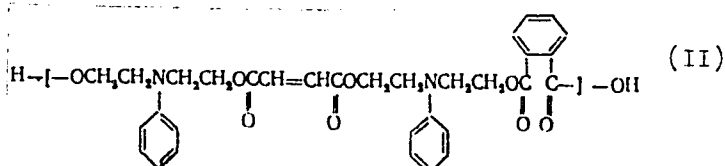
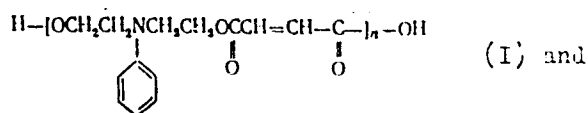


Synthesis and examination ...

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are given for the resins obtained. Polyester (I) is a reddish-brown, transparent resin with a softening point of about 45°C, a molecular weight of 1250, and a maximum compatibility with styrene of 58%. Polyester (II) is orange-red and has a molecular weight of 1600. Both resins are soluble in organic solvents and have a specific gravity of 1.276. The authors studied the physicomachanical properties of the copolymers of (I) and (II) with styrene and the following initiators: (a) benzoyl peroxide; (b) 90%

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Synthesis and examination . .

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isopropyl benzene hydroperoxide; (c) 50% solution of methyl-ethyl ketone peroxide in dimethyl phthalate; (d) isopropyl benzene hydroperoxide + HK. (NK) accelerator containing approximately 0.7% Co; (e) methyl-ethyl ketone peroxide + NK. Initiators (a)-(c) were used at 100°C, combinations (d) and (e) at 20°C. Table 4 gives physicochemical data for the resins obtained. The authors found: (1) Synthesis is almost 50% shorter than with diethylene glycol; (2) compatibility with styrene is higher than for diethylene-glycol or ethylene-glycol resins; (3) at 20°C, hardening of (I) in the presence of benzoyl peroxide is very slow (> 5000 min) due to inhibition by an excess of amine groups; (4) at 100°C, fast gel formation sets in (3-5 min) in the presence of benzoyl peroxide, but hardening is incomplete. The Brinell hardness remains low; (5) the optimum at 20°C was 1-4% methyl-ethyl ketone peroxide with 2-4% NK; at 100°C: 1-2% isopropyl benzene hydroperoxide; (6) with both resins, cross linking is induced by a temperature elevation from 20 to 100°C; (7) shrinkage increases linearly with increasing styrene content; (8) the water resistance of synthesized resins is very high. This confirms the assumption that water-resistant polyester resins are obtained by using aryl-containing alcohol components. Papers by K. D. Petrov, G. B. Tal'kovskiy (ZhPKh, 25,

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Synthesis and examination ...

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567, 1225 (1952); 28, 1205 (1955)) are mentioned. There are 5 figures, 5 tables, and 5 references: 2 Soviet and 3 non-Soviet. The two most recent references to English-language publications read as follows: R. N. Fuoss, D. Edelson, J. Polymer Sci., 6, 523 (1951); L. H. Vaughan, Plast. Inst. Trans. and J., 29, no. 79, 7 (1961).

Table 4. Physicomechanical properties of hardening products obtained from styrene solutions of polyester (I and II).

Legend: (A) Characteristics; (B) solution of (I); (C) solution of (II); (a) percentage of styrene in the initial solution; (b) shrinkage during hardening, %; (c) specific gravity, g/cm³; (d) Brinell hardness, kg/mm²; (e) limit of bending strength, kg/cm²; (f) modulus of elasticity on bending, kg/cm²; (g) specific impact strength, kg·cm/cm²; (h) thermostability according to Vicat, °C; (i) thermostability according to Martens, °C; (k) water absorption for 24 hr, %; (l) amount of substances extracted with acetone in a Soxhlet apparatus for 12 hr, %

Card 4/5

LI, P.Z.; NIKHAYLOVA, Z.V.; SEDOV, L.N.; KOSTYGOV, V.A.

Synthesis and investigation of unsaturated polyester resins
based on N-bis-beta-oxethylaniline. Plast.massy no.12:11-14
'61. (MIRA 14:12)

(Esters)

(Resins, Synthetic)

CHEKMENEV, V.T.; KOSTYGOV, V.I.

Universal device for electricians. Prom.energ. 17 no.4:28-29
Ap '62. (MIRA 15:4)

(Electric meters)

KOSTYGOV, V

USSR (600)

Cheese

Quality and variety of cheese. Mol. prom. 13 no. 5 (1952)

9. Monthly List of Russian Accessions, Library of Congress, August 1957, Uncl.

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1. KOSTYGOV, V.
2. USSR (600)
4. Dairy Plants
7. Prospects for a technological re-equipment of the dairy industry. Moloch.prom., 14, no. 1, 1953.
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

KOSTYGOV, V.V.

KIVENKO, S.F.; LUK'YANOV, N.Ya.; PAKHIRKO, A.A.; BEZDENEZHNYKH, V.,
retsenzent; BORISOV, S., retsenzent; KOSTYGOV, V.V., redaktor;
AKIMOVA, A.D., redaktor; GOTLIB, E.M., tekhnicheskii redaktor.

[Production of condensed and powdered milk in butter plants] Proiz-
vodstvo zgushchennogo i sukhogo moloka na maslodel'nykh zavodakh.
Pod red. V.V.Kostygova. Moskva, Pishchepromizdat, 1954. 153 p.
(Milk, Condensed)(Milk, Dried) (MLRA 8:3)

KOSTYGOV, V.

USSR/Chemical Technology. Chemical Products and Their Application -- Food industry,
I-28

Abst Journal: Referat Zhur - Khimiya, No 2, 1957, 6686

Author: Kostygov, V.

Institution: ~~None~~

Title: The Dairy Industry of Sweden

Original

Publication: Moloch. prom-st', 1956, No 5, 41-44

Abstract: No abstract

Card 1/1

KOSTYGOV, V.

APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000825310009-3

USSR /Chemical Technology, Chemical Products
and Their Application

I-32

Food industry

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 33018

Author : Kostygov V.

Title : Development Outlook in the Dairy Industry

Orig Pub: Moloch. prom-st', 1956, No 8, 9-11

Abstract: No abstract.

Card 1/1

KOSTYGOV, V.

Equipment is of the utmost importance in the preparation of the
dairy industry for production in 1957. Moloch. prom. 17 no.6:
4-7 '56. (MLRA 9:10)

1. Zamestitel' ministra promyshlennosti myasnykh i molochnykh
produktov SSSR.

(Dairy industry--Equipment and supplies)

KOSTYGOV, V.

Utilisation of productive capacity of milk canning plants. Moloch.
prom. 18 no.3:3-5 '57. (MLRA 10:4)

1. Zamestitel' ministra promyshlennosti myasnykh i molochnykh.
(Milk, Condensed) (Milk dried)

KOSTYGOV V

KOSTYGOV, V.

"The butter and margarine" problem. Moloch. pron. 18 no.6:43-45
'57. (MLRA 10:6)

(Oleomargarine)

(Butter)

KOSTYGOV, V.

Poultry farms and processing plants in the vicinity of Moscow.
Mias. ind. SSSR 29 no.2:16-18 '58. (MIRA 11:5)

1. Nachal'nik upravleniya myasnoy i molochnoy promyshlennosti
Moskovskogo oblastnogo sovnarkhoza.
(Moscow Province--Poultry plants)

INIKHOV, G.S., zasl. deyatel' nauki i tekhniki, doktor khim. nauk, prof.; SKORODUMOVA, A.M., kand. biol. nauk; SHAPIRO, L.R. [deceased]; MILYUTINA, L.A., inzh.; DEMUROV, M.G., kand. sel'khoz. nauk; LEBEDEVA, K.S., kand. sel'khoz. nauk; KYURKCHAN, V.N.; VASILEVSKIY, V.G., inzh.; SAVINOVSKIY, N.G., kand. tokhn. nauk; VEDRASHKO, V.F., kand. med. nauk; SOKOLOVSKIY, V.P., prof.; BEGUNOV, V.L., inzh.; KAZENNOVA, A.R.; VEDRASHKO, V.F., kand. med. nauk; KOSTYGOV, V.V., red.; SKURIKHIN, M.A.; MOLOCHANOVA, O.P., doktor biol. nauk, prof.; SPERANSKIY, G.N., zasl. deyatel' nauki, doktor med. nauk, prof.; KISILIA, Ya.I., tekhn. red.

[Dairy foods] Molochnaia pishcha. Moskva, Pishchepromizdat, 1962. 419 p. (MIRA 15:10)

1. Glavnyy kulinar Ministerstva trgovli RSFSR (for Kazennova).
2. Chlen-korrespondent Akademii meditsinskikh nauk SSSR (for Speranskiy, Skurikhin).
3. Deystvitel'nyy chlen Akademii meditsinskikh nauk SSSR (for Molchanova).

(Cookery (Dairy products)) (Dairy products)

KOSTYGOV, V. V.

"Production of Cows milk in the warm regions of the USSR."

report presented at the 47th Annual Meeting of the Intl. Dairy Federation,
22 Aarhus, Denmark, 28 Aug - 1 Sept 1962.

KOSTYGOV, V. V.,

"Development of the dairy industry in the warm regions of the USSR"

report to be submitted for Dairy Federation, International (IDF) 48th Annual Meetings
Massey College, Palmerston North, New Zealand, 4-9 Nov 63

ROZITSKY, V.V., inzh., red.; TSIREL'SON, N.B., doktor sci'khoz.nauk,
nauchn. red.; KOLCHUK, N. I., dokt. nauk, nauchn. red.;
KAVENKO, B.F., inzh., nauchn. red.; KUCHENKO, I. I., dokt. sci'-
khoz. nauk, nauchn. red.; KUCHENKO, N. I., dokt. biol. nauk,
red., BOGATYUK, L.M., red.

[Transactions of the 10th International Fair Conference, 1966, by
All-Union Scientific Center for Molecular Biology, Moscow, U.S.S.R.,
s predisl. V.V. Rozitskogo. Moskva, izdatel'stvo "Mir", 1966. 424 p.
(1966, 17:2)]

1. International Fair Conference, 10th, Leningrad, 1966.
2. Predsedatel' Natsional'nogo komiteta SSSR po molekulyarnoy biologii (for Rozitskov).

ANATOLIYEV, Fedor Alekseyevich; ABAGYANTS, G.A., doktor tekhn.
nauk, retsenzent; KCSTYGOV, Ye.D., inzh., retsenzent;
ABRAMOVICH, G.A., doktor tekhn. nauk, prof., nauchn.
red.; OZEROVA, Z.V., red.; CHISTYAKOVA, R.K., tekhn. red.

[Heat exchangers in marine steam-power plants] Teploobmen-
nye apparaty sudovyykh parosilovyykh ustanovok. Leningrad,
Sudpromgiz, 1963. 494 p. (MIRA 16:10)
(Boilers, Marine) (Heat exchangers)

L 45956-66 EWT(d)/EWT(1)/EWP(m) IJP(c) WW/AT

ACC NR: AP6018454

SOURCE CODE: UR/0051/66/020/006/1085/1086

AUTHOR: Gol'dfarb, V. M.; Il'ina, Ye. V.; Kostygova, I. Ye.; Luk'yanov, G. A.;
Silant'yev, V. A.

96
B

ORG: none

TITLE: Population density of hydrogen levels in an argon-hydrogen plasma stream

SOURCE: Optika i spektroskopiya, v. 20, no. 6, 1966, 1085-1086

TOPIC TAGS: multicomponent plasma, supersonic nozzle, plasma generator, electron density, plasma electron temperature

ABSTRACT: Spectral emission of the argon plasma generated in the constant current plasmatron and flowing through a supersonic nozzle has been investigated. The electron density range was 10^{12} cm^{-3} to $3 \cdot 10^{15} \text{ cm}^{-3}$ and electron temperature was 5000 to 25000°K.

The spectrum was found to contain the lines of argon, hydrogen, recombination continuum and molecular bands of nitrogen (second positive system). The relative line intensity was determined by using Balmer lines for calibration. The spectrum was studied as a function of the radial position in the stream and the distance from the end of the nozzle. The population density of levels with principal quantum numbers $n=4$ and 5 increased with increasing distance to the axis and was found inverted at low electron densities. At the same time the $n=3$ and 4 as well as $n=6$ levels did not differ from

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ACC NR: AP6018454

the equilibrium distribution. Relative population inversion and change with radial distance is explained by the collisions of a second kind between hydrogen and argon atoms. The authors also note the interesting result that not only does simple inversion occur, but also at lower densities the condition for light amplification

$$n_5 > \frac{g_5}{g_4} n_4$$

(where g_4, g_5 are statistical weights of levels 4 and 5) is satisfied. Orig. art. has: 1 figure, 2 tables.

SUB CODE: 20/

SUBM DATE: 21Dec65/

OTH REF: 002

Card 2/2 blg

YAKOVLEV, N.N.; KALEDIN, S.V.; KRASNOVA, A.F.; LESHKEVICH, L.G.;
POPOVA, N.K.; ROGOZKIN, V.A.; CHAGOVETS, N.R.; KOSTYGOVA, L.A.

Characteristics of physiological and chemical adaptation of the body
to muscular activity in relation to the length of rest intervals
between tasks during training. Fiziol. zhur. 47 no.6:752-757 Je '61.
(MIRA 15:1)

1. From the Research Institute of Physical Culture, Leningrad.
(EXERCISE) (REST) (METABOLISM)

KOSTYGOVA, T.; NIKULINA, G.

Why does man need a nose? Nauka i zhizn' 30 no.5:67-69 My '63.
(MIRA 16:10)

1. KOSTYK, V. S.
2. USSR (600)
4. Leishmaniosis
7. Treatment of Pendinski ulcer. Khirurgiia no. 10, 1952

Monthly Lists of Russian Accessions, Library of Congress, March, 1953, Unclassified.

KOSTYK, V.S., podpolkovnik meditsinskoy sluzhby

Modified operation in varicose enlargement of the veins of the
spermatic cord. Voen.-med.zhur. no.7:87-88 J1 '56. (MLRA 9:11)
(VARIX) (SPERMATIC CORD--SURGERY)

LAGUNOV, V.; SHUREMOV, A.; TROFIMOV, M.; KOSTYKOV, I., slesar';
FERULEV, A.

In organizations of our society. Izobr.i rats. no.10:
16-17 0 '59. (MIRA 13:2)

1. Predsedatel' Yakutskogo oblastnogo soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov (for Lagunov).
2. Starshiy inzhener byuro tekhnicheskoy informatsii i izobretatel'stva, L'vov (for Shuremov).
3. Predsedatel' soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov Vel'giyskoy bumazhnoy fabрики, g.Borovichy (for Trofimov).
4. Zavod "Soyuz," predsedatel' soveta Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov, Leningrad (for Kostykov).
5. Predsedatel' zavodskoy organizatsii Vsesoyuznogo obshchestva izobretateley i ratsionalizatorov Lys'venskogo metallurgicheskogo zavoda, g.Lys'va, Permskoy oblasti (for Ferulev).
(Efficiency, Industrial)

KOSTYKOV, N.I., kandidat tekhnicheskikh nauk.

Effect of the group composition of fuels on engine performance
data. [Trudy] MVTU no.35:95-99 '55. (MIRA 9:7)
(Motor fuels) (Gas and oil engines)

KOSTYKOV, Yu. V.

KOSTYKOV, Yu.V.; ALEKSANDROV, V.N., mayor, redaktor; KUZMIN, I.F.,
~~tekhnicheskii~~ tekhnicheskii redaktor

[Technology of communication] Tekhnika aviazii. Moskva, Voennoe
izd-vo Voennoego ministerstva SSSR, 1953. 335 p. [Microfilm]
(Telecommunication) (MLRA 7:9)

ROSTIKOV, Yu. V.

Tekhnika svyazi / Communication Technology. Moskva, Voenizdat, 1962. 526 p.

SO: Monthly List of Russian Accusations, Vol. 7 No. 2 May 1961.

KOSTYKOV, Yu.V.; YERMOLAYEV, L.N.; VLADIMIROV, V.G., podpolkovnik,
~~redaktor~~ ; LEVINSKAYA, N.Z., tekhnicheskiiy redaktor.

[Radio amateur's first book] Pervaya kniga radioliubitelia.
Moskva, Voen.izd-vo Ministerstva oborony SSSR, 1955. 301 p.
(Radio-- Amateurs' manuals) (MLRA 8:11)

KOSTYKOV, Yuriy Vasil'yevich; YERMOLAYEV, Lev Nikolayevich; VLADIMIROV,
V.T., red.; MEDNIKOVA, A.N., tekhn.red.

[First book for the radio amateur] Pervaya kniga radioliubitelia. Izd.2., perer. i dop. Moskva, Voen.izd-vo M-va obor.
SSSR, 1961. 287 p. (MIRA 14:3)
(Radio)

PHASE I BOOK EXPLOITATION SOV/3650

Kostykov, Yuriy Vasil'yevich, and Vladimir Dmitriyevich Kryzhanovskiy

Osnovy televideniya (Fundamentals of Television) Moscow, Voen. izd-vo M-va obor. SSSR, 1959. 389 p. No. of copies printed not given.

Ed.: M.V. Krylov; Tech. Ed.: M.P. Zudina.

PURPOSE: This book is intended for officers, noncommissioned officers, and private soldiers desiring to broaden their knowledge of television engineering. It may also be useful to the general reader.

COVERAGE: The book discusses physical and electrical foundations of modern black-and-white, color, and stereoscopic television and photo transmission (facsimile) systems. Some military uses of the television equipment are mentioned in the introduction and briefly described in the closing chapter of the book. Chapters I, II, III, VII, XI, XIII, XIV, XVI and XX were written by Yu.V. Kostykov, chapters IV, V, VI, VIII, IX, X, XV, XVII, XVIII, and XIX by V.D. Kryzhanovskiy, and chapter XII by both authors. There are 57 references: 50 Soviet (2 of which are translations), 5 English, and 2 French.

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KOSTYKOV, Yuriy Vasil'yevich; PLENKIN, Yu.N., red.; FRIDKIN, L.M.,
tekhn. red.

[Television picture tubes]Priemnye televizionnye trubki. Mo-
skva, Gosenergoizdat, 1962. 70 p. (Massovaya radiobiblioteka,
no.445) (MIRA 15:10)

(Television--Picture tubes)

KOSTYKOV, Yuriy Vasil'yevich; YENYUTIN, V.V., red.

[Design principles of applied television systems and apparatus] Osnovy proektirovaniia sistem i apparatury prikladnogo televideniia. Moskva, Izd-vo "Energia," 1964.
255 p. (MIRA 17:5)

KOSTYLEV, A.D.

21881 KOSTYLEV, A.D.

Preparat "DDT" v bor'be s tabachnym tripsom.

Trudy Krasnodarsk. in-ta pishch. prom- sti,

VYP. 7, 1949, s. 89-94.-

Bibliogr 10 nazv.

SO: Letopis' Zhurnal'nykh Statey, No. 29, Moskva, 1949.

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KOSTYLEV, A.

Improved bucket ore-conveying machines. Mast. ugl. 4 no. 4:24
Ap '55. (MLRA 8:6)

(Conveying machinery)

KOSTYLEV, A.D.

RODIONOV, G.V., kandidat tekhnicheskikh nauk; KOSTYLEV, A.D., inzhener

The geometrical shape of coal shoveling machinery buckets. Ugol'
30 no.9:30-34 S'55. (MIRA 8:12)

1. Zapadno-Sibirskiy filial Akademii nauk SSSR.
(Shoveling machinery)

RODIONOV, G.V., kandidat tekhnicheskikh nauk; ~~KOSTYLEV, A.D., kandidat~~
tekhnicheskikh nauk; GURKOV, K.S., inzhener.

Effect of vibration on the efficiency of ore scooping with loader
buckets. Ger.zhur.no.3:38-41 Mr '56. (MLRA 9:7)

1.Zapadnosibirskiy filial AN SSSR.
(Ore handling)

KOSTYLEV, A.D.

RODIONOV, G.V., kandidat tekhnicheskikh nauk; ~~KOSTYLEV, A.D., kandidat tekhnicheskikh nauk.~~

Development of mechanized loading in the mining industry. Gor. zhur.
no.5:66-70 My '57. (MIRA 10:6)

1. Zapadno-Sibirskiy filial Akademii nauk SSSR.
(Ore handling) (Mining machinery)

KOSTYKOV, A.D.

Effect of shape of the bucket on resistance to scooping. Trudy
Gor.-geol. inst. Zap.-Sib. fil. AN SSSR no.19:55-71 '57.

(MIRA 11:7)

(Loading and unloading--Equipment and supplies)

KOSTYLEV, A.D.

Sizes of loading machine buckets. Trudy Gor.-geol. inst. Zap.-Sib.
fil. AN SSSR no.19:73-80 '57. (MIRA 11:7)
(Loading and unloading--Equipment and supplies)

RODIONOV, G.V.; KOSTYLEV, A.D.

Trailing weight of a loading machine. Trudy Gor.-geol. inst. Zap.-Sib.
fil. AN SSSR no.19:109-117 '57. (MIRA 11:7)

(Loading and unloading--Equipment and supplies)

(Mine railroads--Cars)

RODIONOV, G.V.; KOSTYLEV, A.D.

Mechanisation of loading and hauling ore in cross headings.

Trudy Gor.-geol. inst. Zap.-Sib. fil. AN SSSR no.19:167-176

'57.

(MIRA 11:7)

(Mining machinery) (Mine haulage)

RODIONOV, G.V.; KOSTYLEV, A.D.

Movable hopper-loader, Gor. zhur. no.8:40 Ag '58.
(Mining machinery--Patents)

(MIRA 11:9)

KOSTYLEV, A.D.; GURKOV, K.S.; NOSIKOV, G.M.

New design vibrating bucket for the PML-5 loader. Gor. zhur. no.11:
56-57 N '61. (MIRA 15:2)

1. Institut gornogo dela Sibirskogo otdeleniya AN SSSR.
(Mining machinery)

RODIONOV, Georgiy Viktorovich, doktor tekhn.nauk; KAL'NITSKIY, Yakov Borisovich, kand.tekhn.nauk; GURKOV, Konstantin Stepanovich, kand. tekhn.nauk; KOSTYLEV, Aleksandr Dmitriyevich, kand. tekhn.nauk; MIKHIREV, Petr Aleksandrovich, kand. tekhn. nauk; PRESS, Igor' Mikhaylovich, nauchnyy sotr.; SOBOL', Arkadiy Vladimirovich, st. nauchnyy sotr.; SOROKO, Veniamin Vasil'yovich, kand. tekhn.nauk; BAZANOV, A.F., kand. tekhn. nauk, retsenzent; BULATOV, S.I., red. izd-va; SMIRNOVA, G.V., tekhn. red.

[Loading machines for loose and lump materials; design, teory, and calculation] Pogruzochnye mashiny dlia sypuchikh i kuskovykh materialov; konstruktsiia, teoriia i raschet. [By] K.S.Gurkov i dr. Moskva, Mashgiz, 1962. 286 p. (MIRA 15:12)

(Loading and unloading--Equipment and supplies)

KOSTYLEV, A.D.; RODIONOV, G.V.; GURKOV, K.S.; MAKSIMOV, V.A.;
VOLOD'KO, K.P.

Vibrating working part of a loader. Gor.zhur. no.8:71
Ag '62. (MIRA 15:8)
(Mining machinery)

GURKOV, K.S., kand.tekhn.nauk; KOSTYLEV, A.D., kand.tekhn.nauk;
KOLESHNIKOV, A.T., inzh.; MAKSIMOV, V.A., inzh.; PARINSKIY, Yu.P.,
inzh.

Hydraulic vibrator. Mekh.i avtom.proizv. 16 no.7:41-43 JI '62.
(MIRA 15:8)
(Vibrators)

MAKSIMOV, V. A.; ~~KOSTYLEV, A. D.~~; GURKOV, K. S.; VOLOD'KO, K. P.;
YUSHCHENKO, A. I.; SEDYSHEV, V. F.; KOLESNIKOV, A. T. YAGODIN, A. I.;
PONOMARENKO, Yu. F.; FOLKOV, A. N.; BELAK, N. A.

HPM-1 vibrating drill and loader. Gor. zhur. no.10:53-56
0 '62. (MIRA 15:10)

(Mining machinery)

KAL'NITSKIY, Ya.B.; KOSTYLEV, A.D.; SOROKO, V.V.; GURKOV, K.S.

Introduce vibration equipment on a broad scale. Gor. zhur.
no.12:62-63 ~~62~~*62. (MIRA 15:11)

(Ore handling--Equipment and supplies)
(Vibration)

GURKOV, Konstantin Stepanovich; KOSTYLEV, Aleksandr Dmitriyevich;
MAKSIMOV, Veniamin Aleksandrovich; YUSHCHENKO, Aleksey
Ivanovich; KOLOMIYTSEV, A.D., otv. red.; LOMILINA, L.N.,
tekhn. red.

[PPM-4m loader] Pogruzochnaia mashina PPM-4m. Moskva, Gos-
gortekhzdat, 1963. 131 p. (MIRA 16:7)
(Loading and unloading--Equipment and supplies)

GORBACHEV, T.F.; PATRUSHEV, I.S.; KOSTYLEV, A.D., kand. tekhn.
nauk, otv. red.; OMBYSH-KUZNETSOV, S.O., red.

[Coal-mining machinery and equipment] Ugledobyvaiushchie
agregaty i komplekсы. Novosibirsk, Izd-vo Sibirskogo otd-
niia AN SSSR, 1964. 162.p. (MIRA 17:5)

PRIKHOD'KO, Petr Trofimovich, prof., doktor med. nauk; KOSTYLEV,
A.D., otv. red.

[Mining machinery in relation to hygiene; basic principles and
methods of physiological and hygienic evaluation of mining
machinery] Gornye mashiny v gigienicheskom otnoshenii; osnov-
nye printsipy i metody fiziologo-gigienicheskoi otsenki gor-
nykh mashin. Novosibirsk, Novosibirskoe knizhnoe izd-vo,
1963. 67 p. (MIRA 17:5)

MIKHIREV, P.A.; KOSTYLEV, A.D.; VOLOD'KO, K.P.; SAVKIN, M.M.; MOGILEVSKIY, V.M.

Means for automatic control of the operation of a single-bucket
loader. Gor. zhur. no.3:69-70 Mr '63. (MIRA 16:4)

GURKOV, K.S., kand.tekhn.nauk; KOSTYLEV, A.D., kand.tekhn.nauk;
PLEKHANOV, G.V., gornyy inzh.; CHERNOGOLOV, Ye.K., gornyy inzh.;
RZHANNIKOV, N.N., gornyy inzh.

New loading and transporting machine. Gor.zhur. no.2:57-59 F
'64. (MIRA 17:4)

1. Institut gornogo dela Sibirskogo otdeleniya AN SSSR (for Gurkov,
Kostylev). 2. Vysokogorskiy zheleznyy rudnik (for Plakhanov,
Chernogolov, Rzhannikov).

MAKSIMOV, V.A., inzh.; ORLOV, V.G., inzh.; KOSTYLEV, A.D., kand. tekhn. nauk; GURKOV, K.S., kand. tekhn. nauk; KREYMER, V.I., inzh.; BELAN, N.A., inzh.

Testing the BPM-1 boring and loading machine at the Sarany chromite mine. Shakht. stroi. 8 no.5:17-21 My'64 (MIRA 17:7)

1. Aleksandrovskiy mashinostroitel'nyy zavod (for Maksimov).
2. Saranovskiy khromitovyy rudnik Zavadno-Ural'skogo soveta narodnogo khozyaystva (for Orlov).
3. Institut gornogo dela Sibirskogo otdeleniya AN SSSR (for Kostylev, Gurkov, Kreymer).
4. Kuznetskiy nauchno-issledovatel'skiy ugol'nyy institut (for Belan).

KOSTYLEV, A.D., kand.tekhn.nauk; GURKOV, K.S., kand.tekhn.nauk; PARINSKIY, Yu.F., inzh.; TISHKOV, A.Ya., inzh.; MAKSIMOV, V.A.; SEDYSHEV, V.F.; KOLESNIKOV, A.T.

Continuous operation working element of a vibration loader.
Ugol' 39 no.12:40-43 D '64. (MLRA 18:2)

1. Institut gornogo dela Sibirskogo otdeleniya AN SSSR (for Kostylev, Gurov, Parinskiy, Iishkov). 2. Aleksandroveskiy mashinostroitel'nyy zavod (for Maksimov, Sedyshev, Kolesnikov).

MAKSIMOV, V.A., inzh.; ORLOV, V.G., gornyy inzh.; KOSTYLEV, A.D., kand. tekhn. nauk; GURKOV, K.S., kand. tekhn. nauk; KREYMER, V.I., inzh.; BELAN, N.A., inzh.; PONOMARENKO, Yu.F., kand. tekhn. nauk

Industrial testing of the BPM-1 boring and loading machine. Ugol' 40
no.2:43-46 F '65. (MIRA 18:4)

1. Aleksandrovskiy mashinostroitel'nyy zavod (for Maksimov). 2. Saranovskiy khromitovyy rudnik Zapadno-Ural'skogo soveta narodnogo khozyaystva (for Orlov). 3. Institut gornogo dela Sibirskogo otdeleniya AN SSSR (for Kostylev, Gurkov, Kreymmer). 4. Kuznetskiy nauchno-issledovatel'skiy ugol'nyy institut (for Belan). 5. Institut gornogo dela imeni A.A.Skochinskogo (for Ponomarenko).

KOSTYLEV, A.D.; GURKOV, K.S.

Use of vibration techniques in mining. Fiz.-tekhn. probl. razrab.
pol. iskop. no.1:40-45 '65. (MIRA 18:10)

1. Institut gornogo dela Sibirskogo otdeleniya AN SSSR, Novosibirsk.

KOSTYLEV, A. M., PELEVIN, V. N., FOROTNIKOV, A. A. (Moscow)

"On Some Equipment for High Temperature Plasma Studies and Some Experimental Data Concerning Magnetohydrodynamic Phenomena."

report presented at the First All-Union Congress on Theoretical and Applied Mechanics, Moscow, 27 Jan - 3 Feb 1960.

L 15726-63

EPR/ENT(1)/ENG(k)/EEC(b)-2/ES(w)-2/BDS AFFTC/ASD/AFWL/

ESD-3/IJP(C)/SSD Ps-4/Ps-4/Pi-4/Po-4/Pab-4 WW/AT

ACCESSION NR: AR3002665

8/0124/63/000/005/3017/3018

SOURCE: Rzh. Mekhanika, Abs. 5886

AUTHOR: Kostylev, A.M.; Porotnikov, A. A.

TITLE: Plasma jet experiments in a magnetic field

CITED SOURCE: Sb. Vopr. magnitn. gidrodinamiki i dinamiki plazmy. v. 2. Riga, AN LatvSSR, 1962, 477-488

TOPIC TAGS: plasmatron, jet, magnetic field, high temperature, Gvozdover formula, plasma arc, magnetic probe

TRANSLATION: Plasmatron experiments are described. To attain high plasma temperatures, an arc discharge was used in which the diameter of the arc channel is limited by a special diaphragm with external or internal cooling by gas or liquid. The work was carried out on two devices. In one, with a power of 115 kw, the density of the current was 7100 amp/cm², the intensity of the electric field was 115 volts/cm, the arc length 30-105 mm. In the other device, with a power of 4000 kv, the current density reached 74000 amp/cm², the field 500 volts/cm, the

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ACCESSION NR: AR3002665

power per unit volume 37000 kilowatt/cm³. The temperature was estimated through the electroconductivity according to the formula of Gvozdover. Averaging along the diameter, the temperature proved to be equal to 28000^o, maximal temperature on the axis of the arc was 35000^o (in both devices). The conductivity was 10¹⁴ CGSE units. The speed of the streamline flow of the plasma jet was several kilometers per second (in the lower power device it was 4 km/sec and in the more powerful one, 5-6 km/sec). The duration of streamline flow was of the order of several minutes.

For the stabilization of the jet axis, an external magnetic field was used. The solenoid encircled the channel and the field was directed along the arc channel axis. During the overlapping of the plasma jet by the longitudinal field up to 300 gauss and during a simultaneous passage along the jet of current the jet was fixed at the axis.

An explanation of this phenomenon is given. Experiments were performed with respect to displacement of the perpendicular magnetic field of the plasma jet. The component of the magnetic field generated by the plasma was measured. A compensated magnetic probe was used for this. Yu. R.

DATE ACQ: 14Jun63

SUB CODE: PH

ENCL: 00

Card 2/2

KOSTYUK, A. S.

KOSTYUK, A. S. -- "Using Material from Systematic Aerial Photography in General Hygro-Forest Soil-Improvement Examinations." Min Higher Education USSR. Leningrad Order of Lenin Forestry Engineering Academy imeni S. M. Kirov. Leningrad, 1955. (Dissertation for the Degree of Candidate in Agricultural Sciences)

SO: Knizhnaya Letopis', No 1, 1956

KOSTYLEV, A.S.

Boards made of wood shavings. Standartizatsiia 24 no.11:43-45 H '60.
(MIRA 13:11)

(Hardboards--Standards)

KOSTYLEV, A.S.

Improving the quality of veneer made from edgewise glued
veneer sheet pieces. Der.prom. 10 no.6:9-10 Je '61. (MIRA 14:7)

1. Tsentral'nyy nauchno-issledovatel'skiy institut fanery i
meбели.

(Veneers and veneering)

KOSTYLEV, A.S.; KOTLYAREVSKAYA, G.A.

Project of technical specifications at Soviet Republics level
for glued veneer for keyboard musical instruments. Der.prom.
11 no.11:13-14 N '62. (MIRA 15:12)
(Veneers and veneering—Standards)

KOSTYLEV, A. V. Cand Agr Sci -- (diss) "Cultivation of barley in Novosibirskaya Oblast." Irkutsk, 1959. 17 pp (Min of Agr USSR. Irkursk Agr Inst), 150 copies (KL, 43-59, 126)

KOSTYLEV, Boris Ivanovich, starshiy prepodavatel'; SKOROSPESHKIN, Aleksey
1944/45. kand. tsn. nauk, dotsent; OBERGAN, Eduard Fomich, aspirant

Potential at the output of an amplidyne operating on a.c.
Izv.vys.ucheb.zav.; elektromekh. 8 no.9:976-979 '65.

(MIRA 18:10)

1. Kufadna elektricheskikh mashin Tomskogo politekhnicheskogo
instituta.

KOSTYLEV, D.

Sanctions had their effect. Den. 1 kred. 21 no.5:63-64 My '63.
(MIRA 16:5)

1. Upravlyayushchiy Nev'yanskim otdeleniyem Gosbanka
(Sverdlovsk Province—Building materials industry—Management)
(Sverdlovsk Province—Banks and banking)

KOSTYLEV, E.F.

Methods of determining the total and specific calorific
value of biological objects. Gidrobiol.zhur. 1 no.5:61-
65 '65. (MIRA 18:11)

1. Odesskoye otdeleniye Instituta biologii yuzhnykh
morey AN UkrSSR.

KOSTYLOV, F. A.

Distr: 4844/4830

1964, 1000-1000

HEAT OF FORMATION OF URANYL FLUORIDE AND
HEAT OF REACTION OF URANYL HEXAFLUORIDE AND
TETRAFLUORIDE WITH WATER. M. M. POKH, F. A.

KOSTYLOV, F. A. and F. P. KOSTYLOV. Translated by E. G. Polare
from Zhur. Neorgan. Khim. 9: 6-12 (1967).

When the present work was begun, in 1967, data con-
cerning the thermal stability of fluorine compounds of
uranium were far from complete. In particular, there were
no data about the heat of formation of UF_6 , the heat of
hydrolysis of UF_6 , and the heat of hydration of UF_6 . This
limited the possibility of making thermodynamic calculations
of reactions in which the above compounds take part.
The present work was intended to provide these data.
(auth)

6
2

5.(2), 5 (4)

AUTHORS: Popov, M. M.: (Deceased), Kostylev, F. A., SOV/78-4-8-2/43
Zubova, N. V.

TITLE: Vapor Pressure of Uranium Tetrafluoride (Davleniye para
tetraftorida urana)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 8,
pp 1708 - 1709 (USSR)

ABSTRACT: The vapor pressure of UF_4 was measured in the temperature interval of from 875 - 1000°C. Argon purified from oxygen and steam served as carrier gas. Figure 1 shows the apparatus, figure 2 a microphotograph (1:24) of the UF_4 crystals taken from the condensation tube. The vapor pressures (in mmHg) measured for the temperatures 875, 900, 950, 975 and 1000° are given. The first three values, corresponding to the vapor pressure in equilibrium with the solid salt follow the equation $\log p = 12.945 - 16140 \cdot \frac{1}{T}$, the latter two follow equation $\log p = 8.003 - 10000 \cdot \frac{1}{T}$. (vapor pressure in equilibrium with the liquid UF_4). The point of intersection of these two straight

Card 1/2

Vapor Pressure of Uranium Tetrafluoride

SOV/78-4-8-2/43

lines shows the value 969° for the melting point of UF_4 which is in good agreement with the data from publications (Ref 2) ($960^{+5}_{-5}^{\circ}$). There are 2 figures and 2 references, 1 of which is Soviet.

SUBMITTED: May 16, 1958

Card 2/2

KOSTYAEV, G.

Shipping of finely ground bulk cargoes. Mor. flot. 24 no.8:12 Ag
'64. (MIRA 18:9)

1. Kapitan teplokhoda "Kyardla" Estonskogo upravleniya Baltiyskogo
parokhodstva.

S/064/60/000/007/002/010
B020/B054

AUTHORS: Lubyanitskiy, I. Ya., Kostylev, G. I., and Furman, M. S.

TITLE: Oxidation of Cyclohexanol and Cyclohexanone by Nitric Acid
Under Pressure. Oxidation of Cyclohexanone and Its
Mixtures With Cyclohexanol by Nitric Acid Under Pressure
Without a Catalyst

PERIODICAL: Khimicheskaya promyshlennost', 1960, No. 7, pp. 5 - 9

TEXT: The oxidation of cyclohexanone by nitric acid has been much less investigated than that of cyclohexanol. Cyclohexanone is oxidized with 61.3% nitric acid to adipic acid at 85-90°C with a yield of 65-73% of the theory (Ref.7). The investigation of this reaction has gained considerable importance in recent years since the oxidation of cyclohexanone, like that of cyclohexanol and similar compounds, forms the basis of the industrial method of producing adipic acid (Ref.2). The authors studied the effect of pressure on the course and yields of oxidation of cyclohexanone by nitric acid, as well as the dependence of the yield in dicarboxylic acids on the composition of the cyclohexanol - cyclohexanone

Card 1/3

Oxidation of Cyclohexanol and Cyclohexanone S/064/60/000/007/002/010
by Nitric Acid Under Pressure. Oxidation of B020/B054
Cyclohexanone and Its Mixtures With Cyclohexanol
by Nitric Acid Under Pressure Without a Catalyst

mixtures during their oxidation by nitric acid. Pure cyclohexanol and 60% HNO_3 were used for the experiments at a temperature of 156°C . The oxidation of cyclohexanone without the use of pressure was conducted at $75\text{--}80^\circ\text{C}$. The authors made experiments of cyclohexanol oxidation by nitric acid in the presence of urea nitrate. Table 5 and Fig.4 show the effect of pressure on the yield of cyclohexanone oxidation by nitric acid. Table 6 gives data on the yield in gaseous reduction products of nitric acid. The authors studied the oxidation of cyclohexanol under atmospheric pressure and in the presence of urea, and found that under these conditions cyclohexanol oxidation begins at 70°C only (without addition of urea at room temperature), and that the adipic-acid yield drops considerably with increasing urea nitrate concentration (Table 7). The results of oxidation of cyclohexanol mixed with cyclohexanone are given in Tables 8 and 9, and in Fig.5. Cyclohexanone is oxidized by nitric acid at higher temperatures than cyclohexanol, the adipic-acid yield being much lower than with cyclohexanol. In the first step, cyclohexanol is oxidized to cyclohexanone; the end product is nitrous acid

Card 2/3

GOL'DMAN, A.M., kand.khimicheskikh nauk; ZAYTSEV, A.I.; KOSTYLEV, G.I.;
LAKHMANCHUK, L.S.; LUBYANITSKIY, I.Ya., kand.khimicheskikh nauk;
PREOBRAZIENSKIY, V.A.; FURMAN, M.S., doktor khimicheskikh nauk;
Prinimali uchastiye: ZHADIN, B.V.; VESEL'CHAKOVA, T.L.; SEDOVA, S.M.;
TRUBNIKOVA, V.I.; KUPIN, M.I.; ZHUKOVA, Ye.I.

Preparation of adipic acid in a continuous pilot unit.

Khim.prom. no.5:323-327 My '62.

(MIRA 15:7)

(Adipic acid)

ACCESSION NR: AT4033531

S/0000/63/000/000/0017/0050

AUTHOR: Gol'dman, A. M. (Candidate of chemical sciences); Kosty*lev, G. I.;
Lubyanitskiy, I. Ya. (Candidate of chemical sciences); Minati, R. V.;
Preobrazhenskiy, V. A.; Sedova, S. M.; Trubnikova, V. I.; Furman, M. S.
(Doctor of chemical sciences)

TITLE: Derivation of adipic acid by nitric acid oxidation of the products of
air oxidation of cyclohexane

SOURCE: Poluprodukty* dlya sinteza poliamidov (Intermediates for polyamide
synthesis). Moscow, Goskhimizdat, 1963, 17-50

TOPIC TAGS: adipic acid, cyclohexanol, cyclohexane, phenol, nitric acid, cy-
clohexane air oxidation, cyclohexanol air oxidation, cyclohexanol nitric acid
oxidation, adipic acid derivation, phenol hydrogen reduction, nitric acid
oxidation catalyst, adipic acid plant, bulk reactor

ABSTRACT: This extensive report reviews existing literature on adipic acid
and its derivation, considers in detail the theory and mechanism of cyclohexanol
oxidation with nitric acid (chemical equations are included) and reports the
effect of various catalysts on the efficiency of the process.

Card 1/4

ACCESSION NR: AT4033531

Experimental studies of the process (equipment illustrated) were carried out at 1, 3.5 and 7 atm, 1st stage temperature 70C, 2nd stage 100C, nitric acid concentration 57% by weight, weight ratio of (100%) nitric acid to organic raw material 4.5:1. Results are tabulated (see table 1 in the Enclosure). Special experiments concerned X-oil residue and its oxidation with nitric acid. Analysis of the derived adipic acid showed that double recrystallization (water) and activated carbon purification of the latter provides material satisfying all government specifications relating to production of the so-called "AG" salt (a polycondensate of adipic acid and hexamethylenediamine). Experimental continuous production equipment capable of producing 100 kg of adipic acid per day was assembled and used in a series of experiments to study design requirements and optimal process factors for industrial production. The experiments involved cyclohexanol derived from hydrogen reduction of phenol and atmospheric air oxidation of cyclohexane. First stage temperature was 55 to 70C (60 to 65C for phenol-derived material), second stage and blow-off column was at 100C, nitric acid concentration 57% by weight, weight ratio as above was 4 to 4.5:1. It is concluded that bulk type reactors are suitable for continuous nitric acid oxidation at atmospheric pressure. Maximal yield of adipic acid from phenol-derived cyclohexanol in the presence of a catalyst was 1.25 kg per 1 kg of raw material. "The method of dispersion chromatography on diatomaceous brick was

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ACCESSION NR: AT4033531

developed by G. T. Levchenko, I. G. Solov'yeva and I. G. Malkova of GIAP. V. R. Ruchinskiy of GIAP also took part in the work." Orig. art. has: 11 tables, 6 graphs, 7 illustrations and 14 chemical formulas.

ASSOCIATION: None

SUBMITTED: 12Oct63

DATE ACQ: 06Apr64

ENCL: 01

SUB CODE: OC

NO REF SOV: 019

OTHER: 012

3/4

Card

ACCESSION NR: AT4033531

ENCLOSURE: 01

Table 1

Oxidation of cyclohexanol at atmospheric pressure (catalyst in % of the weight of organic raw material 0.7 Cu, 0.2 NH_4VO_3)

Organic raw material	Composition of reaction gases, vol. %	Yield of dicarboxylic acid, g/g of organic raw materials	Nitric acid consumption, g/g of adipic acid
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Cyclohexanol						glu- adi- taric acid		suc- ci- nic acid
	$\text{NO}_2 + \text{HNO}_3$	NO	N_2O	H_2	CO_2	pic	a-	
from phenol	2.6	23.7	41.2	20.8	6.7	1.29	0.035	0.028
from cyclohexane	9.5	10.4	38.0	32.9	3.1	1.29	0.110	0.080

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LUBIANITSKIY, I.Ya.; KOSTYLEV, G.I.; FURMAN, M.S.

Oxidation of cyclohexanone and of its mixtures with cyclohexanol
by nitric acid under pressure without a catalyst. Khim. prom.
no. 7:533-537 O-N '60. (MIRA 13:12)
(Cyclohexanone) (Cyclohexanol) (Nitric acid)

KOSTYLEV, G.I.; LUBYANITSKIY, I.Ya.

Formation of nitrophenols in the oxidation of cyclohexanol by
nitric acid. Zhur.ob.khim. 32 no.4:1355-1356 Ap '62.
(MIRA 15:4)

(Phenol) (Cyclohexanol) (Nitric acid)

ORBELIANTS, S.A., doktor tekhn.nauk, prof.; ENGEL'KE, V.A., inzh.;
DRAGISHEVICH-NIKSHICH, S.V.; KOSTYLEV, G.I.

Distribution of the center lines of nonstop train meet and passing
points. Sbor.trud.LIIZHT no.199:47-53 '62. (MIRA 16:2)
(Railroad engineering)

KNIAZHITSKIY, Grigoriy Mikhaylovich; KOSTYLEV, Ivan Georgiyevich; BOYKOV,
M.A., red.; SOKOLOVA, G.F., tekhn.red.

[An aid for training telegraph operators in the use of telegraph
apparatus] Posobie po obucheniiu telegrafistov rabote na appara-
takh. Moskva, Voen.izd-vo M-va obor.SSSR, 1960. 142 p.
(MIRA 13:5)

(Telegraph--Handbooks, manuals, etc.)

KOSTYLEV, K. P.

"A Way to Enlarge the Boll of the Cotton Plant." Cand Agr Sci, Tashkent Agriculture
Inst, Acad Sci Uzbek SSR, Tashkent, 1953. (RZhFiol, No 1, Sep 54)

SO: Sum 432, 29 Mar 55

KOSTYLEV, K.P.

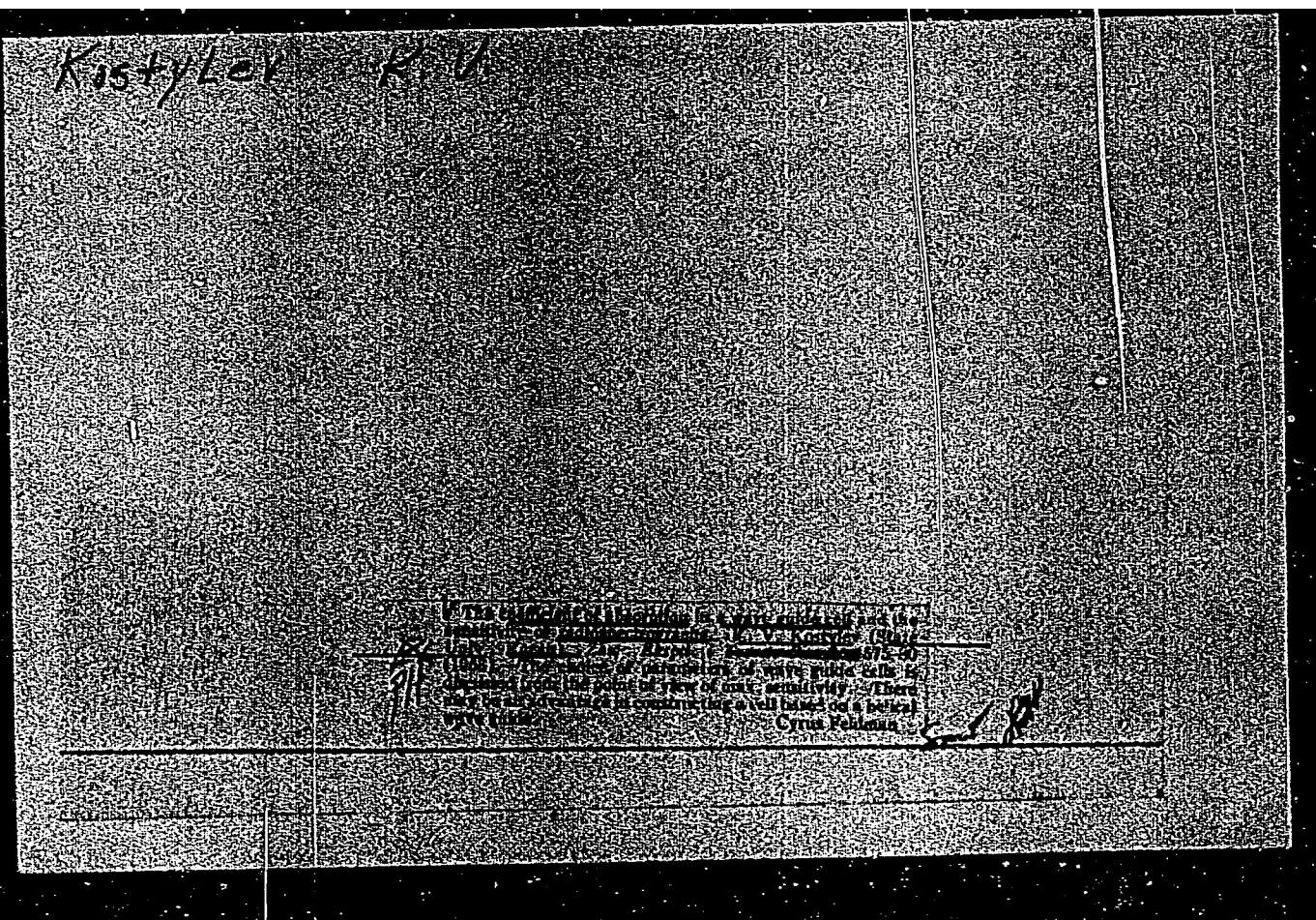
Measures for increasing the size of cotton bolls. Izv. AN Uz.SSR
no.1:28-34 '53. (MIRA 11:3)

(Cotton growing):

CHUDOVICHEV, N. I.; KOSTYLEV, K. V.

"Determining the brightness of the corona and its separate zones during the total Solar Eclipse of 21 Sept 1941," Astron. Zhur., 19, No 4, 1942.

U-1518, 23 Oct 1951



KOSTYLEV, K.V.

Category : USSR Electronics - Semiconductor Devices and Photoelements

H-8

Abs Jour : Ref Zhur - Fizika, No 2, 1957, No 4384

Author : Kostylev, K.V.

Inst : Astronomic Observatory of the Kazan' State University, USSR

Title : Precision Voltage Stabilizer for the Supply of Photomultipliers.

Orig Pub : Astronom. zh., 1955, 32, No 6, 545-549

Abstract : A description of a voltage stabilizer circuit, designed for the supply of photoelectronic multipliers. The stabilizer represents a high frequency oscillator, employing a 6P9 tube (the screen grid of which is used as the control grid), with a feedback loop consisting of a voltage divider and a three-stage amplifier (two stages employing 6N9 tubes and one stage produced by the control grid of the 6P9 tube). The stabilization coefficient of the circuit is on the order of 2.5×10^3 , and the output resistance is approximately 300 ohms. The output is 1.5 watts.

Card : 1/1

KOSTYLEV, K.V.

Commutation pattern for a galvanometer and its use in stellar electrophotometry. Astron.zhur. 33 no.2:259-265 Mr-Apr '56. (MLRA 9:8)

1. Astronomicheskaya observatoriya imeni Engel'gardta.
(Galvanometer)

3(1)

SOV/33-35-4-14/25

AUTHOR: Kostylev, K.V.

TITLE: Equipment for Radio-Echo Observations of Meteors With Automatic Registration at the Engel'gardt Astronomical Observatory (Apparatura astronomicheskoy observatorii im. Engel'gardta dlya radiolokatsionnykh nablyudeniy meteorov s avtomaticheskoy registratsiyey)

PERIODICAL: Astronomicheskiy zhurnal, 1958, Vol 35, Nr 4, pp 643-650 (USSR)

ABSTRACT: In June 1956 there took place a seminary at the Engel'gardt Observatory on radio-echo observations of meteors. The author publishes a report on the instruments developed by him for performing the observations mentioned above. The central apparatus is a radar station with the frequency of 72 MHz and the impulse power of 100-120 KW. The antenna (type wave channel) has an angle of inclination of about 22° and rotates with about 1 revolution per minute. The observer is replaced by a special oscillograph, carrying out, among other things, the following operations: 1. The distinction of the meteor echoes from other signals. 2. Registration of the moment of flight and of the distance. 3. Registration of the duration of the echo. 4. Generation of a special signal for the

Card 1/2

S/030/60/000/009/008/016
B021/B056

AUTHOR: Kostylev, K. V.

TITLE: Seminar of Radiotechnical Observation Methods of Meteoric Ionizations

PERIODICAL: Vestnik Akademii nauk SSSR, 1960, No. 9, pp. 101 - 102

TEXT: The Seminar of Radiotechnical Observation Methods of Meteoric Ionizations took place at Moscow from July 8 to July 11, 1960 and discussed several problems of the theory of meteoric ionization, of results of observations, and of the applied method and apparatus. The following reports were delivered: Yu. A. Loshilov spoke about the dielectric constant of the meteor trail; A. M. Furman - on the ionization mechanism; N. V. Kolobov - on some interrelations between meteoric phenomena and meteorological processes; O. I. Bel'kovich - on errors in determining the law of the mass distribution of meteors; V. M. Kolmakov - on the system of recording statistical meteor characteristics; R. P. Chebotarev - on the application of logical designs in a meteoric radiolocator; I. A. Lysenko, M. F. Lagutin - on radio observations of meteoric radiants;

Card 1/2

Card 2/2

KHOLOPOV, P.N., kand.fiziko-matematicheskikh nauk; LEVIN, B.Yu.;
KOSTYLEV, K.V.

In the Astronomy Council. Vest.AN SSSR 30 no.9 99-102 S '60.
(MIRA 13:9)
(Astronomy)

KOSTYLEV, K. V.

PHASE I BOOK EXPLOITATION

SOV/4728

Kazan'. Universitet. Astronomicheskaya observatoriya

Byulleten', no. 35 (Bulletin of the Astronomical Observatory, Kazan'
State University imeni V. I. Ul'yanov-Lenin, No. 35) [Kazan'] 1960. 80 p.
No. of copies printed not given.

Sponsoring Agencies: Ministerstvo vysshego i srednego spetsial'nogo
obrazovaniya RSFSR; Kazanskiy ordena trudovogo krasnogo znamen
gosudarstvennyy universitet imeni V. I. Ul'yanova-Lenina.

No contributors mentioned.

PURPOSE: This booklet is intended for astronomers, radio and electronics
engineers, and physicists. It may be used by advanced students of astronomy.

COVERAGE: This issue of the Bulletin of the Astronomical Observatory imeni
Engel'gardt contains 6 articles reflecting work carried on at that institute
during the last decade. Individual papers deal with radar observations

Card 1/4

tain information on the static distribution of the amplitudes of the radar

Card 2/4

43283

S/831/62/000/008/004/016
E192/E382

3.1710

AUTHOR: Kostylev, K.V.

TITLE: Radar observations on meteors at Kazan'

SOURCE: Ionosfernyye issledovaniya (meteory). Sbornik statey, no.8. V razdel programmy MGG (ionosfera). Mezhdoved. geofiz. kom. AN SSSR. Moscow, Izd-vo AN SSSR, 1962, 29-40

TEXT: The AOE has conducted regular investigations on meteors since 1955 by radar equipment provided with special recording apparatus. The radar had the following basic technical characteristics: 1) carrier frequency 71.4 Mc/s; 2) pulsing frequency 50 cps and recording frequency of 25 cps; 3) duration of transmitted pulse 15 μ s; 4) pulse power 30 to 100 kW; 5) a Yagi antenna consisting of 7 elements (one active vibrator, one reflector and 5 directors); 6) antenna fixed at a height of 2 wavelengths above the Earth and inclined at 22° to the horizon plane and 7) the vertical directional pattern of the antenna with three basic lobes with maxima at 15, 35 and 55° (to the horizontal). The equipment measures only those meteors which exist longer than 0.04 sec and give the amplitude of the reflected

✓

L 22425-65 EEO-2/ESP(h)/EWI(1)/EWI(v)/EWA(d)/EEO-1/EEG(t)/EEO-2
 Pac-1/Pac-2/P1-1/P1-1/P1-1/P1-1/P1-1 OW/MR

Pa-5/Pa-1/Pa-1/

ACCESSION NR: AR5001313

S/0269/64/000/010/0050/0050

SOURCE: Ref. zh. Astronomiya, Otdel'nyy vypusk, Abs. 10.51.339

AUTHOR: Kostylev, R. V., Pupyshov, Yu. A., Bel'kovich, O. I.

TITLE: Review of radar observations of meteors made at the Astronomicheskaya Ob-
 servatoriya imeni Engel'gardta (Engel'gardt Observatory) in 1958-1960

CITED SOURCE: Sb. Meteorn. rasprostr. radiovoln, no. 1. Kazan', Kazansk. un-t,
 1963, 3-20

TOPIC TAGS: radioastronomy, radar, meteor tracking, upper atmosphere, meteor orbit

TRANSLATION: This article is a review of systematic radar observations of meteors.
 The investigations were made at the Astronomicheskaya Observatoriya imeni Engel'
 gardta (Engel'gardt Observatory) on 4.2- and 8.7 -m waves from 1958 to 1960. A
 fixed antenna ($\lambda = 4.2$ m) and an azimuthally rotating antenna (with 30° jumps,
 stopping in each position for 5 minutes) were used. The authors discuss the di-
 urnal and seasonal variation of the number of meteors. Seasonal changes confirm
 the assumption that the earth passes through a broad zone of meteor orbits. There

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is an appendix containing tables of the mean monthly numbers of meteors for 1959
for both wave-lengths. From authors' summary.

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