SOV/68-59-1-8/26

AUTHORS: Bondarenko, I.P., Kamenetskiy, G.D. and Dovbnya, K.I.

TITLE: On the Choice of a Rational Shape of Lining of Coke-oven Doors (O vybore ratsional'noy konfiguratsii futerovki dverey koksovykh pechey)

PERIODICAL: Koks i Khimiya, 1959, Nr 1, pp 33 - 34 (USSR)

ABSTRACT: The service life of door linings made from various types and shapes of refractory bricks (shown in Figures 1-4) is compared. It is pointed out that bricks M119 and M120 shaped as in Figure 4, at present used in the Zaporozhe ovens, give the best service life of 3-4 years. This type of brick is recommended for future replacements and new batteries. In addition, it was found that the service life of 3-4 years for the above bricks is obtained when the beginning of the service coincides with the starting up of the new batteries. After replacement the service life decreases by about 50%. This is ascribed to the fact that when starting ovens, the doors are placed when the temperature of the oven is above 800 $^\circ$C so that the lining bricks undergo an additional firing slowly attaining their operating temperature. It is therefore

Card 1/2

SOV/68-59-1-8/26

On the Choice of a Rational Shape of Lining of Coke-oven Doors

considered that a special camera for firing lining bricks
with the door directly in the region of counterforts
should be designed by Giprokoks.
There are 4 figures and 1 table.

ASSOCIATION: Zhdanovskiy koksokhimicheskiy zavod
               (Zhdanovskiy Coking Works)

Card 2/2

KAMENETSKIY,G., inzhener; BITKIN,G., inzhener

Measuring the volume of hydraulic fill. Rech. transp. 14 no.4:
13-14 Ap '55.   (MIRA 8:6)
                    (Hydraulic engineering)

BARSUKOV, A.A.; VASIL'YEV, N.V.; ZAYCHENKO, I.Z.; KAMENETSKIY, G.I., MAZYRIN,
I.V.; MODEL', B.I., tekhnicheskiy redaktor

[General reference data on hydraulic equipment used in modernizing
machine tools] Obshchie spravochnye dannye po gidrooborudovaniiu,
ispol'zuemomu pri modernizatsii metallorezhushchikh stankov. Moskva,
Gos. nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1956. 151 p.
(MIRA 10:3)

1. Moscow. Eksperimental'nyy nauchno-issledovatel'skiy institut
metallorezhushchikh stankov.
(Hydraulic machinery)   (Machine tools)

KAMENETSKIY, G. I.

AID P - 5374

Subject   : USSR/Engineering

Card 1/1   Pub. 103 - 4/28

Author   : Kamenetnkiy, G. I.

Title   : Longitudinal vibrations in machine tools with hydraulic drive

Periodical   : Stan. i instr., 27 9, 11-15, S 1956

Abstract   : The author presents the analysis of longitudinal vibrations in machine tools. Vibrations developed in the basic rigid system and those additionally occuring in the control-regulating and directional mechanisms are analyzed. Twenty-three formulae, 4 graphs, 3 tables, 4 drawings, 1 oscillogram; 1 Russian reference (1948) and 1 German reference (1952).

Institution : None

Submitted   : No date

KAMENETSKIY, O. I.

"Hydraulic amplifiers and drives."

Programmed Control of Metal Cutting Machines.   report presented at
All-Union Conference, Moscow, 13-16 Nov 1957
Vestnik Ak. Nauk SSSR, 1958, No. 2, pp. 113-115, (author Kobrinskiy, A. Ye.)

KAMENETSKIY, G.I.

Hydraulic mechanisms for shockless gear switch. Stan, i instr. 29
no.2:29 F '58.   (MIRA 11:3)
                    (Gearing)   (Hydraulic control)

KAMENETSKIY, G.I.

Hydraulic control panels for transverse planing machines and
slotting machines. Stan.i instr. 29 no.6:19-21 Je '58. (MIRA 11:7)
                    (Machine tools--Hydraulic driving)

KAmENETsKiy, G. I.

25(1)

PHASE I BOOK EXPLOITATION   SOV/2383

Akademiya nauk SSSR. Komissiya po tekhnologii mashinostroyeniya

Avtomatizatsiya mashinostroitel'nykh protsessov. t. II: Privod i upravleniye rabochimi mashinami (Automation of Machine-building Processes. Vol. 2: Drives and Control Systems for Process Machinery) Moscow, Izd-vo AN SSSR, 1959. 370 p. Errata slip inserted. 5,000 copies printed.

Ed.: V.I. Dikushin, Academician; Ed. of Publishing House: D.M. Ioffe; Tech. Ed.: I.F. Kuz'min.

PURPOSE: This book is intended for engineers dealing with automation of various machine-building processes.

COVERAGE: This is the second volume of transactions of the second Conference on Overall Mechanization and Automation of Manufacturing Processes held September 25-29, 1956. The present volume consists of three parts, the first dealing with automation of engineering measuring methods. The subjects discussed include automatic control of dimensions of machined parts, inspection methods for automatic production lines, in-process inspection

Card 1/7

Automation of Machine-building (Cont.)   SOV/2383

devices, application of electronics in automating linear measuring processes, and machines for automatic inspection of bearing races. The second part deals with automatic drives and control systems for process machinery, including application of digital computers in the control of metal-cutting machine tools, reliability of relay systems, application of gas-tube frequency converters in the control of induction motor speeds, magnetic amplifiers and their use in automatic systems, hydraulic drives, and ultrasonic vibrators. Part three deals with mechanisms of automatic machines and automatic production lines. The subjects discussed include linkage, indexing, and Geneva-wheel-type mechanisms, friction drives, automatic loading devices, diaphragm-type pneumatic drives, various auxiliary devices for automatic production lines, and methods of design and accuracy of cams. No personalities are mentioned. There are no references.

TABLE OF CONTENTS:

Card 2/7

Automation of Machine-building (Cont.)   SOV/2383

Card 3/7

Automation of Machine-building (Cont.)   SOV/2383

PART II. AUTOMATIC DRIVES AND CONTROL
SYSTEMS FOR PROCESS MACHINERY

Card 4/8

Card 5/7

ZAYCHENKO, I.Z.; MYSHLEVSKIY, L.M.; ZAYTSEVA, K.V.; KAMENETSKIY,
G.I.; MAZYRIN, I.V.[deceased]; SHCHERBAKOV, V.I.;LOZHKIN, O.V.;
CHIGAREVA, E.I., red.; KOVAL'SKAYA, I.F., tekhn. red.

[Development of the designs of hydraulic and pneumatic equip-
ment and of lubrication and filtration systems for machine tools
abroad] Razvitie konstruktsii gidravlicheskogo i pnevmaticheskogo
oborudovaniia, smazochnykh i fil'truiushchikh ustroistv metallo-
rezhushchikh stankov za rubezhom; obzor. Moskva, TSINTIMASH,
1961. 101 p.   (MIRA 16:5)

1. Moscow. Eksperimental'nyy nauchno-issledovatel'skiy institut
metallorezhushchikh stankov.
                (Machine-tools—Design and construction)

S/121/61/000/005/003/005
D040/D112

AUTHOR: Kamenetskiy, G.I.

TITLE: Tracing hydraulic valves for program-controlled machine tools

PERIODICAL: Stanki i instrument, no. 5, 1961, 13-18

TEXT: The described Г 68-1 (G68-1) valves, developed at ENIMS, are de-
signed for program-controlled, copying and some other machine tools. De-
tailed engineering information is given. The valve (Fig. 1 and 2) is two-
staged, electrically controlled. The first stage comprises an electro-
mechanical actuator and a needle valve, the second a spring-loaded distri-
bution valve. The efforts produced by the mobile system are proportional
to the voltage applied to the coil terminals. Existing actuators of this
type are described by V.A. Khokhlov (Ref. 2: "Avtomatika i telemekhanika",
vol. XVIII, no. 10, AN SSSR, Moscow, 1957) and in an English source
(Ref. 3: "Applied Hydraulics and Pneumatics", no. 2, 1959). The G68-1
differs from them in that it produces a constant effort that does not de-
pend on the coil position and its valve needle; its pressure is less de-
pendent on the oil viscosity and temperature, or on the valve motion speed;
it has low susceptibility to contamination of oil. Vibration is eliminated
Card 1/14

S/121/61/000/005/003/005
D040/D112

Tracing hydraulic valves...

in the major valve, and starting delay is not above 0.004 sec despite the
long travel of the needle. The electromechanical actuator (Fig. 2) has
the following elements. A coil (19) with a textolite frame, with leads
in the center and at the ends of the winding (which makes the actuator
applicable in simple and in differential control systems), moving in the
field of a permanent magnet (22) made from a special alloy; the coil
winding stays within the uniform portion of the magnetic field and the
electromagnetic forces are proportional to the voltage on the terminals
and independent from the coil movements. A pointed needle (16) in
bushings (18) closes a calibrated hole in a diaphragm (15) thus changing
pressure in the system; sinusoidal 50-cycle current equal to about 0.05 –
0.1 of the maximum control current vibrates the needle axially and so eli-
minates the effect of friction. A deflector (17) prevents air from being
sucked into the valve and solid particles in the oil from getting into the
needle bushing. A maximum of 40gm-wt is needed for the needle valve
control in a static state. A soft spring (20) balances the oil pressure
at zero (no current in the coil) by 6 kgf/cm^2. A screw (21) is provided
for the initial adjustment of the spring (20). The needle valve has no
sealings and can be used in the vertical position only. Pressure increase

Card 2/14

Tracing hydraulic valves...

S/121/61/000/005/003/005
D040/D112

in the first stage displaces the valve in the second. A spring (1) makes
the valve output energy proportional to the electric input signal. A
bushing (11), pressed into the casing (5), has bores (10) for oil from the
pump, (6) for drain, and (9) for oil feed to the work cylinder spaces.
The two bores (6) are connected. The valve (7) has calibrated grooves
(8) on its edges (their dimensions are selected in accordance with pressure
in the system and work load). The rigidity of the spring (1) under the
valve is 2.25 kgf/mm. The valve moves upon pressure changes in the space
(13) and changes the cross sections of the grooves (8), creating a pressure
gradient (as in usual tracing valves). The valve (7) is rotary, which
prevents it from unilateral pressure against the casing and counteracts
jamming due to solid particles in the oil. A turbine (4) rotates the
valve (7) and is itself rotated by the oil flowing from the draining main
through a radial (24) and one axial (23) bore, and on into opposite ra-
dial bores (3). The pressure loss in the turbine is 1 kgf/cm^2, and the
latter's velocity about 300 r.p.m. (friction may also be eliminated by
swinging the valve by electrically-driven cam mechanisms or two electro-
magnets, but the turbine is simpler and more dependable). A stop (12)

Card 3/14

S/121/61/000/005/003/005
D040/D112

Tracing hydraulic valves...

and a washer (2) limit the valve motion. Its travel from the central to the limit position is 1.8 mm in 0.06 sec (can be reduced by increasing the needle diameter and correspondingly faster oil flow). The control signal power changes in inverse proportion to the square of the time of motion of the valve. Valves with grooves (8) reverse more than twice faster than valves closing apertures completely. A special compensator in the form of bores (14) is provided for reducing the effect of the oil temperature. The number, diameter and length of the bores are selected so as to make the friction losses of oil in them approximately equal the friction loss in the drain line. Pressure on both ends of the valve (7) changes with temperature simultaneously and approximately equally. The valve is mounted in the hydraulic system without the use of pipes (for convenience). The casing (5) can accommodate a standard ПГ54-12 (PG54-12) valve. The technical specification of four "G68-1" valves is given (Table 1):

Card 4/14

Tracing hydraulic valves...

S/121/61/000/005/003/005
D040/D112

	G68-11a	G68-11	G68-12	G68-13
Maximum work pressure .. kgf/cm^2	50	50	50	50
Maximum power from the slide valve, kw	0.25	0.5	1.0	2.0
Oil flow at maximum power .. liter/min	5	8	18	35
Maximum pump power .. kw	0.62	1.25	2.5	5.0
Maximum control signal power at maximum slide valve power in simple control systems .. mw	125	135	145	170
Maximum needle valve pressure .. kgf/cm^2	8	8	8	8
Oil flow through the needle valve, liter/min	3.0	3.0	3.0	3.0

Card 5/14

Tracing hydraulic valves...

S/121/61/000/005/003/005
D040/D112

The dependence of the pressure gradient between the spaces in the actuator on the general pressure (kgf/cm^2) in the system can be expressed as

$$P_{gr} = \eta_{hyd}\, P_{tot} \qquad\qquad (1)$$

where P_{gr} is the pressure gradient between spaces; P_{tot} - the general pressure; η_{hyd} - hydraulic efficiency of the slide valve, showing what portion of pressure applied to the slide valve is utilized by the hydraulic drive. The formulae for the oil flow (Q) and the valve power (N) are

$$Q = C\,\frac{(S + 0.3)}{S_{max}}\,\sqrt{P_{tot}} \qquad . \qquad \sqrt{1 - \eta_{hyd}},\ \text{liter/min} \qquad (2)$$

Card 6/14

Tracing hydraulic valves...

$$N = \frac{Q\,P_{gr}}{612} = \frac{C}{612} \cdot \frac{(S + 0.3)}{S_{max}} \cdot \sqrt[3]{P_{tot}} \; \sqrt[2]{\eta_{hyd}^2 - \eta_{hyd}^3}, \; kw \qquad (3)$$

where C is a proportionality coefficient depending on the width of the grooves (8); S - slide valve displacement from its zero position, in mm; S_{max} - the maximum slide valve displacement, in mm; 0.3 - the opening value of the slots at mid position of the slide valve. As can be calculated by the formula (3), the maximum output power of the valve is at $\eta_{hyd} = \frac{2}{3}$, i.e. at loss in the grooves (8), equal to $\frac{1}{3} P_{tot}$. The dependence between the output power N kw, displacement S mm of the slide valve from the mid position, pressure P_{tot} (kgf/cm^2) in the system, coefficient η_{hyd}, and the voltage U on the terminals of the coil (19) is expressed

Card 7/14

Tracing hydraulic valves...

by the formula

$$U = 2S + \frac{3.5N}{\sqrt{P_{tot}}} \sqrt{\frac{1}{\eta_{hyd}^2} + \frac{1}{\eta_{hyd}}} \quad \text{volt,} \qquad (6)$$

where the figures 2 and 3.5 are coefficients determined experimentally. In a differential control system and with a.c. control current the control signal at static state in the system will be higher than in a simple control system (Data in table 1), but it must not exceed 1 w (in order not to overheat the coil). Pressure in the main hydraulic system is maintained by a safety valve (29) (Fig. 2). A separate pump (28) is provided for the valve. The control system has no safety valve, and pressure increases with the effort developed by the electro-mechanical actuator. A valve (25) is provided for preventing air from getting into the system, for the needle valve has no sealing. The valve (25) is shown in a separate drawing (Fig. 7). The piston is covered with oilproof rubber. The valve shown in dotted lines (26) is a relief valve that is to be used in systems where the pump capacity exceeds the total oil flow in all valves connected to one pump, i.e. it is designed for maintaining the turbines pressure

Card 8/14

Tracing hydraulic valves...   S/121/61/000/005/003/005
                                               D040/D112

at 1 kgf/cm^2, (other valves than the G68-1 can be used if a relief valve
(29) is placed in the system and not on the actuator). The valve control
systems must be independent, i.e. a standard twin blade pump can be used
for two valves, after a slight design change. The described valves (with
feed from a twin pump) are used in a program-controlled vertical 6M42$_{pr}$

(6M42$_{pr}$) milling machine, where the program control of two motions is
performed by two valves - longitudinal table motion and cross carriage
slide motion. The milling machine was tested, and it was stated that
there is no need for feedback for the work element motion speed, and that
it is better to control the motion speed by lag from the programmed speed.
The needle valves of the actuators can be fed from the main pump through
a set of diaphragms if the machine has more than two work elements. The
diaphragm set design is illustrated (Fig. 8) (where (1) are diaphragms,
(2) spacing shims sealed with rubber rings (3); oil inlet is through the
cover (4) to all bores in the casing (5); (6) flanges joining the valves).
The system illustrated in Fig. 2 is designed for program control. If the
G68-1 valves are used in copying machines, the usual slide valve (coupled
by levers with the tracer) is replaced by an electric feeler, and its

Card 9/14

Tracing hydraulic valves...   S/121/61/000/005/003/005
                                     D040/D112

amplified signals are transmitted to the valve. A copying machine tool
hydraulic system is analogous with the system in Fig. 2 but includes the
usual mechanical feedback of copying machines. The G68-1 valves may be
used also in boring machines with hydraulic drive for the tool. A tacho-
meter generator must then be connected to the hydraulic drive, and feed-
back provided between the tachometer generator and the valve. The valves
make the hydraulic system simpler and the tool motion more steady. There
are 9 figures, 2 tables and 3 references; 2 Soviet-bloc and 1 non-Soviet-
bloc. The reference to the latter publication reads as follows:
"Applied Hydraulics and Pneumatics", No 2, 1959.

Card 10/14

S/121/62/000/001/001/004
D040/D113

AUTHOR: Kamenetskiy, G.I.

TITLE: Hydraulic torque amplifiers

PERIODICAL: Stanki i instrument, no. 1, 1962, 3-8

TEXT: The design, operation and theoretical basis of $M\Gamma$18-1 (MG18-1) hydrau-
lic torque amplifiers (Fig. 1), developed by ENIMS for application in machine
tools, are described in detail. The components are an $M\Gamma$15 (MG15) hydraulic
axial-piston drive, previously described (Ref. 1: Kamenetskiy, G.I., "Stanki i
instrument", no. 5, 1959), and a control valve consisting of a bushing (1)
and a ground-in cock (2) with four slots (3) that coincide in sequence with
ducts (4) and (5), and four blind slots. Oil is fed and removed through two
opposite bores (7) and flows in annular grooves on the bushing and the valve
casing. A joint (10) securely connects the bushing with the amplifier shaft.
(8) and compensates for misalignments. The maximum turn angle is $\pm 35°$. Air
is drained from the valve top. The torque on the output shaft rises with the
lag angle δ seen in the schematic diagram (Fig. 3) and drops with increasing

Card 1/2

ACC NR:AP7006950   SOURCE CODE: UR/0413/66/000/021/0211/0211

INVENTOR: Kamenetskiy, G. I.; Zaytseva, K. V.

ORG: none

TITLE: Hydraulic feed-control device. Class 59, No. 188306 [announced by the Scientific Research Institute of Experimental Metalcutting Lathes (Eksperimental'nyy nauchno-issledovatel'skiy institut metallo-rezhushchikh stankov)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 21, 1966, 211

TOPIC TAGS: hydraulic device, pump, hydraulic pump, piston pump, ENGINE PISTON, AXIAL PUMP

ABSTRACT: An Author Certificate has been issued for a hydraulic feed-control device for an axial-piston pump with variable piston stroke. It contains a double-arm lever connected with the pump's control element, actuated by hydraulic control cylinders and provided with a shoulder which interacts with controlable stops in the pump's housing to limit the maximum supply. To assure a simultaneous uniform change in feeding when reversing, a controlable regulating spindle in the housing inter-acts through the stops with the evolvent surface of the lever's shoulder. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: none   [WA-98]
Card 1/1   UDC: 621.66-543.3-551.4:621.65   [GE]

KAMENETSKII, I. I.

Med Inst. of Epidemiol. and Microbiol., (-1944-).

Branch State Hospital for Childrens' Diseases. (-1944-).

"Experiment with Employment of Tartaric Acid in both Diptheritic Patients and Healthy Bacilli - Carriers."

Zhur. Mikrobiol., Epidemiol., i Immunobiol., No. 6, 1944.

PESHKOVSKIY, L.M.; KLEYN, G.N., prof., doktor tekhn. nauk, retsenzent;
        KARAMYSHEV, I.A., nauchn. red.; KAMENETSKIY, I.I., nauchn.
        red.; AKATOVA, V.G., red.; SHVETSOV, S.V., tekhn. red.

[Designing footings and foundations for public and industrial
buildings] Raschety osnovanii i fundamentov grazhdanskikh i
promyshlennykh zdanii. Petrozavodsk, Rosvuzizdat, 1963.283 p.
                                          (MIRA 17:2)

MEDKOV, Ye.I., prof.; KAMENETSKIY, I.I., otv. za vyp.

[Lectures for the course "Soil mechanics, footings, and foundations," the section "Principles of soil resistance under stress"] Lektsii po kursu "Mekhanika gruntov, os- novaniia i fundamenty, razdel "Osnovnye zakonomernosti soprotivleniia gruntov pod nagruzkami" (uchebnoe posobie). Moskva, Mosk. in-t inzhenerov zhel-dor. transp., 1962. 94 p.   (MIRA 17:3)

KAMENETSKIY, I. M.

"On the Smallest Interpolation and the Proceeding," Dokl. AN SSSR, 25, No.5, 1939

Voronezh State U.

KAMENETSKIY, I. M.

"Concerning Interpolayion by Means of Derivatives and the Correspondent Processes of Interpolation," Dokl. AN SSSR, 26, No.3, 1940

Voronezh State U.

KAMENETSKIY, I. M.

"Concerning the Indicator of the Hypothesis of a Complete Function of the First Order and Concerning the Distribution of the Singularities of a Function Represented by the Associated Series of Taylor," Dokl. AN SSSR, 26, No.6, 1940

MOROZOV, V.I.; VORONICHEV, N.M.; NAUDIN, Yu.V.; GARMAZA, V.A.; MEDVEDEV, G.I.;
KAMENETSKIY, I.M.; IZOKH, V.V.; BARASHKOV, V.D.; EMPARAPULO, V.Kh.;
RAYEVSKIY, N.P.; SHASHKOV, Yu.M.; GRISHIN, V.P.; SMYSLOV, I.I.;
ROMANENKO, Yu.M.; SAKHAROV, B.B.

Innovations. Avtom. i prib. no.2:61-62 Ap-Je '65.   (MIRA 18:7)

KAMENETSKIY, I.S.

ORECHKIN, B.S., kandidat meditsinskikh nauk, starshiy nauchnyy sotrudnik;
KAMENETSKIY, I.S., ordinator

Immediate results of simultaneous therapy of syphilis with penicillin
and other antisyphilis drugs. Vest. ven. i derm. no.6:29-33 N-D '54.

1. Iz otdela sifilidologii (zav.-prof. I.D.Perkel') Odesskogo nauchno-
issledovatel'skogo kozhno-venerologicheskogo instituta imeni Ye.S.
Glavche (dir.-nauchnyy sotrudnik B.I.Shpolyanskiy)
          (SYPHILIS, therapy
            penicillin with oxophenarsine & bismuth)
          (PENICILLIN, ther. use
            syphilis, with oxophenarsine & bismuth)
          (OXOPHENARSINE, ther. use
            syphilis, with penicillin & bismuth)
          (BISMUTH, ther. use
            syphilis, with penicillin & oxophenarsine)

ORECHKIN, B.S., kandidat meditsinskikh nauk; KAMENETSKIY, I.S., ordinator

Further observations on the simultaneous treatment of syphilis with
penicillin, arsenic, and bismuth [with summary in English]. Vest.
derm. i ven. 31 no.3:24-27 My-Je '57.   (MIRA 10:11)

1. Iz otdela sifilidologii (zav. - kandidat meditsinskikh nauk
B.S.Orechkin) Odesskogo nauchno-issledovatel'skogo kozhno-veneri-
cheskogo instituta vendispansera (glavnyy vrach I.M.Koltun)
          (OXOPHENARSINE, therapeutic use,
            syphilis, with bismuth & penicillin (Rus))
          (BISMUTH, therapeutic use,
            syphilis, with oxophenarsine & penicillin (Rus))
          (PENICILLIN, therapeutic use,
            syphilis, with bismuth & oxophenarsine (Rus))
          (SYPHILIS, therapy,
            bismuth, exophenarsine & penicillin (Rus))

KAMENETSKIY, I.S.; GOL'DMAN, M.I.

Complications of gonorrhea in males with reference to modern methods
of treatment. Vest. derm. i ven. 32 no.6:59-61 N-D '58.   MIRA 12:1)

1. Iz Odesskogo oblastnogo kozhno-venerologicheskogo dispansera (glavnyy
vrach I.M. Koltun).
        (GONORRHEA, compl.
            (Rus))

GUREVICH, Yu.K.; KAMENETSKIY, I.S.

Reiter's syndrome treated with corticosteroids. Vest.derm.i
ven. no.11:67-69 '61.   (MIRA 14:11)

1. Iz Odesskogo oblastnogo kozhno-venerologicheskogo dispansera
(glavnyy vrach I.M. Koltun).
     (REITER'S DISEASE)   (ADRENOCORTICAL HORMONES--THERAPEUTIC USE)

KAMENETSKIY, I. Ya.

PHASE I BOOK EXPLOITATION   SOV/3838

Bliskunov, N. A., and I. Ya. Kamenetskiy

Tekhnologiya proizvodstva elektrovakuumnykh priborov, Ch. 1: Izgotovleniye katodov, podogrevateley, i gazopoglotiteley (Production Technology of Electro-Vacuum Devices, Pt. 1: The Manufacture of Cathodes, Heaters, and Gas Absorbers) Leningrad, Gosenergoizdat, 1959. 219 p. Errata slip inserted. 10,000 copies printed.

Ed.: S. A. Obolenskiy; Tech. Ed.: O.S. Zhitnikova.

PURPOSE: This book is intended for persons working in the electro-vacuum industry, and can also be used by students of schools of higher education studying the technology of electro-vacuum devices.

COVERAGE: The book explains the technological principles of the manu-facture of cathodes, heaters, and gas absorbers of modern electron tubes. The authors thank R. A. Gavrilov, S. A. Obolenskiy, R. A. Nilender, and B. N. Mozhzhevelov. There are 10 references: 3 Soviet and 7 English.

Card 1/4

Production Technology (Cont.)   SOV/3838

TABLE OF CONTENTS:

Ch. I. Technology of Cathode Manufacture

Card 2/4

Production Technology (Cont.)   SOV/3838

Card 3/4

Production Technology (Cont.)   SOV/3838

    5. Preparation of batalum getters, ribbon gas absorbers, and paste
       getters [formir-getter]   199
    6. Preparation of tubular getters (barium with metal coating)   205
    7. Zirconium and cerium-thorium gas-absorbing coatings   209
    8. Gas-absorbing construction materials   216

Bibliography   220

AVAILABLE: Library of Congress
                                                              JP/RM/ec
Card 4/4   7-14-60

KAMENETSKIY, I.Ya.

Effect of adaptation to high-mountain conditions and the action
under these conditions of Dorogov's antiseptic-stimulant ASD
on the healing time of skin wounds in white mice. Trudy
KirgNOAGE no.2:36-39 '65.

Effect of adaptation to high-mountain conditions and the action
under these conditions of Dorogov's antiseptic-stimulant ASD
on the healing time of skin wounds in white rats. Ibid.:39-42
(MIRA 18:11)

1. Iz kafedry gistologii (zav. - prof. A.A.Braun) Kirgizskogo
gosudarstvennogo meditsinskogo instituta.

L 8498-66 (A)   EWT(m)/EWP(j)/EWP(t)/EWP(b)   JD/RM

ACC NR: AP5028478   SOURCE CODE: UR/0286/65/000/020/0064/0064

AUTHORS: Ardov, D. I.; Kamenetskiy, I. Ya.; Smirnova, A. F.; Sergeyeva, A. A.; Ponomareva, V. M.; Golubeva, A. V.; Luk'yanov, N. P; Yeremina, Ye. N.; Sivograkova, K. A.; Kinter, I. P.; Shalina, V. P.

ORG: none

TITLE: Surfacing for metallic and reinforced concrete decks. Class 39, No. 175643 /announced by Organization of the State Committee on Ship Construction SSSR (Organizatsiya gosudarstvennogo komiteta po sudostroyeniyu SSSR)_/

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 20, 1965, 64

TOPIC TAGS: polymer, copolymer, rubber, mineral filler, pigment, metal surfacing, reinforced concrete, ship component, SYNTHETIC RUBBER

ABSTRACT: This Author Certificate presents a surfacing material for metallic and reinforced concrete decks. The surfacing material is based on a binding polymer and on mineral fillers and pigments. To increase its resistance to abrasion and corrosion and to reduce its slipperiness, a copolymer of styrole with nitrylacrylic acid and with butylacrylic rubber is used as the binding polymer.

SUB CODE: 11/ SUBM DATE: 12Mar64

BVK
Card 1/1   UDC: 678.746.2—139.678.046.3 678.047

KAMENETSKIY, Leonid Borisovich; LIPSKAYA, V.F., red.; GORYACHKINA,
R.A., tekhn. red.

[Manual for the bulldozer operator] Pamiatka mashinistu
bul'dozera. Moskva, Avtotransizdat, 1963. 30 p.
(MIRA 16:8)

(Bulldozers)

KAMENETSKIY, Leonid Borisovich; LAPSKAYA, V.F., red.

[Handbook for a bitumen-boiler operator] Pamiatka mashi-
nistu bitumnogo kotla. Moskva Transport, 1965. 36 p.
(MIRA 18:6)

KAMENETSKIY, L.

Eliminate the shortcomings of chronometric observations in coal
mines. Sots.trud 4 no.3:91-93 Mr '59.   (MIRA 12:4)
                    (Coal mines and mining—Research)

KAMENETSKIY, L. Ye., inzh.

Some results of using a new wage system for Chelyabinsk Coal Basin miners. Izv.vys.ucheb.zav.; gor.zhur. no.4:20-25 '59.
(MIRA 13:5)

1. Leningradskiy ordena Lenina i ordena Trudovogo Krasnogo Znameni gornyy institut imeni G.V.Plekhanova. Rekomendovana kafedroy ekonomiki i organizatsii proizvodstva.
(Chelyabinsk Basin--Coal miners)
(Wages)

KAMENETSKIY, L.Ye.

    Integrated work organistion in the Chelyabinsk Coal Basin.
Izv.vys.ucheb.zav.; gor.zhur. no.4:51-56 '58.   (MIRA 11:11)

1. Leningradskiy gornyy institut.
          (Chelyabinsk Basin—Mine management)

KAMENETSKIY, L.Ye., kand.ekon.nauk

Standards for calculating the amount of other expenditures during the designing of open pit coal mines. Shakht.stroi. 7 no.5: 6-7 My '63.   (MIRA 17:4)

1. Gosudarstvennyy institut po proyektirovaniyu shakht.

KORBUT, A.A., inzh.; KAMENETSKIY, L.Ye., kand. ekonom. nauk; VAYSBURD, B.M., inzh.

Using linear programming methods in planning the expansion of the Kansk-Achinsk coal basin. Izv.vys.ucheb.zav.;gor.zhur. 7 no.6:48-51 '64.
(MIRA 17:12)

1. Leningradskiy vychislitel'nyy tsentr (for Korbut). 2. Gosudarstvennyy institut po proyektirovaniyu shakht (for Kamenetskiy, Vaysburd).

KAMENETSKIY, L.Ye., kand. ekonom. nauk; KORBUT, A.A.

Using the linear programming method for solving problems in the expansion of the Kansk-Achinsk Basin. Ugol' 40 no.2:29-31 F '65.

(MIRA 18:4)

1. Gosudarstvennyy institut po proyektirovaniyu shakht (for Kamenetskiy).
2. Leningradskiy vychislitel'nyy tsentr (for Korbut).

KAMENETSKIY, M. (g. Kadiyevka)

Light is seen from a long distance. Zhil.-kom. khoz. 12 no.3:
8-9 Mr '62.   (MIRA 15:10)

(Lugansk Province—Community life)

KAMENETSKIY, M.I., inzh.

Determining the efficient structure for the processing of slag by linear programming. Stroi.mat. 10 no.8:14-15 Ag '64.

(MIRA 17:12)

MAGNETSKIY, N. O.

"Electric Power Supply from Public-Service Stations in
Russia in the 90s of the 19th Century." Thesis for
degree of Cand. Technical Sci. Su 6 Oct 49. Power
Engineering Inst imeni G. M. Krzhizhanovskiy, Acad Sci
USSR.

Summary 32, 13 Dec 52, Dissertations Presented
for Degrees in Science and Engineering in Moscow
in 1949. From Vechernyaya Moskva. Jan-Dec 1949.

KAMENETSKIY, M. O.

      Russia's First Electric Power Stations (Pervyye russkiye elektrostantsii),
Gosenergoizdat, 132 pp, 1951.

Book W-22517, 29 Apr 52

KAMENETSKIY, M.O.

BERGER, A.Ya., professor (Leningrad); KAMENETSKIY, M.O., inzhener
(Leningrad).

P.P.Kopniaev's role in the activities of the Russian school of
electrical engineering. Elektrichestvo no.1:71-72 Ja '54.
(MLRA 7:2)
(Kopniaev, Pavel Petrovich, 1867-1932) (Electric engineering)

AUTHOR   KAMENETSKIY M.O.   PA - 3103
TITLE   Determining Feed in Currents During Faults in Low Voltage Circuits.
                (Opredeleniye tokov podpitki pri korotkikh zamykaniykh v setyakh niz-
                kogo napryazheniya -Russian)

ABSTRACT   The experiments were carried out with a circuit of 380 V and the overcon-
                sumption of the asynchronmotors which were used was determined. With a cir-
                cuit voltage up to 1000 V and a corresponding fall of voltage the asynch-
                ron-motors emit a current to the short circuit point for a certain time.
                The purpose of this particular work was to analyse the fading away of this
                short circuit current. Parallel to this experiment another calculation was
                carried out whereby the nominal output of the motors basically determines
                the amount of the load before the short circuit, and the concept of "the
                specific false output" (the comparison of the false output to the self sus-
                pended output) was used by S.A.Rinkevich. It is demonstrated that the spe-
                cific false output can also be analytically determined. The formula for
                the fading away of the short circuit current is derived. The experiments
                and the calculations differentiated themselves at 10 - 15% and both con-
                firmed that with the correct evaluation of the circuit voltage and of the
                nominal motor output, the calculation results are throughly reliable for
                those cases where the short circuit results in the top portion of the low
Card 1/2   voltage circuit. With medium or greater distance of the short circuit points,

KAMENETSKIY, M.O.   105-9-19/32

AUTHOR: Kamenetskiy, M.O., Candidate of Technical Sciences,
            (Leningrad)

TITLE: E.Arnold's Activity in Russia (Deyatel'nost' E. Arnol'da v Rossii)

PERIODICAL: Elektrichestvo, 1957, Nr 9, pp. 65-68 (USSR)

ABSTRACT: 1856 - 1911. From 1874 - 1878 Engelbert Arnold studied at Zurich
            at the Technical High School, faculty for mechanics, and worked
            as engineer at Leipzig and Offenbach on Main. In 1880 he was
            appointed assistent at the Technical High School of Riga. He ob-
            tained the venia legendi on September 22, 1883 on "Transfer of
            Electrical Energy". In 1886 electrotechnics was introduced as an
            independent compulsory subject and Arnold was given the chair for
            this subject. A special electrotechnical laboratory was established
            at his initiative. The Technical High School at Riga was one of
            the first in the world and the first in Russia at which electro-
            engineers were trained. In 1882-1892 Arnold was a member of the
            editorial office of the "Riga Industrial Newspaper". At Riga
            he wrote his two basic works "Details of Machines" and "Armature
            Windings of Direct Current Dynamos". From 1891 - 1894 he was head
            of the electrotechnical department of the Oerlikon-Works at
            Zurich and from 1894 - 1911 he held the chair at Karlsruhe Tech-
            nical High School. From 1896 - 1898 the Institute for Electrotech-
            nics was established at Karlsruhe under his management. From 1906 -

Card 1/2

E. Arnold's Activity in Russia   105-9-19/32

        1907 he was rector of the Technical High School at Karlsruhe.
        There is 1 figure and 1 Slavic reference.

AVAILABLE: Library of Congress

Card 2/2

YELISEYEV, A.A.; GOLOUSHKIN, V.N.; KAMENETSKIY, M.O., kand.tekhn.nauk, nauchnyy red.; VOROB'YEV, G.S., red.izd-va; GURDZHIYEVA, A.M., tekhn.red.

[Development of electric engineering in the U.S.S.R.] Razvitie elektrotekhniki v SSSR. Leningrad, Ob-vo po rasprostraneniiu polit. i nauchn.znanii RSFSR, Leningr.otd-nie, 1959. 45 p.
(MIRA 13:4)

(Electric engineering)

POPILOV, Lev Yakovlevich; KAMENETSKIY, N.P., kand. tekhn. nauk, retsenzent;
VYACHESLAVOV, P.M., kand. khim. nauk, dots., red.; GRILIKHES, S.Ya.,
red. vypuska; YAMPOL'SKIY, A.M., inzh. red.; ONISHCHENKO, R.N., red.
izd-va; BARDINA, A.A., tekhn. red.

[Electroplating] Gal'vanoplastika. Pod red. P.M.Viacheslavova. Mo-
skva, Mashgiz, 1961. 62 p. (Bibliotechka gal'vanotekhnika, no.6)

(MIRA 14:12)

(Electroplating)

SHNEYDER, M.S.; KAMENETSKIY, M.S.

Secondary hypertrophic pulmonary osteoarthropathy (Marie-Bamberger syndrome); clinical characteristics and role in the diagnosis of pulmonary cancer. Terap.arkh. 33 no.3:41-46 Mr '61.   (MIRA 14:3)

1. Iz kliniki propedevticheskoy terapii (i.o. zav. - kanditat meditsinskikh nauk M.S. Shneyder) sanitarno-gigiyenicheskogo i pediatricheskogo fakul'tetov Stalinskogo meditsinskogo instituta.
           (ACROMEGALY)   (LUNGS—CANCER)

KAMENETSKIY, M.S.

Evaluation of X-ray methods of examining external respira-
tion. Vrach. delo no.8:73-75 Ag'63.   (MIRA 16:9)

1. Rentgenovskoye otdeleniye Vtoroy gorodskoy bol'nitsy
Donetskogo metallurgicheskogo zavoda.
                    (X RAYS)   (RESPIRATION)

KAMENETSKIY , M.V,

137-1958-1-219

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 1, p 34 (USSR)

AUTHOR: Kamenetskiy, M. V.

TITLE: An Investigation of the Ternary System NaCl-KCl-TiCl$_3$
          (Issledovaniye troynoy sistemy NaCl - KCl - TiCl$_3$)

PERIODICAL: Nauchno-tekhn. inform. Byul. Leningr. politekhn. in-t, 1957,
          Nr 3, pp 3-12

ABSTRACT: The binary systems NaCl-TiCl$_3$ and KCl-TiCl$_3$ are studied.
          It is shown that the system KCl-TiCl$_3$ contains a stable chemical
          compound 3KCl · TiCl$_3$, melting temp. 760°. In the interval in-
          investigated, this system has a eutectic of the composition:
          KCl 85.2 mol.- percent, TiCl$_3$ 14.8 mol - percent, melting
          temperature 676°. The composition of a second eutectic was
          determined by extrapolation. It consists of 66.4 mol - percent
          KCl and 33.6 mol - percent TiCl$_3$, melting temperature 595°.
          The system NaCl-TiCl$_3$ is eutectic, NaCl 77.6 mole - percent,
          TiCl$_3$ 22.4 mol - percent melting temperature 540°. It is
          shown that in the NaCl-KCl-TiCl$_3$ system the minimum melting
          temperature (590° approximately) is that of the following mixture
          (in mol - percent): NaCl 40, KCl 48, TiCl$_3$ 12. The existence
Card 1/2

137-1958-1-219

An Investigation of the Ternary System $NaCl-KCl-TiCl_3$

of a chemical compound $3KCl \cdot TiCl_3$ is proved. It is suggested
that there is a compound of the composition $3\ NaCl \cdot TiCl_3$.

N. P.

1. Metal chloride compounds--Analysis   2. Metal chloride compounds
--Properties

Card 2/2

SOV/163-58-2-17/46

AUTHOR: Kamenetskiy, M. V.

TITLE: The Interaction of Metallic Titanium With Its Chlorides in the
                 Melt of Alkali Metallic Chlorides (Vzaimodeystviye metalli-
                 cheskogo titana s yego khloridami v rasplavakh khloridov
                 shchelochnykh metallov)

PERIODICAL: Nauchnyye doklady vysshey shkoly. Metallurgiya, 1958, Nr 2,
                 pp. 104-111 (USSR)

ABSTRACT: The interaction of metallic titanium and its 2- and 3-valent
                 chlorides in the melt of alkali metallic chlorides was in-
                 vestigated. This investigation is of importance for an electro-
                 lytic production of titanium metal from the alkali melt. The
                 decomposition of $TiCl_3$ was investigated. The experiments on
                 this decomposition were carried out in a potassium chloride melt
                 and in an equimolar melt of NaCl and KCl in a quartz tube. The
                 determination of the composition of 2- and 3-valent titanium
                 chloride in the salt melts investigated was carried out by
                 means of the titration of iron-(II)-chloride. It is shown that

Card 1/3   at temperatures of 675-900°C the equation $2\ TiCl_3 + Ti \rightleftharpoons 3\ TiCl_2$

The Interaction of Metallic Titanium With Its Chlorides in the Melt of
Alkali Metallic Chlorides $\qquad$ SOV/163-58-2-17/46

tends to the side of $TiCl_2$. $TiCl_2$ on the other hand decomposes
further into $TiCl_3$. The decomposition takes place according
to a complex reaction scheme. The dependence of the solubility
of titanium on the anodic current density was investigated.
At lower current densities the process of dissolution mainly
takes place under the formation of $TiCl_2$. At a current density
of 0.35 A/cm^2, for instance, the amount of $TiCl_2$ is almost
twice that of $TiCl_3$. With an increase of the current density
the amount of $TiCl_3$ increases, and at a current density of
1.3 A/cm^2 mainly $TiCl_3$ is formed at the anode. There are 2
figures, 5 tables, and 8 references, 3 of which are Soviet.

ASSOCIATION: Leningradskiy politekhnicheskiy institut (Leningrad Poly-
technical Institute)

Card 2/3

KAMENETSKIY, M. V.: Master Tech Sci (diss) -- "Investigation of the physicochem-

ical properties of fused titanium chlorides in alkali-earth metals". Lenin-

grad, 1959. 14 pp (Min Higher Educ USSR, Leningrad Polytech Inst im M. I.

Kalinin), 150 copies (KL, No 13, 1959, 105)

77728
SOV/149-60-1-17/27

.18.3100

AUTHORS: Kamenetskiy, M. V., Kostyukov, A. A., Popov, A. N.

TITLE: Ternary System of Potassium, Magnesium, and Titanium
               Chlorides

PERIODICAL: Izvestiya vysshikh uchebnyk zavedeniy. Tsvetnaya metal-
               lurgiya, 1960, Nr 1, pp 119-122 (USSR)

ABSTRACT: Equilibrium diagrams of the above ternary system were
               investigated as an area of interest for titanium electro-
               metallurgy. Previous work on this subject by A. I.
               Ivanov (DAN SSSR, Vol 86, Nr 3, 539, 1952) and M. V.
               Kamenetskiy (Tsvetnyye metally, Nr 2, 39, 1958) is cited.
               The study was based on cooling curve recordings of the
               system, with composition expressed in molar percentages.
               Eleven cross sections of the diagram were investigated
               as shown in Fig. 1. As melts high in $TiCl_3$ content
               could be studied insofar as saturated by this component,
               the position of monovariant line e_2E_2 (see Fig. 1) is
               determined tentatively. A short description of the cross

Card 1/6

Ternary System of Potassium, Magnesium,   77728
and Titanium Chlorides   SOV/149-60-1-17/27

sections is given as follows: (I) (90% KCl + 10%MgCl$_2$)
TiCl$_3$ crosses the crystallization field boundaries
of KCl, 3KCl·TiCl$_3$, and TiCl$_3$(7.9 and 28.6%) at 615 and
590° C, respectively. (II) (80% KCl + 20% MgCl$_2$) ·
TiCl$_3$ crosses the same boundaries at 540° C (4.5% TiCl$_3$)
and 560° C 23% TiCl$_3$). (III) (75% KCl + 25%MgCl$_2$) · TiCl$_3$
crosses the same boundaries at 490° C (3% TiCl$_3$) and
540° C (20% TiCl$_3$). (IV) (67% KCl + 33% MgCl$_2$) — · TiCl$_3$
crosses boundaries of fields of variable composition
phase crystallization A, KCl · MgCl$_2$, 3KCl · TiCl$_3$ and
TiCl$_3$ at 430° C (1% TiCl$_3$); 477°C (6% TiCl$_3$); and 470°C
(15% TiCl$_3$). (V) (60% KCl + 40% MgCl$_2$) TiCl$_3$ crosses
one field boundary KCl · MgCl$_2$ and TiCl$_3$ at 388° C

Card 2/6

Ternary System of Potassium, Magnesium,
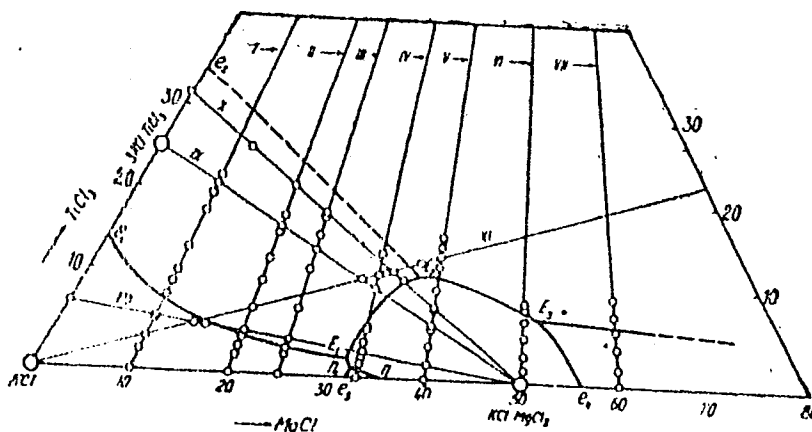and Titanium Chlorides

Fig. 1. Concentration triangle of $KCl-MgCl_2-TiCl_3$ showing
cross sections and points of investigated alloys.

Card 3/6

Ternary System of Potassium, Magnesium, and Titanium Chlorides

77728
SOV/149-60-1-17/27

$(11.5\% \ TiCl_3)$. (VI) $(50\% \ KCl + 50\% \ MgCl_2) \longrightarrow TiCl_3$ (8%) crosses the same boundary at 390° C. (VII) $(40\%$ $KCl + 60\% \ MgCl_2) \longrightarrow TiCl_3$ crosses field boundaries $MgCl_2$ and $TiCl_3$ at 440° C $(6.7\% \ TiCl_3)$. (VIII) $(92.5\%$ $KCl + 7.5\% \ TiCl_3) \longrightarrow KCl \cdot MgCl_2$ crosses the field boundaries of KCl, $3KCl \cdot TiCl_3$ and $KCl \cdot MgCl_2$ $(30.5$ and $62\%)$ at 565 and 435° C, respectively. (IX) $(3KCl$ $\cdot TiCl_3 \longrightarrow KCl \cdot MgCl_2$ (63%) crosses field boundary $3KCl \cdot TiCl_3$ and $KCl \cdot MgCl_2$ at 480° C. (X) $(69\% \ KCl$ $+ 31\% \ TiCl_3) \longrightarrow KCl \cdot MgCl_2$ (65%) crosses the same boundary at 416° C. (XI) $KCL \longrightarrow (71\% \ MgCl_2 + 29\% TiCl_3)$ crosses field boundaries of KCl, $3KCl \cdot TiCl_3$ at 568° C $(80\% \ KCl)$ and 420° C $(56\% \ KCl)$. The above experimental data were used for plotting the $KCl-MgCl_2-TiCl_3$ ternary system diagram as a projection of primary crystalliza- tion surfaces on the plane of a concentration triangle,

Card 4/6

Ternary System of Potassium, Magnesium,   77728
and Titanium Chlorides   SOV/149-60-1-17/27

as shown in Fig. 2. The crystallization surface is
represented by six crystallization fields (three corre-
sponding to original salts and three to compounds $3KCl$
$\cdot$ $TiCl_3$ and KCl $\cdot$ $MgCl_2$ as well as variable composition

phase A. The fields converge in four nonvariant
points: three eutectic and one hypereutectic. Their
characteristics are given. In their conclusions the
authors indicate that the lowest melting alloys of the
ternary system are in the vicinity of eutectic points
E_2 and E_3 ($380°$ C). The formation of a stable compound

$3KCl$ $\cdot$ $TiCl_3$ which is soluble in molten K, Mg, and Ti
chlorides is confirmed. There are 2 figures; 1 table;
and 5 references, 3 Soviet, 2 German.

ASSOCIATION: Leningrad Polytechnic Institute. Chair of Electrometal-
              lurgy of Non-Ferrous Metals (Leningradskiy politekhniches-
              kiy institut. Kafedra elektrometallurgii tsvetnykh
              metallov)
SUBMITTED: May 20, 1959   Card 5/6

Ternary System of Potassium, Magnesium, and Titanium Chlorides
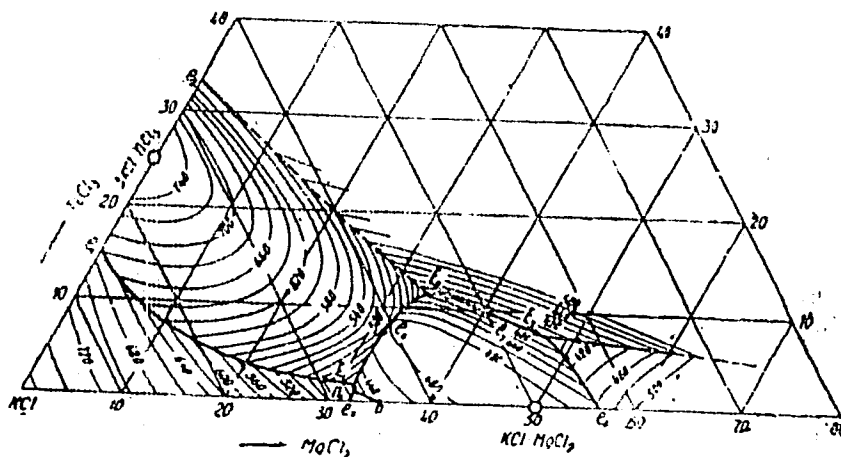
Card 6/6

Fig. 2. Concentration triangle for $KCl-MgCl_2-TiCl_3$ system with isotherms.

80833

/8.3100

S/149/60/000/03/03/009

AUTHORS: Baymakov, Yu.V., Kamenetskiy, M.V., Smirnov, V.V.

TITLE: Investigation Into Processes Occurring on Electrodes in Electro-
           lytic Titanium Refinement

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Tsvetnaya metallurgiya,
              1960, No 3, pp 81 - 89

TEXT: Studies on the crystallization of metal on the cathode in
electrolytic refinement of titanium are still at a stage of preliminary re-
search. Crystallization of titanium on the cathode is complicated by the
$2TiCl_3 + Ti \rightleftarrows 3TiCl_2$ reaction developing on the surface of forming crystals.
The authors investigated the preparation of melts containing $TiCl_3$ and carried
out analyses. The method described in Refs 5 and 6 was employed. The experi-
ments were performed in a medium of purified argon on an installation shown in
Figure 1. Results of the experiments are given in a table. The dependence of
the current efficiency and the composition of the final electrolyte on the
volume current density at 800°C is represented by a set of graphs. It appears
that highest current efficiency is obtained if the melt contains 5 to 12%

Card 1/3

80833

S/149/60/000/03/03/009

Investigation Into Processes Occurring on Electrodes in Electrolytic Titanium Refinement

$TiCl_3$ (in g.equ). Higher temperatures cause increased current efficiency which attains its maximum within the range of 800° - 875°C. Further raise of the temperature causes decreased current efficiency. Reactions on the electrodes and the balance of electrode processes were investigated. Values of the decomposition potentials for reactions of reduction and formation of titanium chloride at 800°C, calculated by M.V. Kamenetskiy (Ref 12) are given. If the equilibrium electrode potential of Cl is considered as a constant value, the most electronegative potential corresponds to the reaction of Ti^{2+} reduction. This leads to the conclusion on the consecutive course of anode and cathode reactions. To obtain a satisfactory course of the cathode process, a higher cathode current density is required as well as a relatively high Ti^+ concentration in the melt ensuring the feed of the zone adjacent to the cathode. The reactions on the cathode and anode are illustrated by Figure 5. The effect of the volume current density was studied in a series of experiments. It was revealed that the amount of $TiCl_3$ and $TiCl_2$ contained in the volume of the electrolyte acted as a regulator to maintain a constant composition. As a consequence the part of the current density was revealed, whose optimum value

Card 2/3

80833

S/149/60/000/03/03/009

Investigation Into Processes Occurring on Electrodes in Electrolytic Titanium Refinement

was 25 - 30 amp/l. It was established that highest current efficiency was observed if there was a noticeable $TiCl_2$ concentration in the melt. To ensure a sufficient rate of $TiCl_2$ formation melts with high activity of $TiCl_3$ are recommended. Best current efficiency is obtained if the cathode current density is 0.8 - 2.5 amp/cm^2 and the anode current density is 0.05 - 0.1 amp/cm^2 at 800° - 850°C. The authors studied the effect of the electrolysis process of $KCl - TiCl_3$ melts on the structure of cathode deposits, which was most satisfactory at a concentration of 4 - 10% $TiCl_3$ in the initial melt, a volume current density of 25 - 50 amp/l, a cathode current density of 1 - 2.5 amp/cm^2 and a temperature of 800° - 850°C. There are 1 diagram, 1 table, 4 sets of graphs, 4 photographs and 14 references: 10 Soviet, 1 English and 3 German.

ASSOCIATION: Leningradskiy politekhnicheskiy institut (Leningrad Polytechnical Institute), Kafedra elektropirometallurgii (The Chair of Electro-pyrometallurgy)

SUBMITTED: July 21, 1959

Card 3/3

BAYMAKOV, Yu.V.; KAMENETSKIY, M.V.; CHERNY, F.

Equilibrium between titanium chlorides and titanium metal in
molten potassium and sodium chlorides. Izv.vys.ucheb.zav.; tsvet.
met. 3 no.2:102-107 '60.   (MIRA 15:4)

1. Leningradskiy politekhnicheskiy institut, kafedra elektropiro-
metallurgii.
              (Titanium—Electrometallurgy)

S/149/62/000/003/002/011
A001/A101

AUTHORS: Kamenetskiy, M. V., Shevlyakova, L. I.

TITLE: Electric conductivity of binary systems consisting of sodium and titanium chlorides or potassium and titanium chlorides

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Tsvetnaya metallurgiya, no. 3, 1962, 89 - 93

TEXT: The authors studied electric conductivity of binary systems used in electrolytical refining of titanium at $800 - 950^{\circ}C$ in order to select an effective composition of electrolytes. The device used for resistance measurements was a conductivity meter with an operation range from 10^{-2} to 10^{7} ohm. Molybdenum and tungsten were used as materials for electrodes. The specific electric conductivity of the $KCl-TiCl_3$ system was measured in the concentration range from 0 to 38 mol.% $TiCl_3$, and that of the $NaCl-TiCl_3$ system in the range from 0 to 30.8 mol.% $TiCl_3$. Isotherms of specific electric conductivity of both systems are shown graphically at various temperatures and compared with data by Yu. K. Delimarskiy and R. V. Chernov. At a content of 25 mol.% $TiCl_3$ the isotherms show de-

Card 1/2

flections, which can be explained by formation in the systems of chemical com-
pounds Na_3TiCl_6 and K_3TiCl_6. With increasing $TiCl_3$ content beyond 25 mol.%, elec-
tric conductivity of the melt drops considerably, In view of its dilution by
poorly conducting titanium trichloride. Relative temperature coefficients of
specific electric conductivity of both systems were calculated and plotted in
graphs versus $TiCl_3$ content. The curves of both systems pass through maxima at
25 mol.% $TiCl_3$, confirming thereby the formation of the chemical compound in the
melt. It was found that the electric conductivity data of the melts studied
sat   Frenkel's formula:

$$\gamma = Ae^{-\frac{u}{KT}}.$$

Analytically, using this formula, and graphically the authors determined activa-
tion energy of the electric conductivity process at a temperature of 875°C and
plotted the corresponding curves versus $TiCl_3$ content, which also reveal maxima
at its 25 mol.% content. There are 4 figures and 1 table.

ASSOCIATION: Leningradskiy politekhnicheskiy institut (Leningrad Polytechnic
            Institute) Kafedra elektropirometallurgii (Department of Electric
            Pyrometallurgy)
SUBMITTED: January 6, 1962
Card 2/2

S/826/62/000/000/002/007
D408/D307

AUTHORS: Kamenetskiy, M.V., Kostyukov, A.A. and
                  Korchakov, V.A.

TITLE: The ternary system of sodium, titanium
                  and barium chlorides

SOURCE: Fizicheskaya khimiya rasplavlennykh soley
                  i shlakov; trudy Vses. soveshoh. po fiz.
                  khimii raspl. soley i shlakov, 22 noyabrya
                  1960 g., Moscow, Metallurgizdat, 1962, 60-62

TEXT: The authors studied the phase diagram of the
ternary system $NaCl$--$TiCl_3$--$BaCl_2$ in the region of compositions
suitable for the electrolytic production of titanium, because the
addition of $BaCl_2$ to the system $NaCl$--$TiCl_3$ (in order to prevent
separation of the electrolyte components), alters the physico-
chemical properties of the electrolyte. The cited binary system
was also studied, up to 35.5 mol % $TiCl_3$ content, because of the
discrepancies in the data concerning this system obtained by

Card 1/2

The ternary system ...

S/826/62/000/000/002/007
D408/D307

Kamenetskiy et al. The investigations showed that the binary system eutectic contains 23 mol % $TiCl_3$ and melts at 550°C; the ternary eutectic has the composition $TiCl_3$ 20.8, $BaCl_2$ 14.2, and NaCl 65.0 mol % and melts at 540°C. There are 3 figures.

ASSOCIATION: Leningradskiy politekhnicheskiy institut
                (Leningrad Polytechnic Institute)

Card 2/2

S/826/62/000/000/001/007
D408/D307

AUTHORS: Kamenetskiy, M.V., Kostyukov, A.A.   and
                Hsiao Te-Ch'uang

TITLE: The ternary system of potassium, barium, and
                titanium chlorides

SOURCE: Fizicheskaya khimiya rasplavlennykh soley i
                shlakov; trudy Vses. soveshch po fiz. khimii
                raspl. soley i shlakov, 22 - 25 noyabrya 1960
                g., Moscow, Metallurgizdat, 1962, 54 - 59

TEXT: The authors studied the phase diagram of the
system KCl--$TiCl_3$--$BaCl_2$ in the region of compositions suit-
able for the electrolytic production of titanium up to 40 mol
% $TiCl_3$, at atmospheric pressure, because the addition of $BaCl_2$
to the system KCl--$TiCl_3$,   (in order to prevent separation of
the electrolytic components), alters the physico-chemical pro-
perties of the electrolyte. The cited binary system was also
studied, up to 41.6 mol % $TiCl_3$ content, because of the existence

Card 1/3

of discrepancies in the phase diagrams obtained for this system
by various authors. From the investigation of the binary system
it was found that the eutectic contained 15 mol % $TiCl_3$ and mel-
ted at 676°C, the compound $3KCl.TiCl_3$ melted at 760°C, and the
compound $2KCl.TiCl_3$ melted incongruently. A peritectic transi-
tion occurred at 40 % $TiCl_3$ and 580°C, in accordance with the
reaction $K_2TiCl_5 \rightleftharpoons$ liquid + K_3TiCl_6. The crystallization
surface in the investigated region of the ternary system is re-
presented by the four crystallization fields KCl, $BaCl_2$, K_3TiCl_6,
and K_2BaCl_4, and the triangulating secants are K_3TiCl_6--K_2BaCl_4
and K_3TiCl_6--$BaCl_2$, which divide the system into three secondary
systems: KCl--K_3TiCl_6--K_2BaCl_4, K_3TiCl_6--K_2BaCl_4--$BaCl_2$, and
K_3TiCl_6--$BaCl_2$--$TiCl_3$. The latter system was not investigated
since it encompasses the region of melts difficult to obtain at
normal pressure. In the portion of the phase diagram which was
studied, the lowest melting point, 600°C, occurs in the region
of the ternary eutectic points having compositions ($TiCl_3$ 4.6,

Card 2/3

The ternary system ...

S/826/62/000/000/001/007
D408/D307

KCl 75.1, and $BaCl_2$ 20.3 mol %), and ($TiCl_3$ 7.8, KCl 65.6, and $BaCl_2$ 26.6 mol %). It was confirmed that the compound K_3TiCl_6 is stable in molten KCl and $BaCl_2$. There are 6 figures.

ASSOCIATION: Leningradskiy politekhnicheskiy institut
(Leningrad Polytechnic Institute)

Card 3/3

KAMENETSKIY, M.V.; SHEVLYAKOVA, L.I.

Electroconductivity of binary systems of sodium and titanium
chlorides and potassium and titanium chlorides. Izv.vys.ucheb.
zav.; tsvet.met. 5 no.3:89-93 '62.   (MIRA 15:11)

1. Leningradskiy politekhnicheskiy institut, kafedra
elektropirometallurgii.
        (Systems (Chemistry))   (Chlorides—Electric properties)

KAMENETSKIY, S.

Increase of the service life of $43^{LK}2^B$ picture tubes. Radio
no.2:38 F '61.   (MIRA 14:9)
(Television--Picture tubes)

KAMENETSKIY, S.

Reconditioning of 43LK2B kinescopes. Radio no.6:44 Je '62.

(MIRA 15:5)

(Television—Picture tubes)

KAMENETSKIY, S., kand.tekhn.nauk

        We will raise the quality of heat insulation. Na stroi. Ros. 3
        no.1:30-31 Ja '62.   (MIRA 16:5)
                       (Insulating materials)

Kamenetskiy, S. A. (Translits)

RAYLEIGH, John William Strutt;.   · USPENSKIY,P.N. [translator];
KAMENETSKIY,S.A.,[translator]; RYTOV,S.M., redaktor

[Theory of sound. Translated from the English] Teoriia zvuka.
Perevod s 3. angliiskogo izd. P.N.Uspenskogo i S.A.Kamenetskogo.
Izd.2., pod red. i s predisl. S.M.Rytova. Moskva, Gos.izd-vo
tekhniko-teoret. lit-ry, 1955.   (MLRA 9:3)
    (Sound) (Vibration) (Waves)

TIMOSHENKO, Stepan Prokof'yevich, prof.; YANG, D.Kh. [Young, D.H.], prof.; PANOVKO, Ya.G. [translator]; KAMENETSKIY, S.A., red.; GAVRILOV, S.S., tekhn.red.

[Vibration problems in engineering] Kolebaniia v inzhenernom dele. Moskva, Gos.izd-vo fiziko-matem.lit-ry, 1959. 439 p.
(MIRA 12:10)

(Vibration)   (Mechanics, Applied)

POLAK, Lev Solomonovich; GRIGOR'YAN, A.T., red.; KAMENETSKIY, S.A., red.;
    TUMARKINA, N.A., tekhn.red.

[Variational principles in mechanics, their development and
applications in physics] Variatsionnye printsipy mekhaniki,
ikh razvitie i primeneniia v fizike. Moskva, Gos.izd-vo fiziko-
maten.lit-ry, 1960. 599 p.   (MIRA 14:3)
    (Mechanics, Analytic)   (Calculus of variations)
                    (Physics)

ZAZOVSKIY, P.Ya.; KAMENETSKII, S.G.

Pressure restoration on well bottoms in thinned oil flow. Nefteprom.
delo no.9:6-12 '65.
(MIRA 18:10)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.

KAMENETS'KIY, S.I.

Chemical Abstracts
May 25, 1954
Biological Chemistry

(2)

A method for the determination of nicotinic acid in blood. S. I. Kamenets'kii (Ukrain. Sci. Research Inst. Nutrition, Kiev). Ukrain. Biokhim. Zhur. 20, 363-8(in Russian, 368-70)(1948).—This method does away with the use of NaCN. To 10 ml. blood add 15 ml. H_2O and allow to stand for 5 min. Add 10 ml. of a 10% soln. of Na tungstate and after 5 min. 10 ml. of 0.67 N HCl. Shake occasionally for 45 min. and filter; to the filtrate add 10 N NaOH, 5 ml. for every 30 ml. of filtrate. Heat for 1.5 hrs. on a water bath. Neutralize to phenolphthalein with 30% HCl, and bring to pH 4.5-5.0 with 2% HCl, with bromphenol blue and bromcresol purple as indicators. Add water to bring the vol. to $^1/_2$ that of the filtrate taken for hydrolysis and heat 10 ml. to 75-80° on a water bath together with 1 ml. of rhodanine bromide (I) soln. Cool to room temp, and add 2.5 ml. of a 5% soln. of methyl-p-aminophenol (II). The I soln. contains $CaCO_3$ which produces a more intense and stable color. Standards are prepd. with 0.1, 1.0, 2.0, and 3.0 γ nicotinic acid (III) and the color is read in a photoelec. colorimeter after 45 min. at room temp. One can det. 25-30 γ III in 1 ml. of the blood. Aniline can be used instead of II. Werner Jacobson

KAMENETSKIY, SH. E.

USSR/Medicine - Dystrophy   Mar/Apr 49
Therapeutics

"The Use of Products of the Oxygen Hydrolysis of Protein in the Treatment of Dystrophic Conditions," Prof M. M. Gubergrits, Head of Preliminary Therapeutic Clinic, Head of Chemical Experimental Dept, Active Mem, Acad Sci Ukrainian SSR, A. V. Levin, Sh. E. Kamenetskiy, Preliminary Therapeutic Clinic, Kiev Ord of Red Banner of Labor Med Inst imeni Acad A. A. Bogomolets, Clinical Experimental Dept, Ukrainian Nutrition Inst, 5 pp

"Klin Med" Vol XXVII, No 4

Injected a solution of amino acids and polypeptides, evolved by A. V. Levin from the distillation of casein, into five dogs with dystrophia. On obtaining positive results with no complications, administered the solution to human patients. Of 46 adult patients treated for alimentary toxic dystrophy, 36 showed positive results and eight, no improvement. Tabulated results obtained from two of the experimental dogs, and analyzes the change in protein content of the blood in two patients, discussing their case histories in detail. Tabulates data on two control cases. Results of the treatment appear quite favorable.

PA 66/49T83

KAMENETSKIY, S.I.

Metabolism of vitamin C and nicotinic acid in gastroduodenal ulcers. Klin. med.,Moskva 18 no.10:87-88 Oct 50. (CLML 20:4)

1. Of the Department of Propedeutic Therapy (Head--Prof. M.M. Gubergrits, Active Member of the Academy of Sciences USSR), Kiev Order of the Red Banner of Labor Institute imeni Academician A.A. Bogomolets.

1. KAMENETS'KIY, S. L.; BRAHINS'KYY, B. M.; HEYKHMAN, L. Z.; MEL'MAN, N. Ya.; REIDERMAN, M. I.

2. USSR (600)

4. Vitamins

7. Content of certain vitamins in the blood and urine in grippe and in acute catarrh of the upper respiratory tract. Medych. zhur. 22, No. 1, 1952.

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

KAMENETSKIY, S.I., dotsent; MIKUNIS, R.I., kandidat meditsinskikh nauk

Clinical aspects of acute hepatic dystrophy in Botkin's disease.
Vrach.delo no.11:1201-1203 N '56.   (MIRA 10:3)

1. Kafedra fakul'tetskoy terapii (zaveduyushchiy - professor
B.S.Shklyar) Vinnitskogo meditsinskogo instituta.
        (HEPATITIS, INFECTIOUS)

Country   : USSR
Category=   : Human and Animal Physiology.
                 Metabolism. Vitamins.
Abs. Jour.   : Ref Zhur-Biol., No 23, 1958, 106396

Author   : Kamenetskiy, Sh. E.
Institut.   : Fakul'tetskaya terapevticheskaya klinika (zav,-prof. B.S.***
Title   : Providing Thiamin for the Organism of Ulcer
                 Patients.

Orig. Pub.   : Vrach. delo, 1957, No 5, 511-514

Abstract   : Healthy people and patients with ulcers who re-
                 ceived 2 mg of vitamin B₁ daily, were internally
                 injected with an additional 10 mg dose of vita-
                 min B₁. Before the injection was given and 10,
                 20, 30, and 60 minutes after the injection, the
                 contents of free and bound B₁, of pyruvic acid,
                 and of bisulfite-binding compounds of the blood
                 and of the urine were determined. In the blood
                 of healthy people, the content of general B₁
                 before it was additionally supplied to them,

Card: 1/3
***shklyar) Vinnitskogo meditsinskogo instituta.

Country   : USSR
Category   : ....
                Metabolism. Vit ....
Abs. Jour.   : Ref Zhur-Biol., No 23, 1950, 106336

Author   :
Institut.   :
Title   :

Orig Pub.   :

Abstract   :
(cont)   amounted to (on the average in γ percent) 9.99,
                in patients, to 10.10; free B₁ amounted to 3.59
                and 4.19, respectively, and bound B₁ to 6.4 and
                5.5, respectively. In patients, the fluctua-
                tions rate was significantly higher. There was
                no connection between the blood's and the
                urine's B₁ content before and after it was ad-
                ditionally supplied. In contrast to healthy
                people, the concentration of free B₁ in patients
                did not increase after it was supplied to them.