PRANULIS, Mikhail Fadeyevich; KUSHELEV, V.P., inzh., retsenzent; ROMANOVA, M.V., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Safety engineering in oil and gas plants] Tekhnika bezopasnosti na neftianykh i gazovykh zavodakh. Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1955. 217 p. (MIRA 11:5)
(Oil industries--Safety measures)

DOKSHITSKAYA-ZATON, V.M., vrach; ROMANOVA, N.Ya., fel'dsher; VASILENKO, A.Ya., meditsinskaya sestra; LEVADA, Ye.A., meditsinskaya sestra; PANCHENKO, O.G., meditsinskaya sestra (Khar'kov)

Advanced training and improvement of the qualifications of semiprofessional medical personnel. Fel'd.i akush. 25 no.3: 45-47 Mr '60. (MIRA 13:6)

(MEDICINE--STUDY AND TEACHING)

ARCHAKOVA, Z.N. (Moskva); ROMANOVA, O.A. (Moskva); FRIDLYANDER, I.N. (Moskva)

Investigating system Al - Cu - Li -Cd - Mn alloys at room and higher temperatures. Izv.AN SSSR.Otd.tekh.nauk.Met.i topl. no.4:106-110 Jl-Ag '60. (MIRA 13:9)
(Aluminum-copper-lithium alloys--Testing)
(Metals, Effect of temperature on)

25018

S/639/61/000/000/005/030
D205/D303

18 12 10 (2408)

AUTHORS: Nikitayeva, O.G., Kutaytseva, Ye.I., Komarova, O.A., Karpovich, Yu.N., and Kondrat'yeva, V.B.

TITLE: Influence of aluminum purity on the mechanical properties and heat-resistance of aluminum alloys

SOURCE: Fridlyander, I.N., V.I. Dobatkin, and Ye.D. Zakharov, eds. Deformiruyemyye alyuminiyevyye splavy; sbornik statey. Moscow, 1961, 30 - 43

TEXT: Owing to contradictory data published on the influence of Fe and Si impurities on the properties of Al alloys it was interesting to clarify this point. 7 aluminum alloys (D16, D19, AK4-1, D20, V95, AMg6) were prepared using aluminum metal of 3 kinds: Al, A00 and A5000 (Al, A00 and AV000), in graphite crucibles, by smelting in electrical furnaces. The thermal regimes applied were as follows: D16, D19, homogenized at 480°C for 24 hours, quenched from 500°C and naturally aged; D20, homogenized at 520°C for 16 hours, hardened from 535°C, aged at 170°C

Card 1/2

Influence of aluminum purity on ... S/659/61/000/000/005/030
D205/D303

for 10 - 16 hours; D21 and AM4-1, homogenized at 500°C for 24 hours, quenched from 525 - 535°C, aged at 180°C for 10 - 16 hours; V95 and V96, homogenized at 450°C for 24 hours quenched from 470°C, aged at 140°C for 16 hours; AK6 homogenized at 480°C for 24 hours and annealed at 375°C for 1 hour, followed by cooling in air. The specimens prepared from the alloys were tested for tensile strength, long range strength and repeated static load. The results are tabulated, the main conclusions being summarized below. The strength of pressed rods of D16 and D19 alloys at room temperature increases slightly with increasing purity of the Al. The mechanical properties of D20 and D21 forgings were practically independent of the purity of the aluminum employed in the alloy preparation. In the AM4-1 forgings, the strength decreased with the increase of aluminum purity. The long range strength of all alloys decreased with the increase of purity. The decrease of impurities content in the V95 and V96 alloys somewhat decreased the number of cycles before breaking under repeated static loading. The results do not justify the use of very pure aluminum (AV000) in order to increase the heat-resistance of sheets and forgings made of aluminum alloys at the temperature of 200°C. There are 8 tables and 2 references: 1 Soviet-bloc and 1 non-Soviet-bloc.
Card 2/2

L 46986-66 EWT(m)/EWP(t)/ETI IJP(c) JH/JD/JT

ACC NR: AT6024911 (A,N) SOURCE CODE: UR/2981/66/000/004/0032/0036

AUTHOR: Romanova, O. A.

53
B+1

ORG: none

TITLE: Effect of coarse- and fine-grained structure on the high-temperature strength of strained D20 aluminum alloy

SOURCE: Alyuminiyevyye splavy, no. 4, 1966. Zharoprochnyye i vysokoprochnyye splavy (Heat resistant and high-strength alloys), 32-36

TOPIC TAGS: GRAIN STRUCTURE, aluminum alloy, high temperature strength / D20 aluminum alloy

ABSTRACT: In this study, carried out during 1955-1958, interesting data were obtained on the effect of coarse- and fine-grained structure on the mechanical properties of strips of D20 alloy (6.2% Cu, 0.71% Mn, 0.11% Ti, 0.12% Fe, 0.25% Si, traces of Mg, bal. Al). The most coarse-grained structure was obtained by pressing at 380, 420, and 450°C from a homogenized ingot and at 380 and 420°C from a nonhomogenized ingot. A fine structure was obtained by pressing homogenized ingots at 480°C and nonhomogenized ones at 450 and 480°C. The pressed strips were tested for stress-rupture strength at 300 and 350° and a constant stress of 9 kg/mm^2, and the time to failure was determined. The coarse-grained structure was found to produce a greater high-temperature strength than the fine-grained structure. The reduced strength of sheets of D20 alloy as compared to pressed semifinished products is attributed to their fine-grained structure.

Card 1/2

L 46986-66
ACC NR: AT6024911 O

Orig. art. has: 5 figures.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 002

Card 2/2

ACC NR: AT6024913 (A,N) SOURCE CODE: UR/2981/66/000/004/0049/0056

AUTHOR: Romanova, O. A.; Archakova, Z. N.; Vasil'yeva, N. I.

32
B+1

ORG: none

TITLE: Study of pressed sections and panels of D20 alloy

SOURCE: Alyuminiyevyye splavy, no. 4, 1966. Zharoprochnyye i vysokoprochnyye splavy (Heat resistant and high-strength alloys), 49-56

TOPIC TAGS: metal pressing, aluminum alloy, copper alloy, manganese containing alloy / D20 aluminum alloy

ABSTRACT: The effect of technological factors (elongation during pressing, pressing temperature, homogenization of initial ingot, heat treatment conditions) on the structure and mechanical properties of pressed sections of D20 alloy (of the Al-Cu-Mn system) 2 and 5 mm thick was studied. In order to obtain the optimum mechanical properties, the heat treatment of the sections should consist of quenching after heating at 535° ± 5° C and artificial aging at 160-170°C for 16 hr. This schedule does not cause any tendency in the alloy to corrode under stress. Different elongations (from 14 to 43.4), pressing temperatures (320, 370, 420, and 480°C), and homogenization of the initial ingot do not appreciably affect the structure of the initial ingot or the mechanical properties of sections with wall thicknesses of 2 and 5 mm. Stretching of the sections after quenching raises the yield point substantially, but the tensile strength

Card 1/2

L 46985-66

ACC NR: AT6024913 O

and elongation per unit length do not change appreciably. The macro- and microstructure of sections pressed under various conditions is relatively fine-grained and homogeneous. The strength characteristics of panels are somewhat higher than those of thin-walled sections. Orig. art. has: 4 figures and 5 tables.

SUB CODE: 11/ SUBM DATE: none

Card 2/2

L 47039-66 EWT(m)/T/EWP(t)/ETI IJP(c) JD/JH

ACC NR: AT6024919 (A,N) SOURCE CODE: UR/2981/66/000/004/0107/0111

35
33
B+1

AUTHOR: Romanova, O. A.

ORG: none

TITLE: Effect of cadmium admixtures on the artificial aging of certain aluminum alloys

SOURCE: Alyuminiyevyye splavy, no. 4, 1966. Zharoprochnyye i vysokoprochnyye splavy (Heat resistant and high-strength alloys), 107-111

TOPIC TAGS: metal aging, cadmium containing alloy, aluminum alloy, manganese containing alloy, copper alloy / VAD23 aluminum alloy

ABSTRACT: The effect of cadmium admixtures on the kinetics of artificial aging of Al-Cu-Mn and Al-Cu-Li-Cd-Mn alloys was studied on pressed bars 10 mm in diameter prepared from D20 and VAD23-type alloys with and without cadmium admixtures. The alloys were aged artificially at 150, 165, 175, 185, 200, 225, and 300°C, and kept at each temperature for 3, 5, 12, 16, 24, and 48 hr. Their mechanical properties (σ_μ, δ) were determined as functions of aging temperature. In contrast to alloys of the Al-Cu-Mn system, the addition of cadmium to alloys of the systems Al-Cu-Li-Cd-Mn and Al-Cu accelerates the process of artificial aging. Thus, cadmium as an alloying element can have different effects on the hardening rate during artificial aging of different alloys depending upon the content of the alloying elements. For instance, in

Card 1/2

37979

S/137/62/000/005/104/150
A006/A101

18 1210 (2408)

AUTHORS: Nikitayeva, O. G., Kutaytseva, Ye. I., Romanova, O. A., Karpovich, Yu. M., Kondrat'yeva, N. B.

TITLE: The effect of aluminum purity on the mechanical properties and heat-resistance of aluminum alloys

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 5, 1962, 71, abstract 51432 (V sb. "Deformiruyemyye alyumin. splavy", Moscow, Oborongiz, 1961, 30 - 43)

TEXT: The authors studied the effect of Fe and Si admixtures upon the properties of deformed Al-alloys at room and higher temperatures. For the preparation of grade 16, 19, АКЧ -1 (AKCh-1), Д 20 (D20), Д 21 (D21), В 95 (V95) and АМг 6 (AMg6) alloys, three Al grades were used, namely: Al A00, and AB000 (AV000); Mg- and Zn-metal, and addition-alloys Al-Cu, Al-Mn, Al-Ti, Al-Ni, Al-Fe. The strength of pressed rods made of D16 and D19 alloys increases somewhat at room temperature with a higher purity of the initial Al. The mechanical properties of forgings in short-lasting tension of D20 and D21 alloys, do practically

Card 1/2

The effect of aluminum purity on...

not depend on the initial aluminum grade. The strength of AKCh-1 alloy forgings decreases with higher Al purity. The endurance strength of semi-products of all alloys decreases with a higher purity of the initial Al. A decrease in contamination of V95 and V96 alloys reduces somewhat the number of cycles until the breakdown in repeated static-loading tests. It is not expedient to use high-purity Al (AV000) to raise the heat-resistance of sheets and forgings made of Al alloys at 200°C.

T. Rumyantseva

[Abstracter's note: Complete translation]

ACC NR: AR7004674 SOURCE CODE: UR/0276/66/000/009/B043/B043

AUTHOR: Romanova, O. A.

TITLE: Effect of cadmium additions on the artificial aging of aluminum alloys

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya, Abs. 9B270

REF SOURCE: Sb. Alyumin. splavy. M., Metallurgiya, vyp. 4, 1966, 107-111

TOPIC TAGS: thermal aging, cadmium alloy, aluminum alloy, artificial aging

ABSTRACT: The effect of cadmium additions on the kinetics of artificial aging of Al—Cu—Mn and Al—Cu—Li—Cd—Mn alloy systems has been studied. D20 and VAD23 alloys, with and without cadmium additions, were quenched in a saltpeter bath at 530 ± 5 C and 525 ± 5 C, respectively, and artificially aged at 150, 165, 175, 185, 200, 225 and 300 C, for 3, 5, 12, 16, 24 and 48 hours. Cadmium was found to inhibit the hardening of Al—Cu—Mn alloys during artificial aging. However, in Al—Cu—Mn alloys containing lithium, cadmium accelerated the process of artificial aging. Orig. art. has: 1 figure, 1 table and a bibliography of 2 reference items. [Translation of abstract] [AM]

SUB CODE: 11/

Card 1/1 UDC: 621.784.001.5:669.715.001.5

S/123/62/000/023/005/008
A004/A101

AUTHORS: Fridlyander, I. N., Romanova, O. A.

TITLE: The effect of cold working on the mechanical properties of aluminum alloys of different phase composition

PERIODICAL: Referativnyy zhurnal, Mashinostroyeniye, no. 23, 1962, 17, abstract 23A123 (In collection: "Issled. splavov tsvetn. metallov". 3. Moscow, AN SSSR, 1962, 43 - 47)

TEXT: The authors give an account of the results of investigating the effect of hammer cold working (upsetting) with deformation degrees of 0.5, 10, 15, 20, and 25% both in the freshly hardened state and after a 24-hour aging on the mechanical properties of the Д 16 (D16), АК 4-1 (AK 4-1), АК 8 (AK8) and Д 20 (D20) aluminum alloys. Based on the test data, the following conclusions are drawn. Cold working carried out between hardening and aging increases the strength of the alloys to different degrees. In proportion to the increase in the degree of cold deformation, the strength grows nearly rectilinearly, while the relative elongation drops sharply, particularly with deformations in the range of 5 - 10%. The maximum strength increase by cold working is obtained in

Card 1/2

The effect of cold working on the...

S/123/62/000/023/005/008
A004/A101

forged pieces of the D16 and AK 4-1 alloys, both at room temperature and at 150°C (with 30 minutes and 100 hours holding at the test temperature). With forged pieces from the AK8 and D20 alloys, cold working does not result in a considerable increase in strength during tests at 150°C. The different effect of cold working is caused by the different phase and structural nature of the alloys.

[Abstracter's note: Complete translation]

Card 2/2

82622
S/180/60/000/004/017/027
E193/E483

18.1210

AUTHORS: Archakova, Z.N., Romanova, O.A. and Fridlyander, I.N. (Moscow)

TITLE: Investigation of the Properties of Alloys of the Al-Cu-Li-Cd-Mn System at Room and Elevated Temperatures

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1960, No.4, pp.106-110

TEXT: The alloys studied in the course of the investigation described in the present paper contained 0 to 3% Li and 4.0 to 6.5% Cu, the content of other alloying additions being constant and amounting to 0.1% Cd, 0.6% Mn and no more than 0.3% each of Fe and Si. The mechanical properties of the alloys were determined after 4 types of thermal treatment: (1) solution treatment, i.e. quenching from 525 to 535°C; (2) annealing, i.e. cooling from 430 to 150°C in 7 days; (3) ageing at room temperature for 7 days; (4) ageing at temperatures between 150 and 200°C for 12 h at 200°C and 16 h at other temperatures. The mechanical tests were carried out both at room and elevated (200 to 250°C) temperatures on specimens machined from extruded rod and appropriately heat-treated. It was found that

Card 1/3

82622
S/180/60/000/004/017/027
E193/E483

Investigation of the Properties of Alloys of the Al-Cu-Li-Cd-Mn System at Room and Elevated Temperatures

simultaneous introduction of 0.9 to 1.4% Li and 0.1% Cd greatly increased the strength of the Al-Cu-Mn alloys in the age-hardened condition and, on the basis of the results obtained, the composition of a new, high strength rod alloy, suitable for high temperature service, was determined. The nominal composition of the new alloy VAD23 is: 5.4% Cu, 1.25% Li, 0.6% Mn, 0.15% Cd, remainder Al: its U.T.S. and 0.2% proof stress at 20°C are 60 and 54 kg/mm^2 respectively. Regarding its room-temperature strength, the new alloy resembles the high strength, Al-Zn-Mg-Cu alloys (type V95); its mechanical properties at high temperatures (150 to 250°C) are better than those of any known Al-base alloy of this type and, what is particularly important, the alloy retains its strength after long periods at these temperatures. Thus, the U.T.S. and elongation δ of the VAD23 alloy, held at 200°C for 0.5 h, were 46.9 kg/mm^2 and 6.3% respectively, the corresponding figures for the V95 alloy being 40 kg/mm^2 and 12.6%. After 100 h at the temperature, U.T.S. and δ of the VAD23 alloy were still

Card 2/3

L 40951-66 EWT(m)/EWP(k)/T/EWP(w)/EWP(t)/ETI IJP(c) JH/JD/HW

ACC NR: AT6024907 (A) SOURCE CODE: UR/2981/66/000/004/0005/0014

AUTHOR: Fridlyander, I. N. (Doctor of technical sciences); Romanova, O. A.; Archakova, Z. N.

ORG: none

TITLE: Properties of VAD23 alloy

SOURCE: Alyuminiyevyye splavy, no. 4, 1966, Zharoprochnyye i vysokoprochnyye splavy (Heat-resistant and high-strength alloys), 5-14

TOPIC TAGS: aluminum alloy, copper containing alloy, lithium containing alloy, cadmium containing alloy, manganese containing alloy, titanium containing alloy, alloy composition, metal property/VAD23 aluminum alloy

ABSTRACT: The effects of copper, lithium, cadmium, manganese, titanium, iron, and silicon on the properties of VAD23 aluminum alloy have been studied under laboratory conditions. Ingots 70 mm in diameter, cast in a water-cooled mold, were extruded into round bars 10 mm in diameter, which were machined into the test specimens. In one series of ingots lithium content varied from 0 to 3.0% at copper contents of 4.0%, 5.0%, and 6.0%, and constant cadmium (0.15%), manganese (0.6%), and titanium (0.15%) content. In the other series of ingots at a constant lithium (1.3%) and copper (5.2%) content, the manganese content was varied from 0 to 2.0%, cadmium from 0 to 5.0%, titanium from 0 to 0.3%, and iron and silicon from 0 to 0.9%. It was

Card 1/2

L 40951-66
ACC NR: AT6024907

2

found that: lithium intensifies the effects of aging; copper at contents of 4%—5% increases strength; manganese at contents up to 1.0% improves strength and ductility; up to 0.2% cadmium increases strength of aged alloys and intensifies the effects of artificial aging; and titanium at contents of up to 0.3% has no effect on tensile strength but improves rupture strength. Iron and silicon were found to be harmful impurities. On the basis of these results the optimum composition of VAD23 alloy was established as follows: 4.9—5.8% copper: 1.0—1.4% lithium, 0.1—0.25% cadmium: 0.4—0.8% manganese; a maximum of 0.3% each of iron and silicon: and a maximum of 0.15% titanium. Artificial aging at 150—160C for 10—12 hr produces the best combination of mechanical properties: tensile strength, 51—54 kg/mm^2; yield strength, 36—44 kg/mm^2 with an elongation 10—15%. Cold rolling prior to heat treatment, with reductions from 4% to 10%, promotes intensive grain growth and lowers strength and ductility. At the present, round and flat ingots are produced by continuous casting and processed by rolling and extrusion. Orig. art. has: 10 figures. [TD]

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 007/ OTH REF: 006/ ATD PRESS: 5056

Card 2/2 hs

ACCESSION NR: AT4037658 S/2981/64/000/003/0175/0181

AUTHOR: Romanova, O. A.; Fridlyander, I. N.

TITLE: Development and analysis of the heat resistant, ductile aluminum alloy D21

SOURCE: Alyuminiyevy*ye splavy*, no. 3, 1964. Deformiruyemy*ye splavy* (Malleable alloys), 175-181

TOPIC TAGS: aluminum alloy, alloy D21, alloy D20, modification, alloy D16, alloy AK4-1, ductile aluminum alloy, alloy mechanical property, heat resistant alloy, alloy corrosion resistance

ABSTRACT: Zr, Cr, Ti, Mg and other elements were added experimentally to base alloys D16, AK4-1 and D20 in an attempt to develop a heat resistant and ductile alloy for use at 225-250C. D20 was selected as the best base and modified by adding 0.25-0.45% Mg. The modified alloy obtained was designated D21 (sp. gr. = 2.84 g/cm^3, α = 19.0·10^{-6} at 20-100C to 33.74 · 10^{-6} 1/°C at 300-400C, ρ = 0.054 ohm · mm^2/m, C = 0.18 at 50C to 0.24 cal/g·°C at 400C). Creep strength = 20 kg/mm^2 (0.2%, 100 hrs, 200C). Fatigue limit σ_{25} = 23 kg/mm^2 at 200C to 12 kg/mm^2 at 270C, σ_{100} = 22 and 11 kg/mm^2, respectively, 7 kg/mm^2 at 300C. Corrosion resistance of stressed forgings was high (5 months) in

Card 1/2

ACCESSION NR: AT4037658

hardened or artificially aged material. Tensile strength = 43 kg/mm^2 at 20C to 21 (0.5 hrs) or 16 (100 hrs) kg/mm^2 at 275C, elongation 9, 9 and 8%, respectively. "The authors express gratitude to V. I. Dobatkin and N. F. Anoshkin for their assistance and valuable advice." Orig. art. has: 5 tables.

ASSOCIATION: none

SUBMITTED: 00	DATE ACQ: 04Jun64	ENCL: 00
SUB CODE: MM	NO REF SOV: 000	OTHER: 000

Card 2/2

ACCESSION NR: AT4037660 S/2981/64/000/003/0194/0200

AUTHOR: Fridlyander, I. N.; Romanova, O. A.; Archakova, Z. N.; Gur'yev, I. I.; Dronova, N. P.; Petrova, A. A.; By*chkova, Z. S.

TITLE: Preparation and testing of intermediate shapes from high-strength heat resistant aluminum alloy VAD23

SOURCE: Alyuminiyevy*ye splavy*, no. 3, 1964. Deformiruyemy*ye splavy* (Malleable alloys), 194-200

TOPIC TAGS: aluminum alloy, alloy VAD23, heat resistant aluminum alloy, high strength aluminum alloy, alloy mechanical property, hot pressed rod, hot pressed section, hot pressed strip, hot rolled sheet, cold rolled sheet, forged piece, double pressing

ABSTRACT: Immersion-cast ingots (diameter 260 mm) of alloy VAD23 (5.1-5.7% Cu, 1.2-1.4% Li, 0.096-0.11% Cd, 0.60-0.7% Mn, 0.15-0.25% Ti) were hot pressed (430-450C) into rods (intermediate diameter 127 mm or final diameter 20 mm), sections PR306-7, strips with 25x210 mm cross section and pressed panels. The pieces were water quenched from 525±5C, then aged 16 hours at 170C. Sheets 1.0, 1.5 and 2.0 mm thick were hot

Card 1/2

ACCESSION NR: AT4037660

rolled from strips to 6.0-5.5 mm, then cold rolled to desired thickness with intermediate annealing and finally heat treated (water quenched from 523±5C, aged 16 hours at 170±5C). Forgings (90 or 120x200x400 mm) were forged on a vertical press (deformation 65%, preheating 3 hours to 420-440C) from rods (diameter 180 mm) and heat treated as for sheets. Pressed shapes exhibited high tensile strength (66-70 kg/mm^2) at a relative elongation of 3-4%. It was noted that double pressing (i.e., into intermediate diameter rods, then final shape) reduced the tensile strength and increased the plasticity. Mechanical properties of sheets and forgings were lower than those of the pressed shapes. "K. N. Fomin, N. S. Lebedeva, P. G. Reznik, N. Averkina, L. S. Zheltovskaya, Yu. A. Vorob'yev and N. N. Tyurin also took part in the work." Orig. art. has: 7 tables.

ASSOCIATION: none

SUBMITTED: 00	DATE ACQ: 04Jun64	ENCL: 00
SUB CODE: MM	NO REF SOV: 000	OTHER: 000

Card 2/2

ACCESSION NR: AT4037659 S/2981/64/000/003/0182/0193

AUTHOR: Fridlyander, I. N.; Andreyev, A. D.; Pavlova, I. K.; Romanova, O. A.; Archakova, Z. N.

TITLE: Selection of a fabrication process and a study of the effects of technological factors on the structure and properties of alloy VAD23

SOURCE: Alyuminiyevy*ye splavy*, no. 3, 1964. Deformiruyemy*ye splavy* (Malleable alloys), 182-193

TOPIC TAGS: aluminum alloy, alloy VAD23, alloy structure, alloy mechanical property, alloy hardening, alloy aging, alloy casting, alloy hot pressing, alloy hot rolling, alloy cold rolling, alloy forging, alloy semiproduct anisotropy, high strength aluminum alloy, heat resistant aluminum alloy

ABSTRACT: Ingots (diameter 300 mm, length 1000 mm) of alloy VAD23 were factory dip-cast (flux refined, kept 60 min. at 745-780C, poured, 1.4% Li and 0.15% Cd added in mold, liquid flux 46% LiCl plus 54% KCl, mixed, settled at 750-770C, dip rate 15-18 mm/min), then homogenized for 24 hrs. at 510 ± 10C. The ingots were then hot pressed into PR306-7 sections (deformation 94%, 420-440C; hardened 60 min. at 525 ± 5C, aged 12 hrs. at 170C), panels (wall thickness 4-15 mm;

Card 1/3

ACCESSION NR: AT4037659

pressed at 420C from forgings 550 x 150 x 600 mm; 525 ± 5C, then aged 16 hours at 170C), 0.8 - 8.0 mm thick sheets (hot rolled at 370-390C to 8 or 4 mm, then cold rolled after annealing to 40-60% reductions; hardened as above) and forgings measuring 90 or 120 x 200 x 400 mm (forged after 24 hrs. at 400-450C, hardened 4 hrs. at 525 ± 5C, aged 16 hours at 170C). Results of mechanical tests are tabulated for all intermediate products and show that pressing or rolling temperatures exert no significant effects on mechanical properties of rods and sheets in the respective ranges of 380-480 and 290-400C. Drawing did not affect tensile strength or yield of hot pressed rods, but relative elongation increased. Tensile strength of sheets increased somewhat with deformation in cold rolling (56 kg/mm^2 at 12% to 58 at 32%), relative elongation increased from 0.5% at 12% to 5.6% at 51%. The optimal hardening temperature was found to be 525C, and the best aging procedure was 12-16 hours at 170C. Precooling during hardening reduces tensile strength sharply when exceeding 30 sec., while relative elongation increased at first. The crosswise-lengthwise tensile strength variation ranged from 1-3 kg/mm^2 for twice pressed samples to 10-13 kg/mm^2 for once pressed rods, and is related to a more or less pronounced pressing effect. "K. N. Fomin, V. I. Potapova and Ye. N. Kalinina also took part in the work." Orig. art. has: 13 figures and 5 tables.

Card 2/3

FRIDLYANDER, I.N. (Moskva); ROMANOVA, O.A. (Moskva); ARCHAKOVA, Z.N. (Moskva); Prinimali uchastiye: REZNIK, P.G.; LEBEDEVA, N.S.

Mechanical properties of heat-resistant aluminum alloys with lithium and cadmium. Izv.AN SSSR. Otd.tekh.nauk. Met.i topl. no.4:82-89 Jl-Ag '62. (MIRA 15:8)
(Aluminum alloys--Testing)
(Heat-resistant alloys--Testing)

FRIDLYANDER, I.N.; ROMANOVA, O.A.; ARCHAKOVA, Z.N.; GUR'YEV, I.I.; DRONOVA, N.P.; PETROVA, A.A.; BYCHKOVA, Z.S.; Prinimali uchastiye: FOMIN, K.N.; LEBEDEVA, N.S.; REZNIK, P.G.; AVERKINA, N.; ZHELTOVSKAYA, L.S.; VOROB'YEV, Yu.A.; TYURIN, N.N.

Manufacture and investigation of semifinished products from high-strength and heat-resistant VAD23 aluminum alloys. Alium. splavy no.3:194-200 '64. (MIRA 17:6)

FRIDLYANDER I.N.; ANDREYEV, A.D.; PAVLOVA, I.K.; ROMANOVA, O.A.; ARCHAKOVA, Z.N.; Prinimali uchastiye: FOMIN, K.N.; POTAPOV, V.I.; KALININA, Ye.N.

Selecting a technology and studying the effect of technological factors on the structure and properties of the VAD23 alloy. Alium. splavy no.3:182-193 '64. (MIRA 17:6)

ROMANOVA, O.A.; FRIDLYANDER, I.N.

Developing and investigating the heat-resistant forging D21 aluminum alloy. Alium. splavy no.3:175-181 '64.
(MIRA 17:6)

SOV/137-58-9-20038

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 9, p 277 (USSR)

AUTHORS: Luzhnikov, L.P., Romanova, O.A.

TITLE: New Data on the Role of Manganese in Connection with the Press Effect in Aluminum Alloys (Novyye dannyye o roli margantsa v svyazi s presseffektom v alyuminiyevykh splavakh)

PERIODICAL: V sb.: Legkiye splavy. Nr 1. Moscow, 1958, pp 245-248

ABSTRACT: Doubt is cast on the hypothesis that the press effect (P), all other conditions being equal, can be observed only in alloys (A) containing Mn or some other element tending significantly to increase the recrystallization temperature of Al A. A number of A are investigated, including Al-Cu-Mn A, over a fairly broad range of Cu and Mn contents. These A not only failed to display the P, but, on the contrary, the properties of cold-formed semifinished products treated under optimum conditions of artificial aging are significantly higher than those of extruded items. When tenths of one per cent of Mg are added to Al-Cu-Mn alloys, normal P is observed. Metallographic investigation confirms the existence of differences in the recrystallization process of Al-Cu-Mn alloys with and without

Card 1/2

New Data on the Role of Manganese (cont.)

Mn. Results characteristic of other A are obtained in investigation of A having the following % contents: Cu 4.8, Mn 0.85, Ti 0.1, and 0.20-0.25 each of Fe and Si. The need for a more penetrating study of the effect of phase composition on the P of Al A is emphasized.

G.T.

1. Aluminum alloys--Properties 2. Manganese--Metallurgical effects 3. Aluminum alloys--Theory

FRIDLYANDER, I.N.; ROMANOVA, O.A.

Effect of peening on the mechanical properties of aluminum alloys of various phase constitution. Issl. splav. tsvet. met. no.3: 43-47 '62. (MIRA 15:8)
(Aluminum alloys--Cold working) (Phase rule and equilibrium)

ROMANOVA, O. A. AND LUZHNIKOV, L. P.

"New Data on the Role of Manganese in the "Extrusion Effect" in Aluminum Alloys"

Light Alloys. no. 1: Physical Metallurgy, Heat Treatment, Casting, and Forming; Principal Reports of the Conference, Moscow, Izd-vo AN SSSR, 1958, 497 P.

(2nd All Conf. on Light Alloys 1957)

KOTLYAROV, I.I., prof.; PLYUT, Ye.F., vrach (Krasnoyarsk, 20, ul. Diksona, d.7., kv. 2); RITTER, A.Ya.; ROMANOVA, O.V. (Krasnoyarsk, 20, ul. Diksona, d.7., kv. 2)

Treatment of radiation injuries of the skin with fresh autofibrin films. Vop. onk. 10 no.10:97-100 '64. (MIRA 18:8)

1. Iz kafedry biokhimii (zav. - prof. I.I.Kotlyarov) Krasnoyarskogo meditsinskogo instituta (rektor - dotsent P.G.Podzolkov) i Krasnoyarskogo krayevogo onkologicheskogo dispansera (zav. radiologicheskim otdeleniyem - vrach Ye.F.Plyut) Adres Kotlyarova i Rittera: Krasnoyarsk, ul. Karla Marksa, 124, Kafedra biokhimii Krasnoyarskogo meditsinskogo instituta.

ROMANOVA, O.V.

Experience in determining productive capacities. Trudy LIET no. 46:68-78 '63. (MIRA 17:6)

ROMANOVA, O.V., inzh.-ekonomist

Problems concerning methods of determining the productive capacity of rubber industry plants. Trudy LIEI no.20:52-82 '57.
(MIRA 11:9)

(Rubber industry)

ROMANOVA, P.

Sverdlovsk factory lunchrooms. Obshchestv. pit. no.9:3-4
S '58. (MIRA 11:10)

1. Nachal'nik otdela obshchestvennogo pitaniya gorodskogo upravleniya torgovli, Sverdlovsk.
(Sverdlovsk--Restaurants, lunchrooms, etc.)

GORELIK, I.G. [deceased]; GOKHMAN, Ye.V.; PETROVA, T.D.; TUVSKAYA, N.I.; ROMANOVA, P.M.; TSYRLIN, L.M., red.; KHUTORSKAYA, Ye.S., red. izd-va; ISLENT'YEVA, P.G., tekhn. red.

[Ferrous metallurgy in capitalist countries; statistical handbook] Chernaia metallurgiia kapitalisticheskikh stran; statisticheskii spravochnik. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1961. 368 p. (MIRA 14:11)

1. Moscow. TSentral'nyy institut informatsii chernoy metallurgii. (Iron industry--Statistics) (Steel industry--Statistics)

BELOVITSKIY, G.Ye.; ROMANOVA, T.A.; SUKHOV, L.V.; FRANK, I.M.

Fission of uranium nuclei due to slow π^--mesons and high-energy particles. Zhur.eksp. i teor.fiz.28 no.6:729-732 Je '55. (MLRA 8:9)

1. Fizicheskiy institut im. P.N.Lebedeva Akademii nauk SSSR
(Nuclear fission) (Uranium)

ROMANOVA, G.V.

Application of the economic and mathematical index method in the planning of the utilization of the productive capacity of vulcanization shops. Kauch. i rez. 23 no.9:38-44 S '64.
(MIRA 17:11)

1. Leningradskiy inzhenerno-ekonomicheskiy institut.

ROMANOVA, O. V.

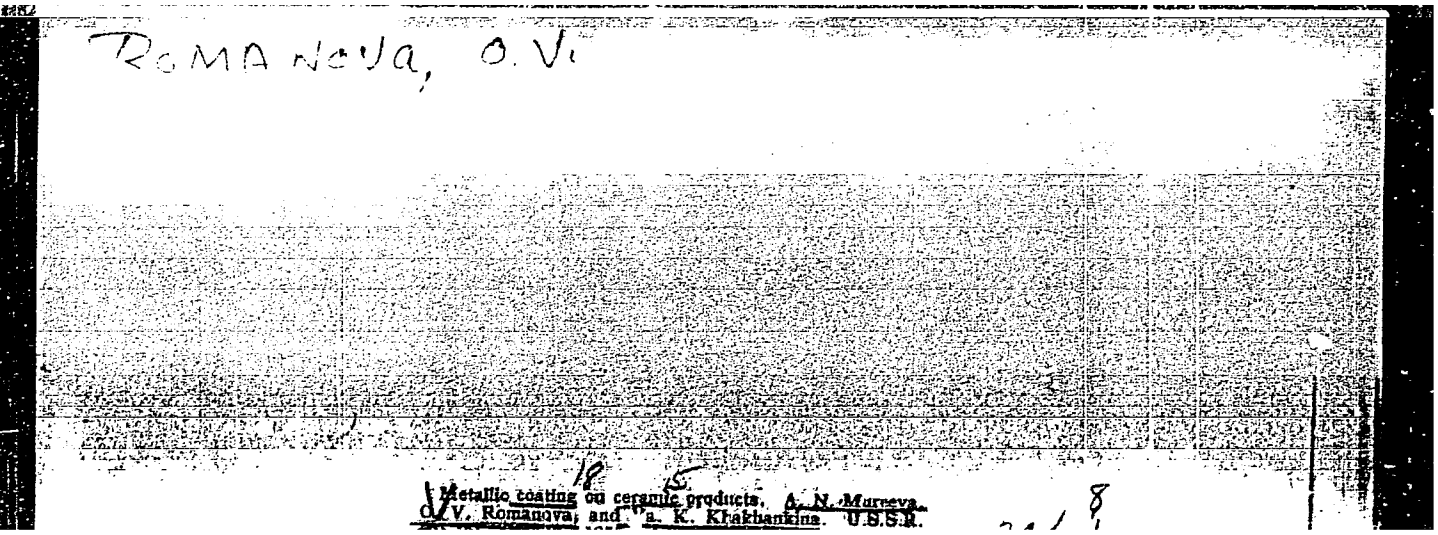
USSR/Electronics - Cavity Resonators Jul 50
Vacuum Tubes, UHF

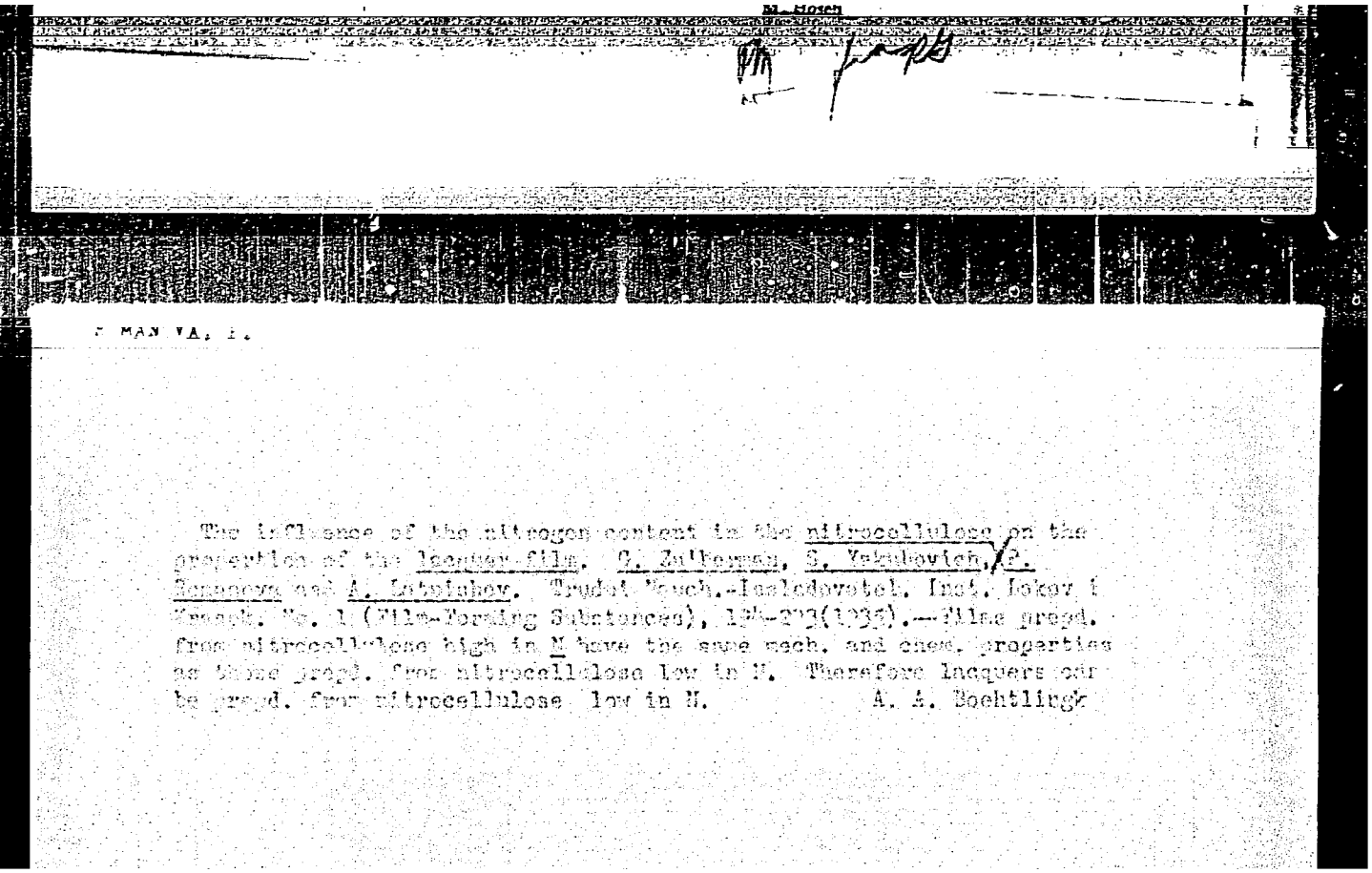
"Calculation of a Pi-Shape Cavity Resonator," V. L. Patrushev, O. V. Romanova, Saratov, Lab of Radiophys, MIIMF /Sci Res Inst of Microwave Phys?/, Saratov State U

"Zhur Tekh Fiz" Vol XX, No 7, pp 798-801

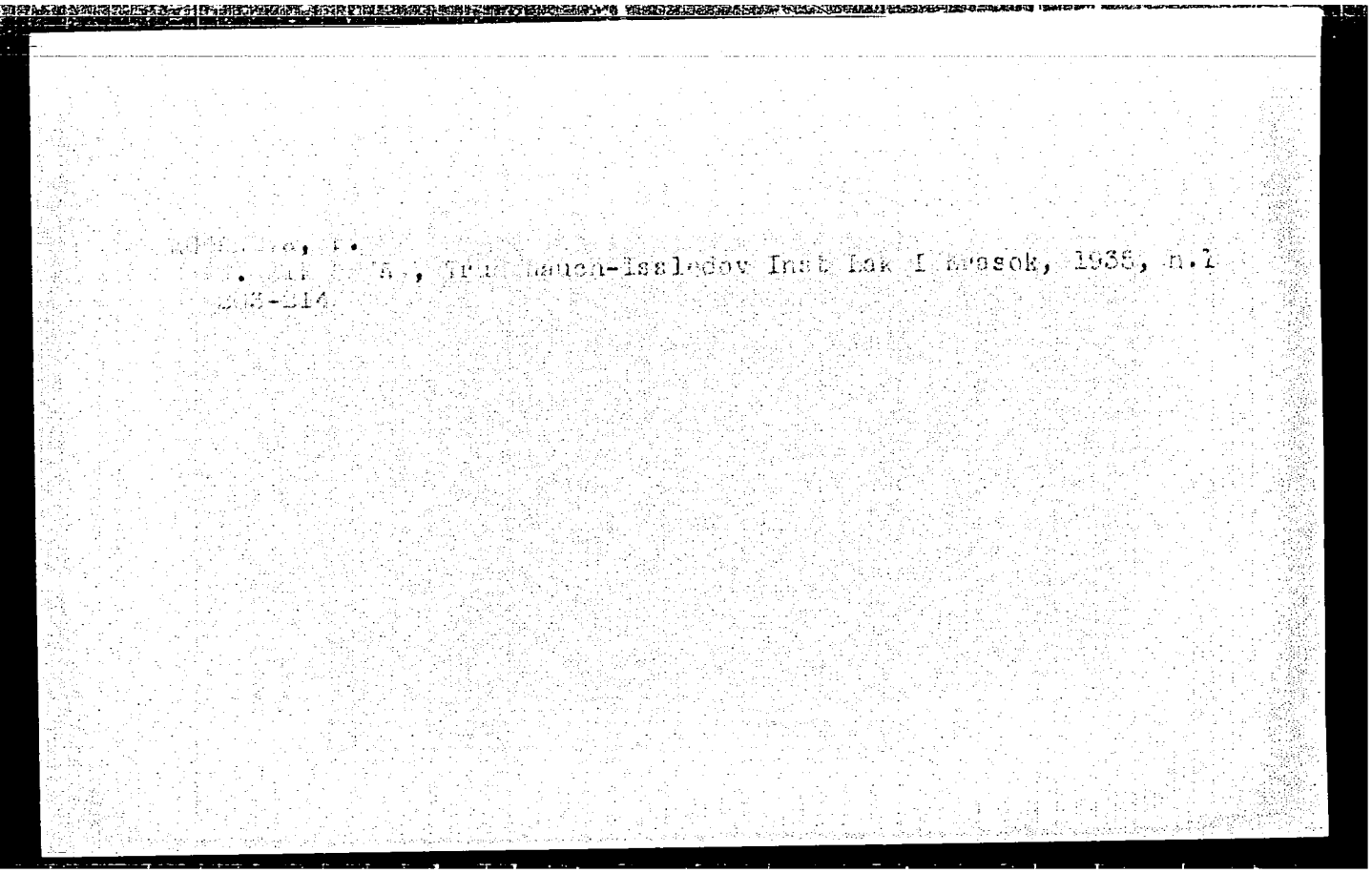
Calculates cavity resonator in form of cylinder with thin rod inserted in it. Resonant wave length is 2pi/k /wavemeter application/. Applies formula obtained for calculating length of thin tuning rod to two cavity resonators excited by 26-cm oscillator and compares values obtained with experimental data. Submitted 14 Feb 49.

PA 164T30





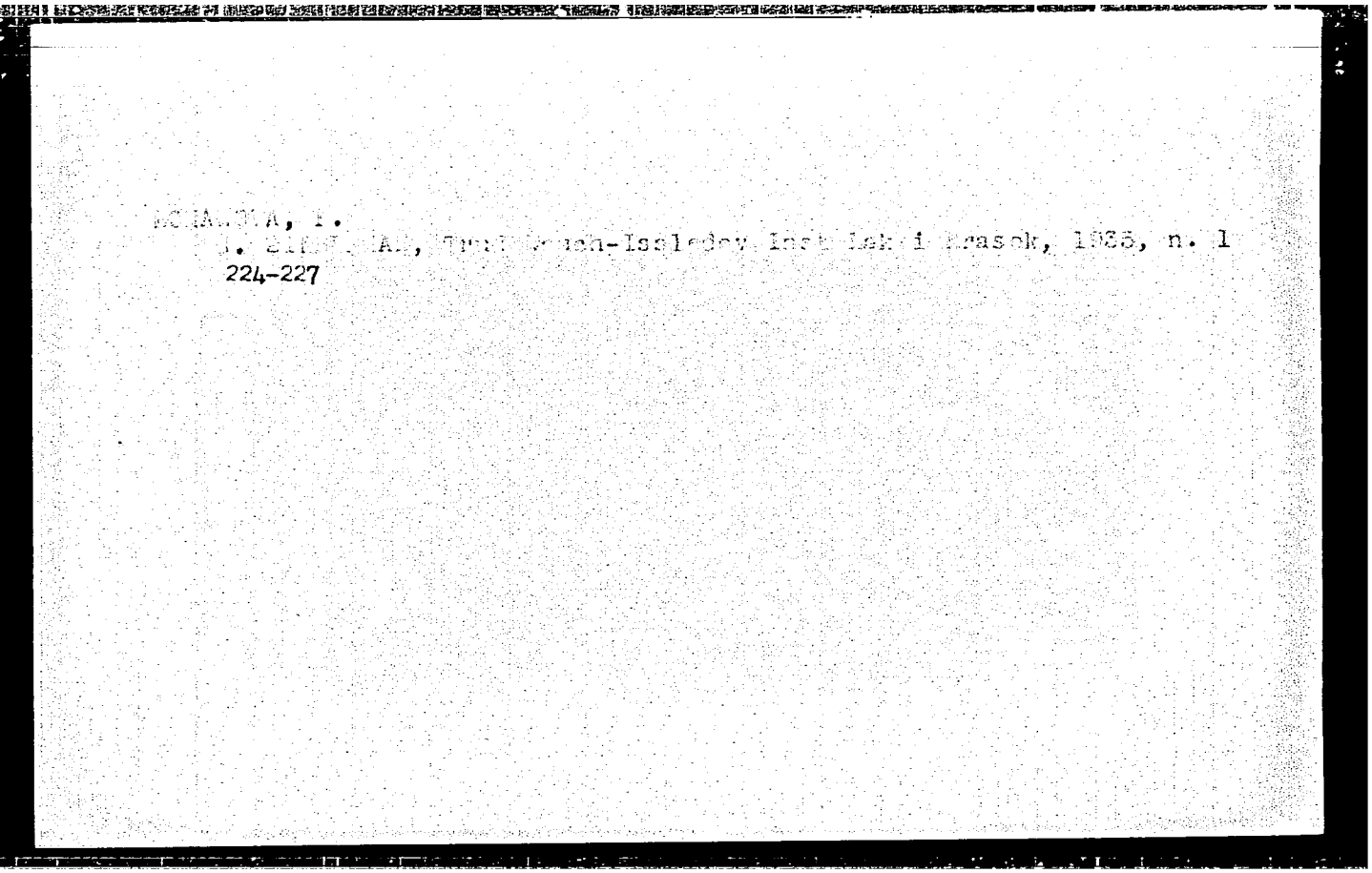
The influence of the nitrogen content in the nitrocellulose on the preservation of the leather film. G. Zalkerman, S. Yakubovich, E. Semenova and A. Lebedinov. Trudy Vsesoyuz. Issledovatel. Inst. Lakov i Krasok. No. 1 (Film-Forming Substances), 193-203(1936).—Films prepd. from nitrocellulose high in N have the same mech. and chem. properties as those prepd. from nitrocellulose low in N. Therefore lacquers can be prepd. from nitrocellulose low in N. A. A. Boehtlingk



[illegible], F.

[illegible], ZhFKh, 1933, 6, 289-302

APPROVED FOR RELEASE: 07/19/2001 CIA-RDP86-00513R001445310003-0"

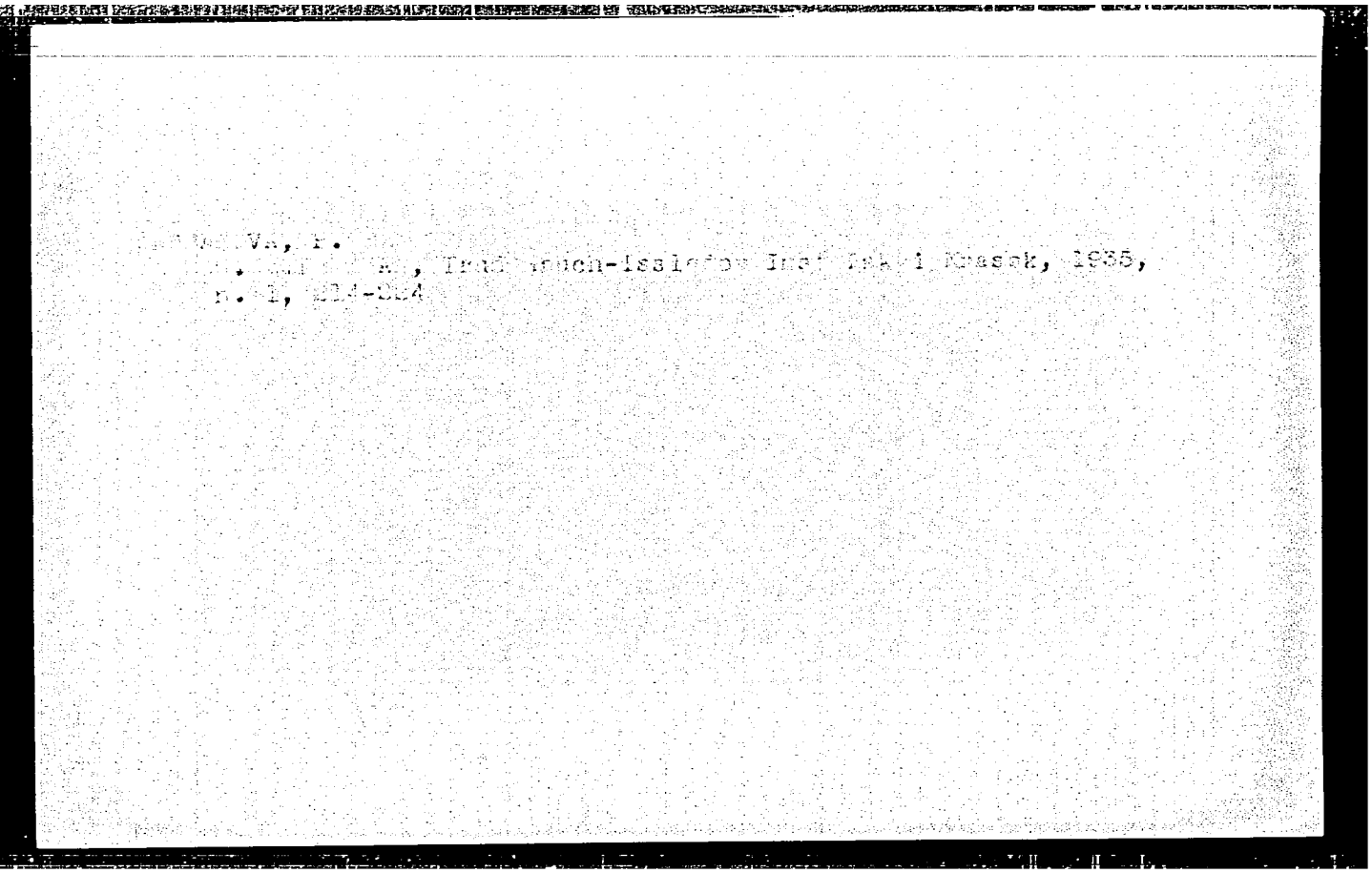


[illegible], I.
I. [illegible] A., Trud Krasn-Issledov Inst lak i kraskok, 1956, n. 1
224-227

[redacted], I.
[redacted], Trud Nauch-Issledov Inst Lak i Kozsok, 1935,
n. 1, 194-203

ROMANOVA, P.

G. ZILBERMAN, Trud Nauch-Issledov Inst Lak i Krasok, 1935, n. 1, 171-176



ROMANOVA, P.,

G. ZILBERMAN, Trudui Nauch. Issledovatel. Inst. Lakov i Krasok. No. 1, 203-14 (1935)

ROZANOVA, P.
[illegible], Lakokrasochnaya Ind. 1933, No. 3, 21-3

ROMANOVA, P.,
G. ZILBERMAN, Trudui Nauch.-Issledovatel. Inst. Lakov i Krasok. No. 1, 171-6, (1935)

ROMANOVA, F.,
G. ZILBERMAN, Trudui Nauch.-Issledovatel. Inst. Lakov i Krasok. No. 1, 171-6 (1935)

ROMANOVA, P.,
G. ZILBERMAN, Trudui Nauch.-Issledovatel. Inst. Lakov i Krasok. No. 1, 214-24 (1935)

ROMANOVA, P.,
G. ZILBERMAN, Trudui Nauch.-Issledovatel. Inst. Lakov i Krasok. No. 1, 177-94 (1935)

ROMANOVA, P.,
G. ZILBERMAN, Trudui Nauch.-Issledovatel. Inst. Lakov i Krasok, No. 1, 177-94 (1935)

ROMANOVA, P.,
G. ZILBERMAN, Trudui Nauch. -Issledovatel. Inst. Lakov i Krasok. No. 1, 224-7 (1935)

ROMANOVA, P.,
G. ZILBERMAN, Trudui Nauch.-Issledovatel. Inst. Lakov i Krasok. No. 1, 194-203, (1935)

ROMANOVA, P.,
G. ZILBERMAN, Trudui Nauch.-Issledovatel. Inst. Lakov i Krasok. No. 1, 203-14 (1935)

ROMANOVA, P.,
G. ZILBERMAN, Trudui Nauch. Issledovatel. Inst. Lakov i Krasok. No. 1, 194-203 (1935)

ROMANOVA, P.,
G. ZILBERMAN, Trudui Nauch. -Issledovatel. Inst. Lakov i Krasok. No. 1, 214-24 (1935)

ROMANOVA, P.,
G. ZILBERMAN, Trudui Nauch. Issledovatel. Inst. Lakov i Krasok.
No. 1, 224-7 (1935)

ROMANOVA, P.M.; MIRZOYEVA, S.M.

Synthesis of polymers from petroleum waste. Uch. zap. AGU. Fiz.-mat. i khim. ser. no.4:81-85 '59. (MIRA 16:6)

(Polymers) (Petroleum waste)

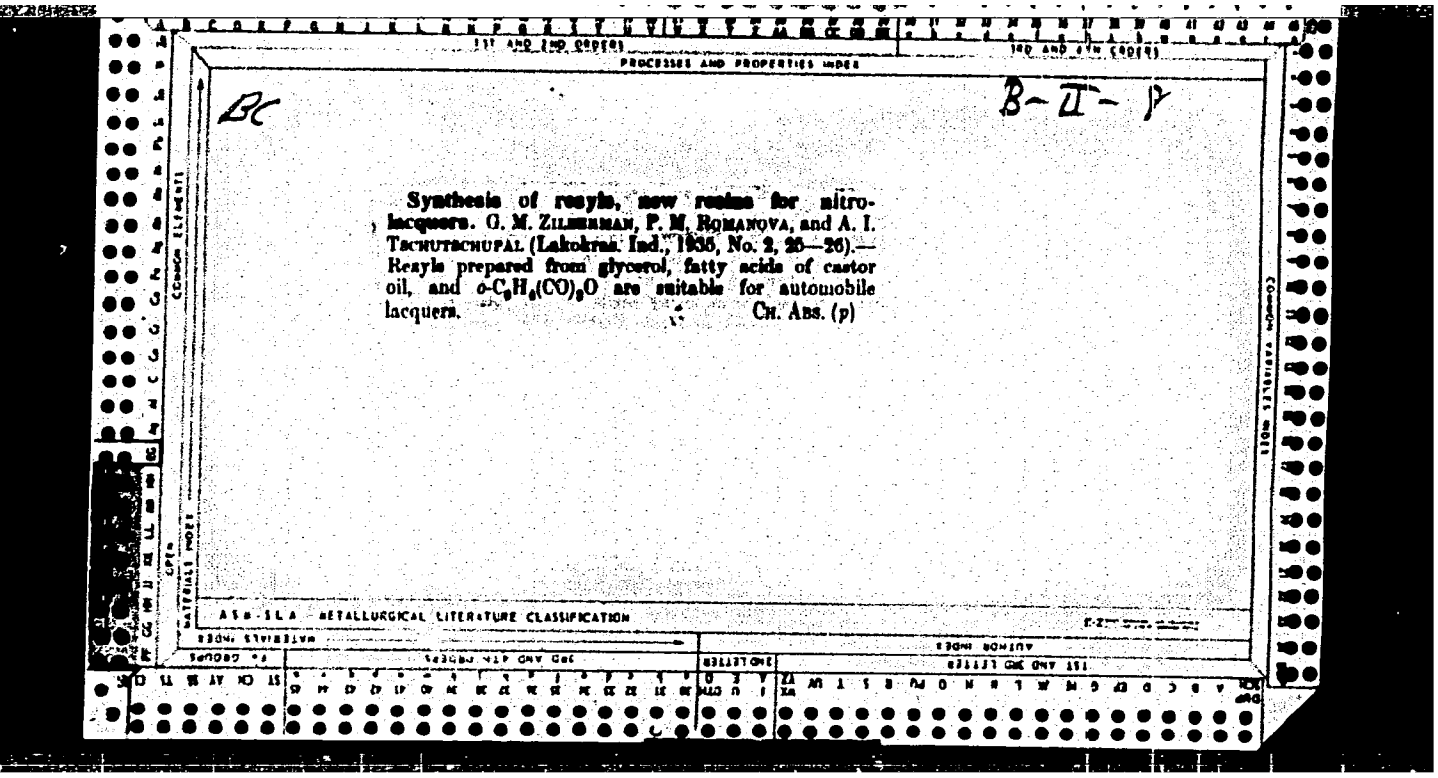
FILENKO, F.; ROMANOVA, P.M.; KACHAYEV, Yuriy

Notes of a naturalist. IUn. nat. no.12:38-39 D '61. (MIRA 15:1)
(Animals, Habits and behavior of)

GOKHMAN, Ye.V.; GORELIK, I.G.[deceased]; PETROVA, T.D.; TOVSKAYA, N.I.; ROMANOVA, P.M.; NARKOTSKAYA, I.V.; TSYRLIN, L.M., red.

[Ferrous metallurgy of capitalist countries; a statistical manual] Chernaia metallurgiia kapitalisticheskikh stran; statisticheskii spravochnik. [By] E.V.Gokhman i dr. Izd.3., dop. Moskva, 1964. 335 p. (MIRA 18:4)

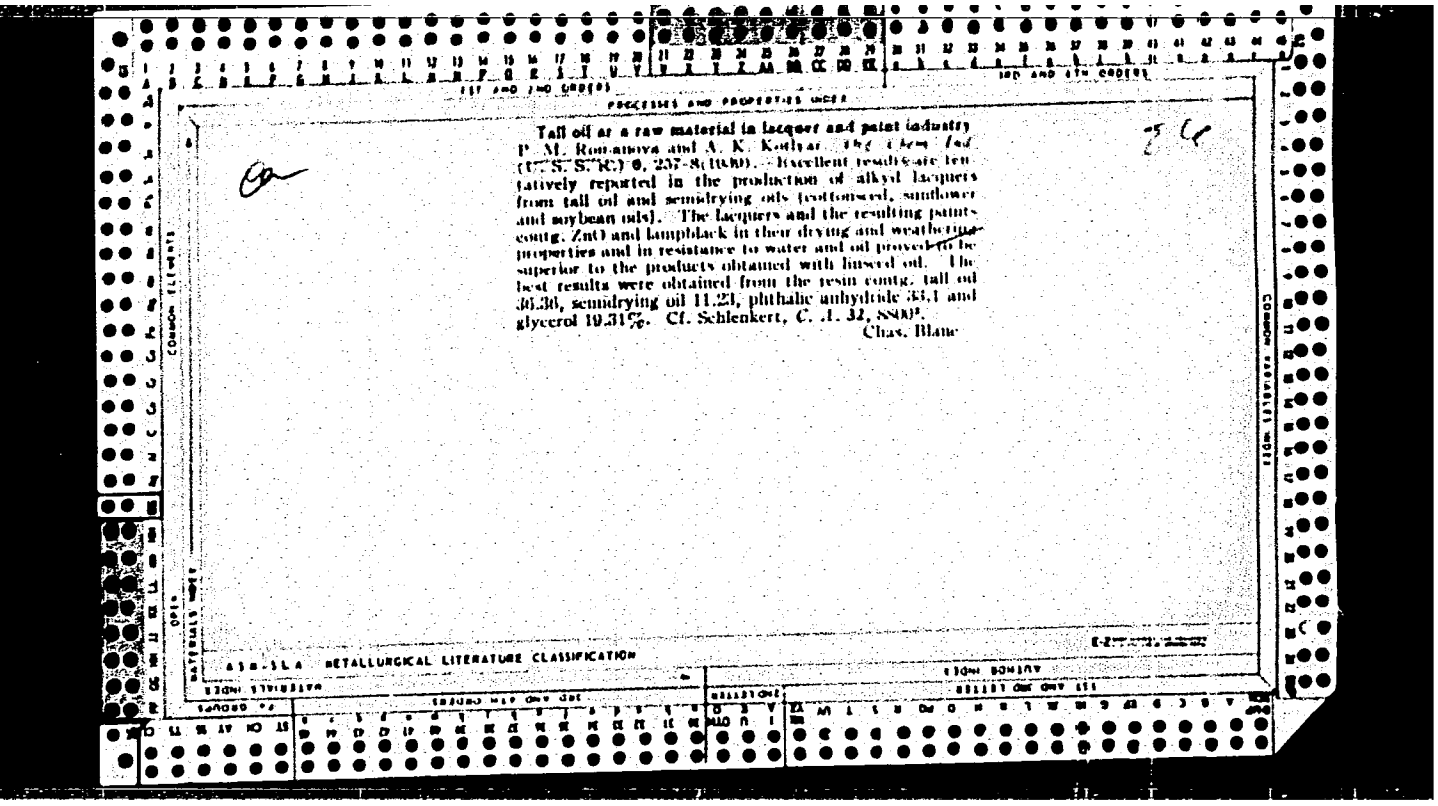
1. Moscow. TSentral'nyy nauchno-issledovatel'skiy institut informatsii i tekhniko-ekonomicheskikh issledovaniy chernoy metallurgii.



BC

B-II-J

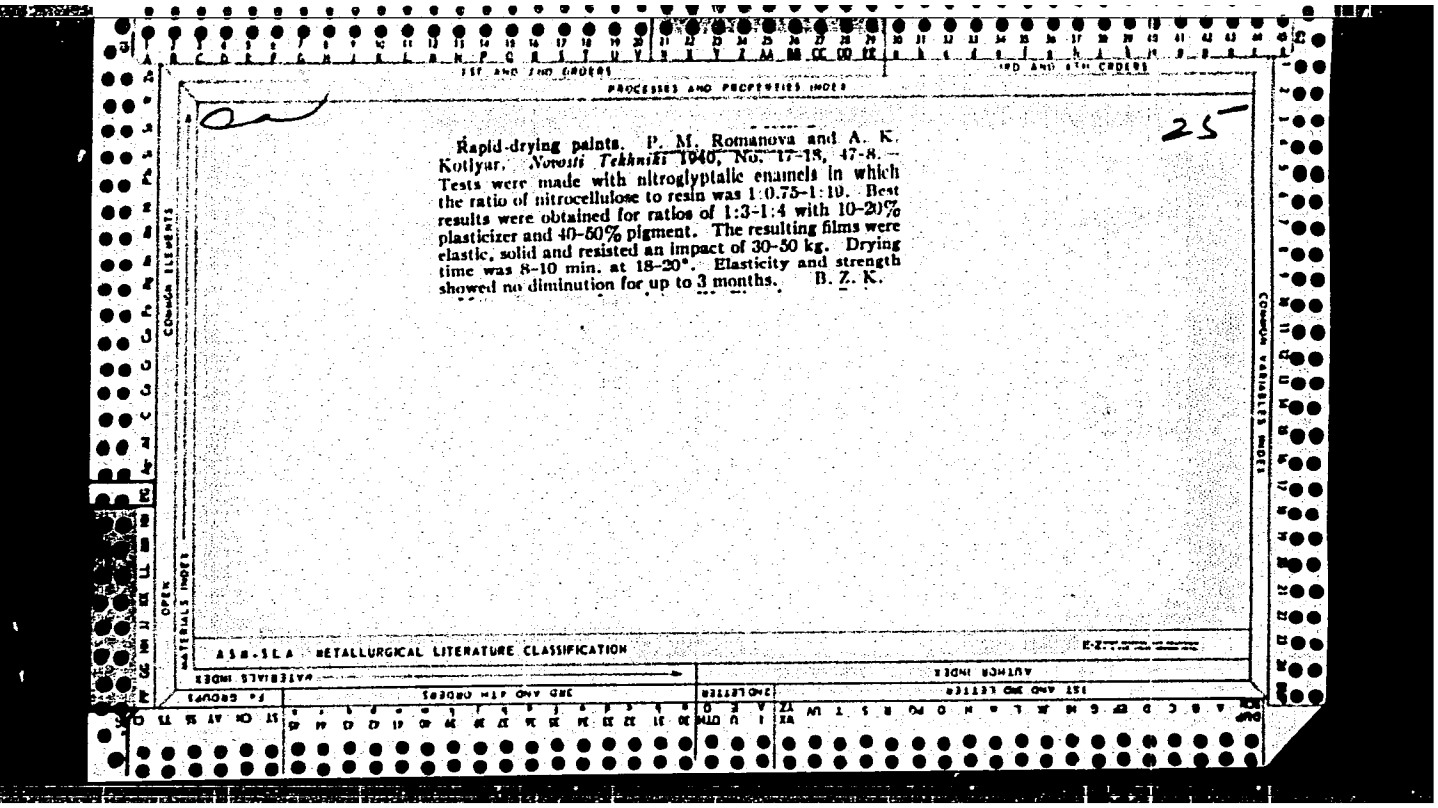
Synthesis of resyls, new resins for nitro-lacquers. G. M. ZILBERMAN, P. M. ROMANOVA, and A. I. TSCHUTSCHUPAL (Lakokras. Ind., 1935, No. 2, 25—26).—Resyls prepared from glycerol, fatty acids of castor oil, and o-$C_6H_4(CO)_2O$ are suitable for automobile lacquers. CH. ABS. (p)



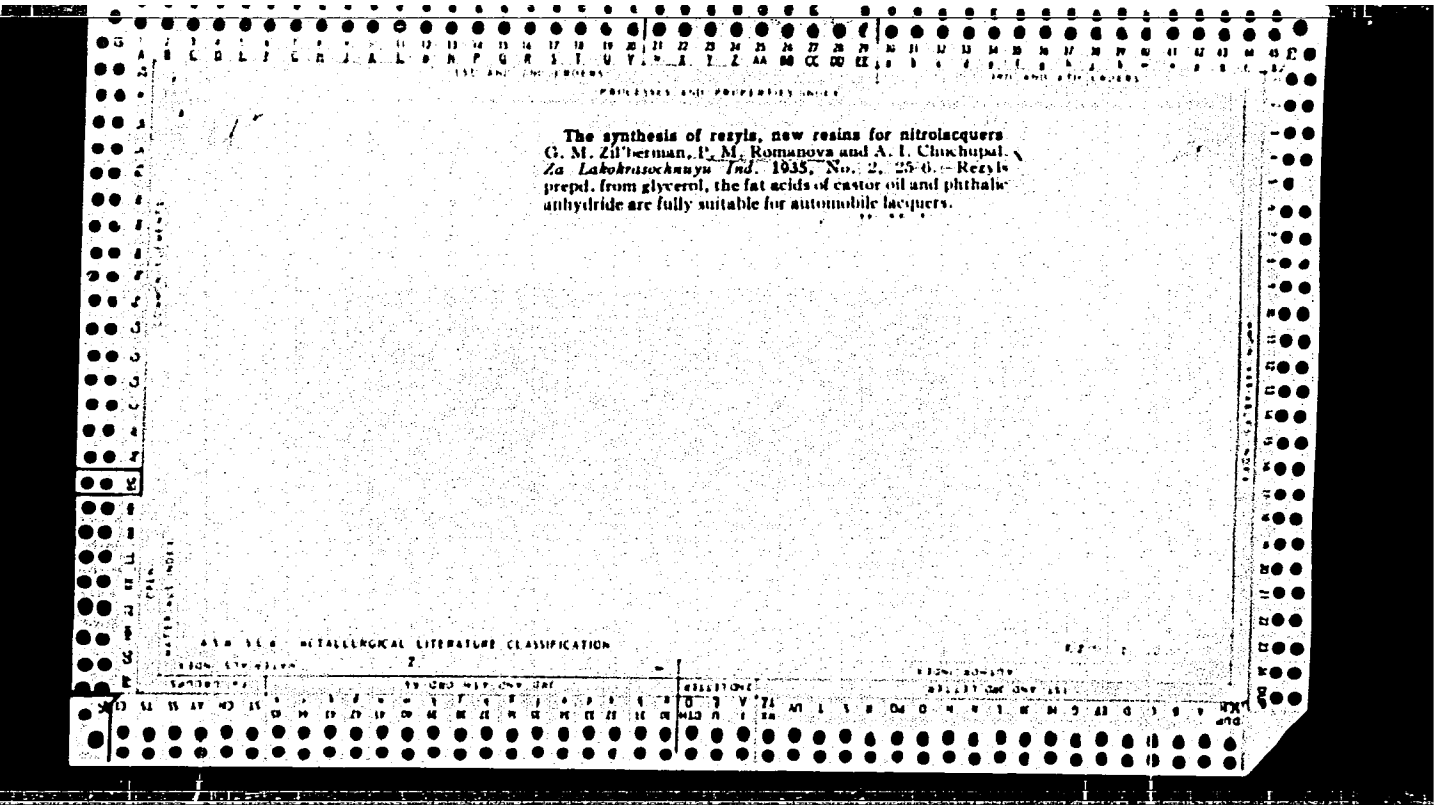
Tall oil as a raw material in lacquer and paint industry

P. M. Romanova and A. K. Kudlyar. *Lakokrasochnye Materialy i Ikh Primenenie* (U.S.S.R.) 6, 237-8 (1939).—Excellent results are reported in the production of alkyd lacquers from tall oil and semidrying oils (cottonseed, sunflower and soybean oils). The lacquers and the resulting paints contg. ZnO and lampblack in their drying and weathering properties and in resistance to water and oil proved to be superior to the products obtained with linseed oil. The best results were obtained from the resin contg. tall oil 30.30, semidrying oil 11.23, phthalic anhydride 33.1 and glycerol 19.31%. Cf. Schlenkert, *C. A.* 32, 8800[9].

Chas. Blanc



Rapid-drying paints. P. M. Romanova and A. K. Kotlyar. *Novosti Tekhniki* 1940, No. 17–18, 47–8.—Tests were made with nitroglyptalic enamels in which the ratio of nitrocellulose to resin was 1:0.75–1:10. Best results were obtained for ratios of 1:3–1:4 with 10–20% plasticizer and 40–50% pigment. The resulting films were elastic, solid and resisted an impact of 30–50 kg. Drying time was 8–10 min. at 18–20°. Elasticity and strength showed no diminution for up to 3 months. B. Z. K.



The synthesis of rezyls, new resins for nitrolacquers
G. M. Zil'berman, P. M. Romanova and A. I. Chukhupal. *Za Lakokrasochnuyu Ind.* 1935, No. 2, 25-6.—Rezyls prepd. from glycerol, the fat acids of castor oil and phthalic anhydride are fully suitable for automobile lacquers.

The preparation of alkyds and their application in nitro lacquers. P. M. Romanova and A. Chechugal. *Trudy Inst. Lakov i Krasok* 2, 65-75(1940). Resins are prepd. by heating to 200-210° the mixt. and testing the gelatinization by pouring the viscous mass on a plate and detg. the acid no. The products used were phthalic anhydride, glycerol and fat acids of the castor oil. In the heating of the mixt. the acidity and the duration of coagulation decrease with time, the hardness, soly. and viscosity of the soln. increase; the complete soln. of the resin in toluene takes place in not less than 1.5-2.0 hrs. from the time the temp. was raised to 210-15°. The [illegible] phthalic anhydride [illegible] tained from 65% of the fat acids, 22% phthalic anhydride, the hardness increasing with the decrease in the proportion of the fat acids. The alkyd films are more elastic than resin ester films in nitro lacquers. Nitro lacquers prepd. from resins contg. fat acids did not differ from those contg. triglycerides. Thus fat acids may be substituted by crude castor oil. The expts are described in detail.

A. A. Boehtlingk

L 45885-66 EWT(m)/EWP(j) WW/JW/RM

ACC NR: AP6021606 SOURCE CODE: UR/0020/66/168/005/1057/1060

AUTHOR: Andrianov, K. A. (Academician); Vasil'yeva, T. V.; Romanova, R. A.

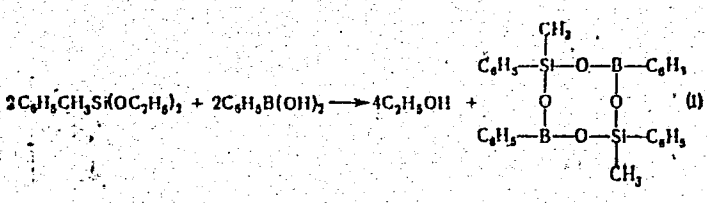
ORG: Moscow Institute of Fine Chemical Technology im. M. V. Lomonosov (Moskovskiy institut tonkoy khimicheskoy tekhnologii)

TITLE: Organocycloborosiloxanes

SOURCE: AN SSSR. Doklady, v. 168, no. 5, 1966, 1057-1060

TOPIC TAGS: organoboron compound, siloxane

ABSTRACT: A study of the condensation of phenylboronic acid with diethoxydialkyl-(alkylaryl)-silanes and diethoxydialkyl-(alkylaryl)-siloxanes showed that the reaction depends on the framing alkyl or aryl groups at the silicon atom. Condensation of phenylboronic acid with diethoxyphenylmethylsilane and α,ω-diethoxymethylphenylsiloxanes in the absence of a catalyst proceeds with the formation of phenylmethylcycloborosiloxanes:



Card 1/2 UDC: 547'128

L 45985-66

ACC NR: AP6021606

$$C_2H_5O[CH_3C_6H_5SiO]_nC_2H_5 + C_6H_5B(OH)_2 \longrightarrow 2C_2H_5OH + [CH_3C_6H_5SiO]_nBO$$

$n = 2, 3, 4$ (2)

A side reaction is the formation of triphenyltriboroxole:

$$3C_6H_5B(OH)_2 \xrightarrow{t^\circ} [C_6H_5BO]_3 + 3H_2O.$$

The properties of the cyclic compounds obtained are tabulated. Methylphenylcyclosiloxanes formed by hydrolysis and condensation side reactions were also obtained:

$$C_6H_5O[CH_3C_6H_5SiO]_nC_2H_5 \xrightarrow[n=2,3]{+H_2O} HO[CH_3C_6H_5SiO]_nC_2H_5 \xrightarrow{-C_2H_5OH} [CH_3C_6H_5SiO]_n.$$

Orig. art. has: 1 table.

SUB CODE: 07/ SUBM DATE: 28Oct65/ ORIG REF: 001/ OTH REF: 004

Card 2/2 LC

L 14287-66 RD

ACC NR: AT6003871 SOURCE CODE: UR/2865/65/004/000/0367/0372

AUTHOR: Romanov, S. N.; Romanova, R. A.; Monastyrshina, Z. I. 17 B+1

ORG: none

TITLE: Nature of the biological effect of vibration

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy kosmicheskoy biologii, v. 4, 1965, 367-372

TOPIC TAGS: biologic vibration effect, cell physiology, tissue physiology, mouse

ABSTRACT: The effects of vibration on mouse tissue cells in situ and in vitro were investigated. For the in situ experiments, 6 mice were placed in individual compartments of a metal container, which was then vibrated at 25-75 cps for 30 min with a vibration amplitude of 2 mm. A 0.5% neutral red solution was injected (1 ml/30 g) prior to vibration. The following results, considered preliminary by the authors, were obtained: 1) The cells of mice exposed to vertical vibration showed a change in ability to absorb tissue stain. 2) Cells of different organs showed varied sensitivity to vibration. The most noticeable 6 reactions took place in the kidneys and cerebellum, while less noticeable reactions were exhibited by sub-cortical and muscle cell nuclei. The cells of the liver, intestine, and especially the spleen failed to react to vibration. 3) The degree of cell reactivity mainly depended on vibration frequency (see Table 1).

Card 1/3

L 14287-66

ACC NR: AT6003871

Table 1. Change in the stainability of mouse tissue exposed to vibration (in situ)

Organ and tissue	Control		25 cps			50 cps			75 cps		
	M ± m	%	M ± m	%	p	M ± m	%	p	M ± m	%	p
Cortex	12.8±1.1	100	14.5±0.88	115	0.211	14.3±1.15	113.5	0.287	17.6±1.06	140	0.004
Subcortex	10.3±0.9	100	22.0±3.25	212	0.001	11.5±0.76	111.5	0.331	14.0±0.73	136	0.012
Cerebellum	7.7±0.6	100	10.1±0.64	131.5	0.015	8.3±0.72	104	0.435	11.9±0.72	154	0.000
Medulla oblongata	6.2±0.6	100	7.4±0.31	119.5	0.030	5.6±0.34	90.5	0.435	9.1±0.54	147	0.005
Liver	11.8±0.7	100	11.7±0.49	101	1.000	11.9±0.71	102	0.844	13.7±0.72	118	0.051
Kidney	8.1±0.8	100	18.4±1.59	228	0.000	15.0±0.94	185	0.001	19.8±1.83	244	0.000
Spleen	11.6±1.3	100	9.3±0.27	80.1	0.128	11.2±0.74	97	0.844	10.0±0.71	86.5	0.331
Intestine	10.8±1.5	100	12.1±1.0	114	0.493	10.2±1.27	106	0.768	11.3±0.88	110.5	0.768
Muscle	1.6±0.3	100	1.9±0.05	118.5	0.435	1.6±0.85	100	1.000	2.7±0.44	169	0.042

Card 2/3

L 14287-66
ACC NR: AT6003871

The second series of tests involved in vitro tissue staining under the same vibration conditions. Tissue samples were stained after 30—60 min or immediately after vibration with a 0.01% neutral red solution for 10 min. The results of this test substantiated the hypothesis that various tissues of the organism show differing sensitivity to vibration. The reasons for these differences are not clear.

It was concluded that, regardless of the presence or absence of a specific receptor, all cells are able to nonspecifically react to vibration as they are able to react to any other stimulus of sufficient intensity. In the opinion of the authors, the cellular approach to the effects of vibration is important in isolating primary foci associated with the pathogenesis of vibration sickness. In addition, the cellular approach is of theoretical interest in elucidating the biological effects of vibration and will be the thesis of future investigations by the authors. Orig. art. has: 1 table. [ATD PRESS: 4091-F]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 006 / OTH REF: 009

RC

Card 3/3

ROMANOV, S.M.; ROMANOVA, P.A.

Change in the cellular resistance of the organism under the influence of thyroid normones. Dokl. AN SSSR 160 no.1:209-212 Ja '65. (MIRA 18:2)

1. Institut fiziologii im. I.P. Pavlova AN SSSR. Submitted May 9, 1964.

ROMANOV, S.N.; ROMANOVA, R.A.; MONASTYRSHINA, Z.I.

Nature of the biological effect of vibration. Probl. kosm. biol. 4:367-372 '65. (MIRA 18:9)

L 38303-65 EWT(1)/EWG(v)/FCC/EEC(t) Po-4/Pe-5/Pq-4/Pt-10/Pi-4 GW
ACCESSION NR: AR5003329 S/0081/64/000/021/E046/E046

SOURCE: Ref. zh. Khimiya, Abs. 21E123

42
B

AUTHOR: Gushchin, G. P.; Romanova, R. G.; Romashkina, K. I.

TITLE: Analysis of ozone from an airplane

CITED SOURCE: Sb. Materialy konferentsiy po itogam MGG (1960) i meterol. izuch. Antarktidy (1959). M., Gidrometeoizdat, 1961, 183-186

TOPIC TAGS: ozone concentration, atmospheric ozone, atmospheric temperature, atmospheric pressure, jet stream, aviation meteorology

TRANSLATION: The authors report the results of the measurement of the total content of atmospheric ozone during 2 flights over the territory of the SSSR in the fall of 1959. The flight in August-September was over the route Leningrad-Odessa-Tashkent-Aktyubinsk-Volgograd-Leningrad, while the flight in September-October followed the route Leningrad-Odessa-Mineral'nyye Vody-Tashkent-Aktyubinsk-Kazan'-Leningrad. The flights were carried out at altitudes of 3 and 2.1 km. After processing the data of the flights, the authors obtained curves showing the total

Card 1/2

L 38303-65
ACCESSION NR: AR5003329

ozone content along the route. The total ozone content during the flights fluctuated considerably, the fluctuations exceeding the experimental error. As the axis of the jet stream was bisected, there was a sharp increase in the ozone content amounting to almost 30%. A brief analysis of the pressure conditions at the 300 and 200 mb levels is given, together with graphs of the total ozone content. It is pointed out that a sharp change in the total ozone content in the area of the jet stream was previously observed by the authors in other areas during measurements from an airplane. In order to study the relationship between the total ozone content and the air temperature at the height of the flight, curves were constructed showing the ozone content and air temperature. These curves are interrelated and show a reciprocal course. The authors conclude that there is a significant increase in the horizontal gradient of the total ozone content in the areas of the jet stream in the spring and fall. G. Gushchin.

SUB CODE: ES, SV ENCL: 00

Card 2/2

L 7879-66 EWT(m)/EPF(c)/EWP(j)/T RPL RM

ACC NR: AP5025030 SOURCE CODE: UR/0286/65/000/016/0083/0083

AUTHORS: Belyayev, V. A.; Gromova, V. A.; Zemit, S. V.; Kavrayskaya, N. L.; Kopylov, Ye. P.; Kosmodem'yanskiy, L. V.; Kostin, D. L.; Kut'in, A. M.; Lazaryants, K. G.; Romanova, R. G.; Tsaylingol'd, V. L.; Shikhalova, K. P.; Shushkina, Ye. N.

ORG: none

TITLE: Method for obtaining synthetic rubber. Class 39, No. 173942

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 83

TOPIC TAGS: rubber, synthetic rubber, butadiene, styrene, polymer, copolymer, polymerization

ABSTRACT: This Author Certificate presents a method for obtaining synthetic rubber by polymerization or copolymerization of dienes with vinyl monomers, for example, butadiene with α-methylstyrene, in aqueous emulsion at low temperatures in the presence of known free-radical-initiators and regulators employing emulsifiers. To improve the polymer properties, esters of monoalkylbenzoic acid are used as emulsifiers.

SUB CODE: 11,07/ SUBM DATE: 03Jul63

Card 1/1 nw UDC: 678.762 678.762-134

KOSMODEM'YANSKIY, L.V.; FARBEROV, M.I.; LAZARYANTS, E.G.; SHUSHKINA, Ye.N.; ROMANOVA, R.G.

Effect of the colloid-chemical characteristics of soaps on the polymerization kinetics and properties of latex. Koll. zhur. 27 no.6:833-838 N-D '65. (MIRA 18:12)

1. Nauchno-issledovatel'skiy institut monomerov dlya sinteticheskogo kauchuka, Yaroslavl'. Submitted June 30, 1964.

GUSHCHIN, G.P.; ROMANOVA, R.G.

Comparative characteristics of data on atmospheric ozone collected during the International Geophysical Year at some stations. Trudy GGO no.106:37-43 '61. (MIRA 14:10)
(Ozone) (Atmosphere)

GUSHCHIN, G.P.; ROMANOVA, R.G.

Some features of interlatitudinal exchange in the lower stratosphere according to observations on atmospheric ozone. Trudy GGO no.134:102-112 '62. (MIRA 15:6)
(Atmosphere, Upper) (Ozone)

L 54138-66 EWT(m)/EWP(j) IJP(c) RM

ACC NR: AP6010546 (A) SOURCE CODE: UR/0069/65/027/006/0833/0838

AUTHOR: Kosmodem'yanskiy, L. V.; Farberov, M. I.; Lazaryants, E. G.; Shushkina, Ye. N.; Romanova, R. G.

ORG: Scientific Research Institute of Monomers for Synthetic Rubber, Yaroslavl' (Nauchno-issledovatel'skiy institut dlya sinteticheskogo kauchuka)

TITLE: Effect of the colloidal-chemical characteristics of soaps on the polymerization kinetics and properties of latex

SOURCE: Kolloidnyy zhurnal, v. 27, no. 6, 1965, 833-838

TOPIC TAGS: particle size, polymerization kinetics, soap, emulsion polymerization

ABSTRACT: The colloidal-chemical characteristics of potassium salts (soaps) of di-tert-butylbenzoic acid (DTBBA) and their relation to the kinetics of emulsion polymerization were studied by carrying out the emulsion copolymerization of bivinyl and α-methylstyrene with these soaps and their mixtures. The soaps were found to have a low solubilizing capacity and a high value of the critical concentration of micelle formation (CCMF) as compared to soaps of disproportionated rosin and synthetic fatty acids. The rate of emulsion polymerization is determined primarily by the quantity and nature of the micellar soap present in the system. The quantity of the micellar soap in the mixture undergoing polymerization determines the character of the change

UDC: 541.18:542.952/954

Card 1/2

L 34418-66

ACC NR: AP6010546

in the surface tension of the latex and its magnitude. In latexes obtained from soaps with high CCMF the particle size is higher than in latexes of low CCMF. This is attributed to the fact that soaps of high CCMF have emulsifying properties in the presence of micelles, and after the latter disappear, the soaps have the properties of electrolytes, which promote the formation of larger latex particles. It is concluded that the CCMF value of soaps has a definite influence on the particle size of the latex particles, and that the fractional composition of the soaps influences the particle size distribution. Orig. art. has: 6 figures and 1 table.

SUB CODE: 07/ SUBM DATE: 30Jun64/ ORIG REF: 008/ OTH REF: 009

Card 2/2 BLG

S/531/62/000/134/002/002
I045/I245

AUTHORS: Gushchin, G. P. and Romanova, R. G.

TITLE: Average data on general ozone contents in the atmosphere over the northern hemisphere in 1958

SOURCE: Leningrad. Glavnaya geofizicheskaya observatoriya. Trudy, no. 134, 1962, 113–118. Rezul'taty issledovaniy v period MGG i MGS

TEXT: The article lists mean annual and monthly values of atmospheric ozone content at various latitudes and over the whole northern hemisphere as calculated from the reports of 25 ozonometric stations. Two graphs illustrate the monthly fluctuations of ozone content and the distribution of the annual ozone content over the latitudes. Empirical formulas are given. There are 3 figures, 2 tables, and 2 references.

Card 1/1

KALININ, D.F. (Kazan'); ROMANOVA, R.M. (Kazan')

Review of IU.F.Shul'ts, T.V. Mertsalova and L.L. Savel'eva's book "Textbook of the Latin language". Kaz.med.zhur. no.2: 88-89 Mr-Ap'63 (MIRA 16:11)

ACC NR: AP6033055 SOURCE CODE: UR/0126/66/022/002/0289/0292

AUTHOR: Romanova, R. R.; Buynov, N. N.; Dolgikh, G. V.; Rodionov, K. P.; Bulychev, D. K.

ORG: Institute of Metal Physics AN SSSR (Institut fiziki metallov AN SSSR)

TITLE: Electron-microscope investigation of the effect of plastic deformation on the structure of Al-Zn (20%) heat-treatable alloy

SOURCE: Fizika i metallov i metallovedeniye, v. 22, no. 2, 1966, 289-292

TOPIC TAGS: plastic deformation, aluminum base alloy, zinc alloy, metal structure, electron microscopy, aluminum zinc alloy, heat treatable alloy, alloy hydrostatic extrusion, alloy rolling, alloy structure / Al20Zn alloy

ABSTRACT: Small, 10 mm in diameter ingots of an aluminum-base alloy containing 20% zinc were rolled into 6 x 6 mm bars which were homogenized, solution annealed at 485C, water quenched, and aged at 200C for 5 hr. The structure of heat-treated bars was characterized by a Widmanstätten type network with lamellar particles of a metastable α' phase. Heat-treated bars were subjected to plastic deformation with a reduction of 65% either by rolling or by hydrostatic extrusion. Under the effect of deformation, the network and most of the α' phase par-

Card 1/2 UDC: 536.42

ACC NR: AP6033055

ticles disappeared; simultaneously, a small number of equiaxial and also elongated particles of a stable α phase was formed in both rolled and hydrostatically extruded specimens. Additional aging at 200C brought about no significant change in the structure of rolled specimens, except for an increase of the number of both α and α' particles. In the hydrostatically extruded specimens, a great number of α particles and only a small number of the α' particles were observed. It is concluded that in hydrostatic extrusion, a much higher number of vacancies is generated, which intensifies the aging. V. T. Shmatov is thanked for his interest in this study and discussion of the results. Orig. art. has: 5 figures.

SUB CODE: 11,20/ SUBM DATE: 19Feb66/ ORIG REF: 005/ OTH REF: 003

Card 2/2

ACC NR: AP6032622 (N) SOURCE CODE: UR/0126/66/022/003/0424/0431

AUTHOR: Buynov, N. N.; Dobatkin, V. I.; Rakin, V. G.; Romanova, R. R.; Shashkov, O. D.; Dobromyslov, A. V,

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

TITLE: Investigation of the structure of ATsM and V92 heat-treatable aluminum alloys

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 3, 1966, 424-431

TOPIC TAGS: aluminum zinc magnesium alloy, aluminum alloy aging, aluminum alloy structure/ATsM aluminum alloy, V92 aluminum alloy

ABSTRACT: Aging-induced structural changes and the kinetics of aging in aluminum-base alloys ATsM (4.72% zinc, 1.84% magnesium, 0.69% manganese, 0.35% zirconium, 0.03% titanium, and 0.5% copper) and V92 (3.34% zinc, 4.48% magnesium 0.8% manganese, and 0.005% beryllium) have been studied by means of electron microscopy and x-ray diffraction analysis. The aging kinetics were found to be the same in both alloys. The decomposition of solid solution begins with the formation of Guinier Preston zones with a high density of vacancies, which serve as nuclei for the precipitation of $MgZn_2$-phase and play an important part in the age hardening of the alloys. The temperature and duration of aging has little or no effect on the size of Guinier Preston zones, but a considerable effect on their composition. V92 alloy age hardens

Card 1/2 UDC: 546.3-19'621'47'46 : 548.0

ACC NR: AP6032622

more intensively than ATsM does owing to a higher total zinc and magnesium content of the former. Orig. art. has: 4 figures.

SUB CODE: 11/ SUBM DATE: 27Dec65/ ORIG REF: 008/ OTH REF: 007

Card 2/2

ROMANOVA, S.S.

"The Intraregional Distribution of Branches of Productive Animal Husbandry under the Conditions of the Intensified Specialization of Agricultural Production";
dissertation for the degree of Candidate of Economic Sciences
(awarded by the Timiryazev Agricultural Academy, 1962)

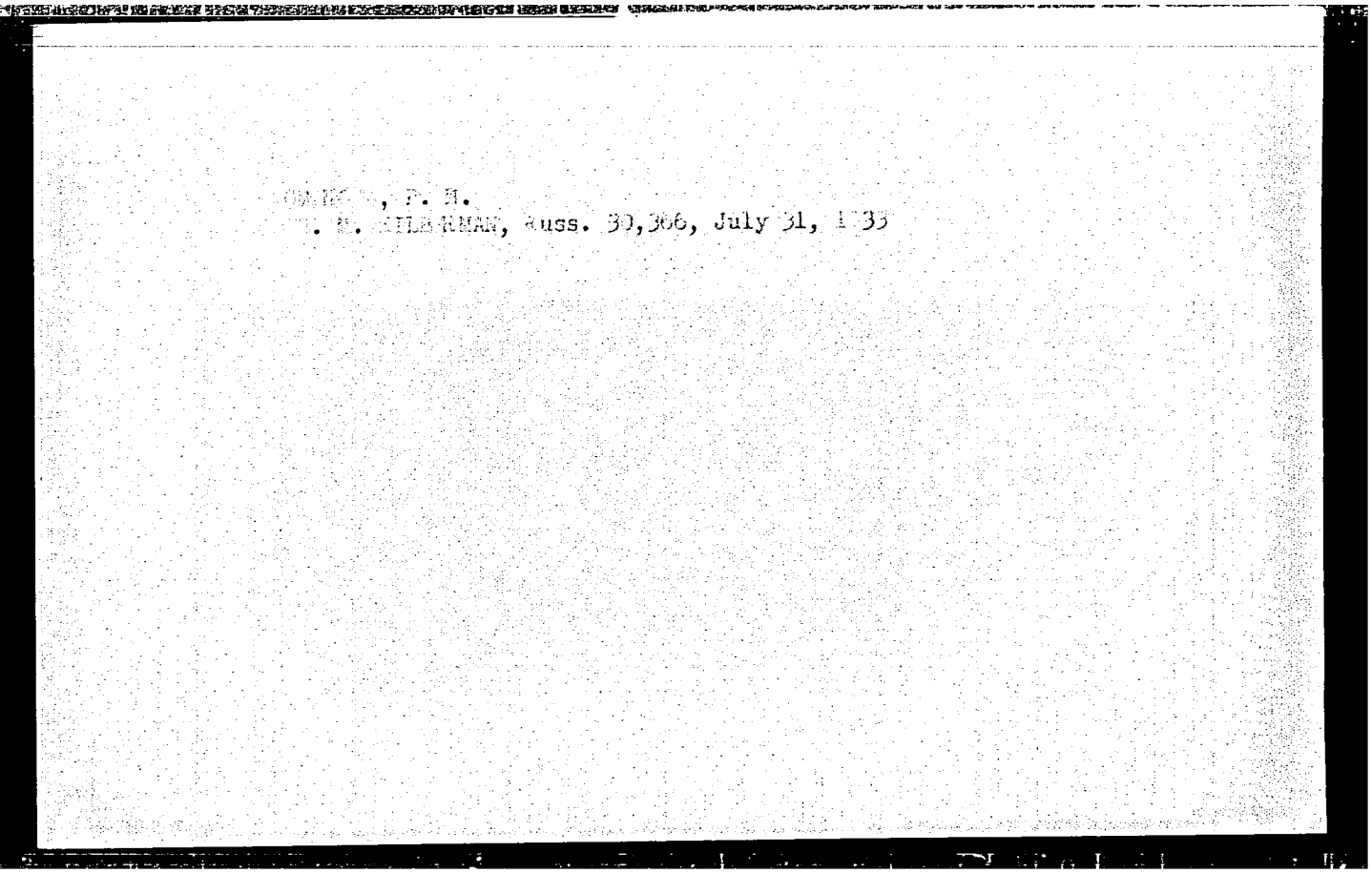
(Izvestiya Timiryazevskoy Sel'skokhozyaystvennoy Akademii, Moscow, No. 2, 1963, pp 232-236)

ORLOVA, Ye.Yu.; ROMANOVA, S.S.

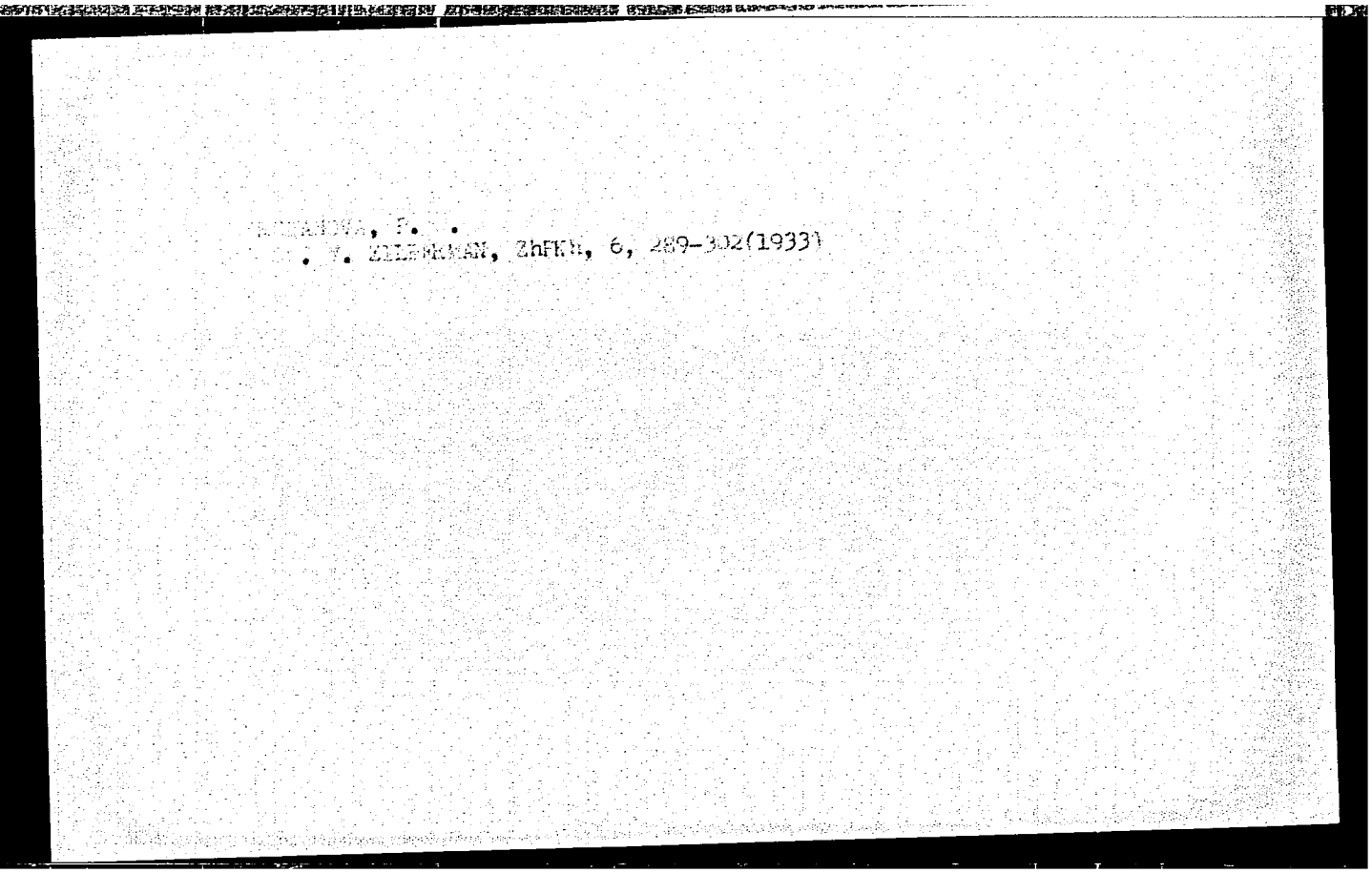
Investigation of a by-product of toluene nitration. Zhur. prikl. khim. 31 no.10:1541-1547 O '58. (MIRA 12:1)

1.Moskovskiy khimiko-tekhnologicheskiy institut imeni D.I. Mendeleyeva.
(Toluene) (Nitrosylsulfuric acid) (Nitration)

[redacted], I. F.
[redacted], ZhFKh, 6, 289-302(1933)



, P. N.
. N. HILLMAN, Russ. 30,306, July 31, 1935



[illegible], P. .
. V. ZELEMAN, ZhFKh, 6, 289-302(1933)

LAPIN, B.A.; ROMANOVA, S.A.

Changes in the radiosensitivity in laboratory animals under the effect of sex hormones. Med. rad. 10 no.1:49-54 Ja '65. (MIRA 18:7)

1. Laboratoriya patologicheskoy anatomii Instituta eksperimental'noy patologii i terapii AMN SSSR, Sukhumi.

L 9625-66 EWT(m)/EWP(j)/T RM

ACC NR: AP6000277 SOURCE CODE: UR/0183/65/000/005/0013/0015

AUTHORS: Kudryavtsev, G. I.; Romanova, T. A.; Zharkova, M. A.; Klimenkov, V. S.

ORG: VNIIV

TITLE: Some chemical properties of cross-linked PAN (polyacrylonitrile) fibers

SOURCE: Khimicheskiye volokna, no. 5, 1965, 13-15

TOPIC TAGS: fiber, acrylonitrile, acrylonitrile polymer, acrylic resin, polymer, plastic, synthetic fiber

ABSTRACT: The paper presents results of a study on the change in reactivity towards saponification of chemically cross-linked PAN-fibers (polyacrylonitrile fibers). The study was undertaken to extend the presently available literature data on the physical properties of cross-linked PAN-fiber, as compiled by G. I. Kudryavtsev, T. A. Matyash, M. A. Zharkova, and V. S. Klimenkov (Khim. volokna, No. 4, 13, 1961). The saponification kinetics at 100C of nitrile and other nitrogen-containing saponifiable groups in PAN-fiber cross-linked by hydrazine hydrate, hydroxylamine, and ammonium sulfide was studied. The degree of saponification was determined by measuring the amount of ammonia released by the fibers after treatment with 40% NaOH solution. The experimental results are presented in tables and graphs (see Fig. 1). It was found that these results did not agree with the usual kinetic expressions.

UDC: 677.494.745.32:061.3

Card 1/3

L 9625-66

ACC NR: AP6000277

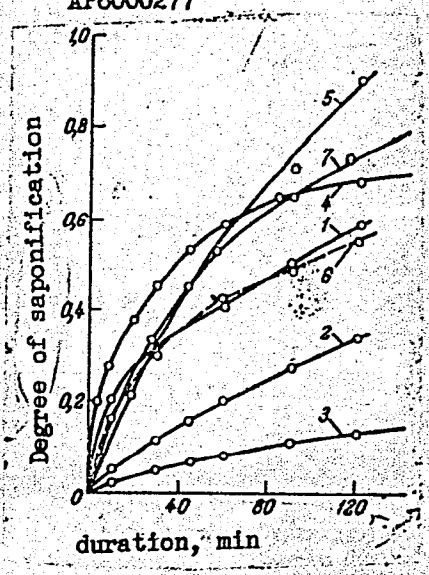


Fig. 1. Reaction kinetics of saponification of chemically cross-linked fibers: 1 - noncross-linked fiber; 2 - fiber cross-linked with hydrazine hydrate (weakly); 3 - the same (strongly cross-linked); 4 - fiber cross-linked with ammonium sulfide (optimum); 5 - the same (weakly); 6 - fiber cross-linked with hydroxylamine (strongly); 7 - the same (weakly).

The experimental results were processed according to the diffusion equation of Krenk

$$\frac{M_t}{M_\infty} = \frac{4}{r}\sqrt{\frac{D}{\pi}}\sqrt{t} = K\sqrt{t};$$

Card 2/3

L 9625-66

ACC NR: AP6000277

where M_t is the amount of reagent diffused into the cylindrical fiber in time t, M_∞ - the same for $t \rightarrow \infty$, r - the radius of fiber, and D - the coefficient of diffusion in cm^2/sec. From this expression, values for diffusion coefficient D were calculated. The results are tabulated. It is concluded that cross-linkage of fibers may lead to a change in the chemical properties of the fibers. The formation of a different polymeric layer on the fiber surface may give rise in some cases (hydrazineation) to an armoring effect, i.e., to a protection of the fibers against the action of corrosive agents (concentrated alkali). The authors thank Ye. A. Vasil'yeva-Sokolova for the fiber specimens cross-linked with ammonium sulfide. Orig. art. has: 2 tables, 1 graph, 1 photograph, and 2 equations.

SUB CODE: 07, 11/ SUBM DATE: 23Apr65/ ORIG REF: 009/ OTH REF: 003

Card 3/3