

BOLOTOV, V.V.; GERASIMOV, V.N.; GOPMAN, I.V.; KAMENSKIY, M.D.;
MELENT'YEV, L.A.; PRINTSEV, A.A.; USOV, S.V.; SHEGLOV, A.P.

Suren Nikolaevich Nikogosov; obituary. Elektrichestvo no.10:
93 0 '60. (MIRA 14:9)
(Nikogosov, Suren Nikolaevich, 1900-1960)

USOV, S.V., doktor tekhn.nauk

Meeting of committee No.13 of the International Conference on Large
Electric Networks held in 1961. Elek. sta. 32 no.12:88-90 D '61.
(MIRA 15:1)

(Electric power distribution--Congresses)

SYROMYATNIKOV, I.A.; NEKRASOV, A.M.; LEBEDEV, A.A.; KOSTENKO, M.P.;
NEYMAN, L.R.; VASIL'YEV, D.V.; KAMENSKIY, M.D.; USOV, S.V.;
POSSE, A.V.; UL'YANOV, S.A.; FAZYLOV, Kh.F.

Professor N.N. Shchedrin; on his seventieth birthday and fortieth
anniversary of his educational work. Elektrichestvo no.1:94-
95 Ja '62. (MIRA 14:12)

(Shchedrin, Nikolai Nikolaevich, 1891-)

USOV, S.V., prof.; PAVLOV, G.M., dotsent; SLABIKOV, V.A., dotsent

Computer for calculating the load distribution in electric
power systems with hydroelectric power stations. Elektrichostvo
no.3:24-28 Mr '62. (MIRA 15:2)
(Interconnected electric utility systems)

BESSONOV, L.A.; DOMANSKIY, B.I.; DROZDOV, N.G.; D'YACHENKO, N.Kh.;
ZHEKULIN, L.A.; ZAYTSEV, I.A.; ZALESKIY, A.M.; KAMENSKIY, M.D.;
KOSTENKO, M.P.; LEBEDEV, A.A.; LOMONOSOV, V.Yu.; MITKEVICH, A.V.;
SMIRNOV, V.S.; TOLSTOV, Yu.G.; USOV, S.V.; SHRAMKOV, Ye.G.

L.R. Neiman; on his 60th birthday and the 35th anniversary of
his educational work. Elektrichestvo no.6:93-94 Je '62. (MIRA 15:6)
(Neiman, Leonid Robertovich, 1902-)

KOSTENKO, M.V.; NEYMAN, L.R.; MELENT'YEV, L.A.; KAMENSKIY, M.D.; BOLOTOV,
V.V.; ZALESSKIY, A.M.; USOV, S.V.; SHCHEDRIN, N.N.; GERASIMOV, V.N.;
DUBINSKIY, L.A.

B.L.Aizenberg; on his 60th birthday. Elektrichestvo no.11:94
N '62. (MIRA 15:11)
(Aizenberg, Boris L'vovich, 1902-)

MIKHALEV, Boris Nikolayevich; KORYAKIN, Yu.I., retsenzent;
USOV, S.V., red.

[Atomic power stations; abstract of lectures for students of
hyrotechnical faculties majoring in hydraulic power engineer-
ing] Atomnye elektricheskie stantsii; konspekt lektsii dlia
studentov gidroenergeticheskoi spetsial'nosti gidrotekhnicheskogo fakul'teta. Leningrad, Leningr. politekhn. in-t, 1963.
51 p. (MIRA 18:4)

USOV, S.V. (Leningrad); PAVLOV, G.M. (Leningrad); KANTAN, V.V. (Leningrad)

Theoretical premises for optimizing the operation of an electric power system using electronic analog computers. Izv. AN SSSR. Energ. i transp. no.4:434-442 J1-Ag '63. (MIRA 16:11)

USOV, S.V. (Leningrad); PAVLOV, G.M. (Leningrad); KANTAN, V.V. (Leningrad)

Solution of a problem on the optimum distribution of loads
using analog computers. Izv. AN SSSR, Energ. i transp. no.6:
667-674 N-D '63. (MIRA 17:1)

KOSTENKO, M.P.; MELENT'YEV, L.A.; KAMENSKIY, M.D.; ZALESSKIY, A.M.; BRIL',
R.Ya.; GORSEKOV, A.S.; SAVASHINSKAYA, V.I.; DOVGAL', S.A.; KOVALEV,
N.N.; BOLOTOV, V.V.; USOV, S.V.; GERASIMOV, V.H.; SIVAKOV, Ye.P.;
AVRUKH, A.Ya.; STARIKOV, V.G.; MIKHALEVICH, A.I.

I.V. Gofman; obituary. Elek. sta. 34 no.6:95 Je '63. (MIRA 16:9)
(Gofman, Igor' Valentinovich, 1903-1963)

USOV, S. V.; SMIRNOV, K. A.; GORNSHTEYN, V. M.; SOVALOV, S. A.

"The Economic Principles Governing Power System Operation Schedules in the U.S.S.R."

Report submitted for Intl Conf on Large Electric Systems, 20th Biennial Session, Paris, 1-10 Jun 64.

GORNSHTEYN, V. M.; SMIRNOV, K. A.; SOVALOV, S. A.; USOV, S. V.

"The Economic Principles Governing Power System Operation Schedules in the USSR."

report submitted for 20th Biennial Sess, Intl Conf on Large Electric Systems,
Paris, 1-10 Jun 64.

USOV, S.V., prof. (Leningrad); PAVLOV, G.M., kand. tekhn. nauk
(Leningrad); KANTAN, V.V., inzh. (Leningrad); PETROVA, S.S.,
inzh. (Leningrad); STEPANOV, B.H., inzh. (Leningrad)

Solution of a problem on optimum load distribution using the
ANRAN-IV computer. Elektrichestvo no.2:24-27 F '64.
(MIRA 17:3)

L 10229-66

SOURCE CODE: UR/0105/64/000/010/0087/0087

ACC NR: AP6002410

AUTHOR: Basharin, A. V.; Belyakov, V. A.; Donskoy, A. V.; Neyman, L. P.; Ravdonik, V. S.; Renne, V. T.; Ruzin, Ya. L.; Sabinin, Yu. A.; Usov, S. V.

33
32
B

ORG: none

TITLE: Professor V. G. Drannikov (60th birthday and 35th anniversary of his scientific and pedagogical activity)

SOURCE: Elektrichestvo, no. 10, 1964, 87

TOPIC TAGS: electric engineering personnel, electric engineering

ABSTRACT: Vasilii Gavrilovich Drannikov was born in Serpukhov on 30 June 1904 to a worker's family. He began as a textile worker at the "Proletariy" factory in 1920, transferring to the Textile Institute in the same year. In 1924 he was enrolled in the college of Electromechanics at the Leningrad Industrial Institute. In 1930 he became a candidate for an advanced degree and began his teaching career at the then newly organized Chair of "Elektroprivod" (Electric power drives). One of his first publications was the laboratory textbook "Opredeleniye poter'v transmisiy" (Determination of transmission losses) in 1932. In 1931 he became an assistant and in 1934 a reader (docent) for the chair of "Promyshlennoye ispol'sovaniye elektricheskoy energii" (Industrial uses of electric power). At that time he...

UDC: 621.3(092)

Card 1/2

I. 10229-66

ACC NR: AP6002410

became the first in the USSR to lecture on the "use of ionic-electronic devices in electric power drives." In 1939 Drannikov defended his dissertation "Teoreticheskoye i eksperimental'noye issledovaniye nekotorykh skhem bystrogo vozbuzhdeniya generatora Leonarda" (Theoretical and experimental investigation of certain high-speed excitation circuits for a Leonard generator). During the war Drannikov was Chief Engineer at the Vologodskaya Oblast' Communal Economy Directorate in charge of electric power. Returning to Leningrad in 1944, he took an active part in reopening the Polytechnical Institute. From 1952 to 1955 he was abroad on teaching assignments. Since 1958 he has been dean of the Chair of "Elektroprivod i avtomatizatsiya promyshlennykh ustanovok" (Electric power drives and automation of industrial equipment). He has written 10 books, 12 texts, and many scientific papers on automation and electric drives. For his scientific and pedagogical activities he holds among other awards the "Znak pocheta" (Badge of Honor). Orig. art. has: 1 figure. [JPRS]

SUB CODE: 09 / SUBM DATE: none /

Sent 2/2

AYZENBERG, B.L.; ALEKSANDROV, G.N.; GRIBOV, A.N.; GRUZDEV, I.A.; DOMANSKIY, B.I.;
DUBINSKIY, L.A.; ZALESSKIY, A.M.; KOSTENKO, M.P.; KOSTENKO, M.V.;
LEVINSHTEYN, M.L.; MIKIRTICHEV, A.A.; MIKHAYLOVA, V.I.; NEYMAN, L.R.;
RUZIN, Ya.L.; SMIRNOV, V.S.; STEFANOV, K.S.; USOV, S.V.; KHOBERG, V.A.;
SHOCHERBACHEV, O.V.

Professor M.D.Kamenskii, on his 80th birthday. Elektrichestvo no.7;
92-93 J1 '65. (MIRA 18:7)

L 22149-66

ACC NR: AP6012968

SOURCE CODE: UR/0143/65/000/007/0130/0131

B

AUTHOR: Smirnov, V. S.; Kostenko, M. P.; Neyman, L. R.; Kostenko, M. V.;
Domanskiy, B. I.; Zaleskiy, A. M.; ~~Usov, S. V.~~; Ayzenberg, B. L.; Dubinskiy, L. A.;
Aleksandrov, G. N.; Gribov, A. N.; Gruzdev, I. A.; Levinshteyn, M. L.;
Mikirtichev, A. A.; Mikhaylova, V. I.; Ruzin, Ya. L.; Stefanov, K. S.;
Khoberg, V. A.; Shcherbachev, O. V.

ORG: none

TITLE: Honoring the 80th birthday of Mikhail Davidovich Kamenskiy

SOURCE: Izvestiya vysshikh uchebnykh zavedeniy. Energetika, no. 7, 1965, 130-131

TOPIC TAGS: electric power engineering, electric engineering personnel,
hydroelectric power plant, thermoelectric power plant

ABSTRACT: On 19 April 1965 Prof. Dr. Techn. Sci. Mikhail David-
ovich Kamenskiy celebrated his 80th birthday and the 55th anni-
versary of his active work as a power expert. Mikhail Davidovich
is a 1909 graduate of the Petersburg Polytechnic Institute - since
his graduation he has been associated with this institute, now
renamed Leningrad Polytechnic Institute, as an instructor. He is
a major scientist and specialist in electric power grids and sys-
tems. He has been a major contributor to the establishment of
the Leningrad Power Grid and various large thermal and hydro-

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L 22149-66

ACC NR: AP6012968

electric power stations and an active participant in the design and construction of high- and low-voltage power systems in many cities of the Soviet Union. During the Siege of Leningrad in World War II he was a member of the Municipal Party Defense Committee. Since the war Mikhail Davidovich has been head of the Chair of Electric Power Grids and Systems at the Leningrad Polytechnic Institute and has been working on the methods of calculating the economic regimes of power system operation and on the problems of the present-day development of urban power systems. M.D. Kamenskiy has published more than 80 works, including both original studies as well as textbooks that are popular in the Soviet Union and abroad. He is the chairman of the Section on Power Systems and Grids under the Leningrad Division of the Scientific and Technical Division of the Power Industry and organizer of and participant in many scientific-technical conferences and meetings. His merits as an educator of a new school of Soviet power engineers are equally large. Orig. art. has: 1 figure. [JPRS]

SUB CODE: 10 / SUBM DATE: none

Card 2/2 d/a

L 39026-66

ACC NR: AP6029600 SOURCE CODE: UR/0281/66/000/003/0052/0059
AUTHOR: Usov, S. V. (Leningrad); Chernovets, A. K. (Leningrad); Kozulin, V. S. 42
(Leningrad) 15
ORG: none
TITLE: Mutual effect between the A.C. winding and the control winding of a reactor with rotating magnetic field
SOURCE: AN SSSR. Izvestiya. Energetika i transport, no. 3, 1966, 52-59
TOPIC TAGS: rotating magnetic field, alternating current
ABSTRACT: The article describes some characteristics of a controlled reactor with rotating magnetic field, as designed by M. S. LIBKIND. The basic feature of this design is that the control winding is distributed in the same slots with the three-phase winding and there is no removable rotor; the magnetic structure consists of a laminated slotted member inside and a stator yoke outside. The total alternating EMF induced in the control winding is found by adding up the fundamental and all harmonics except the third and its multiples (which are zero). Additional copper losses in the control coils located in common slots are due to slot leakage and resulting eddy currents in the conductors; these losses are calculated under the usual simplifying assumptions. As to the A. C. winding, special consideration is given here to the even harmonics; while the 6th, 12th... harmonics vanish, it appears not possible to eliminate completely any other even harmonic due to magnetization. The article deals also with reactor power, which is expressed as a function of loading, reactor dimensions and the number of poles. It is shown, on basis of the foregoing analysis, how the number of poles influences the performance or the design and what role the control winding plays in this relation. Orig. art. has 5 figures, 7 formulas and 1 table. [JPRS: 37,061]
SUB CODE: 20 / SUBM DATE: 22Jan66 / ORIG REF: 002
Card 1/1 MLP 0917 1696

ACC NR: A17009567

SOURCE CODE: UR/0281/66/000/006/0012/0018

AUTHOR: Ussov, S. V. (Leningrad); Chernovets, A. K. (Leningrad); Kozulin, V. S. (Leningrad)

ORG: none

TITLE: Optimal range of control of controllable reactor with rotating magnetic field

SOURCE: AN SSSR: Izvestiya. Energetika i transport, no. 6, 1966, 12-18

TOPIC TAGS: nuclear reactor, nuclear reactor core

SUB CODE: 18

ABSTRACT: An analysis of problems connected with selection of the control range of a controllable reactor designed for installation in power production systems. It is discovered that with any given range of control, capital investments and operating expenses are 5 to 10% higher for a reactor with a removable core. The range of control economically most suitable varies depending on whether the reactor is used in conjunction with a static compensating device (condenser) or separately. The economic indicators of a controlled reactor with oil cooling are considerably better than for a reactor with air cooling. Calculation show that the cost of copper, iron and insulation as well as losses of copper increase for a controllable reactor with a rotating field, while only the loss of steel decreases. Tables are presented on the losses, capital investment and operating expenses required for a controllable reactor. Orig. art. has: 8 formulas, 4 figures and 1 table. [JPRS: 40,102]

Card 1/1

UDC: 621.316.935:621.3.072.32

0930 10 93

USOV, U. N.

Obolenzev, R. D., and Usov, U. N. - "On the Additivity of Conversion of the Binary Mixtures of Aliphatic Hydrocarbons by their aromatization over the Chrome Catalyst. II" (p. 906)

SO: Journal of General Chemistry, (Zhurnal Obshchei Khimii), 1947, Vol. 17, No. 5

USOV, VLADIMIR, povar (L'vov); VOYTENKO, N.; BARKOV, P.; SUKHODEYEV, L.

Readers' letters. Obshchestv.pit. no.10:45-47 0 '59. (MIRA 13:4)

1. Upravlyayushchiy Ukrdorrestoranom (for Voytenko). 2. Povar
chaynoy No.3 Kurskogo tresta stolovykh (for Barkov). 3. Instruktor
otdela obshchestvennogo pitaniya Kuybyshevskogo oblpotreboyuza
(for Sukhodayev).
(Cookery)

USOV, V.; MURASHEV, G., red.; SMIRNOVA, A., tekhn.red.

IARoslavna. IARoslavskoe knizhnoe izd-vo, 1963. 98 p.
(MIRA 17:3)

FREYMANIS, Ya.F. [Freimanis, J.]; USOV, V.A.; VANAG, G.Ya. [Vanags, G.]
[deceased]

D1 and polyketone imines. Part 16: Interaction of 2-phenyl,3-indandione with certain aromatic diamines. Zhur. org. khim. 1 no.9:1646-1653 S '65. (MIRA 18:12)

1. Institut organicheskogo sinteza AN Latvyskoy SSR. Submitted June 29, 1964.

USOV, V...

... and cryogenic structure of the present-day sediments
in the front of the delta of the Indigirka River. Vest. LGU 20
no.18 '65 Seriya geologii i geografii no.3:49-52

(MIRA 18:10)

USOV, V.A.

Manufacture of spare parts according to the maximum-minimum system.
Mashinostroitel' no.5:10-11 My '65. (MIRA 18:5)

USOV, V.A.

"The Most Important Problems Involved in Growing Early Potatoes Under the Conditions in Vologodskaya Oblast." Cand Agr Sci, Leningrad Agricultural Inst, Leningrad, 1954. (RZhBiol, No 8, Dec 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

21C

L 18316-65 EWO(j)/EWT(l)/EWP(o)/EWG(k)/EWT(m)/EPP(c)/EPP(n)-2/EPR/EEC(b)-2/EWP(b)
 Pz-6/Pr-l/Ps-l/Pu-l IJP(c)/AFWL/SSD WW/AT/WH
 S/0089/64/017/005/0329/0335

ACCESSION NR: AP4049532

AUTHOR: Millionshchikov, M. D.; Gverdtsiteli, I. G.; Abramov, A. S.; Gorlov, L. V.; Gubanov, Yu. D.; Yefremov, A. A.; Zhukov, V. F.; Ivanov, V. Ye.; Kovy*rzin, V. K.; Kobtelov, Ye. A.; Kosovskiy, V. G.; Kukharkin, N. Ye.; Kucherov, R. Ya.; Laly*kin, S. P.; Merkin, V. I.; Nechayev, Yu. A.; Pozdnyakov, B. S.; Ponomarev-Stepnov, N. N.; Samarin, Ye. N.; Serov, V. Ya.; Usov, V. A.; Fedin, V. G.; Yakovlev, V. V.; Yakutovich, M. V.; Khodakov, V. A.; Kompaniyets, G. V.

TITLE: The "Romashka" high-temperature reactor-converter /9

SOURCE: Atomnaya energiya, v. 17, no. 5, 1964, 329-335

TOPIC TAGS: nuclear power reactor, reactor feasibility study, re-search reactor, thermoelectric converter/Romashka

ABSTRACT: The authors briefly describe the construction, parameters, test results, and operating experience of the "Romashka" reactor-

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18316-65

ACCESSION NR: AP4049532

converter unit, which has been in operation at the Kurchatov Atomic Energy Institute since August 1964. The fuel used is uranium dioxide enriched to 90% U^{235} . Graphite and beryllium are used as reflectors. Electricity is generated by silicon-germanium semiconductor thermocouples distributed on the outer surface of the reflector and connected in four groups which can be connected in series or in parallel. The temperatures of the active zone and outer surface are 1770 and 1000C, respectively. The power ratings are 0.50-0.80 kW electric and 40 kW thermal, the maximum current (parallel connection) is 88 A, the neutron flux is 10^{13} neut/cm² sec in the center of the active zone and 7×10^{12} on its boundary. The reactor has a negative temperature reactivity coefficient. The equipment has high inherent stability and requires no external regulator, and little change was observed in the thermocouple properties after 2500 hours of operation. Tests on the equipment parameters are continuing, and the results are being analyzed for use in future designs. Orig. art. has: 8 figures and 1 formula.

Card 2/3

BRICHKIN, Aleksandr Vasil'yevich; NIKIFOROV, Ivan Mikhaylovich;
SKALKIN, B.P., dots., retsenzent; SLASTUNOV, V.G., gornyy
inzh., retsenzent; KUZNETSOV, I.P., dots., kand. tekhn.
nauk, retsenzent; YARTSEV, V.A., dots., kand. tekhn. nauk,
retsenzent; KULIKOV, V.P., assistant, retsenzent; SINITSIN,
I.A., assistant, retsenzent; ~~USOV, V.I., assistant, retsen-~~
zent; BUBOK, K.G., otv. red.; PARTSEVSKIY, V.N., red.izd-va;
SABITOV, A., tekhn. red.

[Safety measures in mines] Tekhnika bezopasnosti na rudnikakh.
Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1961.
440 p. (MIRA 15:2)

1. Severo-Kavkazskiy gornometallurgicheskiy institut (for
Skalkin, Slastunov). 2. Zaveduyushchiy kafedroy tekhniki
bezopasnosti i rudnichnoy ventilyatsii Sverdlovskogo gornogo
instituta im. V.V.Vakhrusheva (for Kuznetsov). 3. Kafedra tekhniki
bezopasnosti i rudnichnoy ventilyatsii Sverdlovskogo gor-
nogo instituta im. V.V.Vakhrusheva (for Yartsev, Kulikov,
Sinitsin, Usov).

(Mining engineering--Safety measures)

ACCESSION NR: AP3000251

S/0119/63/000/005/0030/0031

AUTHOR: Buryakov, G. A.; Usov, V. L.

TITLE: Controlling the furnaces with wandering maximum-temperature zone

SOURCE: Priborostroyeniye

TOPIC TAGS: multipoint temperature controller

ABSTRACT: It is suggested that a number of primary temperature elements be placed along the path of possible wandering of the maximum-temperature zone. A two-position controller with 12 thermocouples is described. If the temperature in the furnace is lower than the set point, the heater is on. If at any of the 12 points the temperature exceeds the set point, the heater is turned off. Contact operations are described in detail. RSM-1 and RSM-3 24-v dc relays and RPT-100 12-v ac relay are used in combination with a type EPP-09 potentiometer. Orig. art. has: 2 figures.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 14Jun63

ENCL: 00

Card 1/2

ACCESSION NR: AP3000251

SUB CODE: IE

NO REF SOV: 000

OTHER: 000

Card 2/2

BURYAKOV, G.A.; USOV, V.I.

Control of members having a shifting zone of maximum
temperature. Priborostroenie no.5:30-31 My '63.
(MIRA 16:8)

ACCESSION NR: AT4007048

S/2598/63/000/010/0254/0261

AUTHOR: Ostrenko, V. Ya.; Bogoyavlenskaya, N. V.; Bobrikov, L. D.; Akimova, Ye. P.; Usov, V. K.; Okhramovich, L. N.; Il'vovskaya, L. A.

TITLE: Development of a production process for AT-3 titanium alloy tubes

SOURCE: AN SSSR. Institut metallurgii. Titan i yego splavy*, no. 10, 1963. Issledovaniya titanovy*kh splavov, 254-261

TOPIC TAGS: titanium alloy, AT-3 titanium alloy, AT-3 alloy tube, tube rolling, hot rolling, cold rolling, AT-3 titanium alloy property, titanium aluminum chromium alloy, iron containing alloy, silicon containing alloy, boron containing alloy

ABSTRACT: The effect of thermal treatment on the mechanical properties of AT-3 alloy and parameters affecting the cold and hot rolling of tubes of this alloy were investigated in the laboratories of the Ukrainskiy nauchno-issledovatel'skiy trubny*y institut (Ukrainian Scientific-Research Institute for Tubes) and the Nikopol'skiy yuzhnotrubny*y zavod (Southern Tube Plant, Nikopol). At temperatures of 800-900C the mechanical properties and hardness of AT-3 were markedly altered by hardening in water but essentially unchanged by cooling in air or in a kiln. This effect is explained by the fixation of the intermediate $\alpha + \beta$ structure during hardening in water. These alloys demonstrated high ductility in a wide range

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ACCESSION NR: AT4007048

of rolling temperatures (1975-1125C). A maximum deformation of 55% can be attained by cold rolling of such tubes, while hot rolling of these tubes proceeds normally. The problems involved are sticking of the metal to the rolling device and the formation of a gas-saturated film on the hot rolled tube. These problems have been solved by additional mechanical treatment, such as etching, coating with an oxide film, and lubrication with a mixture of castor oil and talc. Some of these recommended procedures are discussed. Orig. art. has: 6 figures and 3 tables.

ASSOCIATION: Institut metallurgii AN SSSR (Metallurgical Institute, AN SSSR)

SUBMITTED: 00

DATE ACQ: 27Dec63

ENCL: 00

SUB CODE: MA, ML

NO REF SOV: 000

OTHER: 000

Card 2/2

OSTRENKO, V.Ya.; BOBOYAVLENSKAYA, N.V.; BOBRIKOV, L.D.; AKIMOVA, Ye.P.; USOV,
V.K.; OKHRAMOVICH, L.N.; IL'VOVSKAYA, L.A.

Developing a technology for the production of AT-3 titanium alloy
tubes. Titan i ego splavy no.10:254-261 '63. (MIRA 17:1)

EXCERPTA MEDICA Sec 8 Vol 12/12 Neurology Dec 59

8045. SPASMOPHILIA (Russian text) - Усов В. Н. - ZDRAVOOKHR. BELOV. 1958, 4/5 (52-54)

Graphs 1

Spasmophilia is a seasonal condition having its peak incidence in March and April, and affecting infants of from 4 months to one year of age; it occurs much more infrequently after that age and almost never after the age of two. The children suffering from rickets and are in a satisfactory condition of nourishment. In manifest spasmophilia there is the syndrome of laryngospasm, tetanic seizures, and eclamptic attacks. This syndrome is absent in the latent form. Here Erb's, Chvostek's, Lust's, Trousseau's, and Maslov's signs are present, the latter consisting of apnoea due to spasm of the respiratory muscles following pin pricks. In the management of spasmophilia nutrition, calcium chloride or gluconate, magnesium sulphate, and sedatives have their definite role. The prevention consists of breast feeding, prevention of rickets, and early detection of the latent form.

Tyndel - Toronto

BURAVLEV, Yu.M.; PEREPELKINA, M.A.; USOV, V.N.; USTINOVA, V.I.

Use of a rectified condensed spark for spectral analysis of alloys.
Zav.lab. 29 no.8:1005-1006 '63. (MIRA 16:9)

1. Ural'skiy nauchno-issledovatel'skiy institut chernykh metallov.
(Alloys—Spectra) (Electric spark)

USOV, V.N.

3

S/762/61/000/000/029/029

AUTHORS: Morozov, Ye. I., Ronzhin, A. S., Prostov, I. A., Matveyev, V. S.,
Guravich, S. M., Didkovskiy, V. P., Yasinskiy, K. K., Usov, V. N.

TITLE: Electroslag smelting of titanium ingots.

SOURCE: Titan v promyshlennosti; sbornik statey. Ed. by S. G. Glazunov.
Moscow, 1961, 314-326.

TEXT: The paper describes a method of electroslag smelting of Ti ingots with desirable mechanical properties and with a surface that requires almost no machining prior to plastic working. The principal objective of the development is the smelting of flat ingots for the rolling of sheet material with uniform transverse distribution of rolling deformation (cylindrical ingots are deformed more greatly at the center; tensile stresses produce edge cracking on the resulting sheets). Several organizations collaborated with the Institute of Electric Welding imeni Ye. O. Paton in 1959 in adapting the splashless electroslag method of Ti smelting (3 electrodes) developed in 1958 to the smelting of slab ingots of up to 200x800x700 mm and 500 kg. Good mechanical properties and high electric-power utilization result from the improved current- and heat-flow uniformity of the arc established underneath the protective flux layer. Since 3, as well as one, electrodes can be employed, the 3 phases of an a. c. power supply can be utilized uniformly. The fused flux layer contributes to the formation of a singularly compact ingot structure. Flux must: (1) Not contain O; (2) have a m. p. close to that of the metal and be readily fusible; (3) have a high b. p.
Card 1/2

Electroslag smelting of titanium ingots.

S/762/61/000/000/029/029

(not less than 2,000°C). Neutral-gas shielding above the flux is mandatory to avoid O reaction. Details of the experiments with various fluxes, which led to the adoption of CaF₂ (brand " " (Ch)) and a purifying remelt of the flux in an induction furnace prior to use, are reported and tabulated. Comparison of BT (VT) -1, -3-1, and -5, OT4, and Ti-8Mn ingots obtained by the electroslag (ES) and vacuum arc (VA) methods. Differences between ES and VA ingots initially observed were found to be attributable to the use of pressed electrodes in the ES method; use of once-VA-melted ingots as starting electrodes in both ES and VA methods yielded BT (VT) and OT ingots of practically identical mechanical properties (described and tabulated). The mechanical properties of the Ti-8Mn were considerably improved by the ES method; this is attributed to the more uniform distribution of the high-vapor-pressure Mn in the ingot under the protection of the flux. The BT (VT) and OT alloys showed either increased strength or impaired notch toughness when smelted under a fluor-spar flux, probably as a result of uncontrollable admixtures contained in the fluor-spar. Furnace: The design of the 3-electrode furnace, with a crystallizer, electrode chamber, flux dispenser, electrode-advance mechanism, protective shield, and power transformer, is described and illustrated (cross-section, photos); its operation and process control are described in detail. A 500-kg ingot shows the result of deliberate manual delays in electrode advance in the form of nonuniformities (photo). Design criteria were obtained for future furnace designs. There are 6 figures, 3 tables, and 2 Russian-language Soviet references identified in footnotes.
Card 2/2

ASSOCIATION: None given.

USOV, V. S., Ass't.

"On the Investigation of the Errors of the Focusing Devices of Telescopes"

report presented at a Scientific-Technical Conference at Moscow Inst. of Geodesy,
Aerial Photography and Cartography Engineers, 24-26 April 1958.
(Geodeziya i kartografiya, no. 6, pp. 79-80, 1958)

USOV, V.S., aspirant

Checking for straightness and alignment by the interference and diffraction of light. Trudy MIIGAIK no.32:61-73 '58.

(MIRA 12:7)

1. Kafedra priborostroyeniya Moskovskogo instituta inzhenerov
gaodezii, aerofotos"yemki i kartografii.

(Surveying--Industrial applications) (Diffraction)

(Interference (Light))

USOV, V.S., starshiy prepodavatel'

Using mirror systems for linear measurements by the method
of autocollimation in a cone of rays. Izv. vys. ucheb. zav.;
geod. i aerof. no.3:117-124 '64. (MIRA 18:3)

1. Moskovskiy institut inzhenerov geodezii, aerofotos"yemki i
kartografii.

BELEVTSOV, G.A.; KRASAVTSEV, N.I.; MISCHENKO, N.M.; SOLDATKIN, A.I.;
SHARKEVICH, L.D.; Primali uchastiye: PROLOV, S.Ya.;
SHESTOPALOV, I.I.; PECHNIKOVA, Z.A.; STOLBUNSKIY, L.Z.;
USOV, V.F.; GLOTOV, P.L.; VOLKOVA, A.Ya.; ALDOKHINA, V.P.;
VOLOSHIN, Ya.T.; SHUMAKOV, I.S.; ZAPOROZHETS, N.P.;
SHAFOSHNIKOV, V.P.; GONCHAROVA, M.Ya.

Investigation of blast furnace smelting using natural gas.
Stal' 22 no.6:483-486 Je '62. (MIRA 16:7)

(Blast furnaces--Equipment and supplies)

DECLASSED

USOV, VLADIMIR VASIL'YEVICH

1964

Metals
electric contacts

c. '63

DUBIKAYTIS, Yu.V.; USOV, V.V.

Electrodes for electrocorticographic recording in the operating
room. *Fiziol. zhur.* 44 no.3:256-257 Mr '58. (MIRA 11:4)

1. Nauchno-issledovatel'skiy neyrokhirurgicheskiy institut im. A.L.
Polonova, Leningrad.

(ELECTROENCEPHALOGRAPHY, apparatus & instruments
electrodes for recording in operating room (Rus))

BEKHTEREVA, N.P.; USOV, V.V.

Method for interrupted photo stimulation at the rhythm of natural
brain potentials registered by electroencephalography. Fiziol.
zhur. 46 no.1:108-111 Ja '60. (MIRA 13:5)

1. From the department of pathophysiology of the A.L. Polenov
Neuro-Surgical Institute, Leningrad.
(ELECTROENCEPHALOGRAPHY)
(LIGHT)
(BRAIN physiol.)

USOV, V.V.

Technic for a numerical evaluation of the features of the electro-
encephalogram. *Fiziol.zhur.* 47 no.5:665-666 My '61. (MIRA 14:5)

1. From the Laboratory of Pathologic Physiology, A.L.Polenov
Neurosurgical Institute, Leningrad.
(ELECTROENCEPHALOGRAPHY)

USOV, V.V.

Optimization of the channel of information transmission in the
adaptation of the visual analyzor. Biofizika 7 no.3:328-332 '62.
(MIRA 15:8)

1. Leningradskiy nauchno-issledovatel'skiy neyrokhirurgicheskiy
institut imeni prof. A.L.Polenova.
(VISION)

USOV, V.V.

Statistic properties of the electroencephalogram and the
electrocorticogram. Biofizika 7 no.5:629-632 '62.

(MIRA 17:8)

1. Leningradskiy nauchno-issledovatel'skiy neyrokhirurgicheskiy
institut imeni prof. A.L. Polevova.

BEKHTEREVA, N.P.; USOV, V.V.

Some electroencephalographic problems in neurosurgical and
neurological clinical practice. Fiziol. zhur. 48 no.4:378-383
Ap '62. (MIRA 15:6)

1. From the A.L. Polenov Neurosurgical Research Institute,
Leningrad.

(ELECTROENCEPHALOGRAPHY) (NEUROLOGY)
(NERVOUS SYSTEM—SURGERY)

BEKHTEREVA N.P., prof.; USO', Y.V., prof.

Some aspects of the use of electroencephalography in medical
scientific institutions of the R.S.F.S.R. *Biul. Vsh. med. sov.*
3 no. 4: 17-20 JI-ag '62. (MIRA 17:8)

KRATIN, Yuriy Gennadiyevich; BEKHTEREVA, Nataliya Petrovna;
GUSEYNIKOV, Vladimir Ivanovich; KOZHEVNIKOV, Valeriy
Aleksandrovich; SENICHENKOV, Boris Tikhonovich; USOV,
Vladimir Vasil'yevich; KATINAS, G.S., red.izd-va;
ZAMARAYEVA, R.A., tekhn. red.

[Technique and methods of encephalography] Tekhnika i
metodiki elektroentsefalografii. [By] IU.G.Kratin i dr.
Moskva, Izd-vo AN SSSR, 1963. 312 p. (MIRA 16:10)
(Encephalography)

USOV, V.V.

Correction. Biofizika 2 no.3:398 '63.

(MIRA 17:11)

USOV, V.V.

Unit for testing chain transmissions for wear. Trakt. i sel'-
khoz mash. 33 no.4:31-32 Ap '63. (MIRA 16:10)

1. Vserossiyskiy nauchno-issledovatel'skiy institut mekhanizatsii
i elektrifikatsii sel'skogo khozyaystva.
(Agricultural machinery--Transmission devices)
(Chains--Testing)

USOV, Ya.A.; KOROBENNIKOV, M.I.; MAMEDOV, K.I.

Sanitary protection of the frontiers in the territory of the
Uzbek S.S.R. Zhur.mikrobiol., epid.i immun. 32 no.12:30-33 D '61.
(MIRA 15:11)

1. Iz Uzbekskoy respublikanskoy protivochumnoy stantsii, Tashkent,
Sanitarno-karantinnoĝo punkta Tashkentskogo aeroporta i Surgan-
Dar'inskoy oblastnoy sanitarno-epidemiologicheskoy stantsii,
Termez.

(UZBEKISTAN--QUARANTINE)

USCV, Ye.

Advantages are evident. Avt. transp. 43 no.8:20 Ag 165.
(MIRA 18:9)

USOV, Yu., inzh.

Small winter mortar and concrete station. Sel', stroi. no.9:4-5
S '62. (MIRA 15:10)

1. Proizvodstvenno-tekhnicheskly otdel tresta Altaytselinstroy.

(Building—Cold weather conditions)
(Mortar) (Concrete mixers)

PRECISE AND PROPERTIES UNIT

9

841. DEHYDROGENATION OF 2,2,4-TRIMETHYLPENTANE OVER A CHROMIUM CATALYST.
 Obolentsy, - and UMOY, Y. N. (J. Gen. Chem., U.S.S.R., 1946, 16, 933-6; U.O.P. Surv. For. Petrol. Lit., 6 Dec. 1946; U.O.P. Lit. Bull. Abstr., 30 Apr. 1947, 22, 70). In order to investigate the possibility of cyclization of hydrocarbons having no 6-membered carbon atom chain over chromia-alumina catalyst, a series of experiments was carried out aiming at dehydrocyclization of 2,2,4-trimethylpentane. A special flow type unit was used. The content of aromatics in the product was determined by the specific dispersion method, the content of unsaturated on the basis of bromine numbers. A substantial conversion to aromatics was established. Formation of olefins accompanied aromatization and prevailed below 504°, while at higher temperatures the amount of aromatics formed was greater. Carbon formation was more extensive than formation of aromatics. Raman spectrum analysis of a sample which had been treated at 510° established the presence of p-xylene and the absence of o-xylene and m-xylene. Absence of 3-methylheptane or known derivatives of cyclopropane, or of other naphthenes was also shown.

ASA-ILA METALLURGICAL LITERATURE CLASSIFICATION *Saratov State Univ*

COMMON ELEMENTS
 COMMON VARIABLES UNIT
 OPEN
 MATERIALS INDEX

SEARCHED INDEXED SERIALIZED FILED
 MAR 19 1948
 NATIONAL BUREAU OF STANDARDS - GEORGETOWN

10

CA

The additivity of the conversion of binary mixtures of aliphatic hydrocarbons in aromatization over a chrome catalyst. H. R. D. Obolentsev and Yu. N. Usov (Saratov State Univ.). *J. Gen. Chem. (U.S.S.R.)* 17, 897-906 (1947) (in Russian); cf. *C.A.* 41, 16244. The yields of aromatic compds. obtained over a Cr catalyst at 480°, in vol. rate 0.5, duration of runs 30-42 min., were detd. in pure n-heptane (I), isooctane (II), 1-heptene (III), 2-methyl-2-hexene (IV), 3-methyl-3-heptene (V), and in binary mixts. thereof. To ensure strict comparability, the catalyst was activated in an air stream 4-6 hrs. before each series and 1-1.5 hrs. after each run and tested with n-heptane under the standard conditions in reactions irreversible poisoning having been observed in reactions with unsatd. hydrocarbons (not with satd. compds.), the catalyst was changed when necessary. The reactions were allowed to proceed 9-12 min. (1.5-2.0 cc. hydrocarbon passed) before the products were collected. With the pure compds., the balance (wt. % resp., of liquid, gas, coke and resin, and of aromatics, olefins, and paraffins, in liquid) was: I 84.2, 7.6, 8.3, 12.0, 11.7, 78.2; II 80.8, 3.8, 0.4, 6.2, 11.9, 82.0; III 07.7, 13.7, 18.8, 45.4, 44.2, 10.4; IV 69.8, 9.8, 20.5, 30.3, 64.6, 5.1; V 68.5, 10.5, 21.0, 32.5, 59.0, 8.5. Unsatd. hydrocarbons give higher yields of aromatics throughout. In the binary mixts. I 70 + IV 30, I 50 + IV 50, I 70 + III 30, I 50 + III 50, I 70 + V 30, I 50 + V 50, II 70 + IV 30, II 50 + IV 50, II 70 + III 30, II 50 + III 50, II 70 + V 30, II 50 + V 50, III 25 + I 75, the yields of aromatics were strictly additive; in particular, in mixts. of a satd. and an unsatd. hydrocarbon, the yield increased linearly with the amt. of the latter, contradicting the conclusion of Green (*C.A.* 37, 887) of a lowering of the degree of aromatization of aliphatic hydrocarbons with increasing content of unsatd. compds. Coking and resinification is on the whole more abundant with unsatd. compds., the more so the more branched the chain and the higher the mol. wt.; so the more branched the chain and the higher the mol. wt., the more the yield of aromatics is not strict. The temps. of regeneration of the catalyst, for the pure compds., were I 565°, II 559°, III 742°, IV 769°, V 901°, in the binary mixts., *t* was approx. midway between the 2 components.

N. Plon

430.51.2 METALLURGICAL LITERATURE CLASSIFICATION

1900 1910 1920 1930 1940 1950 1960 1970 1980 1990

1900 1910 1920 1930 1940 1950 1960 1970 1980 1990

C.A.

Cracking of ethyl acetate on an aluminosilicate catalyst. R. I. Obolentsev and Yu. N. Usov (N. G. Chernyshev State Univ., Saratov). *Doklady Akad. Nauk S.S.S.R.* 71, 480-92 (1950), cf. C.A. 42, 1570. Catalysts of 4 parts carried out at 400° with a rate of 1 l. AcOEt/1 catalyst/hr., duration of 45, 15, 15, and 15 min., resp. gave the following products on fractionation: fraction up to 70°, Me₂CO (identified by CH₃I test and as the 2,4-dinitrophenylhydrazone); 70-85°, undecompd. AcOEt; 85-107°, too small for analysis; 107-118°, mainly AcOH (identified as AcOAg). No aldehydes were found. At 250° AcOEt hardly undergoes catalytic decompn. The CO₂ which also forms is probably a product of secondary origin, i.e. from AcOH under the effect of aluminosilicate. The scheme $2\text{CH}_3\text{CO}_2\text{Et} \rightarrow 2\text{CH}_3\text{CH}_3 + 2\text{CH}_3\text{CO}_2\text{H} + \text{CO}_2 + \text{H}_2\text{O} + (\text{CH}_3)_2\text{CO}$ is postulated. It differs from the scheme of Senderens (C.A. 2, 2080) for Al₂O₃ catalyst. When AcOH was cracked under the same conditions, the compn. of the gaseous product (by vol.) was CO₂ 72.5; C₂H₄ 6.1; H₂ 6.4; iso-C₄H₁₀ 10; C₃H₈ and n-C₄H₁₀ 2.3; C₂H₆ 2.8. The liquid product contained much Me₂CO from which some of the gaseous products, such as iso-C₄H₁₀, are likely formed. O. and V. obtained the same products from AcOH as did Senderens with Al₂O₃ and aluminosilicate, but the reported side products differed: S. obtained CO₂ and no iso-C₄H₁₀, while O. and V. found iso-C₄H₁₀ and no CO₂. It must be assumed that the decompn. of AcOEt over Al₂O₃ proceeds by the scheme established for aluminosilicate, but AcOH over Al₂O₃ decamp. to CO₂, Me₂CO, and H₂O. Beeswax was also cracked on aluminosilicate and on clay from Iznik lake. With 30% (by wt. of wax) catalyst and a duration of 5 hrs. at 195-200° and 6 hrs. at 250° the solid products were characterized as follows: from aluminosilicate, sapon. no. 88.9, acid no. 92.1, ester no. 26.8, Br no. 10, in. 37-41°; from clay, the corresponding nos. are 36.1, 23.5, 12.9, 12, 47-52°; those of the original beeswax 104.1, 20.1, 84.9, 1, 63-68°. No gas evolved during the reaction but in the atm. of the app. was found 0.9% CO₂ from aluminosilicate and 1.6% CO₂ from clay. Of the esters in the wax 68-85% decampd., probably in 2 steps: (1) conversion to acid and unsatd. hydrocarbon, and (2) decarboxylation of the acid and hydrogenation of the unsatd. hydrocarbon. Many of the aces. of the wax seem to be hydrated in the process. Kitty Lutz

USSR/Chemistry - Aromatization

AUG 51

"Conversion of Hydrocarbons in the Presence of Oxide Catalysts. III. The Role of Separate Conversions in the Aromatization of Paraffinic and Olefinic Hydrocarbons Over Chromium Catalysts," R. D. Obolentsev, Yu. N. Usov, Chair of Chem Conversion of Petroleum and Gas, Saratov State U imeni I. G. Chernyshevskly

"Zhur Obshch Khim" Vol XXI, No 8, pp 1436-1452

Aromatized n-heptane (I) and 2-methylhexene-2 (II) over Cr catalyst at 400°C to form aromatics, coke, gases, with olefins (from I) and paraffins (from II) as by-products. Only I has induction period. Reaction of II is close to bimol type. Found eq for 189114

USSR/Chemistry - Aromatization (Contd) Aug 51

dependence of aromatic formation on contact time. Amt of H₂ evolved confirmed similarity between Cr and aluminosilicate catalysts. Showed dependence of sep reactions of conversion of 2,2,4-trimethylheptane, heptene-1, I, and II on temp in limits 450-510 and calcd corr activation energies and temp coeffs of reaction rates.

189114

USOV, Yr. N.

USOV, Yu. N.

CA

10

Reactions of esters on aluminosilicates. R. D. Obolent-
 Yu. N. Usov, and M. G. Volskovskaya (Saratov State
 Univ.). *Doklady Akad. Nauk S.S.S.R.* 80, 839-92(1951);
ibid. C.A. 45, 547c. — Balances of the reactions undergone by
 HCO_2Et (I) at 250°, BzOEt (II) at 300°, BzOMe (III) at
 350°, and iso-AmOAc (IV) at 350°, in 30-min. runs over
 an aluminosilicate catalyst at a space velocity of 1 vol./vol.
 catalyst/hr. under atm. pressure, are summarized by the
 following schemes, where the figures in parentheses give the
 yields in moles/100 moles ester reacted, and the figures on
 the arrows, the no. of moles of the corresponding reactant.
 The main direction of the reaction is a conversion to unsatd.
 hydrocarbon and acid; however, there also can take place

a reverse ester condensation (II) or a decompn. to alc. and
 CO_2 . Under the same conditions, EtOH gave a liquid
 contg. 35% Et_2O and 65% unreacted, with 1% C_2H_4 yield.
 With HCO_2H , 47% were converted selectively to H_2O and
 CO . Of the other side reactions, the formation of PhMe
 in III is attributed to alkylation of C_2H_4 by CH_3 radicals.
 The reactions of IV on activated Askan clay are analogous.
 On its reactions on aluminosilicate: 100 moles IV reacted
 yield 99 moles amylenes and 78 moles AcOH. Conversion
 of AcOEt on the activated clay is somewhat lower, and that
 of I considerably lower than on al. silicate: the yields
 of C_2H_4 are only 87 and 3 moles, resp., per 100 moles ester
 passed. N. Thon

НОСВ 101. II; ИСАЭВСКИЙ В. В.; and СЕРГЕЕВ С. С.

Conversion of Hydrocarbons in the Presence of Oxide Catalysts. IV.
Aromatization of 2, 2, 4-Trimethyl Pentane Over Chromium and Molybdenum
Catalysts, Page 1483, Sbornik statey so obshchey khimii (Collection
of Papers on General Chemistry), Vol II, Moscow-Leningrad, 1953, pages
1680-1686.

Saratov State U, Chair of the Chemical Conversion of Petroleum and
Gas

USSR/Chemistry USOV, YU. N.

Card 1/1 : Pub. 41-15/18

Author : Obolontsev, R. D.; Rozhdestvenskiy, V. P.; Yen'kov, Yu. V. and
Usov. Yu. N.; Sazatov

Title : Obtaining hydrogen by the catalytic conversion of natural gas with
water vapor

Periodical : Izv. AN SSSR. Otd. tekhn. nauk 8, 133-146, Aug 1954

Abstract : Investigates manufacture of hydrogen by means of catalytic con-
version of natural gas with water vapor. Studies kinetic laws of
methane (natural gas) conversion process realizable on laboratory
equipment of the flow type in the presence of typical industrial
nickel catalyst. Selects optimum procedure, on basis of laboratory
data, for industrial equipment. Diagram; tables; graphs. Thirty-
one references; 23 USSR.

Institution : Saratov State University imeni N. G. Chernyshevskiy, Bashkir
Branch, Academy of Sciences USSR

Submitted : August 7, 1954

USSR/Chemistry - Condensation

Card 1/1 Pub. 151 - 12/38

Authors : Obolentsev, R. D.; Usov, Yu. N.; and En'kov, Yu. V.

Title : Condensation of aniline with glycerin, paraldehyde and acetylene over $Al_2(SiO_3)_3$

Periodical : Zhur. ob. khim. 24/2, 252-255, Feb 1954

Abstract : The principle possibility for direct synthesis of quinoline, quinaldine, and ethylaniline through the condensation of aniline with glycerin, paraldehyde and acetylene in vapor phase over an aluminum silicate catalyst, is discussed. The catalytic effect of $Al_2(SiO_3)_3$ in above mentioned synthesis was found to be analogous to the catalytic effect of Al_2O_3 . It was established that $Al_2(SiO_3)_3$ causes the dehydration of the glycerin into acrolein, and the condensation of the aniline with glycerin or paraldehyde which is followed by the separation of the hydrogen and the formation of intermediate products - acrolein or crotonaldehyde. The mechanism of condensation over $Al_2(SiO_3)_3$ is explained. Thirteen references: 12-USSR and 1-German (1904-1951). Table; graph.

Institution : The N. G. Chernishevskiy State University, Saratov

Submitted : September 16, 1953

Usov, Yu. N.

For the REACTIONS OF 2,7-DICHLOROFLUORENE
 ON 2,7-DICHLOROFLUORENE
 Usov, Yu. N., *Dokl. Akad. Nauk SSSR*, 1961, No. 1, p. 180
 Usov, Yu. N., *Izv. Akad. Nauk SSSR, Ser. Khim. Nauk*, 1961, No. 1, p. 180
 Usov, Yu. N., *Dokl. Akad. Nauk SSSR*, 1961, No. 1, p. 180
 Usov, Yu. N., *Izv. Akad. Nauk SSSR, Ser. Khim. Nauk*, 1961, No. 1, p. 180

FU

1/5

USOV, Yu. N.

USSR/Chemical Technology. Chemical Products and Their I-14
Application--Treatment of natural gases and
petroleum. Motor fuels. Lubricants.

Abs Jour: Ref Zhur-Khimiya, No 3, 1957, 9339

Author : Rozhdestvenskiy, V. P., En'kov, Yu. V., and Usov,
Yu. N.

Inst : Saratov University

Title : The Chemical Utilization of Hydrocarbon Gases (A
Contribution to Research on the Production of
Hydrogen from Natural Gas)

Orig Pub: Nauch. ezhegodnik za 1954 g Saratov, 1955,
566-569

Abstract: A brief presentation of basic results from labora-
tory work on the production of hydrogen by the
reaction of Saratov natural gas and other CH₄-
containing gases over a No 1 Ni catalyst at tem-
peratures of 550-800° using steam: gas ratios of
2 : 1 and 3 : 1 and space velocities of 500-17,000

USSR/Chemical Technology. Chemical Products and Their I-14
Application--Treatment of natural gases and
petroleum. Motor fuels. Lubricants.

Abs Jour: Ref Zhur-Khimiya, No 3, 1957, 9338

Abstract: volumes per volume of catalyst per hour; the
work was undertaken for the purpose of esta-
blishing operating conditions for the industrial-
scale conversion of Saratov natural gas with
yields of 97.8-98.5% hydrogen at the Saratov
hydrogenation plant. Results from preliminary
experiments on the conversion of propane are also
reported.

Card 2/2

USOV, Yu.N.; SIDOROVA, N.V.

Conversions of hydrocarbons in the presence of oxide catalysts.
Part 7. Aromatization of binary alkane-arene mixtures over a
chromium catalyst. Zhur.ob.khim. 25 no.9:1702-1704 S 155.
(MIRA 9:2)

1.Saratskiy gosudarstvennyy universitet.
(Paraffins) (Aromatization)

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001858210005-1

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001858210005-1"

"APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001858210005-1

APPROVED FOR RELEASE: 04/03/2001

CIA-RDP86-00513R001858210005-1"

G. M. Kosolapoff

USOV, Yu.N.; SKVORTSOVA, Ye.V.; KUVSHINOVA, N.I.; YELOVATSKAYA, L.A.

Catalytic dehydration of isopentene to isoprene. Zhur.ob.khim.
27 no.10:2721-2725 0 '57. (MIRA 11:4)

1.Saratovskiy gosudarstvennyy universitet.
(Isopentene) (Isoprene) (Dehydration)

S/081/61/000/005/015/024
B101/B220

AUTHORS: Usov, Yu. N., Skvortsova, Ye. V.

TITLE: The problem of aromatization of n-heptane and n-octane on the molybdenum catalyst

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 5, 1961, 535, abstract 5M177 (5M177) ("Uch. zap. Saratovsk. un-t", 1959, 71, 167-174)

TEXT: Reference is made to the results of a comparative kinetic study of the aromatization of n-heptane at 500 to 550°C, and of n-octane at 460 to 520°C on a commercial molybdenum catalyst used for hydroforming and containing 8 % of MoO₃. The tests were made in a continuous laboratory installation under atmospheric pressure and with volume rates of the initial material of 0.3 to 2.2 hr⁻¹. For n-heptane and n-octane, the experiments gave yields in aromatic hydrocarbons of 5-27 % (calculated with respect to n-alkane passed through), and 7 to 40 % for a degree of conversion of 20 to 70 % and 13 to 70 %, respectively. In order to find out the primary reactions of conversion, the yield of individual products

Card 1/2

The problem of aromatization of n-heptane...

S/081/61/000/005/015/024
B101/B220

(aromatic hydrocarbons, olefins, gas, coke) was determined in per cent of n-alkane converted; this was done by extrapolating the curves yield - degree of conversion of n-alkane to the zero degree of conversion. It was found that the primary conversion of n-alkanes develops in three directions: dehydrogenation to olefins, dehydrocyclization and formation of coke, the latter two reactions prevailing. The yield in aromatic hydrocarbons, olefins, gas, and coke was found to be dependent on the temperature at different volume rates of the initial material. For the conversion of n-heptane at 500 to 550°C and of n-octane at 460 to 520°C, the apparent activation energies were determined for the aromatization reaction (21,300 and 20,360 kcal/mole, respectively) and for the "summary dehydrogenation" (18,480 and 16,650 kcal/mole). [Abstracter's note: Complete translation.]

Card 2/2

USOV, Yu.N.; SKVORTSOVA, Ye.V.

Synthesis of 7,8-dimethyltetradecane. Uch.zap. SGU 75:53-55
'62. (MIRA 17:3)

USCV, Yu.N.; KUVSHINOVA, N.I.; IVANOVA, S.M.

Aromatization of binary alkane-arene mixtures on a platinum catalyst.
Neftekhimiia 2 no.2:150-153 Mr-Apr '62. (MIRA 15:6)

1. Saratovskiy gosudarstvennyy universitet imeni N.G.Chernyshevskogo
kafedra tekhnicheskoy khimii i Nauchno-issledovatel'skiy institut
khimii.

(Hydrocarbons) (Aromatization)

USOV, Yu.N.; KUVSHINOVA, N.I.; IVANOVA, S.M.

Aromatization of binary alkane-cycloane mixtures on a platinum catalyst. Neftekhimiya 2 no.5:666-669 S-O '62. (MIRA 16:1)

1. Saratovskiy gosudarstvennyy universitet imeni N.G.Chernyshevskogo.
(Hydrocarbons) (Aromatization)

37851

S/080/62/035/005/014/015
D247/D307

159203

AUTHORS: Usov, Yu. N., Skvortsova, Ye. V., Vyshemirskiy, V. S.,
~~Aiferova, G. V.~~, Klyushnikova, G. G. and Smirnova,
N. S.

TITLE: Polymerization of the butane-butene fraction of crack-
ing gases on a phosphoric acid film catalyst

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 5, 1962,
1148-1150

TEXT: Various carriers for films of phosphoric acid, based on na-
tural silica, were investigated. The film catalysts were prepared
directly on the base of ground quartz of sands treated with HF.
The reaction was carried out under constant flow conditions. An
increase in pressure from atmospheric to 40 - 50 atm was found to
result in lower efficiency of the polymerization process. A series
of coarse-grained sands were also prepared as carriers to investi-
gate the effects of impurities and of specific grain surfaces. Re-
sults, expressed as the yield of diisobutylene polymer as a per-

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centage of the butenes present and as grams per liter of the carrier per hour, are given for a series of carriers for the film catalyst and for various times for the reaction. Optimum conditions for the process were found to be (at atmospheric pressure): a temperature of 175 - 185°C, an input rate of 75 hour⁻¹ for the reactants and a periodical addition of fresh phosphoric acid for the catalyst at the rate of 0.5 - 0.7% of the original quantity per hour. After working for 50 hours under these conditions, the activity and yields using films on quartz became comparable with those obtained with the industrial catalyst (phosphoric acid on kieselghur). Sand- or quartz-based catalysts were easier to regenerate by aqueous washing and air or steam and air blowing than the industrial catalyst. Acid-resistant steel used as a reactor vessel did not effect the reaction. There are 2 figures.

ASSOCIATION: Saratovskiy gosudarstvennyy universitet imeni N. G. Chernyshevskogo (Saratov State University imeni N. G. Chernyshevskiy)

SUBMITTED: April 10, 1961

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USOV, Yu.N.; MARKUSHINA, I.A.

Possibility of producing cereasin and structural bitumen from
paraffinic deposits of the Saratov oil fields. Uch.zap. SGU
75:55-57 '62. (MIRA 17:3)

USOV, Yu.N.; METSEL', N.G.

Conversions of n-hexadecane over a molybdenum catalyst. Uch.
zap. SGU 75:57-60 '62. (MIRA 17:3)

USOV, Ya.N.; KUVSHINOVA, N.I.

Conversions of 2,2,4-trimethylpentane and n.octane on a
platinum catalyst. Kin.i kat. 3 no.6:931-936 N-D '62.
(MIRA 15:12)

1. Saratovskiy gosudarstvennyy universitet imeni
N.G. Chernyshevskogo. (Octane)
(Pentane) (Platinum catalysts)

USOV, Yu.N.; SKVORTSOVA, Ye.V.; KLYUSHNIKOVA, G.G.

Dehydrogenation of methylcyclohexane on alumina-chromia and
alumina-molybdenum oxide catalysts. Neftekhimiia 3 no.3:320-
325 My-Je '63. (MIRA 16:9)

1. Saratovskiy gosudarstvennyy universitet imeni Chernyshevskogo.
(Cyclohexane) (Dehydrogenation) (Catalysts)

USOV, Yu.N.; SKVORTSOVA, Ye.V.; YELOVATSKAYA, L.A.; IVANOVA, S.M.;
VAYSTUB, T.G.; STROGANOVA, N.V.

Investigating the chemical composition of gas and gas
condensate of the Stepnovskoye field. Izv. vys. ucheb. zav.;
neft' i gaz 7 no.3:55-58 '64. (MIRA 17:6)

1. Saratovskiy gosudarstvennyy universitet imeni N.G.
Chernyshevskogo.

USOV, Yu.N.; KUVSHINOVA, N.I.; SHESTOVA, L.S.

Kinetics of the dehydrocyclization of n-heptane and n-octane on an aluminum-platinum catalyst. Neftekhimiya 4 no.5:700-706 S-0 '64.
(MIRA 18:1)

1. Saratovskiy gosudarstvennyy universitet imeni N.G.Chernyshevskogo i Nauchno-issledovatel'skiy institut khimii.

USOV, Yu.N.; SKVORTSOVA, Ye.V.; ALFEROVA, G.V.; YELOVATSKAYA, L.A.

Catalytic reforming of Stepanovskiy gas-condensate fractions.
Izv. vys. ucheb. zav.; neft' i gaz 7 no.5:59-63 '64. (MIRA 17:9)

1. Saratovskiy gosudarstvennyy universitet im. N.G. Chernyshevskogo.

USOV, Yu.N.; SKVORTSOVA, Ye.V.; YELOVATSKAYA, L.A.; VAYSTUB, T.G.;
ALFEROVA, G.V.

Pyrolysis of Stepnovskiy gas condensate. Izv. vys. ucheb.
zav.; neft' i gaz 7 no.11:45-49 '64. (MIRA 18:11)

1. Saratovskiy gosudarstvennyy universitet im. N.G.
Chernyshevskogo.

USHOV, Yu.N.; SKVORTSOVA, Ye.V.; LYUSHNIKOVA, G.G.

Conversions of $C_8 - C_{16}$ n-alkanes on an aluminum-molybdenum
oxide catalyst. *Neftekhimiya* 5 no.6:850-855 N-D '65.

(MIRA 19:2)

1. Saratovskiy gosudarstvennyy universitet imeni Chernyshevskogo.
Submitted Feb. 15, 1965.

27715

S/120/61/000/003/028/041

E095/E135

9.6000(1040,1159)

AUTHORS: Vorob'yev, G.A., Mesyats, G.A., and Usov, Yu.P.

TITLE: Generator of single high voltage pulses of nanosecond duration

PERIODICAL: Pribory i tekhnika eksperimenta, 1961, No.3, pp.165-166

TEXT: 20 kV pulses of nanosecond duration are produced by discharging 5 μ F capacitor through a 1.5 m of coaxial cable when three spark gaps break down in succession, the last breakdown occurring at an overvoltage of three times. According to earlier work of the authors this over-voltage gives a pulse with fast rise-time. The described instrument produces pulses with a rise-time of 6 nanoseconds. Pulse length can be continuously varied between 15 and 45 nanoseconds. Produced pulses are displayed on a CRT, the time-base voltage of which is derived by the same method as the pulses, the leading edge being used for deflection. Synchronisation is achieved by illumination of the time-base spark gap by discharge arc of one of the gaps in the pulse producing circuit. A second generator of pulse voltages supplies 30 kV pulses to a CRT; these pulses are locked to the main pulse.

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Generator of single high voltage ²⁷⁷¹⁵ S/120/61/000/003/028/041
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The generator is supplied from voltage doubler rectifying circuit producing 20 kV, only half of which is used for the display circuits. The pulse producing part of the instrument is supplied with the full 20 kV.

There are 2 figures and 3 Soviet references.

ASSOCIATION: Nauchno-issledovatel'skiy institut yadernykh
issledovaniy elektroniki i avtomatiki, Tomskogo
politeknicheskogo instituta
(Scientific Research Institute for Nuclear Researches
of Electronics and Automatics, Tomsk Polytechnical
Institute)

SUBMITTED: June 28, 1960

Card 2/2

VOROB'YEV, A.A.; VOROB'YEV, G.A.; MESYATS, G.A.; USOV, Yu.P.

Spark gap commutation time. Izv.vys.ucheb.zav.; fiz. no.5:174-
175 '61. (MIRA 14:10)

1. Nauchno-issledovatel'skiy institut pri Tomskom politekhnicheskoye
institute imeni S.M.Kirova.
(Commutation (Electricity))

33330
S/143/61/000/012/002/005
D299/D305

26.2312
AUTHORS:

Mesyats, G.A., and Usov, Yu.P., Engineers

TITLE:

Influence of air pressure in the spark gap on the parameters of a high-voltage pulse front

PERIODICAL:

Izvestiya vysshikh uchebnykh zavedeniy. Energetika, no. 12, 1961, 39 - 44

TEXT: The results are given of an investigation of the effect of air pressure on the parameters of the pulse front during static breakdown. The Weizel-Rompe formula for spark resistance is used (Ref. 3: Theorie der elektrischen Lichtbögen und Funken, Leipzig, 1949). After transformations, one obtains the formula

$$t_{\phi} = 21 \frac{s_0^2}{a p U_0^2} + 2.2 \frac{L}{R_H} \quad (6) \quad \checkmark$$

where s_0 is the static breakdown distance for a voltage U_0 and pressure p ; t_{ϕ} is the length of the pulse front. For the maximum
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curvature of the pulse front one obtains

$$\left(\frac{dU}{dt}\right)_{\max} = \frac{27}{256} \cdot \frac{aU_0^3}{s_0^2} \cdot p \cdot [1 - \varphi(A)]. \quad (8)$$

The values of the function $\varphi(A)$ are listed in a table. From Eqs. (6) and (8) it is evident that with constant voltage U_0 and fixed parameters L and R_H (the load resistance) of the discharge circuit, it is possible to reduce the pulse front and increase its curvature, by increasing the pressure in the spark gap. The experimental setup is shown in a diagram. The discharger, placed in a chamber of organic glass, had spherical brass-electrodes of 20 mm diameter. All the experiments were conducted in air. It was found that t_ϕ depends largely on the magnitude of the undervoltage Δ at the spark gap. The coefficient a was found to be $a = 1 \text{ cm}^2 \cdot \text{ata}/\text{v}^2 \cdot \text{sec}$. A comparison of experimental and theoretical curves showed that Eqs. (6) and (8) give a more or less accurate description of the behavior of the pulse front parameters as a function of pressure, voltage, and inductivity of the circuit. The value of $a = 3 \text{ cm}^2 \cdot \text{ata}/\text{v}^2 \cdot \text{sec}$, can

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be used for calculating the pressure in spark gaps with voltages from several- to several tens of kilovolts. For other gases and higher voltages, further experiments are required to determine a. The formula for the pulse-front length is derived on the basis of Weizel-Rompe's theory. A method has been developed for study of the parameters of the nanosecond (10^{-9} sec) pulse front as a function of pressure. With increasing pressure, the length of the pulse front decreases and the maximum curvature increases to a limit, bounded by the time constant L/R_H of the discharge circuit. With $L = 0.07 \cdot 10^{-6}H.$, $R_H = 75 \text{ ohm}$, $p = 3 \text{ ata}$, one obtains a pulse with $t_\phi \approx 2 \text{ nsec}$, for $U = 15 \text{ kilovolt}$. With a change in voltage from 7 to 23 kilovolt, t_ϕ changes only insignificantly. With spark-gap undervoltage, the length of the pulse front is larger than with static breakdown. The formulas for the parameters, obtained by the Weizel-Rompe theory for $a = 3 \text{ cm}^2 \cdot \text{ata}/v^2 \cdot \text{sec}$, can be used for approximate computation of high-voltage nanosecond installations with spark-gap dischargers in compressed air. There are 6 figures, 2 tables and 11 references: 4 Soviet-bloc and 7 non-Soviet-bloc (including 6 translations).

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Influence of air pressure in the ...

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ASSOCIATION: Nauchno-issledovatel'skiy institut yadernoy fiziki, elektroniki i avtomatiki pri Tonskom ordena Trudovogo Krasnogo Znameni politekhnicheskoye institut imeni S.M. Kirova (Scientific Research Institute of Nuclear Physics, Electronics and Automation at the Tomsk Order of the Red Banner of Labor Polytechnic Institute imeni S.M. Kirov)

PRESENTED: by Nauchnyy seminar sektora vysokovol'tnykh apparatov (Scientific Seminar of the High-Voltage Apparatus Department)

SUBMITTED: January 16, 1961

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