

S/030/63/000/003/011/014
B117/B186

AUTHORS: Terenin, A. N., Academician, Kusakov, M. M., Doctor of
Chemical Sciences, Yel'yashevich, M. A., Academician BSSR

TITLE: Symposium on molecular structure and spectroscopy

PERIODICAL: Akademiya nauk SSSR. Vestnik, no. 3, 1963, 118-119

TEXT: This is a brief report on the Simpozium po molekulyarnoy
strukture i spektroskopii (Symposium on Molecular Structure and
Spectroscopy) which took place in Tokyo from Sept. 10 to 15, 1962. The
Symposium was attended by 900 scientists, among them 700 from Japan and
about 200 from 25 other countries. The USSR was represented by V. N.
Kondrat'yev, member of the Ispolnitel'nyy komitet Mezhdunarodnogo
soyuza teoreticheskoy i prikladnoy khimii (Executive Committee of the
International Union for Theoretical and Applied Chemistry) and by the
authors of this paper. More than 250 lectures were delivered.

Card 1/1

8/250/63/007/003/003/006
A059/A126

AUTHORS: Grachikhin, L.I., Yel'yashevich, M.A.

TITLE: The broadening of spectral lines showing the linear Stark effect in plasma

PERIODICAL: Doklady Akademii nauk BSSR, v. 7, no. 3, 1963, 157 - 159

TEXT: The contour of spectral lines in plasma originating by broadening due to the linear Stark effect, which was previously calculated by J. Holtmark (Phys. Zs., v. 20, 162, 1919), is defined more accurately in this paper. In the plasma, quasi-state electric fields from 0 to ∞ with the distribution probability $W(F) dF = \frac{1}{F_0} W(\beta) d\beta$ can arise, where $\beta = F/F_0$ and $F_0 = 2.61 eN^{2/8}$ - the normal intensity of the field. The general half-width of the line was found to be

$$\gamma = 2 \Delta \nu_{1/2} = 2 a \beta_{1/2} F_0 = 2.80 a F_0 = 7.31 a eN^{1/4}, \quad (10)$$

where $\beta_{1/2}$, which determines the frequency shift $\nu_{1/2}$, is 1.40, a is the con-

Card 1/2

S/250/63/007/003/003/006
A059/A126

The broadening of spectral lines showing the

stant of the linear Stark effect for a given spectral line, and F is the action of the electric field. The constant a of the linear Stark effect as determined by the authors is only half the value used in the equation derived by Holtmark.

ASSOCIATION: Institut fiziki AN BSSR (Institute of Physics of the AS BSSR)

SUBMITTED: November 20, 1962

Card 2/2

APANASEVICH, P.A.; BORISEVICH, N.A. VOI OD'KO, L.V.; GLADCHENKO, L.F.;
GRIBKOVSKIY, V.P.; GURINOVICH, G.P.; IVANOV, A.P.; KUZNETSOVA,
V.V.; PIKULIK, L.G.; FILIPOVICH, V.A.; RUBANOV, A.S.; RUBANOV,
V.S.; SAMSON, A.M.; SARZHEVSKIY, A.M.; SOLOV'YEV, K.N.;
UMREYKO, D.S.; KHAPALYUK, A.P.; YEL'YASHEVICH, M.A., akademik,
red.

[Interaction between nonequilibrium radiation and matter]
Vzaimodeistvie neravnovesnogo izlucheniia s veshchestvom.
Minsk, Nauka i tekhnika, 1965. 223 p. (MIRA 18:3)

1. Akademiya nauk SSSR. Institut fiziki. Akademiya nauk Belorusskoy SSR (for Yel'yashevich).

L 5447-66

EWT(1)/EWT(m)/ETC/EPF(n)-2/EWG(m)/EPA(w)-2/EWP(t)/EWP(b) IJP(c)
JD, JG/AT

ACC NR: AP5025085

SOURCE CODE: UR/0368/65/003/003/0201/0208

AUTHORS: Grechikhin, L. I.; Yel'yashevich, M. A. 44, 65

76
B

ORG: none

TITLE: Application of the quadratic Stark effect in the determination of concentration of charged particles in plasma by the spectral line broadening of lithium and sodium 21, 44, 65

SOURCE: Zhurnal prikladnoy spektroskopii, v. 3, no. 3, 1965, 201-208

TOPIC TAGS: Stark effect, line broadening, charged particle concentration, lithium, sodium

ABSTRACT: Stark constants for the quadratic Stark effect for the sharp, principal, and diffuse lines of lithium and sodium were calculated. The calculation was based on the well known second order perturbation theory expression for energy level displacement of one-electron systems subject to an electric field

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ACC NR: AP5025085

$$C_{l,k} = \frac{e^4}{h} \sum_{n'} \left[\frac{((L+1)^2 - M_{l'}^2)(n, L | r | n', L+1)^2}{4(L+1)^2 - 1} + \frac{(L^2 - M_{l'}^2)(n, L | r | n', L-1)^2}{4L^2 - 1} \right] \frac{1}{E_{n,L} - E_{n',L-1}}$$

The results of calculation are given in tabular form. The effect of electron and ion impacts on the spectral line shape was determined by the use of the nonstationary electron impact theory and the Holtmark theory respectively. It was found that the overall half-line width was almost equal to the sum of the half-line width due to electronic and ionic effects respectively. It is concluded that the quadratic Stark effect becomes noticeable for different lines at different charged particle concentrations, that a particular line may disappear completely at sufficiently high charged particle concentration, and that the diffuse series lines and the higher members of the sharp series are particularly sensitive to charged particles concentrations (see Fig. 1). The concentration of charged particles in a dc arc was calculated and compared with data reported by L. I. Grechikhin (Opt i spektr., 13, 578, 1962). The calculated values are in good agreement with experimental data.

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L 5447-66

ACC. NR: AP5025085

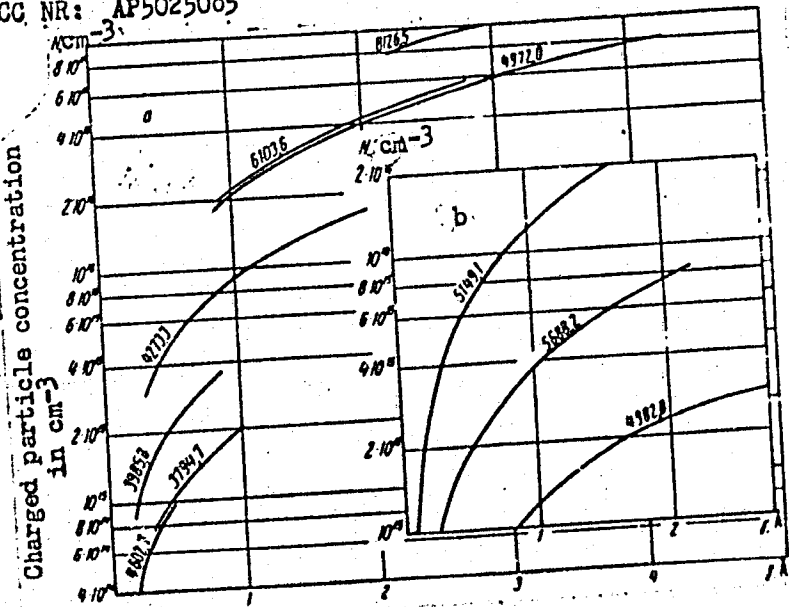


Fig. 1. The change in the half-line width of the lithium atom (a) and sodium atom (b) lines as a function of charged particle concentration

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L 5447-66

ACC NR: AP5025085

Orig. art. has: 4 tables, 3 graphs, and 6 equations.

SUB CODE: OP/

SUBM DATE: 16Apr65/

ORIG REF: 007/

OTH REF: 003

Card 4/4 *md*

L 15955-46 EWT(m)/T WW/JW/AE

ACC 100 AP6002390

SOURCE CODE: UR/0250/65/009/012/0794/0797 70

AUTHOR: Vitkin, E.I.; Yel'yashevich, M.A. (Academician AN BSSR) 69

ORG: Institute of Physics of the AN BSSR (Institut fiziki AN BSSR)

TITLE: Development of a thermal explosion¹ in time

SOURCE: AN BSSR. Doklady, v. 9, no. 12, 1965, 794-797

TOPIC TAGS: chemical explosion, heat conduction, activation energy

ABSTRACT: The article considers the one dimensional unsteady state limiting problem of the heat conduction equation:

$$\rho C_p \frac{\partial T}{\partial t} = \lambda \frac{\partial^2 T}{\partial x^2} + Q \exp\left(-\frac{E}{T}\right) \quad (1)$$

over the segment $-l \leq x \leq l$. Here, ρ is the density; C_p is the heat capacity at constant pressure; λ is the heat conductivity coefficient; $Q \exp(-E/T)$ is a function of the heat source for a reaction of "zero" order, obeying the Arrhenius law; E is the activation energy, expressed in degrees; and, T is the temperature. The following dimensionless variables

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L 15955-66

ACC NR: AF6002390

$$\tau = \frac{\lambda}{\rho C_p l} l, \xi = \frac{x}{l}$$

and the parameter

$$q = \frac{RQE}{\lambda T_0^2} \exp\left(-\frac{E}{T_0}\right)$$

are substituted into Eq. 1. Results of the mathematical solution developed in the article show that the calculated results agree satisfactorily with experiment only starting with $q > 2$. The critical value of the parameter q is determined by the condition $\Delta = 0$, which gives $q_{cr} = 0.895$. It is noted, finally, that at

$$\tau \ll \frac{0.533}{\sqrt{|\Delta|}} \quad \text{for any given value of } q, \quad f(\tau) = 1.25q\tau$$

This simple solution can easily be extended to reactions of zero order and to regions of more complicated geometry. "The author thanks S. I. Anisimov for suggesting the problem and for his direction of the work." Orig. art. has: 15 formulas, 1 figure, and 1 table.

SUB CODE: 20,07/ SUBM DATE: 13May65/ ORIG REF: 002/ SOV REF: 000/

OTH REF: 001

bvk

Card 2/2

L 40385-66 FBD/EWT(1)/EWT(m)/EEC(k) 2/T/EWP(L)/ETT/EWP(k) LIP(c) WI/JIN/NI/JI

ACC NR: AP6025256

SOURCE CODE: UR/0057/66/036/007/1273/1284

49
48
B

AUTHOR: Anisimov, S.I.; Bonch-Bruyevich, A.M.; Yel'yashevich, M.A.; Izas, Ya.A.;
Pavlenko, N.A.; Romanov, G.S.

ORG: none

TITLE: The effects of intense light beams on metals

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 36, no.7, 1273-1284

TOPIC TAGS: laser effect, metal melting, metal vaporizing, heat of sublimation

ABSTRACT: The authors have investigated theoretically and experimentally the phenomena accompanying the disruption of metals by focused laser beams. In the present paper there is considered the case of a laser producing approximately 1 millisecc pulses, each consisting of a sequence of approximately 1 microsec spikes. The phenomena accompanying disruption of metals by giant laser pulses will be discussed in a future paper. In the theoretical part of the paper, fluxes of 10^{12} to 10^{16} erg/cm² sec on an approximately 1 mm diameter spot are considered. It is shown that under these conditions the transport of energy in the metal by heat conduction during the duration of a spike is negligible, and the problem of the vaporization of the metal is accordingly treated in one dimension. Formulas are derived, and curves are presented for different metals, relating the energy flux in the laser beam, the temperature of the metal surface, the erosion rate of the metal surface (i.e., the rate of increase

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L 40385-66

ACC NR: AP6025256

in the depth of the hole), and the velocity and pressure of the jet of metal vapor. The temperature of the metal surface is not equal to the boiling temperature, as was erroneously assumed by J.F. Ready (J. Appl. Phys., 38, No. 2, 462, 1965). The theoretical relations were tested by experiments on some 16 metals and alloys, using neodymium glass lasers producing up to 300 J pulses. The laser beam was focused with a lens onto the parallelepipedical specimen and the disruptive process was recorded cinematographically at 10^5 frames per sec. In most of the experiments a glass plate was cemented to one face of the specimen and the laser beam was so directed parallel to the glass-metal boundary that about half of the beam passed freely through the glass and the other half penetrated into the metal, vaporizing it. In those experiments the process was photographed through the glass. The mass of metal removed by the laser pulse was determined by weighing the specimen, and the impulse due to reaction of the metal vapor jet was measured. The experiments were in qualitative agreement with the theory, and quantitative agreement in order of magnitude was found. The authors feel that development of a more accurate theory would not be worthwhile, owing to the large variations between different lasers. Three stages were distinguished in the disruption process: in the first stage the temperature of the metal surface increased at the rate of approximately 10^{10} degree/sec; in the second stage metal was vaporized from the specimen and a hole was formed in it; and in the third stage a pressure of 10^2 to 10^3 atmospheres developed within the hole and a powerful jet of metal vapor issued from it at supersonic velocities. The ratio of the laser pulse energy to the mass of metal

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L 40385-66

ACC NR: AP6025256

lost by the specimen was approximately equal to, but in most cases somewhat less than, the heat of sublimation of the metal. An appreciable mass of the metal was ejected as liquid. Orig. art. has: 9 formulas, 9 figures, and 2 tables. [15]

SUB CODE:

20

SUBM DATE: 26Jun65

ORIG. REF: 005

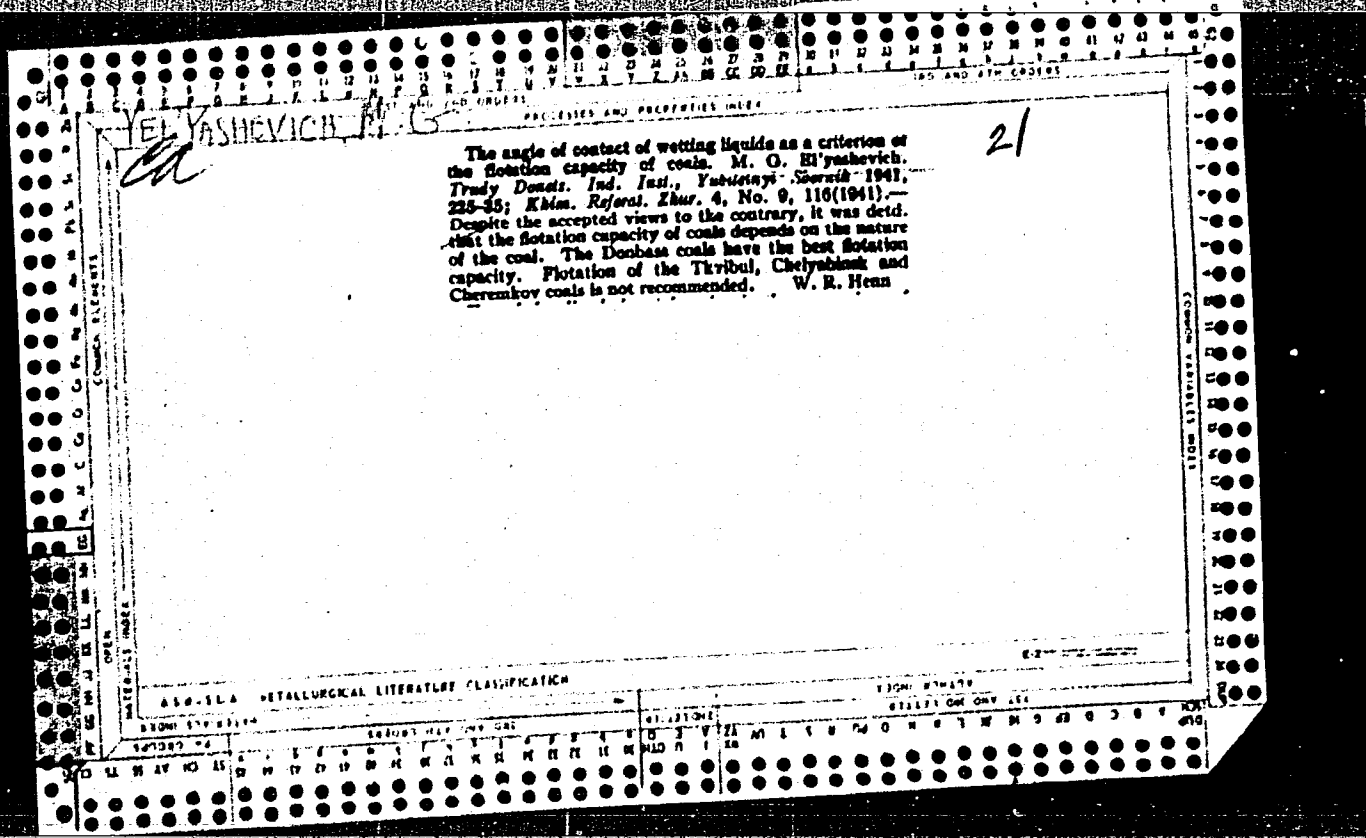
OTH REF: 004

ATD PRESS:

211/
5053

Card 3/3

vmb



Method of evaluation of an average coal flotation rate.
M. G. El'yashevich. *Izvest. Akad. Nauk S.S.S.R., Otdel. Tekh. Nauk* 1953, No. 12, 130-43 -- A formula is derived for an av. proportion of extd. values from coal, $K_{av} = -(\gamma/t_{av}) \ln(1 - (\gamma_{av}/\gamma_{max}))$, where t is the time, and γ the concentrate yield in per cent. This formula was found very useful in studying coal flotation with sulfonated kerosine and various foaming agents. W. M. Sternberg

Zakopetskiy, V. M. et al. 1953

"APPROVED FOR RELEASE: 03/15/2001

CIA-RDP86-00513R001962620006-9

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CIA-RDP86-00513R001962620006-9"

KIPNIS, Sh. Sh., student, YUL'YASHEVICH, M.O., nauchnyy rukovoditel', dots.,
kand. tekhn. nauk.

Selecting at the Khanzhenskovo Central Ore Dressing Plant an efficient
preparation flowsheet for coals difficult to treat because of ash and
sulfur content. Sbor. nauch. rab. stud. SMO DII no.2:85-91 '57.
(MIRA 11:12)

1. Gorno-mekhanicheskiy fakul'tet Donetskogo industrial'nogo instituta
im. N.S. Khrushcheva.
(Khanzhenskovo--Coal preparation)

YEL'YASHEVICH, M.G., dots., kand.tekhn.nauk

Preparation of the petrographic components of coal in the process of salt flotation. Nauch.dokl.vys.shkoly; gor.delo. no.4: 213-217 ' 58. (MIRA 12:1)

1. Predstavleno kafedroy obogashcheniya poleznykh iskopayemykh Donetskogo industrial'nogo instituta imeni N.S. Khrushcheva.
(Coal preparation) (Flotation)

YEL'YASHEVICH, Mirra Grigor'yevna; PUSHKARENKO, Yevgeniya Ivanovna;
KARPOVA, N.N., otv.red.; ROMANOVA, A.A., red.isd-va;
IL'INSKAYA, G.M., tekhn.red.

[Coal flotation practices] Opyt flotatsii uglei. Moskva,
Gos.nauchno-tekhn.isd-vo lit-ry po gornomu delu, 1960.
205 p. (MIRA 14:3)
(Coal preparation) (Flotation)

YEL'YASHEVICH, M.G., dotsent, kand.tekhn.nauk; OFENGENDEN, M.Ye.,
~~dotsent, kand.tekhn.nauk~~

Flocculation of slime and clarification of return waters
in coal preparation plants. Ugol' Ukr. 4 no.8:28-30 Ag '60.
(MIRA 13:9)

1. Donetskij politekhnicheskij institut.
(Coal preparation)

YEL'YASHEVICH, M.G.; ZOZULYA, I.I.; ODINTSOV, N.V.; NAUMOV, N.G.

Introduction of an efficient flotation system at the coal-cleaning section of the Shcherbinovka Coking Plant. Koks i khim. no.9:6-10 '60. (MIRA 13:9)

1. Donetskij politekhnicheskij institut (for Yel'yashevich, Zozula).
2. Shcherbinovskiy koksokhimicheskiy zavod (for Odintsov, Naumov).
(Shcherbinovka--Coal preparation) (Flotation)

YEL'YASHEVICH, M.G. ; OFENCENDEN, M.Ye.

Coagulation of coal slurries by high polymers. Koks i khim. no.10:
18-20 '60. (MIRA 13:10)

1. Donetskij politekhnicheskij institut.
(Makeevka--Coal preparation) (Acrylamide)

YEL'YASHEVICH, M.G., kand.tekhn.nauk; ZOZULYA, I.I., kand.tekhn.nauk; NAUMOV,
N.G., inzh.

Coal flotation at the coal preparation section of the Shcherbinovka Coke
and Chemical Plant, Ugol' Ukr. 5 no.3:9-11 Mr '61. (MIRA 14:3)
(Donets Basin--Coal preparation)

YEL'YASHEVICH, M.G., dotsent; ZOZULYA, I.I., dotsent

Flotation flowsheet of coal middlings which are hard to concentrate. Izv. vys. uch. zav.; gor. zhur. 5 no.6:182-187 '62.
(MIRA 15:9)

1. Donetskoy ordena Trudovogo Krasnogo Znameni Politekhnicheskiy institut. Rekomendovana kafedroy obogashcheniya poleznykh iskopayemykh.

(Coal preparation)

YEL'YASHEVICH, M.G.; ZUZULYA, I.I.; SHTEYNBERG, I.Ye.; SERGEYEV, A.P.;
LOKSHIN, M.A.; SHCHEPIN, N.N.

Increasing the efficiency of slurry flotation. Koks i khim. no.9:
18-19 '63. (MIRA 16:9)

1. Donetskii politekhnicheskii institut (for Yel'yashevich, Zuzulya,
Shteynberg). 2. Makeyevskii koksokhimicheskii zavod (for Sergeyev,
Lokshin, Shchepin).

(Coal Preparation)

YEL'YASHEVICH, Z.B.; GRACHEV, Yu.V.

Telemetry channel for drilling and exploiting deep wells.
Izv. vys. ucheb. zav.; neft' i gaz 2 no.7:97-102 '59.
(MIRA 12:12)

1. Azerbaydzhanskiy institut nefti i khimii im. M. Azizbekova.
(Oil well drilling) (Remote control)

YEL'YASHEVICH, Z.B.; GRACHEV, Yu.V.

Communication channel with electromagnetic contacts for telemetering
deep wells. Izv. vys. ucheb. zav.; neft' i gas 2 no.10:73-77 '59.
(MIRA 13:2)

1. Azerbaydshanskiy institut nefti i khimii im. M. Azizbekova.
(Telemetering) (Oil wells)

YEL'YASHEVICH, Z.B., prof.; KULIYEV, I.A., kand.tekhn.nauk; KYAZIM-ZADE, Z.I.,
kand.tekhn.nauk, dots.

Three-phase networks with nonsymmetrically distributed parameters.
Izv. vys. ucheb. zav.; energ. 3 no.11;21-27 N '60. (MIRA 13:12)

1. Azerbaydzhanskiy institut nefi i khimii imeni M.Azizbekova.
Predstavlena kafedroy obshchey i teoreticheskoy elektrotekhniki.
(Electric power distribution)

YEL'YASHEVICH, Z.B.; PETROSYAN, A.N.; GRACHEV, Yu.V.; VIGDOROV, D.I.;
FRIDMAN, M.Ye.

Using field electric networks as a remote control communication
channel. Izv. vys. ucheb. zav.; neft' i gaz 3 no.11:91-94 '60.
(MIRA 14:1)

1. Azerbaydzhanskiy institut nefti i khimii imeni M.Azizbekova.
(Remote control) (Oil fields)

AZIMOV, B.A.; ALIZADE, A.A.; ASLANOV, R.K.; GUSEYNOV, F.G.; DZHUVARLY, Ch.M.;
YEL'YASHEVICH, Z.B.; KADYMOV, Ya.B.; KILIZADE, K.H.; KYAZIMZADE, Z.I.;
MAMIKONYANTS, L.G.; PETROV, I.I.; RUSTAMZADE, P.B.; SPIRIN, A.A.;
SYROMYATNIKOV, I.A.; ESIBYAN, M.A.; EFENDIZADE, A.A.

Professor Boris Maksimovich Pliushch, 1904- ; on his 60th birthday.
Elektrichestvo no.1:91-92 Ja '65. (MIRA 18:7)

YEL'YASHKOVICH, S.

"Increasing the Stability of Television Reception for Strong Signals," RADIO, No. 12,
1949.

181T101

YEL'YASHKEVICH S.

USSR/Radio - Television
Detection

Apr 51

"Reinsertion of the DC Component in Commercial Television Sets," S. Yel'yashkevich

"Radio" No 4, pp 43-46

Describes circuits for dc reinsertion in KVN-49B and Leningrad T-2 television receivers. Advises amateurs to use such circuits in receivers which they build in order to eliminate out-of-focus picture effects and disturbances in reproduction of halftones when type of picture transmitted changes.

181T101

YEL'YASHKEVICH, S.

USSR/Radio - Television Receivers

Oct 51

"Pulse Rectification for Television Receivers,"
S. Yel'yashkevich

"Radio" No 10, pp 41-45

Describes method of obtaining plate voltage for
Kinescope by using the voltage pulses which arise
in the output stage of the line scanning circuit
during flyback. Gives load characteristics of the
one-stage rectifier used in the KVN-49 and the
2-stage rectifier used in the T-2 Leningrad.

208T56

YEL'YASHKEVICH, S.

USSR/Electronics - Television
Ion Traps

Aug 52

"The Ion Spot," S. Yel'yashkevich

"Radio" No 8, pp 55-57

Describes 2 types of ion traps, both using auxiliary focusing coils and apertures in diaphragms. In the α type, the electron gun is bent at an angle of 21° to the axis. The β had best protection against ion burns is coating the screen on the inside with a thin metallic aluminum film.

226T33

YEL'YASHKEVICH, S.

261T69

USSR/Electronics - Television Receivers
Kinescopes

Jun 53

"Use of a 23LK1B Tube in the KVN-29 Television Receiver," I. Bardakh and S. Yel'yashkevich

Radio, No 6, pp 39-42

Describes 2 methods by which the KVN-49 receiver can be adapted to operate with a 23LK1B picture tube (instead of the std 18LK15). The larger picture tube requires higher line and frame scanning voltages and an anode accelerating voltage of 8 kv.

261T69

~~YEL'YASHKOVICH~~, Samuil Abramovich; BERG, A.I., redaktor; DZHIGIT, I.S., redaktor; YELIN, O.G., redaktor; KULIKOVSKIY, A.A., redaktor; MOZHZHEVELOV, B.N., redaktor; SMIRNOV, A.D., redaktor; TARASOV, F.I., redaktor; TRAMM, B.F., redaktor; CHECHIK, P.O., redaktor; SHAMSHUR, V.I., redaktor; NIKOLAYEVSKIY, I.F., redaktor; SKVORTSOV, I.M., tekhnicheskii redaktor

[Eliminating defects from television receivers] Ustranenie neispravnostei v televizore. Moskva, Gos. energ. izd-vo, 1954. 151 p. (Massovaya radiobiblioteka, no.211) (MLRA 8:3)
(Television—Repairing)

USSR/ Electronics - Cathode ray tubes

Card 1/1 Pub. 89 - 18/27

Authors : El'yashkevich, S.

Title : Cathode ray tube difficulties

Periodical : Radio 2, 38-40, Feb 1954

Abstract : Various troubles of cathode-ray tubes are analyzed and corrective methods discussed.

Institution:

Submitted:

YEL'YASHKEVICH, S.

Tuning television receivers with an oscillograph. Radio no.10:
28-30 0'55. (MIRA 9:1)
(Television--Receivers and reception)

EL'YASHKEVICH, Samuil Abramovich; TARASOV, F.I., redaktor; LARIONOV, G.Ye.,
tekhnicheskii redaktor

[Testing television tubes] Proverka lamp v televizorakh. Moskva,
Gos. energ. izd-vo 1956. 39 p. (Massovaya radiobiblioteka, no.241)
(Television--Apparatus and supplies--Testing) (MIRA 9:8)
(Electron tubes)

YEL'YASHKEVICH, S. (Moskva)

The "T-2 Leningrad" television set using the 35LK2B kinescope.
Radio no.10:53 0 '57. (MIRA 10:10)
(Television--Receivers and reception)

YEL'YASHKEVICH, Samuil Abramovich; RUBCHINSKIY, A.V., redaktor; VORONIN,
K.P., tekhnicheskij redaktor

[Eliminating defects from television receivers] Ustranenie
neispravnostei v televizore. Izd. 2-oe, perer. Moskva, Gos.
energ.izd-vo, 1957. 79 p. (Massovaya radiobiblioteka, no.277)

(MLRA 10:9)

(Television--Receivers and reception--Maintenance and repair)

PHASE I BOOK EXPLOITATION

488

Yel'yashkevich, Samuil Abramovich

Spravochnik po televizionnym priyemnikom (Manual on Television Receivers)
Moscow, Gosenergoizdat, 1958. 175 p. 50,000 copies printed.

Ed.: Bardakh, I. M.; Tech. Ed.: Voronin, K. P.

PURPOSE: This handbook is addressed to radio amateurs, radio technicians, to students enrolled in vtuzes and to designer.

COVERAGE: This handbook provides data on circuit diagrams, descriptions, voltage charts, coil winding data, etc., on television receivers put out by the Soviet radio industry from 1947 to 1957 inclusive. A separate chapter deals with metering and tuning. The present work is a first attempt to systematize this material. The considerable progress made in the field during this 11 year period is reviewed. Soviet television sets are now designed to operate on 12 channels and have rectangular screens with 35, 43 and 53 cm. diagonals. Among other improvements, television reception over greater distances has become possible and the cost of television sets has been reduced. The handbook also contains ~~blueprints~~
Card 1/12

Manual on Television Receivers

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for the arrangement of the main receiver parts and chassis plans, oscillogram design data, frequency characteristics and tuning data. Inasmuch as the factories are always improving the design of the television receivers discussed in this book, and as it has not always been possible to register these design changes here, the circuits of several receivers as presented in the text may depart somewhat from the circuits of the models actually being put out. In the chapter on measuring and tuning, only those methods used in practice up to the time of publication are discussed. One section of the handbook gives data on the "Rembrandt" television set imported from East Germany in 1954. The author expresses his thanks to A. M. Kanayeva for reviewing the manuscript, and to M. M. Fayn and E. O. Ovanesbekov for supplying the indispensable technical documentation. There are no references.

TABLE OF CONTENTS:

Preface	3
Introduction	7
Ch. I. The "T-1 Moskvich" Television Receiver Card 2/12	7

AUTHOR: Yel'yashkevich, S. SOV-107-58-8-39/53
TITLE: More on Interlacing (Yeshche raz c cheresstrochnoy razvert-
ke)
PERIODICAL: Radio, 1958, Nr 8, pp 40-42 (USSR)

ABSTRACT: The article deals with the phenomenon of pairing in interlacing. The pair of scanning lines of the two fields merge into one with resultant loss of vertical and horizontal definition. Pairing can be checked by the standard 0249 transmitted test chart or during normal broadcasting. The varying degrees of symmetrical scanning disturbance leading to pairing are illustrated and discussed. To achieve symmetrical raster scanning, both the integrated field pulses must intersect the cut off line at one and the same time, corresponding in one field to the start of the line synchronizing pulse, and in the other leading it by half a line. This unevenness can be counteracted by introducing six equalizing pulses before the field pulse. The line scanning saw-toothed voltage, entering the integrating filter circuit, can disturb the interlaced scanning process. Means by which this can arise are listed. This can be solved via a buffer stage which separates the synchronizing circuits from

Card 1/2

More on Interlacing

SOV-107-58-8-39/53

the line scanning stages. To obtain stable interlacing, alterations should be made in the controls and, if necessary, in the components of the vertical blocking-generator assembly. Some special schemes for improving the interlacing, used in various Soviet TV sets, are given. One employs a special tube for isolating the 6 narrow positive pulses, part of the field signal, and the passing of the remaining signal components. In another, the vertical synchronizer uses an integrating followed by a differentiating circuit which filters off the line pulses and interference. There are 9 sets of diagrams.

1. Television receivers--Performance
2. Differentiating circuits
--Performance

Card 2/2

YEL'YASHKEVICH, Samuil Abramovich; TARASOV, F.I., red.; VORONIN, K.P.,
tekh.n.red.

[Testing of television tubes] Proverka lamp v televizorakh.
Izd.2., perer. 1 dop. Moskva, Gos.energ.izd-vo, 1959. 62 p.
(Massovaia radiobiblioteka) (MIRA 12:7)
(Television--Receivers and reception)
(Electron tubes--Testing)

6(6)

PHASE I BOOK EXPLOTTATION

80V/2898

Yel'yashkevich, Samuil Abramovich

Proverka lamp v televizorakh (Checking of Television Tubes) 2d ed., rev. and enl. Moscow, Gosenergoizdat, 1959. 62 p. (Series: Massovaya radiobiblioteka, vyp. 329) 165,000 copies printed.

Ed.: F. I. Tarasov; Tech. Ed.: K. P. Voronin; Editorial Board: A. I. Berg, F. I. Burdeynyy, V. A. Burlyand, V. I. Vaneyev, Ye. N. Genishta, I. S. Dzhigit, A. M. Kanayeva, E. T. Krenkel', A. A. Kulikovskiy, A. D. Smirnov, F. I. Tarasov, and V. I. Shamshur.

PURPOSE: This booklet is intended for radio amateurs and for owners of television sets.

COVERAGE: The booklet presents in tabular and graphical form information for checking tubes in 34 types of the most widely-used television sets and describes various faults occurring in them. Methods of locating faulty tubes are also described. There are no references. No personalities are mentioned.

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sov/2898

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AVAILABLE: Library of Congress

Card 4/4

JP/os
1/29/60

PHASE I BOOK EXPLOITATION

SOV/4680

Yel'yashkevich, Samuil Abramovich

Spravochnik po televizionnym priyemnikam (Manual on Television Receivers) 2d ed., rev. and enl. Moscow, Gosenergoizdat, 1960. 223 p. 150,000 copies printed.

Ed.: Yu.A. Protopopov; Tech. Ed.: K.P. Voronin.

PURPOSE: This manual is intended for technical personnel of television establishments, students in schools of higher technical education, and designers.

COVERAGE: The manual presents characteristics of the more widespread television receivers manufactured by the Soviet radio industry between 1949 and 1959. It contains schematic diagrams, descriptions, information on tuning, electrical and operational characteristics, and data on windings. Separate chapters deal with improvements in television receiver circuits (1957-1958), units and assemblies of general use, and methods of measuring and tuning. The manual is based on plant regulations for tuning and adjustments, information received from television plants, and from the Gosudarstvennyy Soyuznyy radiotrest (State All-Union Radio Trust) of the Ministry of Communications. No personalities are mentioned. There are no references.

Card ~~1/10~~

YEL'YASHKEVICH, Samuil Abramovich; PEVZNER, I.M., inzh., retsenzent; BABUK, G.V., inzh., retsenzent; PEVZNER, I.N., red.; ZHITNIKOVA, tekhn. red.

[Elimination of faults in television receivers] Ustranenie neispravnostei v televizore. Izd.3., perer. i dop. Moskva, Gos. energ. izd-vo, 1961. 205 p. (Massovaya radiobiblioteka, no. 387)
(Television—Repairing)

YEL'YASHKEVICH, Samil Abramovich; YAKOBSON, A.Kh., red.; LARIONOV,
G.Ye., tekhn.red.

[Use of a wobulator in tuning a television receiver] Nastroyka
televizora s pomoshch'iu generatora kachaiushcheisia chastoty.
Moskva, Gos.energ.izd-vo, 1962. 63 p. (Massovaya radiobiblioteka,
no.430). (MIRA 15:4)
(Television—Receivers and reception)

YEL'YASHKEVICH, Samuil Abramovich; PEVZNER, I.N., red.; LARIONOV,
G.Ye., tekhn. red.

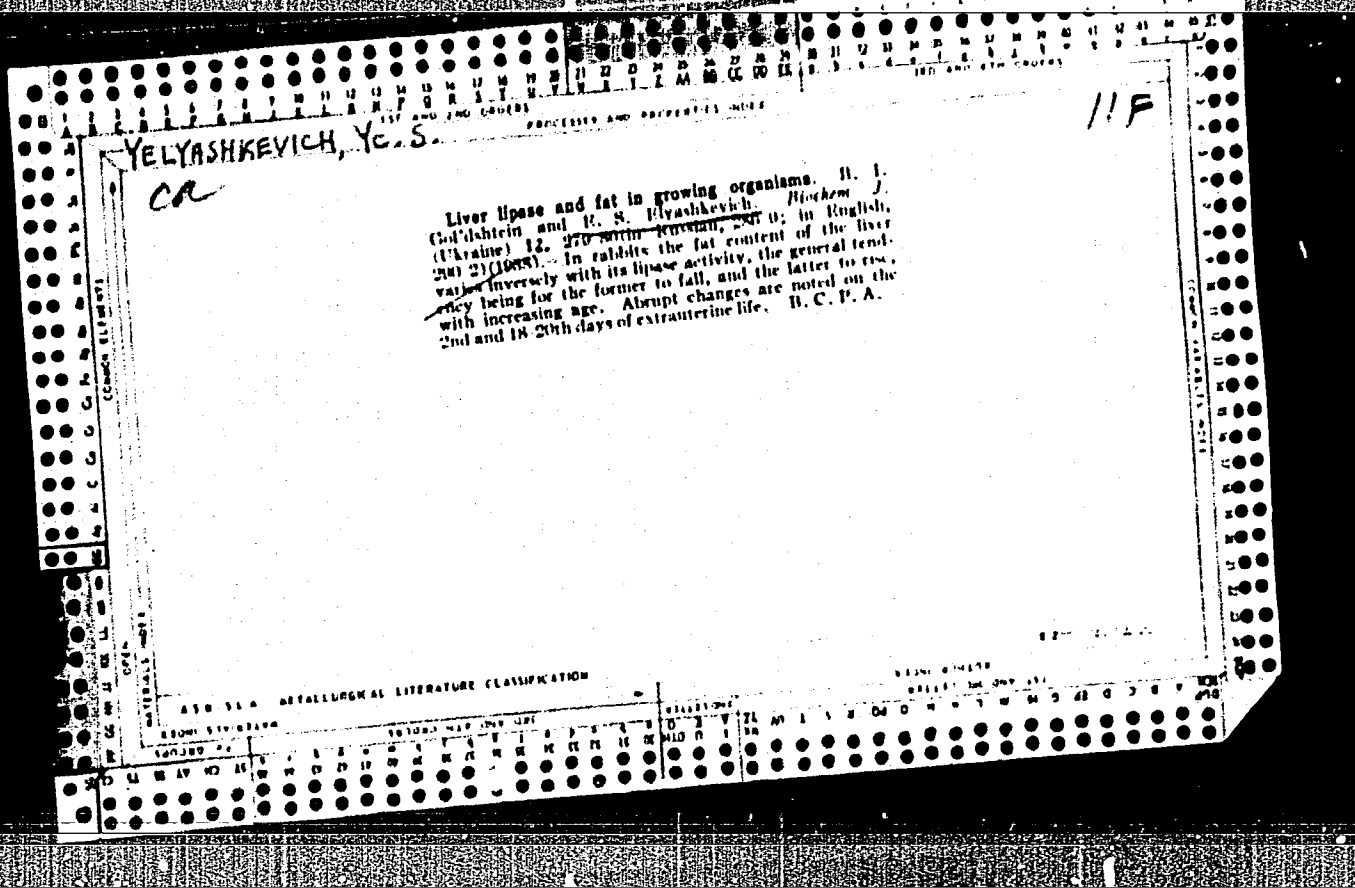
[Repair of television receivers] Ustranenie neispravnostei
v televizore. Izd.3., perer. i dop. Moskva, Gosenergoizdat
1963. 207 p. (Massovaya radiobiblioteka, no.387)

(MIRA 16:6)

(Television--Maintenance and repair)

YEL'YASHKEVICH, Samuil Abramovich; LEVYKIN, N.N., red.; FILIPPOV,
A.I., red.; ZHUK, Ya.M., red.; ZHEGALOV, I.S., red.;
ZINOV'YEV, G.P., red.; KOLYSHEV, F.P., red.; PORTNOV,
M.N., red.; KHUDYAKOV, M.A., red.; PEVZNER, I.M., red.;
SOBOLEVA, Ye.M., tekhn. red.

[Handbook on television receivers] Spravochnik po televi-
zionnym priemnikam. Izd.3., perer. i dop. Moskva, Izd-vo
"Energia," 1964. 271 p. (MIRA 17:4)



YEL'YASHKEVICH, Ye. S.

CA

11F

Comparison of the lipolytic activity of sulfate and acetone preparations of rabbit liver. H. I. Gol'dshteyn and Ye. S. El'yashkevich. *Biochem. J.* (Ukraine) 12, 659-67 (in Russian, 667-71; in English, 671-4)(1939).—In connection with the work on the relation between the liver lipase and fat in growing rabbits (*C. A.* 33, 785M¹) J. Needham's method employed with his work on organoids (cf. *C. A.* 20, 241M¹) was decided upon to dehydrate the tissue without removing the fat. The liver, washed in physiologic soln. and dried with filter paper, was minced with scissors and mixed with 3 times its wt. Na₂SO₄ and placed over CaCl₂. From 2 to 4 g. of fresh liver equiv. was taken for each expt. The conditions of synthesis varied for different expts., but were the same for acetone-ether (I) and sulfate (II) preps. Controls to det. the possible activating sulfate influence showed no such influence. The synthesis ratio of I to II is 1 to 2.3-5.5 for rabbits 12-45 days old, approaching that of adults. No coeff. could be derived for newborn to 1-2-day-old animals, whose fat-rich liver gave zero synthesis and hydrolysis value for I, but remarkably high II, 6.3-14%. The hydrolytic lipase activity of II of young animals equals that of fresh tissue. B. Gutof

ASB-56A METALLURGICAL LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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1ST AND 2ND CROSS

PROCESSES AND PROPERTIES INDEX

YEL'YASHKEVICH, Ye. S.

10

Relation between the hydrolytic and synthetic activity of liver lipase. E. S. El'yashkevich. *Biochem. J.* (Ukraine) 17, 271-80 (in Russian, 281; in English, 282) (1941).
 -Hydrolytic capacity of rabbit-liver lipase was detd. in a suspension of the tissue in 0.025 N NH_4OH as the butyrate index, in units of 0.01 g. of fresh tissue; the synthetic activity, by adding to a soln. of 0.5 ml. butyric acid in 20 ml. BaOH the dry tissue (corresponding to 2 g. of fresh tissue) prepd. with anhyd. Na_2SO_4 ; the mixt. was titrated with 0.05 N KOH , and again after 3 hrs. at 30° . The coeff., synthetic activity/hydrolytic, was 3.3-4.0 for adult, and 3.5-5.0 for growing rabbits. The av. coeffs. for rabbits, guinea pigs, and rats were 3.3, 2, and 10.2, resp. Rabbit-liver tissue was stable in the alk. medium; fresh guinea-pig tissue lost 17%, and the sulfate prepn. 72% of its activity; the tissue activity was 2-3 times greater in aq. medium. Boris Gutof

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

COMMON ELEMENTS

OPEN

MATERIALS INDEX

FROM SOCIETY

LISTEN ON QTY ALL

YEL'YASHKEVICH, E. S.

GRINBERG, Ye. A.; YEL'YASHKEVICH, E. S.; i LANTSMAN, R. I.
34171. Morfologicheskiye i biokhimicheskiye izmeneniya eritrotsitarnoy
massy v razlichnykh sloyakh Krovi, Konservirovannoy na glyuko-
tsitratnom rastvore. Ukr. biokhim. Zhurnal, 1949, No 3, s. 269-
79- Na ukr. yaz. - Rezyume na rus. yaz.

SO: Knizhnaya Letopis' No 6, 1955

YEL'YASHKEVICH, Ye.S. [Yel'iyashkevych, E.S.]

Alkaline reserve in the blood following intravenous introduction of sodium lactate solution into dogs after acute extensive hemorrhage. Fiziol. zhur. [Ukr.] 10 no.3:396-399 My-Je '64. (MIRA 18.9)

1. Kiyevskiy nauchno-issledovatel'skiy institut perelivaniya krovi i neotlozhnoy khirurgii.

YEL'YASHKEVICH, Y.E.S.; DUKAREVICH, A.S.

Isolation of fibrinogen from human plasma by means of a sterile
method without filtration. Gemat. i perel. krovi 1:13-17 '65.

(MIRA 18:10)

1. Kiyevskiy institut perelivaniya krovi.

L 11547-66 EWT(d)/EWP(k)/EWP(1)

11

ACC NR: AP6005029

SOURCE CODE: UR/0105/65/000/001/0091/0092

AUTHOR: Azimov, B. A.; Alizade, A. A.; Aslanov, R. K.; Guseynov, P. G.;
Dzhuvarly, Ch. M.; Yal'yashevich, Z. B.; Kadymov, Ya. B.; Kulizade, K. N.;
Kyazimzade, Z. I.; Mamikonyants, L. G.; Petrov, I. I.; Rustamzade, P. B.;
Spirin, A. A.; Syromyatnikov, I. A.; Esibyan, M. A.; Efendizade, A. A.

30
29
B

ORG: none

TITLE: Professor Boris Maksimovich Plyushch

SOURCE: Elektrichestvo, no. 1, 1965, 91-92

TOPIC TAGS: electric engineering, electric engineering personnel, petroleum engineering personnel, petroleum engineering

ABSTRACT: Brief biography of subject, a doctor of technical sciences and head of Department of Electric Power and Automation in Industry at the Azineftekhim (Azerbaijdzhan Petrochemical Institute), on the occasion of his 60th birthday in October 1964. Graduating from Azerbaijdzhan Polytechnical Institute imeni Azizbekov, subject worked in Caspian shipping industry and later headed the designing division at the Azerbaijdzhan department of Elektroprom. With Azineftekhim since 1927, starting as laboratory assistant; department head since its formation in 1938; deputy dean of power engineering division in 1943-45. One of top Soviet experts on the electric power supply and electrical equipment of the petroleum industry, he has trained many engineers and scientists for this field and is the author of over 60 published works and inventions. Widely known are his works on

Cord 1/2

UDC: 621.313.1/13

L 11547-66

ACC NR: AP6005029

determining power losses in drilling. He was the first to investigate the problem of selecting the most suitable power characteristics with due consideration for wave-like torque distribution along the drilling string. He did research on the automatic regulation of drill feed, critical roller-bit speeds, self-starting electrical pumps, etc. A party member since 1945, subject has been awarded the Order of the Red Banner of Labor. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 09, 13 / SUEM DATE: ¹⁴ none

HW
Card 2/2

BOLCHIKOV, V., YELYASHVILI, A. [1.]

Roofs

Reed-covered sheepfold. Sel'. stroi.
no. 3 (44), 1952

Monthly List of Russian Accessions, Library of Congress, August, 1952. UNCLASSIFIED.

1. YELYASHVILI, A. [1.]

2. USSR (600)

4. Farm Buildings

7. Standard plans for livestock barns. Sov. zootskh. 7 no. 11, 1952.

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

YELYASHVILI, A. I.; VOLCHKOV, V.

Farm Buildings

Constructing reed-roofed sheep sheds. Sots. zhiv. zh, No.9, 1952.

Monthly List of Russian Accessions, Library of Congress, December 1952. Unclassified.

VOZBUTSKAYA, A.Ye.; YELYKINA, L.I.

Fertility of newly cultivated turf-Podzolic soils in the southern taiga of Omsk Province. Pochvovedenie no.5:35-41
My '59. (MIRA 12:8)

1. Omskiy sel'skiy institut im. S.M.Kirova.
(Omsk Province--Soil fertility) (Podzol)

YELYKOVA, L. I.

"Effect of Fertilization on the Potato and Tomato Crops Under Conditions in Southern Sakhalin." Cand Agr Sci, All-Union Sci Res Inst of Fertilization, Agricultural Engineering, and Soil Science imeni K. K. Gedroyets; All-Union Order of Lenin Academy of Agricultural Sciences imeni V. I. Lenin, Moscow, 1954. (KL, No 11, Mar 55)

So: Sum. No 670, 29 Sept 55 - Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

YELIKOVA, L.I.

BARSUKOV, H.I., kand.sel'skokhozyaystvennykh nauk; KIZYURIN, A.D., doktor sel'skokhozyaystvennykh nauk; BORINEVICH, V.A., kand.sel'skokhozyaystvennykh nauk; BOHMUSOVA, S.N., agronom; VERMENICHEVA, H.D., kand.sel'skokhozyaystvennykh nauk; GESHELE, E.K., doktor biol. nauk; GOROKHOV, G.I., kand.sel'skokhozyaystvennykh nauk; GUBKIN, S.M., kand. veterinarnykh nauk; YELIKOVA, L.I., kand.sel'skokhozyaystvennykh nauk; KOTT, S.V., doktor biol. nauk; KOCHKINA, V.A., agronom; LAMBIN, A.Z., doktor biol.nauk; LEBEDEVA, Ye.M., agronom; MALAKHOVSKIY, A.Ye., doktor sel'skokhozyaystvennykh nauk; MAYBORODA, N.M., kand. sel'skokhozyaystvennykh nauk; MAYDANYUK, A.E., zootekhnik; OVSYANNIKOV, G.Ye., kand.sel'skokhozyaystvennykh nauk; PETROV, P.A., kand.biol.nauk; POGORELOV, P.F., agronom; POLKOSHNIKOV, M.G., dotsent; RENARD, G.K., kand. sel'skokhozyaystvennykh nauk; RUCHKIN, V.N., prof.; SADYRIN, M.M., kand.sel'skokhozyaystvennykh nauk; TOBOL'SKIY, V.YA., vetvrach; TYAZHEL'NIKOV, S.D., kand.sel'skokhozyaystvennykh nauk; UKHIN, I.I., kand.sel'skokhozyaystvennykh nauk; FEDOROV, G.V., kand.sel'skokhozyaystvennykh nauk; CHIRKOV, D.I., zootekhnik; TSINGOVATOV, V.A., prof.; SHVETSOVA, A.H., kand.sel'skokhozyaystvennykh nauk; SHEVLYAGIN, A.I., kand.sel'skokhozyaystvennykh nauk; SEMENOVSKIY, A.A., red.; GOLUBINSKAYA, Ye.S., red.; NECHAYEVA, Ye.G., red.; PERESYPKINA, Z.D., tekhnicheskij red.

[Siberian agronomist's reference manual] Spravochnaya kniga agronoma Sibiri. Moskva, Gos. izd-vo sel'khoz. lit-ry, Vol.2. 1957. 839 p.
(Siberia--Agriculture) (MIRA 11:3)

LEVIN, M.V., inzh.; YELYKOVA, T.A.

Autoclave-hardened porous concretes made with local Ural materials. Trudy NIIZHB no.8:129-135 '59.
(MIRA 13:4)

1. Sverdlovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta promyshlennykh sooruzheniy.
(Sverdlovsk Province--Lightweight concrete)
(Perm Province--Lightweight concrete)

YELYSHEVA, MARGARITA GIRGOR'YEVNA

4/2

752.21

.Y41

Uchet' kal'kulyatsiya i otchetnost' na predpriyatiyakh legkoy promyshlennosti
(Accounting and calculation in light industry enterprises, by) M. G.
Yelysheva i V. A. KAL'KUTIN.
Moskva, Gizleprom, 1954.
178 p. tables.

TYURIN, G.S., kand. tekhn. nauk [translator]; YELYUTIN, A.V.,
inzh. [translator]; MAURAKH, M.A., kand. tekhn. nauk, red.

[Electron melting of metals. Translated from the English]
Elektronnaiia plavka metallov. Moskva, Izd-vo "Mir," 1964.
357 p. (MIRA 18:9)

YELYUTIN, D. N.

"The formation of the intrusive complexes in the Northern zone of the Tien Shan"

report presented at the Second All-Union Conf. on Petrography, Tashkent, 19-23
May 1958 (Geokhimiya, 5, '58, p507)

YELYUTIN, D.N.; RUDAKOVA, Z.G.; KHMELEV, Yu.N.

Pre-Paleozoic mineralization of rare earths in the Naryn Basin.
Zap. Kir. otd. Vses. min. ob-va no.1:77-81 '59. (MIRA 14:3)
(Rare earths)

28564

S/137/61/000/009/061/087
A060/A101

18 8100

AUTHOR: Yelyutin, O. P.

TITLE: High-resistivity alloy for tensometers

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 9, 1961, 25, abstract 91166
("Sb. tr. Tsentr. n.-1. in-t ocheroy metallurgii", 1959, no. 22,
183-204)

TEXT: Two alloys are developed which have characteristics close to those of alloys for thermal compensated sensors. The alloy of Fe with 26.63% Cr, 5.55% Al, and 3.48% V [X2640Φ (Kh26YuF)] has a specific resistivity of 1.47 ohm-mm²/m; temperature coefficient of linear expansion of this alloy under heating up to 900°C is equal to $13.6 \cdot 10^{-6} \text{ deg}^{-1}$, the temperature coefficient of electric resistivity in the temperature ranges 50 - 400, 400 - 600, and 600 - 1,000° is equal to (1.3; 0.9; 0.7) $\cdot 10^{-5} \text{ deg}^{-1}$ respectively, and may be reduced by heat-treatment. The output signal of the alloy is greater than that of the presently used alloys by a factor of 2 - 3. The alloy containing 76.95% Ni, 20.15% Cr, and 2.52% Al has an electrical resistivity of 1.16 ohm-mm²/m*, temperature coefficient of linear expansion under heating up to 900°C equal to

Card 1/2

20564 4/137/61/000/009/061/087
A060/A101

High-resistivity alloy for tensometers

$16.6 \cdot 10^{-6} \text{ deg}^{-1}$, while the temperature coefficient of electric resistivity remains constant in the range $50 - 500^{\circ}\text{C}$ and is equal to $1 - 1.2 \cdot 10^{-5} \text{ deg}^{-1}$. The alloy is not fit for applications above 500°C , since the temperature coefficient of electric resistivity above 500°C becomes negative.

K. Povarova

- [Abstracter's notes: 1) Complete translation.
2) * Corrected from $\text{ohm-mm}^2/\text{m}^{-1}$.]

Card 2/2

3682C

S/137/62/000/004/125/201
A060/A101

18.1150

AUTHOR: Yelyutin, O. P.

TITLE: Alloys for high-temperature sensors

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 68, abstract 41408
("Sb. tr. Tsent. n.-i. in-t chernoy metallurgii", 1959, no. 22,
205 - 225)

TEXT: Five alloys have been developed, whose characteristics correspond best of all to the requirements imposed upon temperature transducers. Depending upon the value of the temperature coefficient of electrical resistance these alloys are divided into three groups: 1) the alloy K 50K10 (N50K10) with composition (in %): Ni 51.0, Co 10.5, Fe 38.9 - has $\rho = 0.25 \text{ ohm} \cdot \text{mm}^2/\text{m}$, temperature coefficient of electrical resistance $5.5 \cdot 10^{-3} \text{ deg}^{-1}$ in the temperature interval 20 - 500°C; 2) the alloy K 8070 (K8070) with composition (in %): Co 83.5, V 3.5, Fe 12.9 - has $\rho = 0.43 \text{ ohm} \cdot \text{mm}^2/\text{m}$, temperature coefficient of electrical resistance $1.4 \cdot 10^{-3} \text{ deg}^{-1}$ in the temperature interval 20 - 700°C; the alloy K 85X10 (K85Kh10) with composition (in %): Cr 1.72, Co 85.0, Fe 10.9 - has $\rho = 0.4$, temperature coefficient of electrical resistance $1.7 \cdot 10^{-3} \text{ deg}^{-1}$

Card 1/2

S/137/62/000/004/125/201
A060/A101

Alloys for high-temperature sensors

in the temperature interval 20 - 700°C; 3) alloys of the type of chromel H90X10 (N90Kh10) with composition (in %): Ni 90.0, Cr 9.5, Fe - the remainder ($\rho = 0.69 \text{ ohm} \cdot \text{mm}^2/\text{m}$), and stainless steel H30X18 (N30Kh18) with composition (in %): Ni 30.5, Cr 18.8, Fe 50.0 ($\rho = 0.95 \text{ ohm} \cdot \text{mm}^2/\text{m}$), both alloys have a temperature coefficient of electrical resistance less than the predetermined value of $2.6 - 3.3 \cdot 10^{-4} \text{ deg}^{-1}$.

T. Rumyantseva

[Abstracter's note: Complete translation]

Card 2/2

S/776/62/000/025/013/025

AUTHORS: ~~Yelyutin, O. P.~~, Pshechenkova, G. V.

TITLE: Investigation of alloys of the system Ni-Mn-Cr.

SOURCE: Moscow. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii. Sbornik trudov. no. 25. Moscow, 1962. Pretsizionnyye splavy. pp. 189-213.

TEXT: The paper reports the results of an experimental investigation of several alloys of the system Ni-Mn-Cr which exhibit an elevated electrical resistance (ER) and a low temperature coefficient of the ER and which, therefore, are readily utilized for the making of resistor elements which operate in instruments and equipments at near-room T. In addition to the electrical properties of a number of alloys of this system it was found to be necessary, in the interest of the development of suitable manufacturing techniques and related heat treatments, to study the phase composition and the transformation processes therein. The phase diagrams of the systems Mn-Ni and Mn-Ni-Cr are shown. The experimentation comprised a dilatometric analysis, ER measurements, and an investigation of the effects of various elements on the properties of the alloys, an investigation of the effect of heat treatment on the electrical properties of the alloys (performed by I. A. Savost'yanova).

Card 1/3

Investigation of alloys of the system

S/776/62/000/025/013/025

In summary, the test performed in the investigation of alloys of the system Ni-Mn-Cr, containing from 20-45% Mn and 8-10% Cr, permit certain conclusions on the phase composition, transformations, and possible uses of the physical properties of these alloys. The alloy containing 20% Mn and 8% Cr constitutes a single-phase solid solution. During slow heating and cooling in the 400-500°C T interval a K-state forms in the alloy. As the Mn content is increased beyond 23%, an incipient phase transformation of the face-centered γ phase into a face-centered tetragonal ϵ phase was detected dilatometrically; this transformation was distinctly fixed by the X-ray method at a Mn content of 30%. ER measurements during heating denoted a smooth transition from the single-phase to the two-phase alloys which occurs during an increase of the Mn content from 23 to 28%. The alloys lying at the boundary of the two-phase region exhibit a fairly elevated ER (1.4 ohm·mm²/m) which increases with increasing Mn content; these alloys have an ER-temperature coefficient varying from positive values to negative values within the T range from room T to 300°. The same properties can be obtained in the two-phase alloy by means of heat treatment that achieves the required solid-solution state in which the new phase does not yet precipitate. The detection of this state is feasible by means of ER measurements and the dilatometric method. An advantage of the alloys obtained from the 2-phase region is the elevated ER. The required state can be obtained by quench or by quench-plus-subsequent-aging, at which the required initial stage of decom-

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position of the phase from the solid solution is obtained. The alloying elements contribute to an increase in the ER and an improvement in the mechanical properties of the alloys. There are 20 figures, 1 table, and 4 references (2 Russian-language Soviet, 1 German, 1 English-language).

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YELYUTIN, O.P. (Moskva); KALININ, G.P. (Moskva); ROGOV, G.I. (Moskva);
KHROMOV, S.M. (Moskva)

Physical and mechanical properties of alloys in the system titanium -
molybdenum - aluminum. Izv. AN SSSR. Otd. tekhn. nauk. Ser. 1 gor. dolo
no.1:176-180 Ja-F '63. (MIRA 16:3)
(Titanium-molybdenum-aluminum alloys—Testing)(Phase rule and equilibrium)

L 11094-63

EWP(q)/EWT(m)/BDS—AFFTC/ASD—JD

S/0279/63/000/002/0136/0140

ACCESSION NR: AP3000915

AUTHOR: Yelyutin, O. P. (Moscow); Kalinin, G. P. (Moscow), Khromov, S. M. (Moscow)

56
55

TITLE: Physical properties of titanium-rich alloys of the titanium-aluminum-tin system

SOURCE: AN SSSR. Izv. Otd. tekhn. nauk. Metallurgiya i gornoye delo, no. 2, 1963, 136-140

TOPIC TAGS: titanium-aluminum-tin system, titanium-rich alloy, titanium-rich-alloy structure, titanium-rich-alloy resistivity, resistivity temperature coefficient, thermal electromotive force, heat conductivity, titanium-rich-alloy strength

ABSTRACT: The physical and mechanical properties of Ti alloys with up to 10% Al and up to 25% Sn have been studied. The alloys were melted in a nonconformable electrode arc furnace in an argon atmosphere, forged into rods at a temperature ranging from 1100-1200 to 700-800C, annealed in a vacuum of 1×10^{-5} mm Hg at 1200C for 3 hr, and cooled to room temperature at a rate of 80C/sec. After

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ACCESSION NR: AP3000915

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this treatment, all alloys had a single-phase structure of α -solid solutions. Electrical resistivity at 20C was found to increase steadily with increasing Sn or Al content and reached 1.85 to 1.90 ohm \times mm²/m in alloys with 7.5 to 10% Al and 2.5 to 15% Sn. The temperature coefficient of resistivity, while remaining constant for a given alloy in the 20 to 180C range, decreases linearly with increasing Sn or Al content and is 20×10^{-5} /deg for alloys with 7.5 to 10% Al and 5.0 to 15% Sn. The thermal emf (in couple with Cu), which for pure Ti is +5 mv/deg C, decreases by alloying with Al or Sn, and at 2.5% Sn or 1% Al is negative. A maximum thermal emf of -10μ v/deg C was shown by ternary alloys with up to 10 to 20% Sn and 5 to 7.5% Al. Both alloying elements decrease heat conductivity from 0.030-0.013 cal/cm \times sec \times deg for pure Ti to 0.012 cal/cm \times sec \times deg for alloys containing 22.5% Sn and 2.5% Al. The tensile strength remains almost unaffected on the 78 to 85 kg/mm² level with additions of up to 10 to 12% Sn, but increases to 120 kg/mm² at 17% Sn with elongation dropping to 10%. Al is more effective than Sn in strengthening alloys. Ternary Ti-Sn-Al alloys with 6 to 12% and 4 to 7.5% Al have a maximum

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ACCESSION NR: AP3000915

tensile strength of 125 kg/mm² and a ductility of 0 to 6%. Further increase in the Sn and Al content lowers both strength and ductility. Orig. art. has: 4 figures.

ASSOCIATION: Institut pretsizionny*kh splavov TsNIChM (Institute of Precision Alloys TsNIChM)

SUBMITTED: 21Aug62

DATE ACQ: 12Jun63

ENCL: 00

SUB CODE: ML

NO REF SOV: 006

OTHER: 001

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Card 3/3

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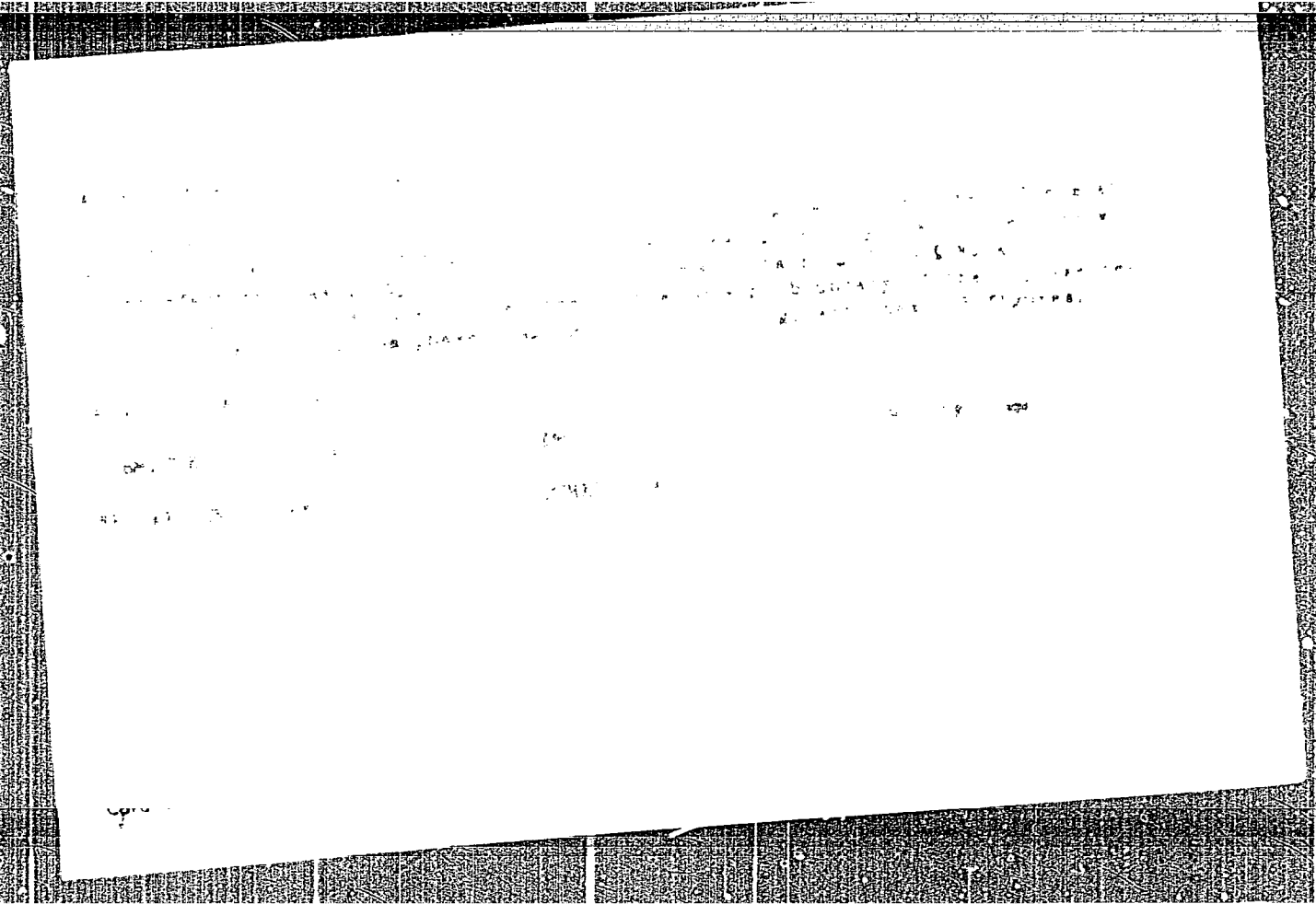
APPROVED FOR RELEASE: 03/15/2001

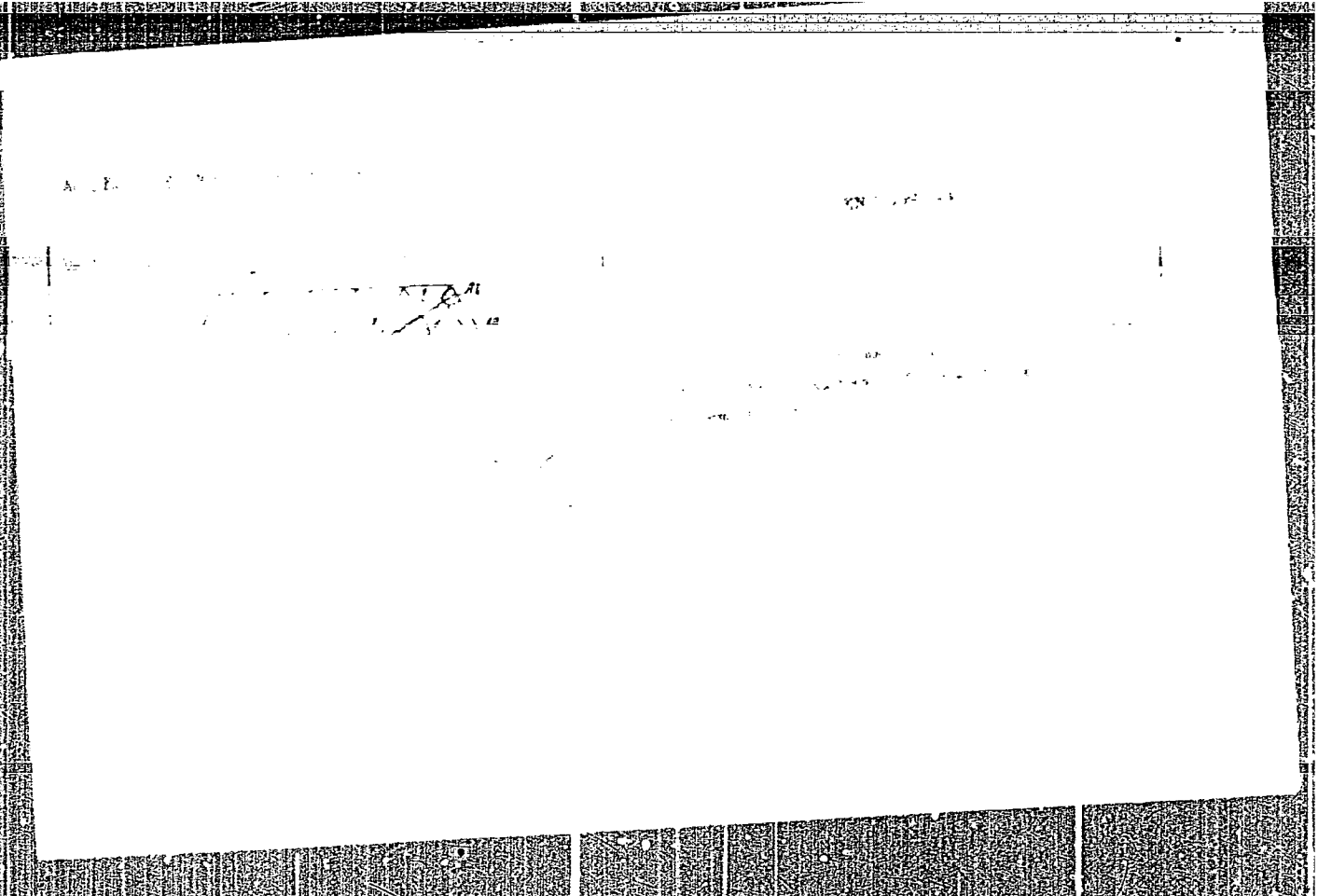
... of the Ti-Nb-Al system

... alloy, aluminum containing ... heat conduction, ...

... every 1% and the ...

[The text in this block is extremely faint and illegible due to the quality of the scan. It appears to be a large block of typed text, possibly a memorandum or report, but the individual words and sentences cannot be discerned.]





L 13381-66 EWP(e)/EWt(m)/EWA(d)/EWP(t)/EWP(z)/EWP(b) IJP(c) JD/HW/JT
ACC NR: AP6002905 SOURCE CODE: UR/0286/65/000/024/0072/0072

INVENTOR: Yelyutin, O. P.; Bokshitskiy, I. Ya.; Rogova, I. V.; Sorokin, M. N. 48
B

ORG: none

TITLE: High-resistivity alloy, Class 40, No. 177075 (announced by
Central Scientific Research Institute of Ferrous Metallurgy im.
I. P. Bardin (Tsentral'nyy nauchno-issledovatel'skiy institut chernoy
metallurgii))

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 72

TOPIC TAGS: alloy, high resistivity alloy, nickel containing alloy,
manganese containing alloy, vanadium containing alloy

ABSTRACT: This Author Certificate introduces a high-resistivity alloy
containing 42—50% Ni, 40—46% Mn, and 4—18% V. [ND]

SUB JODZ: 11/ SUBM DATE: 11May64/ ATD PRESS: 4188

Card 1/1

UDC: 669.245.018.54

L 22994-66 EWT(m)/EWP(t) IJP(c) JD/JQ
ACC NR: AP6012142 SOURCE CODE: UR/0413/66/000/007/0060/0060

INVENTOR: Kalinin, G. P.; Yelyutin, O. P.

18
B

ORG: none

TITLE: A method of vanadium production. Class 40, No. 180347

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 60

TOPIC TAGS: vanadium, vanadium extraction, aluminothermic extraction

ABSTRACT: This Author Certificate introduces an aluminothermic method of vanadium extraction from vanadium pentoxide. In order to improve the ductility of vanadium and reduce production costs, boron oxide in the amount of 0.1—2.0% of the weight of vanadium pentoxide is added to the initial charge. [WW]

SUB CODE: 11/ SUBM DATE: 11Nov64/ ATD PRESS: 4237

Card 1/1 *pls*

UDC: 669.292.33

L 29604-66 EWT(m)/EWP(t)/ETI IJP(c) JD/JG/GD
ACC NR: AT6013551 (A) SOURCE CODE: UR/0000/65/000/000/0052/0054

49
B+1

AUTHOR: Yelyutin, O. P.; Bokshitskiy, I. Ya.; Rogova, I. V.

ORG: Institute of Steel and Alloys (Institut stali i splavov)

TITLE: Some physical properties of the compounds of niobium with transition elements
(NbCr₂, NbCo₂, NbFe₂) 27

SOURCE: AN UkrSSR. Institut problem materialovedeniya. Vysokotemperaturnyye neorganicheskiye soyedineniya (High temperature inorganic compounds). Kiev, Naukova dumka, 1965, 52-54

TOPIC TAGS: niobium, transition element, chromium, cobalt, iron

ABSTRACT: The type of crystal lattice, the temperature dependences of normal resistivity modulus (E) and electrical conductivity (R), the specific electrical resistivity (G), the thermal coefficient of electrical conductivity (dp), the paramagnetic susceptibility (χ), the absolute thermoelectric force at 20°-100°C, the coefficient of thermal expansion (β) at 20°-900°C, the normal modulus of elasticity (E), the temperature dependence of elasticity modulus (β_E), and the hardness were determined for NbCr₂, NbCo₂, and NbFe₂ samples. The samples were prepared by soaking liquid-phase metals into quartz ampoules 3 mm in diameter. They were subsequently homogenized by holding for 4 hours at 1000°C. The temperature dependence of the normal modulus of

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L 29604-66

ACC NR: AT6013551

elasticity (a) and the electrical resistivity (b) of NbCr₂, NbCo₂, and NbFe₂ are graph-
ed. Data on physical properties of NbCr₂, NbCo₂, and NbFe₂ are presented in tabular
form. Orig. art. has: 1 figure, 1 table.

SUB CODE: 07/

SUBM DATE: 03Jul65/

ORIG REF: 003

Card 2/2

CC

ACC NR: AP6013365 SOURCE CODE: UR/0370/66/000/002/0125/0130

AUTHOR: Kalinin, G. P. (Moscow); Yelyutin, O. P. (Moscow); Mamontovskaya, L. V. (Moscow)

ORG: none

TITLE: Physical and mechanical properties of alloys of the Ti-Nb-Mo system

SOURCE: AN SSSR. Izvestiya. Metally, no. 2, 1966, 125-130

TOPIC TAGS: titanium alloy, niobium alloy, molybdenum alloy, solid mechanical property, solid physical property

ABSTRACT: The concentration dependences of some physical and mechanical properties of alloys in the titanium corner of the Ti-Nb-Mo system were studied on alloys containing up to 50% Nb and 40% Mo. The electrical resistance, its temperature coefficient, thermal conductivity, thermal emf, modulus of normal elasticity, strength, hardness, and plasticity were determined by plotting the corresponding com-position vs. property diagrams. Two regions of alloys are distinguished: one with low strength properties and a low plasticity, and one with a high strength and a satisfactory plasticity. The first group of alloys with a strength of 950-1000 kg/mm² (97-102 kg/mm²) and a plasticity of 9-14% includes Ti-Nb alloys with 30-35% Nb, Ti-Mo alloys with 10-13% Mo, and intermediate ternary alloys Ti-Nb-Mo. The alloys are located at the boundary of the region of the martensitic transformation. The group

UDC: 669.017.13

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L 38974-66

ACC NR: AP6013365

of alloys with a satisfactory plasticity includes binary Ti-Nb alloys with 45-55% Nb, binary Ti-Mo alloys with 20-25% Mo, and intermediate ternary alloys Ti-Nb-Mo, located at the boundary of $(\alpha+\beta)\beta$ -phase regions. These alloys have an ultimate strength of 500-900 Mn/m² (51-92 kg/mm²) and an elongation of 15-17%. Orig. art. has: 5 figures.

SUB CODE: 11/ SUBM DATE: 05Nov64/ ORIG REF: 002/ OTH REF: 001

Card 2/2/11LP

L 09964-67 EWP(e)/EWT(m)/EWP(t)/ETI IJP(c) JD/HW
ACC NR: AP6035722 SOURCE CODE: UR/0413/66/000/019/0084/0084 36

INVENTOR: Yelyutin, O. P.; Bokshitskiy, I. Ya.; Rogova, I. V.; Sorokin, M. N.

ORG: none

TITLE: High-resistivity alloy. Class 40, No. 186694 [announced by the Central Scientific Research Institute of Ferrous Metallurgy im. Bardina (Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii)]

SOURCE: Izobreneniya, promyshlennyye obraztsy, tovarnyye znaki, no. 19, 1966, 84

TOPIC TAGS: nickel manganese alloy, high resistivity alloy, titanium containing alloy, cobalt containing alloy

ABSTRACT: This Author Certificate introduces a high-resistivity nickel-manganese- base alloy containing 45-50% nickel, 43-48% manganese, and 2-12% titanium at a nickel to manganese ratio of 1.0-1.07:1.0. A variant has 5% max titanium and 5-15% iron and/or cobalt to improve ductility.

SUB CODE: 11/ SUBM DATE: 10Aug65/ ATD PRESS: 5105

UDC: 669.018.54: :669.245'74'295

Card 1/1

ACC NR: AP6036839

SOURCE CODE: UR/0020/66/171/002/0320/0323

AUTHOR: Bokshitskiy, I. Ya.; Yelyutin, O. P.; Rogova, I. V.; Sorokin, M. H.

ORG: Central Scientific Research Institute of Ferrous Metallurgy im. I. P. Bardin
(Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii)

TITLE: Influence of group-IV transition elements and of Cu on the structure and physical properties of alloys based on the compound NiMn

SOURCE: AN SSSR. Doklady, v. 171, no. 2, 1966, 320-323

TOPIC TAGS: nickel alloy, manganese containing alloy, transition element, alloy, phase diagram, resistivity, electric property

ABSTRACT: To investigate the structure and physical properties of alloys of the compound NiMn with transition elements, the authors fused pseudobinary alloys NiMn-Me (Ti, V, Cr, Fe, Co, Cu) containing 1-20 at.% V and Ti, and 1-10 at.% Cr, Fe, Co, Cu. The tests considered of a dilatometric analysis in the 100 -- 950° interval, measurements of the electric resistivity as a function of the alloying-additive content, an electron-microscopic investigation of the structure, and an x-ray phase analysis. The dependence of the electric properties and of the structure of the alloy as a function of the heat treatment was tested in the case of NiMn + 10 at.% V. The tests yielded the phase compositions of the different alloys and the types of crystal

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UDC: 669.018.5:669.017.11:537.3:669.017.3:621.70