ACC NR: AP6033411

continuous acceleration of electrons. The experimental data do not permit any definite conclusions to be drawn concerning the mechanism responsible for the observed behavior of the plasmas. The authors thank Academician I.K.Kikoin for his interest in the work, and V.V.Vasil'tsov and Yo.F.Gorbunova for their participation in the experimental work. Orig. art. has: 2 figures.

SUB CODE: 20 SUBM DATE: 24Aug65 ORIG. REF: 004 OTH REF: 004

Card 2/2

BABICHEV, A.P., kand. tekhn. nauk; L'YASHENKO, V.I., inzh.

Determining the dependences of the polishing process in vibrating drums. Vest. mashinost. 45 no.6:40-43 Je '65.
(MIRA 18:6)

BABICHEV, A. P., Cand Tech Sci -- "Removal of increased allowances ~~when~~ with honing materials possessing ~~different~~ with mixed mechanical properties. Novocherkassk, 1961. (Min of Higher and Sec Spec Ed RSFSR. Novocherkassk Order of Labor Red Banner Polytech Inst im Sergo Ordzhonikidze) (KL, 8-61, 240)

BABICHEV, A.P.

Honing with increased allowances. Stan.i instr. 33 no.3:4-6 Mr '62. (MIRA 15:2)

(Grinding and polishing)

BABICHEV, A.P.

Optimum values for the radial feed of abrasive bars in honing. Stan. i instr. 34 no.10:27-28 O '63.
(MIRA 16:11)

BABICHEV, A.P.; D'YACHENKO, V.I.

Finishing turbine-blade surface by means of vibratory grinding.
Stan. i instr. 35 no.1:37-39 Ja '64. (MIRA 17:3)

BABICHEV, A.P.; KOTEL'NIKOV, V.K., dots., inzh., retsenzent;
YELIZAVETIN, M.A., kand. tekhn. nauk, dots., red.

[Honing] Khoningovanie. Moskva, Mashinostroenie, 1965.
94 p. (MIRA 18:2)

BABICHEV, A.P., kand. tekhn. nauk; PICHKO, A.S., inzh.

Investigating a shot peening unit. Vest. mashinostr. 45 no.1:63-65 Ja '65. (MIRA 18:3)

BASICHEV, E.Y.

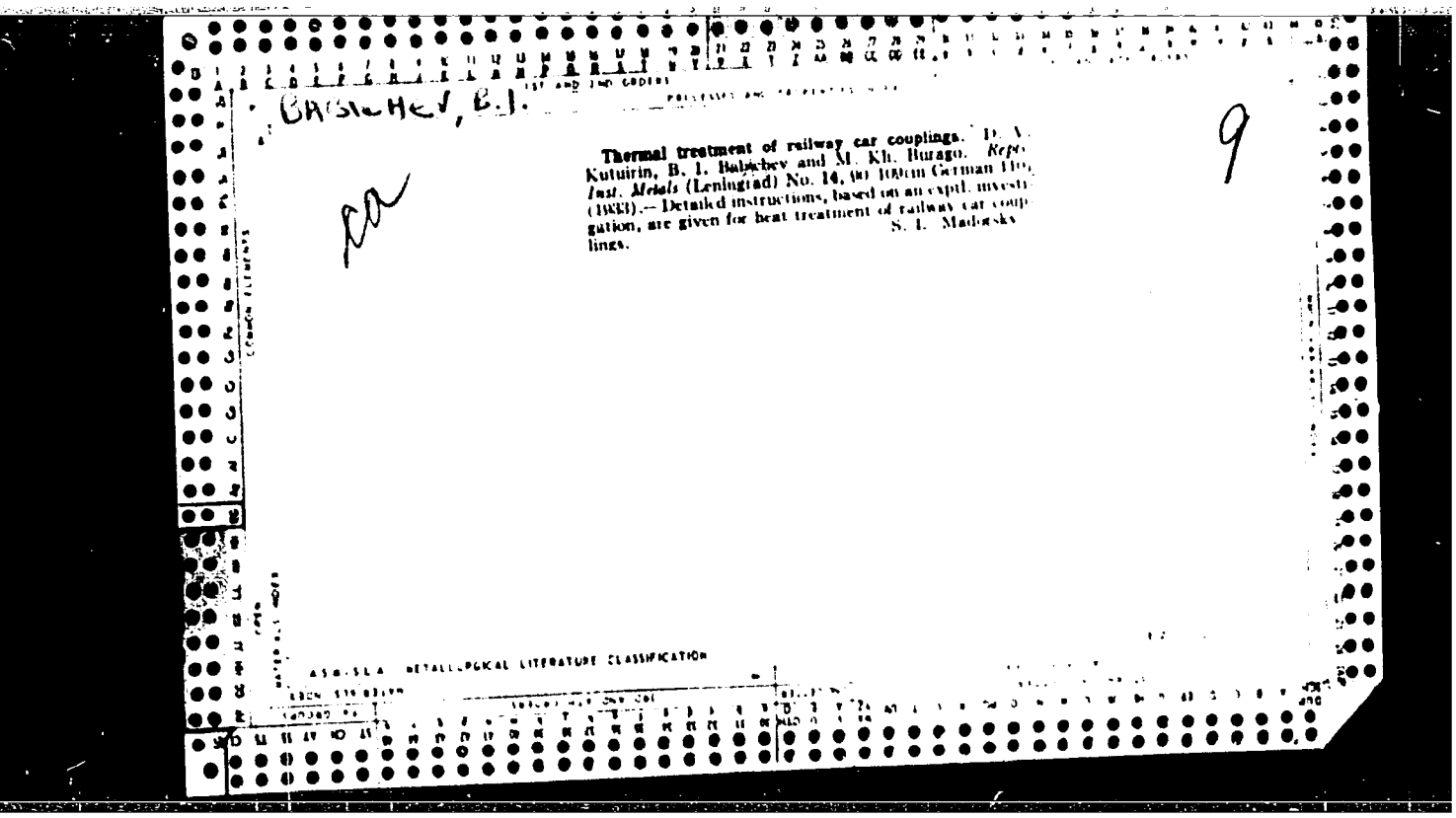
CA

9

Cementation in molten salts. D. V. [illegible] and B. I. [illegible]. [illegible] *Inst. Metal* **1931**, Nos. 5-6, 16-19.—Iron samples were treated in a molten salt bath having the compn.: $BaCO_3$ 10, KCl 35, $BaCl_2$ 40 and [illegible] 15% at 700°, 850° and 930° for periods of 0.5, 1, 2 and 3 hrs. Altogether 26 expts. were made. For comparison cementation was conducted also in solid mixts. contg. charcoal 70 + potash 30%; powd. [illegible] 80 + KOH 20%; cast iron filings 85 + KOH 15%. Results were detd. by measuring the increase in wt. and by microscopic examn. of a cross-section of the steel near the surface.

S. L. Madorsky

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



BAISHEV, B.I.

9

Thermal treatment of railway car couplings. [illegible] Kutuirin, B. I. Baishev and M. Kh. Burago. *Repts. Inst. Metals* (Leningrad) No. 14, [illegible] (1933).— Detailed instructions, based on an exptl. investigation, are given for heat treatment of railway car couplings.

S. I. Madorsky

A.S.M./S.L.A. METALLURGICAL LITERATURE CLASSIFICATION

BAYKOV, Dmitriy Ivanovich; ZOLOTOREVSKIY, Yuliy Semenovich; RUSSO, Vladimir Leonidovich; RYAZHSKAYA, Tamara Konstantinovna; BABICHEV, B.I., kand.tekhn.nauk, nauchnyy red.; KAZAROV, Yu.S., red.; LEVOCHKINA, L.I., tekhn.red.

[Weldable aluminum alloys; properties and use] Svarivaiushchiesia aliuminievye splavy; svoistva i primenenie. Leningrad, Gos.soiuznoe izd-vo sudostroit.promyshl., 1959. 234 p. (MIRA 12:10)

(Aluminum alloys)

MURAKHIN, N. (gorod Stavropol'); BABICHEV, D. (gorod Stavropol').

Fulfill your pledges. Kinomekhanik no.5:10-11 My '53. (MLRA 6:6)
(Moving-picture projection)

BABICHEV, D.D., inzh.

Use of the water-slime treatment flowsheet at the "Ziminka 3-4" Coal Preparation Plant. Obog. i brik. ugl. no.5:51-54 '58.
(MIRA 12:9)

1.Ugleobogatitel'naya fabrika "Ziminka 3-4".
(Coal preparation)

BABICHEV, D.D.

Using water-sludge flowsheets for Kl coal. Ugol' 33 no.5:42-44 My '58. (MIRA 11:5)

1.Ugleobogatitel'naya fabrika "Ziminka 3-4."
(Coal preparation)

88668

S/193/61/000/001/005/008
A005/A001

1.2310 only 2708

AUTHOR: Babichev, E.B.

TITLE: The Electric Welding Machine МШПЛ-150/1,000 (MShPL-150/1,000) for Joining the Ends of Strips

PERIODICAL: Byul. tekhn.-ekonom. inform., 1961, No. 1, pp. 26-27

TEXT: In 1960, the works "Elektrik" put on the market the machine МШПЛ-150/1,000 (MShPL-150/1,000) with guillotine for contact lap welding of the ends of cold-rolled or transformer carbon-steel strips from 0.1 to 1.0 mm thick and from 500 to 1,050 mm broad. The machine operates in continuous technological metal processing. There is foot-pedal manipulation for pneumatic centering, clamping, cutting, and welding of the strip; the strip is guided by the rolls. The front end of the second strip is cut by the cutter standing in front of the machine and supplied to a stop. The end of the first and the front of the second strip are clamped by the central clamping device, then the welding support is operated and the welding process is conducted. The latter process is performed by the intermittent one-side double-seam welding method by means of individual welding current pulses alternating with pauses.

Card 1/3

33668
S/193/61/000/001/005/008
A005/A001

The Electric Welding Machine МШПЛ-150/1,000 (MShPL-150/1,000) for Joining the Ends of Strips

The technical characteristics of the machine:

Primary voltage	380 v
Power	150 kva
Welding pulse-total welding cycle time ratio	10%
Secondary voltage	from 3.4 to 6.8 v
Number of control stages of the secondary voltage	16
Welding current pulse duration in periods	from 1 to 19
Pause duration in periods	from 1 to 19
Largest summary thickness of welded steel	1.0 + 1.0 mm
Largest breadth of the welded strip	1,050 mm
Welding speed	from 4 to 8 m/min
Maximum load on each electrode	450 kg
Rated pressure of compressed air in the system	5 kg/cm^2
Discharge of free air	2.8 m^3/hr
Discharge of cooling water	300 l/hr
Power of the electromotor	0.65 kw
Overall dimensions of the machine (heightxbreadth x length)	2,700 x 1,800 x 2,750 mm

Card 2/3

88668
S/193/61/000/001/005/008
A005/A001

The Electric Welding Machine МШПЛ-150/1,000 (MShPL-150/1,000) for Joining the Ends of Strips

The machine is endowed with the ignitron interrupter ПИШ-50-4 (PISh-50-4). The machine performes welding seams formed by individual points with a pitch determined by the welding speed from 4 to 8 m/min, the duration of the current pulses, and the interruption time, which can be controlled by the potentiometer of the ignitron interrupter. The simultaneous welding process of two seams permits the one-side current supply to the strips, which ensures the constancy of the welding current over the total length of the seam. The welding support conducts shuttle movements with interruptions in the initial positions which can be controlled corresponding to the breadth of the welded strips. There is 1 photograph.

Card 3/3

S/193/62/000/004/006/008
A004/A101

12210

AUTHOR: Babichev, E. B.

TITLE: KШТ -2 x 300 (KShT-2 x 300) stand for the electric resistance welding of lay-flat tubes

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 4, 1962, 25-26

TEXT: The KShT-2 x 300 welding stand has been developed by the "Elektrik" Plant for manufacturing electrically welded thin-walled lay-flat tubes, and in 1961 a batch of these stands was produced. The production method of these tubes developed by the institut elektrosvarki im. akad. Ye. O. Patona (Electric Welding Institute im. Acad. Ye. O. Paton) consists in the following: Two strips, one placed on top of the other, are welded along their edges by electric resistance welding in such a way that an airtight seam is formed. After the welding, the strips are wound in coils and delivered to the pipeline mounting site. The double strip is then uncoiled and, under pressure, takes the shape of a tube. These tubes, from 75 to 300 mm in diameter with a wall thickness from 1.75 to 2.5 mm, are produced from 08КП (08KP) steel strip. The stand casings are mounted on a common base and can be shifted by lifting jacks, which is necessary for

Card 1/2

КШТ -2 x 300 (KShT-2 x 300) stand ...

welding strip of different widths (from 100 to 500 mm). An AT-1 automatic transformer ensures a uniform load of the three-phase network. The secondary circuit of the stand is devised with minimum values of inductive and active resistance. The author presents a brief description of the KShT-2 x 300 welding stand and gives the following technical data: Rated power - 2 x 300 kV-amp; primary voltage - 380 v; secondary voltage regulation range - 5.16 - 10.32 v; top electrode travel - 25 - 150 mm; maximum welding stress on electrodes - 1,200 kg; distance between electrodes (strip width) - 100 - 500 mm; weight - 4,900 kg. The KShT-2 x 300 welding stand is supplied with ПИШ-200-4С (PISh-200-4S) ignitron breakers fitted with a welding current stabilizing device which makes it possible to increase the duty cycle factor up to 80%. There is 1 figure.

BABICHEV, F. S.

BABICHEV, F. S.

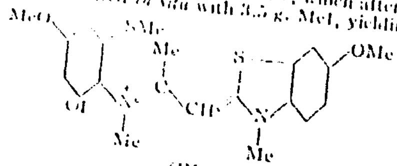
5X2++

· Synthesis of styrenes and cyanine dyes of the naphtho-1,4-thiazine series. F. S. Babichev (Kiev State Univ.). *Ukrain. Khim. Zhur.* 16, 188-93(1950).—*3-Methyl-2-methylene-α-naphthothiazoline* (2,3-dihydro-3-methyl-2-methylenenaphtho[2,1]thiazole) (6 g.) in C_6H_6 treated with 3 g. *MeCOCHBrPh* (b_3 122-3°) yields 89% *adduct* isolated as the *perchlorate*, $C_{24}H_{21}O_4NS_2Cl$, decomp. 140°; heating with alc. aq. HCl 5 min. yields *3-methyl-2-acetylmethylene-α-naphthothiazoline HCl salt*, which with alkali yields the *free base*, m. 201-2° (from EtOH). The mother liquor, after sepn. of the HCl salt above, treated with $NaClO_4$ in EtOH, yields *2-phenyl-3-methyl-7,8-benzobenzo-1,4-thiazine-MeClO₄* (I), decomp. 180° (from EtOH contg. $HClO_4$); the salt heated in pure EtOH yields *2-phenyl-3,4-dimethyl-7,8-benzo-1,4-thiazine*, m. 163° (from EtOH). An analogous condensation with *AcCHBrCO₂Et* gave the adduct, $C_{17}H_{20}O_3NS_2Br$, decomp. 160°, which heated with alc. aq. HCl yields *3-methyl-2-acetylmethylene-α-naphthothiazoline-HCl*, while the mother liquor deposits 64% *2-carbethoxy-3-methyl-7,8-benzobenzo-1,4-thiazine*, m. 119° (*Me perchlorate* (II), decomp. 176°, formed on mixing $HClO_4$ in EtOH with 2-carbethoxy-3,4-dimethyl-7,8-benzobenzo-1,4-thiazine). 3-Methyl-7,8-benzobenzo-1,4-thiazine-MeClO₄ (III) heated in EtOH with $p\text{-}Me_2NC_6H_4CHO$ 5 min. yields 54% *3-(p-dimethylaminostyryl)-7,8-benzobenzo-1,4-thiazine-MeClO₄*, brown, decomp. 225°, absorption max. 570 mμ. This heated with more $p\text{-}Me_2NC_6H_4CHO$ in Ac_2O 10 min. yields 68% *2-(p-dimethylaminobenzylidene)-3-(p-dimethylaminostyryl)-7,8-benzobenzo-1,4-thiazine-MeClO₄*, decomp. 245-7° (from AcOH), green, max. 600 mμ. Similarly 3-phenyl-7,8-benzobenzo-1,4-thiazine-MeClO₄ and $p\text{-}Me_2NC_6H_4CHO$ in Ac_2O give 75% red-violet *3-phenyl-2-(p-dimethylaminobenzylidene)-7,8-benzobenzo-1,4-thiazine-MeClO₄*, decomp. 224° (from MeOH), max. 630 mμ. I yields 73% *2-phenyl-3-(p-dimethylaminostyryl)-7,8-benzobenzo-1,4-thiazine-MeClO₄*, decomp. 238° (from AcOH), max. 583 mμ; II yields 31% *2-carbethoxy-3-(p-dimethylaminostyryl)-7,8-benzobenzo-1,4-thiazine-MeClO₄*, green, decomp. 213° (from EtOH), max. 580 mμ. Brief heating of 0.1 g. III, 0.5 g.

10

10X2++

Reaction of methylene bases of the benzothiazole series with halides. (F. S. Babichev and L. I. Kravchenko (Kiev State Univ.). Ukrain. Khim. Zhur. 16, 199-205(1950).—Heating 2-methyl-6-methoxybenzothiazole, b. 170-3°, with MeI 3 hrs. to 100° in a sealed tube yields the methiodide (I), m. 228°. Similarly, 2-methyl-6-chlorobenzothiazole, m. 81°, yields the methiodide (II), m. 222°. I (6.5 g.), 3.5 g. KOH, 30 ml. C_6H_6, and 10 ml. H_2O shaken 5 min. gave a layer contg. the methylene base, which after drying by KOH was treated in situ with 3.5 g. MeI, yielding 81%



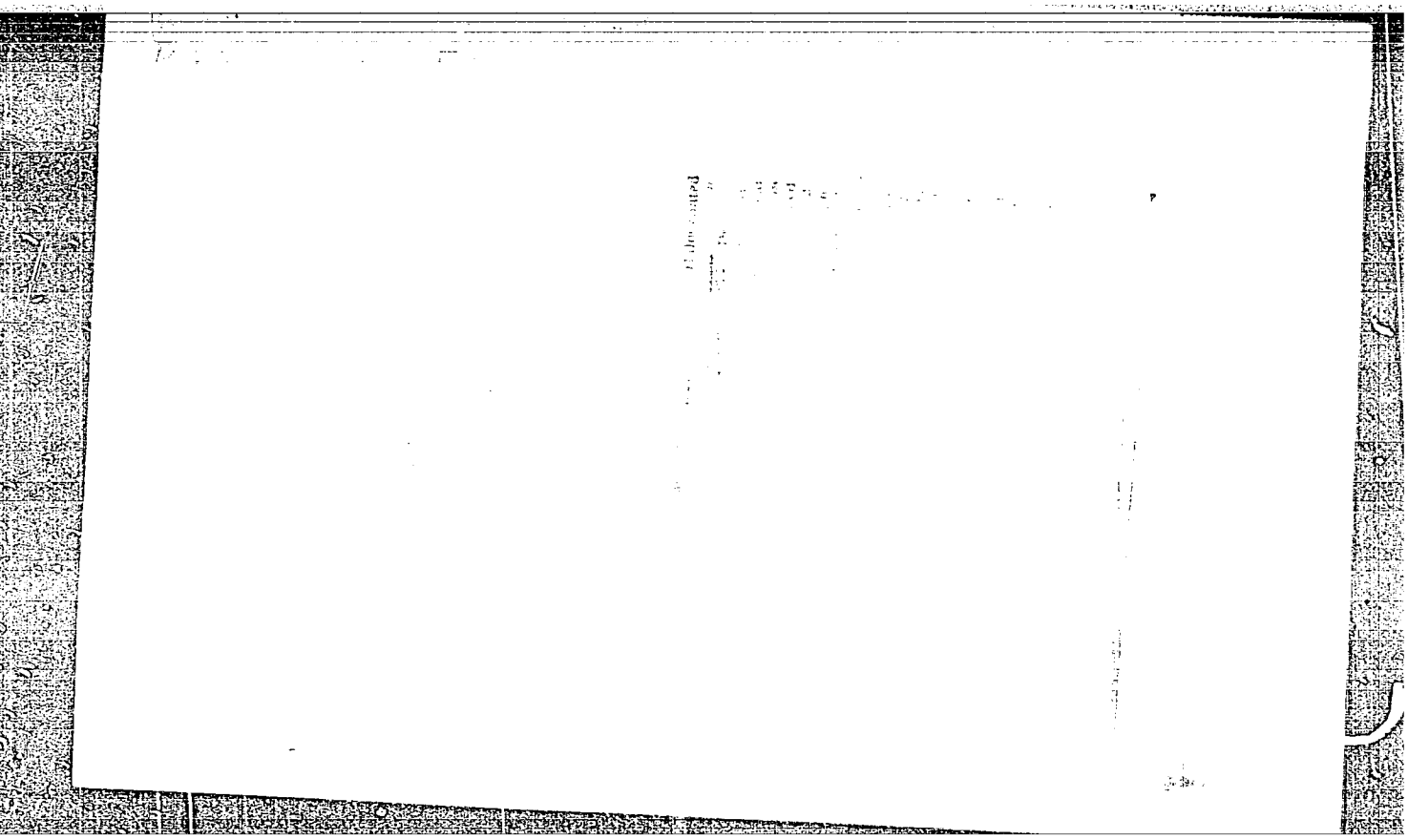
(III)

adduct (III), decomp. 172° (from EtOH). Heated with dil. HCl on a steam bath it readily yields 3-methyl-6-methoxy-

BABICHEV, F. S.

Kiprianov, A. I. & Babichev, F. S. - "Investigation in the field of hedroxy-fuchsone dyes. X. On the so-called tautomerism of hydroxy-triaryl-carbinols." (p. 158)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1950, Vol. 20, No. 1



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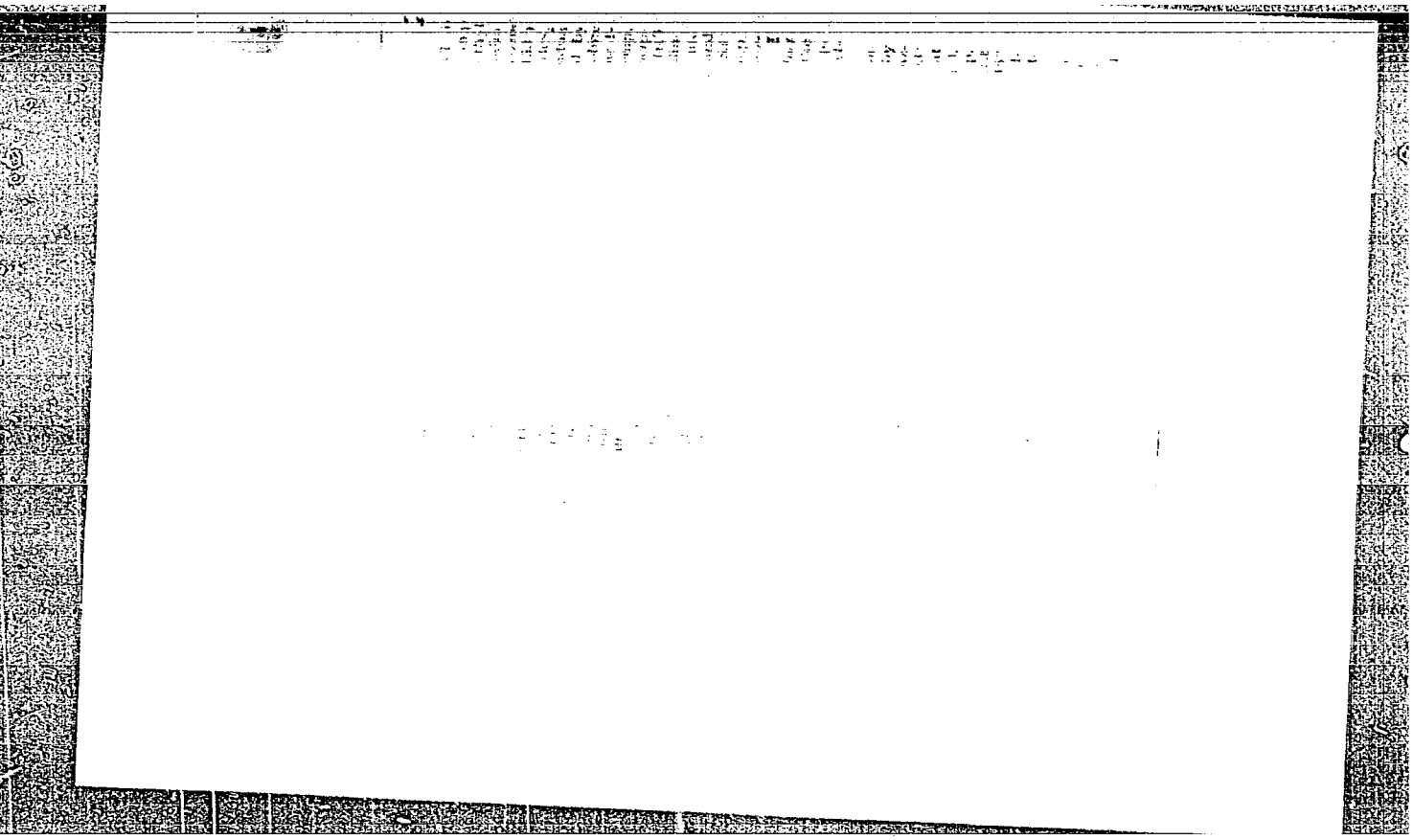

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BABICHEV, F.S.; PROTSENKO, L.D.

Interaction of methylene bases in the thiazole series with dibasic acid anhydrides. Ukr.khim.zhur.17 no.5:755-760 '51. (MLRA 9:9)

1.Kiyevskiy gosudarstvennyy universitet.
(Thiazole) (Anhydrides)

BABICHEV, F.S.; VOLOKHINA, N.A.

Interaction of 3-methyl-2-ethylidenebenzothiazoline with halo derivatives. Ukr.khim.zhur.17 no.5:761-765 '51. (MLRA 9:9)

1.Kiyevskiy gosudarstvennyy universitet.
(Benzothiazoline) (Halides)

USSR/Chemistry - Selenium Organic Compounds Jul-Aug 53

"Interaction of Methylene Bases of the Benzselenazol Series With Halogen Compounds," F. S. Babichev, A.M. Matyushinets, D.F. Mironova, Chair of Org Chem, Kiev State U

Ukrain Khim Zhur, Vol 19, No 4, pp 405-412.

Investigated the reactions of 2-methylene-3-methylbenzselenazoline and 2-methylene--3,5,6-trimethylbenzselenazoline with methyl iodide, ethyl iodide, the ethyl ester of iodoacetic acid, and benzoyl chloride. Describes the products obtained.

268T12

KIPRIANOV, A.I.; BABICHEV, F.S.; MUSHKALO, L.K.; POCHINOK, V.Ya.; PEL'KIS,P.S.

[Outline history of organic chemistry at Kiev University] Ocherki po istorii organicheskoi khimii v Kievskom universitete. Pod red. A.I. Kiprianova. [Kiev] Izd-vo Kievskogo gos. univ. im. T.G.Shevchenko, 1954. 130 p. (MLRA 9:8)

(Chemistry, Organic) (Kiev University)

Babichev, F.S.

USSR/Organic Chemistry - Synthetic Organic Chemistry E-2

Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4330

Author : Babichev, F.S., Shokol, V.A.
Title : Reaction of Beta-Aminoethylmercaptan with Anhydrides of Dibasic Acids

Orig Pub : Ukr. Khim. Zh., 1956, 22, No 2, 231-214

Abstract : Study of the reaction of beta-aminoethylmercaptan (I) with the anhydrides of dibasic acids. It is shown that I gives with succinic anhydride (II) N-(beta-mercaptoethyl)-succinimide (III), with glutaric the mono-beta-mercaptoethylamide of glutaric acid (IV), and with phthalic anhydride the N-(beta-mercaptoethyl)-phthalimide. The expected formation of (thiazolinyl-2-alkylcarboxylic acids (see RZhKhim, 1956, 68371) does not take place. 2 g I and 2.6 g II in 10 ml C_6H_6 (in a sealed tube, 120-130°, 16 hours) give III, yield 65%, MP 50° (from alcohol). From III and 15% H_2O_2 is obtained the

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Abs Jour : Referat Zhur - Khimiya, No 2, 1957, 4330

bis-N-(beta-succinimidoethyl)-disulfide, yield 82.3%, MP 120° (from alcohol). III and CH_2N_2 in ether give S-methyl-III, yield 95%, MP 58-59° (from ether). 1 g I, 1.3 g II in 4-5 ml C_6H_6 are heated until the reaction begins and then for an additional 30 minutes. The viscous bottom layer of $H_3CH_2CH_2NHCOCH_2CH_2COOH$ is

dried, dissolved in water, and a 5% solution of H_2O_2 is added, yield of $(-SCH_2CH_2NHCOCH_2CH_2CCOH)_2$ 65.6%,

MP 160°. Under the same conditions there is obtained IV, in the form of a viscous material, and therefrom the disulfide, yield 64.5%, MP 126-128° (from alcohol).

Kiyevskiy gosudarstvennyy universitet im T. G. Shevchenko.

USSR/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 942

Author: Babichev, F. S., and Shokol, V. A.

Institution: None

Title: Synthesis of 3-keto-1,4-thiazanes

Original Periodical: Ukr. khim. zh., 1956, Vol 22, No 2, 215-216

Abstract: A number of 3-keto-1,4-thiazanes of the type $SCHRCONHCH_2CH_2$ (I) have been prepared. Dry toluene, one gram-atom Na, and 1.1 moles - aminoethylmercaptan (prepared by saturating alcoholic ethylamine with H_2S at 10-15°; yield 72.5%, mp 98°) are heated at ~100° until all the Na dissolves; one mole of the ester of the α-brominated acid (II) is added dropwise with constant cooling, followed by heating for 2-2.5 hours at ~100°. The NaBr is separated and the toluene distilled off, leaving I. The amount of initial II, R, the yield of I in percent, and the mp in ° C are given: $CH_2BrCOOC_2H_5$, H, 65.3, 89 (from alcohol or benzene) (a molecular compound is formed with $AgNO_3$ in aqueous

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USSR/Organic Chemistry - Synthetic Organic Chemistry, E-2

Abst Journal: Referat Zhur - Khimiya, No 1, 1957, 942

Abstract: solution; yield 98.2%, mp 186° (from water); $CH_3CHBrCOOC_2H_5$, CH_3, 69.8, 78-79 (from benzene); $CH_3CH_2CHBrCOOC_2H_5$, C_2H_5, 52.7, 66 (from ether); $(CH_3)_2CHCHBrCOOC_2H_5$, iso-C_3H_7, 55 (bp 150-152°/1 mm), 58 (from benzene); $C_6H_5CHBrCOOC_2H_5$, C_2H_5, 80.5, 162 (from alcohol or dioxane); $CH_3OOCCH_2CHBrCOOCH_3$, CH_2COOCH_3, 47.5, 71 (from benzene). When 0.5 gms of I (R = CH_2COOCH_3) is dissolved in 30 ml alcohol and saturated with NH_3 under constant cooling, and the alcohol distilled off after 10 days, the yield of I (R = CH_2CONH_2) is 56%, mp 174° (from alcohol).

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Babichev, F.S.

USSR/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26878.

Author : Babichev, F.S.; Feshchenko, N.G., Miroshnichenko, Z.I.

Inst :

Title : (Bensothiazolyl-2)-Alkylcarboxylic Acids. II. 6-Nitro and 6-Aminobensothiazolylalkylcarboxylic Acids.

Orig Pub: Ukr. khim. zh., 1956, 22, No. 4, 514 - 517.

Abstract: γ-(6-nitrobenzothiazlyl-2)-propionic acid (IV), γ-(6-nitrobenzothiazolyl-2)-butyric acid (V), δ-(6-nitrobenzothiazolyl-2)-valeric acid (VI) and o-(6-nitrobenzothiazolyl-2)-benzoic acid (VII), reduced to corresponding 6-aminoacids (IVa - VIIa) with Sn and HCl were synthetized by the condensation of 2-amino-5-nitrophenylmercaptan (I)

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Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26878.

with anhydrides of succinic (II), glutaric (III), adipic or phthalic acids; β-(6-metoxy-benzothiazolyl-2)-propionic acid (VIII) and γ-(6-metoxybenzothiazolyl-2)-butyric acid (IX) were prepared by condensation of potassium 2-amino-5-methoxyphenylmercaptide with II or III; IVa and VIIa were converted conforming to Sandmeier into β-(6-cyanbenzothiazolyl-2)-propionic acid, melting point 199°, and o-(6-chlorobenzothiazolyl-2)-benzoic acid (yield 56%, melting point 193°), respectively. 6.3 g of I, 3.7 g of II and 15 ml of C_6H_6 are boiled 1 hour and IV (yield 71%, melting point 163°) is separated; methyl ester (ME) (melting point 170-172°); anilide (A) (melting point 165-167°). The following are produced analogically (the yield

USSR/Organic Chemistry. Synthetic Organic Chemistry. E-2

Abs Jour: Ref Zhur - Khimiya, No. 8, 1957, 26878.

chloride in 70 ml of alcohol, the precipitate is separated, alcohol is distilled off, 8 ml of CH_3COOH and 13 g of II are added, all is heated 1 hour at 100°, alkalized with NaOH solution, extracted with benzene, acidified, and VIII is separated, yield 10 g, melting point 145°; iodomethylate - melting point 209°. IX is prepared similarly, melting point 142°; iodomethylate - melting point 185°. All these substances were crystallized from alcohol. See RZhKhim, 1956, 68371 for report I.

T. G. Shevchenko State Univ., Kiev

Card 4/4

SYCH, Ye.D.; BABICHEV, F.S.

Andrei Ivanovich Kiprianov; on the occasion of his 60th birthday.
Ukr.khim.zhur. 22 no.4:550-553 '56. (MIRA 10:10)
(Kiprianov, Andrei Ivanovich, 1896-)

BABICHEV, F. S.

79-1-44/63

AUTHORS: Babichev, F. S. , Kiprianov, A. I.

TITLE: On the Reaction Products of the Methylene Bases of Benzthiazole and Benzselenazole With Haloid Alkyls (O produktakh reaktsii metilenovykh osnovaniy benztiazola i benzselenazola s galoidnymi alkilami)

PERIODICAL: Zhurnal Obshchey Khimii, 1950,Vol.20, Nr 1, pp.209-212 (USSR)

ABSTRACT: The reaction of the methylene bases of the benzthiazole, benzselenazole and thiazole series with haloid alkyls was already quite thoroughly investigated by the authors in 1950. They state that the structure, ascribed to the reaction products by Larive and Collet (reference 1) according to scheme 1 (formulae (I) (III) (IV)) is incorrect, as actually in the reaction of methyl iodide with 3-methyl-2-methylene-benzthiazoline the compound (V), and with 3-methyl-2-methylene-benzselenazoline the compound (VI) is formed. These formulae (V) and (VI) are proved by the properties of these two compounds and by their hydrolysis products. Larive and Collet used for

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On the Reaction Products of the Methylene Bases of Benzthiazole and Benzselenazole With Haloid Alkyls

the synthesis the products of the linkage of methyl iodide to the methylene bases, a linkage which should be brought about with the aid of the new intermediate product suggested by them (N-methyl-2-benzthiazolsulphbeta_ine) of monomethyncyanines containing three nuclei. Consequently the dyes obtained from these compounds were also ascribed a wrong structure. According to Larive and Collet the reaction of the new dyes takes place according to scheme 2 (formulae (III) and (VII). In reality the conversion takes place according to scheme 3 (formulae (V) and (VIII)), where not monomethyncyanine, but the dye VIII substituted in the chain is obtained. The reaction of product (V) with 3-methyl-2-benzthiazolsulphobetaine was carefully investigated by the authors. The orange dye, as reaction product, easily hydrolyzes with caustic potash to a yellow product which decomposed at 339°C and proved to be the well-known ketone (IX) of scheme 4. The second hydrolysis compound was liberated as methyl ether of o-methylaminothiophenol. Consequently the hydrolysis of the dye obtained by Larive and Collet takes place according to scheme 5 (with the formulae(XIII) and (IX)) so that the dye (VII) naturally

79-1-44/63

On the Reaction Products of the Methylene Bases of Benzthiazole and Benzselenazole With Haloid Alkyls

cannot form such products of hydrolysis. There are 7 references, 6 of which are Slavic.

ASSOCIATION: **Kiyev State University**
(Kiyevskiy gosudarstvennyy universitet)

SUBMITTED: January 2, 1957

AVAILABLE: Library of Congress

Card 3/3

1. Chemistry 2. Cyclic compounds-Chemical reactions
3. Hydrolysis

BABICHEV, F.S.; MOKROVA, L.N.; RYZHEVA, L.V.

Benzothiazolylalkylcarboxylic acids and their derivatives. Part 3: Some 2-benzothiazolylhydroxyalkyl- and oxoalkyl-carboxylic acids. Zhur.ob.khim. 32 no.2:506-510 F '62. (MIRA 15:2)

1. Kiyevskiy gosudarstvennyy universitet imeni T.G. Shevchenko.
(Acids, Organic)

BABICHEV, F.S.; NEPLYUYEV, V.M.

Benzothiazolylalkylcarboxylic acids and their derivatives. Part 4: 2-Benzothiazolylalkylcarbinols. Zhur.ob.khim. 32 no.3:857-859 Mr '62. (MIRA 15:3)

1. Kiyevskiy gosudarstvennyy universitet imeni T.G.Shevchenko.
(Benzothiazole) (Methanol)

BABICHEV, F.S.; NEPLYUYEV, V.M.

Benzothiazolylcarboxylic acids and their derivatives. Part 5: 2,3-Polymethylenebenzothiazole salts. Zhur.ob.khim. 32 no.3: 860-864 Mr '62. (MIRA 15:3)

1. Kiyevskiy gosudarstvennyy universitet imeni T.G.Shevchenko.
(Benzothiazole)

BARANOV, F.S.; BOGOLYUBSKIY, V.A.; KIBIROV, V.K.; MIKHAYLENKO, F.A.

Condensation of thiolactams with halogenated ketones.
Zhur.ob.khim. 32 no.9:2793-2797 S '62. (MIRA 15:9)

1. Kiyevskiy gosudarstvennyy universitet.
(Lactams) (Ketones)

BABICHEV, F.S.; KIBIREV, V.K.

Heterocyclic analogs of azulene. Part 1: Isoindolo[1,2-b]benzothiazole. Zhur.ob.khim. 33 no.6:2000-2006 Je '63. (MIRA 16:7)

1. Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko.
(Isoindole) (Benzothiazole)

KIBIREV, V.K.; BASHCHEV, F.S.

Heterocyclic analogs of azulene. Part 3: Pyrrolo[2,1-b] thiazoles. Ukr.khim.zhur. 30 no.5:488-495 '64. (MIRA 18:4)

1. Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko.

BABICHEV, F.S.; BUBNOVSKAYA, V.N.

Pyrido-[2,1-b]-thiazole salts and cyanine dyes produced from them. Ukr. khim. zhur. 30 no.8:848-856 '64.
(MIRA 17:11)

1. Kiyevskiy gosudarstvennyy universitet imeni Shevchenko.

BABICHEV, F.S.; DZHIGIREY, N.V.; GUKALOV, S.P.

Styryl dyes, merocyanines, and thiocyanines from 2,3-polymethylenebenzothiazolium salts. Zhur. ob. Khim. 34 no.7: 2433-2440 Jl '64 (MIRA 17:8)

1. Kiyevskiy gosudarstvennyy universitet imeni T.G. Shevchenko.

BABICHEV, F.S.; SHCHETSINSKAYA, E.

Mono,tri-, and pentamethinecyanines from 2,3-polymethyl-enebenzothiazolium salts. Zhur. ob. khim. 34 no.7:2441-2449 Jl '64 (MIRA 17:8)

1. Kiyevskiy gosudarstvennyy universitet imeni T.G.Shevchenko.

KIPRIANOVA, L.A.; YAROVOY, D.K.; SHCHETSINSKAYA, E.; BABICHEV, F.S.

Benzothiazolylalkyl(aryl)carboxylic acids and their derivatives. Part 6: Condensation of 2-amino-1-thionaphthol and 3-amino-2-mercaptoquinoline with anhydrides of dibasic carboxylic acids. Ukr. khim. zhur. 30 no.8:859-862 '64.

(MIRA 17:11)

1. Kiyevskiy gosudarstvennyy universitet imeni Shevchenko.

BABICHEV, F.S.; KIPRIANOV, A.I.

Structure of the products of addition of halo derivatives to methylene bases of the benzothiazole series. Zhur. ob. khim. 34 no.8:2759-2764 Ag '64. (MIRA 17:9)

1. Kiyevskiy gosudarstvennyy universitet im. T.G. Shevchenko.

BABICHEV, F.S.; KHILYA, V.P.

Cyanine dyes from dihydrooxazine and dihydrothiazine-benzothiazole salts. Zhur.org.khim. 1 no.3:562-570 Mr '65.

(MIRA 18:4)

1. Kiyevskiy gosudarstvennyy universitet im. T.G.Shevchenko.

USSR / Farm Animals. Swine Q-4

Abs Jour: Ref Zhur-Biol., No 3, 1958, 12123

Author : Babichev G.
Inst :
Title : Results of an Examination of Meat-Fat Qualities of the Belorussian Black-Brindled Swine (of the New Breed Group) (Iz rezul'tatov raboty po izucheniyu myaso-sal'nykh kachestv belorusskikh chernopestrykh sviney (novoy porodnoy gruppy)

Orig Pub: Iz rezul'tatov raboty nad belorus. chernopestrymi svin'yami v uchebno-opyt. kh-ve Belorus. s.-kh. akad. Gorki, 1956, 93-101

Abstract: In fattening Belorussian Black-Brindled Swine from 3-5 months of age, the application of moderate concentrate type of feed (deficient in digestible protein) amounting to 5.2 to 5.4 units of feed per 1 kg.

Card 1/3

USSR / Farm Animals. Swine Q-4

Abs. Jour: Ref Zhur-Biol., No 3, 1958, 12123

Abstract: the fat yield 54.8% of the total fresh carcass weight.

Card 3/3

BABICHEV, Grigoriy Adrianovich, dots.; LEBEDEV, S.G., red.; ABBASOV, T., tekhn. red.

[Ventilation of livestock buildings in Uzbekistan] Ventiliatsiia zhivotnovodcheskikh pomeshchenii v Uzbekistane. Tashkent, Gos-izdat UzSSR, 1962. 82 p. (MIRA 16:4)
(Uzbekistan--Barns--Heating and ventilation)

[illegible], G.I., Inzh.; GORBACH, T.T., Inzh.; [illegible], A.I., Inzh.; [illegible], G.N., Inzh.

New method of preventing the spontaneous combustion of coal. Bezop.truda v prom. 9 no.4:13-14 Ap '65.

(MIRA 18:5)

USSR / Farm Animals. Swine. Q

Abs Jour : Ref Zhur - Biologiya, No 5, 1959, No. 21262

Author : Babichev, G. T.
Inst : Not given
Title : The Effectiveness of Fattening for Meat of the Young Stock of the Large White Breed

Orig Pub : Zhivotnovodstvo, 1958, No 5, 80-81

Abstract : Mainly local feeds were used for fattening: grass, cabbage leaves, barley, potatoes, sour milk. The daily feed expenditure per head averaged daily: 2.65 kg of green feeds, 2.1 of potatoes, 1.25 of concentrates, and 1.1 of sour milk. The fattening lasted for 111 days, until the age of 6½ months was reached, at which time the pigs weight averaged 103 kg, and the weight of better ones among them, 106 - 120 kg. The average daily weight gain amounted to 732 g, the body trunk's

Card 1/2

SAVCHENKO, Ol'ga Semenovan, svinarka; BABICHEV, G.T.[Babychev, H.T.], kand. sel'khoz. nauk, otv. red.; GURENKO, V.A. [Hurenko,V.A.], red.; MATVIICHUK, O.A., tekhn. red.

[Initial successes] Pershi uspekhy. Kyiv, 1961. 44 p. (Tovarystvo dlia poshyrennia politychnykh i naukovykh znan' Ukrains'koi RSR. Ser.5, no.9) (MIRA 14:9)

1. Kolhoz "Chervonyy khliborob" Obukhovskogo raiona Kiyevskoy oblasti (for Savchenko).

(Obukhov District—Swine breeding)

BABICHEV, G.T.[Babichev, H.T.]; GAL'CHINSKAYA, V.A. Hal'chins'ka V.A.]; DEMIDYUK, F.G.[Demydiuk, F.H.]; LITVIN, S.G.[Lytvyn, S.H.]; NISHCHUK, S.M.; S"EMIK, P.M.[S'omyk, P.M.], red.; KIFORENKO, I.S., red.; CHAYEVSKAYA, N.S.[Chaievs'ka, N.S.], red.; SERGEYEV, V.F.[Serhieiev, V.F.], tekhn. red.

[Manual of a rural activist] Dovidnyk sil's'koho aktivista. Kyiv, Derzh. vyd-vo pol. lit-ry URSR, 1962. 563 p. (MIRA 17:1)

1. Prepodavateli Vysshey partiynoy shkoly pri TSentral'nom komitete Kommunisticheskoy partii Ukrainy (for Babichev, Gal'chinskaya, Demidyuk, Litvin, Nishchuk).
(Agriculture--Handbooks, manuals, etc.)

BABICHEV, G. Z., Cand Agr Sci -- (diss) "Problems of the agrotechnics of Sudanese grass under the conditions uncertainly watered lands of the desert-steppe zone of the Alma-Atinskaya Oblast." Alma-Ata, 1960. 22 pp; (Committee of Higher and Secondary Education under the Council of Ministers Kazakh SSR, Alma-Ata Zooveterinary Inst); 150 copies; price not given; (KL, 26-60, 140)

BABICHEV, I.

Airplanes over the fields of the Volga Region. Grazhd.av.13 no.7: 29-30 Jl '56. (MLRA 9:9)

1.Starshiy inzhener po spetsprimeneniyu aviatsii Privolzhskoge territorial'nege upravleniya Grazhdanskogo vozdushnoge fleta. (Volga Valley--Aeronautics in agriculture)

84-11-29/36

AUTHOR: Babichev, I., Senior Engineer of Special Applications of Aviation in the Volga Territorial Administration of the Civil Air Fleet.

TITLE: Treatment of Forests from the Air (Sotni tysyach gektarov lesa obrabotany s vozdukha)

PERIODICAL: Grazhdanskaya aviatsiya, 1957, Nr 11, p.34 (USSR)

ABSTRACT: The author reports on fighting pests in the forests of the Volga region. In 1957 300,000 hectares were treated. An-2 and Yak-12M aircraft were used. The productivity of the An-2 turned out to be 3-4 times higher than that of the Yak-12M. The An-2 could treat 1,100 to about 1,600 hectares per day; the Yak-12M productivity was between 50 and 70 hectares per hour. Main problems were communication with the plane, for which purpose balloons, smoke charges, rockets and similar methods were used and the other main problem was that of loading the planes with chemicals for which there were no proper facilities.

AVAILABLE: Library of Congress

Card 1/1

SOV/84-58-11-13/58

AUTHOR: Babichev, I., Sr Engineer, Special Services Aviation

TITLE: Annual Assignment Fulfilled Ahead of Schedule (Godovoye zadaniye dosrochno)

PERIODICAL: Grazhdanskaya aviatsiya, 1958, Nr 11, p 6 (USSR)

ABSTRACT: The author attributes the highly successful early completion of the 1958 harvest in the Volga region to the timely and capable assistance rendered by pilots and the technical personnel of special services aviation, who had completed the annual plan in pest control by air in the middle of July, i.e., ahead of schedule. Personalities mentioned include unit commander Kovalev.

ASSOCIATION: Spetsialnyye primeneniya aviatsii (Special Services Aviation)

Card 1/1

BABICHEV, I.

Victory of the collective. Pozh.delo 9 no.5:16-17 My '63.
(MIRA 16:5)
(Firemen)

CAGHLICHEV, I.A.

IID

Artificial ripening of tomatoes. S. M. Prokoshev and I. A. Balushev. *Bull. Applied Botany, Genetics Plant Breeding* (U. S. S. R.) Ser. 3, No. 8, 121-31 (in English 153-4)(1934). C_2H_4 in concns. of 1:100 to 1:30,000, with 1:8,000 as the optimum, accelerates the ripening of tomatoes, and the younger the fruit, within limits, the greater the effects. Mixts. of gaseous hydrocarbons and C_2H_4 were not as effective as pure C_2H_4. In the early stages of C_2H_4 treatment there is a high absorption of O and a slight increase of CO_2. This is followed by an increased respiration. The hypothesis is advanced that the regulating mechanism of the ripening process lies in the sulfhydryl (glutathione) system of the cell.

J. S. Joffe

BABICHEV, I.A.

The effect of fertilizers on the chemical composition of the roots of Cruciferae. I. A. Babichev. *Trudy Prikład. Botan. Genetike i Selektsii* 30, No. 2, 202-14 (1953); *Referat. Zhur. Khim., Biol. Khim.* 1955, No. 10803.—A study was made of the roots of 5 varieties of *Brassica napus*, 8 varieties of *B. rapa*, and 2 varieties of *B. campestris* grown in the northern section of the Leningrad region. Analyses were made for dry substance, sugars, protein, starch, pectins, hemicelluloses, ash, and ascorbic acid. Fertilization does increase the protein content and the sugars and raises the general nutritional value of the roots. Storing of the harvested roots at 1-2° for 5 months caused a loss of dry matter not exceeding 10%. B. S. Levine

Babichev, I. A.

The invertase activity and the sugar composition of edible roots. I. A. Babichev. *Trudy Prikład. Botan., Genet., Selektsii* 30, [illegible], 215-18(1953); *Referat. Zhur. Khim., Biol. Khim.* 1955, No. 6010.—A study was made of the roots of *Brassica napus rapifera*, *B. rapa*, *B. campestris rapifera*, carrots, and garden beets. A suspension of the fresh roots was allowed to stand at room temp. for 2 hrs. and then tested for invertase (I). The suspension was then incubated at 35° for 3 days and tested for desorbed I. In each case 5% sucrose was added to the suspension which was adjusted to pH 4.8 and incubated at 35° for 18 hrs.; the activity of I was detd. To stop the enzyme action, 15% NaOH was added and the whole filtered. The filtrate was then dild. to a specified vol., reducing sugars were detd. by the Bertrand method, and the activity of I was expressed in mg. of glucose/ml. of the raw material. It was found that autolysis is best suited for the liberation of combined I. Edible roots rich in I store simple sugars predominently, those with meager I activity store only sucrose. The 3 varieties of *Brassica* contained free I in the fall and winter; carrots contained free and combined I, and garden beets likewise contained both varieties of I, but to a lesser degree.

B. S. Levine

BABICHEV, I. [A.]

"Comparative Biochemical Investigation of Plants with Edible Roots." Cand Biol Sci, All-Union Inst of Plant Growing, VASKhNIL, Leningrad, 1954. (RZhKhim, No 17, Sep 54)

SO: Sum 432, 29 Mar 55

USSR / Weeds and Weed Control. N

Abs Jour : Ref Zhur - Biologiya, No 13, 1958, No. 58832

Author : Dabichev, I. I.
Inst : Not given
Title : Aviochemical Weeding and Extraroot Top Dressing of Sowings

Orig Pub : S.-kh. Povolzh'ya, 1957, No 12, 85

Abstract : No abstract given

Card 1/1

BABICHEV, L.P., inzhener.

Reduction of technological allowances in finishing furniture parts. Der. prom. 6 no.4:17 Ap '57. (MLRA 10:6)

1. Rechitskiy mebel'nyy kombinat.
(Furniture industry)

BABICHEV, L.P., inzh.

New furniture sets manufactured by the enterprises under the Moscow City Economic Council. Der. prom. 14 no.9: 24-25 S '65. (MIRA 18:12)

1. Upravleniye mebel'noy promyshlennosti Soveta narodnogo khozyaystva Moskovskogo gorodskogo ekonomicheskogo rayona.

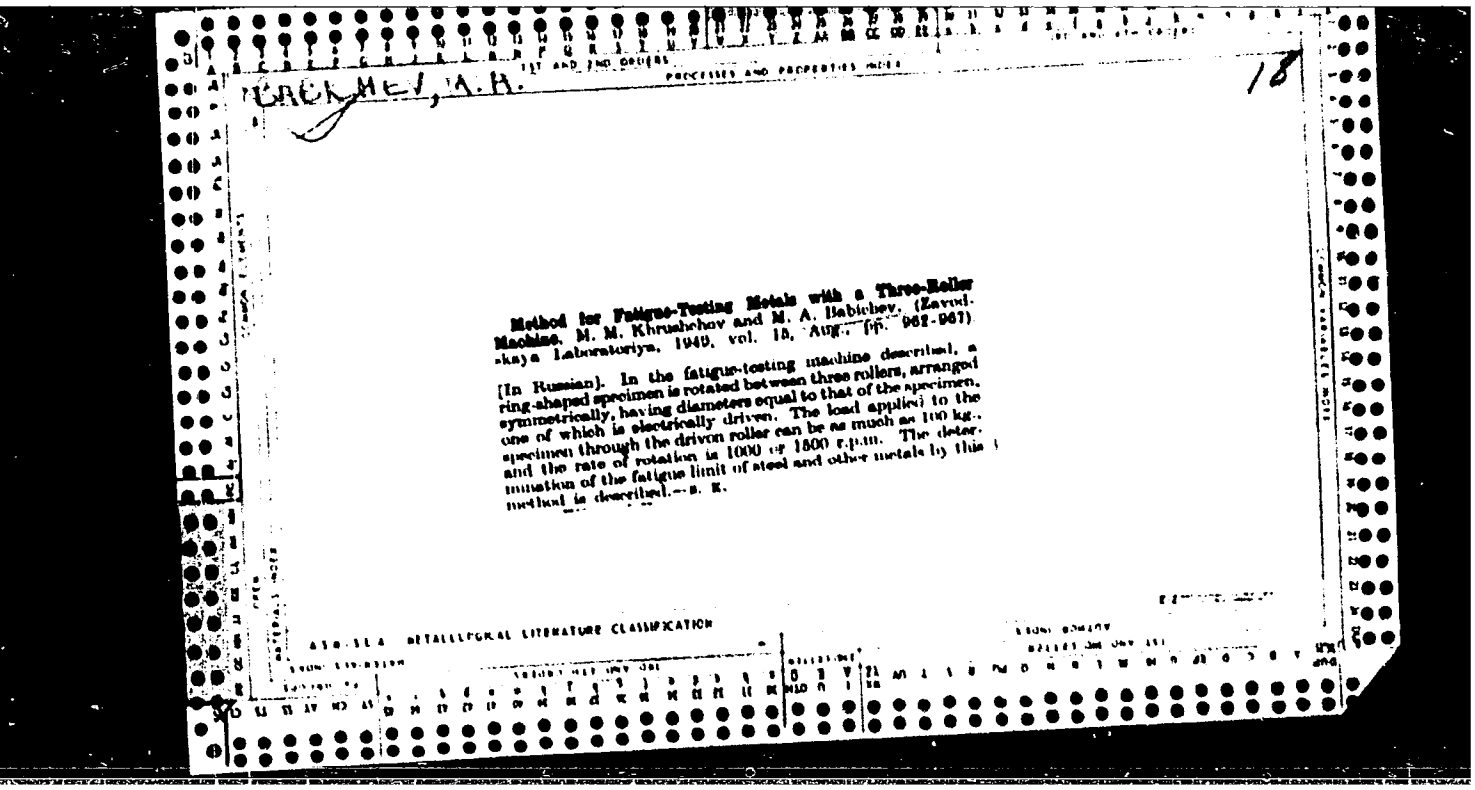
BABICHEV, M. A.

Using the Brinell test system in investigating the abrasive wear of metals. Tren. i izn. mash. no.14:5-36 '60.
(MIRA 13:8)

(Abrasion--Testing)

BABICHEV, M. A.

Khrushchov, M. M., and Babichev, M. A., "Methods For Direct Determination of the Modules of Elasticity of Babbits and Bronzes in a Layer Poured in a Steel Ring." Works of the All-Union Order of Lenin Scientific Research Institute of Aviation Materials (VIAM), Vol II, "Nonferrous Alloys: I. Alloys," Oborongiz, 1948.



KHRUSHCHOV, M. M.

18

Method for Fatigue-Testing Metals with a Three-Roller Machine. M. M. Khrushchov and M. A. Babichev. (Zavodskaya Laboratoriya, 1949, vol. 15, Aug., pp. 962-967)

[In Russian]. In the fatigue-testing machine described, a ring-shaped specimen is rotated between three rollers, arranged symmetrically, having diameters equal to that of the specimen, one of which is electrically driven. The load applied to the specimen through the driven roller can be as much as 100 kg., and the rate of rotation is 1000 or 1500 r.p.m. The determination of the fatigue limit of steel and other metals by this method is described.—S. K.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BABICHEV, M. A.

"Method for Determination of Modulus of Normal Elasticity at Low-Frequency Vibrations," Zavod. Lab., 16, No.1, 1950

Inst. Machine Studies, AS USSR

BABICHEV, M. A.

USSR/Metals-Testing, Bearings
Bearings, Design

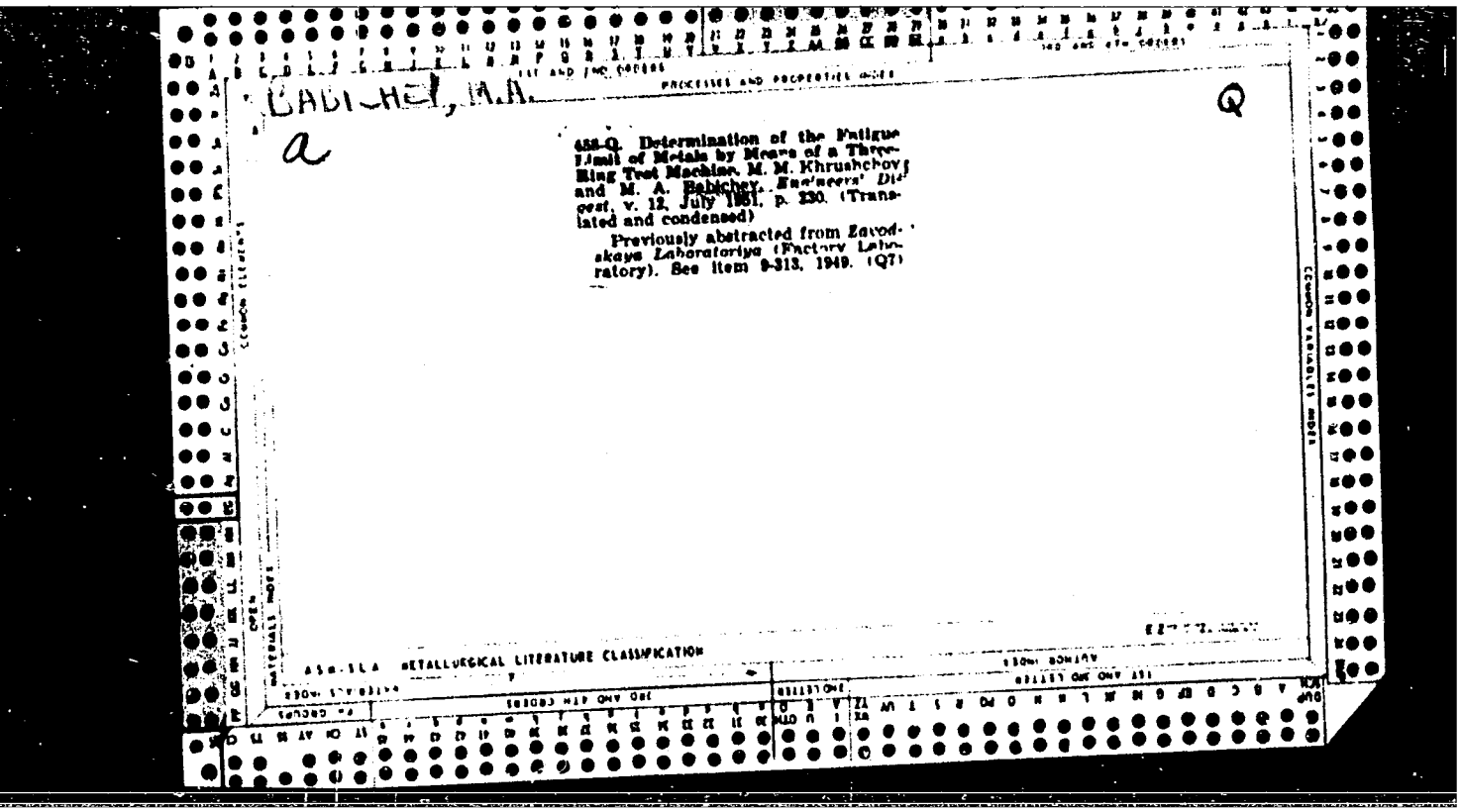
Jun 50

"Determination of Internal Stresses in Bimetallic Bearings," V. S. Rzheznikov, M. A. Babichev

"Zavod Lab" Vol XVI, No 6, pp 734-737

Develops method for calculating internal stresses in bimetallic ring specimens: steel + bearing alloy. Determines values of internal stresses in bearings of lead bronze. Establishes that magnitude of internal tangential stresses depends on type of material and its state and that distribution law for internal stresses may be established only by experiments. Internal stresses in bronze after tempering at 400° are changed insignificantly and fatigue strength of bronze remains practically the same.

PA 163T62



GABICHEL, M.A.

a

Q

458-Q. Determination of the Fatigue Limit of Metals by Means of a Three-Ring Test Machine. M. M. Khrushchov and M. A. Babichev. *Engineers' Digest*, v. 12, July 1951, p. 230. (Translated and condensed)

Previously abstracted from *Zavodskaya Laboratoriya* (Factory Laboratory). See item 9-313, 1949. (Q7)

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

BABICHEV, M.A.

Criterion for evaluating the smoothness of machined surfaces.
Trudy Sem. po kach. poverkh. no.1:80-87 '51. (MLRA 10:8)
(Surfaces (Technology))

KHRUSHCHOV, M.M., professor, otvestvennyy redaktor; BABICHEV, M.A., redaktor; RUSSINA, I.M.; tekhnicheskiy redaktor.

[Friction and wear in machines] Trenie i iznos v mashinakh. Moskva, Akad.nauk SSSR, Vol.8 1953. 204 p. Vol. 10, 1955. 335 p. (MLRA 8:9)

1. Akademiya nauk SSSR. Institut mashinovedeniya.
(Friction) (Bearings(Machinery) (Mechanical wear)

BABICHEV, M. A.

PHASE I TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 478 - I

BOOK Call No.: AF595007

Author: BABICHEV, M. A.
Full Title: EXPERIMENT IN MEASURING INTERNAL STRESSES IN BIMETALLIC RINGS OF "STEEL - BEARING ALLOY"
Transliterated Title: Opyt izmereniya vnutrennikh napryazheniy v bimetallicheskikh kol'tsakh "Stal' - podshipnikovy splav"

PUBLISHING DATA

Originating Agency: Academy of Sciences, USSR. Machine-Building Institute, Treniye i iznos v mashinakh (Friction and Wear in Machines), Issue VIII
Publishing House: Academy of Sciences, USSR
Date: 1953 No. pp.: 19 (87-106) No. of copies: 2,500
Editorial Staff
Editor: Khrushchov, M. M., Prof.

PURPOSE: The advancement of technical science.

TEXT DATA

Coverage: The author describes a developed method of calculation of internal stresses in ring specimens of steel - bearing alloys, and a method of determination of the magnitude of internal stresses in lead-bronze bearings. The dependence of the magnitude of tangential internal stresses on the kind and composition of the material used

APPROVED FOR RELEASE: 06/06/2000 CIA-RDP86-00513R000102820019-8"

Opyt izmereniya vnutrennikh napryazheniy v bi- AID 478 - I
metallicheskikh kol'tsakh "Stal' - podshipnikovy splav"

was established. It was also found that the law of distribution of internal stresses in diverse cases of machining might be established only experimentally. Photos, diagrams, graphs, tables.

This is an interesting study in which the author mentions other studies on the same subject.

No. of References: 2 Russian before 1938 and 9 after that date
Facilities: None

2/2

BABICHEV, M.A.

Determination of internal stresses in bimetallic rings. Tren. i izn. mash. no.7:175-194 '53. (MLRA 9:9)
(Strains and stresses)

RABICHEV, N.A.

Experimental data in the measurement of internal stresses of "steel and bearing alloy" bimetallic rings. Trem. i inz.mash. no.3:87-106 '53.
(MLRA 6:7)

(Bearings (Machinery)) (Strains and stresses)

BABICHEV, M. A.

Metallurgical Abst.
Vol. 21 May 1954
Properties of Metals

Resistance to Abrasive Wear and the Hardness of Metals. M. M. Khrushchov and M. A. Babichev (*Doklady Akad. Nauk S.S.S.R.*, 1953, 88, (3), 445-448).—(In Russian). Relative wear-resistance figures for various materials were obtained by comparison of linear wear rates with that of a standard alloy under controlled abrasive conditions. For the pure metals Pb, Sn, Cd, Al, Zn, Cu, Ni, Fe, and for non-heat-treated steels over a wide compn. range, there is a straight-line relation passing through the origin between relative wear-resistance and Vickers hardness. For each steel, heat-treatment results in a linear increase of wear-resistance with hardness which is considerably less than that corresponding to the general curve, the height and slope of each line increasing with increase in carbide-forming alloying elements. (Translated by the U.S. National Science Foundation (NSF-tr-16)).—D. M. P.

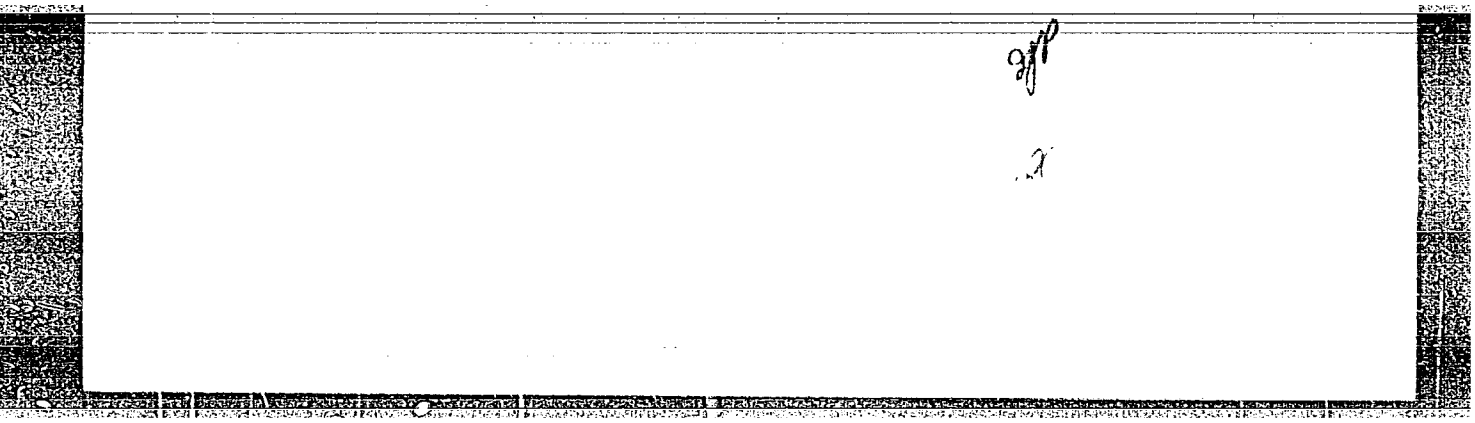
INST. MACHINE STUDIES, AS USSR

BABICHEV, M.A.

"Wear-Resistance of Carbon Steel Subjected to Rubbing in Certain Liquid Media After Diffusion Chromizing. M. M. [illegible] M. A. [illegible]

[illegible]

... (0.03-1.1%), chromized to saturation by exposure to a gaseous medium for 6 hr at [illegible] was studied under experimental conditions comprising [illegible] medium: distilled water, or a 0.5% [illegible] distilled water



BABICHEV, M.A.

D'YACHENKO, P.Ye., professor, redaktor; BABICHEV, M.A., redaktor; NEVRAYEVA, N.A., tekhnicheskiy redaktor.

[Radioactive isotypes in the study and control of mechanical wear in machines] Metody izucheniia i kontrol' iznosa v mashinakh pri pomoshchi radioaktivnykh izotopov. Moskva, Izd-vo Akademii nauk SSSR, 1954. 103 p. (MLRA 7:12)

1. Akademiya nauk SSSR. Institut mashinovedeniya.
(Radioactive tracers--Industrial application) (Mechanical wear)

BABICHEV, M.A.

USSR/Engineering - Metals

Card 1/1 Pub. 22 - 15/40

Authors : Khrushchov, M.M., and Babichev, M.A.

Title : Characteristic diagrams of durable metals

Periodical : Dok. AN SSSR 99/3, 395-398, Nov. 21, 1954

Abstract : Three characteristic diagrams, constructed on actual data obtained during experiments, are described and analyzed. One diagram shows a relationship between the abrasive resistance (E) and the hardness (H) of a metal. The second diagram shows the relationship between the actual average tensile-stress S_n and a breaking point σ of a metal. The third diagram shows the relationship between the actual average tensile-stress S_k and a conditional yield point of a metal. Three references; 2-USSR (1931-1954). Graphs.

Institution: Institute of Machine-Engineering of the Acad. of Scs. of the USSR.

Presented by: Academician A.A. Blagonravov, June 10, 1954.

Translation M-1082, 23 Apr 56

BABICHEV, M. A.

Applied Mechanics Reviews
June 1954
Letters to the Editor

1689. Re AMR 7, Rev. 512 (February 1954): M. M. Krushchov and M. A. Babichev, Resistance to abrasive wear and the hardness of metals (In Russian).

Mr. P. Grodzinski, England, has pointed out that a short English translation of the above article is available through The Joint London Secretaries, St. Andrew's House, 32-34 Holborn Viaduct, London, E.C.1, England, and that a complete translation is available through the Library of Congress, Washington 25, D. C.

EH

USSR/Engineering - Metallurgy

Card 1/1 : Pub. 128 - 1/38

Authors : Krushchov, M. M., and Babichov, M. A.

Title : On the relation between the wear resistance and hardness of metals under friction against an abrasive surface

Periodical : Vest. mash. No 9, 3-8, Sep 1954

Abstract : The resistance to abrasive wear of various types of metals was studied in the Kh4-B testing machine. Metal samples were loaded in the machine and pressed against a rotating abrasive disk causing the metal to rotate simultaneously. Relative wear measures and dimensional change of the specimen were than compared with that of a master specimen. It was found that the hardness obtained by cold working of metals has no effect on their relative wear, and that the wear resistance of non-homogeneous alloys is much lower than the resistance of pure metals. Four USSR references (1935-1954). Graphs; table; drawing.

Institution : .....

Submitted : .....

BABICHEV M.A.

KHRUSHCHOV, M.M.; BABICHEV, M.A.

Investigation of mechanical wear of steel subjected to abrasive surface friction. Tren. i izn.mash. no.9:22-58 '54. (MLRA 7:9)
(Mechanical wear) (Steel alloys)

BABICHEV, M. A. and KHRUSHCHOV, M. M.

"Method of Testing Metals for Wearing Properties During Friction Action Utilizing a Liquid Medium," page 35

"Resistance to Abrasion of Cast Irons Compositions and Structures," page 82

with DUBININ, G. N.

"Testing the Wearing Qualities of Carbon Steels after Chrome Plating Utilizing Liquid Mediums," page 70

Chapter headings in the book "Friction and Wear in Machines," Book X, 1955

TABCON translation D 356324, 15 Nov 55

DABICHEV, M.A.; KRUSHCHOV, M.M., professor, redaktor; KOPNOV, Ye.V., redaktor; POLYAKOVA, T.V., tekhnicheskiy redaktor.

[Methods of determining internal stress in machine parts] Metody opredeleniia vnutrennikh napriazhenii v detaliakh mashin. Moskva, Izd-vo Akademii nauk SSSR, 1955. 131 p. (Strains and stresses) (MLRA 8:12)

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BABICHEV, M. A.

BABICHEV, M. A. - "A method of determining the internal loading on parts of circular cross section, and its application". Moscow, 195[illegible]. Acad Sci USSR, Inst of Machine Science. (Dissertation for the Degree of Candidate of Technical Sciences).

SO; Knizhnaya Letopis' No. 46, 12 November 195[illegible]. Moscow.

KHRUSHCHOV,M.M.; BABICHEV,M.A.

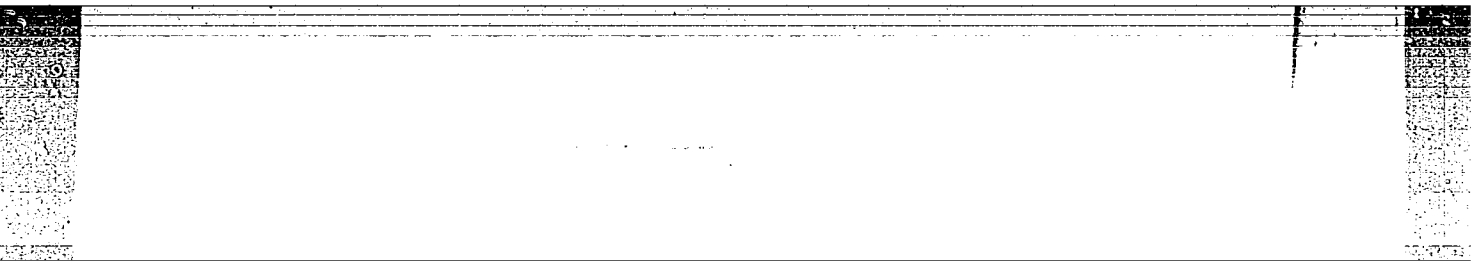
Friction-wear testing of metals in the presence of liquid media.
Tren. i izn. mash. no.10:35-69 '55. (MLRA 8:11)
(Mechanical wear) (Bearings (Machinery))

KHRUSHCHOV,M.M.; BABICHEV,M.A.; DUBININ,G.N.

Investigation of the wear resistance of carbon steel varieties in the presence of certain liquids following chromium spraying in gases. Tren.i izn.mash. no.10:70-81 '55. (MLRA 8:11)
(Mechanical wear) (Bearings (Machinery))

KHRUSHCHOV,M.M.; BABICHEV,M.A.

Resistance to abrasive wear in cast iron of various composition and structure. Tren. i izn. mash. no.10:82-90 '55. (MLRA 8:11)
(Mechanical wear) (Bearings (Machinery))



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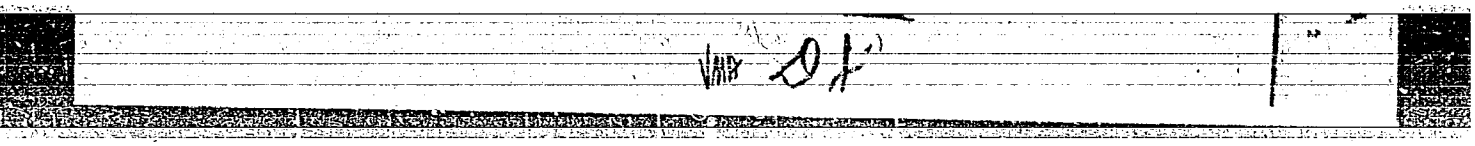

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Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 243 (USSR)

AUTHORS: Khrushchov, M. M., Babichev, M. A.

TITLE: An Investigation of Wear in Metals and Alloys Due to Friction Over an Abrasive Surface (Issledovaniye iznashivaniya metallov i splavov pri trenii ob abrazivnuyu poverkhnost')

PERIODICAL: Treniye i iznos v mashinakh, Sb. 11, Moscow, AN SSSR, 1956, pp 5-18

ABSTRACT: An investigation into the wear resistance on friction with an abrasive surface of the following has been made: a) technically pure Co, Mo, Cr, Be, W, and heat-treated steels U8 and ShKh15; b) technically pure Al, Cu and Ni, L60 brass, AZh9-4 bronze, and steel (C 0, 16 percent), work hardened after annealing; c) electrically deposited Cr, tempered at various temperatures; d) certain materials of high hardness (1000 kg/mm^2 and over) [cast W carbides, sormite Nr 1, carbon steel containing 0.65 percent C subjected to chromium plating by thermal diffusion, electrolytically boron-plated (EB) steel, silicon (Kr2) and super-hard alloys VK6, VK8 and VK15]. The results of the tests are presented in the form of the relationship of relative resistance to wear ϵ and

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