIRA 18:10)

1. Kafedra rentgenologii i radiologii (zav. - prof. I.D.Lindenbraten) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.

KONNOV, B.A.; MELENCHUK, I.P.; USKOV, I.A.

Significance of the radioindication method using P^{32} in complex diagnosis of cancer of the facial skin. Med. rad. 10 no.9:75-83 S '65. (MIRA 18:10)

1. Kafedra rentgenologii i radiologii (zav. - prof. L.D.Lindenbraten) I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova.

38997
S/096/62/000/007/002/002
E194/E455

AUTHORS: Zysina-Molozhen, L.M., Doctor of Technical Sciences, Polyak, M.P., Engineer, Uskov, I.B., Engineer

TITLE: Heat transfer in turbine blading

PERIODICAL: Teploenergetika, no.7, 1962, 77-80

TEXT: The nature of gas flow between gas turbine blades is such that the heat-transfer coefficient can assume very different values at different places and this can give rise to unexpected temperature gradients in the blades. Only approximate methods of calculation are available for assessing this effect in cooled blades. Local values of the heat-transfer coefficient were calculated for root, middle and tip sections of a twisted blade, and considerable variations were found both across and along the blades. The temperature distribution in the blades was then calculated by two methods, one employing an average heat-transfer coefficient and the other dividing the blade up into four sections, each with its own value of heat-transfer coefficient. The differences between the results obteined by the two methods were particularly great at high rates of cooling; thus at a rate of

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S/096/62/000/007/002/002
E194/E455

Heat transfer in turbine blading

40 kcal/hour the difference near the blade root is 20°C; at 200 kcal/hour it is 95°C. A still greater difference would be found if the blade were divided into smaller sections. The calculation confirms that blade root cooling influences the blade temperature distribution only in the bottom quarter of the blade. The influence of cooling is important at heat transfer rates above 100 kcal/hour; here the calculation based on average heat-transfer coefficient is inaccurate and overestimates the benefits of cooling. In calculating heat transfer from the blade ends the usual boundary layer methods are not strictly valid because of interaction between the boundary layers of the blade end and those of the adjacent stationary wall. However, analysis shows that this interaction has little effect on heat transfer unless the blade pitch and boundary layer thickness are commensurate which, in practice, can occur only in rather special cases. To check the calculations tests were made in a flow of air at 200°C with stationary flat rows of blades water-cooled near the roots. Temperature and velocity distributions were measured and agreement with theory was good; in particular, the effect of interaction

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Heat transfer in turbine blading S/096/62/000/007/002/002
E194/E455

between boundary layers was negligible. There are 5 figures.

ASSOCIATION: Tsentral'nyy kotloturbinnyy institut
(The Central Boiler and Turbine Institute)

Card 3/3

USKOV, I. B.

"Investigation of special thermal boundary layer on the end wall of inter-profile channel of turbine cascade."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Polzunov Central Boiler and Turbine Inst.

L 14478-66 EWT(1)/EWT(m)/EWP(w)/ETC(f)/EPF(n)-2/EWG(m)/EWP(v)/T-2/EWP(k)/
ACC. NR. AT6001356 ETC(m)-6 WW/EM/GS SOURCE CODE: UR/0000/65/000/000/0093/0103

AUTHOR: Zysina-Molozhen, L. M.; Uskov, I. B. 81 B+1

ORG: Central Boiler and Turbine Institute im. I. I. Polzunov (Tsentral'nyy kotloturbinyy institut)

TITLE: Experimental investigation of heat transfer on the end wall of an interblade channel

SOURCE: Teplo- i massoperenos. t. 1: Konvektivnyy teploobmen v odnorodnoy srede (Heat and mass transfer. v. 1: Convective heat exchange in a homogeneous medium). Minsk, Nauka i tekhnika, 1965 93-103

TOPIC TAGS: Turbulent heat transfer, fluid flow, gas turbine, heat transfer coefficient

ABSTRACT: The article gives the results of an experimental determination of the mean values of the heat transfer coefficients on the end wall of an interblade channel. All measurements of the thermal and dynamic characteristics of the flow were made on the three central blades of the turbine and in the channels formed by them. The end walls of these three channels constituted heat absorbing surfaces cooled by water in a flow type calorimeter.

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The side, end, and lower walls of the calorimeter were covered with a layer of insulation which practically excluded heat transfer between the air medium around the calorimeter and the cooling water. The heat transfer coefficient was determined by the formula:

$$\alpha = \frac{Q}{F(t_0 - t_w)},$$

where Q is the heat flux through the end wall; F is the surface of the end wall; t_0 is the mean temperature of the gas in the channel; and t_w is the averaged surface temperature of the end wall. The distribution of the static pressure along the outlet of the profile and at the end wall of the interblade channel, as well as at a given distance from the inlet section of the cascade, were measured by a water-filled manometer. The total pressure was measured in the entrance to the accelerating convergent section by a conventional Prandtl tube. Experimental results are exhibited in several figures. For approximate calculations of the intensity of heat transfer on the end walls of interblade channels, these formulas are recommended:

$$Nu = C_{lam} Re^{0.5} \text{ at } Re < 8 \cdot 10^5,$$

and

$$Nu = C_{turb} Re^{0.8} \text{ at } Re > 10^5,$$

where C is a variable characteristic parameter. Orig. art. has: 4 formulas and 5 figures. [06]

L 14478-66

ACC NR: AT6001356

SUB CODE: 20/ 21/ SUBM DATE: 31Aug65/ ORIG REF: 010/ OTH REF: 001/ ATD PRESS: 4199

BC

Card 3/3

MITSKEVICH, N.I.; USKOV, I.I.

Induction factor changes in decarboxylation of isobutyric acid combined with its autoxidation. Dokl. AN BSSR 9 no. 11:733-735 N '65 (MIRA 19:1)

1. Institut fiziko-organicheskoy khimii AN BSSR.

MITSKEVICH, N.I.; USKOV, I.I.

Decarboxylation associated with the autoxidation of isopropylbenzene by 1-C^{14}-isobutyric acid. Sbor. nauch. rab. Inst. fiz.-org. khim. AN BSSR no.8:168-174 '60. (MIRA 14:3)

1. Institut fiziko-organicheskoy khimii AN BSSR.
(Carboxyl group) (Cumene)

YEROFEYEV, B.V.; MITSKEVICH, N.I.; USKOV, I.I.

Conjugated decarboxylation in the autoxidation of isopropylbenzene in a mixture with butyric acid labeled with C^{14} in the carboxyl group. Dokl.AN BSSR 4 no.4:160-163 Ap '60. (MIRA 13:10)

1. Institut fiziko-organicheskoy khimii AN BSSR.
(Carboxyl group) (Benzene)

30322
S/580/61/000/000/001/016
A057/A126

5,3700
AUTHORS: Yerofeyev, B.V., Chirko, A.I., Uskov, I.I.

TITLE: Investigation of 1-phenylcyclohexene-1 autoxidation kinetics and the products

SOURCE: Yerofeyev, B.V. and I.G. Tishchenko, eds. Zhidkofaznoye okisleniye nepredel'nykh organicheskikh soyedineniy, Minsk, 1961, 3 - 14

TEXT: Products of the autoxidation of 1-phenylcyclohexene-1 have been investigated before by H. Hock, and M. Siebert, but not the kinetics. The latter were studied for the first time in the present paper and a new compound was isolated from the primary autoxidation products. The oxidation was carried out at 50°C during 30 h by an earlier described method. The products of autoxidation were separated and results corresponding to those by Hock and Siebert obtained. The new product was prepared by thermal destruction of the autoxidation product and preliminarily determined as 1-phenylhexene-2-ol-6-on-1 $CH_2OH-CH_2-CH_2CH$ = $HC-CO-C_6H_5$. Experiments on autoxidation kinetics carried out with fresh and stored (2 weeks) samples in the presence of 1% cobalt stearate showed no difference, and a maximum of the autoxidation rate after about 110 min. The influence

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Investigation of 1-phenylcyclohexene-1....

of 14 different initiators was tested and the greatest effect obtained with cobalt and manganese butyrate and cobalt stearate, which increased the maximum rate of autoxidation by 6 - 9 times. Kaolin, manganese, cobalt, and lead formiates showed no effect. The influence of the concentration of the initiator was studied with cobalt stearate, manganese butyrate, and lead dioxide admixtures (0.25 - 4%) and it was observed that the oxidation degree increases to a content of 1% cobalt stearate or 0.5% manganese butyrate respectively, while for lead oxide a steady increase can be observed with the concentration. The dependence of the autoxidation rate on the cobalt stearate concentration can be described by the following equation:

$$V_m = \frac{a\,[u]}{1 + b[u]}$$

(V_m = rate, a = constant = 0.01042, b = constant = 1.364, [u] = concentration of the initiator). The effect of concentration of 1-phenylcyclohexene-1 on the rate of autoxidation was investigated in benzene solutions containing 0.5% cobalt stearate, and linearity according to $V_m = KC^{1.63}$ was observed. The influence of temperature was studied at 40, 50, and 60°C in presence of 1% cobalt solution and from the data obtained the activation energy was calculated with 16,400 cal/mole. The relatively high kinetic order of 1.63, is explained by the present authors

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with the assumption of complex formation between the hydrocarbon and the initiator. The new product is assumed to be 1-phenylcyclohexene-2-ol-6-on-1 since the formation of carbonyl and hydroxyl groups is observed at destructions of tertiary hydroperoxides. Therefore, the primary formed hydroperoxide could be 6-phenyl--6-hydroperoxide-cyclohexene. Formation of the latter is caused by intermediate isomerization of the phenylcyclohexenyl radical. Thus, further investigations of the products of autoxidation of 1-phenylcyclohexene-1 would be of interest. There are 5 figures and 4 tables.

X

USKOV, I.O.; USKOVA, O.T.

Colloidal and chemical properties of alumina suspensions. Nauk.zap. Kyiv.un. 16 no.15:49-53 '57. (MIRA 11:11)
(Alumina) (Colloids)

USKOV, I.O.

Colloidal and chemical properties of alumina suspensions.
Nauk.zap.Kyiv.un. 16 no.15:55-60 '57. (MIRA 11:11)
(Alumina) (Colloids)

USKOV, I.O.

Structural and mechanical properties of bentonite suspensions.
Nauk.zap.Kyiv.un. 16 no.15:61-69 '57. (MIRA 11:11)
(Bentonite)

L 47390-66 EWT(m)/EWP(j)/T IJP(c) RM

ACC NR: AP6030755 (A,N) SOURCE CODE: UR/0021/66/000/008/1031/1033

AUTHOR: Polyetukha, V. V. --Poletukha, V. V. ; Solomko, V. P. ; Vilens'ka, M. R. --Vilenskaya, M. R. ; Uskov, I. O. --Uksov, I. A. ; Yurzhenko, T. I.

ORG: Kiyev State University (Kiyivs'kiy derzhavniy universytet)

18 B

TITLE: Grafting of polymethyl methacrylate and polystyrene on kaolin modified by organic peroxide compounds

SOURCE: AN UkrRSR. Dopovidi, no. 8, 1966, 1031-1033

TOPIC TAGS: filler modification, vinyl monomer polymerization, polymethylmetacrylate, grafting

ABSTRACT: Fillers modified by compounds firmly bound to the filler's surface and capable of initiating the polymerization of vinyl monomers are investigated. For this purpose, kaolin was treated with organic peroxide compounds and then brought in contact with refined sytrene and methyl methacrylate. Considerable quantities of unextracted polystyrene and very large amounts of poly(methyl methacrylate) were formed during polymerization. This is explained by the

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ACC NR: AP6030735

increase in active groups at the surface of the filler formed in the process of monome · polymerization at temperatures exceeding the temperature of the decomposition of peroxides. Grafting is particularly effective when tert-butyl peracrylate is used, attaining 214% of the weight of the filler. This paper was presented by F. D. Ovcharenko, Academician, AN UkrSSR. [Based on authors' abstract] [SP]

SUB CODE: 07, 11/ SUBM DATE: 06Aug65/ ORIG REF: 004/ OTH REF: 003/

hs

Card 2/2

USKOV, K.

GENERAL

PERIODICALS: VESTIS, No. 1. 1958

USKOV, K. Improvement of work conditions in Latvian food industry, a factor for increasing its productivity. In Russian. p. 31

Monthly list of East European Accessions (EEAI) LC, Vol. 8, No. 2, February 1959, Unclass.

USKOV, M.K. (Moskva)

Synthesis of a linkage having the system of a pulsed speed variator. Mashinovedenie no.1:14-20 '65. (MIRA 18:5)

POPOV, N.N.; LEVITSKIY, N.I., doktor tekhn. nauk, prof., retsenzent; USKOV, M.K., inzh., red.

[Design of cam gears] Raschet i proektirovanie kulachkovykh mekhanizmov. Moskva, Mashinostroenie, 1965. 302 p. (MIRA 18:1)

USKOV, M.N.

Crystallomorphology of celestine. Min. sbor. 18 no.4:450-456 '64.
(MIRA 18:7)

1. Gosudarstvennyy universitet imeni Franko, L'vov.

USKOV, M. V.

Name: USKOV, M. V.

Dissertation: The geotectonic development of Western Ciscaucasia in the Mesocenozoic

Degree: Cand Geol-Min Sci

Defended at Publication

Affiliation: Rostov State U imeni V. M. Molotov

Defense Date, Place: 1956, Rostov-on-Don

Source: Knizhnaya Letopis', No 47, 1956

USKOV, M. V.

15-1957-6-7573D

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 6, p 48 (USSR)

AUTHOR: Uskov, M. V.

TITLE: Geotectonic Development of the Western Predkavkaz'ye (Cis-Caucasus) in the Meso-Cenozoic Period (Geotektonicheskoye razvitiye Zapadnogo Predkavkaz'ya v mezo-kaynozoye)

ABSTRACT: Bibliographical entry

ASSOCIATION: Avtoref. diss. kand. geol-min. n. Rostovsk.-n/D. un-t (University of Rostov-on-Don), Rostov-na-Donu, 1956

Card 1/1

LEBED'KO, G.I.; USKOV, M.V.

Structure and composition of the basement in the south western slope of the Voronezh anteclise. Dokl. AN SSSR 164 no.4:877-880 O '65. (MIRA 18:10)

1. Rostovskiy na-Donu gosudarstvennyy universitet. Submitted February 2, 1965.

USKOV, N.F., inzhener, nauchnyy redaktor; UDOD, V.Ya., redaktor; TOKER, A.M., tekhnicheskiy redaktor.

[Prefabricated reinforced-concrete structures and parts; a bibliography] Sbornye zhelezobetonnye konstruktsii i detali; bibliograficheskii ukazatel'. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekture, 1955. 33 p. (MLRA 8:7)

1. Moscow. Tsentral'nyy institut informatsii po stroitel'-stvu.

(Bibliography--Precast concrete construction)

USKOV, N.F., inzh.

Over-all mechanization of loading and unloading in organizations of the Main Administration for Housing and Public Construction in the City of Moscow. Biul. stroi. tekh. 12 no.7:23-25 Jl '55. (MIRA 11:12)

1.TSentral'nyy institut informatsii po stroitel'stvu.
(Loading and unloading)
(Building materials--Transportation)

USKOV, N.F., inzhener.

Making precast reinforced concrete elements. Opyt stroi. no.1:23-29 '56. (MLRA 10:4)
(Precast concrete)

USKOV, N.F., inzhener.

Boring holes for reinforced concrete piles with wide foundations.
Biul.stroi.tekh. 13 no.1:14-16 Ja '56. (MLRA 9:5)

1. TsIIMS.

(Piling (Civil engineering))

YEVSTIGNEYEV, G.P.; USKOV, N.F.; SERGEYEV, V.M., red.

[Calculating machines and their operation] Schetnye mashiny i ikh ekspluatatsiia. Moskva, Vysshaia shkola, 1964. 422 p. (MIRA 17:10)

L 61906-65

AM5010325 BOOK EXPLOITATION UR/ 16 B+1

Yevstigneyev, G. P.; Uskov, N. F.

Calculating machines and their operation (Schetnyye mashiny i ikh ekspluatatsiya), Moscow, Izd-vo "Vysshaya shkola", 64. 422 p. 12,000 copies printed.

TOPIC TAGS: calculator, calculation, computer, office machine

PURPOSE AND COVERAGE: A description of the design and operating principles of keyboard calculating and punching machines used for the mechanization of calculation and computer operations is presented. Also a description of the methods and operation processes of these machines is given. The book is intended for students of engineering-economic higher technical schools and faculities in the specialty "Mechanization of calculation and computer operations", but it can also serve as a textbook for workers of both machine adding and computer centers, which operate calculating machines.

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AM5010325

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SUB CODE: DP SUBMITTED: 30Jul64 NO REF SOV: 000

OTHER: 000

Card 2/2

USKOV, N.I.

Precision of the machining on lathes with a hydraulic profiling slide. Trudy Stud. nauch. ob-va LIEI no.3:5-12 '59.
(MIRA 16:10)

USSR/ . . .

In a Russian Symposium of Papers entitled "Heat Treatment of Rails" edited by I. P. Bardin and published by the Soviet Academy of Science, Moscow 1950, The following articles appeared; Operation of heat treated rails on the track.

So: 886103

80169

16.7500 S/102/59/000/02/002/011

AUTHOR: Uskov, O.S. (Moscow)

TITLE: Hunting in a Relay System

PERIODICAL: Avtomatika, 1959, Nr 2, pp 19-28 (UkrSSR)

ABSTRACT: The relay system is one in which the correcting signal is compounded from the deviation from a specified program and from the derivative of that deviation (Fig 1). Fig 2 shows how μ varies during hunting; Fig 3 shows how the amplitude of the hunting varies with τ and ζ ; Fig 4 shows how T (the period of the oscillations) varies with those parameters. Fig 5 shows how ε affects X_{max} and $Y_{max} = (dX/d\tau)_{max}$.

The last part of the paper deals with the stability of the various modes of hunting. There are 6 figures and 2 references, 1 of which is Soviet and 1 English.

Card 1/1

S/169/62/000/007/055/149
D228/D307

AUTHOR: Uskov, P. S.

TITLE: Trial magnetometric work on prospecting for iron ore deposits in the south of the Krasnoyarskiy Kray

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 7, 1962, 29, abstract 7A189 (V sb. Sostoyaniye i perspektivy razvitiya geofiz. metodov poiskov i razvedki polezn. iskopayemykh, Ii., Gostoptekhizdat, 1961, 196-198)

TEXT: The basis for the direction of searches for iron ore deposits is aeromagnetic surveying on a scale of 1:50,000. Sections of perspective anomalies are explored on a scale of 1:25,000 (or larger), the anomaly's epicenter being surveyed horizontally right up to the height at which it dies out. The study of the resulting attenuation curve and its comparison with analogous curves for known iron ore deposits allow the anomaly's surface intensity-magnitude and size to be determined approximately; they also permit the object's perspective reserves and the trend of the orebodies in

Card 1/2

USKOV, P.S.; NASSONOV, V.A.; BUDNITSKIY, V.S.

Interpretation of graphs of horizon-by-horizon photography of a magnetic field. Geofiz.razv. no.13:96-102 '63. (MIRA 17:4)

USKOV, S.I.

SKOCHINSKIY, A.A.; TERPIGOREV, A.M.; SHEVYAKOV, L.D., SERGEYEV, A.A.; ZAKHAROV, P.A.; USKOV, S.I.; AGOSHKOV, M.I.; MEL'NIKOV, N.V.; BRONNIKOV, D.M.; YENIKEYEV, N.B.; PROTOPOPOV, D.D.; SUDOPLATOV, A.P.; BARON, L.I.; MAN'KOVSKIY, G.I.; NAZARCHIK, A.F.; TERPOGOSOV, Z.A.; BARSUKOV, F.A.; POMORTSEV, A.D.; DEMIDYUK, G.P.; MOLCHANOV, P.V.; MAKSIMOVA, Ye.P., GRIBIN, A.A.; BARONENKOV, A.V.; SINDAROVSKIY, N.S.; BOGOMOLOV, V.I.; KHODOV, L.V.; MOSKAL'KOV, Ye.F.; GONCHAROV, T.I.

Aleksandr Vasil'evich Kovazhenkov; obituary. Bezop. truda v prom. 1 no.12:35 D '57. (MIRA 12:3)
(Kovazhenkov, Aleksandr Vasil'evich, 1906-1957)

USKOV, S.I., inzh.

Training specialists at Karaganda mines. Bezop. truda v prom. 2 no.7:12-14 J1'58. (MIRA 11:9)
(Karaganda Basin--Coal miners)

Deceased
1964

USHKOV, S.L. [deceased]

Forest fires and characteristics of the reproduction of pine and birch on burned areas in the Il'men' Preserve. Trudy Il'm. gos. zap. no.8:157-168 '61. (MIRA 15:11)
(Il'men' Preserve--Forest fires)
(Il'men' Preserve--Forest reproduction)

1. USKOV, S. P.

2. USSR (600)

4. Pine

7. Dense seeding of pine from germinated seeds. Les i step' 5 No. 1, 1953.

9. **Monthly List of Russian Accessions**, Library of Congress, May 1953. Unclassified.

USKOV, S. P.

USKOV, S. P. -- "Defects in the Spruce and Pine Timber Stands of the Karelian Autonomous SSR." Institute of Forestry, Acad Sci USSR, Moscow, 1956. (Dissertation for the Degree of Candidate of Agricultural Sciences)

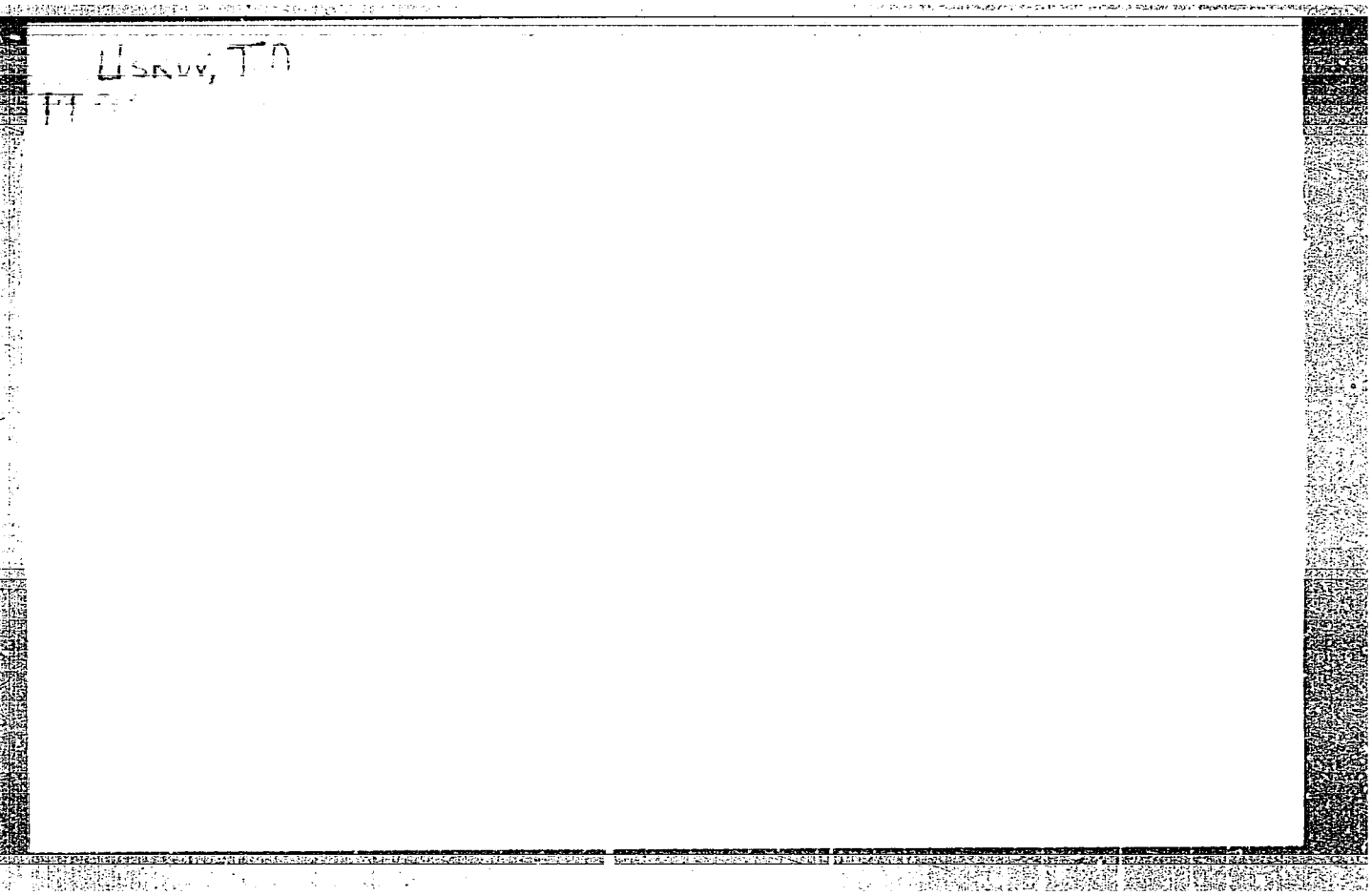
SO: Knizhnaya Letopis' No 43, October 1956, Moscow

UGKOV, G. P.

"Pine and Fir Woodlands of the Karelo-Finnish SSR and the Characteristic of Their Quality According to the Types of Forests."

dissertation defended for the degree of Candiate of Agricultural Sciences at the Inst. for Forestry.

Defense of Dissertation (Jan-Jul 1957)
Sect. of Biological Sciences
Vest. AN SSSR, 1957, v. 27, No. 12, pp. 117-118



USKOV, V. (Arkhangel'sk)

Radio receiver with push-buttons. Radio no.5:46-47 My '60.
(MIRA 13:12)

(Radio—Receivers and reception)

USKOV, V., komandir vozdushnogo korablya 11-18.

Has everything been taken into consideration? Grazhd.av. 20 no.7: 28 Jl '63. (MIRA 16:9)
(Airplanes--Fuel systems)

AUTHOR: Pavlov, P. V.; Uskov, V. A. SOURCE CODE: UR/0181/66/008/010/2977/2981

ORG: Gor'kiy State University im. N. I. Lobachevskiy (Gor'kovskiy gosudarstvennyy universitet)

TITLE: Investigation of the diffusion of antimony and indium in germanium with account of the internal electric field

SOURCE: Fizika tverdogo tela, v. 8, no. 10, 1966, 2977-2981

TOPIC TAGS: antimony, indium, germanium, physical diffusion, semiconductor research, gamma spectrum, surface property, crystal lattice defect

ABSTRACT: This is a continuation of earlier work (FTT v. 7, 3346, 1965), where a theoretical analysis was made of the influence of the internal electric field on the diffusion of impurities in intrinsic and impurity semiconductors. The present investigation was an experimental check on the results, as applied to the diffusion of antimony and indium in n-type germanium. The diffusing atoms were the isotopes Sb^{124} and In^{114} from the gas phase, under conditions corresponding to a constant source. The depth variation of the impurity concentration was determined by the method of layer removal. The residual activity of the sample was measured with a scintillation spectrometer. The procedure for determining the diffusion coefficients is described in a paper by V. Ye. Kosenko (Izv. AN SSSR, ser. fiz. v. 20, 1526, 1956), by comparison of the experimental curves with the standard curves derived in the authors' earlier

Card 1/2

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formation of lattice defec[illegible]

SUBM DATE:

SUB CODE: 20/

Card 2/2

L 6412-66 EWT(1)/T/EWA(h) IJP(c) AT

ACC NR: AP5027416 SOURCE CODE: UR/0181/65/007/011/3356/3362

AUTHOR: Vas'kin, V. V.; Uskov, V. A.; Shirobokov, M. Ya.

ORG: Gorskovskiy State University (Gor'kovskiy gosudarstvennyy universitet im. N. I. Lobachevskogo)

TITLE: Effect of an internal electric field on diffusion of impurities in semiconductors

SOURCE: Fizika tverdogo tela, v. 7, no. 11, 1965, 3356-3362

TOPIC TAGS: semiconductor theory, electric field, metal diffusion

ABSTRACT: This paper gives a theoretical analysis of the effect which an internal electric field generated by ionized impurity particles and current carriers has on the distribution of impurity concentration in semiconductors. It is assumed that the coefficient of diffusion is independent of concentration. The analysis is based on an approximate solution of the diffusion equation together with the Poisson equation. The calculated concentration profiles are compared with experimental data on diffusion of antimony into germanium. It is shown that when surface concentrations

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L 6112-66
ACC NR: AP5027416

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are comparable to or greater than the concentration of current carriers, where the field effect becomes noticeable, the distribution of impurity atoms differs from the well known expression (*circled p 3356*) corresponding to diffusion from a constant source without regard to the field. The results may be extended to the case of acceptor diffusion into intrinsic and extrinsic semiconductors. Curves are given for α as a function of surface concentration for intrinsic semiconductors and for those predoped with donors and acceptors. In conclusion, the authors are grateful to V. G. Metrikin and V. M. Maslova for assistance in carrying out the numerical calculations on a computer. Orig. art. has: 4 figures, 24 formulas.

SUB CODE: SS,EM/ SUBM DATE: 09Mar65/ ORIG REF: 001/ OTH REF: 006

Card 2/2

L 22894-66 EWT(l)/EWT(m)/EWP(t) IJP(c) JD/AT
ACC NR: AP6006862 SOURCE CODE: UR/0181/66/008/002/0595/0597

AUTHOR: Uskov, V. A.; Shutov, Yu. N.

ORG: Gor'kiy State University im. N. I. Lobachevskiy (Gor'kovskiy gosudarstvennyy universitet)

TITLE: Determination of the degree of ionization of impurities in semiconductors from diffusion investigations

SOURCE: Fizika tverdogo tela, v. 8, no. 2, 1966, 595-597

TOPIC TAGS: germanium, semiconductor impurity, antimony, ionization phenomenon, physical diffusion, semiconductor carrier, single crystal, carrier density, ground state

ABSTRACT: The authors present preliminary results on the determination of the degree of ionization of antimony in degenerate germanium at 293K, obtained during the course of a study of diffusion of Sb in Ge. The purpose of the experiment was to check whether the distribution of the carriers in the diffusion layer corresponds to the distribution of the impurity atoms. The tests were made on single-crystal p-type germanium oriented to produce the diffusion in the [111] direction. The diffusion was from the vapor phase for 48 hours at 750C. The concentration

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curves were obtained by removal of layers. The electric conductivity of the layer was measured simultaneously with its radioactivity. Comparison of the distribution of the atoms and the carriers in the diffusion layer and comparison of the theoretical and experimental values of the impurity ionization show good agreement between theory and experiment at concentrations below 2×10^{19} cm^{-3}. It is therefore concluded that the diffusion profiles in degenerate semiconductors can be used to investigate the dependence of the degree of ionization on the concentration, and also to determine the degeneracy factor of the ground state of the impurity atom by comparison of the experimental data with the theoretical curve. Orig. art. has: 2 figures and 3 formulas.

SUB CODE: 20/ SUMB DATE: 07Jul65/ ORIG REF: 004/ OTH REF: 006

USKOV, V.A.

Inefficient management of the expansion of the Ruzayevka railroad section. Zhel.dor.transp. 42 no.1:82 Ja '60. (MIRA 13:5)

1. Nachal'nik Ruzayevskogo otdeleniya Kuybyshevskoy dorogi.
(Railroads--Electrification)

S/126/63/015/001/014/029
E111/E383

AUTHORS: Pavlov, P.V. and Uskov, V.A.

TITLE: Possibility of using the gamma-spectrum method for investigating processes of the simultaneous diffusion of two components

PERIODICAL: Fizika metallov i metallovedeniye, v. 15, no. 1, 1963, 105 - 108

TEXT: Simultaneous diffusion of several elements is involved in semiconductor developments. To obtain the necessary experimental data by the method entailing the removal of successive layers and use of radioactive isotopes it is necessary to register separately the various, simultaneously-diffusing elements. This was achieved in the present work by using a single-crystal scintillation gamma-spectrometer. The apparatus was calibrated with a series of radioactive elements and then checked with mixtures of the radioactive isotopes Cs^{137} and Fe^{59}. Values for the diffusion coefficients of Fe^{59} in an Fe-1.16 at.% Mo-0.93 at.% C alloy at 950, 1050 and 1150 °C obtained by this method agreed well with those yielded by

Possibility of using .... S/126/63/015/001/014/029.
E111/E383

the Geiger-Muller counter method. There are 3 figures and 1 table.

ASSOCIATION: Gor'kovskiy fiziko-tekhnicheskiy institut (Gor'kiy Physicotechnical Institute)

SUBMITTED: June 8, 1962

Card 2/2

ACC NR: AP7005329 SOURCE CODE: UR/0181/66/008/012/3467/3473

AUTHOR: Vas'kin, V. V.; Metrikin, V. S.; Uskov, V. A.; Shirobokov, M. Ya.

ORG: Gor'kiy State University im. N. I. Lobachevskiy (Gor'kovskiy gosudarstvennyy universitet)

TITLE: Influence of internal electric field on simultaneous diffusion of impurities in semiconductors

SOURCE: Fizika tverdogo tela, v. 8, no. 12, 1966, 3467-3473

TOPIC TAGS: semiconductor impurity, physical diffusion, hf transistor, germanium semiconductor, crystal effect

ABSTRACT: In view of the importance of simultaneous diffusion of two components of semiconductors to the manufacture of high-frequency transistors and similar devices, the authors investigate theoretically the influence of the internal electric field on simultaneous diffusion of donors and acceptors in an intrinsic semiconductor. The mathematical analysis yields a set of formulas and theoretical curves for the distribution of the donor concentration in a diffusion layer. The theoretical results were compared with experimental data obtained for the simultaneous diffusion, at 795C, of indium and antimony in germanium, using In^{114} and Sb^{124} as radioactive tracers. The distribution of the donors and acceptors was determined by successive removal of layers. The results have shown that the donors have little influence on the diffusion of acceptors, but the effect of acceptors on the diffusion of donors is

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ACC NR: AP7005829

appreciable. This is due to differences in the diffusion coefficients of the two substances. The deceleration of the donors increases the increasing acceptor concentration. For the same surface concentration of the acceptors, the influence of the acceptors on the donor diffusion is greater when the donor concentration is low. Some discrepancies between the theoretical and experimental data were observed, and these are attributed to formation of defects. Orig. art. has: 3 figures, 16 formulas, and 1 table.

SUB CODE: 20/ 09/ SUBM DATE: 07Feb66/ ORIG REF: 006/ OTH REF: 005

Card 2/2

USKOV, V.D.

Improved switching on drive for the ventilator of the TGM1 diesel locomotive. Elek.i tepl.tiaga 3 no.7:27 Jl '59. (MIRA 13:3)

1. Mashinist teplovoza depo Orenburg.
(Diesel locomotives)

USKOV, V.F., elektromekhanik STSB 2-y distantsii Kalininskoy dorogi; SADOV, I.Ya., inzhener, redaktor; MATSEYEVSKAYA, Ye.M., tekhnicheskiy redaktor.

[Experience servicing installations of the signal, central control and block systems of a railroad section] Opyt obsluzhivaniia ustroistv STsB na okolotke. Moskva, Gos. transp. zheldor. izd-vo, 1953. 34 p. (MLRA 7:11)
[Microfilm]
(Railroads--Signaling)

NETUSHIL, A.V.; KUSHELEV, Yu.N.; USKOV, V.G.; BUDENNYY, A.P.; SVIRIDOV, A.P.

Automatic devices for checking current progress of students. Izv. vys. ucheb. zav.; radiotekh. 6 no.4:408-416 Jl-Ag '63. (MIRA 16:11)

ACCESSION NR: AT4033628 S/0000/63/000/000/0119/0138

AUTHOR: Netushil, A. V.; Kushelev, Yu. N.; Uskov, V. G.; Budenny*y, A. P Svirido, A. P.

TITLE: Automatic device for checking the current achievement of students

SOURCE: Programmirovannoye obucheniye i kiberneticheskiye obuchayushchiye mashiny* (Programmed instruction and cybernetic teaching machines); nauchno-tekhn. sb. stately. Moscow, Izd-vo "Sovetskoye radio " 1963, 119-138

TOPIC TAGS: teaching machine, programmed instruction, relay teaching machine, electronic teaching machine, language teaching

ABSTRACT: The article describes the experience acquired in the development of teaching machines of the relay and electronic type in the Moskovskiy energeticheskiy institut (Moscow Power Institute). The authors distinguish between two functions in the teaching process: 1) the planning of the teaching schedule; and 2) the carrying out of what has already been planned. It is pointed out that the accomplishment of the second of these functions may be successfully entrusted to specialized teaching machines. The following

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principal units or elements of a typical teaching machine are described and analyzed: 1) the information presentation unit (microfilm projector, tape-recorder, etc.); 2) the response introduction unit (device for collecting the answers of the student; for example, a typewriter-like arrangement on which the replies can be physically printed out); 3) the comparison unit (where the answer of the student is analyzed and compared with the answer programmed in the machine); 4) the timing unit (to measure and regulate the time intervals between the presentation of the question and a correct answer, as well as between two successive questions); 5) the memory unit (where information on possible answers by the student is stored); 6) the evaluation unit (by means of which the student is advised of the correctness or incorrectness of his answers); 7) the information selection unit (necessary when operating with a ramified program, in order to select the next step of the program as a function of the student's answer to the preceding question); 8) the program itself (the fundamental and essential part of any teaching machine). The automatic device called the "Ekzamenator", developed at the Institute, is described. By means of this machine, the student is given a series of questions on current material. Each of the questions is accompanied by several mutually-exclusive responses. The student must

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provide the correct answer to each question. The evaluation is made according to the relative number of correct answers by the student, with consideration of the time taken in replying. All the units of the machine are designed in two versions: the first uses telephone relays as logical elements; the second — semiconductors. Both types are described on the basis of block diagrams accompanying the text. Also described in the article is the "Repetitor" teaching machine, designed for foreign language instruction in the higher institutes of learning (the so-called "vuz") and in the lower-echelon schools. The answer is introduced into the machine by means of a keyboard arrangement. The authors discuss the difficulties created by this form of machine address in terms of the special features and peculiarities of foreign language teaching. Of the two types of programs (linear and ramified) which are commonly used for teaching machines, the "Repetitor" employs the ramified or "expanded" type. Sequential "blocks" of information are fed to the student, depending on the degree of accuracy with which he answers the questions contained in the preceding "blocks". Two operating conditions are possible: one in which the student sets for himself the rate or "tempo" of teaching; the other, in

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which this rate is established by the machine itself. Work is evaluated on the basis of a four-point scale ("excellent", "good", "satisfactory" and "poor") as a function of: 1) the number of errors made by the student in completing the exercises on a given subject theme; 2) the reaction time of the student; 3) the number of requests to the machine for "help" (this accomplished by depressing a special button marked "assistance" on the control panel of the machine, resulting in the supplying of either a leading question or of additional information). A block diagram of the "Repetitor" teaching machine is presented and the operation of the basic units of the device are analyzed, along with a discussion of the algorithm used. Noting that this machine is a partially self-adapting teaching device, the authors express the opinion that it would be expedient to construct a test model on the basis of the design described in the article, placing it into actual practice under academic conditions and then modifying and improving it. Orig. art. has: 13 figures.

ASSOCIATION: Moskovskiy Energeticheskiy institut (Moscow Power Institute)

Card 4/5

ACCESSION NR: AT4033628

SUMITTED: 03Dec63 DATE ACQ: 16Apr64 ENCL: 00

SUB CODE: DP NO REF SOV: 000 OTHER: 000

Card 5/5

RATGAUZ, L.G., kand.med.nauk, general-leytenant meditsinskoy sluzhby;
USKOV, V.I., polkovnik meditsinskoy sluzhby

Courses of development of medicine in the U.S.S.R. Voen.-med. zhur. no.6:93-96 Je '59. (MIRA 12:9)
(MEDICINE)

USKOV, V.I., polkovnik meditsinskoy sluzhby

"Collected papers of the Red Banner Naval Hospital of the Balck Sea Fleet. Reviewed by V.I. Uskov. Voen.-med.zhur. no.8:94-96 Ag '59. (MIRA 12:12)

(MEDICINE, NAVAL)

RATGAUZ, L.G., general-leytenant meditsinskoy sluzhby, kand.med.nauk;
USKOV, V.I., polkovnik med.sluzhby

Fourteenth meeting of the general assembly of the Academy of Medical Sciences of the U.S.S.R. Voen.-med.zhur. no.2:91-96 F '60. (MIRA 13:5)
(ACADEMY OF MEDICAL SCIENCES OF THE U.S.S.R.)

NIKITIN, V.S.; USKOV, V.I.

A camera devised by the Institute of Mining of the Academy of Sciences for the computation of dust particles. Trudy Inst.gor. dela no.2:171-176 '55. (MLRA 9:3)
(Mine dusts) (Microscopy) (Cameras)

NIKITIN, V.S., gornyy inzhener; USKOV, V.I., gornyy inzhener

Setting up a dust control system in underground crushers. Bro'ba s sil. 2:180-185 '55. (MLRA 9:5)

1. Institut gornogo dela Akademii nauk SSSR.
(DUST--PREVENTION) (ORE DRESSING)

USKOV, V.I., inzh.

Search for efficient means of removing floating dust from air.
Nauch.soob.Inst.gor.dela 5:113-119 '60. (MIRA 15:1)
(Mine dusts--Removal)

USKOV, V.I., gornyy inzhener

Searching for new methods of controlling dust. Sbor. rab. po silik. no.3:11-17 '61. (MIRA 15:10)

1. Institut gornogo dela AN SSSR.
(Mine dusts)

USKOV, V.I., inzh.

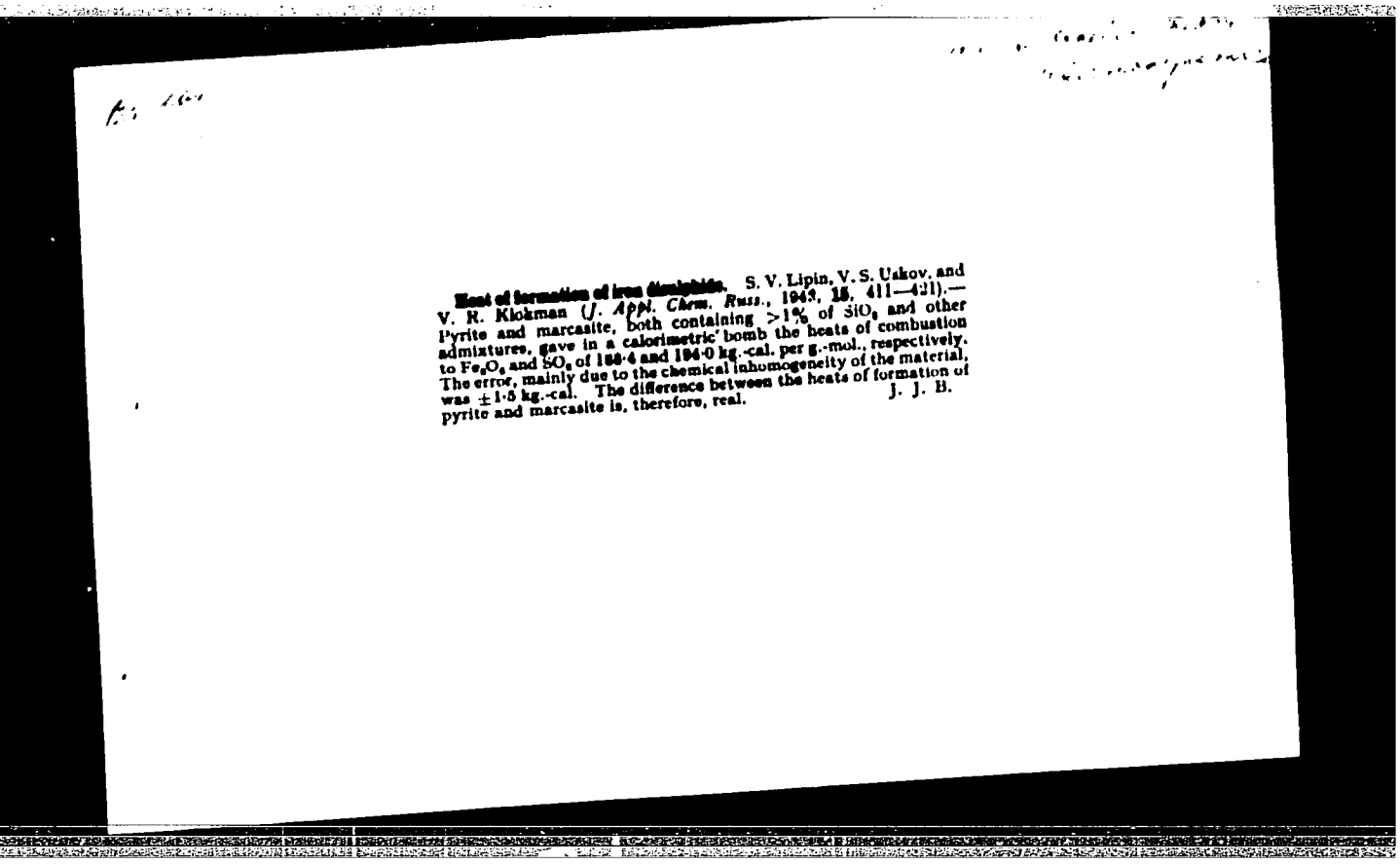
Research to find efficient means of ridding the air of floating dust. Trudy Inst. gor. dela 5:113-119 '60. (MIRA 14:5)
(Dust--Removal)

USKOV, V.I., inzh.

Using electric filters for purifying dusty air. Bezop.truda v prom. 6 no.4:15-16 Ap '62. (MIRA 15:5)
(Air filters)

PROSHLYAKOV, A.I.; ZHELEZNYKH, V.I.; BYCHEVSKIY, B.V.; ZOTOV, V.F.; LYAMIN, N.I.; IVANOV, D.S.; BLAGOSLAVOV, B.V.; BARANOV, N.P. PANKOV, M.A.; OGORODNIKOV, V.A.; FILOHENKO-BORODICH, M.M.; IL'YASEVICH, S.A.; RABINOVICH, I.M.; OLISOV, B.A.; DAVYDOV, S.S.; ZIMIN, D.D.; SHPERK, B.F.; USKOV, V.N.; BUZNIK, P.K.

Boris Aleksandrovich Olivetskii; obituary. Voen.-inzh.zhur. 101 no.12:42 D '57. (MIRA 10:12)
(Olivetskii, Boris Aleksandrovich, 1896-1957)



Heat of formation of iron disulphide. S. V. Lipin, V. S. Uskov, and V. R. Klokman (*J. Appl. Chem. Russ.*, 1942, **15**, 411—421).—Pyrite and marcasite, both containing >1% of SiO_2 and other admixtures, gave in a calorimetric bomb the heats of combustion to Fe_2O_3 and SO_2 of 188·4 and 194·0 kg.-cal. per g.-mol., respectively. The error, mainly due to the chemical inhomogeneity of the material, was ±1·5 kg.-cal. The difference between the heats of formation of pyrite and marcasite is, therefore, real. J. J. B.

SOV/58-59-8-17620

Translated from: Referativnyy Zhurnal Fizika, 1959, Nr 8, p 93 (USSR)

AUTHORS: Uskov, V.S., Uskova, N.S.

TITLE: Investigation of a Model Calorimetric Device for Reproducing the Unit of Heat Quantity

PERIODICAL: Tr. Vses. n.-i. in-ta metrol., 1958, Nr 34 (94), pp 5-16

ABSTRACT: A calorimeter is described, which is based on the principle of determining the heat value of a calorimetric system by means of an electrical method. Heat is fed into the calorimeter by means of a heater through whose coils a direct electric current passes. The intensity of the current and the voltage are measured by means of the compensation method. The time of passage of the current is measured by means of a chronograph. The heat value of the system is computed from the increase in temperature of the water.

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SOV/81-59-13-45038

5.4700

Translation from: Referativnyy zhurnal. Khimiya, 1959, Nr 13, p 45 (USSR)

AUTHOR: Uskov, V.S.

TITLE: On the Combustion Heat of Organic Compounds

PERIODICAL: Tr. Vses. n.-i. in-ta metrol., 1958, Nr 34 (94), pp 43 - 57

ABSTRACT: The formulae proposed by Thompson, Lemon, Sventoslavskiy, Konovalov and Karash for the calculation of the combustion heat of organic compounds on the basis of their structure are critically reviewed. In the opinion of the author they are a consequence of the assumption on the constancy of the energy of a given chemical bond in various compounds. The analysis of literature material on the combustion heats of 125 organic substances, which are members of 24 different classes of compounds, led the authors to the conclusion that the values of the mean energy of the bond decrease with the increase of the molecular weight of the compounds on curves of hyperbolic form. The conclusion is illustrated by graphs and tables. A formula has been proposed for calculating the combustion heats of a compound in the first approximation: $Q_n = N_n q_1 - K_o \sum \frac{N_n}{N_2} \cdot (1/N)$, where

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On the Combustion Heat of Organic Compounds

66975
SOV/81-59-13-45038

Q_n is the combustion heat in kcal/mole, N_n is the number of valent electrons taking part in the oxidation, q_1 is the combustion heat per mole-valent electron of the first member of the series, K_o a constant for a given homologous series, $\sum_{N_2}^{N_n} \cdot (1/N)$ is the sum of the reverse values of the number of valent electrons from the 1st to the compound of the given series to be determined. Deviations of the values calculated by the cited formula from the experimental values amount to 0.1 - 0.5% for the methane series.

A. Vorob'yev

Card 2/2

USKOVA, N.S.; USKOV, V.S.

Development of a method for preparing pure copper for metrological purposes. Trudy VNIIM no.34:67-72 '58. (MIRA 13:5)

(Copper)

S/589/62/000/063/004/021
E075/E136

AUTHORS: Kaledina, L.N., and Uskov, V.S.

TITLE: Preparation of benzoic acid for calorimetric measurements

SOURCE: USSR. Komitet standartov, mer i izmeritel'nykh priborov. Trudy institutov Komiteta. no. 63(123). Moscow, 1962. Issledovaniya v oblasti teplovykh i temperaturnykh izmereniy. 43-50.

TEXT: A method of sublimation under a lowered air pressure was developed for the preparation of benzoic acid with impurities amounting to less than 0.005%. The method is based on that of F. Rossini, B. Mair and A. Streiff (Uglevodorody nefti ('Hydrocarbons from Petroleum'), Gostoptekhizdat, 1957). The sublimation of the acid with purity of 99.9% was conducted at 140-150 °C and 25-30 mm Hg, a current of purified air being passed over the heated acid. Non-volatile impurities were mostly retained in the sublimation flask, while the volatile impurities were removed with the air current. The sublimate crystals were

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collected at 70-80 °C. The apparatus is capable of subliming 0.07 kg of benzoic acid per hour. The acid produced after two sublimations reaches the purity of 99.997%. The purity was determined by titrating a 5 g sample of the acid dissolved in aqueous alcohol with a slight excess of barium hydroxide solution and back titrating with 0.01N benzoic acid. The purity can thus be determined to ± 0.001%.
There are 2 figures and 2 tables.

ASSOCIATION: VNIIM

SUBMITTED: February 21, 1961

PARFENOVA, A.V.; USKOV, V.S.

Refining and analysis of benzoic acid. Nov. nauch.-issl. rab. po metr. VNIIM no.1:17-21 '63. (MIRA 17:9)

ACC NR: AR6016488 SOURCE CODE: UR/0272/65/000/012/0103/0104

AUTHOR: Arsayev, M. I.; Matveyev, V. V.; Mysev, I. P.; Rudakova, G. M.; Samoylov, P. S.; Sulimova, N. Ye.; Uskov, V. S.

ORG: none

TITLE: Development of scintillation and ionization methods in radiometry and dosimetry

SOURCE: Ref. zh. Metrologiya i izmeritel'naya tekhnika, Abs. 12.32.899

REF SOURCE: Tr. Soyuzn. n.-i. in-ta priborostr., vyp. 1, 1964, 5-13

TOPIC TAGS: x ray radiation, low energy beta ray, scintillation counter, radiation flux, soft bremsstrahlung, hard bremsstrahlung, bremsstrahlung

ABSTRACT: The major objectives of modern radiometry and dosimetry are discussed. These include the quantitative and qualitative analysis of radiation fluxes, the measurement of one type of radiation against the background of the others, the dosimetry of the soft and of the hard bremsstrahlung of accelerators

UDC: 389.539.16

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L 45126-66

ACC NR: AR6016488

,and of impulse radiation fluxes, and the radiometry of low-energy beta rays in liquids and in gases. It is noted that one of the main trends in the development of radiometry and dosimetry is that of methods of scintillation measurement, on the basis of which a whole series of instruments for industrial use has been produced. Nevertheless, the use of ionization methods is more rational for certain dosimetric and radiometric tasks. The article presents a brief review of some modern instruments and equipment used to solve practical problems in radiometry and dosimetry. [Translation of abstract] [GC]

SUB CODE: 06, 18, 20/

Card 2/2

USKOV, V.S.; GLEYNIK, B.N.

Benzoic acid for calorimetric determinations. Izm. tekh. no.3: 31-33 Mr '64 (MIRA 17:8)

OLEYNIK, B.N.; USKOV, V.S.

Benzoic acid as the standard substance in calorimetric measurements. Zhur. fiz. khim. 38 no.9:2162-2165 S '64. (MIRA 17:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii imeni Mendeleyeva, Leningrad.

USKOV, V.T.

How we have improved the performance of VAB-2 circuit breakers. Elek. i tepl. tiaga 2 no.3:28 Mr '58. (MIRA 11:4)

1. Nachal'nik tyagovoy podstantsii Perm' II Sverdlovskoy dorogi. (Electric circuit breakers)

USKOV, V.T.

Some changes in plans. Sakh.prom. 33 no.7:55 Jl '59.
(MIRA 12:11)

1. Kirovogradskiy sakhsveklotrest.
(Sugar industry--Equipment and supplies)

USKOV, V.T.

TL-5 pumps. Sakh.prom. 33 no.10:32 O '59. (MIRA 13:3)

1. Kirovogradskiy sakhsveklotrest.
(Sugar machinery)

L 04419-67 EWT(1)/EWT(m)/T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6034269 SOURCE CODE: UR/0386/66/004/007/0252/0255

AUTHOR: Belov, K. P.; Kadomtseva, A. M.; Ovchinnikova, T. L.; Uskov, V. V.

ORG: Physics Department of the Moscow State University im. M. V. Lomonosov (Fizicheski fakul'tet Moskovskogo gosudarstvennogo universiteta)

TITLE: Magnetostriction of thulium orthoferrite single crystals in the region of the temperature of reorientation of the "weak" ferromagnetic moment

SOURCE: Zhurnal eksperimental'noy i teoreticheskoy fiziki. Pis'ma v redaktsiyu. Prilozheniye, v. 4, no. 7, 1966, 252-255

TOPIC TAGS: thulium compound, ferrite, magnetostriction, magnetic moment, temperature dependence

ABSTRACT: This is a continuation of earlier work (Pis'ma ZhETF v. 2, 253, 1965). To verify the occurrence of magnetostriction deformations in thulium orthoferrite single crystals following superposition of a sufficiently strong field, the authors measured the magnetostriction by means of strain gauges near the reorientation temperatures, in fields up to ~13 kOe. The results show that when the field is applied along the c axis, which is the antiferromagnetism axis below the transition temperature, positive magnetostriction of appreciable magnitude occurs in the interval from 93 to 67K. In fields up to 13 kOe the magnetostriction first increases with increasing departure from the reorientation temperature, reaching a maximum at 78K ($\Delta l/l \sim 20 \times 10^{-6}$), and then decreases. Above the transition temperature, magnetostriction is observed only

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ACC NR: AP6034269 3

when the field is directed along the a axis, which is the antiferromagnetism axis at these temperatures. The magnetostriction deformation produced along the c axis was also measured with the field applied along the a axis of the crystal in the temperature interval from 90 to 114K. The sign of the magnetostriction was different for fields applied along the c and a axes of the crystal, and the magnetosctriction decreased at temperatures above 100K. The results are connected with the fact that the threshold fields increase noticeably with increasing departure from the reorientation temperature, and exceed the fields in which the measurements were made. The relatively low threshold fields (~10 kOe) in the temperature interval ~70 - 100K are connected with the fact that the spontaneous magnetic moment can be readily rotated by the field from the c axis to the a axis of the crystal, owing to the low values of the anisotropy constant. When a magnetic field is applied along the b axis of the crystal, no magnetostriction is observed in the entire investigated temperature range, since the b axis is perpendicualr to the plane containing the antiferromagnetism vector, and consequently the field cannot cause flipping of the iron sublattices and lead to magnetostriction deformation in the crystal. It is noted that it is easy to determine the threshold field from the magnetostriction vs. field curves. This is particularly important for thulium orthoferrite, where it is impossible to determine the threshold field from the jump in the magnetization curves during the instant of flipping of the antiferromagnetic sublattices. The authors thank V. A. Timofeyeva for supplying the single-crystal thulium orthoferrite. Orig. art. has: 2 figures.

SUB CODE: 20/ SUBM DATE: 02Jul66/ ORIG REF: 002/ OTH REF: 007

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ACC NR: AP7001426 SOURCE CODE: UR/0413/66/000/021/0144/0144

INVENTOR: Troshchenko, V. T.; Uskov, Ye. I.

ORG: none

TITLE: Unit for investigating the effect of frequent temperature changes on the strength and creep of refractory metals and alloys in an inert medium. Class 42, No. 188103 [announced by the Institute of Problems of Material Study AN UkrSSR (Institut problem materialovedeniya AN UkrSSR)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 21, 1966, 144

TOPIC TAGS: refractory metal, refractory alloy, ~~metal~~ fatigue strength, ~~metal~~ creep, ~~temperature change metal resistance~~, ~~metal resistance investigating unit~~ vacuum chamber, metallurgic testing machine

ABSTRACT: This Author Certificate introduces a unit for investigating the effect of repeated temperature changes on the strength and creep of refractory metals and alloys in an inert medium. The unit includes a vacuum chamber which contains a heater and a rotary shaft carrying fixtures with specimens and loading devices. To enable simultaneous testing of several specimens at a programmed temperature change, the unit is equipped with a cooling device located in the vacuum chamber in a certain distance from the heater and a programming device which controls the temperature change. A constant stress in the specimen is created by springs. Orig. art. has: 1 figure.

SUB CODE: 13, 11, 14/ SUBM DATE: 21Jun65/

Card 1/1 UDC: 620.171.32