"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

SOV/112-59-5-8924

8(3)

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 71 (USSR)

AUTHOR: Kuchinskiy, G. S., Tikhonova, O. V., and Messerman, G. T.

TITLE: Cable-Capacitor-Type Insulation for Current Transformers

PERIODICAL: Tr. Mezhvuzovsk. nauchno-tekhn. konferentsii po dal'nim elektroperedacham, 1956, Sekts. 3. L., 1957, pp 98-107

ABSTRACT: Results of an investigation of the ionization processes in a cable-capacitor-type insulation conducted on laboratory models are reported. The investigation was intended to obtain design gradients for constructing current transformers. The experiments were staged with specimens having various formings of the plate ends with different numbers of capacitor layers and with different insulation thicknesses. Voltages of initial ionization and of stable ionization, as well as the loss angle of the specimens were measured. The inception of ionization was detected by a partial-discharge tube indicator and by a subsequent examination of unrolled layers. On the basis of the

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SOV/112-59-5-8924

Cable-Capacitor-Type Insulation for Current Transformers

experiments, an optimum layer value of 1 mm was arrived at for constructions without formed ends; the design gradients in the layer should not exceed 4 kv/mm at the working voltage and 12 kv/mm at the testing voltage. With the best end form, the optimum layer thickness can be increased threefold (3 mm), and the design gradients can be raised to 5 and 18 kv/mm respectively. Further investigations showed that perforation of capacitor plates practically does not reduce the insulation strength if the ends are properly formed. The influence of the "rest" period after a short-time voltage rise, which was intended to obtain a stable ionization, upon the voltage of the second ionization was determined. Full electric-strength recovery takes place only after 5 hours.

V.V.K.-D.

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APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

MIKHALEV, V.A.; DOROKHOVA, M.I.; SMOLINA, N.Ye.; ZHELOKHOVTSEVA, A.M.; TIKHONOVA, O.Ya.; SKOLDINOV, A.P.; ARENDARUK, A.P.; SMOLIN, D.D.; GOLOVKINA, T.V.; SLONOVA, L.A.

Styrene as an initial product for synthomycetin and levomycetin production. Part 2: Synthesis of p-nitroacetophenone and p-nitro-α-bromacetophenone. Antibiotiki 4 no.4:21-24 Jl-Ag '59. (MIRA 12:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S.Ordzhonikidze (for Mikhalev, Dorokhova, Smolina, Zhelokhovtseva, Tikhonova). 2. Institut farmakologii i khimioterapii AMN SSSR (for Skoldinov, Arendaruk, Smolin, Golovkina, Slonova).

(CHLORAMPHENICOL chem)
(KETONES chem)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

MIKHALEV, V.A.; DOROKHOVA, M.I.; SMOLINA, N.Ye.; TIKHONOVA, O.Ya.

β-Haloalkyl amines and products of their transformations. Part 1: Reaction of bis(β-chloroethyl)amine with α-oxides. Zhur. ob. khim. 34 no.11:3716-3719 N '64 (MIRA 18:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut imeni S. Ordzhonikidze.

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

MIKHALEV, V.A.; DOROKHOVA, M.I.; SMOLINA, N.Ye.; TIKHONOVA, O.Ya.

β-Haloalkyl amines and their transformation products. Part 2: Derivatives of N', N''-dispirotripiperazinium. Zhur.org.khim. 1 no.3:460-464 Mr '65. (MIRA 18:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy khimiko-farmatsevticheskiy institut im. S.Ordzhonikidze.

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

TIKHONOVA, M., dvornik (Zagorsk, Moskovskoy obl.); GUROV, T., dvornik (Zagorsk, Moskovskoy obl.); VAS'KINA, A., dvornik (Zagorsk, Moskovskoy obl.); KISELEV, A., dvornik (Zagorsk, Moskovskoy obl.); VASINA, M., dvornik (Zagorsk, Moskovskoy obl.); SHAKALOVA, A., dvornik (Zagorsk, Moskovskoy obl.); TIKHONOVA, P., dvornik (Zagorsk, Moskovskoy obl.); PEROVA, A., dvornik (Zagorsk, Moskovskoy obl.)

An open letter from yard cleaners in Zagorsk. Zhil.-kom. khoz. 13 no.3: 10 Mr '63. (MIR 16:3)

(Cleaning machinery and appliances)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

S/123/62/000/014/011/020
A004/A101

AUTHORS: Shkuratov, F. I., Tikhonova, R. A.

TITLE: Investigating the processes taking place during low-temperature tempering in hardened ШХ15 СГ (ShKh15SG) grade steel specimens

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 14, 1962, 32, abstract 14B184 ("Tr. Donetsk. politekhn. in-ta", 1961, v. 56, 129 - 136)

TEXT: The authors report on the results of investigating the effect of the hardening temperature of the ShKh15SG grade steel on the quantity of residual austenite and the temperature range of its decomposition during low-temperature tempering. The specimens were hardened in oil after heating to 820 - 1,000°C, while tempering took place at 120 - 400°C. It is shown that if the hardening temperature is increased from 820 to 860°C, the hardness of the ShKh15SG increases somewhat owing to the martensite alloying, while a slight reduction in hardness can be observed if hardening is taking place at 920°C. A further reduction in hardness is observed at higher hardening temperatures (1,000°C). If the hardening temperature is increased from 820 to 1,000°C the quantity of residual austenite grows

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A004/A101

Investigating the processes...

from 2 to 16%, this growth becoming more pronounced at temperatures over 920°C. Beginning and end of the residual austenite decomposition at low-temperature tempering and the corresponding increase of magnetic saturation are shifting with an increase of the hardening temperature. The reduction of magnetic saturation and a certain increase in hardness during the tempering of the hardened specimens (particularly at elevated hardening temperatures) at 120°C, which was established during the investigations, are conditioned by the great quantity of disperse carbides of the intermediate type precipitated from the martensite, these carbides being coherently bound with the crystalline martensite lattice. Tempering in the temperature range of 180 - 280°C does not cause the hardness to change considerably, since two processes occurring in opposite direction are taking place simultaneously - the decomposition of martensite and of the residual austenite. At higher tempering temperatures (400°C) the austenite decomposes into a ferrite-cementite mixture - troostite, with a corresponding reduction in hardness.

D. Litvinenko

[Abstracter's note: Complete translation]

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APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

SEMENOV, I.M., kand.tekhn.nauk; TIKHONOVA, R.V., inzh.

Axle box roller bearings used on electric locomotives. Elek. i teplotiaga 2 no.2:9-11 F '58. (MIRA 11:4)
(Electric locomotives) (Roller bearings)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

SEMENOV, I.H., kand. tekhn. nauk; TIKHONOVA, [illegible]V., inzh.

Results of tests for the determination of the forces acting upon the axle equipment of VL23 and VL8 electric locomotives. Trudy TSNII MPS no.295:41-47 '65. (MIRA 19:1)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

TIKHONOVA, T.A. (gorod Shakhty)

Case of fungoid mycosis of the lungs and skin in an infant. Vest. rent. i rad. 40 no.1:71-72 Ja-F '65. (MIRA 18:6)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

Name: TIKHONOVA, Tat'yana Ivanovna

Dissertation: Effect of vagosympathetic blocs on the course of ulcerous diseases of the stomach and duodenum (clinical and laboratory study)

Degree: Doc Med Sci

Affiliation: [Not indicated]

Defense Date, Place: 12 Jun 56, Council of Khar'kov State Med Inst

Certification Date: 20 Apr 57

Source: BMVO 14/57

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

KRUG[illegible], N.D.; [illegible]

Regulation of the structural and mechanical properties of [illegible] muds by protective colloids. Dar. Khim. Khur. [illegible] no. [illegible] ([illegible])

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR.

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

PLESHAKOV, M.G.; TIKHONOVA, T.I.; GRIBOVA, T.A.

Thermal stabilization of polypropylene with a mixture of diane and thiourea. Khim. volok. no.4:6-8 '65. (MIRA 18:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskikh volokon, g. Kalinin.

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

TRETINNIK, V.Yu. [Tretynnyk, V.IU.]; OVCHARENKO, F.D., akademik; TIKHONOVA, T.I. [Tykhonova, T.I.]

Effect of electrolytes on the structural and mechanical properties of heavy clay suspensions. Dop. AN URSR no.7:904-906 '65. (MIRA 18:8)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR. 2. AN UkrSSR (for Ovcharenko).

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

TRETINNIK, V.Yu. [Tretynnyk, V.IU.]; OVCHARENKO, F.D., akademik; TIKHONOVA, T.I. [Tykhonova, T.I.]

Processes of structure formation in heavy clay suspensions. Dop. AN URSR no.6:739-741 '65. (MIRA 18:7)

1. Institut obshchey i neorganicheskoy khimii AN UkrSSR. 2. AN UkrSSR (for Ovcharenko).

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

ACCESSION NR: AP5013623

AUTHOR: Pleshakov, M. G.; Tikhonova, T. I.; Grinova, T. A.

TITLE: Thermal stabilization of polypropylene by a mixture of diane and [illegible]

SOURCE: Khimicheskiye volokna, no. 4, 1965, 6-8

TOPIC TAGS: polypropylene plastic, thermal stability, oxidation inhibition, chemical decomposition, urea resin

[illegible]

a fun[illegible] measuring the intrinsic viscosity after [illegible] exposed showed that thiourea in- [illegible]

[illegible] diane mixtures [illegible]

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

L 63787-65
ACCESSION NR: AP5019629

the oxidation process after this period has ended (in contrast to most inhibitors, whose action is associated with a self-acceleration of the oxidation at the end of the induction period). A 1:1 thiourea-diane mixture (total weight equal to 1% of the weight of the polymer) produces the greatest increase in the induction period, while the intrinsic viscosity remains the same, i.e., the polymer retains its fiber-forming properties. Orig. art. has: [illegible]

ASSOCIATION: VNIISV

SUBMITTED: 22Sep64 ENCL: 00 SUB CODE: MT,TD

NO REF SOV: 005 OTHER: 001

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APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

TIKHONOVA, T.I.; GERTSBERG, L.Ya.; ZUBRITSKIY, P.V.

Photometric method for determining furfurole in aqueous and chlorobenzene solutions. Zhur.anal.khim. 17 no.2:245-247 Mr-Ap '62. (MIRA 15:4)

(Furaldehyde) (Photometry)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

L 45450-66

ACC NR: AP6022724

of a 1% thiourea and 1% antioxidant. The viscosity of the polymer remained virtually unchanged after heating when these mixtures were used. Orig. art. has: 3 figures and 1 table.

SUB CODE: 11, 07 / SUBM DATE: 13 Jan 65 / OTH REF: 001

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

YEGOROV, G.A.; TIKHONOVA, T.M.; TURCHINA, G.V.

Effect of moisture on the density of the wheat kernel. Izv.vys. ucheb.zav.; pishch.tekh. no.5:17-19 '59. (MIRA 13:4)

1. Krasnodarskiy institut pishchevoy promyshlennosti, kafedra tekhnologii zerna.

(Grain)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

VOL'PER, Izrail' Naumovich, NAMESTNIKOV, A.F., kand. tekhn. nauk, retsenzent; TIKHONOVA, T.V., red.

[Chemistry in the food industry] Khimiia v pishchevoi promyshlennosti. Moskva, Pishchevaia promyshlennost', 1965. 87 p. (MIRA 18:8)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

GULYAYEV, Valentin Nikolayevich; FEROBKINA, G.S., kand. tekhn. nauk, retsenzent; BACHURSKAYA, L.D., inzh., retsenzent; TIKHONOVA, T.V., red.

[Food concentrates and their use under home conditions] Pishchevye kontsentraty i ikh ispol'zovanie v domashnikh usloviiakh. Moskva, Pishchevaia promyshlennost', 1965. 109 p. (MIRA 18:8)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

MALEVA, Berta Il'inichna, inzh.; ZELIKSON, T.I., retsenzent; TIKHONOVA, T.V., red.

[Refining and hydrogenation of oils and fats] Rafinatsiia i gidrogenizatsiia zhirov. Moskva, Pishchevaia promyshlennost', 1964. 107 p. (MIRA 17:10)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

PALEYEV, Aleksandr Ivan [illegible] TIKHONOVA, T.V., red.

[Equipment for the production of ground meat [illegible]. Oborudovanie dlia massovogo proizvodstva miasnykh kotlet. Moskva, Pishchevaia promyshlenn[illegible]. [illegible] p. [illegible]]

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

S/123/61/000/013/012/025
A052/A101

AUTHOR: Tikhonova, T. V.

TITLE: The dependence of the wear of grinding wheels on grinding conditions at spherical grinding

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 13, 1961, 75, abstract 13B507 ("Nauchno-tekhn. inform. byul. Leningr. politekhn. in-t", 1960, no. 5, 75-79)

TEXT: The dependence of the wear of grinding wheels on grinding conditions as applied to the raceways of inner ball races is considered. The grinding has been performed with wheels of 80-100 granularity, C1, C2, CM1, CT hardness on vulcanite and bakelite binders at V_{wh} = 10-55 m/sec, V_w = 94.6 - 473.5 m/sec, depth of grinding 0.002 - 0.02 mm, number of rockings of the headstock of the workpiece 30-90 per minute. The dependence of the specific wear of the wheel on grinding forces has been determined. It has been established that with an increase in the speed of the wheel its specific wear decreases, and with an increased transverse feed per minute it increases. An increase in the speed of the work-

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piece and in longitudinal feed not combined with a change in the feed per minute has a negligible effect on the specific wear of the wheel. There are 3 figures.

I. Brozgol'

[Abstracter's note: Complete translation]

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

BANNIKOVA, Lyudmila Aleksandrovna, kand. sel'khoz. nauk;
PYATNITSKAYA, Irina Nikolayevna, st. nauchn. sotr.;
ZHAROVA, V.S., retsenzent; KULESHOVA, V.D., retsenzent;
TIKHONOVA, ~~T.V.,~~ red.

[Rapid methods of bacteriological analysis of milk and dairy products] Uskorennye metody bakteriologicheskogo kontrolia moloka i molochnykh produktov. Moskva, Pishchevaia promyshlennost', 1965. 36 p.
(MIRA 18:6)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

KHAT'YANOV, F.I.; TIKHONOVA, V.A.

Reefs and tectonics of the southern cis-Ural region. Dokl.AN SSSR 145 no.2:404-407 Jl '62. (MIRA 15:7)

1. Geofizicheskiy trest "Bashneftegeofizika". Predstavleno akademikom N.M.Strakhovym.
(Ural Mountain region--Geology, Structural)

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1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

Q

2

Apparent volumes of colloids in solutions. Z. P. Chesheva and V. A. Tikhonova. *Colloid J.* (U. S. S. R.) 6, 915-23(1940).—Solns. of acetylcellulose in acetone and starch and dextrin in water were used for detn. of apparent vols. The magnitude of apparent vols. of colloids in solns. decreased with a decrease of concn. The general form of curves of apparent vols. was analogous to that of non-electrolytes in water soln. The apparent sp. vol. is a function of solvatation. A. A. Podgorny

COMMON ELEMENTS

COMMON VARIABLES INDEX

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

MATERIALS INDEX

AUTHOR INDEX

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

C-2, Organic, Pure and Applied (Pure)

Br. abs.

2847. Determination of acetone in presence of acetophenone. V. I. Tikhonova (J. appl. Chem., USSR, 1940, 13, 1014—1020).—The method depends on reaction between methyl ketones and furfuraldehyde in alkaline solution and formation of colour on acidification. Solution-A (5 ml. of 0·020m-eq. solution of furfuraldehyde, 1 ml. of 0·001m. standard eq. solution of acetone, 1 ml. of test-solution, and 1 ml. of 60% aq. KOH) and solution-B (as A, but 1 ml. of water is used in place of standard acetone solution) are each shaken and left for 20—30 min. at room temp. If much phenyl methyl ketone is present, ethanol may have to be added to each solution. Each solution (2 ml.) is then added to 20 ml. of 60% H_2SO_4 and the colour is measured by means of a Dubrecq colorimeter. If h_1 is the scale reading with solution-A and h_2 that with solution-B, then the concn. of acetone in the test solution is $Ch_1(h_2-h_1)$, where C is the concn. of standard solution of acetone. The method is said to be satisfactory in presence of 200 times excess of the ketone, and accuracy is claimed to be within the usual limits of colorimetric analysis. The nature of the separate reactions between the ketones and furfuraldehyde is discussed.

G. D. Heath.

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Ca

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A method of colorimetric measurement. R. K. Nikitin and V. I. Tikhonova. *J. Applied Chem.* (U. S. S. R.) 11, 347-[illegible] French 351 (1938). The colorimetric comparison of yellow, or greenish yellow solns. is not easy but more accurate results can be obtained by adding a red soln. or a blue soln. to the standard and to the unknown and then comparing the orange tints. Thus if to a dil. standard soln. of $K_2Cr_2O_7$ a suitable vol. of red fuchsin soln. is added, then by measuring the vol. of fuchsin required to produce the same shade (not intensity) in the unknown soln. the Cr content can be calcd. from the formula; $x = C(a_s/a_c)$, where C is the concn. of the standard and a_c and a_s are the vols. of fuchsin soln. added to the unknown and standard solns., resp. The method can be applied to the analysis of a greenish yellow soln. of furfurylidene-acetophenone in 60% H_2SO_4. In this case a suitable red soln. was prepd. by mixing equal vols. of a 0.2% aq. soln. of furfural, and a 0.01% aq. soln. of Me_2CO in 10-20% KOH; after a few min. a viscous emulsion was obtained which gave a red color when a little was added to 50 ml. of 60% H_2SO_4. A. A. Podgorny

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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7

CA

Determination of acetone in the presence of acetophenone

V. I. Tikhonova (Saratov State Med. Inst.). *Zhur. Priklad Khim.* (J. Applied Chem.) 22, 1014-20(1949).—The condensation of Me_2CO and AcPh with furfural was examd. in detail as the basis for the rapid colorimetric detn. of the former. Colored products form only if less than 80 moles Me_2CO per 1 mole furfural are present, since the initial 1:1 condensation product, an unsatd. ketone, may condense with further mols. of the ketone. AcPh forms only a monomol. reaction product. The procedure which can be used for detg. Me_2CO in presence of 200-fold excess of AcPh (or other Me ketones) is as follows: Mix 1 ml. test soln., 5 ml. 0.03 *M* aq. furfural, and 1 ml. 60% aq. NaOH; shake and let stand 15-30 min., dissolve a 1 ml. aliquot in 10 ml 60% H_2SO_4 which, in presence of Me_2CO, gives an orange-red color. If the test is neg., try dilns. of test solns. to insure that lack of color is not due to excess of Me_2CO. For the detn. use 1 ml. of test soln., 5 ml. 0.03 *M* furfural, 1 ml. H_2O, and 1 ml. 60% KOH, with control soln. contg. 1 ml. 0.001 *M* Me_2CO instead of the 1 ml. H_2O; after simultaneous color development and standing 20-30 min., measure the color and the concn. of Me_2CO is given by the formula: $x = Ck_x/(k_0 - k_x)$, where x is Me_2CO concn. in test soln., C is exact concn. of Me_2CO in the 0.001 *M* Me_2CO soln. used above, k_0 is colorimeter reading with the control soln., and k_x that of the soln. tested. G. M. K.

1957

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

CA

10

The relative activity of methyl ketones. I. Reactivity of acetone and acetophenone with furfural. V. I. Tikhonova. *J. Gen. Chem. U.S.S.R.* 20, 2299-2304(1950) (Engl. translation).—See *C.A.* 45, 7100a. B. L. M.

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

CA

Determination of acetophenone in the presence of acetone

A. I. Tikhonova (Saratov State Med. Inst.). *Zhur. Prikl. Khim.* (J. Applied Chem.) 23, 1113-15(1950). Furfural is found exclusively by Me_2CO in a reaction catalyzed by NaOH in mixts. contg. acetophenone(I), the latter forms a condensation product which is colored in acid soln. Its color can be seen if Me_2CO excess over I is not over 20 moles to 1 mole. To det. I make up a standard soln. of 3 ml. 0.002 *M* aq. furfural, 3 ml. I standard soln., 3 ml. test soln., and 3 ml. 60% NaOH. The 2nd soln. is 3 ml. 0.002 *M* aq. furfural, 3 ml. test soln., 3 ml. EtOH, and 3 ml. 60% NaOH. The solns. are allowed to stand at 40-50° for 10 min. or 30 min. at room temp.; 2 ml. aliquots are taken and dissolved in 20 ml. 60% H_2SO_4, and the color is detd. colorimetrically. A convenient concn. of the standard I soln. is 0.01 *M*.

G. M. Kosolapoff

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

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TIKHONOVA V. I.

10

CH

Relative activity of methyl ketones. I. Colorimetric study of the reactivity of acetone and acetophenone with furfural. V. I. Tikhonova (Saratov State Med. Inst.). *Zhur. Obshchei Khim.* (J. Gen. Chem.) 20, 2213-18(1950).—Colorimetric tracing of the course of reaction of Me_2CO or MeEt with furfural up to the point of max. color was performed. MeEt has approx. 70% the activity of Me_2CO with an alk. catalyst (aq. KOH) at 20°. While MeEt gives only 1 product, α-furfurylidene-acetophenone, Me_2CO gives 3 products: furfurylidene-acetone, difurfurylidene-acetone, and furyldiacetone, $C_4H_3OCH(CH_2COMe)_2$, when equiv. amts. are allowed to react; excess Me_2CO gives only the 1st and last products. Hence, the study was made with excess furfural to avoid the changes of the reaction type. With Me_2CO the reactions were followed in solns. contg. 0.01 *M* aq. furfural, 0.004 *M* alc. Me_2CO, and 0.05 aq. KOH taken in equal vols. (complete in 15 min.), or with 0.002 *M* Me_2CO soln. (also complete in 15 min.), or with 0.005 *M* furfural (reaction complete in 30 min.). With MeEt the reaction was complete in 22 min. at 0.001 *M* furfural and 0.004 *M* ketone concn. The catalyst concn gives an inverse linear variation of the reaction time.

G. M. Kosolapoff

1/1

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

TIKHONOVA, V.I.

Qualitative and quantitative determination of acetone and acetophenone in the presence of methyl ethylketone. Zhur.prikl.khim. 26 no.6:662-666 Je '53. (MLRA 6:7)

1. Kafedra obshchey khimii Saratovskogo meditsinskogo instituta. (Acetone) (Acetophenone)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

MANSUROVA, M.M.; TIKHONOVA, V.I.

Use of substitutes for mercuric chloride for the fixation of preparations of intestinal protozoa during rapid staining with iron hematoxylin. Zdrav. Tadzh. 7 no. 2:54-57 Mr-Ap '60. (MIRA 13:10)

1. Iz kafedry biologii (zav. - zasluzhennyy deyatel' nauki A.I. Shchurenkova) Stalinabadskogo medinstituta im. Abuali ibni Sino.
(PROTOZOA) (HEMATOXYLIN)
(BIOLOGICAL SPECIMENS--COLLECTION AND PRESERVATION)

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

TIKHONOVA, V.I.

Titrimetric determination of furfurole by iodic acid. Izv.vys. ucheb.zav.;khim.i khim.tekh. 6 no.5:744-750 '63. (MIRA 16:12)

1. Saratovskiy meditsinskiy institut, kafedra obshchey khimii.

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

KAGANOVICH, Raisa Semenovna; SHAYDAROVA, N.I.; KHARAS, K.K.; TIKHONOVA, V.I., nauchn. red.; ISH, N.N., red.; BARANOVA, N.N., tekhn. red.

[Teaching the course "Cookery" in vocational and technical schools] Prepodavanie kursa "Kulinariia" v professional'no-tekhnicheskikh uchilishchakh; razrabotki urokov. Moskva, Proftekhizdat, 1963. 126 p. (MIRA 17:4)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

TIKHONOVA, V. I.

USSR/Chemistry - Synthetic Pharmaceuticals Feb 51

"Brief Communication: Reactions of the Mutual Substitution of Methylketones in Furfurylidenekeetones," V. I. Tikhonova, Chair Gen Chem, Saratov State Med Inst

"Zhur Prik Khim" Vol XXIV, No 2, pp 202-205

Conducted qual substitution of acetone (I) for acetophenone (II) in primary product of condensation of furfural (III) with II in acid and alk media. Studied substitution of I for methylpropylketone (IV) in primary product of condensation

177T19

USSR/Chemistry - Synthetic Pharmaceuticals Feb 51
(Contd)

of III with IV. Due to small difference in chem activity, latter substitution occurred only in alkali.

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

TIKHONOVA, V. I.

(2)

Detection and determination of acetone and acetophenone in the presence of methyl ethyl ketone. V. I. Tikhonova (Saratov. Med. Inst.). *Zhur. Priklad. Khim.* 26, 662-8 (1953); cf. *C.A.* 46, 4054a.—Me_2CO and AcPh can be detected and detd. in the presence of MeCOEt by the reaction with furfural in alk. soln. The 1st 2 substances yield products that are colored in acid solns., while the 3rd ketone does not yield such products. The test solns. in EtOH are treated with 0.002*M* aq. furfural in the presence of KOH (2 ml. added to a mixt. of 2-ml. portions of the reagents, followed after 15 min. by soln. in 60% H_2SO_4). The color produced is compared with standards prepd. similarly.

G. M. Kosolapoff

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

TIKHONOVA, V.I.

Chronometric determination of furfurole in its aqueous solutions. Zhur. anal. khim. 19 no.5:629-634 '64. (MIRA 17:8)

1. Saratovskiy meditsinskiy institut.

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

GRIGOR'YEVA-BERENSHTEYN, A.G.; TIKHONOVA, V.I.

Significance of Schick's reaction in lowering of morbidity of diphtheria. Zhur.mikrobiol.epid. i immun. 28 no.6:84-89 Je '57. (MIRA 10:10)

1. Iz Instituta imeni Pastera.
(DIPHTHERIA, prevention and control, Schick's test in (Rus))

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

ALIMARIN, I.P.; NIKOLAYEVA, Ye.R.; TIKHONOVA, V.I.; BOBROVA, L.V.

Oxidation-reduction properties of bivalent vanadium compounds.
Zhur.neorg.khim. 7 no.2:298-304 F '62. (MIRA 15:3)

1. Moskovskiy gosudarstvennyy universitet imeni Lomonosova, kafedra analiticheskoy khimii.
(Vanadium compounds) (Oxidation-reduction reaction)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

Ca

26

Polymerization and drying of oils and esters of fat acids V. Drying of linseed oil at extremely high temperatures A. Ya. Drinberg and V. M. Tikhonova. *J. Applied Chem.* (U. S. S. R.) 16, No. 11-12, 397-404(1943); cf. C. A. 37, 4263[1]. At about 500°, oils and lacquers dry very rapidly to films that in their physicomechanical and corrosion-preventing properties are not inferior to films made at 125°, and are considerably superior to those made at 20°. At the high drying temps. there are greater losses of weight of the films; these can be reduced by the use of polymerized oils. G. M. Kosolapoff

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

ALEKSANDROV, G.P.; TIKHONOVA, V.S.

Determination of ammonia in the presence of nitrites. Zav.lab. 26 no.1:57 '60. (MIRA 13:5)

1. Institut geologii poleznykh iskopayemykh Akademii nauk USSR.
(Nitrites) (Ammonia)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

ALEKSANDROV, G.P.; TIKHONOVA, V.S.

Preparation of a new sulfate fertilizer, kaluszite, from natural kainites. Zhur. prikl. khim. 31 no.10:1445-1453 O '58. (MIRA 12:1)

1. Laboratoriya mineralnoy khimii instituta geologii poleznykh iskopeyemykh AN USSR.
(Kainite) (Fertilizers and manures)
(Kaluszite)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

TIKHONOVA, V.S.

PHASE I BOOK EXPLOITATION SOV/5207

Vsesoyuznaya konferentsiya professorov i prepodavateley pedagogicheskikh institutov.

Primeneniye ultrazvukovoy k issledovaniyu veshchestva (Utilization of Ultrasonics for the Investigation of Matter) Moscow, Izd. MOPI, 1960. 267 p. 1,000 copies printed. (Series: Its Trudy, vyp. 11)

Ed. (Title page): V.F. Nozdrev, Professor and B.B. Kudryavtsev, Professor.

PURPOSE: This collection of articles is intended for physicists specializing in the physics of ultrasound.

COVERAGE: The collection of articles constitutes the transactions of the VII Conference on the Applications of Ultrasonics to the Study of Materials, which was held at the Moscow Oblast Pedagogical Institute imeni N.K. Krupskaya. Individual articles of the collection discuss various problems in the wave mechanics of ultrasound, the absorption and the propagation mechanics of ultrasonic waves in various media, the operating principle and design of generators and receivers of ultrasonic waves, the speed of sound and methods for its determination. Other articles deal with the applications of ultrasonics to investigations of the properties of materials. No personalities are mentioned. References accompany

Utilization of Ultrasonics (Cont.) SOV/5207

Khlaborodova, K.T., and B.B. Kudryavtsev [Moscow Oblast Pedagogical Institute imeni N.K. Krupskaya]. Propagation of Sound in Disperse Media 163

Kal'yanov, B.L. [Tambov Pedagogical Institute]. Determination of the Speed of Ultrasound From the Periodic Variations of the Phase Relations of Two Acoustic Pulses 173

Kanatova, R.F., and B.B. Kudryavtsev [Moscow Oblast Pedagogical Institute imeni N.K. Krupskaya]. Speed of Sound in Aqueous Solutions of $Ka(NO_3)_2$ 181

Shilyayev, A.S., and B.B. Kudryavtsev [Izhevskiy meditsinskiy institut—Izhevsk Medical Institute, and Moscow Oblast Pedagogical Institute imeni N.K. Krupskaya]. Investigation of the Propagation of Ultrasonic Waves in Three-Liquid Mixtures Whose Components Have Different Interaction Patterns 191

Koneva, N.P., and B.B. Kudryavtsev [Moscow Oblast Pedagogical Institute imeni N.K. Krupskaya]. Application of Acoustic Measurements in the Study of Density Fluctuations in Liquids 201

Olinskiy, A.A. [Moscow Oblast Pedagogical Institute imeni N.K. Krupskaya]. Diffraction of Light on Damped Ultrasonic Waves 205

Perepechko, I.I., and V.F. Yakovlev [Moscow Oblast Pedagogical Institute imeni N.K. Krupskaya]. New Method Using Interferometer to Measure Absorption of Ultrasound 213

Shirkevich, M.G. [Moscow Oblast Pedagogical Institute imeni N.K. Krupskaya]. Investigation of the Speed of Propagation and Absorption of Ultrasound in Liquid Phase Methyl Alcohol Near the Critical Region 219

Maiyaria, I.G. [Moscow Oblast Pedagogical Institute imeni N.K. Krupskaya]. Investigation of Temperature Dependence of Sliding and Volumetric Viscosity of Certain Organic Liquids in the Critical Region 225

Rozin, Ya.F., and V.S. Tikhonova [Odesskiy politekhnicheskiy institut—Odessa Polytechnic]. Device for Measuring the Intensity of an Ultrasonic Field in Conducting Liquids 233

Perepechko, I.I., and V.F. Yakovlev [Moscow Oblast Pedagogical Institute imeni N.K. Krupskaya]. Relaxation Processes in Van Der Waals Gases 239

Merkulov, L.G. [LETI im. V.I. Ul'yanova (Lenina)— Leningrad Electrotechnical Institute imeni V.I. Ul'yanov (Lenin)]. Absorption of Ultrasonic and Hypersonic Waves in Certain Crystals 247

Topolev, V.F. Lecture Room Demonstrations With Ferrite Ultrasound Radiators 253

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AVAILABLE: Library of Congress (QC244.V82)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

ALEKSANDROV, G.P.; TIKHONOVA, V.S.

Gravimetric determination of cerium by the periodate method. Zhur. khim.zhur.22 no.3:379-382 '56. (MIRA 9:9)

1.Institut geologii poleznykh iskopayemykh AN USSR, Laboratoriya mineral'noy khimii.
(Cerium) (Periodates)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

L 20892-66 EWT(1)/T/EWP(k)

ACC NR: AP6002573 (N) SOURCE CODE: UR/0286/65/000/023/0062/0062

AUTHORS: Rozin, Yu. P.; Tikhonova, V. S.

ORG: none

TITLE: Method for measuring the intensity of an ultrasonic field in liquid media. Class 42, No. 176728

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 62

TOPIC TAGS: ultrasonic field, irradiation intensity

ABSTRACT: This Author Certificate presents a method for measuring the intensity of an ultrasonic field in liquid media. The method consists of measuring the static pressure compensating the radiation pressure causing the irradiated liquid to rise in a capillary tube. To increase the accuracy and sensitivity of the measurements, the pressure in the system is increased continuously to expel the column of liquid from the capillary tube (see Fig. 1). The radiation intensity is determined by the difference in pressures causing a bubble of air to pass from the end of the capillary with and without the ultrasonic field.

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ACC NR: AP6002573

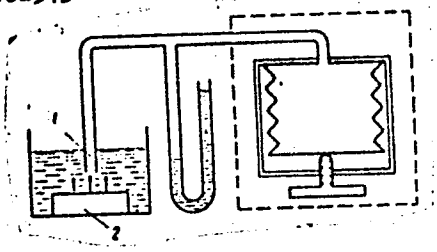

Fig. 1. 1 - capillary tube; 2 - ultrasonic radiator.

Orig. art. has: 1 diagram.

SUB CODE: 14, 20/ SUBM DATE: 21Sep64

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

L 30382-66

ACC NR: AP6008002 SOURCE CODE: UR/0046/66/012/001/0123/0125 (N)

56
B

AUTHOR: Rozin, Yu. P. ; Tikhonova, V. S.

ORG: Odessa State University (Odesskiy gosudarstvennyy universitet)

TITLE: A microradiometer for the investigation of acoustic fields in liquids

SOURCE: Akusticheskiy zhurnal, v. 12, no. 1, 1966, 123-125

TOPIC TAGS: radiometer, acoustic field, acoustic measurement, measuring apparatus, liquid property, ULTRASONIC PROPERTY, ULTRASONIC SENSOR

ABSTRACT: The radiometric method, based on the measurement of the constant component of ultrasonic pressure, is an important method for measuring ultrasonic intensity. The radiometers described in the literature, however, are usually not convenient for day to day operation. The authors describe a radiometer which reacts to the constant component of ultrasonic pressure, but employs an air bubble as the sensor; the air bubble is located at the end of the capillary submerged in the liquid. Since capillaries may be manufactured in any diameter (1 mm and smaller) from glass, steel, and other metals, the sensor described may be placed at any point of the field. The sensitivity of the apparatus is independent of the material of the capillary, but depends substantially on its diameter: a reduction in the diameter raises sensitivity considerably. One of the important advantages of the radiometer is its simple design which requires no difficult-to-obtain materials and devices. An operational measuring apparatus consists of a container 1 with an ultrasonic emitter K, a capillary 2 (Fig. 1), connected with manometer 3. The pressure in the system is altered by means

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ACC NR: AP6008002

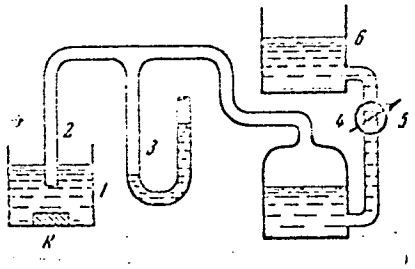

Fig. 1. Operational ultrasonic intensity measuring apparatus.

of the simple device 4-6. The rate of pressure buildup is controlled by valve 5. As an example, the authors took sound pressure distribution readings along the diameter of a quartz emitter operating at a frequency of 800 kcs in transformer oil, 40 mm from the surface of the emitter. Orig. art. has: 5 figures and 7 formulas.

SUB CODE: 20,14 / SUBM DATE: 06Dec64

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

ALEKSANDROV, G.P.; TIKHONOVA, V.S.

Effect of the concentration of $[Ni(NO_2)_6]^{4-}$ on the composition of mixed lanthanum and cerium hexanitronickelates with potassium. Ukr.khim.zhur. 27 no.5:592-598 '61. (MIRA 14:9)

1. Institut geologii poleznykh iskopayemykh AN USSR.
(Rare earth compounds) (Nickel compounds)
(Potassium compounds)

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21931

S/128/60/000/001/002/007
A133/A127

18.1245

AUTHORS: Krymov, V. V., Nikol'skaya, Ye. M., Tikhonova, V. V., Fedorova, V. K.

TITLE: Production of foundry magnesium alloys containing zirconium

PERIODICAL: Liteynoye proizvodstvo, no. 1, 1960, 23-25

TEXT: The article deals with various magnesium alloys to which zirconium had been added to reduce the grain size and to render improved mechanical properties of alloy castings. Investigations have been carried out to find an optimum method for adding zirconium to foundry magnesium alloys at a ratio of at least 0.6%. This is a difficult technological problem owing to the high chemical activity, high melting point, considerable specific weight (6.4)and low solubility of zirconium. Two test series were carried out. In the first, zirconium was added in the form of potassium fluorozirconate, in the second, zirconium was added in the form of foundry alloy, as virgin metal (100%), secondary metal (100%) or in a combined

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Production of foundry magnesium alloys... A133/A127

form (70% virgin, 30% secondary metal). Test results obtained in the first series indicated that the composition of the working alloy, after remelting, is not constant. Thereby, the zirconium content considerably decreased, and the addition of zirconium in the form of fluorine salts increased the danger for the foundrymen. An analysis of the second series proved that the simplest and most dependable method involves the use of a blended foundry alloy whereby zirconium is obtained through reduction by means of magnesium from a melt of potassium fluorozirconate and carnallite. In this case, carnallite, equaling 25% of the weight of the charge, is put into a crucible and heated to 730-750°C, held until bubbling stops to provide conditions for adding 50% potassium fluorozirconate in small portions. When the latter dissolved, magnesium, melted in an other crucible, is added. Simultaneously, the temperature is increased to 780-800°C and the charge is thoroughly stirred. Such a foundry alloy contains 20-35% zirconium in the dissolved state and 10-15% elementary zirconium with a total zirconium content between 30-50%. The

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A133/A127

Production of foundry magnesium alloys...

following factors have been investigated: the effect of the added foundry alloy on the mechanical properties of an alloy melted from a 100% virgin metal; the effect of repeated remelting without any refining on the zirconium content of the alloy and its mechanical properties; the effect of adding different amounts of foundry alloys on the Zr content and the mechanical properties of an alloy melted from 70% secondary and 30% virgin metal. Testing the mechanical properties of the МЛ12(ML12) alloy as to the effect of its Zr content it was found that an increased Zr content raises the strength limit, and in particular, the yield point of the alloy. High and stable properties have been attained with an addition of 7.5 - 10% foundry alloy. At repeated remelting without any further addition of foundry alloy the Zr content somewhat decreases but comes still close to 0.6 %, simultaneously ensuring high-level anti-corrosion properties. Based on these studies the following melting technology is recommended: the charge will consists of МГ1 (MG1) bar magnesium, zinc bars of a grade not lower than Ц2 (Ts2), alloying rare-earth metals or thorium, magnesium-zirconium foundry alloy (30-50% Zr) and secondary

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Production of foundry magnesium alloys... S/128/60/000/001/002/007 A133/A127

metal. The charge is calculated for a 2.5% Zr content; zinc and rare earth metal content is rated at median values and as to the thorium content the upper limit has been considered. The amount of the foundry alloy is calculated in the following way, depending on the composition of the charge:

Composition of the charge	Foundry alloy added
100% virgin metal	7.5 %
60-80% secondary metal + 20-40% virgin metal	7.5 % of the weight of the virgin metal and 2% of the weight of the secondary metal
100% secondary metal	2 %

In the melting process ВИ2 (VI2) and ВИ3 (VI3) type fluxes are used. Zinc is added after melting and reheating of magnesium up to 700-720°C. After refining and overheating at 780-800°C the contaminated flux is removed from the surface of the melt and foundry alloy is added in corresponding portions. Thereby, melting temperature has to

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Production of foundry magnesium alloys... A133/A127

be maintained at 760°C and must not be lower while reheating temperatures have to be above 800°C. After having added the foundry alloy fresh flux is put on the surface of the melt, the melt is held for 10-15 minutes and then poured at 740-780°C. The quality of the melt so prepared is determined by technological break test samples and from the results of spectrum analysis. When preparing the charge it is necessary to use well-cleaned crucibles and any aluminum or МЛ5 (ML5) or МЛ4(MI4) alloy residues should be avoided. There is 1 figure and 5 tables.

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NOVIKOV, I.I.; TIKHONOVA, V.V.; NOVIK, F.S.; KOROL'KOV, G.A.

Mechanical properties in the solid-fluid state of the ML12 alloy containing RZM [rare-earth metals]. Metalloved. i term. obr. met. no.9:53-56 S '63. (MIRA 16:10)

1. Moskovskiy institut stali i splavov.

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

TITLE: Hot cracking of alloys [illegible]

SOURCE: IVUZ. Tsvetnaya metallurgiya [illegible]

TOPIC TAGS: hot cracking, [illegible] alloy, zinc alloy, zirconium alloy, crystallization crack

ABSTRACT: The article is devoted to a study of the influence of composition and structure on the resistance [illegible] cracks in alloys [illegible]

ML5 was also tested for comparison. [illegible] area between the city margin in the solid-liquid state, [illegible] curves representing the temperature dependence [illegible] the elongation per unit length and linear shrinkage in the brittleness range [illegible] the magnitude of this range [illegible]. It was found that alloy ML12-2, which had a relatively high zinc content (6.0%), was much more resistant to cracking than ML12 [illegible]. The investigations indicate that by changing the [illegible] system

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L 31863-65

ACCESSION NR: AP5003368

Mg-Zn-Zr one can substantially decrease their hot cracking. Orig. art. has: 3 figures and 1 table.

ASSOCIATION: Kafedra metallovedeniya tsvetnykh i redkikh metallov, Moskovskiy institut stali i splavov (Non-ferrous and rare metals science department, Moscow steel and alloys institute)

SUBMITTED: 04Mar64

SUB CODE: MM

NO REF SOV: 007

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L 18915-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/JG

ACCESSION NR: AP3006607 S/0129/63/000/009/0053/0056

63
62

AUTHORS: Novikov, I. I.; Tikhonova, V. V.; Novik, F. S.; Korol'kov, G. A.

TITLE: Mechanical properties of ML12 alloy, containing rare earth elements, in solid-liquid state.

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 9, 1963, 53-56

TOPIC TAGS: ML12 alloy, alloy, rare earth element, ML5 alloy, mechanical property, plasticity

ABSTRACT: Authors tested supplementary alloying of ML12 in order to increase its service properties and to improve its engineering properties. The magnesium ML5 alloy was also tested for comparison purposes. Authors conclude that alloying the ML12 alloy with rare earth elements enhances its plasticity in solid-liquid state and increases the resistance to formation of crystallization cracks. The best admixture to the ML12 alloy is lanthanum, which greatly increases the plasticity in the solid-liquid phase as well as the yield point. Orig. art. has: 2 figures and 2 tables.

ASSN: Moscow institute for steel and alloys.

Card 1/1

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

KUVSHINOV, I.S., prof.; GORLANOV, I.A., kand. ekon. nauk; UTEKHIN, A.G., kand. sel'khoz. nauk; YEREMIN, S., red.; LAPIDUS, M., red.; RAKITINA, Ye., red.; TIKHONOVA, Ye., red.; FREYDMAN, S., red.

[World agriculture] Mirovoe sel'skoe khoziaistvo. Moskva, Kolos, 1964. 419 p. (MIRA 18:1)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

ALEKSEYEV, P.; IVANOVA, A., red.; PYLAYEVA, A., red.; TIKHONOVA, Ye., red.; BAILOD, A., tekhn. red.; FEDOTOVA, A., tekhn. red.

[Land and men] Zemlia i liudi. Moskva, Izd-vo sel'khoz. lit-ry, zhurnalov i plakatov, 1962. 195 p. (MIRA 15:3)
(Agriculture)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

TIKHONOVA, Ye., master; ABZALOV, S.; SLATIN, A.

Our best builders. Stroitel' no.9:12 '58. (MIRA 13:3)

1. Brigadir tresta No.46, Rybinsk (for Abzalov).
(Construction workers)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

KRIVOGLAZ, M.A. [Kryvohlaz, M.O.], TIKHONOVA, Ye.A. [Tykhonova, O.O.]

Theory of X-ray scattering by multicomponent ordered solutions. Ukr. fiz. zhur. 5 no.2:159-173 Mr-Ap '60. (MIRA 13:12)

1. Institut metallofiziki AN USSR.
(X rays--Scattering)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

KRIVOGLAZ, M.A.; TIKHONOVA, Ye.A.

Effect of anharmonicity on the Debye factor of the weakening of line intensities in X-ray photographs. Kristallografiia 6 no.4:496-502 Jl-Ag '61. (MIRA 14:8)

1. Institut metallofiziki AN USSR.
(X-ray crystallography)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

SMIRNOV, A.A.; TIKHONOVA, Ye.A.

Theory of X-ray scattering by ordering alloys with distorted lattices. Fiz.tver.tela 3 no.4:1238-1248 Ap '61. (MIRA 14:4)

1. Institut metallofiziki AN USSR, Kiyev.
(X rays—Scattering) (Crystal lattices) (Alloys)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

S/126/61/012/006/002/023
E032/E114

AUTHORS: Krivoglaz, M.A., and Tikhonova, Ye.A.

TITLE: The influence of thermal vibrations in solid solutions on the intensities of normal X-ray and neutron reflections and the intensity of the Mossbauer lines

PERIODICAL: Fizika metallov i metallovedeniye, v.12, no.6, 1961, 801-813

TEXT: After a brief introduction the authors give a derivation of a general formula for the Debye attenuation factor. Perturbation theory is used to derive this formula and the formula is accurate to within linear terms in the difference between the force constants and quadratic terms in the mass difference between the member atoms. Fluctuation non-uniformities in the concentration are explicitly taken into account and it is shown that they play an appreciable part. The analysis is then specialised to ideal solutions in which the atoms are distributed randomly over the lattice sites, ordered solutions in which the effect of short-range order on the Debye attenuation factor is investigated, and non-ideal unordered solutions. The intensity

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

The influence of thermal vibrations... S/126/61/012/006/002/023
E032/E114

of the Mossbauer lines is investigated as a function of temperature. A more detailed discussion is given of the case of small concentration of radiating atoms. The paper is entirely theoretical. No numerical computations are reported. There are 15 references: 11 Soviet-bloc and 4 non-Soviet-bloc. The English language references read as follows:

Ref.3: D. B. Bowen, Acta met., v.2, 1954, 373.
Ref.10: J. Schwinger, Phys.Rev., v.82, 664, 1951.
Ref.12: G.L. Squires, Phys.Rev., v.103, 1956, 304.

ASSOCIATION: Institut metallofiziki AN USSR
(Institute of Metal Physics, AS Ukr.SSR)

SUBMITTED: April 11, 1961

Card 2/2

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

KRIVOGLAZ, M.A.; TIKHONOVA, Ye.A.

Theory of the Debye thermal factor in solid solutions. Ukr. fiz. zhur. 8 no.2:248-251 F '63. (MIRA 16:2)

1. Institut metallofiziki AN UkrSSR, Kiyev.
(Alloys--Thermal properties)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

ZYUGANOV, A.N.; MOLODKIN, V.B.; SMIRNOV, A.A.; TIKHONOVA, Ye.A.

Effect of lattice distortions on the scattering of slow neutrons in alloys. Ukr. fiz. zhur. 8 no.2:256-263 F '63. (MIRA 16:2)

1. Institut metallofiziki AN UkrSSR, Kiyev.
(Crystals—Defects) (Neutrons—Scattering) (Alloys)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

S/181/62/004/001/013/052
B125/B104

AUTHORS: Smirnov, A. A., Tikhonova, Ye. A., and Chalyy, A. V.

TITLE: Effect of lattice irregularities caused by the different atomic radii in ordered binary solutions upon the intensity of scattered X rays

PERIODICAL: Fizika tverdogo tela, v. 4, no. 1, 1962, 77 - 85

TEXT: In previous work (FTT, 3, 1238, 1961) the authors have derived the general formula

$$I_{\text{пр.}} = 8\pi^3 N_0 \left| \sum_{n=1}^{\mu} \bar{f}_n e^{i\mathbf{q}\mathbf{b}_n} e^{-\frac{M_n}{2}} \right|^2 \prod_{j=1}^{3} \sum_{g_j} \delta(\gamma_j - 2\pi g_j). \quad (1)$$

for the intensity of regularly reflected X rays. N_0 is the number of elementary cells in the ordered alloy, μ - number of lattice sites in the

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

S/181/62/004/001/013/052
B125/B104

cells, g_j - integer ($j = 1,2,3,\ldots$), $\vec{q}$ - difference between the wave vectors of a scattered and of an incident wave, $\vec{h}_\kappa$ - radius vector from the first lattice site to the site κ of the same cell, $\gamma_j = \vec{q}\vec{a}_j$, $\vec{a}_j$ - fundamental vector of alloy lattice, $\bar{f}_\kappa$ - averaged atomic factor of lattice site κ, f_α - atomic factor of atoms of kind α, $p_\alpha^{(\kappa)}$ - probability of substitution of the lattice site κ by an atom α, n - number of different components in the alloy. M_κ indicates the weakening of regular reflection from lattice site κ. After a detailed study, the factor

$$F = \sum_{\kappa=1}^{4} f_\kappa e^{i\gamma_\kappa} e^{-\frac{M_\kappa}{2}} \qquad (14)$$

from Eq. (1) is represented as

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$$F_{\text{стр.}} = 4\bar{f}_0\left[1 - \frac{1}{2}\varepsilon^2 Q_q\left(c_A c_B - \frac{3}{16}\eta^2\right)\right] - \frac{1}{8}(f_A - f_B)\varepsilon^2(Q_q - 4Q_{1q})\left(\frac{1}{2}\eta + c_A - c_B\right)\eta^2, \quad (15),$$

where $\bar{f}_0 = c_A f_A + c_B f_B$. c_A and c_B are the concentrations of the components A and B. The Q's and Q_q's are found from

$$M_\varkappa = \sum_{\alpha=1}^{n}\sum_{\varkappa'=1}^{\mu} p_\alpha^{(\varkappa')} b_{\alpha\varkappa'}^2 Q_q^{\varkappa'\varkappa}, \quad (3)$$

$$Q_q^{\varkappa'\varkappa} = \sum_{\rho_{\varkappa'\varkappa}\neq 0} \frac{(q\rho_{\varkappa'\varkappa})^2}{\rho_{\varkappa'\varkappa}^6}, \quad (4)$$

taking into account the symmetries of a cubical face centered lattice. The $\vec{\rho}_{\varkappa'\varkappa}$ are the vectors connecting the sites $\varkappa'$ with the sites of the sub-lattice $\varkappa$. $b_{\alpha\varkappa}$ characterizes the lattice irregularities. The factor $4\bar{f}_0$

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B125/B104

Effect of lattice irregularities ...

agrees with formula (15) for F_{CTP} for the case of an unperturbed regular lattice. Consideration of irregularities leads to a dependence of F on concentration and on the long-range order. The dependence of the regularly reflected intensities on the long-range order as caused by the irregularities is explained. A possible relationship between the irregularity-induced increase in intensity of the fine-structure reflections and the long-range order is pointed out. There are 3 figures and 7 references: 5 Soviet and 2 non-Soviet. The reference to the English-language publication reads as follows: M. Born, R. D. Misra. Proc. Camb. Phil. Soc., 36, 466, 1940.

ASSOCIATION: Institut metallofiziki AN USSR Kiyev (Institute of Physics of Metals AS UkrSSR, Kiyev)

SUBMITTED: July 10, 1961

Card 4/4

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

STEPIN, B.D.; TIKHONOVA, Ye.A.; PLYUSHCHEV, V.Ye.

Preparation of rubidium hexadecachlorotriantimonide and its coprecipitation with potassium chloride. Zhur.neorg.khim. 6 no.4:890-896 Ap '61. (MIRA 14:4)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii imeni M.V.Lomonosova, Kafedra tekhnologii redkikh i rasseyannykh elementov.

(Rubidium compounds)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

TIKHONOVA, Ye. A., Cand Phys-Math Sci (diss) -- "The theory of disperaion of X-rays and slow neutrons in melts with local distortions of the crystal lattice". Kiev, 1960. 8 pp (Acad Sci Ukr SSR, Inst of Metallophysics), 175 copies (KL, No 11, 1960, 128)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

SMIRNOV, A.A. [Smyrnov, A.A.]; TIKHONOVA, Ye.A. [Tykhonova, O.O.]

Contribution to the theory of X-ray and thermal neutron scattering by multicomponent substitutional alloys. Ukr. fiz. zhur. 4 no.3:322-333 My-Je '59. (MIRA 13:2)

1. Institut metallofiziki AN USSR.
(X rays--Scattering)
(Neutrons--Scattering)
(Alloys)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

SOV/181-1-9-13/31

18(0), 24(2)

AUTHORS: Smirnov, A. A., Tikhonova, Ye. A.

TITLE: On the Theory of Scattering of X-Rays and Thermal Neutrons by Multicomponent Substitution Alloys

PERIODICAL: Fizika tverdogo tela, 1959, Vol 1, Nr 9, pp 1393 - 1400 (USSR)

ABSTRACT: The authors investigated the influence exerted by geometrical lattice disturbances, caused by different atomic radii of the components, on the X-ray- and neutron scattering in disordered binary and multicomponent alloys. Special attention is devoted to the concentration dependence of the scattered radiation intensity. The investigations were conducted after the model of the Borie elastic continuum for the special case of binary alloys. Moreover, they were made on the assumption of the displacements being superposable, without considering the correlations between the substitutions of the various lattice points by atoms. Calculations are made within the kinematic scattering theory. The authors considered the scattering of a monochromatic radiation on a single crystal. First, the general theory of X-ray scattering in multicomponent alloys is developed, and this is then applied to the special cases of a

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

On the Theory of Scattering of X-Rays and Thermal Neutrons by Multicomponent Substitution Alloys

SOV/181-1-9-13/31

binary and a ternary alloy. The formulas obtained can be used for the calculation of scattering intensity in alloys with disturbed lattice, and permit the investigation of the concentration dependence of the regular reflection and the background intensity. There are 8 references, 5 of which are Soviet.

ASSOCIATION: Institut metallofiziki AN USSR Kiyev (Institute of Metal Physics of the AS UkrSSR Kiyev)

SUBMITTED: December 30, 1958

Card 2/2

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

SMIRNOV, A.A.; TIKHONOVA, Ye. A.

Contribution to the theory of scattering of X rays and thermal neutrons by multicomponent substitution alloys. Fiz. tver. tela 1 no.9:1393-1400 S '59. (MIRA 13:3)

1. Institut metallofiziki AN USSR, Kiyev.
(X rays--Scattering) (Neutrons--Scattering) (Alloys)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

KRIVOGLAZ, M.A. [Kryvoglaz, M.A. [Kryvohlaz, M.O.], TIKHONOVA, Ye.A. [Tykhonova, O.O.]

Theory of X-ray scattering by interstitial solid solutions. Ukr. fiz. zhur. 5 no.2:174-189 Mr-Ap '60. (MIRA 13:12)

1. Institut metallofiziki AN USSR.
(X rays--Scattering) (Solutions, Solid)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

SMIRNOV, A.A.; TIKHONOVA, Ye.A.

Investigating geometric distortions of the crystal lattice of alloys by the scattering of X rays and thermal neutrons. Issl. po zharopr. splav. 6:136-139 '60. (MIRA 13:9)
(Alloys--Metallography) (Crystal lattices)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

TIKHONOVA, Ye.A.

Anisotropy of diffusion in ordering Cu-Au-type alloys. Sbor. nauch. rab. Inst. metallofiz. AN URSR no.9:139-146 '59. (MIRA 12:9)

(Diffusion) (Copper-gold alloys)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

KRIVOGLAZ, M.A.; TIKHONOVA, Ye.A.

Effect of thermal vibrations in solid solutions on the intensity of regular reflections of X rays and neutrons and the intensity of Mossbauer's lines. Fiz. met. i metalloved. 12 no.6:801-813 D '61. (MIRA 16:11)

1. Institut metallofiziki AN UkrSSR.

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

24 (7)

AUTHORS: Krivoglaz, M. A., Tikhonova, Ye. A. SOV/48-23-5-27/31

TITLE: The Theory of Dispersion of X-rays and Thermal Neutrons in Fluctuating Inhomogeneities of Solid Solutions (Teoriya rasseyaniya rentgenovykh luchey i teplovykh neytronov na fluktuatsionnykh neodnorodnostyakh tverdykh rastvorov)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959, Vol 23, Nr 5, pp 652 - 654 (USSR)

ABSTRACT: The considerations made in the present paper lie within the framework of the kinematic theory. The inhomogeneity of the material is caused by the various factors of dispersion of different atoms and by the geometrical tensions, caused by the different atom radii. Similar papers are then referred to (Refs 1 and 2) and for inhomogeneous binary solutions a formula (1) is given for the intensity of the diffused dispersion of X-rays. This formula is verified for the case of the ideal solution. Non-ideal inhomogeneous solutions are considered next and the intensity expressed in formula (1) is developed from the thermodynamic point of view. The result is formula (3) which is examined in the final part of the present paper.

Card 1/2

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

The Theory of Dispersion of X-rays and Thermal Neutrons in Fluctuating Inhomogeneities of Solid Solutions SOV/48-23-5-27/31

The influences exerted by the quantities occurring in the formula are studied in this connection. The parameters of order and correlation, the superlattice reflection and the intensity of regular reflection are also taken into account. There are 4 references, 2 of which are Soviet.

ASSOCIATION: Institut metallofiziki Akademii nauk USSR (Institute of Metal Physics of the Academy of Sciences, UkrSSR)

Card 2/2

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

TIKHONOVA, YE.A.

PHASE I BOOK EXPLOITATION SOV/4502

Akademiya nauk SSSR. Nauchnyy sovet po probleme zharoprochnykh splavov

Issledovaniya po zharoprochnym splavam, tom 6 (Investigations of Heat-Resistant Alloys, Vol. 6) Moscow, 1960. 319 p. Errata slip inserted. 3,000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Institut metallurgii imeni A. A. Baykova. Nauchnyy sovet po probleme zharoprochnykh splavov.

Editorial Board: I. P. Bardin (Deceased) Academician, G. V. Kurdyumov, N. V. Agayev, Corresponding Member, Academy of Sciences USSR (Resp. Ed.), I. A. Oding, I. M. Pavlov, and I. F. Zudin, Candidate of Technical Sciences; Ed. of Publishing House: V. A. Klimov; Tech. Ed.: S. G. Tikhomirova.

PURPOSE: This book is intended for research workers in the field of physics of metals and for metallurgists, particularly those working on heat-resistant alloys.

COVERAGE: This collection of 45 articles deals with various problems in the production of heat-resistant alloys. Special attention is paid to the mechanisms of deformation of such metals as aluminum, copper, iron, and nickel. Various defects and failures of metals are analyzed, and means for increasing the heat resistance and plasticity are described. Among the special problems discussed are: electrolytic conductivity of iron-aluminum alloys in the solid state; the mobility of atoms in nickel-iron alloys, depending upon defects of their crystalline structure; the kinetics of change in isolated pores; the irreversible thermal transformation of solid bodies, etc. No personalities are mentioned. References follow each article.

Dekhtyar, I.Ya. Influence of the Defects of Crystalline Structure on the Energy of Creep Activation 29

Kuznetsov, V.D., and A.I. Loskutov. Influence of Temperature and Degree of Prior Deformation on the Plasticity of Aluminum and Copper 34

Popov, L.Ye., G.I. Karpov, and N.A. Aleksandrov. The Mechanism of the Saltatory Deformation in Alloys 38

Kuznetsov, V.D., K.V. Savitskiy, and M.P. Zagrebennikova. Effect of the Dispersability of $CuAl_2$ Particles on the Temperature-Velocity Ratio of the Mechanical Properties of Duralumin Under Compression 49

Kuznetsov, V.D., K.V. Savitskiy, N.N. Sukharina, V.N. Khdanova, G.V. Toporov, and A.P. Savitskiy. Effect of Temperature Variation and Strain Rate on the Properties of Steels With Different Dispersability of Carbide Inclusions 56

Gaydukov, M.G., and V.A. Pavlov. Dependence of Nickel-Copper Alloy Creep Upon the Concentration of Solid Solution and Deformation Conditions 64

Sukhovarov, V.F. Equivalent Influence of Deformation Temperature and Strain Rate Upon the Flow Curves of Copper and Nickel 71

Oding, I.A., and V.V. Burdukskiy. Effect of Variable Stress Conditions on the Endurance of Steel 77

Oding, I.A., and V.N. Geminov. Mechanism of Metal Recovery in Creep Under Elevated Temperature Conditions 89

Gertsriken, S.D., and M.P. Pryanishnikov. Self-Diffusion in Iron and Its Alloys With Aluminum in the High-Temperature δ -Region 95

Gertsriken, S.D., I.Ya. Dekhtyar, V.S. Mikhalenkov, and E.G. Madatova. Investigation of Electrolytic Conductivity of Iron-Aluminum Alloys in Solid State 99

Gertsriken, S.D., and N.N. Novikov. Relationship Between Dislocation Density, Thermal E.M.F., and Hardness 105

Kuz'menko, P.P., and Ye.I. Khar'kov. Experimental Determination of the Charges of Components in Scale-Resistant Alloys of Fe—Al System 112

Dekhtyar, I.Ya., and V.S. Mikhalenkov. Effect of Nonequilibrium Defects of Crystalline Structure on the Mobility of Atoms in Nickel-Iron Alloys 120

Borisov, N.D., V.V. Nemoshkalenko, and A.M. Pefer. Effect of Nickel Concentration on the Structure of the Energy Spectrum of Chromium and Iron Electrons 130

Smirnov, A.A., and Ye.A. Tikhonova. Investigation of Geometric Distortions of the Crystalline Lattice of an Alloy According to the Scattering of X-rays and Thermal Neutrons 136

36

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

KRIVOGLAZ, M.A. [Kryvohlaz, M.O.]; TIKHONOVA, Ye.A. [Tykhonova, O.O.]

Effect of geometric distortions in multicomponent, disorderly crystal lattices of solid solutions on X-ray and thermal-neutron scattering [with summary in English]. Ukr. fiz. zhur. 3 no.3: 297-312 My-Je '58. (MIRA 11:10)

1. Institut metallofiziki AN USSR.
(X rays--Scattering) (Crystal lattices) (Solutions, Solid)

APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0"

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18(4,7); 25(1) PHASE I BOOK EXPLOITATION SOV/2306

Akademiya nauk Ukrainskoy SSR. Institut metallofiziki

Voprosy fiziki metallov i metallovedeniya (Problems in the Physics of Metals and Metallography) Kiyev, Izdo-vo AN Ukrainskiy SSR, 1959. (Series: Its: Sbornik nauchnykh rabot, Nr 9) Errata slip inserted. 3,000 copies printed.

Ed. of Publishing House: V.L. Shkurko; Tech. Ed.: M.I. Yefimova; Editorial Board: V.N. Svechnikov, Academician, Academy of Sciences Ukrainian SSR (Resp. Ed.); S.D. Gertsriken, Doctor of Physical and Mathematical Sciences; and I.Ya. Dekhtyar, Doctor of Technical Sciences.

PURPOSE: This collection of articles is intended for scientific workers, aspirants, and engineers in the fields of the physics of metals, metallography, and metallurgy. It may also be useful to students of advanced courses in metallurgical and physical faculties.

COVERAGE: This collection of articles deals with the following topics: effect of high-speed heating, heat treatment, deformations, and crystallization conditions on phase transformations, structures, and properties of metals and alloys; the effect of additional alloying components on volumetric and intercrystalline diffusion in alloys; and the effect of repeated quench hardening and radioactive and ultrasonic treatment on the physical properties of alloys. No personalities are mentioned. References follow several of the articles.

Svechnikov, V.N., and A.Ts. Spector. Investigation of Transformations in the Solid State of Cobalt-rich Co-Cr Alloys 105
Changes in cobalt-base solid solutions and a more precise determination of phase ranges in equilibrium diagrams of the Co-Cr system are investigated. The microstructure of alloy samples is discussed.

Svechnikov, V.N., Yu.A. Kocherzhinskiy, Ye.Ye. Maystrenko, V.M. Pan, and A.K. Shurin. Investigation of the Cr-Nb-V Alloy System 120
Constitution diagrams and microstructures of various binary and ternary alloys were investigated. Changes of hardness with changes of temperature are shown.

Lesnik, A.G., and G.V. Kharikova. Displacement of Equilibrium Curves of α- and γ- phases in the Fe-Cr Alloy System Due to Prolonged High-temperature Heating of the γ- phase 133
Electrolytic chromium and iron were used for making the alloys. Spiral samples, 20mm. long, were heated in a vacuum (10^{-4} mm. Hg), and electrical resistivity was measured. The drop of resistivity at the α→γ transformation is discussed.

Tikhonova, Ye. A. Anisotropy in the Diffusion in Cu-Au Alloys Undergoing Ordering 139
The calculation of diffusion coefficients for alloys undergoing ordering is made analytically by the method of mean energies and by the "configuration method."

Gertsriken, S.D., and M.P. Pryanishnikov. Investigation of Volumetric Diffusion of Iron in Alloys 147
Alloys composed of Fe + 0.27 percent Al, and Fe + 0.39 percent Al, were investigated. Samples, 10 x 15 x 2.5mm., were deformed and annealed. The mean grain size (0.5 to 1mm.) did not change after diffusion annealing (770 to 1250°C). The polished surfaces of the samples were coated with radioactive iron (1 to 2 microns thick). The depth of the diffusion layer (300 to 140 microns) varied with temperature and time of annealing.

Gertsriken, S.D., T.K. Yatsenko, and L.F. Slastnikova. Investigation of Diffusion of Cobalt and Iron Along Grain Boundaries of Cobalt, Nickel, and Iron 154
The absolute values of diffusion coefficients for Co→Co, Co→Ni, Co→Fe, Fe→Fe, and Fe→Ni, i.e., diffusion with regard to time and temperature of annealing, were obtained for grain-boundary diffusion and volumetric diffusion. The relationship between coefficients for both diffusions is discussed.

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SMIRNOV, A.A.; TIKHONOVA, Ye.A.; CHALYY, A.V.

Effect on the intensity of scattered X rays exerted by lattice distortions due to differences in atomic sizes in ordered binary alloys. Fiz. tver. tela 4 no.1:77-85 Ja '62. (MIRA 15:2)

1. Institut metallofiziki AN USSR, Kiyev.
(Crystals--Defects)
(X rays--Scattering)

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S/185/63/008/002/011/012
D234/D308

AUTHORS: Zyuganov, A. N., Molodkin, V. B., Smirnov, A. A. and Tikhonova, Ye. A.

TITLE: Effect of lattice distortions on scattering of slow neutrons in alloys

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 8, no. 2, 1963, 256-263

TEXT: A theoretical investigation of the intensity of neutron scattering in alloys with body-centered cubic lattice of β-brass type and with face-centered cubic lattice of AuCu and $AuCu_2$ type. The case of one scattering amplitude being negative is discussed in detail, and conditions are established for which $F^2_{str} - 4\overline{\tilde{A}}^2_o$ is positive. Conclusions: The fact that lattice distortions decrease the intensity of regular structural reflections when both amplitudes have the same sign, is taken into account. An increase of intensity

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is possible in some intervals of concentrations when one of the amplitudes is negative. The intensity of superstructural reflections can increase in both cases. Formulas for the intervals of concentrations are given. There are 2 figures.

ASSOCIATION: Institut metallofiziki AN USSR (Institute of Metal Physics, AS UkrSSR), Kiev

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ACC NR: AP6035753 SOURCE CODE: UR/0413/66/000/019/0124/0124

INVENTOR: Shebeko, N. G.; Lashko, S. V.; Svetlovidov, A. P.; Kamenskaya, Ye. A.; Ivanov, Yu. M.; Tikhonova, Ye. B.; Shikh, R. B.

ORG: none

TITLE: Alloy for brazing refractory materials. Class 49, No. 186837

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 124

TOPIC TAGS: refractory metal, ~~refractory metal, refractory~~ metal brazing, brazing alloy

ABSTRACT: This Author Certificate introduces a niobium-base brazing alloy, containing titanium, and vanadium, for refractory materials. To improve the quality of a brazed joint, the composition of the alloy is set as follows: 20% vanadium, 10—20% titanium and the balance niobium.

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TIKHONOV-BUGROV, Yevgeniy Dmitriyevich; AZAROV, E.K., red.; TIKHONOVA, I.M., tekhn.red.

[The seven great years] 7 velikikh let. Leningrad, Lenizdat, 1959. 114 p. (MIRA 12:12)
(Russia--Economic policy)

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

BELYAKOV, Ye.P., otv. red.; GINZBURG, N.Ya., otv. red.; KRICHEVSKIY, Ya.M., otv. red.; MELIK-GAYKAZOV, V.I., otv. red.; TIKHONOVA, Ye.D., red.; SELEZNEV, P.I., tekhn. red.

[Rolling mills]Stany prokatnye. Moskva, TSINTImash, 1960. 137 p. (MIRA 15:11)

1. Russia (1923- U.S.S.R.)Gosudarstvennyy nauchno-tekhnicheskiy komitet.

(Rolling mills)

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

VOROB'YEV, Georgiy Ivanovich; TIKHONOVA, Ye.M., red.; GUREVICH, M.M., tekhn. red.

[Kuban's new frontiers] Kuban' vykhodit na novye rubezhi. Moskva, Izd-vo sel'khoz.lit-ry, zhurnalov i plakatov, 1961. 101 p. (MIRA 14:11)

(Kuban--Agriculture--Economic aspects)

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"APPROVED FOR RELEASE: 07/16/2001 CIA-RDP86-00513R001755620014-0

BARANOV, N.N., kand. ekon. nauk; TIKHONOVA, Ye.M., [illegible]

[Economics of the use of fertilizers and herbicides]
Ekonomika ispol'zovaniia udobrenii i gerbitsidov. Mo-
skva, Kolos, 1964. 318 p. (MIR 18:1)

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