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VOROB'YEV, V.D.

AUTHORS: Nikishin, G.I., Vorob'yev, V.D., Petrov, A.D. 62-12-12/20

TITLE: The Telomerization of Propylene and Ethylene With Methyl Formiate (Telomerizatsiya propilena i etilena s metilformiatom).

PERIODICAL: Izvestiya AN SSSR Otdeleniya Khimicheskikh Nauk, 1957, Nr 12, pp. 1488-1489 (USSR)

ABSTRACT: The homolytic telomerization of ethylene in the presence of peroxide catalysts was described on the basis of numerous examples. As a result of this reaction the highest functional compounds with normal carbon atom chain was received. The aforementioned telomerization, on the other hand, has been much more rarely studied. The authors made it their task to investigate the synthesis of acids and their esters with a ramified carbon chain, and studied the reaction of the telomerization of methyl formiate with propylene. On this occasion they found that with a reciprocal action of the propylene with methyl formiate (in the presence of peroxide tributyle) the reaction of telomerization takes place with methyl esters of the strongest acid. The reaction of the polymerization of the propylene, on the other hand, takes place with the formation of hydrocarbon. By the interaction of methyl formiate with ethylene methyl remainders with

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The Telomerization of Propylene and Ethylene With
Methyl Formiate

62-12-12/20

an average molecular weight of 1850 were obtained. The telomerization of ethylene was carried out under a pressure of 200 atmospheres and at a temperature of 150°. There are 7 references, 3 of which are Slavic.

ASSOCIATION: Institute for Organic Chemistry AN USSR imeni N.D.Zelinskiy
(Institut organicheskoy khimii im. N.D.Zelinskogo Akademii nauk
SSSR).

SUBMITTED: July 4, 1957

AVAILABLE: Library of Congress

Card 2/2

1. Ethylene-Methyl formiate-Telomerization
2. Propylene-Methyl formiate-Telomerization
3. Ethylene-Homolytic telomerization-Peroxide catalyst

Vorob'yev, V.D.

48-7-6/21

AUTHORS: Vorob'yev, V.D., Il'in, K.I., Kol'chinskaya, T.I., Latyshev, G.D., Sergeyev, A.G., Trofimov, Yu.N., Fadeyev, V.I.

TITLE: The Spectrum of the Electrons of the Internal Conversion of Active Radium-Containing Thorium Deposits III (Domain $H\beta = 1380$ to 2700 and 3500 to 9000 Gs. cm.) (Spektr elektronov vnutrenney konversii aktivnogo osadka radiotoriya III (Oblast' $H\beta = 1380$ do 2700 i 3500 do 9000 Gs. cm) toriya)

PERIODICAL: Izvestiya Akad. Nauk SSSR, Ser. Fiz. , 1957, Vol. 21, Nr 7, pp. 954 - 961 (USSR)

ABSTRACT: 1.) The intensities of the conversion lines. In the determination of the relative intensities of conversion lines the fact was taken into account that a portion of the atoms ThC' falls down from the source due to the α -emission on the decay $ThC' \xrightarrow{\alpha} ThC''$. This circumstance leads to the fact that the intensity of all conversion lines developing on the decay $ThC' \xrightarrow{\beta} ThD$ decrease by 30 % in comparison with the intensity of the lines of other nuclei. Therefore the intensities of all lines which develop in connection with the decay $ThC' \xrightarrow{\beta} ThD$ were determined with regard to the line L which develops in the same decay. The

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The Spectrum of the Electrons of the Internal Conversion of Active Radium-Containing Thorium Deposits
III(Domain $H\beta$ - 1380 to 2700 and 3500 to 9000 Gs. cm.)

intensities of the other lines were determined with regard to the I-line $ThB \rightarrow ThC$. In order to connect all intensities with each other the relation of the L - and I - line intensities to the source was determined, the latter being covered by a foil in order to prevent a falling down of the emission atoms. Detailed calculations and explanations are given. The authors estimate the accuracy of their measurements of the absolute intensities with 5 - 10 % for the intensive lines.

2.) The conversion spectrum in the domain $H\beta$ - 1380 to 2600 Gs.cm
In the study of this portion of the spectrum 3 series of measurements were made. In every series the position and intensities of the lines were determined. The average values of $H\beta$ and of the intensities are given in table 1, as well as the energy of the electrons and of the corresponding γ -transitions, the identification of the lines and comparative values of earlier works. It may be seen that the values obtained by the authors for $H\beta$ and for the intensities differ markedly from earlier obtained values, where a photorecording of the electrons had been employed. Figures 1, 2, 3 and 4 represent some parts of the spectra of

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The Spectrum of the Electrons of the Internal Conversion of Active Radium-Containing Thorium Deposits
III (Domain $H\theta$ = 1380 to 2700 and 3500 to 9000 Gs. cm.)

conversion electrons in the domain $H\theta$ = 1380 + 2600 Gs. cm.

3.) The conversion spectrum in the "rigid" domain. Certain lines discovered by the authors are recorded on figures 5, 6 and 7, their energies and intensities on table 2. There are 2 tables, 7 figures and 16 references, 8 of which are Slavic.

ASSOCIATION: Department of Physics, Leningrad Institute of Railroad Transportation Engineers
(Kafedra fiziki Leningradskogo instituta inzhenerov zheleznodorozhnogo transporta)

AVAILABLE: Library of Congress

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SOV/48-22-7-3/25

AUTHORS: Sergeyev, A. G., Kricyuk, E. M., Latyshev, G. D.,
Vorob'yev, V. D., Kol'chinskaya, T. I.

TITLE: Tl^{208} Level Scheme. (O skheme urovney Tl^{208})

PERIODICAL: Izvestiya Akademii nauk SSSR, Seriya fizicheskaya, 1958,
Vol. 22, Nr 7, pp. 785-787 (USSR)

ABSTRACT: In order to confirm and to define more precisely the spin values of the excited Tl^{208} levels, the relative intensities of α -transitions were calculated under consideration of the carried off angular momentum. It is shown that the consideration of the angular momentum of the α -particles substantially improves the consistency with experimental data. The calculated relative probabilities for α -transitions to the 0,40 and 493 keV levels for which the spins have been uniquely determined are in remarkable agreement with the experiment. This allows to attribute spin values also to those levels that have not yet been determined. For the 328 and 473 keV levels the best agreement with experimental intensities of the α -groups resulted from the 4 and 5 spin values, respectively. With these spin values, however, the missing

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Tl²⁰⁸ Level Scheme

SOV/48-22-7-3/26

γ -transition between the 493 and 328 keV levels is incomprehensible. One might expect that this transition must be of the M1 type and that a sufficiently strong line in the conversion spectrum would occur which, however, was not detected. The 328, 473, 493 and 619 keV levels are accounted for by the splitting of the configuration $d_{3/2} g_{7/2}$, which gives a quadruplet having the spin values 3^+ , 4^+ , 5^+ , 6^+ . The spins 3^+ and 6^+ for the 493 and 619 keV levels are in agreement with such a configuration. However, the order of succession of the levels with spins 4^+ and 5^+ so far remains unexplained. There are 1 figure, 2 tables, and 12 references, 5 of which are Soviet.

ASSOCIATION: Kafedra fiziki Leningradskogo instituta inzhenerov zheleznodorozhnogo transporta im. V. N. Obruztsova
(Department of Physics of the Institute of Railway Transportation Engineers imeni V. N. Obruztsov)

Card 2/2

SOV/79-28-7-10/64

AUTHORS: Petrov, A. D., Nikishin, G. I.,
Vorob'yev, V. D.

TITLE: ~~The Synthesis of Undecyl- and Dodecyl Benzenes and Their Per-~~
hydrides (Sintez undetsil- i dodetsilbenzolov i ikh pergidryurov)

PERIODICAL: Zhurnal obshchey khimii, 1958, Vol 28, Nr 7,
pp. 1761 - 1766 (USSR)

ABSTRACT: From the mainly foreign papers mentioned by the authors (Refs 1-15) may be seen that dodecyl benzenes with ramified alkyl chains which serve as model hydrocarbons for the technical dodecyl benzene are only insufficiently investigated. They synthesize hydrocarbons of the composition C₁₇ and C₁₈ according to the mentioned reaction schemes with a dodecyl benzene with a maximally ramified alkyl chain being obtained as final product. The selection of the given forms was caused by the intention to decide either in favor of the technical dodecyl benzenes with a highly ramified aliphatic chain, or in favor of homologs with a little ramified chain. The data obtained from the reaction schemes 1-5 for all hydrocarbons and their hydrides (solidification temperatures and kinematic viscosities at 20 and 50°)

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The Synthesis of Undecyl- and Dodecyl Benzenes and
Their Perhydrides

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are mentioned in the table, where also the n-dodecyl benzene synthesized by Schmidt (Shmidt)(Ref 9) is mentioned for reasons of comparison. The solidification temperatures of the alkyl benzenes and of the corresponding alkyl cyclo hexanes differ only by about 5°. Also the influence exerted by the structure on the kinematic viscosity data at 20°, and especially at 50° is only small, which is, however, not the case at temperatures below 0°. There are 1 table and 17 references, 3 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR (

SUBMITTED: June 20, 1957

Card 2/3

The Synthesis of Undecyl- and Dodecyl Benzene and
Their Perhydrides

SOV/79-28-7-10/64

1. Benzenes--Synthesis 2. Hydrides--Chemical reactions

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21 (7)

AUTHORS:

Sergeyev, A. G., Vorob'yev, V. D.,
Remenny, A. S., Kol'chinskaya, T. I.,
Latyshev, G. D., Yegorov, Yu. S.

SOV/56-35-2-6/60

TITLE:

The Influence Exercised by Finite Dimensions of
Nuclei Upon the Relative Coefficients of Internal
Conversion in L-Subshells (Vliyaniye konechnykh
razmerov yadra na otnositel'nyye koeffitsiyenty
vnutrenney konversii v L-podobolochkakh)

PERIODICAL:

Zhurnal eksperimental'noy i teoreticheskoy fiziki, 1958,
Vol 35, Nr 2, pp 348-354 (USSR)

ABSTRACT:

As the experimental and theoretical values of conversion
coefficients agree only very badly (Refs 1 - 10), the
authors undertook the task of finding out to what extent the
finite dimensions of nuclei influence these values. The
present paper contains a report on the experimental
investigations concerning this influence which is exercised
on the relative conversion coefficients in L-subshells
for pure M1-transitions. The following transitions were
investigated:

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The Influence Exercised by Finite Dimensions of
Nuclei Upon the Relative Coefficients of Internal
Conversion in L-Subshells

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46,5 keV - decay: $\text{RaD} \xrightarrow{\beta} \text{RaE}$ (Bi_{83}^{210})
 115,1 keV $\text{ThB} \xrightarrow{\beta} \text{ThC}$ (Bi_{83}^{212})
 238,6 keV $\text{ThB} \xrightarrow{\beta} \text{ThC}$ (Bi_{83}^{212})

The following was found for the ratio $L_I : L_{II} : L_{III}$

100 : $(10,6 \pm 0,2)$: $(0,93 \pm 0,05)$
 100 : $(10,4 \pm 0,2)$: $(0,88 \pm 0,10)$
 100 : $(10,4 \pm 0,2)$: $(0,74 \pm 0,05)$

For the first and for the 3. transition results obtained by
Bashilov, Dzhelepov, Chervinskaya, and those of references
10, 11, 16, 17 have already been published; they are
compared in this paper with the results obtained by the
authors. Furthermore, the relative conversion coefficient
for the 277,3 keV - γ -transition (M1) between two excited

levels in Pb^{208} was investigated, viz. for the levels
3474,8 keV (4^-) and 3197,5 keV (5^-). Here a E2-admixture

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The Influence Exercised by Finite Dimensions of
Nuclei Upon the Relative Coefficients of Internal
Conversion in L-Subshells

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is possible. Result:

$K:L_I = 6,15 \pm 0,3; L_I:L_{II}:L_{III} = 100:(12,5 \pm 0,6):(1,9 \pm 0,3)$

There are 4 figures, 3 tables, and 26 references, 11 of which
are Soviet.

ASSOCIATION: Leningradskiy institut inzhenerov zheleznodorozhnogo
transporta (Leningrad Railroad Engineers Institute)

SUBMITTED: March 6, 1958 (initially) and July 9, 1958 (after revision)

Card 3/3

PETROV, A.D.; NIKISHIN, G.I.; GRAMENITSKAYA, V.N.; YOROB'YEV, V.D.

Interaction between β -(magnesium chloride)-tert.-butyl-benzene
with carbonyl compounds. Zhur.ob.khim. 28 no.9:2315-2319
\$ 158. (MIRA 11:11)

1. Institut organicheskoy khimii AN SSSR.
(Benzene) (Grignard reagents) (Carbonyl compounds)

VOROBYEV, V. D.

A. G. Sergeyev, V. D. Vorobyev, A. S. Remsny, T. I. Kolchinskaya, O. D. Latyshev and Yu. S. Yegorov

"Influence of the Finite Dimensions of the Nucleus on the Relative Conversion Coefficients in the L-Subshells*

Nuclear Physics, 9, No. 3, Jan. 1959, 498-508 (North Holland Publishing Co., Amsterdam)

*Paper read at the Eighth Annual Symposium on Nuclear Spectroscopy of the USSR Academy of Sciences, January 1958, Leningrad.

Abstract: Measurements have been made of the relative internal conversion coefficients in the L-subshells for three pure M1 transitions: 46.5 keV in Bi^{210} , and 115.1 and 238.6 keV in Bi^{212} . It is shown that in order to obtain agreement with the experimental data, it is necessary to take into consideration the finite dimensions of the nucleus in the theoretical calculations of the L internal conversion coefficients.

Measurements have also been made of L_{II} : L_{III} : L_{IV} for the 277.3 keV M1 transition in Pb^{208} .

V. M. Obraztsov Institute of Railway Engineering, Department of Physics, Leningrad

NEVOLIN, F.V., kand. tekhn. nauk; KRAL'-OSIKINA, G.A.; PETROV, A.D.;
NIKISHIN, G.I., kand. khim. nauk; VOROB'YEV, V.D.

Surface activity and cleaning action of dialkylbenzenesulfonates.
Masl.-zhir. prom. 25 no.7:32-36 '59. (MIRA 12:12)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut zhirov (for Nevolin,
Kral'-Osikina). 2.Chlen-korrespondent AN SSSR (for Petrov). 3.AN SSSR
(for Petrov, Nikishin, Vorob'yev).
(Benzenesulfonic acid) (Surface active agents)

5: 3200(A)

67893

~~5(3)~~
AUTHORS:

Nikishin, G.I., Vorob'yev, V.D.,
Petrov, A.D., Corresponding
Member AS USSR

S/020/60/130/06/021/059
B011/B015

TITLE:

Free-radical¹ Addition of Alkylbenzenes¹ to α -Olefines¹

PERIODICAL:

Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 6, pp 1256-1259
(USSR)

ABSTRACT:

The authors undertook to investigate the synthesis of alkyl-aromatic hydrocarbons suitable for the production of surface-active substances of the alkylbenzene-sulfonate type. The free-radical addition and telomerization was intended to serve this purpose. The authors found that it is possible to add toluene, ethylbenzene, cumene, p-xylene, and α -methylnaphthalene to α -olefines at 150-160° under the action of tertiary butyl peroxide. The reaction products form in a yield of 10-15% calculated with respect to the olefine used. Table 1 shows the amounts of the components used and of peroxide, furthermore yields and properties of the addition products. Besides the addition there exists obviously a competitive reaction - the substitution of the α -hydrogen atom in the olefines by the

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 α -Olefines

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free radicals. Due to the bromine numbers, the percentage of unsaturated compounds in the products of addition to the olefines amounts in the case of toluene to 16-19, ethylbenzene to 28, p-xylene to 4-6, α -methylnaphthalene to 50%. Besides, in all experiments crystalline dimerization products of the free radicals were obtained: dibenzyl, 3,4-diphenylbutane, 3,4-dimethyl-3,4-diphenylbutane, di-p-xylyl. The authors initiated the reaction of ethylene with toluene at 200-220° and under a pressure of 140 atm by tertiary butyl peroxide. They found that a telomerization takes place under these conditions. Monoalkylbenzenes form. The resulting first members of the telogene homologs (propylbenzene, amylbenzene, etc) may in turn be used as telogenes. This leads to the formation of secondary, and obviously tertiary alkylbenzenes. The authors obtained five individual hydrocarbons (Table 2) from the reaction mass by distillation. The separation of higher-molecular alkylbenzenes is rendered more difficult since the number of isomers and homologs with similar boiling points rises with the molecular weight. Table 3 shows the composition of the reaction mass according to fractions after the removal of heptylbenzene

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Free-radical Addition of Alkylbenzenes to
 α -Olefines

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B011/B015

and the products with a low boiling point. The content of the fractions of CH_2 - and CH_3 -groups was determined by means of infrared spectra. The mean error of measurement amounted to $\sim 3\%$. Ye.D. Lubuzh carried out the measurements. There are 2 tables and 4 references, 1 of which is Soviet. ✓

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR (Institute of Organic Chemistry of the Academy of Sciences, USSR)

SUBMITTED: November 4, 1959

Card 3/3

NIKISHIN, G.I.; VOROB'YEV, V.D.; PETROV, A.D.

Free-radical addition of primary alcohols to α -olefins. Izv.AN
SSSR.Otd.khim.nauk no.5:882-886 My '61. (MIRA 14:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Alcohols) (Olefins) (Radicals (Chemistry))

NIKISHIN, G.I.; VOROB'YEV, V.D.; PETROV, A.D.

Free-radical addition of alcohols to acrylic acid and its methyl ester. Synthesis of γ -lactones. Dokl. AN SSSR 136 no.2:360-363 '61. (MIRA 14:1)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo Akademii nauk SSSR. 2. Chlen-korrespondent AN SSSR (for Petrov),
(Acrylic acid) (Radicals (Chemistry))
(Lactones)

NIKISHIN, G.I.; VOROB'YEV, V.D.

Free radical addition of primary alcohols to unsaturated alcohols.
Izv. AN SSSR. Otd.khim.nauk no.5:892-897 My '62. (MIRA 15:6)

1. Institut organicheskoy khim'i im. N.D.Zelinskogo AN SSSR.
(Radicals (Chemistry)) (Alcohols)

NIKISHIN, G.I.; VOROB'YEV, V.D.

Synthesis of γ -nonalactone and γ -undecalactone. Izv. AN SSSR. Otd.
khim.nauk no.10:1874-1876 O '62. (MIRA 15:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Lactones)

NIKISHIN, G.I.; VOROB'YEV, V.D.

Free radical addition of low-molecular alcohols to unsaturated
compounds. Izv.AN SSSR.Ser.khim. no. 5:894-897 My '64.
(MIRA 17:6)

1. Institut organicheskey khimii im. N.D.Zelinskogo AN
SSSR.

24/20-55 EWP(m)/EWP(j) IJP(a) RM

ACC NR: AP6009511

SOURCE CODE: UR/0413/66/000/005/0020/0021

AUTHOR: Ivanova, V. A.; Genkin, N. D.; Vorob'vay, V. D. Ginzburg, B.G.; Zharavin, K. N.; Korchilava, Ye. Ya.; Savost'yanova, N. G.

ORG: none

25
B

TITLE: Preparation of Captax-2-mercaptobenzothiazole. Class 12, No. 179306 announced by the Scientific Research Institute of Organic Semifinished Products and Dyes and the Berezniki Plant of Aniline Dyes (Nauchno-issledovatel'skiy Institut organicheskikh poluproduktov i krasiteley i Bereznikovskiy anilinokrasochnyy zavod)

SOURCE: Izobreteniya, promyshlennyye obraztsey, tovarnyye znaki, no. 5, 1966, 20-21

TOPIC TAGS: captax, mercaptobenzothiazole, aniline, aniline dye

ABSTRACT: An Author Certificate has been issued describing a method for preparing Captax-2-mercaptobenzothiazole by melting aniline, sulfur, nitrobenzene, carbon bisulfide at elevated temperatures and pressure, followed by dissolving the melt in a water solution of alkali hydroxide or milk of lime, purifying the solution obtained and separating the product. To improve the quality of Captax, decontaminate the waste water and make it possible to use the solution

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UDC: 547.789.6'2.07

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ACC NR: AP6009511

of the alkali Captax melt for the production of sulfuramides, the purification is conducted by extraction with benzene polychlorides, chlorobenzene, benzene, or their water emulsions, followed by removal of the residue of the solvent by conventional methods. [LD]

SUB CODE: 11/

SUBM DATE: 08 Aug 64/

Card 2/2 fv

VOROB'YEV, V.F. (Moskva)

Calculating the temperature of a two-layer wall of the compartment of a structure in case of in time varying external conditions of heat transfer. Prikl.mekh. 1 no.7:14-20 '65.

(MIRA 18:8)

1. Tsentral'nyy aerogidrodinamicheskiy institut.

VOROB'YEV, Yuriy Fedorovich; GLADKOV, I.A., doktor ekon. nauk,
~~otv. red.~~

[Equalizing the levels of economic development of the
Union Republics] Vyravnivanie urovnei ekonomicheskogo
razvitiia soiuznykh respublik. Moskva, Izd-vo "Nauka,"
1965. 213 p. (MIRA 18:3)

TIKKOYEV, V.A.; SERDYUK, N.F.; SAPUTO, M.P.; GORISHNIY, Ya.I.; ~~VOROB'YEV,~~
~~V.F.;~~ GUNDZILOVICH, A.A.; PRIVALOV, V.G.; MARIN, V.I.;
LEVCHENKO, R.S.

The best in the profession. Put' i put.khoz. 6 no.12:4-9, 11,
16-17 '62. (MIRA 16:1)

1. Zamestitel' nachal'nika Petrozavodskoy distantzii puti Oktyabr'skoy dorogi (for Tikkoyev).
2. Nachal'nik Solvychevodskoy distantzii Severnoy dorogi (for Serdyuk).
3. Nachal'nik Shchorsskoy distantzii puti Yugo-Zapadnoy dorogi (for Saputo).
4. Nachal'nik Kotovskoy distantzii puti, Odesskoy dorogi (for Gorishniy).
5. Nachal'nik Sverdlovsk-Passazhirskey distantzii puti Sverdlovskoy dorogi (for Vorob'yev).
6. Nachal'nik L'govskoy distantzii puti Moskovskoy dorogi (for Marin).
7. Zamestitel' nachal'nika Shar'inskoy distantzii Severnoy dorogi (for Levchenko).

(Railroads—Employees)

VOROB'YEV, V.F.

Experience in the binding of tie ends. Put' 1 put, khoz. 7
no.6:27 '63. (MIRA 16:7)

1. Nachal'nik Sverdlovsk-Passazhirskoy distantzii, Sverdlovskoy
dorogi.
(Railroads—Ties)

VOROB'YEV, V.F.; KOLOMIYTSEVA, O.I., red.

[Electrification in socialist agriculture] Elektrifikatsiia
sotsialisticheskogo sel'skogo khoziaistva. Moskva, Gos-
kul'tprosvetizdat, 1954. 55 p. (MIRA 16:9)
(Electricity in agriculture)

VOROB'YEV, V.F.

"Accounting and the operational analysis of metallurgical
plants" by A.I.Valuev, A.A.Skorokhodov. Stal' 22 no.3:274-275
Mr '62. (MIRA 15:3)

(Metallurgical plants---Accounting)
(Valuev, A.I.) (Skorokhodov, A.A.)

VOROB'YEV, V.F., inzh.; STANISLAVSKIY, L.Ya., inzh.; CHEBYKIN, G.A., inzh.

Study of the heating-up of turbogenerator parts with direct
cooling of the copper by hydrogen. Vest. elektroprom. 32 no.7:
16-25 JI '61. (MIRA 14:10)

(Turbogenerators--Cooling)

VOROB'YEV, V.F. (Moskva)

Stability of rods in creep. MTF no.6:135-144 II-D '61.
(MIRA 14:12)

(Creep of materials)
(Elastic rods and wires)

31640
S/207/61/000/006/016/025
A001/A101

10-7300 also 1413

AUTHOR: Vorob'yev, V. F. (Moscow)

TITLE: Stability of rods in the creep state

PERIODICAL: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 6, 1961,
135 - 144

TEXT: The author considers the problem of determining the limiting service time ("critical time") of a compressed-bent rod under conditions of creep. It is assumed that prior to application of a load the rod has a small buckling and the rod is loaded with a longitudinal compressive force whose magnitude is less than its critical value in the problem of elasticity and a transverse load of some intensity being a function of the x-coordinate counted along the rod length. The mathematical formulation of the problem leads to an integro-differential equation which describes the behavior of buckling with time. On simplifying conditions concerning the distribution of stresses over the cross section of the rod, which is supposed to be constant and has two axes of symmetry, this equation is solved by using Galerkin's method; the critical time, counted from the instant of applying the full load to the failure of the rod, is determined.

X

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2/4/12

S/187/60/000/012/001/005
D035/D113

6.6000

AUTHOR: Vorob'yev, V.F.

TITLE: Frequency modulation system for a television signal recorder using a magnetic tape

PERIODICAL: Tekhnika kino i televideniya, 1960, no. 12, 1-12

TEXT: The author discusses the results obtained during theoretical and experimental investigations of a frequency modulation system for a TV signal tape recorder. The system, which was described at a Republican conference held in Kiyev in 1960 in honor of "Radio Day", includes a modulator, a de-modulator, and a pulse-shaping amplifier. The effect of the following specific operating conditions of the system are investigated: the proximity of the carrier frequency to the video signal's highest frequencies, the low modulation index, and the mutual overlapping of the spectra of the modulating and modulated signals. Distortions occurring in the described system are discussed and methods for reducing them are suggested. The described modulation system has the following properties: (a) it has a very low carrier
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27412

S/187/60/000/012/001/005
D035/D113

Frequency modulation system...

frequency close to the upper limit of the video frequency band; (b) the frequency deviation is lower than the highest video signal frequency, i.e. at the highest video frequencies the modulation is conducted with a very low index; (c) it has a vestigial sideband. In order to show that such a transmission is possible, the author investigated and analyzed the frequency spectrum of the modulated signal and found that the residual non-suppressed part of the upper sideband should not be less than the instantaneous frequency band. The demodulator used in the system operates on a two-channel (phase) circuit with a long line. Its spurious amplitude modulation limiter consists of 2 equal units, each containing 5 tubes. There are 11 figures and 8 Soviet-bloc references.

Card 2/2

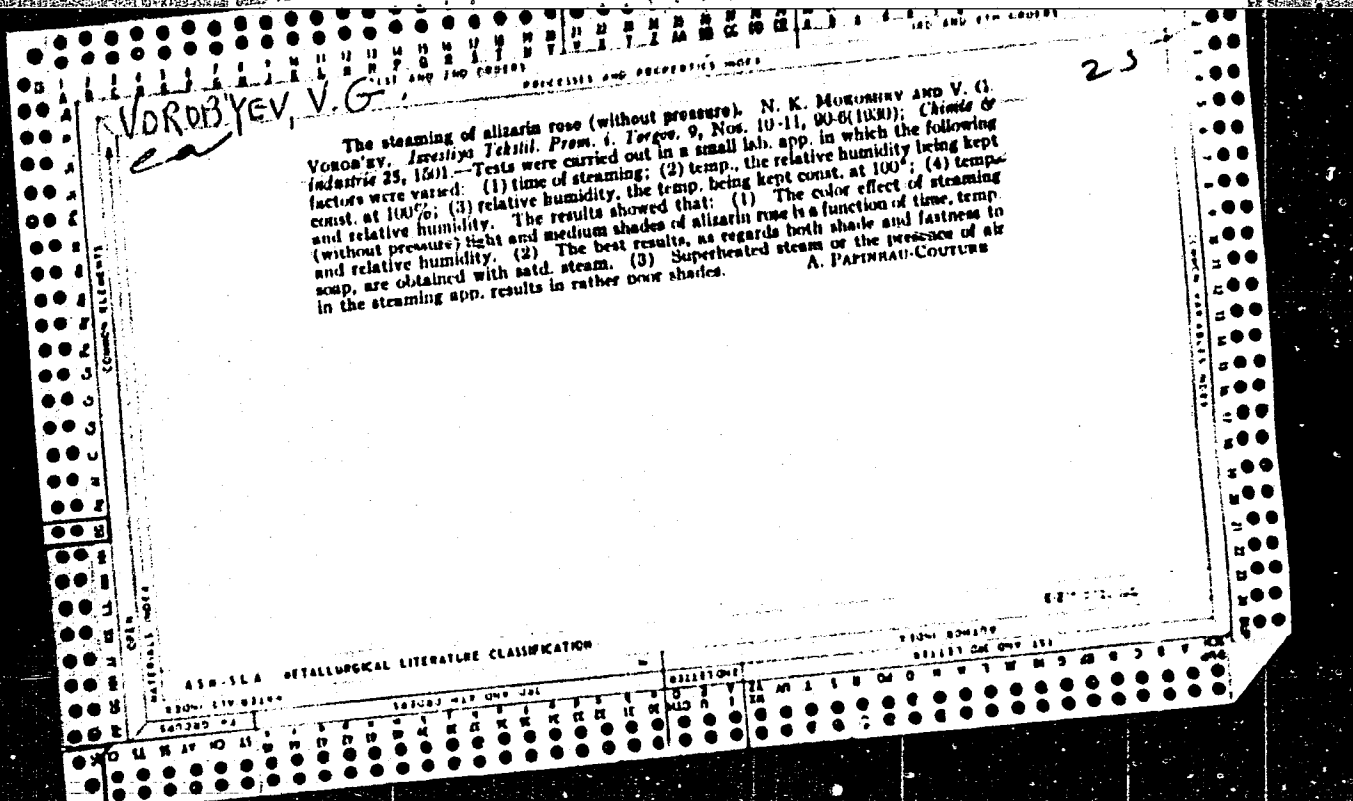
VOROB'YEV, V.F., general-leytenant, dotsent, kand.voyennykh nauk; LI-
PITSKIY, S.V., polkovnik, kand.istor.nauk; KUZ'MIN, H.F., pol-
kovnik, kand.istor.nauk; MURIYEV, D.Z., polkovnik, kand.voyennykh
nauk; KONOVALOV, F.P., general-mayor, kand.voyennykh nauk; GHEDOY,
I.L., polkovnik, kand. voyennykh nauk; ARUTYUNOV, A.S., polkovnik;
VNOTCHENKO, L.N., polkovnik, kand.voyennykh nauk; SHEKHOVTSOV,
N.I., polkovnik, kand.voyennykh nauk; MIFYAYLO, S.N., kand.voyen.nauk,
polkovnik; YELISEYENKO, D.Kh., podpolkovnik, red.; ZUBAKOV, V.Ye.,
polkovnik, red.; SOKOLOVA, G.F., tekhn.red.

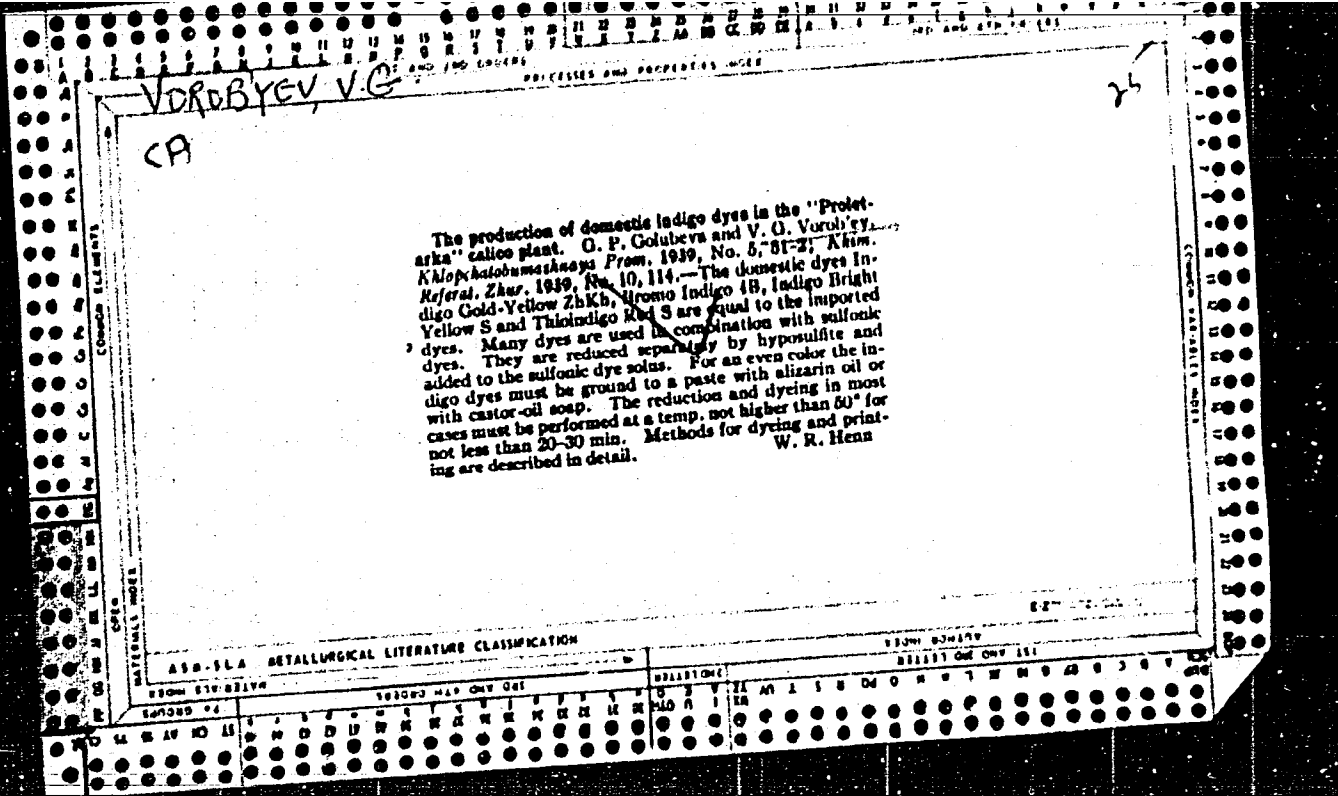
[Battle history of the Soviet Armed Forces] Boevoi put' Sovetskikh
Vooruzhennykh Sil. Moskva, Voen.izd-vo M-va obor.SSSR, 1960. 570 p.
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(Russia--Army)

LOBANOV, Vasilii Nikiforovich; SAZONOV, Nikolay Alekseyevich; BEYLIS, Mikhail Yefimovich; GILINSKIY, Iosif Abramovich; KUTIN, Isaak Arkad'yevich; VOROB'YEV, V.F., nauchnyy red.; SEREBRIHNIKOVA, L.A., red.; DEMINA, G.A., red.; ISHKHANOV, V.S., red.; TOKER, A.M., tekhn.red.

[Electrician of rural electrical systems] Elektromekhanik sel'skikh elektroustanovok. Moskva, Vses.uchebno-pedagog.izd-vo Proftekhizdat, 1960. 548 p. (MIRA 14:1)
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Experience in studying fundamentals of industrial production.
Politekh.sbuch. no.12:24-27 D '58. (MIRA 11:12)

1. Srednyaya shkola No.45, st.Kavkazskaya Severo-Kavkazskoy
zheleznoy dorogi.
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VOROB'YEV, V. G.

"Temperatures of Martensitic Transformation and Their Significance in the Treatment of Steel." Thesis for degree of Cand. Technical Sci. Sub 25 Nov 49, Sci Res Inst of Technology and Organization of the Aviation Industry

Summary 82, 16 Dec 52, Dissertations Presented For Degrees in Science and Engineering in Moscow in 1949, From Vechernyaya Moskva, Jan-Dec 1949.

VOROB'YEV, V. G.

AID 343 - I

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT

Call No.: TN672.V8

BOOK

Author: VOROB'YEV, V. G.

Full Title: INFLUENCE OF TEMPERATURE OF MARTENSITE POINT ON PROCESS OF TRANSFORMATION AND PROPERTIES OF STEEL AT TREATMENT BY COOLING

Transliterated Title: Vliyaniye temperatury martensitnoy tochki na khod prevrashcheniya i svoystva stali pri obra- botke kholodom

Publishing Data

Originating Agency: All-Union Scientific Engineering and Technical Society of Machine Builders. Urals Branch

Publishing House: State Scientific and Technical Publishing House of Machine Building Literature ("Mashgiz")

Date: 1950

No. pp.: 17
No. of copies: 3,000

Text Data

This is an article from the book: VSESOYUZNOYE NAUCHNOYE INZHENERNO-TEKHNICHESKOYE OBSHCHESTVO MASHINOSTROITELEY. URAL'SKOYE OTDELENIYE, THERMAL TREATMENT OF METALS - Symposium of Conference (Termicheskaya obrabotka metallov, materialy konferentsii) (p.111-127) see AID 223-II
Coverage: The systematic study of the martensite transformation is specifically related to the M_f point and the concentration of carbon and other alloying components. The study was

VOROB^YEV, V. G.

Obrabotka stali pri temperaturakh nizhe mulia. (Vestn. Mash., 1951,
no. 2, p. 42-46)

Includes bibliography.

(Steel treatment at temperatures below zero.)

DLC: TN4.V4

SO: Manufacturing and Mechanical Engineering in the Soviet Union,
Library of Congress, 1953.

VOROB'YEV, V. G.

cf
met 2

Journal of the Iron and Steel
Institute
Vol. 176 Part 3
Mar. 1954
Metallography

~~Influence of Alloying Elements upon Martensite Transfor-
mation Temperature. V. G. Vorob'ev and G. V. Polyakov.
(Zhurnal Tekhnicheskoi Fiziki, 1951, 21, (10), 1157-1163).
The influence of the alloying elements, manganese, nickel,
chromium, and molybdenum on the temperature range of the
martensite transformation was investigated. For compari-
son, carbon steels containing from 0.6 to 1.0% of carbon
were taken. For the initial and final points of the martensite
transformation, the temperatures at which 1% and 99% of
martensite had formed were taken. Martensite transforma-
tion was followed by magnetic measurements, metallographic
analyses, and hardness measurements. The experimental
results are presented by graphs.—v. a.~~

Lath

VOROB'YEV, V. G.

Journal of the Iron and Steel
Institute
Vol. 176 Part 3
Mar. 1954
Metallography

~~Transformation of Austenite into Martensite at Subzero
Temperatures—H. V. G. Vorob'ov and A. P. Golovach
(Zhurnal Tekhnicheskoi Fiziki, 1951, 21, (10), 1164-1169)
(In Russian). The influence of heat treatment and cooling
rate upon martensite transformation at sub-zero temperatures
was investigated. The position of M_s is the major factor
determining the optimum conditions of the cooling treatment.~~

VOROBYEV, V. G.

"Treatment of Steel at Temperatures below Zero," Vestnik Mashinostroeniya (Machine Building Herald), Vol. 31, No. 2, pp. 42-46, 1951.

VOROB'YEV, V.G., kandidat tekhnicheskikh nauk; GELLER, Yu.A., re-
DAKTSY; GRADKIKH, N.N., tekhnicheskiiy redaktor.

[Heat treatment of steel at below zero temperatures] *Tekhnicheskaya*
obrabotka stali pri temperature nizhe nulia. Moskva, Gos. izd-vo
oboronnoi promyshl., 1954. 305 p. (MIRA 7:11)
(Steel--Heat treatment)

Vorob'yev, V.G.

32-7-14/49

AUTHOR
TITLE

Vorob'yev V.G.
The Classification of the Particular Features of Metals and Alloys
of Polyhedral Structure which are Subjected to Microscopical
Examination.

PERIODICAL
ABSTRACT

(Klassifikatsiya osobennostey poliedricheskoy struktury metallov
i splavov, nablyudayemoy pod mikroskopom.-Russian)
Zavodskaya Laboratoriya, 1957, Vol 23, Nr 7, pp 808-811 (U.S.S.R.)

The boundary layer of the grain of a crystal differs according to its chemical composition, crystallographic structure, and energetic characteristics from the rest of the crystal mass. These crystal boundaries are usually a place of accumulation or separation of certain phases which exercises a very great influence upon the physical-mechanical, chemical, and other properties of alloys. A scale of classifications is set up on this basis, which facilitates rapid determination of the metals and alloys to be investigated. This system of classification refers to the third stage of localization to the grain. A scale worked out upon this basis provides a general characteristic of granular structure. The so-called "form factor" serves the purpose of evaluating structure: i.e. the number of non-uniform grains. Accordingly, the curve of the distribution of these non-uniform grains in the field of the remaining mass is plotted for the purpose of investigating the microstructure of the metals and alloys. The second group of parameters refers to the constructional properties of the boundary grain layer and to the ac-

Card 1/2

The Classification of the Particular Features of ^{32-7-14/49}
Metals and Alloys of Polyhedral Structure which are Subjected
to Microscopical Examination.

accumulation of its dispersive phases. The third group of parameters of the scale refers to the evaluation of the crystallite edge (facets) as well as that of the intergranular phase characteristic. The fourth group of factors describes metallographically the dividing boundary of several grains as well as their characteristic features and reciprocal orientation of boundary surfaces. A microscopical morphology chart of granular structure is attached to this review.

AVAILABLE
Card 2/2

Library of Congress.

VOROB'YEV, V. G.

INDEX 2 BOOK EXPLANATION 007/1958

Author: Don machine-tekhnicheskoy programy in. P. S. Burezhinskoye
Sovremennyye spillye i in' tekhnicheskaya obrabotka (Contemporary alloys and their
heat treatment) Moscow, Nauka, 1978. 359 p. 21,000 copies printed.

Additional Sponsoring Agency: Otdel'noye po reprezentatsionnoy polititsheki i
razvitiyu nauki SSSR.

M. (Title page): P. A. Gollay, Doctor of Technical Sciences; M. (Title book)
S. V. Burezhinskoye, Engineer; Tech. M. I. M. Nikol'skiy, Managing Ed. for
Literature on Metal Working and Heat Treating; E. B. Zeynalov, Engineer.

NOTE: The book is intended for engineering and technical personnel of heat-
treatment shops and heat laboratories of machine-building plants.

CONTENTS: This collection of 85 articles, compiled by 35 authors, aims to acquaint
the reader with modern practice in the heat treatment of steels. The authors
are primarily concerned with the development of various types of structural,
tool, and heat-resistant steels and with the use of their alloying elements.
Heat-treating equipment is described in some length. The treatment of
alloys, particularly those of titanium, also comes within the scope of the
collection. The book is thoroughly diagrammed, and a good deal of the material
is shown in graphical form. Among the problems dealt with are the selection
of steels, the introduction of the automatic control of heat-
treating equipment, together with fully mechanized heat-treating and the
problem of the use of heat-resistant steels. The authors also discuss the
problems of different alloying elements, the use of electric furnaces and
and drawings. Bibliographic listings precede the end of chapters are
predominantly Soviet. The articles comprising this collection are reports
collected at a conference held in the Scientific and Technical Propaganda
House (Inst. P. S. Burezhinskoye) in Moscow.

Contemporary Alloys and Their Heat Treatment	007/1958
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Part 3/6

Vorob'yev, V. G.

129-3-7/14

AUTHOR: Vorob'yev, V.G., Candidate of Technical Sciences.

TITLE: On the Variation with Time of the Mechanical Properties in the Case of Internal Transformations (O vremennom izmenenii mekhanicheskikh svoystv pri vnutrennikh prevrashcheniyakh)

PERIODICAL: Metallovedeniye i Obrabotka Metallov, 1958, No.3, pp. 35 - 38 (USSR)

ABSTRACT: Evaluation of literary data leads to the assumption that the ductility of a material increases in the case of various internal transformations inside metallic systems. Such phenomena are observed in non-ferrous metals, engineering and tool steels of various grades, etc. and it is likely that such phenomena also take place in other systems. It can be assumed that during the process of structural transformations of crystalline bodies, their mechanical properties may change appreciably compared with the properties of the initial and final states; these manifest themselves by softening and increase in the ductility. Such changes are temporary and reversible. For verifying the wide range of validity of these relations, the author considered it useful to test the validity of these relations under conditions excluding diffusion, for instance,

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On the Variation with Time of the Mechanical Properties in the Case of Internal Transformations

at very low temperatures. The author investigated the steels X Γ and X12 Φ , which were hardened from various temperatures so as to ensure differing degrees of dissolution of the carbide phase and to obtain austenite of various concentrations with non-uniform stability during cooling in the martensite range. The main part of the transformations proceeded at low temperatures, i.e. excluding, almost completely, diffusion. The ductility during the process of transformation of the super-cooled austenite and of martensite was investigated by measuring the sag of cylindrical specimens of 10 mm diameter with an effective length of 125 mm, and a maximum rated bending stress of 10 kg/mm². The loaded specimens were cooled first in vapours and then directly in liquid nitrogen; the quantity of the transformed austenite was determined by means of an anisometer. For both steels, the results of the experiments confirmed the above made assumptions. The results indicate that some of the existing views relating to the theory and practice of heat treatment have to be revised; for instance, the possibility of straightening steel components for a certain period after hardening in a hot medium is apparently not due to ductility conserved by the austenite but to the

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129-3-7/14

On the Variation with Time of the Mechanical Properties in the Case
of Internal Transformations

ductility of the steel as a heterogeneous system during the
process of austenite into martensite transformation.
There are 2 figures and 9 Russian references.

AVAILABLE: Library of Congress

Card 3/3

AUTHOR: Vorob'yev, V.G. SOV/19-58-6-681/685

TITLE: A Pneumatic Device for Binding Bars With Wire, for Instance Bars for Prestressed Reinforcement Frames for Concrete Pipes (Pnevmaticheskoye ustroystvo dlya vyazki provolokoy sterzhney, naprimer, predvaritel'no napryazhennykh armaturnykh karkasov zhelezobetonnykh trub)

PERIODICAL: Byulleten' izobreteniy, 1958, Nr 6, pp 151-152 (USSR)

ABSTRACT: Class 87a, 21. Nr 113883 (584297 of 8 Oct 1957). Submitted to the Committee for Inventions and Discoveries at the Ministers Council of USSR. A compressed air-driven device, with two parallel air cylinders. One piston rod bears tweezers for clamping wire and passing it through a bending head around the bar and forming a loop, which is then cut off by pliers, actuated by a mechanism driven by the second piston rod, the latter mechanism

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SOV/19-58-6-681/685
A Pneumatic Device for Binding Bars With Wire, for Instance Bars
for Prestressed Reinforcement Frames for Concrete Pipes

cutting and twisting the wire. The wire-cutting
and twisting mechanism is a rotating bushing with
wedged inner surfaces, pushed forward by a shell
on the second piston rod.

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PHASE I BOOK EXPLOITATION

SOV/2720

Spravochnik po mashinostroitel'nym materialam. tom 1: Stal'
(Handbook on Machine-building Materials. vol 1: Steel)
Moscow, Mashgiz, 1959. 907 p. Errata slip inserted.
32,000 copies printed.

Scientific Eds.: V.G. Vorob'yev, Yu. M. Lakhtin, S.G. Rakhshadt,
and S.L. Rustem; Ed. of this Vol.: Yu.A. Geller, Doctor of
Technical Sciences; Ed.: G.I. Pogodin-Alekseyev; Ed. of
Publishing House: G.A. Molyukov, Engineer; Tech. Ed.:
T.F. Sokolova; Managing Ed. for Reference Literature (Mashgiz):
I.M. Monastyrskiy, Engineer.

PURPOSE: This handbook is intended for engineering and technical
personnel in production departments, laboratories, and construc-
tion and design offices. It may also be useful to teachers and
students of tekhnikums and vtuzes.

COVERAGE: The material presented in this first volume is based on
State Standards, technical specifications, and generally accepted

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Handbook on Machine-building Materials (Cont.)

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findings of scientific research institutes. The handbook consists of 4 volumes, the first dealing with steel, the second with nonferrous metals and alloys, the third with cast iron, and the fourth with nonmetallic materials. No personalities are mentioned. References follow each chapter.

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AVAILABLE: Library of Congress

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GO/mg
12-8-59

VOROB'YEV, V.G., kand.tekhn.nauk

Anomalous characteristics of metal materials during the course of their internal transformations and the technical value of these characteristics. Izv.vys.ucheb.zav.; mashinostr. no.8:120-131 '60. (MIRA 13:9)

1. Moskovskoye vyssheye tekhnicheskoye uchilishche im. Baumana.
(Metals—Testing) (Metallography)

VOROB'YEV, V.G.

Decreased sensitivity and reactivity of the circulatory apparatus to pressor catechol amines under the effect of phenitron in rats with renal hypertension. Farm. i toks. 27 no.4:424-427 J1-Ag '64.
(MIRA 17:11)

1. Kafedra farmakologii (zav. - prof. A.N. Kudrin) farmatsevticheskogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

ACC NR: AP6031837

(A)

SOURCE CODE: UR/0129/66/000/007/0008/0011

AUTHOR: Vorob'yev, V. G.; Lokshin, I. Kh.;

ORG: ENIMS

Title: Using vibratory-thermal treatment to reduce residual internal stresses in metal work parts

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 7, 1966, 8-11

TOPIC TAGS: *MACHINE TOOL, CAST ALLOY,* mechanical vibration, vibration effect, high temperature effect, internal stress stress relaxation / 35L alloy, AL9 alloy, AL2 alloy

ABSTRACT: On the assumption that the effectiveness of the vibration treatment of castings for precision machine tools must increase when it is combined with heating in order to accelerate relaxation stresses, the authors performed appropriate experiments on using a specially designed test rig (Fig. 1) consisting of ST-300 electromechanical vibration stand 1, support 2, bell furnace 3 with ventilator 4, and welded frame 5 whose refractory-lined surface (table-top) supports the furnace. The frequency range of the vibration stand is from 80 to 300 cps. Specimens cast from 35L, AL9 and AL2 alloys were vibration-treated in this device for 1.5 hr

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UDC: 639.373:621.787/788

ACC NR: AP6031837

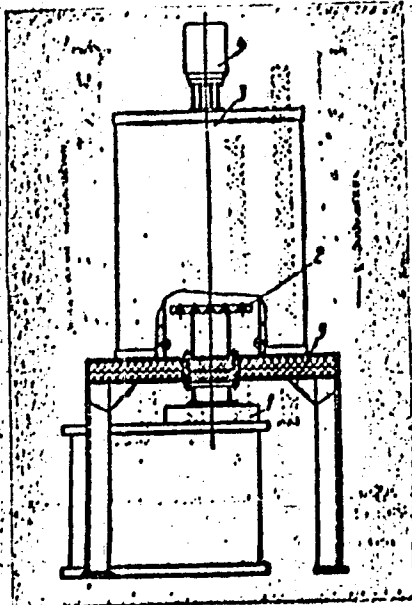


Fig. 1. Diagram of rig for vibratory-thermal stabilizing treatment

at 160, 260, 535 and 550°C (their regular aging and tempering temperatures). The effectiveness of this treatment was evaluated by comparing the extent of the surviving residual stresses with the stresses present following vibration-free heating at the same temperatures. Findings: this effectiveness is the greater the higher the amplitude and frequency of vibrations are. Thus, e.g. for specimens of 35L steel at 550°C, treated with vibrations of 80-cps frequency and 0.2 mm amplitude, residual stresses are 26.2% smaller than following the same heating without vibration, and at vibrations of 250-cps frequency these stresses are 4.1 times smaller. Thus, high-temperature vibration

Card 2/3

ACC NR: AP6031837

reatment effectively reduces residual stresses. The higher the temperature at vibrations,
the greater the effect is. Orig: art. has: 3 figures.

SUB CODE: 13, 11/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 001

Card 3/3

L 29613-66 EEC(k)-2/EWT(d)/FSS-2 BC

ACC NR: AP6010779

SOURCE CODE: UR/0146/66/009/001/0119/0124

AUTHOR: Vorob'yev, V. G.; Sol'nitsev, R. I.

55
B

ORG: Leningrad Electrotechnical Institute im. V. I. Ul'yanov (Leningradskiy elektrotekhnicheskiy institut)

TITLE: Simulation of nonlinear gyroscopic systems ^

SOURCE: IVUZ. Priborostroyeniye, v. 9, no. 1, 1966, 119-124

TOPIC TAGS: gyro, gyroscope system, gyroscope motion equation

ABSTRACT: A simulation method combined with a method of harmonic linearization is suggested for investigating nonlinear gyro systems. Some motion parameters obtained on a simulator are substituted into the implicit equations that connect motion parameters and instrument parameters. Other motion parameters determined analytically are used as checks for the simulation results. Thus, the formulas resulting from the harmonic linearization serve to determine the direction of further simulator studies intended to find optimal instrument parameters. The above approach requires evaluation of the simulation error, particularly in the problem of the stability range in the controllable-parameter space and in the problem of gyro drift due to small disturbances. The above method is illustrated by numerical example of a two-gyro single-axis gyrostabiliser mounted on a fixed base. Orig. art. has: 3 figures and 16 formulas.

Card 1/1 ^{cl} SUB CODE: 17 / SUBM DATE: 24Jul64 / ORIG REF: 002

UDC: 531.383

FEDOSEYEV, A.N.; VOROB'YEV, V.G.; GAVRILOVA, A.D.

Action of catechol amines, phenitrons and vetrazin on the vessels of a isolated kidney in dogs with atherosclerosis. Pat. fiziol. i eksp. terap. 9 no.5:61-63 S-0 '65. (MIRA 19:1)

1. Institut morfologii cheloveka (direktor - deystvitel'nyy chlen AMN SSSR prof. A.P. Avtsyn) AMN SSSR i kafedra farmakologii (zav. - prof. A.N. Kudrin) farmatsevticheskogo fakul'teta I Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova. Submitted June 30, 1964.

VOROB'YEV, V.G.; FEDOSEYEV, A.N.; GAVRILOVA, A.D.

Change in vascular reactions of the isolated heart of dogs with experimental atherosclerosis following a single administration of adrenalin, fenitron and vetrazin. Pat. fiziol. i eksp. terap. 8 no.1:46-49 Ja-F '64. (MIRA 18:2)

1. Institut morfologii cheloveka (dir.- chlen-korrespondent AMN SSSR prof. A.P. Avtsyn) AMN SSSR i kafedra farmakologii farmatsevticheskogo fakul'teta (zav.- prof. A.N. Kudrin) I Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova, Moskva.

VOROB'YEV, V.G. (Moskva)

Plasticity of hardened steels during martensite transformations
at temperatures of lower than zero degree C. Izv. AN SSSR. Met.
i gor. delo no.1:129-135 Ja-F '64. (MIRA 17:4)

ACCESSION NR: AP4019813

S/0279/64/000/001/0129/0135

AUTHOR: Vorob'yev, V. G. (Moscow)

TITLE: Plasticity of hardened steels during martensitic transformation below 0C

SOURCE: AN SSSR. Izv. Metallurgiya i gornoye delo, no. 1, 1964, 129-135

TOPIC TAGS: hardened steel, martensitic steel conversion, low temperature
martensitic steel conversion, steel ductility, hardened steel ductility, steel
KhG, steel Kh12F1, steel Kh15N9Yu, steel plasticity

ABSTRACT: A detailed study was made of the increase in plasticity of hardened steels at temperatures below 0C, where the effect of diffusion is practically excluded. Test specimens of hardened tool steels KhG and Kh12F1 (diameter 4-6 mm, gage length 60 mm), as well as of intermediate grade steel Kh15N9Yu (strips, gage length 100 mm, cross-section 2 x 10 mm), were subjected to preliminary heat treatment, then clamped in the test unit chuck, stressed and placed in a cooler. Results are presented in tabular form and indicate an increase of about 100% in the effective plasticity of very hard steels during intensive martensitic conversion at temperatures substantially below room temperature. The modulus of kinetic plasticity E_k is apparently largely unaffected by the stress load value within the limits of the study. Kinetic plasticity is weak when the
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ACCESSION NR: AP4019813

relative mass of the converting phase is comparatively small. Effects of austenite stabilization can be seen in steel Kh15N9Yu. E_k is near 2000 kg/mm² soon after normalization, and austenitic stabilization after 10-12 days of aging increases that value to about 2400 kg/mm². Two areas of practical use can be indicated so far for the "low temperature" kinetic plasticity of steel: straightening of parts and instruments deformed in hardening; and cold stamping, bending or drawing pieces of complex shape. Orig. art. has: 6 graphs, 1 table and 1 formula.

ASSOCIATION: none

SUBMITTED: 17Apr63

DATE ACQ: 31Mar64

ENCL: 00

SUB CODE: ML

NO REF SOV: 005

OTHER: 004

Card 2/2

SIDOROV, A.N.; VOROB'YEV, V.G.; TERENIN, A.N., akademik

Spectral study of the photoreduction of tetraphenylporphine.
Dokl. AN SSR. 152 no.4:919-922 0 '63. (MIRA 16:11)

VOROB'YEV, Vladimir Grigor'yevich; RAKHSHTADT, A.G., otv. red.;
NIKOLAYEVA, T.D., red.; PAVLOVA, V.A., tekhn. red.

[Theory of heat resistance. Heat resistant steels and alloys] Teoriia zharoprochnosti. Zharoprechnye stali i splavy; lektsiia dlia studentov mashinostroitel'skikh spetsial'nostei, izuchaiushchikh kurs "Metallovedenie i termicheskaiia obrabotka," i studentov metallurgicheskogo fakul'teta, izuchaiushchikh kurs "Termicheskaiia obrabotka." Moskva, Gos.izd-vo "Vysshaiia shkola," 1961. 74 p. (MIRA 16:4)
(Steel, Heat-resistant) (Heat-resistant alloys)

VOROB'YEV, Vladimir Grigor'yevich, kand. tekhn.nauk; FRIGER, I.V.,
INZH., red.; FREGER, D.P., red. izd-va; GVIKTS, V.L.,
tekhn. red.

[Preventing deformations of heat-treated parts in the
manufacture of machinery and instruments]Preodolenie de-
formatsii termoobrabatyvaemykh detalei v mashino- i priboro-
stroenii; stenogramma lektsii, pročitannoi v LDNTP na za-
niatii seminaru po metallovedeniiu i termicheskoj obrabot-
ke. Leningrad, 1962. 47 p. (Leningradskii dom nauchno-
tekhnicheskoi propagandy. Seria: Metallovedenie i termi-
cheskaia obrabotka, no.8) (MIRA 15:8)
(Metals--Heat treatment)

S/145/60/000/008/007/008
D211/D304

AUTHOR: Vorob'yev, V.G., Candidate of Technical Sciences

TITLE: Anomalous properties of metallic substances during internal changes, and their technical significance

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy. Mashinostroyeniye, no. 8, 1960, 120 - 131

TEXT: The author gives a survey of literature and describes as an example the properties of kinetic plasticity of steel during thermal treatment. Technical prevention of buckling is stated to depend on the knowledge of these kinetic properties. There are 9 figures and 26 references: 20 Soviet-bloc and 6 non-Soviet-bloc. The references to the English-language publications read as follows: Andrade, Nature, 162, 410, 1948; E.C. Ellwood, The Journal of the Institute of Metals, 80, 5, 217, 1952; J.H. Westbrook, Journal of the Electrochemical Society, 104, 6, 369, 1957.

ASSOCIATION: MVTU im. N.E. Bauman (MVTU im. N.E. Bauman)

SUBMITTED: June 9, 1959

Card 1/1