RACHEV, V.V.; KOVBA, L.M.; IPPOLITOVA, Ye.A.

High-temperature X-ray diffraction study of the uranium-oxygen
system in the $UO_{2,00}$ - $UO_{2,40}$ interval. Zhur. neorg. khim. 10
no.3:573-575 Mr '65.   (MIRA 18:7)

1. Kafedra neorganicheskoy khimii Moskovskogo gosudarstvennogo
universiteta, Moskva.

PECHUROVA, N.I.; KOVBA, L.M.; IPFOLITOVA, Ye.A.

Reaction of ammonium hydroxide with uranyl nitrate and sulfate.
Zhur.neorg.khim. 10 no.4:918-922 Ap '65.   (MIRA 18:6)

L 8092-66   EWT(m)/EPF(c)/EWP(t)/EWP(b)   IJP(c)   ES/JD

ACC NR: AP5027211   SOURCE: CODE: UR/0078/65/010/011/2576/2577

AUTHOR: Trunov, V. K. ; Rozanova, O. N.; Kovba, L. M.

ORG: Moscow State University, Department of Inorganic Chemistry (Moskovskiy gosudarstvennyy universitet, Kafedra neorganicheskoy khimii)

TITLE: The double oxide of uranium and molybdenum

SOURCE: Zhurnal neorganicheskiy khimii, v. 10, no. 11, 1965, 2576-2577

TOPIC TAGS: uranium compound, molybdenum compound, single crystal

ABSTRACT: The article is devoted to a study of the system UO_2-UO_3-MoO_3 at 750 C. The samples were prepared by annealing stoichiometric amounts of the starting oxides in evacuated and sealed quartz ampoules at 750 C for periods of 50 and 70 hours. Results of an x-ray analysis of the calcination products are shown in tabular form. Only one new compound, U_2MoO_8, was identified. Single crystals of this compound were obtained by heating a preparation with the composition U_2MoO_8 at 1050 C for 50 hours. U_2MoO_8 crystallizes in a rhombic system

Card 1/2   UDC: 546.791'77-31

L 8092-66
ACC NR: AP5027211 O

with the parameters $a \approx 6.7A$; $b \approx 22A$; $c \approx 4.1A$. More accurate parameters of the elementary cell were obtained by powder analysis: $a = 6.696 \pm 0.003A$; $b = 23.300 \pm 0.008A$; $c = 4.120 \pm 0.002A$. Results of an x-ray investigation of U_2MoO_8 are shown in a table. The results indicate the existence of a rhombic subcell with $a = 6.696A$; $b = 3.883A$; and $c = 4.120A$; $a/b = 1.721$. Thus, U_2MoO_8 belongs to the group of double oxides, the structure of which is derived from alpha $-UO_3-U_2O_5$, with pseudo hexagonal lattices of the atoms of the metal. The type of superlattice in the case of U_2MoO_8 is close to that found for U_3O_8 (the parameter a for U_2MoO_8 is two times greater than a for U_3O_8). Orig. art. has: 2 tables

SUB CODE: IC / SUBM DATE: 22Feb65/ ORIG REF: 003/ OTH REF: 000

Card 2/2

RACHEV, V.V.; SMUROVA, V.S.; KOVBA, L.M.; IPPOLITOVA, Ye.A.

Study of the system uranium – oxygen in the $UO_{2.50} - UO_{2.67}$ range by the method of high-temperature X-ray phase-shift analysis. Zhur.neorg.khim. 10 no.12:2796-2800 D '65.
(MIRA 19:1)

KUZ'MICHEVA, Ye.U.; ROZANOVA, O.N.; KOVBA, L.M.; IPPOLITOVA, Ye.A.

Study of U_2O_5. Vest. Mosk. un. Ser. 2: Khim. 20 no.2:39-43 Mr-
Ap '65.   (MIRA 18:7)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.

FRENK, V.K.; KOVBA, L.M.; IPBBUSHA, A.L.

Composition of some binary oxides. Vest.Mosk.un.Ser.Khim. 20
no.3:42-44 My-Je '65.   (MIRA 18:8)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.

KOVBA, L.M.; TRUNOV, V.K.

Roentgenometric data for β-Nb_2O_5. Vest. Mosk. un. Ser. 2: Khim.
20 no.6:50-52 N-D '65.   (MIRA 19:1)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.
Submitted March 30, 1965.

KOSHCHEYEV, G.G.; KOVDA, L.M.; ZHELANKIN, A.V.

Double oxides of uranium and rare-earth elements. Vest. Mosk.
un. Ser. 2: Khim. 20 no.6:53-56 N-D '65.   (MIRA 19:1)

1. Kafedra neorganicheskoy khimii Moskovskogo universiteta.
Submitted Jan. 11, 1965.

AMOSOV, V.M.; TRUNOV, V.K.; KOVBA, L.M.

'X-ray diffraction study of some lanthanide tungstates. Vest.
Mosk. un. Ser. 2:Khim. 20 no.4:23-25 Jl-Ag '65.

(MIRA 18:10)

1. Kafedra neorganicheskoy khimii Moskovskogo gosudarstvennogo
universiteta i Moskovskiy elektrolampovyy zavod.

L 22562-66   EWT(m)/EPF(n)-2/T/EWP(t)   IJP(c)   BS/JD/WW/JG

ACC NR: AP6012926   SOURCE CODE: UR/0078/65/010/003/0573/0575

AUTHOR: Rachev, V. V.; Kovba, L. M.; Ippolitova, Ye. A.

ORG: Faculty of Inorganic Chemistry, Moscow State University (Moskovskiy gosudarstvennyy universitet)

TITLE: High temperature x-ray diffraction study of the system uranium-oxygen in the range UO sub 2.00-UO sub 2.40

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 3, 1965, 573-575

TOPIC TAGS: x ray diffraction analysis, uranium, oxygen, specific volume, phase transition

ABSTRACT: High-temperature X-ray diffraction was used to study the phase diagram of the uranium-oxygen system in the range $UO_{2.00}$-$UO_{2.20}$ at 850-1150°C. It was established that the homogeneous phase region of UO_{2+x} is slowly expanded from $UO_{2.19}$ at 850° to $UO_{2.25}$ at 1150°C. The phase U_4O_{9+x} has a narrow homogeneous region, very little changed temperature. Between 1100 and 1150°C a phase transformation of the order-disorder type occurs which is accompanied by a sharp increase specific volume. The coefficients of linear expansion of the UO_{2+x} and U_4O_{9+x} phases are calculated for 850-1150°C. Orig. art. has: 2 figures and 1 table. [JPRS]

SUB CODE: 07, 20 / SUBM DATE: 14Oct63 / ORIG REF: 001 / OTH REF: 009

                                        UDC: 546.791:539.26

Card 1/1 BK

L 23802-66   EWT(m)/EWP(t)   IJP(c)   ES/JD/JG

ABSTRACT: A study was made of the possibility of forming new compounds
by the reaction of uranium dioxide with tungsten anhydride and tungsten
uranyl. The investigation was made by X-ray methods. Stoichiometric
mixtures of the starting substances were calcined in evacuated and sealed
quartz ampoules. An X-ray photo of a sample with the empirical formula
$UO_2 + 2WO_3$, calcined at $1000°C$ for 40 hours, was identical with that
for thorium tungstate. The lattice parameters of $U(WO_4)_2$ are close to
those of $Th(WO_4)_2$. Details of the X-ray investigation of $U(WO_4)_2$ are
given in a table. The fact of the isostructure of $Th(WO_4)_2$ and $U(WO_4)_2$
makes it possible to definitely settle the question of the valence state
of uranium and tungsten in these compounds. In the reaction of uranium

Card 1/2   UDC: 546.791'78'21

L 23802-66

ACC NR: AP6007255

dioxide and tungsten uranyl (1000°) there is formed the compound U_2WO_8 which is isostructural with U_2MoO_8. It must be noted that these double oxides, at a calcining temperature of $1000^\circ C$, slowly decompose with the formation of the U_xWO_3 and $(U,W)O_{2+x}$ phases which are previously known in the literature. Orig. art. has: 2 tables.

SUB CODE: 07///SUBM DATE: 29Mar65/ ORIG REF: 003

Card 2/2 N

L 30230-66   EWT(m)/T/EWP(t)/ETI   IJP(c)   ES/WW/JD/JG

ACC NR: AP6013823   SOURCE CODE: UR/0189/65/000/006/0053/0056

AUTHOR: Koshcheyev, G. G.; Kovba, L. M.; Zhelankin, A. V.

ORG: Chair of Inorganic Chemistry, Moscow State University (Kafedra neorganicheskoy khimii, Moskovskiy gosudarstvennyy universitet)

TITLE: Study of binary oxides of uranium and rare earth elements

SOURCE: Moscow. Universitet. Vestnik. Seriya II. Khimiya, no. 6, 1965, 53-56

TOPIC TAGS: uranium compound, lanthanum oxide, samarium compound, dysprosium compound, ytterbium compound, X ray analysis, Camera/ RKD-57 camera, RKU-86 camera

ABSTRACT: The formation of fluorite-type phases was investigated in R_2O_3-U_3O_8-O_2 systems (where R=La, Sm, Dy, Yb) annealed for 66-85 hr at 1200°C, and the solubility limits of the rare earth oxides in uranium octoxide were determined. The U(VI) content and the total uranium content were determined by coulometric analysis at a controlled potential. X-ray phase analysis was carried out by using the powder method with RKD-57 and RKU-86 cameras. The degree of oxidation of uranium changes with the ratio R/U and reaches 6 in samples where R/U=2/1. Thus, the presence of a rare earth oxide increases the stability of the hexavalent state of uranium at high temperatures. Contrary to expectations, the solubility of rare earth oxides in U_3O_8 was found to be very low (less than 1.5 mol % of $RO_{1.5}$). Orig. art. has: 3 tables.

SUB CODE: 07,14/   SUBM DATE: 11Jan65/   ORIG REF: 002/   OTH REF: 002

Card 1/1   UDC: 546

L 34391-66   EWT(m)/T/EWP(t)/ETI   IJP(c)   JD/WW/JG

ACC NR: AP6013741   (A))   SOURCE CODE: UR/0192/65/006/006/0919/0921

AUTHOR: Kovba, L. M.; Trunov, V. K.; Grigor'yev, A. I.

ORG: Moscow State University im. M. V. Lomonosov, (Moskovskiy gosudarstvennyy universitet)

TITLE: Investigation of anhydrous salts of uranyl

SOURCE: Zhurnal strukturnoy khimii, v. 6, no. 6, 1965, 919-921

TOPIC TAGS: uranium compound, x ray diffraction analysis, ir spectroscopy, ANHYDROUS, CRYSTAL LATTICE PARAMETER

ABSTRACT: Anhydrous salts of uranyl of the composition UO_2EO_4 (E = S, Cr, Mo, W) were investigated. Anhydrous uranyl sulfate, containing ~5% of SO_4, was obtained during multiple evaporation of uranyl nitrate with concentrated H_2SO_4 and roasting at 600C. Anhydrous uranyl chromate was produced by roasting $UO_2CrO_4 \cdot 5.5H_2O$ to constant weight at 520-550C. The anhydrous uranyl molybdate and tungstate were obtained by baking stoichiometric amounts of U_3O_8, MoO_3, and WO_3, respectively. The single crystals of these uranyl salts were subjected to X-ray diffraction studies and infrared spectroscopy. Their lattice parameters (monoclinic habit, space group $P2_{1/c}$) were determined as follows:

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600-700 cm⁻¹ region of the ir spectrum. Orig. art. has: 3 tables.

SUB CODE: 07 / SUBM DATE: 06Jan65/ OTH REF: 001 / ORIG REF: 003/

Card 2/2

L 46239-66   EWT(m)/EWP(t)/ETI   IJP(c)   JD/JG

ACC NR: AP6023920   SOURCE CODE: UR/0363/66/002/007/1254/1260

AUTHOR: Koshcheyev, G. G.; Kovba, L. M.

ORG: Chemistry Department, Moscow State University im. M. V. Lomonosov (Khimicheskiy fakul'tet, Moskovskiy gosudarstvennyy universitet)

TITLE: Study of binary oxides of uranium and rare earth elements in the region rich in rare earth oxides

SOURCE: AN SSSR. Izv. Neorg materialy, v. 2, no. 7, 1966, 1254-1260

TOPIC TAGS: uranium compound, rare earth compound

ABSTRACT: The interaction of rare earth oxides R_2O_3 (R = La, Sm, Dy, Yb) with UO_3 and the solubility of the latter in the rare earth oxides were studied by x-ray phase analysis. In $R_2O_3 : UO_3$ systems with $R_2O_3 > 50$ mole %, the existence of three phases was established: a cubic solid solution with a fluorite structure, and UR_6O_{12} and R_2O_3-type compounds. In lanthanum and samarium in the range $UO_3 : R_2O_3 = 1 : 1.25 - 1 : 1.75$, another phase was found which like UR_6O_{12} has a rhombohedral lattice. The binary oxides UR_6O_{12} have the structure of Tb_7O_{12}. The indexing of x-ray patterns of the oxides UR_6O_{12} is tabulated. In the $La_2O_3 - U_3O_8$ system, another rhombohedral phase was observed up to 1100 °C; its composition is $2La_2O_3 \cdot U_3O_8$ with sublattice parameters (in the hexagonal derivation) a = 10.21+0.01 Å, c = 9.668±0.002 Å. Orig. art. has: 3 tables.

SUB CODE: 07/   SUBM DATE: 09Oct65/ ORIG REF: 002/ OTH REF: 004
                                                    UDC: 546.791-31+546.65-31
Card 1/1   hs

SUBM DATE: 15Apr65/ ORIG REF: 001/ OTH REF: 001

Card 1/1 egh   UDC: 546.65'431'21

ACC NR: AP6031591   SOURCE CODE: UR/0189/66/000/003/0089/009

AUTHOR: Trunov, V. K.; Pol'shchikova, Z. Ya.; Kovba, L. M.

ORG: Department of Inorganic Chemistry, Moscow State University (Kafedra neorganicheskoy khimii, Moskovskiy gosudarstvennyy universitet)

TITLE: New double oxides of niobium

SOURCE: Moscow. Universitet. Vestnik. Seriya II. Khimiya, no. 3, 1966, 89-90

TOPIC TAGS: niobium compound, niobium double oxide, aluminum compound, iron compound, chromium compound, inorganic oxide

ABSTRACT: A study of double oxides which could be formed in the systems: $Al_2O_3-Nb_2O_5$; $Fe_2O_3 - Nb_2O_5$ or $Cr_2O_3 - Nb_2O_5$ was prompted by previous information on the existence and composition of some double oxides. The above systems were investigated in areas rich in niobium. The following compounds were obtained: $Al_2O_3 \cdot 11Nb_2O_5$ and $Fe_2O_3 \cdot 11Nb_2O_5$, isostructural to the monoclinic and rhombic modifications of $Ti_2Nb_{10}O_{29}$, and double oxides $Me_2O_3 \cdot 49Nb_2O_5$, where Me is either Fe or Cr, and which are isostructural to $ZrO_2 \cdot 7Nb_2O_5$. The lattice constants were determined and given in the original in tabulated form. The results indicate that the conclusions obtained by H. J. Goldschmidt on the existence of solid solutions in the systems $Me_2O_3 - Nb_2O_5$ (Me = Al; Fe; or Cr) are incorrect. Orig. art. has: 1 table.

SUB CODE: 07/ SUBM DATE: 09Oct65/ ORIG REF: 001/ OTH REF: 004

Card 1/1   UDC: 546

ACC NR: AP7010728   SOURCE CODE: UR/0189/66/000/003/0094/0097

AUTHOR: Koshcheyev, G. G.; Kovba, L. M.

ORG: Department of Inorganic Chemistry, Moscow State University (Kafedra neorganicheskoy khimii Moskovskogo gosudarstvennogo universiteta)

TITLE: Reaction of the solid solutions U_3O_8-R_2O_3 (R = La, Sm, Dy, and Yb) with oxygen under pressure

TOPIC TAGS: uranium compound, oxygen compound, gravimetric analysis

SUB CODE: 07

ABSTRACT: The solid solutions U_3O_8-R_2O_3 (R = La, Sm, Dy, and Yb) containing up to 50 mole % of uranium oxides were subjected to the action of oxygen in an autoclav at a pressure of 230 atmospheres and a temperature of 650° for 100 hours. The extent of oxidation of uranium was determined gravimetrically by change in weight, and coulometrically with a controlled cathode potential. The systematic difference in analyses between gravimetric and coulometric methods is apparently due to the partial adsorption of oxygen and water vapor. A comparison of the data of the coulometric analysis prior to oxidation with oxygen and after, shows that single-

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ACC NR: AP7010728

phase preparations of some solid solutions were completely unoxidized. The para-
meters of solid solutions of oxides of uranium with oxides of rare-earth elements
remained unchanged, but the limits within which the monophase solid solution could
be maintained were expanded. Orig. art. has: 3 tables. /JPRS: 40,361/

Card   2/2

SOSOV, R.F., prof.; KOVBA, P.Ya., assistent; SHUPLIKO, N., mladshiy
        nauchnyy sotrudnik

Etiologic and epizootiological importance of Leptospira
from the L. hebdomadis serogroup. Veterinariia 42
no.9:28-30 S '65.   (MIRA 18:11)

1. Moskovskaya veterinarnaya akademiya (for Sosov, Kovba).
2. Gosudarstvennyy nauchno-kontrol'nyy institut veterinarnykh
preparatov (for Shupliko).

KOVBAN, V.; KOLOSOV, N.; REPETIY, F.

Work practice of State Bank branches in fulfilling payment and
receiving plans. Den. i kred. 19 no. 1:48-52 Ja '61.

(MIRA 14:2)

1. Kreditnyy inspektor Gorodokskogo otdeleniya Gosbanka (for
Kovban). 2. Upravlyayushchiy Zagorskim otdeleniyem Gosbanka
(for Kolosov). 3. Upravlyayushchiy Berdichevskim otdleniyem
Gosbanka (for Repetiy).

(Banks and banking)

KOVBAN, V., ekonomist

Our indices on carrying out the receiving and disbursement
plan. Den.i kred. 21 no.4:38-40 Ap '63.   (MIRA 16:4)

1. Gorodokskoye otdeleniye Gosbanka Khmel'nitskoy oblasti.
            (Gorodok—Banks and banking)

IVANOV, V.A.; ALPATOV, Ye.M.; KOVBAS, M.I.; BOCHAROV, B.M.; KISHIK, A.I.

.Efficient conveyor-type lacquoring machine. Prom. energ. 18 no.7:
9 Jl '63.   (MIRA 16:9)
            (Electric machinery) (Protective coatings)

KOVBAS, Yuliya Ivanovna

KOVBAS, Yuliya Ivanovna; GLAZUNOVA, V.V., red.; BALASHOV, V.I.,tekhn.red.

[Measuring instruments in commercial enterprises and control of
their use] Izmeritel'nye pribory v torgovykh predpriiatiiakh
i kontrol' za ikh ispol'zovaniem. Moskva, Gos.izd-vo torg.lit-ry,
1956. 44 p.   (MIRA 11:1)

(Scales (Weighing instruments))

S/133/60/000/011/013/023
A054/A029

AUTHORS: Borovkov, A.N., Tsereteli, P.A., Svetlitskiy, Ye.A.,
Ubiriya, A.Ye., Kovbasa, I.I.

TITLE: The Use of Non-Detachable Mandrels for the Secondary Piercing
of Tube Billets

PERIODICAL: Stal', 1960, No.11, pp. 1,022-1,023

TEXT: The application of a non-detachable mandrel in the first piercing
mill viz., in the 400 ЗМЗ(ZMZ) type unit since 1959 has made it possible to
automate the piercing process in the first mill, to prolong the useful life of
the mandrel and to simplify the servicing of the machine. As the detachable
mandrel of the second piercing mill was maintained, this part of the operation
could not be automated, however. In order to eliminate this drawback of the
process, several suggestions have been made to reconstruct the mandrel of the
second piercing mill, first by the UkrNITI, later on by a team of the ZMZ
(including the author of the article). The essential feature of the latter
design was a thick-walled, non-detachable mandrel with thread for attaching it
to the end piece of the roller and with openings in its surface for the out-
flowing cooling water. However, on account of the rigid attachment of the

Card 1/2

S/133/60/000/011/013/023
A054/A029

The Use of Non-Detachable Mandrels for the Secondary Piercing of Tube Billets

mandrel, the frictional forces in the first moment of the bite were not sufficient to make the mandrel revolve with the roller. In order to eliminate this drawback, the team of the ZMA replaced this mandrel by a revolving type which consisted of a thick-walled mandrel fixed on a special end piece and a thick walled sleeve, continuously cooled from the inside with water under high pressure. During standstills when the mandrel is in its extreme rear position, it is cooled by a special spray. This non-fixed attachment of the mandrel, made possible by a specially shaped end piece, allows the mandrel to revolve freely as necessary in the first moment of the grip and insures uninterrupted internal cooling of the mandrel. During standstills when the mandrel is in its extreme-rear position, it is in this arrangement also cooled by a spray with water under high pressure. In an improved model of this construction (Author's Certificate No. 130473) the mandrel is fixed on an unsplit end piece and there are openings for the outflowing water on the working surface of the mandrel. The useful life of the new type non-detachable mandrels is 4-5 times longer than that of the conventional types, the machine is easier to service, its output is higher and the operation of the second piercing mill could be automated.

Card 2/2

ASSN: Transcaucasus Metallurgical Plant.

KOVBASA, N.A., inzh.

BShR-3-1,75 a rubberized drum-type vacuum filter with a hipped roof.
Khim. mash. no.6:12-13 N-D '59.   (MIRA 13:3)
        (Filters and filtration)

KOVBASA, N.A.

The BShR-3-1,75 rubberized drum-type vacuum filter with a hipped
hood. Biul.tekh.-ekon.inform. no.4:6-8 '60.   (MIRA 13:11)
                    (Filters and filtration)

KOVBASA, N.A.

The FlO-3,6/0,4 filtering unit for dehydration of coarse grained
pulps. Biul.tekh.-ekon.inform. no.8:5-6 '60.   (MIRA 13:9)
                    (Ore dressing)

KOVBASA, N.A., inzh.

Vacuum plate filter with a filtering surface of 10 m^2. Khim.
mash. no. 1:8-9 Ja-F '61.   (MIRA 14:1)
                    (Filters and filtration)

KOVBASA, Ye.M.,assistent. (Khar'kov); SINEL'NIKOV, Ya.R., assistent (Khar'kov)

Nerve cells lying within the maxillary and mandibular nerves.
Probl. stom. 3:261-266 '56   (MLRA 10:5)
        (JAWS--INNERVATION)

L 4565-66   EWT(d)/T/EWP(1)   IJP(c)

ACC NR: AP5021958   UR/0021/65/000/008/0990/0993

AUTHOR: Zhaldak, M. I.; Kovbasenko, B. S.

TITLE: A problem of quadratic programming

SOURCE: AN UkrRSR. Dopovidi, no. 8, 1965, 990-993

TOPIC TAGS: functional equation, linear programming, minimization, set theory

ABSTRACT: The problem of minimizing a quadratic function

$$\min_{x \in \Omega}\left[\sum_{i,k=1}^{n} a_{ik}x_i x_k + \sum_{i=1}^{n} b_i x_i + c\right]$$

is considered with a positive definite quadratic form on a convex set determined by
continuously specified linear constraints

$$\eta(q) = \sum_{k=1}^{m} \psi_k(q)\, x_k + M(q) \geqslant 0, \qquad (q \in Q).$$

It is shown that the problem can be reduced to a linear programming problem with con-
tinuously specified constraints, to which an algorithm based on a simplex-method
scheme can be applied. The method can be used for solving the more general problem
of finding the shortest distance between two convex sets in n-dimensional space. This
report was presented by Yu. A. Mitropol'skiy (Yu. O. Mytropol's'kyy). Orig. art. has:
6 formulas and 1 figure.

Card 1/2

Card 2/2

SHKREBEL', M.Ya.. Prinimali uchastiye: BLAGOVESHCHENSKAYA, K.A.;
        DZYUBENKO, G.F.; FRAGAYLOVA, V.I.; ZALESSKAYA, L.O.; KOTSERUBA,
        L.P.; KOVBASENKO, L.A.; LYAUDANSKAYA, B.Ye.; MILOVZOROV, P.Z.
        [deceased]; NEZHURBEDA, M.P.; SNITKO, K.I.; YANTSOVA, A.V..
        KRESHCHENSKIY, Ye.S., tekhn.red.

        [Economy of Kiev Province; a statistical manual] Narodnoe kho-
        ziaistvo Kievskoi oblasti; statisticheskii sbornik. Kiev, Gos.
        stat.izd-vo, 1959. 255 p.   (MIRA 13:3)

        1. Kiev (Province) Statisticheskoye upravleniye. 2. Nachal'nik
        statisticheskogo upravleniya Kiyevskoy oblasti (for Shkrebel').
                    (Kiev Province--Statistics)

KOVBASENKO, M. F.
Belotserkov Agricultural Institute
    "Penicillin-therapy in bronchopneumonia of calves."
SO: Veterinariqa 28(12), 1951, p. 33

KOVBASENKO, M. F.
                    Moisey Fomich

KOVBASENKO, M. F.: "The pathogenesis, therapy, and prophylaxis of
    bronchopneumonia of calves and young pigs." Min Higher Educa-
    tion USSR. Moscow Veterinary Academy. Chair of the Pathology
    and Therapy of Internal Noninfectious Diseases of Agricultural
    Animals. Moscow, 1955.
    (Dissertation for the Degree of Doctor in Veterinary Sciences).

SO: Knizhnaya letopis', No 23, 1956

KOVBASENKO, V.M.

Improving the sanitary quality of sausage products. Kharch.prom. no.4:
83-87 O-D '63.   (MIRA 17:1)

KOVBASENKO, V.M.

Development of the resistance to ultraviolet irradiation in bacteria of the Salmonella group. Mikrobiol. zhur. 26 no.3:43-46 '64.

(MIRA 18:5)

1. Belotserkovskiy sel'skokhozyaystvennyy institut.

KOVBASENKO, V.S.

Route-supervisory equipment on big stations. Avtom., telem. i sviaz'
2 no.7:38-41 Jl '58. (MIRA 11:6)

1. Rukovoditel' brigady signalizatsii, tsentralizatsii, blokirovki
i svyazi Proyektnoy kontory Stalinskoy dorogi.
        (Railroads—Stations—Equipment and supplies)

KOUBASENKO, V.S.

VERBITSKAYA, N.G.; IL'YUKHINA, N.P.; KOVBASINA, V.M.

Stratigraphy and lithology of upper Paleozoic coal-bearing sediments in the southwestern margin of the Tunguska Basin. Mat.-
VSEGEI Ob.ser. no.23:112-137 '59.   (MIRA 14:11)
                (Tunguska Basin--Coal geology)

KOVALSKO, M.A.

Use of galascorbin in infectious hepatitis. Trach. delo no.5:
92-93 My '61. (MIRA 14:9)

1. Kafedra infektsionnykh bolezney (zav. - prof. B.Ya.Padalka)
i kafedra biokhimii (zav. - prof. Ya.P.Shamray) Kiyevskogo meditsin-
skogo instituta.
            (ASCORBIC ACID)   (HEPATITIS, INFECTIOUS)

LAPINA, G.G. (Kiyev); GORODETSKIY, M.M. (Kiyev); LAZARETNIK, A.Sh. (Kiyev);
KOVBASKO, M.A. (Kiyev)

Diagnostic significance of the determination of C-reactive protein
in some diseases of the liver. Vrach. delo no.6:26-28 Je '61.
(MIRA 15:1)

(BLOOD PROTEINS)   (LIVER—DISEASES)

KOVBASS, P.

"De l'equilibre adico-basique dans la pneumonie lobaire chez les malades traites a la sulfidine." Vladimirov, V., et Kovbass, P.

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1940, Volume 18, no. 5.

KOVBASS, P.

"Traitement de la pneumonie lobaire par la sulfidine et MB 693." Khodjamirov, S., et
Kovbass, P. (p. 428)

SO: Journal of General Chemistry (Zhurnal Obshchei Khimii) 1940, Volume 18, no. 5.

KOVBASYUK, A. S.

KOVBASYUK, A. S.: "Investigation of the cyclic-recording chamber as adapted to
    ship steam boilers". Odessa, 1955. Min Maritime Fleet USSR. Odessa Inst
    of Engineers of the Maritime Fleet, Chair of Ship Steam Engines. (Disser-
    tations for the degree of Candidate of Technical Science)

SO: Knizhnaya Letopis' No. 50 10 December 1955. Moscow.

AUTHOR: Kovbasyuk, A.S. Cand.Tech.Sci.   SOV/96-58-6-5/24

TITLE: The aerodynamics of flow in a conical cyclone chamber. (Aerodinamika potoka v tsiklonnoy konicheskoy kamere)

PERIODICAL: Teploenergetika, 1958,   . . . No.6. pp. 30 - 35 (USSR)

ABSTRACT: The aerodynamics of flow in conical chambers has not been studied so thoroughly as that in cylindrical ones. Tests were made with cold air on two conical chambers with tapers of 0.15 and 0.3. The air was delivered tangentially through three rectangular nozzles 150 mm long. The diameter of the outlet nozzle ranged from 100 to 410 mm; the ratio of this diameter to that of the large end of the cone in which it was located ranged from 0.13 to 0.55. The length of the outlet nozzle was varied, employing an inlet air velocity of up to 60 m/sec and a rate of flow of up to 2300 m^3/hr (at NTP). The general arrangement is illustrated in fig.1. Typical plots of radial and rotational velocities are given in fig.2. and it is shown that two eddies circulate in the longitudinal section of the chamber. In any cross-section of the conical cyclone, there are two maxima of positive axial velocity component and two positions of reverse flow, as shown in the velocity plots of fig.3. A further general discussion of the nature of air flow in a cyclone of this kind is

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The aerodynamics of flow in a conical cyclone chamber.   SOV/96-58-6-5/24

given. Three characteristic regions of air flow are distinguished
in the longitudinal section of the chamber (see fig.4.) and comprise
two zones of circulation and one of discharge. The amount of air
circulating in the vortices is two or three times greater than that
passing through the cyclone. The effect on the flow of varying the
taper of the chamber was studied. Alteration of the taper
particularly affects the magnitude and direction of the radial
velocities. Increased taper enlarges the area occupied by the
peripheral circulation vortex (see fig.5.), and mixing becomes more
intensive, particularly at the periphery of the narrow part of the
chamber. The influence of inlet and outlet conditions was also
studied. Because the amount of air circulating in a conical chamber
is much greater than the amount passing through, change of inlet
and outlet conditions has much more effect than in cylindrical
chambers. Quite a small change in the relative radius of inlet, which
scarcely alters the rotational velocity, considerably alters the
nature of flow on the longitudinal section; radial velocity is
specially affected. As the relative inlet radius is increased, the
flow of air through the peripheral vortex rises; in the upper part
of the chamber, radial velocities towards the centre increase; and
in the lower part they diminish and the intensity of the vortices fal
falls off. Reduction of relative inlet radius improves mixing in

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The aerodynamics of flow in a conical cyclone chamber.   SOV/96-58-5-5/24

the narrow part of the cone. The vortices are also affected by the
longitudinal position of the inlet nozzle. If the air inlet, instead
of being distributed, is concentrated at the narrow end of the cone,
the effect is much the same as reducing the relative inlet radius.
The outlet conditions also affect the aerodynamic flow structure.
Lengthening the outlet tube has little effect on rotational velocity
but a good deal on longitudinal, because the discharge zone is
shortened and is displaced into the upper vortex. The effects of
extending the discharge tube into the chamber are described in
detail. Alteration of the outlet diameter is also considered. It
affects the longitudinal flow, and a larger diameter displaces all
the characteristic surfaces towards the periphery. When the outlet
diameter is half the major chamber diameter, a large mass of air
enters the peripheral vortex, but within the chamber a smaller
quantity of air moves in the reverse annular vortex; this effect
is shown in fig.6. It is concluded that in conical chambers the
peripheral circulation vortex is most developed when the relative
diameter of the outlet is 0.45. There is a note on the design of
cyclone chambers, with particular reference to calculation of the

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The aerodynamics of flow in a conical cyclone chamber.   SOV/96-58-6-5/24

       flow resistance and the output; appropriate formulae are given.
       In a conical chamber with a taper of 0.3, the special features of
       aerodynamic flow structure are most developed when air is
       delivered to the narrow part of the cone; when the diameter of
       the outlet nozzle is 0.4 to 0.5 of the large diameter of the cone;
       and the length of the outlet tube within the chamber is 0.76 - 0.8
       of the length of the chamber. There is 1 table, 7 figures and
       9 literature references (7 Soviet and 2 German)

ASSOCIATION: Odessa Institute of Marine Engineers (Odesskiy Institut Inzhenerov
                                    Morskogo Flota)

       1. Supersonic flow--Aerodynamics   2. Supersonic flow--Test methods
       3. Supersonic flow--Characteristics   4. Conical bodies--Applications

Card 4/4

KOVBASYUK, A.S., kand.tekhn.nauk, dotsent

Calculation of the resistance of cyclones. Izv. vys.
ucheb. zav.; energ. 5 no.1:85-92 Ja '62.   (MIRA 15:2)

1. Odesskiy tekhnologicheskiy institut pishchevoy i kholodil'noy
promyshlennosti. Predstavlena kafedroy teplotekhniki.
                    (Furnaces)

CARBER, M.I.; KOVBASYUK, F.F.

Improving the bituminous insulation of underground pipelines by
adding atactic polypropylene. Transy. i khran. nefti i nefteprod.
no.10:9-12 '64. (MIRA 17:12)

1. Akademiya kommunal'nogo khozyaystva im. K.D. Pamfilova.

KULAGIN, S.G.; KOVBASYUK, L.D.

Observations of bright zenith stars at the Gor'kiy Latitude
Station. Astron.tsir. no.149:10-11 My '54.   (MLRA 7:7)
       (Gor'kiy--Latitude variation) (Latitude variation--Gor'kiy)

KOVBASYUK, L. P.

KULAGIN, S.G.; KOVBASYUK, L.D.

Results of observations of two bright zenith stars in Gorkiy from
1954.7 to 1956.7. Astron. tsir. no.182:7 Je '57.   (MIRA 11:3)

1. Gor'kovskaya shirotnaya stantsiya im. prof. K.K. Dubrovskogo.
                       (Stars--Observations)

KULAGIN, S.G.; KOVBASYUK, L.D.; DAGAYEV, M.M.; ROZENBLYUM, N.D.; YEGORCHENKO,
I.F.(Irkutsk); KAVERIN, A.A. (Irkutsk); KONSTANTINOVA, T.G. (Irkutsk);
KUKLINA, V.A. (Irkutsk); KUKLIN, G.V. (Irkutsk); SAZONOVA, Z.G.,
(Irkutsk); CHERNYKH, L.I. (Irkutsk); CHERNYKH, N.S. (Irkutsk);
DEMIDOBICH, Ye.G.; BRONSHTEN, V.A.; YAKHONTOVA, N.S. (Leningrad);
PEROVA, N.B.; DOKUCHAYEVA, O.D.; KATASEV, L.A.; KLYAKOTKO, M.A.;
PARENAGO, P.P.; SHCHERBINA-SAMOYLOVA, I.S.; MASEVICH, A.G.;
RYABOV, Yu.A.; SHCHEGLOV, V.P.; PEREL', Yu.G.; MARTYNOV, D.Ya.;
FEDYNSKIY, V.V.; VORONTSOV-VEL'YAMINOV, B.A.; ZIGEL', F.Yu.;
BAKULIN, P.I., otv.red.; RAKHLIN, I.Ye., red.; AKHLAMOV, S.N.,
tekhn.red.

[Astronomical calendar] Astronomicheskii kalendar'. [A yearbook;
variable section for 1959] Ezhegodnik. Peremennaia chast', 1959.
Red.kollegiia P.I. Bakulin i dr. Moskva, Gos.izd-vo fiziko-
matem.lit-ry, 1958. 370 p. (Vsesoiuznoe astronomo-geodezicheskoe
obshchestvo, no.62)   (MIRA 12:2)

1. Gosudarstvennoye astronomo-geodezicheskoye obshchestvo (for Kulagin,
Kovbasyuk, Demidovich). 2. Moskovskoye otdeleniye Vsesoyuznogo astro-
nomo-geodezicheskogo obshchestva (for Dagayev, Rozenblyum, Bronshten,
Perova).
                        (Astronomy--Yearbooks)

KULAGIN, S.G.; KOVBASYUK, L.D.; DAGAYEV, M.M.; LAZAREVSKIY, V.S.; KAVERIN,
      A.A.; KUKLIN, G.V.; CHERNYKH, N.S.; DEMIDOVICH, Ye.G.; BRONSHTEN,
      V.A.; YAKHONTOVA, N.S. (Leningrad); PEROVA, N.B.; DOKUCHAYEVA,
      O.D.; KATASEV, L.A.; MASEVICH, A.G.; SHCHERBINA-SAMOYLOVA, I.S.;
      ARSENT'YEV, V.V.; FRANK-KAMENETSKIY, D.A.; LEYKIN, G.A.; SHCHEGLOV,
      P.V.; PEREL', Yu.G.; BAKULIN, P.I., otv.red.; MASEVICH, A.G., red.;
      PARENAGO,P.P., red.; RAKHLIN, I.Ye., red.; AKHLAMOV, S.N., tekhn.red.

[Astronomical calendar. A yearbook; variable section for 1959]
Astronomicheskii kalendar'. Ezhegodnik. Peremennaia chast',
1960. Red.kollegiia P.I.Bakulin i dr. Moskva, Gos.izd-vo fiziko-
matem.lit-ry, 1959. 351 p. (Vsesoiuznoe astronomo-geodezicheskoe
obshchestvo, no.63)   (MIRA 13:1)

1. Gosudarstvennoye astronomo-geodezicheskoye obshchestvo (GAGO)
(for Kulagin, Kovbasyuk, Lazarevskiy, Demidovich). 2. Moskovskoye
otdeleniye Vsesoyuznogo astronomo-geodezicheskogo obshchestva
(MOVAGO) (for Dagayev, Bronshten, Perova).
                    (Astronomy--Yearbooks)

KOVBASYUK, L. D.

PHASE I BOOK EXPLOITATION   SOV/5721

Vsesoyuznaya astrometricheskaya konferentsiya.

Trudy 14-y Astrometricheskoy konferentsii SSSR, Kiyev, 27-30 maya 1958 g.
(Transactions of the 14th Astrometrical Conference of the USSR, Held in Kiyev
27-30 May 1958) Moscow, Izd-vo AN SSSR, 1960. 440 p. Errata slip inserted.
1000 copies printed.

Sponsoring Agency: Akademiya nauk SSSR. Glavnaya astronomicheskaya observatoriya
(Pulkovo).

Resp. Ed.: M. S. Zverev, Corresponding Member, Academy of Sciences USSR; Ed. of
Publishing House: N. K. Zaychik; Tech. Ed.: R. A. Zamarayeva.

PURPOSE: The book is intended for astronomers and astrophysicists, particularly
those interested in astrometrical research.

COVERAGE: This publication presents the Transactions of the 14th Astrometrical
Conference of the USSR, held in Kiyev 27-30 May 1958. It includes 27 reports
and 55 scientific papers presented at the plenary meeting of the Conference

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Transactions of the 14th Astrometrical (Cont.)   SOV/5721

and at the special sectional meetings. An appendix contains the resolutions
adopted by the Conference, the composition of the committees, the agenda, and
the list of participants at the Conference. A brief summary in English is
given at the end of each article. References follow individual articles.
The Presidium of the Astrometrical Committee (Chairman M. S. Zverev), which
supervised the preparation of this publication, expresses thanks to the
members of the secretariat: V. M. Vasil'yev, I. G. Kol'chinskiy, A. B. One-
gira, and Kh. I. Potter.

Card 2/16

Transactions of the 14th Astrometrical (Cont.)   SOV/5721

Card 11/16

KULAGIN, S.G.; KOVBASYUK, L.D.; DAGAYEV, M.M.; LAZAREVSKIY, V.S.;
    DEMIDOVICH, Ye.G.; BRONSHTEN, V.A.; YAKHONTOVA, N.S.(Leningrad);
    KUROCHKIN, N.Ye.; DOKUCHAYEVA, O.D.; SHCHERBINA-SAMOYLOVA, I.S.;
    MASEVICH, A.G.; LIPSKIY, Yu.N.; MARTYNOV, D.Ya.; ARSENT'YEV, V.V.;
    MOROZ, V.I.; MASEVICH, A.G.; PEREL', Yu.G.; BAKULIN, P.I., otv.
    red.; KULIKOV, G.S., red.; AKHLAMOV, S.N., tekhn. red.

[Astronomical calendar; yearbook.Variable part, 1962] Astrono-
micheskii kalendar'; ezhegodnik. Peremennaia chast', 1962. Red.
kollegiia: P.I.Bakulin i dr. Moskva, Gos.izd-vo fiziko-matem.
lit-ry, 1961. 259 p. (Vsesoiuznoe astronomo-geodezicheskoe ob-
shchestvo, no.65)   (MIRA 14:12)

1. Gosudarstvennoye astronomo-geodezicheskoye obshchestvo (for
Kalugin, Kovbasyuk, Lazarevskiy, Demidovich). 2. Moskovskoye ot-
deleniye Vsesoyuznogo astronomo-geodezicheskogo obshchestva (for
Dagayev, Bronshten, Kurochkin).
                 (Astronomy—Yearbooks)

KULAGIN, S.G.; KOVBASYUK, L.D.

Diurnal free nutation from the observations in Gorkiy.
Astron. zhur. 41 no.4:758-759 Jl-Ag '64   (MIRA 17:8)

1. Shirotnaya stantsiya R$_A$diofizicheskogo instituta Gor'kovskogo
gosudarstvennogo universiteta.

KOVBASYUK, L.M.

Preparation of crowns from quick-hardening plastic materials by the
one-stage method using standard teeth made of AKR-7 plastic material.
Vrach. delo no.9:119-121 S '60.   (MIRA 13:9)

1. Kafedra ortopedicheskoy stomatologii (zav. - prof. A.I. Betel'man)
stomatologicheskogo fakul'teta Kiyevskogo meditsinskogo instituta.
                    (DENTAL PROSTHESIS)

KOTLYAR, A.A. (Kiyev); KOVBASYUK, L.M. (Kiyev)

Use of quick-setting plastics for preparing pivot teeth. Probl.
stom. 6:256-258 '62.   (MIRA 16:3)
    (DENTAL PROSTHESIS)   (PLASTICS IN MEDICINE)

KOVBASYUK M.

GOLOVTSOV, A.; KOVBASYUK, M.

Training specialists. Den.i kred. 14 no.10:43-47 0 '56.(MLRA 9:11)
(Finance--Study and teaching)

KOVBASYUK, M.

Strengthen control over acceptance refusals. Den.i kred. 17
no.4:68-71 Ap '59.   (MIRA 12:8)
              (Acceptances)

YEGOROV, S.; MORSIN, V.; KOVBASYUK, M.

    For an efficient utilization of working capital. Den. i kred.
    19 no.12:23-46 D '61.   (MIRA 14:12)
                   (Capital)

KOVBASYUK, M.

Issuing credit and payments for the state delivery operations of food industry enterprises. Den. i kred. 20 no.7:30-35 Jl '62.
(MIRA 15:7)

(Odessa Province--Produce trade)
(Odessa Province--Agricultural credit)

KOVBASYUK, M.

Ways to further improve the issuing of credit to food industry enterprises. Den. i kred. 20 no.11:24-27 N '62.
                                                  (MIRA 16:1)

(Odessa Province—Food industry—Finance)

HVYLCHUK, R.F., Cand Ned Sci --(diss)"Evolution of certain immunological indices in young children affected with ~~acute~~ dysentery." Odessa, 1959. 16 pp (Odessa State Ned Inst im N.I. Pirogov), 200 copies (KL,20-59, 121)

-73-

ANINA-RADCHENKO, N.D., prof.; LEONIDOVA, K.O., kand.med.nauk; KOVBASYUK, R.F.,
kand.med.nauk; BALABAN, I.Ya., dotsent; BERNATSKAYA, B.P.

Specific antigens and antibodies in the blood serum of patients
with cancer of the lungs. Vrach. delo no.3:53-58 Mr '64.
                                                    (MIRA 17:4)
1. Odesskiy nauchno-issledovatel'skiy institut epidemiologii i
mikrobiologii imeni I.I.Mechnikova i Odesskiy oblastnoy onkolo-
gicheskiy dispanser.

LEBEDEV, S.I., prof., doktor biolog.nauk, otv.red.; KOVBASYUK, S.M., dotsent, kand.istor.nauk, red.; PAZYUK, L.I., dotsent, kand.geologo-mineral. nauk, red.; KIRILLOV, Ye.A., prof., doktor fiziko-matemat.nauk, zasluzhennyy deyatel' nauki USSR, red.; TSESEVICH, V.P., prof., doktor fiziko-matemat.nauk, red.; LEONOV, I.G., dotsent, kand.istor. nauk, red.; VOROB'YEV, A.I., prof., doktor biolog.nauk, red.; GAVRILOV, N.I., prof., doktor fiziko-matemat.nauk, red.; MOROZOV, A.A., prof., doktor khim.nauk, red.; DANILENKO, K.Ye., dotsent, kand.filolog.nauk, red.; MIGAL', K.G., dotsent, kand.istor.nauk, red.; SMIRNOV, A.M., dotsent, kand.geograf.nauk, red.; BABICH, N.M., tekhn.red.

[Scientific yearbook for 1956] Nauchnyi ezhegodnik 1956 g. Odessa, 1957. 388 p. (MIRA 12:4)

1. Odessa. Universitet. 2. Deystvitel'nyy chlen Ukrainskoy Akademii sel'skokhoz.nauk, zaveduyushchiy kafedroy fiziologii rasteniy Odesskogo gosudarstvennogo universiteta im. I.I.Mechnikova (for Lebedev). 3. Zaveduyushchiy kafedroy istorii Ukrainskoy SSR Odesskogo gosudarstvennogo universiteta im. I.I.Mechnikova (for Kovbasyuk). 4. Zaveduyushchiy

SHKOP, Ya., inzh.; KOVBASYUK, V., inzh.; SEYMOVICH, R., inzh.

New box loader. Avt.transp. 40 no.11:14-15 N '62.

(MIRA 15:12)

(Loading and unloading—Equipment and supplies)

SHEYNDLIN, A. Ye. (Moskva); GUBAREV, A. V. (Moskva); KOVBASYUK, V. I. (Moskva); PROKUDIN, V. A. (Moskva)

Problem concerning the optimisation of the operation of magneto-hydrodynamic generators. Izv. AN SSSR. Otd. tekh. nauk. Energ. i avtom. no.6:34-38 N-D '62.   (MIRA 16:1)

(Magnetohydrodynamics)

L 11904-66   EWT(1)/EWP(m)/ETC(F)/EPF(n)-2/EWG(m)/EWA(d)/T-2/EWA(m)-2   IJP(c)   AT

ACC NR: AP6001907   UR/0294/65/003/006/0845/0850

AUTHOR: Ivanov, P.P.; Kovbasyuk, V.I.; Stepanov, S.A.

ORG: High Temperature Research Institute (Nauchno-issledovatel'skiy institut vysokikh temperatur)

TITLE: Special characteristics of the operation of a magnetohydrodynamic generator at high Hall numbers

SOURCE: Teplofizika vysokikh temperatur, v.3, no.6, 1965, 845-850

TOPIC TAGS: magnetohydrodynamics, plasma generator, Hall effect, magnetic field, electric field, electron mobility

ABSTRACT: At a relatively low degree of ionization, characteristic of a plasma from conductive magnetohydrodynamic generators, the generalized form of Ohms Law can be written as:

$$J = \frac{\sigma_0}{(1 + 2\beta_i \beta_e)^2 + \beta_e^2} \left\{ (1 + 2\beta_i \beta_e) E' - \frac{E' \times B}{B} \beta_e \right\}, \qquad (1.1)$$

$$(\beta_i = \omega_i \tau_i = \mu_i B, \quad \beta_e = \omega_e \tau_e = \mu_e B),$$

where μ_i and μ_e are the mobilities of the ions and the electrons in the

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L 11904-66

ACC NR: AP6001907

plasma; and, E' is the effective electrical field. It results from theoretical considerations presented in the article that in small fields (T_e less than 3000°K) the conductivity attains a maximum at a relative concentration of the added substance equal to approximately 10^{-4}. In a region of complete ionization of the added substance, there is observed a rapid increase in the electron temperature, an increase which is sometimes of a discontinuous nature. It was found that at a gas temperature of 1000-2000°K and electron temperatures from 2000 to 5000°K, the critical amount of the added substance is approximately 1% by volume. At amounts greater than the critical, instability is observed. It is concluded that the most favorable conditions for increasing the conductivity of the plasma are low pressures, high temperature, and low values of the electrical efficiency. Orig. art. has: 24 formulas and 7 figures.

SUB CODE: 20/   SUBM DATE: 07Apr65/   ORIG REF: 002/   OTH REF: 003

Cord 2/2

L 10017-63   EPF(n)-2/EPR/EWG(k)/BDS/T-2/ES(v)/ES(w)-2--AEDC/AFFTC/AFWL/ASD/
ESD-3/SSD--Po-4/Pe-4/Pz-4/Pe-4/Pab-4/Pi-4--IJP(C)/AT/WW
ACCESSION NR: AP3003450   S/0179/63/000/003/0003/0008

AUTHOR: Gubarev, A. V. (Moscow); Kovbasyuk, V. I. (Moscow); Medin, S. A. 96
(Moscow); Sheydlin, A. Ye. (Moscow); Shumyatskiy, B. Ya. (Moscow)

TITLE: Constant-velocity flow of electroconductive gas in the channel of
a magnetohydrodynamic generator 25

SOURCE: AN SSSR. Izv. Otdel. tekhn. nauk. Mekhanika i mashinostroyeniye,
no. 3, 1963, 3-8

TOPIC TAGS: magnetohydrodynamic generator, electroconductive gas, moving
plasma

ABSTRACT: An analytical investigation is made under the following assumptions:
1) the gas is ideal, nonviscous, and nonheat conductive; 2) the channel flow is
quasi-unidimensional; 3) the gas is electrically neutral; 4) the magnitude of

potential difference is constant. Equations determining the motion of an

Card 1/2

KOVBASYUK, V. I.; MEDIN, S. A.; PROKUDIN, V. A.; STEPANOV, S. A.

"Some Aspects of Noble Gases MHD-Generator Operation."

report submitted for Intl Symp on Magnetohydrodynamic Electrical Power Generation, Paris, 6-10 Jul 64.

Moscow High Temperature Inst

ACCESSION NR: AP4038429   S/0294/64/002/002/0156/0159

AUTHOR: Gubarev, A. V.; Kovbasyuk, V. I.

TITLE: Analysis of the Hall effect in a moving plasma

SOURCE: Teplofizika vy*sokikh temperatur, v. 2, no. 2, 1964, 156-159

TOPIC TAGS: Hall effect, plasma energy balance, graphic computation, optimal plasma flow

ABSTRACT: By representing the electric field vector and the current density in the plasma as complex numbers, so that the power absorbed from the electric external field or given up to the field can be plotted as a family of circles in the complex plane, the authors develop a graphic method for determining the energy balance of a plasma moving in crossed electric and magnetic fields. The cases considered are zero longitudinal field, zero transverse field, zero longitudinal current, and electric field equipotentials making a fixed angle with the plasma velocity vector. It is pointed out that the graphical technique makes it very easy to determine the optimal plasma flow conditions (when the maximum energy transfer occurs at minimum dissipation). Orig. art. has: 4 figures and 6 formulas.

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L 00486-66   EWP(m)/EPF(c)/EPF(n)-2/EPA(s)-2/EWC(v)/EPA(w)-2/EWT(1)/EWT(m)/EWC(m)/
-2/EWP(b)/EPA(sp)-2/EWA(m)-2/EWA(d)/EWP(t)   IJP(c)   JD/AT
ACCESSION NR: AP5020558   UR/0294/65/003/004/0562/0568
                                          538.4
AUTHOR: Ivanov, P. P. ; Kovbasyuk, V. I.

TITLE: The problem of optimization of the flow of a nonequilibrium plasma in the
channel of a magnetohydrodynamic generator

SOURCE: Teplofizika vysokikh temperatur, v. 3, no. 4, 1965, 562-568

TOPIC TAGS: ionized plasma, plasma physics, MHD generator, argon, potassi-
um compound, Hall generator, magnetic induction

ABSTRACT: The article offers a theoretical consideration of the dependence of
electric power of a Faraday type ideal sectioned generator on the Mach number,
at given drag and internal efficiency factors. An example is given of a magneto-
hydrodynamic generator with a nonequilibrium argon-potassium oxide plasma in
the channel. The electron collision section for argon and potassium were taken
as $2 \cdot 10^{-16}$ and $3 \cdot 10^{-14}$ cm^2, respectively. The relative concentrations of the
additives were taken as 0.1 and 0.05 mole%, respectively. The inductive magne-

Cord 1/2

KOVBASYUK, V.P.; CHERNAYA, N.S. [Chorna, N.S.]

Excess conductivity of photosensitive films of lead sulfide.
Ukr. fiz. zhur. 8 no.9:1030-1032 S '63.   (MIRA 17:8)

1. Institut poluprovodnikov AN UkrSSR, Kiyev.

KOVBASYUK, V.P.; CHERNAYA, N.S. [Chorna, N.S.]

Long-term component of the photoconductivity of lead sulfide films. Ukr. fiz. zhur. 8 no.10:1150-1156 O '63.   (MIRA 17:1)

1. Institut poluprovodnikov AN UkrSSR, Kiyev.

L 06264-67   EWT(1)/EWT(m)/EWP(t)/ETI   IJP(c)   JD

SOURCE CODE: UR/0181/66/008/009/2765/2767

ACC NR: AP6030975

AUTHOR: Kovbasyuk, V. P.; Litovchenko, V. G.

ORG: Institute of Semiconductors, AN UkrSSR, Kiev (Institut poluprovodnikov AN UkrSSR)

TITLE: Effect of external electric field on the infrared photoconductivity of "pure" silicon

SOURCE: Fizika tverdogo tela, v. 8, no. 9, 2765-2767

TOPIC TAGS: photoconductivity, electric field, IR radiation

ABSTRACT: The article describes the effect of an external electric field on the IR photoconductivity observed in thin (~ 0.5 mm) samples of n- and p-type silicon containing impurities in amounts less than 10^{13} cm^{-3}. This effect is important in determining the mechanisms of formation of extrinsic photoconductivity. The field E was 5×10^5 V/cm, and the photoconductivity was measured in the 0.9-3 μ wavelength range at 297°K. IR photoconductivity spectra obtained in the absence and presence of the external field are compared with the spectrum of surface traps obtained from the differential field effect. It is shown that in most cases the photoactive absorption of IR light on surface centers is due to "impurity center - majority carrier band" transitions. Orig. art. has: 1 figure and 2 formulas.

SUB CODE: 20/ SUBM DATE: 22Feb66/ ORIG REF: 007/ OTH REF: 001

Card 1/1

L 29956-66

ACC NR: AP6012476

SOURCE CODE: UR/0181/66/008/004/1147/1155

AUTHOR: Litovchenko, V. G.; Kovbasyuk, V. P.; Sviridenko, P. T.

ORG: Institute of Semiconductors, AN UkrSSR, Kiev (Institut poluprovodnikov AN UkrSSR)

TITLE: Spectra and kinetics of the infrared surface photoconductivity of silicon

SOURCE: Fizika tverdogo tela, v. 8, no. 4, 1966, 1147-1155

TOPIC TAGS: silicon, ir photoconductor, crystal surface, surface property, ir absorption, resonance absorption, impurity center, activation energy

ABSTRACT: The spectra of surface infrared photoconductivity were investigated at room temperature and at 120K using chemically etched surfaces of p- and n-type silicon. The purpose of the investigation was to establish the type of energy distribution of the surface traps, to determine the activation energy of the centers, to estimate their concentration, and to obtain information on the type of photon absorption by the centers (resonant or nonresonant). The spectra were obtained with an IKS-12 spectrometer with slit width 0.05-2 mm. The intensity was varied with the aid of round diaphragms calibrated for each wavelength. The illumination was with an incandescent lamp, square-wave modulated at 9 cps. The samples were in the form of thin plates (20 x 6 x 0.6 mm). The impurity concentration was kept low to ensure that the influence of the surface centers on the impurity photoconductivity will dominate. The obtained spectra exhibited at low wavelengths (> 2.5 μ) a nonmonotonic variation with several maxima, a set of clearly pronounced "ledges" at medium wavelength, and a

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L 29956-66

ACC NR: AP6012476

0

smooth rise in photoconductivity with decreasing wavelength to the absorption edge. At low temperatures the spectra exhibited a more monotonic behavior. The presence of the structure in the spectra indicates a discrete character of the energy distribution for the main surface traps. The activation energies calculated from the spectra agreed with those obtained from the differential field effect. The dependence of the infrared conductivity of the illumination, its kinetics, and the influence of illumination with white light on the spectra and on the kinetics were also investigated. In the latter case it is possible to determine the surface potential without knowing the minimum of the surface conductivity. It is concluded that detailed investigations of the spectra of surface infrared conductivity and its kinetics as well as its temperature and field dependence, can serve as an effective new method of investigating the properties of surface centers and the laws governing the non-equilibrium processes which occur in the space-charge region. Orig. art. has: 6 figures and 3 formulas.

SUB CODE: 20/   SUBM DATE: 01Sep65/   ORIG REF: 015/   OTH REF: 007

Card 2/2   CC

L 00584-67   EWT(d)/EWP(v)/EWP(k)/EWP(h)/EWP(1)   GD

| ACC NR: AT6016712 | SOURCE CODE: UR/0000/65/000/G00/0024/0046 |

39
38
B+1

AUTHOR: Kovbasyuk, V. V.

ORG: None

TITLE: Some problems in classification, analysis and synthesis of logical mechanisms

SOURCE: AN SSSR. Institut mashinovedeniya. Analiz i sintez mekhanizmov i teoriya pere-dach (Analysis and synthesis of mechanisms and the theory of transmissions). Moscow, Izd-vo Nauka, 1965, 24-46

TOPIC TAGS: binary logic, logic element, industrial automation, *logic design*, *computer program logic*

ABSTRACT: The author considers problems in the design and study of logical mechanisms, i. e. mechanisms with discrete or relay action, assuming the following fundamental dif-ferences between logical mechanisms and electrical or pneumatic logic devices. Elec-tric and pneumatic logic devices consist of clearly defined logic elements and connect-ing lines which carry the signal, while the logical links of mechanisms can be distin-guished only by their interrelationship. The input and output form of the variable in electronic and pneumatic logic devices is the same, i. e. the concept of 0 and 1 in these devices is associated with the presence or absence of pressure, an open or closed contact, etc. On the other hand, the two-valued concept in logical mechanisms may be expressed in a variety of forms. For example, one position of a link (right,

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L 00884-67

ACC NR: AT6016712

left, up, down, etc.) may correspond to 1 while another corresponds to 0. The variable may also be a force which corresponds to 1 above a given level and to 0 below this level. Logical mechanisms are classified into those for realizing logical functions in a single variable and those for realizing logical functions with two or more varia- bles. These are further subdivided into categories with rigid and elastic elements and those with combinations of the two types. Mechanisms with rigid links are further sub- divided into switching, limiting and coupling types. The distinguishing features of each of these categories are discussed and some examples are given. Logical mechanisms may be used for designing systems based on the structural theory of relay devices just as with electrical and pneumatic units." It is recommended that mechanical links should be more widely used in designing transfer machines in view of the fact that they are more convenient and easier to service. Orig. art. has: 19 figures, 5 tables.

SUB CODE:09,13/ SUBM DATE: 17Dec63/ ORIG REF: 009

awm

Card 2/2

KOVBASYUK, V.V.

Production norms and fuel expenditure in winning peat and preparing
mixed fertilizers. Mekh. sil'. hosp. 14 no.10:21-22 0 '63.

(MIRA 17:2)
1. Direktor Zhitomirskoy zonal'noy normativno-issledovatel'skoy
stantsii.

KUCHER, R.V.; KOVBUZ, M.A.

Investigation of the colloidal properties of some sulfosoaps in
aqueous solutions [with English summary in insert].   Koll.zhur.
18 no.2:193-198 Mr-Ap '56.   (MLRA 9:8)

1. L'vovskiy gosudarstvennyy universitet imeni Ivana Franko, Kafedra
fizicheskoy i kolloidnoy khimii.
              (Soaps) (Micellar theory)

KoVBUZ, M.C.

KUCHER, R.V.;POLONS'KIY, T.M.;KOVBUZ, M.O.

Bentonite clays as catalytic agents of emulsion oxidation of cumene.
[with summary in English]. Dop. AN URSR no.1:42-45 '57. (MLRA 10:4)

1. L'vivs'kiy derzhavniy universitet. Predstaviv akademik AN URSR
A. V. Dumans'kiy.
          (Bentonite) (Cumene)

KOVBUZ, M.A.

USSR/Physical Chemistry - Colloid Chemistry, Dispersion Systems.   B-14

Abs Jour: Referat. Zhurnal Khimiya, No 2, 1958, 40144.

Author : R.V. Kucher. A.A. Yavorovskiy, M.A. Kovbuz.
Inst   :
Title   : Study of Colloid Properties of Sodium Salts of Sulfosuccinic
          Acid Esters.

Orig Pub: Kolloidn. zh., 1957, 19, No 4, 454-458.

Abstract: The surface tension isotherms of aqueous solutions of sodium
         salts of dimethyl, diethyl, dibutyl and diisoamyl esters of
         sulfosuccinic acid were studied. The micelle formation in
         the three lower salts is displayed in aqueous solutions at an
         insignificant degree, which is confirmed with the values of
         the critical concentration of micelle formation and of the mi-
         celle-molar weight determined by the light diffusion method.
         Diisoamyl ester possesses clearly expressed colloid properties.
         The conjugate solubility of sudan III starts to increase no-

Card   : 1/2   -5-

Kovbuz, M. A.

20-4-26/52

AUTHORS: Kucher, R. V., Yurzhenko, A. I., Kovbuz, M. A.

TITLE: The Oxidation of Cumene by Molecular Oxygen in Emulsions in
the Presence of Various Emulsifiers (Okisleniye kumola
molekulyarnym kislorodom v emul'siyakh v prisutstvii
razlichnykh emul'gatorov).

PERIODICAL: Doklady AN SSSR, 1957, Vol. 117, Nr 4, pp. 638-640 (USSR)

ABSTRACT: The present report studies the velocity of the oxidation re-
ferred to in the title in connection with the ratio of the
phases and with the nature of the used emulsifiers. The puri-
fied hydrocarbon was oxidized in glass retorts by bubbling
pure oxygen in a thermostat at 80°C. Specimens for the ana-
lysis with respect to the content of hydroperoxide were taken
in certain intervals from the reaction mixture. The cumene-
-phase was further analyzed with respect to the total output
of carbonyl compounds. A diagram illustrates the kinetic
curves of the output of hydroperoxide of cumene at different
ratios of the phases with lacking emulsifier. It results from
these data that an increase of the volume of the acqueous
phase considerably increases the velocity of accumulation of
the hydroperoxide of cumene. These data can also be checked
in other systems and show among other things the following:

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The Oxidation of Cumene by Molecular Oxygen in Emulsions in   20-4-26/52
the Presence of Various Emulsifiers.

The acqueous phase is the essential kinetic factor in the
oxidation of hydrocarbons in the emulsions, since it acts as
initiation zone of the process and the hydropwroxides are pro-
duced in it. The importance of the acqueous phase for the
emulsionlike oxidation still increases substantially in the
presence of colloidal electrolytes (emulsifiers) containing a
surface-active anion. The emulsifiers accelerate the pro-
duction of the hydroperoxides at otherwise equal conditions.
In the emulsionlike oxidation of the hydro-carbons the
initiation of the reaction and the production of hydroper-
oxide occur mainly in the acqueous phase. The primary initiation
of the processes discussed here consists in the production of
free hydrocarbon-radicals. Besides the specific influence of
the emulsifier on the decay of hydroperoxide of cumene the
solubility of the hydroperoxide in the acqueous phase connect-
ed with this process must also be taken into account. There
are 2 figures, 1 table, and 6 references, 3 of which are
Slavic.

ASSOCIATION: State University imeni Iv. Franko, L'vov (L'vovskiy
               gosudarstvennyy universitet imeni Iv. Franko).
Card 2/3

KUCHER, R.V.; YENAL'YEV, V.D. [IEnal'iev, V.D.]; YURZHENKO, A.I.,
[IUrzhenko, O.I.], Kovbuz, M.O.

Effect of the molecular weight of tertiary hydrocarbons on
their oxidizability in the liquid phase and in emulsions. Nauk.
zap.L'viv.un. 46:13-16 '58.   (MIRA 12:7)
          (Hydrocarbons) (Oxidation)

KUCHER, R.V.; YURZHENKO, A.I. [IUrzhenko, O.I.]; KOVBUZ, M.O.

Means of accelerating the oxidation reaction of isopropylbenzene
in the liquid phase. Nauk.zap.L'viv.un. 46:17-20 '58.
                                                  (MIRA 12:7)

        (Cumene) (Oxidation)

KovBuz, M.A.

5(4)   SOV/69-21-3-12/25

AUTHORS: Kucher, R.V., Yurzhenko, A.I., Kovbuz, M.A.

TITLE: Some Emulsifiers as Kinetic Factors of Cumene Oxidation
             in Emulsions

PERIODICAL: Kolloidnyy zhurnal, 1959, Vol XXI, Nr 3, pp 309-314
             (USSR)

ABSTRACT: The authors report on the effect of a number of emul-
             sifiers (potassium palmitate, Nekal, Leucanol and
             cetyl pyridine bromide) on the kinetics of oxidation
             of cumene (isopropylbenzene)(IPB) and on the yield of
             hydroperoxides (HPC). The maximum rate of oxydation of
             IPB in emulsion and the maximum yield (70-80%) of HPC
             were obtained with a 0.5-1% potassium palmitate concen-
             tration. Nekal and Leucanol also speed up the accumu-
             lation of HPC ($\sim$70%), but this process is delayed by
             a certain period of induction. The effect of Nekal,
             like that of other colloidal electrolytes, is connected
Card 1/2   to a considerable extent with the change of the rate

Some Emulsifiers as Kinetic Factors of Cumene Oxidation in   SOV/69-21-3-12/25
Emulsions

of decomposition of HPC in the presence of these sub-
stances. The effect of the emulsifiers on the rate
of oxidation of IPB depends in the main on their col-
loidal properties (micelle formation, colloid solubili-
ty). The cation active emulsifier cetyl pyridine bro-
mide, if introduced into the initial oxidation mixture,
noticeably delays the process of HPC accumulation.
The introduction of 0.1% cetyl pyridine bromide 30
hours after the initiation of the process stimulates
the reaction. In this case, the yield of HPC reaches
nearly 80%. The authors mention the Soviet scientists
K.I. Ivanov and N.M. Emanuel'. There are 5 graphs, 2
tables and 11 references, 8 of which are Soviet and 3
English.

ASSOCIATION: L'vovskiy universitet (L'vov University)

SUBMITTED: 14 September, 1957

Card 2/2

5(4)
AUTHORS: Kucher, R. V., Kovbuz, M. A.   SOV/76-33-2-30/45

TITLE: On the Role of the Aqueous Phase in the Emulsion Oxidation
                of Isopropyl Benzene (O roli vodnoy fazy v protsesse emul'-
                sionnogo okisleniya izopropilbenzola)

PERIODICAL: Zhurnal fizicheskoy khimii, 1959, Vol 33, Nr 2,
                pp 429 - 436 (USSR)

ABSTRACT: The oxidation of isopropyl benzene (cumene) (I) is a very
                important reaction for industry, since the main product
                is hydrogen peroxide (II), which is needed for the production
                of phenol and acetone (Ref 1). In order to increase the
                yield of (II) in the case of emulsion oxidations of hydro-
                carbons it must be possible to estimate the macroscopic
                reaction stages and their reproducibility. Results concerning
                such tests are given in this paper. The oxidations were
                carried out in emulsions which were not stabilized by
                emulsifiers, and at definite time intervals samples were
Card 1/3   tested for their (II) content using a potentiometric titra-

On the Role of the Aqueous Phase in the Emulsion
Oxidation of Isopropyl Benzene

SOV/76-33-2-30/45

tion involving the iodometric micro-method (Ref 9). The ex-
periments dealt only with neutral and alkaline aqueous
phases. The experimental results show (Fig 1) that by
varying the alkalinity of the aqueous phase the process
is considerably accelerated and the induction period is
reduced. By using a 0.1 n soda solution (pH = 9.9) the
induction period decreased to almost zero and the rate
of reaction (RR) became 1.5 times greater than in the
homogeneous phase. The (RR) also increases with an increase
in the relative content of the aqueous phase in the emulsion.
A reapplication of the aqueous phase does not inhibit
the "new" reaction, and even seems to cause the reaction
to run better than with a "fresh" aqueous phase (Fig 3).
The removal of the aqueous phase from a reaction which has
already begun hinders the reaction, decreases the yield
of (II), and can in certain cases even lead to the decompo-
sition of the (II) produced. The experimental results
(Fig 5) show that not only does the addition of a soda
solution during the reaction "renew" the reaction, but it
will cause a reaction which has already run to react further

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On the Role of the Aqueous Phase in the Emulsion
Oxidation of Isopropyl Benzene   SOV/76-33-2-30/45

and thus increase the yield of (II). In relation to the
topochemical scheme for the emulsion oxidations of hydro-
carbons (Ref 7) it is assumed that the production and deve-
lopment of the molecular chains takes place in the aqueous
phase, while the hydrocarbon phase functions as a "reservoir"
for (II). The idea of a division of the macroscopic stages
of the process according to phases agrees well with the
theory of N. M. Emanuel'. There are 5 figures and 10 refer-
ences, 6 of which are Soviet.

ASSOCIATION: L'vovskiy gosudarstvennyy universitet im. I. Franko (L'vov
State University imeni I. Franko)

SUBMITTED: July 19, 1957

Card 3/3