

BOGACHEVSKIY, V.S.; POPOVICH, S.P.; TYUKH, I.I.

One of the potentials for increasing labor productivity in the
haulage of ore in Krivoy Bog Basin mines. Met. 1 gornorud.
prom. no. 2:51-52 Mr-Ap '64. (MIRA 17:9)

TYUKHTYAYEV, N.V.

Means of automatic control, remote control and communications
used in industrial transportation. Biul. tekhn.-ekon. inform.
Gos. nauch.-issl. inst. nauch. i tekhn. inform. 17 no. 3:70-71 '64.
(MIRA 17:9)

TYUKOV, Vasilii Sergeevich; LOKSHIN, Rafail Aleksandrovich;
DEMENT'YEV, V.A., red.; BAZLOVA, Ye.M., mlad. red.

[Soviet trade during the transition period to communism]
Sovetskaya torgovlia v period perekhoda k kommunizmu.
Moskva, Ekonomika, 1964. 190 p. (MIRA 17:11)

TORBAN, S.S.; TYUKTYAYEV, I.Sh.; KAMENSKAYA, Ye.A., red.

[Coastal self-propelled vehicle for hauling wings of
seabeach seines] Beregovaia samokhodnaia mashina dlia
vyborki kryl'ev morskikh zakidnykh nevodov. Moskva,
Pishchevaia promyshlennost', 1964. 37 p. (MIRA 17:12)

TYUFLIN, Yu.S.

Basic characteristics of photogrammetry when applied to stereophotogrammetric surveying of sea waves from a moving ship. Trudy Mor.gidrofiz.inst. AN URSR 28:11-22 '63.

Graphic method for the determination of wave elements based on pairs of stereoscopic pictures of surface waves. 85-91
(MIRA 17:3)

TYUFIN, Ye.P., kand.tekhn.nauk; KNYAZEV, A.I., inzh.

Comparative indices of the operation of the TIs-1D turbocyclone
and hydrocyclone. Khim.mash. no.4:16-18 JI-Ag '62. (MIRA 15:7)
(Separators (Machines))

TYUFLIN, Yu.S., aspirant

Some relationships between angular and linear elements in exterior orientation when taking stereophotos from ships. Izv. vys. ucheb. zav.; geod. i aerof. no.2:115-122 '65.

(MIRA 18:10)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii. Submitted February 18, 1965.

L 15278-66 - EWT(1)/T/ IJP(c) GM

ACC NR: AP5018535

SOURCE CODE: UR/0154/65/000/002/0115/0122

AUTHOR: Tyufin, Yu. S. (Aspirant)

ORG: Moscow Institute of Engineers of Geodesy, Aerial Photography and Cartography
(Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i kartografii)

TITLE: Relationships between angular and linear elements of external orientation
in stereo photography from a ship

SOURCE: IVUZ. Geodeziya i aerofotos"yemka, no. 2, 1965, 115-122

TOPIC TAGS: stereoscopic photography, oceanographic equipment, photogrammetry,
computer application

ABSTRACT: The author examines the necessary relationships between elements of external and mutual orientation for photographs taken from a ship. These relationships are then used for solving a stereophotogrammetric problem on a digital computer. Matrices are given for translating the location systems of the left and right stereo cameras into orientation and horizon systems. Formulas are given for calculating the direction cosines which are the elements of these matrices. The required angles

Card 1/2

L 15278-66

ACC NR: AP5018535

are determined by using the angular elements of orientation for each camera. Formulas are derived for calculating all necessary elements of external orientation in a given horizon system. Three of the most characteristic special cases for location of the cameras and the photographic base are examined. The proposed method may be used for orienting cameras on a moving ship for stereo photography of shorelines, ocean waves and icebergs. Orig. art. has: 2 figures, 28 formulas.

SUB CODE: 13, 14 SUBM DATE: 18Feb65/ ORIG REF: 001/ OTH REF: 000

Card 2/2

TYUFTIN, Ye.P.

Graphoanalytical method of calculating a multiple step countercurrent
purification of soluble materials from solid residues. TSvet. met.
36 no.3:26-32 Mr '63. (MIRA 16:5)

(Leaching)

RASSOKHIN, Valer'yan Vasil'yevich, kand. tekhn. nauk; ROZOV,
Serafim Vasil'yevich; TSELINSKIY, Nikolay Aleksandrovich;
IVANOV, N.N., prof., retsenzent; TYUFTIN, Ye.P., inzh.,
red.; SOMOVA, T.M., inzh., red.; DUGINA, N.A., tekhn.red.

[Interesting problems in projection drawing] Zanimatel'nye
zadachi po proektsionnomu chercheniu. Moskva, Mashgiz. 1962.
167 p. (MIRA 16:6)

(Projection)

ARIYEVICH, A.M.; VIKHREVA, O.G.; TYUFILINA, O.V.; LIVANOVA, N.K.; BLUDOVA,
N.M.; VATOLINA, V.M.; SHEKLAKOVA, A.A.; KEMENEVA, M.P.;
VARDASHKINA, M.A.; SOROKINA, I.I.

New trends in the treatment of fungal diseases of the skin. Sov.
med. 26 no.6:52-56 Je '62. (MIRA 15:11)

1. Iz mikologicheskogo otdela (zav. - prof. A.M.Ariyevich)
TSentral'nogo kozhno-venerologicheskogo instituta i klinicheskoy
kzhno-venerologicheskoy bol'nitsy imeni Korolenko, Moskva.
(DERMATOMYCOSIS) (GRISEOFULVIN) (FUNGICIDES)

POKROVSKAYA, Avgusta Nikolayevna. Prinsipal uchastiye TYUFTIN, Ye.P.,
inzh. NOGIN, T.A., inzh., red.; OLEV, S.M., inzh., red.;
PIOVTEK, Ye.I., inzh., red.; SOMOVA, T.M., inzh., red.;
YERMAKOV, N.P., tekhn.red.

[Mechanical drawing; album of drawings with short explanations]
Mashinostroitel'noe cherchenie; al'bom chertezhei s kratkimi
poyasneniyami. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit.
lit-ry, 1960. 131 p. (MIRA 14:4)
(Mechanical drawing)

GEL'PERIN, N.I., doktor tekhn. nauk, prof.; TYUFTIN, Ye.P., inzh.

Centrifugal filter-thickener. Khim. mash. no.6:5-9 H-D '59.
(MIRA 13:3)

(Filters and filtration)

TYUFTIN, Ye. P., Cand Tech Sci (diss) -- "Investigation of the filtration process with continuous discharge of precipitate in a centrifugal field". Moscow, 1959. 11 pp (Min Higher Educ USSR, Moscow Inst of Fine Chem Tech in M. V. Lomonosov), 220 copies (KL, No 15, 1960, 136)

POKROVSKAYA, A.N. Priginal uchastiye TYUFTIN, Ye.P., inzh.;
VASIL'YEVA, N.G., red.izd-va; GORDEYEVA, L.P., tekhn.red.

[Mechanical drawing; album of drawings with brief explanations] Mashinostroitel'noe cherenie; al'bom chertezhei s kratkimi poiasneniyami. Izd.2., dop. i perer. Moskva, Izd-vo "Mashinostroenie," 1964. 156 p. (MIRA 17:4)

GEL'PERIN, N.I., doktor tekhn.nauk; TYUFIN, Ye.P., kand.tekhn.nauk

Method for calculating the concentrations of dissolvable
substances in a multistage countercurrent washing of
precipitates. Khim.prom. no.9:601-603 Ag '62. (MIRA 15:9)
(Chemistry, Technical)
(Leaching)

TYUFTIN, Ye.P., kand. tekhn. nauk

Effect of the properties of residue on the indices of the
multi-stage reflux washing of soluble substances. Khim. i
neft. mashinostr. no.4:24-26 0 '64.

(MIRA 17:12)

TYUFYAKIN, A.P., inzhener.

Double automatic closing for type UGP-51 drives. Elek. sta. 28
no.6:84-85 Je '57. (MLRA 10s8)

(Electric relays)

CIRCUIT BREAKERS

"Double Automatic Reclosing for Type UGP-51 Drives" by Engineer A. P. Tyufyakin. Elektricheskiye Stantsii, No. 6, June 1957, Pages 84 -- 85.

Description of a double reclosing system, in which the first cycle is carried out in the drive itself (mechanically-initiated automatic reclosing) and in the second cycle the starting is by means of the operating a-c.

Card 1/1

- 8 -

REMIZOV, L.T.; GOUBTSOV, M.G.; TYUFYAKIN, L.S. [deceased].

Receiving system for measuring statistical characteristics
of signals in tropospheric propagation of radio waves.
Radiotekh. i elektrom. 5 no.7:1065-1071 J1 '60.

(MIRA 13:6)

(Radio measurements) (Radio waves)

MOROZOV, V.A.; TYUFYAKIN, L.S.

Measuring equivalent temperature of pulsed noise emission. Izv.-
tekh. no.4:33-34 Ap '63. (MIRA 16:5)

(Radiometry)

26522

S/109/61/006/009/005/018
D201/D302

9.2585 (also 1144)

AUTHORS: Shpolyanskiy, V.A., Tyufyakin, L.S. (Deceased), and
Korsakov, P.P.

TITLE: Automatic delayed phase frequency control

PERIODICAL: Radiotekhnika i elektronika. v. 6, no. 9, 1961,
1468 - 1481

TEXT: The transfer function and stability of automatic phase control is considered first (Figs. 1 and 2). The transfer function $W(p)$ in operator notation is used of a system linearized for small deviation from synchronism, induced by random changes in the controlled generator frequency or by fluctuation noise. The inertia τ_3 of the system, introduced by IF amplifiers can be in simplified form assumed to be

$$\tau_3 = \frac{n}{\pi \Delta f_{0.7}} \sqrt{n\sqrt{2} - 1} \quad (1)$$

where K_0 - the maximum amplification; hence, (Fig. 1)
Card 1/8

4

28522

S/109/61/006/009/005/018
D201/D302

Automatic delayed phase ...

$$W(p) = \frac{1}{1 + \frac{pe^{\Delta_3 p}}{\Delta \omega_s K_f(p)}} \quad (3)$$

can be obtained, where $\Delta \omega_s$ - locking range of the system to the product of maximum transfer coefficients of all stages in synchronism, $K_f(p)$ - the normalized transfer coefficient of the LF filter. Substituting into (3) the operator transfer coefficient of the proportional integrating filter and going over dimensionless parameters

$$W(p_1) = \frac{\Delta_2 p_1 + 1}{\Delta_1 p_1^2 e^{\Delta_3 p_1} + p_1(\Delta_2 + e^{\Delta_3 p_1}) + 1} \quad (4)$$

is obtained where

$$p_1 = \frac{p}{\Delta \omega_s} = p\tau; \quad \tau = \frac{1}{\Delta \omega_s}; \quad \Delta_1 = \frac{T_1}{\tau}; \quad \Delta_2 = \frac{T_2}{\tau}; \quad \Delta_3 = \frac{T_3}{\tau}. \quad (4a)$$

Card 2/8

20522
 S/109/61/006/009/005/018
 D201/D302

Automatic delayed phase ...

Using the Mikhaylov stability criterion [Abstractor's note: Criterion is given, but it is actually a graphical stability criterion for the zeros of a polynomial] it is found that the system is stable if the delay does not exceed the value of

$$\Delta_{sup} = \frac{\frac{\pi}{2} - \text{arctg } \beta(\Delta_1; \Delta_2) + \text{arctg } \eta\beta(\Delta_1; \Delta_2)}{\beta(\Delta_1; \Delta_2)}, \quad (5)$$

where

$$\beta(\Delta_1; \Delta_2) = \sqrt{\frac{V(1 - \Delta_2^2)^2 + 4\Delta_1^2 - (1 - \Delta_2^2)}{2}};$$

$$\eta = \frac{\Delta_2}{\Delta_1}.$$

For an integrating filter ($\Delta_2 = 0$) Eq. (5) gives the wellknown value of critical delay time Δ^2 in an automatic phase control system. It is shown that the use of a proportional integrating filter increases the critical value of delay time, compared with that of an integrating filter system. It is of interest in some practical cases to know the dependence of the critical value of the pass band

lx

Card 3/8

20522

S/109/61/006/009/005/018
D201/D302

Automatic delayed phase ...

of the n-th stage IF amplifier on the parameters of the LF filter. This dependence is shown graphically indicating that as far as stability is concerned the minimum pass band could be considerably narrower than the synchronization range of the system. The interference killing feature of the automatic phase frequency control is considered next. It is assumed that the interference is in the form of a fluctuation of voltage in the mixer IF amplifiers stage. For a given power of the signal P_s and a given noise factor F , the filtering properties of a pulse control system are determined by the noise band given by

$$\Pi_n = \int_0^{\infty} /N(j\omega)^2 /W(j\omega)/^2 d\omega \quad (13)$$

which produces a dispersion of the phase

$$\Delta \theta^2 = \frac{kTF}{2\pi P_s} \Pi_n \quad (12)$$

Card 4/8

LX

88522

S/109/61/006/009/005/018
D201/D302

Automatic delayed phase ...

where k is the Boltzmann constant and T - absolute temperature. When the IF passband is considerably wider than that of the closed loop of phase control [$1/N(j\omega)^2 \approx 1$] for an integrating filter

$$\Pi_{\frac{n}{h}} = \frac{1}{\tau_0} \int_0^{\infty} \frac{d\xi}{1 + 2\xi \sin \Delta_3 \xi + (1 - 2\Delta_1 \xi \cos \Delta_3 \xi) \xi^2 + \Delta_1^2 \xi^4} \quad (14)$$

is given, where ξ - dimensionless frequency signal $\xi = \omega/\Delta\omega_g = \omega\tau$.

To evaluate the influence of delay on the magnitude of the efficient noise band it is necessary to calculate the integral in Eq. (14). It is shown that in an automatic phase control system with an integrating filter the noise band depends essentially on the magnitude of the constant Δ_1 of LF filter. A similar effect is produced in a system with a proportional integrating filter, for which the noise band is determined by

$$\Pi_{\frac{n}{h}} = \frac{1}{\tau} \int_0^{\infty} \frac{(1 + \Delta_2^2 \xi^2) d\xi}{1 + (1 + \Delta_2^2) \xi^2 + \Delta_1^2 \xi^4 + 2\xi^2 (\Delta_2 - \Delta_1) \cos \Delta_3 \xi - 2\xi (1 + \Delta_1 \Delta_2 \xi) \sin \Delta_3 \xi} \quad (16)$$

Card 5/8

44

20522

S/109/61/006/009/005/018
D201/D302

Automatic delayed phase ...

In certain cases the passband of IF amplifiers is comparable with the passband of the whole system. The author points out that it is possible for the properties of the filtering of the phase control system to be improved by considerable decrease of the IF passband with respect to the passband of the closed loop system and this could be applied to any other IF amplifier arrangement. The quality of the automatic control system is considered last. It may be seen that in an automatic phase control system with integrating filter the low frequency transient has an oscillation character and that the delay in the loop decreases the time lag of phase control. The theory presented by the author was applied to an experimental arrangement of an automatic phase control of the frequency of oscillations of a klystron generator working at $\lambda = 15$ cm range. The reference signal was supplied by the 78th harmonic of a crystal stabilized oscillator working at $f_0 = 26.5$ mc/s. The signal power P_s was of the order of 1 microwatt. The arrangement made it possible to tune the klystron generator within 60 Mc/s with a locking range of $\Delta\omega_3 = 5$ mc/s and rise time $t_{rt} = 10$ microsecond. The fre-

Card 6/8

LX

Automatic delayed phase ...

S/109/61/006/009/005/018
D201/D302

quency characteristics of the closed loop system of the automatic phase control with proportional integrating filter are shown for different values of η and time constants Δ_1 ; the discrepancies between theoretical and experimental values do not exceed 15 % and there is a good qualitative confirmation of influence of Δ_1 and Δ_2 on the frequency response of the filtering system. A graph shows that the value of percent regulation in the system decreases with the decrease of the time constant Δ_1 of the filter and with the increase of Δ_2 . The increase in Δ_2 shows also a faster response to the system, e.g. a better regulation characteristic. The experiment is said to be therefore in good overall agreement with theory. There are 17 graphs, and 11 references: 9 Soviet-bloc and 2 non-Soviet-bloc. The references to the English-language publications read as follows: T.S. George, Analysis of synchronizing systems for interlaced colour television Proc. I.R.E. 1951, 39, 12; W.J. Gruen, Theory of AFC Synchronization Proc. I.R.E. 1953, 41, 8.

SUBMITTED: March 1, 1960

Card 7/8

LT

AID Nr 977-0 27 May

MEASURING EQUIVALENT NOISE TEMPERATURE OF PERIODICALLY PULSED RADIATION (USSR)

Morozov, V. A., and L. S. Tyufyakin. Izmeritel'naya tekhnika, no. 4, Apr 1963, 33-34. S/115/63/000/004/006/011

A refinement in radiometer circuitry is described which substantially decreases rms errors in equivalent noise temperature measurements. Specifically the modification applies when measuring low-temperature radiation (i. e., noise source temperature \ll radiometer receiver internal noise), where the radiation is of a periodically pulsed rather than continuous nature. A master oscillator and synchronizer are added to the receiver, which generate a gate to enable the receiver for a portion of the incoming radiation pulses. This gate switches the receiver from a female simulator, first to the signal input and then to a calibrated noise source, each time gating the

Card 1/2

AID Nr. 977-4 27 May

S/115/63/000/004/000/022

MEASURING EQUIVALENT NOISE [Cont'd]

If amplifier as well, so that only signal pulses... noise pulses pass through... tuned to 320 cps and having a 6-cps bandpass, and then to a low-pass filter, after which the signals are available for further treatment or observation. With this gating technique the rms temperature error σ_T is given by

$$\sigma_T = \frac{1}{\sqrt{2}} \frac{T_{rec}}{\sqrt{\Delta f \tau}} \sqrt{q}$$

where T_{rec} is equivalent receiver noise temperature, Δf is effective IF bandwidth, τ is the time constant of the output filter, and q is the duty factor of the unknown pulsed noise signal. It is assumed that $T_{rec} \gg$ both calibration and signal noise temperatures and $q \gg 1$. A sample calculation yields an rms error of 6°K for the gated method, compared to 150°K for the same parameters but without gating. Rms temperature error from an experimental measurement with the gating method showed close agreement with predicted error.

[SH]

Card 2/2

FEYGIN, S.A.; TYUFYAKIN, S.P.

Technical and economic indexes of the production of heating gas
from oil-shale fines. Gaz. prom. no.3:9-11 Mr '57.

(MIRA 12:3)

(Oil shales) (Gas manufacture and works)

TYUFYAKOV, A.

Elimination of seasonal fluctuations and an efficient
organization of operations is a pledge for a successful
carrying-out of the plan. Avt. dor. 28 no.12:5 D '65.
(MIRA 19:1)

TYUFYAKOV, A.M.

Clarity in work organization is a guarantee of success. Metallurg
no.9:10-11 S '56. (MLRA 9:10)

1.Pervyy gorneyoy demennoy pechi no.2 Kuznetskego metallurgicheskogo
kombinata.
(Blast furnaces)

TYURKOV, L. F.

TYURKOV, L. F. "On the problem of the effect of insulin on the toxicity of certain poisons", Trudy Ser-t. gos. u.d. in-ta, Vol. VI, 1949, p. 100-104.

So: U-4631, 14 Sept. 53, (Letopis 'Zhurnal' Spet Stroy, No. 24, 1953).

ZHBANKOV, R.G.; MARUPOV, R.; U MEY-YAN'; TYUGANOVA, M.A.; ROGOVIN, Z.A.

Structure of cellulose esters with phosphorus-containing acids studied by
infrared spectroscopy. Vysokom.soed. 5 no.9:1292-1296 S '63.
(MIRA 17:1)

1. Institut fiziki AN BSSR i Moskovskiy tekstil'nyy institut.

ACCESSION NR: AT4017407

S/0000/63/000/000/0037/0039

AUTHOR: Wu, Mei-yen; Tyuganova, M. A.; Gefter, Ye. L.; Rogovin, Z. A.

TITLE: Synthesis of new derivatives of cellulose and other polysaccharides.
XXXII. Synthesis of phosphorylated cellulose derivatives by transesterification

SOURCE: Tsellyuloza i yeye proizvodnyye, sbornik statey (Cellulose and its derivatives). Moscow, 1963, 37-39

TOPIC TAGS: polysaccharide, cellulose, phosphorylated polysaccharide, cellulose phosphate, phosphorylation, transesterification, fire resistance, synthetic fiber, nonflammable material

ABSTRACT: The preparation of nonflammable cellulose materials was attempted by means of transesterification using tri(β, β', β'' -chloroethyl) phosphite. By heating cellulose at 80, 110 and 130C for 5 and 8 hours in a 35-70% benzene solution of the phosphite, a series of cellulose esters was obtained with an average P-content of about 3% and a fire resistance of 90-130 by the American standard (W. Reeves, O. McMillan, J. Guthrie, Text. Res. J., 8, 527, 1957). Using 0.35% HCl and 2% CH_3COOH as catalysts, a P-content of 4% was obtained under less rigorous conditions. The esterification rate in air was about equal to that in argon. Prolonged exposure to air causes the trivalent phosphorus of the products to change to
Card 1/2

ACCESSION NR: AT4017407

pentavalent. In addition to the P-content in the product, fire resistance depends on the nature of the prevailing bonds, the C-P bond tending to increase resistance. Orig. art. has: 2 tables.

ASSOCIATION: Moskovskiy tekstil'nyy institut (Moscow Textile Institute)

SUBMITTED: 25Jan62

DATE ACQ: 06Jan64

ENCL: 00

SUB CODE: CH, MA

NO REF SOV: 005

OTHER: 001

Card 2/2

ZHBANKOV, R.G. [Zbankou, R.H.]; MARUPOV, R. [Marupau, R.]; BALABAYEVA, M.D.;
TYUGANOVA, M.A. [Tsiuhanava, M.A.]; LISHEVSKAYA, M.O. [Lishevskaia, M.A.]

Studying the structure of new technically valuable cellulose derivatives
by methods of infrared spectroscopy. Vestsi AN BSSR. Ser. Fiz.-tekh. nav.
no.2:38-41 '63. (MIRA 17:1)

TYUGANOVA, M.A., Cand Tech Sci--(diss) "Study of ~~the~~ conditions of production and properties of monothiocarbonate of cellulose." Mos, 1958
15 pp (Min of Higher Education USSR. Mos Textile Inst), 150 copies
(RL, 46-58, 141)

- 45 -

ROGOVIN, Z.A.; U MEY-YAN' [Wu Mei-yen]; TYUGANOVA, M.A.; ZHAROVA, T.Ya.;
GEFTER, Ye.L.

Synthesis of new derivatives of cellulose and other polysaccharides.
Part 25: Effect of the structure of organophosphorus derivatives
of cellulose on the fireproofness of cellulosic materials. Vysokom.-
soed, 5 no.4:506-511 Ap '63. (MIRA 16:5)

1. Moskovskiy tekstil'nyy institut.
(Cellulose) (Fireproofing) (Phosphorus organic compounds)

SOV/153-58-3-26/30

5(3)

AUTHORS:

Tyuganova, M. A., Rogovin, Z. A.

TITLE:

Comparative Investigations of the Properties of Cellulose Xanthate and Monothiocarbonate (Sravnitel'nyye issledovaniya svoystv ksantogenata tsellyulozy i monotiokarbonata tsellyulozy)

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Khimiya i khimicheskaya tekhnologiya, 1958, Nr 3, pp 153-159 (USSR)

ABSTRACT:

Many investigations deal with the study of the cellulose xanthates (acid cellulose ester of the dithio carbonic acid) (Ref 1). However, also other cellulose esters have those advantages to which the xanthate owes its wide use in the production of viscose fibers (easy saponification, solubility in inexpensive and easily accessible solvents). The so-called monothiocarbonate (cellulose monothio carbonic acid ester) must be mentioned first of all. It is synthesized by the action of carbon oxy-sulfide (COS) on alkaline cellulose (Refs 2-6). Until now no systematic investigations of the properties of the monothiocarbonate with respect to the production of hydrate cellulose yarns and films have been carried out.

Card 1/3

SOV/153-58-3-26/30

Comparative Investigations of the Properties of Cellulose Xanthate and Monothiocarbonate

The use of COS instead of CS₂ for the production of water-soluble unstable cellulose esters in diluted alkalies can offer several advantages. The subject mentioned in the title can also be of theoretical interest, as the character of the influence of the acid radical upon the properties of the cellulose ester produced and its stability to various actions can be clarified. In the experimental part first the conditions are described under which a completely soluble monothiocarbonate could be produced. In this production alkali cellulose was put into a glass ampoule in which the necessary COS amount was condensed at -70°. The esterification was carried out at 0°. On the basis of the results obtained the authors arrived at the following conclusions: 1) The stability of the cellulose monothiocarbonate and of its solutions is less than that of cellulose xanthate and its solutions. 2) The following factors accelerate the ripening of the monothiocarbonate solutions: a) Temperature drop from 18 to 0°. After 48-72 hours the solution can be worked up (Fig 1). b) The increase of the

Card 2/3

807/159-56-3-26/11

Investigation of the Properties of Cellulose Acetate and
Monothiocarbonate

Such concentrations in the solution as well as that of monothiocarbonate along with the acetylation (Table and Fig. 1). The stability of the solutions of the cellulose esters can be increased by the substitution of the acet group by the thiocarbonyl group in the radical of the thiocarbonyl acid. The authors succeeded for the first time in synthesizing the diacid of cellulose monothiocarbonate. It is even more resistant to acids and alkalis than acetyl cellulose, and can be used for many purposes. There are 6 figures, 1 table, and 8 references, 3 of which are Soviet.

Author: Moskovskiy tekstil'nyy institut (Moscow Textile Institute);
kafedra iskusstvennogo volokna (Chair of Synthetic Fibers)

DATE: November 4, 1957

Page 1/1

TYUGANOVA, M.A.; ROGOVIN, Z.A.

Study of properties of cellulose esters and monothiocarbonic acid.
Khim. nauka i prom. 2 no.2:265-266 '57. (MIRA 10:7)

1. Moskovskiy tekstil'nyy institut.
(Esters) (Carbon dioxide) (Cellulose)

AID Nr. 980-16

31 May

FIRE-RESISTANT DERIVATIVES OF CELLULOSE (USSR)

Rogovin, Z. A., Wu Mei-yen, M. A. Tyuganova, T. Ya. Zharova, and
Ye. L. Geftter. *Vysokomolekulyarnyye soyedineniya*, v. 5, no. 4, Apr 1963,
506-511. S/190/63/005/004/005/020

The influence of the structure of organophosphorus acids on the fire resistance of cellulose partially esterified by these acids has been studied at the Moscow Textile Institute. The experiments were conducted with cellulose esters of methyl-, ethyl-, or phenylphosphonic acids or phenyl dihydrogen phosphate with various degrees of esterification. These esters were synthesized for the first time by treating cellulose fabric with 4% solutions of the acid dichloride in absolute pyridine for 1 hr. The phosphorus content was

Card 1/2

PREDVODITELEV, D.A.; TYUGANOVA, M.A.; NIFANT'YEV, E.Ye.; ROGOVIN, Z.A.

Synthesis of phosphorous cellulose esters by reesterification
of dimethyl phosphite and their subsequent transformations.
Zhur.VKHO 10 no.4:459-461 '65.

(MIRA 18:11)

1. Moskovskiy tekstil'nyy institut.

I 46144-66 EWT(m)/EWP(j)/I IJP(c) WW/RM
ACC NR: AP6026737 (A) SOURCE CODE: UR/0183/66/000/003/0027/0030

AUTHOR: Rogovin, Z. A.; Tyuganova, M. A.; Gabrielyan, G. A.; Konnova, N. F.

ORG: MFI

TITLE: Preparation of fireproof viscose and polyacrylonitrile fibers

SOURCE: Khimicheskiye volokna, no. 3, 1966, 27-30

TOPIC TAGS: polyacrylonitrile, synthetic fiber, cellulose, cellulose plastic, heat resistant material

ABSTRACT: Preparation of fireproof phosphorus-containing fibers by means of a base catalyzed reaction of dimethylphosphite with aldehyde groups containing modified cellulose and polyacrylonitrile was studied. In the case of modified cellulose, the reaction temperature was 80-120°C, its duration was 1-4 hours, the catalyst [HN(C₂H₅)₂, N(C₂H₅)₃, solid NaOH, 30%-aqueous NaOH, or 23%-NH₄OH] concentration was 1 wt % based on the starting total charge, and the starting dialdehydecellulose contained 5.96% aldehyde groups. The phosphorus content in the product was 0-7.6% and the degree of aldehyde group utilization was 25-70%. Similar reaction conditions were also used in the reaction of dimethylphosphite with modified polyacrylonitrile. The product structures were confirmed by the IR spectroscopy. The product fibers with phosphorus contents greater than 3.5 wt % were found to be incombustible and fire-resistant. It

UDC: 677.46.021.212

Card 1/2

L 46144-66

ACC NR: AP6026737

was also found that the product fiber had excellent mechanical properties (tensile strength and elasticity). Orig. art. has: 2 figures, 3 tables.

SUB CODE: 07/ SUBM DATE: 26Mar65/ ORIG REF: 003/ OTH REF: 001

Card 2/2

L 44188-56 EWT(m)/ENP(j)/T IJP(c) WW/RM

ACC NR: AP6013276

SOURCE CODE: UR/0413/66/000/008/0078/0078 44
B

INVENTOR: Rogovin, Z. A.; Tyuganova, M. A.; Zharova, T. Ya.; Levin, B. B.;
Fetin, I. N.

ORG: none

TITLE: Preparation of graft copolymers of cellulose and phosphorus-containing
monomers, Class 39, No. 180792

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 8, 1966,
78

TOPIC TAGS: copolymer, graft copolymer, monomer, cellulose, *primary aromatic*
amine, heat resistant material

ABSTRACT: This Author Certificate introduces a method for obtaining graft
copolymers of cellulose and phosphorus-containing monomers by introducing aromatic
amines into the cellulose molecule and subsequently converting them to diazo groups.

Card 1/2

UDC: 677.46:678..029.65:66.095.834 66.095.2

L 44188-66

ACC NR: AP6013276

To extend the variety of heat-resistant and ion-exchange materials, α -phenylvinyl-phosphinic acid is suggested as the phosphorus-containing monomer. [LD]

SUB CODE: 11,07/SUBM DATE: 27Feb65/

Card 2/2 *amm*

ACC NR: AP7005629 (A) SOURCE CODE: UR/0413/67/000/002/0086/0087

INVENTOR: Rogovin, Z.A.; Tyuganova, M.A.; Gabrielyan, G.A.

ORG: none

TITLE: Preparative method for nonburning nitrile group-- containing polymers and copolymers. Class 39, No. 190564

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 2, 1967, 86-87

TOPIC TAGS: fire resistant material, polymer, copolymer, organic phosphorus compound, *ORGANIC NITRILE COMPOUND*

ABSTRACT: An Author Certificate has been issued for a method of preparing nonburning nitrile group-containing polymers and copolymers, involving their treatment with dimethyl hydrogen phosphite in the presence of such catalysts as diethyl- or triethylamine. The phosphite can be used in the form of a solution in an organic solvent. [BO]

SUB CODE: 11, 07/ SUBM DATE: 08Dec64/ ATD PRESS: 5115

Card 1/1

UDC: 677.499.862.516.22 :546.183

FYUCAYEV, F.

Forests and Forestry - Mordovia

Where incorrect work methods can lead. V pom. profaktiuv 14 No. 5, 1953.

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

TYUGAYEV, F.

Trade-Unions

Where incorrect work methods can lead. V pom. profaktivu 14, No. 5, 1953.

Monthly List of Russian Accessions, Library of Congress
June 1953. UNCL.

TYUGAYEV, F.

Mordovia - Forests and Forestry

Where incorrect work methods can lead. V pom.profaktivu 14, No. 5, 1953.

Monthly List of Russian Accessions, Library of Congress, June 1953. Unclassified.

TYUGAYEV, I.S., electromekhanik

Eliminate faults in railroad telephone apparatus. Avtom., telex. i
svyaz' 4 no.10:39 O '60. (MIRA 13:10)

1. Chardzhouskaya distantziya signalizatsii i svyazi Ashkhabadskoy
dorogi.

(Railroads—Communications systems)

2512h
S/535/60/000/119/009/009
E191/E481

26.2120

AUTHOR: Tyugin, V.M., Candidate of Technical Sciences
TITLE: On the possibility of using binary mixtures for model tests of turbines
PERIODICAL: Moscow, Aviatsionnyy institut. Trudy, No.119, 1960.
Rabochiye protsessy v teplovykh dvigatel'nykh ustanovkakh, pp.162-173

TEXT: Initially, proposals were investigated of using a gas with a high molecular weight for model tests. Model similarity with full scale components could be achieved with greatly reduced levels of power but only if a large difference in the exponent of adiabatic expansion was accepted. Earlier Russian work has shown that carbon tetrachloride with an adiabatic exponent of 1.1 gave good results in model experiments, but only in single stage axial compressors and turbines. Multi-stage machines demand similarity of the adiabatic exponent. This similarity can be obtained if a high molecular weight gas, for example carbon tetrachloride, is mixed with one of the inert gases, for example argon. The mixture can be made to have the desired adiabatic exponent since argon has Card 1/2

25124
S/535/60/000/119/009/009
E191/E481

On the possibility of using ...

an exponent of 1.66 and carbon tetrachloride of 1.1. The possibility of applying this proposal depends on the degree of stratification of mixtures in the turbine rotor blades and on the thermo-dynamic equilibrium in the expansion process of such mixtures. Recent analytical work shows that a stratification of binary mixtures under conditions of model tests is practically impossible. Moreover, it was found that thermo-dynamic equilibrium is ensured because the temperature of the components of the mixture will equalize practically instantaneously. The conclusion was reached that mixtures of carbon tetrachloride and argon can be used for model tests without special precaution yielding a better similarity than other methods. Professor A.V.Krasnikov and V.A.Tselikov are mentioned in the paper for their contribution in this field. There are 3 figures and 6 Soviet references.

Card 2/2

42026
S/841/62/000/000/001/002
E191/E135

26.4410
26.3150

AUTHOR: Tyugin, V.M., Candidate of Technical Sciences

TITLE: Binary working media for model tests of turbines

SOURCE: Rabochiye protsessy teplovykh dvigateley.
Ed. by M.S. Shtekher; Moscow, Oborongiz, 1962. 48-62.

TEXT: High molecular weight gases can be used for scale model tests of turbo-machinery but, in order to achieve similarity of the adiabatic exponent, binary mixtures of mono-atomic inert gases (Ar, Kr, Xe) with vapours having an exponent smaller than that of the real working fluid, are required. Some specific binary mixtures are examined for possible advantages. The exponent of the mixture is derived from those of the components and the gas constants by making use of the additive nature of the internal energy and the enthalpy in gas mixtures. A nomogram and graph assist in the computation. Among the inert gases, argon is the cheapest. The high molecular weight component should have a large molecular weight, a large adiabatic exponent, a low vapour saturation temperature at moderate pressures, a low viscosity, adequate stability and availability. Halogen derivatives fulfil

Card 1/3

Binary working media for model ...

S/841/62/000/000/001/002
E191/E135

these requirements best. Inorganic compounds are prone to hydrolysis and some are highly unstable. Organic compounds permit better selection. Fluorinated, chlorinated and brominated hydrocarbons such as the "Freon" series are most suitable, also carbon tetrachloride, dichlor-methane and methyl bromide. Their properties are discussed in detail. The computed parameters of mixtures with argon are given in a table. An analysis shows that the use of any one of the binary mixtures in this group will reduce the power required in model tests by about the same factor. First, the minimum temperature of the mixture at the inlet to the model turbine is found which is sufficient to avoid freezing at the outlet. These temperatures are plotted separately for liquid fuel rocket turbines and turbojet engine turbines. The temperatures in the model tests are ≤ 390 °K for rocket engines and ≤ 473 °K for turbojets mainly on account of the higher efficiency of the latter. The power reduction factors are finally plotted against the turbine inlet temperature for optimum compositions of various mixtures. Power reduction factors of 25 are possible with argon mixtures in turbojet models and factors of 15 in rocket engine models.

Card 2/3

Binary working media for model ...

S/841/62/000/000/001/002
E191/E135

The factors diminish with increasing temperature. Taking cost into account, mixtures of argon and either dichlor-methane or carbon tetrachloride are recommended.

The present paper is a part of the work carried out under the direction of Professor A.V. Krasnikov.

There are 6 figures and 3 tables.

X

Card 3/3

TYUGIN, V. M.

Preparation of mixed twisted cotton yarn for weaving without
sizing. Izv. vys. ucheb. zav.; tekhn. tekst. prom. no.4:69-72
'62. (MIRA 15:10)

1. Ivanovskiy melanzhenyy kombinat imeni K. I. Frolova.

(Cotton manufacture)

TYUGIN, V. M., kand. tekhn. nauk

Using binary mixtures in model testing of turbines. Trudy
MAI no.119:162-173 '60. (MIRA 13:11)
(Turbines--Testing)

TYJGINA, Ye., agronom; DZYUBLO, A., agronom.

New checkrow corn planter. Nauka ipered. op. v sel'khoz. 18 no.2:
56-58 F '58. (MIRA 11:3)

1. Kubanskiy institut ispytaniy traktorov i sel'skokhozyatstvennykh
mashin.

(Planters (Agricultural machinery))

TYUGINA, Ye.I., agronom; POGODINA, I.I., agronom.

~~.....~~
New check-row planters. Nauka i pered. op. v sel'khoz. 7 no.4:52-54
Ap '57. (MIRA 10:6)
(Planters (Agricultural machinery))

TYUKALOV, I.I. (Tomsk, per. Pesochnyy, d.17)

Bile flow into the intestine following the resection of the
cardial portion of the stomach preserving the right vagus
nerve. Klin.khir. no.12:49-54 D '62. (MIRA 16:2)

1. Kafedra gospital'noy khirurgii (zav. - deystvitel'nyy chlen
AMN SSSR, prof. A.G. Savinykh) Tomskogo meditsinskogo instituta.
(STOMACH—SURGERY) (BILE)

137-1958-3-4984

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 74 (USSR)

AUTHORS: Mel'tser, V. V., Pavlov, I. M., Tyukalov, P. A.

TITLE: Establishment of an Operational Scheme for the Loop Holders of a Mill for Hot Rolling of Thin Sheet Metal (Ustanovleniye rezhima raboty petledezhatel'nykh tonkolistovogo stana goryachey prokatki)

PERIODICAL: Sb. nauchn. tr. Magnitogorskiy gornometallurgich. in-t, 1957, Nr 11, pp 214-224

ABSTRACT: An optimal operational scheme was established for the power transmission system of the loop holders, the sluggish action of which in raising the lever had been responsible for the elongation of the strip and breakage of the shaft of the reduction unit. The effect of the voltage on the torque of the motor was determined, together with the relationship between the strip tension and the voltage and the elevation angle of the lever. The relationship between the voltage and the time required for the elevation of the loopholder lever was also determined. In order to eliminate deficiencies in the operation of the power system actuating the loop holders, it is suggested that the gear ratio of the reduction unit be reduced from 24.26 to 7.8 and that the supply voltage

Card 1/2

137-1958-3-4984

Establishment of an Operational Scheme for the Loop Holders (cont.)

at the motor be increased from 8-9 v to 15-18 v, which should reduce the time required for the raising of the loopholder lever to 1.5 - 1.8 seconds.

P. G.

Card 2/2

NASAKINA, M.B., inzh.; GOLIKOV, N.S., inzh.; TYUKALOV, P.A., inzh.

Investigating the operation of high-speed electrolytic cleaning
units. Stal' 24 no.12:1107-1109 D '64. (MIRA 18:2)

S/133/60/000/008/017/017/XX
A054/A029

AUTHORS: Dolgalev, V. A., Astaf'yev, F. S., Tyukalov, P. A., Mustyukov, I. S.,
Engineers

TITLE: Automatic Control of the Surface Purity of Steel Strips

PERIODICAL: Stal', 1960, No. 8, pp. 734-735

TEXT: At the MMK steel strips are cleaned in a machine designed by the NIIKhIMMASH, operating with an alkaline electrolyte at a maximum speed of 5 m/sec. The equipment, however, only removes grease from the strip surface and not any impurities caused by carbon, iron and iron oxides; moreover, a close check on the strip surface cleaned with this machine is only possible with laboratory instruments, while control during production is rather primitive (with paper or cotton) and is not sufficiently accurate, as the strip cannot be controlled along its entire surface, nor is it possible to make up for inadequate degreasing. Due to these shortcomings, about 100-150 tons of steel strips per month could not be tinned in this plant. Incomplete cleaning of the strip surface became of special importance when manual sorting was replaced by automatic sorting, as the latter only signals perforations in the strips and deviations in their thickness, but

Card 1/3

S/133/60/000/008/017/017/XX
A054/A029



Automatic Control of the Surface Purity of Steel Strips

does not reject strips with impurities. In order to eliminate these drawbacks an apparatus for the continuous and automatic control of the strip surface (a so-called "surface-indicator") was designed in the NIKhIMMASH. This apparatus consists of four transmitters and schemes for selecting the maximum signal for impurities. The schemes and the transmitters form one unit. The essential part of the apparatus is a measuring device, defining the quantity of light reflected from the controlled surface with the aid of a photoresistor. The rays of light emitted by the electric lamps pass through a light filter and are reflected from the strip surface. Next they strike the photoresistor which is connected to the arm of the measuring bridge. When the rays are reflected from a part of the surface covered with impurities, the amount of light falling on the photoresistor decreases, thus increasing the ohmic resistance. The entire width of the strip is controlled by this apparatus which is mounted before the coiling machine. As the strip surface passing under the transmitters is not covered uniformly with impurities, a logistic scheme ($V_{II} = ILI$) is applied in determining the maximum amount of impurities on any part of the strip surface (Fig. 4). When applying four positive potentials (U_1, U_2, U_3, U_4) of different values at the four outputs ($a, \bar{b}, \bar{b}, \bar{c} = a, b, v, g$) the voltage at the output U_{out} [Abstracter's note: subscript out is

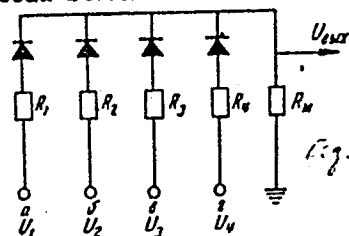
Card 2/3

S/133/60/000/008/017/017/XX
A054/A029

Automatic Control of the Surface Purity of Steel Strips

the translation of the original ВМХ (ВМХОД)] is practically equal to the maximum signal obtained. The indicator is a micro-ammeter with 100 scale divisions. The indications of the micro-ammeter are converted graphically into quantities of impurities on the strip up to 100 mg/m^2 ; beyond this value the accuracy of measurements is no longer reliable. It was found that the indications of the micro-ammeter were in direct proportion with the amount of impurities (e. g., $50 \mu\text{a}$ on the ammeter corresponds to 50 mg/m^2 impurities). The device is easy to operate and detects defects and irregularities in the degreasing process and other phases of production immediately (for instance the presence of soda stains on the strip shows that the bath has not the correct concentration of alkali, etc.). The sensitivity of the device is sufficient to indicate even such small amounts of impurities as 2 mg/m^2 . There are 4 figures.

ASSOCIATION: NIIKhIMMASH and Magnitogorskiy kombinat
(Magnitogorsk Combine)



Circuit for transmitting
signal of maximum strip pollution

Card 3/3

DOLGALEV, V.A., inzh.; ASTAF'YEV, F.S., inzh.; TYUKALOV, P.A., inzh.;
MUSTYUKOV, I.S., inzh.

Automatic control of a steel strip surface finish. Stal'
20 no.8:735-736 Ag '60. (MIRA 13:7)

1. Magnitogorskiy kombinat i Nauchno-issledovatel'skiy i
konstruktorskiy institut khimicheskogo mashinostroyeniya.
(Sheet steel) (Surfaces (Technology))
(Automatic control)

BEKTIMIROVA, V.A., otv. za vypusk; TYUKLOVA, N.A., takhn. red.

[National economy of the Uzbek S.S.R. in 1961; brief
statistical abstract] Narodnoe khoziaistvo Uzbekskoi SSR v
1961 godu; kratkii statisticheskii sbornik. Tashkent, Gos-
statizdat. Uzb. otd-nie, 1962. 227 p. (MIRA 16:4)
(Uzbekistan--Statistics)

L 29920-66 EWP(k)/EWT(m)/T/EWP(w)/EWP(t)/ETI IJP(c) DJ/JD/HW/JG (4)
ACC NR: 6017300 (A, N) SOURCE CODE: UR/0136/66/000/005/0093/0094 56

AUTHOR: Krupin, A. V.; Pavlov, I. M.; Linetskiy, B. L.; Chernyshev, V. N.;
Zarapin, Yu. L.; Starkov, V. N.; Korchagin, P. A.; Vinogradov, V. V.; Tyukalov, T. V. B

ORG: none

TITLE: Rolling of tungstenⁿ and molybdenumⁿ under conditions of low partial pressures of oxygen

SOURCE: Tsvetnyye metally, no. 5, 1966, 93-94

TOPIC TAGS: tungsten, molybdenum, hot rolling, tungsten rolling, molybdenum rolling, vacuum rolling

ABSTRACT: Tungsten and molybdenum plates (8 x 40 x 150 mm) preforged or prerolled from sintered ingots were hot rolled in air, argon containing 0.03% O₂ and 0.01% N₂, or in a vacuum of 0.1—0.005 mm Hg. Tungsten was rolled at 1200, 1300, and 1450C with reductions of 10, 20, and 30% per pass; molybdenum was rolled at 950, 1050, and 1150C with reductions of 10, 20, 30, 50, and 55% per pass. A sharp increase in the roll pressure, torque, forward slip, and friction coefficient was observed with change from air atmosphere to a pressure of 0.1 mm Hg. This was caused by increased friction. Lowering the pressure from 0.1 to 0.005 mm Hg had little or no additional effect. Increasing the rolling temperature in vacuum of 0.01 mm Hg had an insignificant effect on the specific pressure in rolling molybdenum, but appreciably.

Card 1/2

UDC: 669.27/.28:621.771

L 29920-66

ACC NR: AP6017300

decreased the specific pressure in rolling tungsten, e.g., from 74 nt 1200C to 64 and 60 kg/mm² at 1300 and 1450C, respectively. The specific pressure increased with increasing reduction. In rolling tungsten in a vacuum of 0.1 mm Hg, increasing the reduction from 20 to 30% led to a specific pressure increase from 74 to 91 kg/mm² at 1200C and from 60 to 69 kg/mm² at 1450C. In rolling molybdenum the specific pressure increased from 44 to 96.5 kg/mm² with increasing reduction from 10 to 45% at 1050C. In vacuum rolling at high temperatures and reductions a sticking of metal to the rolls was observed. In rolling of tungsten at 1450C with a reduction of 35%, an intensive sticking resulted in splitting of metal. Little or no sticking was observed at 1200C. Noticeable sticking was observed in rolling molybdenum at 1150C. [MS]

SUB CODE: 11,13/SUBM DATE: none/ ORIG REP: 001/ ATD PRESS: 5011

Card 2/2 ne

L 09019-67 EWT(m)/EWP(w)/EWP(t)/ETI IJP(c) FDN/JD/JG/DJ
ACC NR: AP6027798 SOURCE CODE: UR/0126/66/022/001/0138/0140

AUTHOR: Mironov, O. S.; Shmakov, A. D.; Batonina, O. I.; Novikova, K. Z.; Danielyan, T. A.; Tyukalov, Yu. M.

40
39

ORG: none

TITLE: Effect of oxides on the properties of molybdenum

SOURCE: Fizika metallov i metallovedeniye, v. 22, no. 1, 1966, 138-140

TOPIC TAGS: molybdenum, oxide formation, brittleness, metal grain structure

ABSTRACT: Oxygen is a harmful impurity in molybdenum, inducing its embrittlement at low temperatures. However, the causes of this have not previously been elucidated. Northcott (Sb. Molibden, pod. red. A. K. Katansona, M., III, 1959, str. 52) claims that oxygen is present in Mo in the form of the oxide MoO₂, but it would be more correct to assume that the composition of the oxides is not unambiguous and should be expressed by the formula Mo_xO_y. To investigate the behavior of molybdenum oxides during heating and cooling, an oxide close in composition to that of MoO₂ was obtained following partial reduction of the polymorphic oxide MoO₃. The obtained powder was pressed into 10x10 mm briquets and sintered in an argon

UDC: 641.45+539.56+546.77

Card 1/3

L 09019-67

ACC NR: AP6027798

1

atmosphere at 1000°C for 6 hr. After this, the oxide's coefficient β of linear expansion at high temperatures (up to 800°K) was measured with the aid of dilatometers, and its phase composition before and after sintering examined by x-ray structural analysis; the roentgenograms indicated that the composition of the investigated oxide corresponds to that of Mo_2O_3 . An analysis of the temperature dependence of β (coefficient of linear expansion) showed that at from 150 to 20°C the value of β for Mo_2O_3 sharply decreases. Any further decrease in temperature, however, leads to a sharp rise in β . Considering that a similar anomaly is observed for MoO_3 , it may be assumed that this effect is characteristic of molybdenum oxides in general. These findings also serve to elucidate the effect of oxygen on the properties of Mo with decrease in temperature. The mean β for Mo varies from $5.1 \cdot 10^{-6}$ at 0°C to $5.59 \cdot 10^{-6}$ at 500°C (Toplofizicheskiye svoystva veshchestv, spravochnik pod red. N. B. Vargaftika, M., Gosenergoizdat, 1956); the β for the oxide is somewhat lower. Moreover, at <100°C the β for the oxide sharply decreases. Then the volume of inclusions of molybdenum oxides decreases at a slower rate than the volume of the surrounding metal. If an oxide particle is present within a grain, the latter is subjected to internal compressive stresses which lead to an increase in hardness and decrease in plasticity. A more harmful effect is exerted by the oxide particles when they occur in between the grains. In this case tensile stresses leading to brittle intercrystalline fracture arise at the surfaces of contact between grains. Moreover, it is known that oxides

Card 2/3

L 39019-67

ACC NR: AP6027798

in molybdenum are located chiefly along the grain boundaries. This probably is the reason why semifinished molybdenum products, with their high content of oxygen in recrystallized state, display a distinct tendency toward brittle intercrystalline fracture. Orig. art. has: 2 figures.

SUB CODE: 11/ SUBM DATE: 09Sep65/ ORIG REF: 002/ OTH.REF: 002

Card 3/3 not

TYUKANOV, D.A., inzhener.

Self-threading instead of kissing shuttles. Tekst.prom. 16 no.6:
55 Ja '56. (MLBA 9:8)

1. Direktor Novo-Gorkinskoy fabriki.
(Looms)

TYUKAVKIN, A.M.

Tuberculosis of the kidneys; according to autopsy data. Vop.
epid. i klin. tub. 5:136-144 '58. (MIRA 14:12)
(KIDNEYS--TUBERCULOSIS)

TYUKAVKIN, P. M.

Tyukavkin, P. M. and Siverin, V. V. - "The problem of utilizing layers of perennial
grasses," Doklady Vsesoyuz. akad. nauk in. Lenina, 1949, Issue 2, p. 15-16

SO: U-4355, 14 August 53, (Letopis 'Zhurnal 'nykh Statey, No. 15, 1949)

USSR/Cultivated Plants - Technical, Oleaginous, Sacchariferous.

H-7

Abs Jour : Ref Zhur - Biol., No 9, 1958, 39414

Author : Tyukavkin, V.

Inst : -

Title : From the History of Flax Breeding in Eastern Siberia.

Orig Pub : S. - K. Sibiri, 1957, No 5, 98-100.

Abstract : No abstract.

Card 1/1

- 115 -

TYUKAVKINA, N. A.

TYUKAVKINA, N. A.

Dissertation defended for the degree of Candidate of Chemical Sciences
at the Institute of Organic Chemistry imeni N. D. Zelinskiy in 1962:

"Synthesis and Polymerization of Simple Vinyl Esters of the Aromatic
Series."

Vest. Akad. Nauk SSSR. No. 4, Moscow, 1963, pages 119-145

KALABINA, A.V.; TYUKAVKINA, N.A.; BARDAMOVA, M.I.; LAVROVA, A.S.

Synthesis and investigation of vinyl ethers of some alkyl-
and aryl-substituted phenols. Zhur.ob.khim. 31 no.10:3222-3226
0 '61. (MIRA 14:10)

1. Irkutskiy gosudarstvennyy universitet.
(Phenol) (Ethers)

ACCESSION NR: AT4020713

S/0000/63/000/000/0242/0246

AUTHOR: Kalabina, A. V.; Tyukavkina, N. A.; Kruglova, V. A.

TITLE: Investigations of the polymerization and copolymerization of vinylaryl ethers and their derivatives. IV. Radical copolymerization of simple vinyl ethers of the aromatic series with chloroprene

SOURCE: Karbotsepny*ye vy*sokomolekulyarny*ye soyedineniya (Carbon-chain macromolecular compounds); sbornik statey. Moscow, Izd-vo AN SSSR, 1963, 242-246

TOPIC TAGS: polymerization, block polymerization, copolymerization, radical copolymerization, vinylaryl ether, chloroprene, azodiisobutyronitrile, benzoyl peroxide

ABSTRACT: A study of the block copolymerization of chloroprene with vinylphenyl, vinyl-o-cresyl, vinyl-m-cresyl and vinyl-p-cresyl ethers at 60C, initiated with 0.2 wt.% azodiisobutyronitrile, which has not previously been described in the literature, showed that the rate of copolymerization depends markedly on the composition of the initial mixtures and is considerably lower than the rate of polymerization of chloroprene for all initial monomer ratios studied. Regardless of the composition of the initial mixture, all the resulting copolymers had a high content of chloroprene, and the amount of the vinylaryl ether in the co-

ACCESSION NR: AT4020713

polymer was not higher than 20-25 mol.%. The relationship between the degree of copolymerization of chloroprene and vinylphenyl ether and the reaction time for different compositions of the initial mixture is illustrated. The dependence of the degree of polymerization on the concentration of either azodiisobutyronitrile or benzoylperoxide was also investigated. Orig. art. has: 2 figures and 4 tables.

ASSOCIATION: Irkutskiy gosudarstvennyy universitet (Irkutsk State University)

SUBMITTED: 11Jul62

DATE ACQ: 20Mar64

ENCL: 00

SUB CODE: 0C

NO REF SOV: 005

OTHER: 003

Card 2/2

KALABINA, A.V.; TYUKAVKINA, N.A.; TOPOROVA, L.M.

Polymerization of simple vinyl esters of tar phenols produced at
the semicoking of Cherekhovo coal. IzvSib.otd.AN SSSR no.12:42-47
'61. (MIRA 15:3)

1. Irkutskiy gosudarstvennyy universitet.
(Vinyl compound polymers)

KALABINA, A.V.; TYUKAVKINA, N.A.; FILIPPOVA, A.Kh.

Combining ethylmercaptan with some vinyl ethers of chlorophenols.
Izv.Sib.otd.AN SSSR no.1:97-101 '62. (MIRA 15:3)

1. Irkutskiy gosudarstvennyy universitet.
(Mercaptals) (Insecticides)

FROLOV, Yu.L.; FILIPPOVA, A.Kh.; KALABINA, A.V.; POGODAYEVA, L.K.;
TYUKAVKINA, N.A.

Physical studies in the area of unsaturated aryl ethers and their derivatives. Part 1: Spectra of vinyl substituted ether of phenol. Zhur.strukt.khim. 3 no.6:676-679 '62. (MIRA 15:12)

1. Irkutskiy gosudarstvennyy universitet.
(Phenol) (Ethers--Spectra)

KALABINA, A.V.; TYUKAVKINA, N.A.; MANTSIVODA, G.P.; KRASOVSKIY, R.V.

Polymerization of vinyl aryl ethers and their derivatives. Part 2:
Ionic polymerization of vinyl aryl ethers. Vysokom.soed. 3 no.8:
1150-1154 Ag '61. (MIRA 14:9)

1. Irkutskiy gosudarstvennyy universitet imeni A.A.Zhdanova.
(Ethers) (Polymerization)

KALABINA, A.V.; TYUKAVKINA, N.A.; KRUGLOVA, V.A.

Polymerization of vinyl aryl ethers and their derivatives. Part 3:
Low molecular weight radical polymerization of vinyl aryl ethers.
Vysokom.soed. 3 no.8:1155-1160 Ag '61. (MIRA 14:9)

1. Irkutskiy gosudarstvennyy universitet imeni A.A.Zhdanova.
(Ethers) (Radicals (Chemistry)) (Polymerization)

KALABINA, A.V.; TYUKAVKINA, N.A.; TERPUGOVA, M.F.

Synthesis and some properties of α , β -dichloroethyl ethers of the aromatic series. *Izv.vys.ucheb.zav.khim.i khim.tekh.* 4 no.4:632-635 '61. (MIRA 15:1)

1. Irkutskiy gosudarstvennyy universitet imeni Zhdanova, kafedra vysokomolekulyarnykh soyedineniy i organicheskogo sinteza. (Ethers)

KALABINA, A.V.; TYUKAVKINA, N.A.; YASHINA, O.G.; MAKHNO, L.P.; FROLOV, Yu.L.

Synthesis and properties of vinyl ethers of some higher phenols.
Izv.vys.ucheb.zav.;khim.i khim.tekh. 4. no.4:626-631 '61.
(MIRA 15:1)

1. Irkutskiy gosudarstvennyy universitet imeni Zhdanova, kafedra
vysokomolekulyarnykh soyedineniy i organicheskogo sinteza.
(Phenols) (Ethers)

[The text in this section is extremely faint and largely illegible due to the low resolution and high contrast of the scan. It appears to be a technical report or document.]

... and triethyl...
The reactions of vinyl ethers
... ethyl phenoxymethyl phosphonate
... at 150 C. Orig. art. has 1

...

...

...

...

SUB CODE OC SC

OTHER: 002

KIRILLIN, V.A.; SHEYNDLIN, A.Ye.; CHEKHOVSKOY, V.Ya.; TYUKAYEV, V.I.

Enthalpy and heat capacity of titanium diboride in the temperature
range 273.15°--2600°K. Teplofiz. vys. temp. 2 no.5:710-715 S-0 '64.
(MIRA 17:11)

1. Nauchno-issledovatel'skiy institut vysokikh temperatur.

