

1VTODIY, L.A.; YERCKHINA, L.I.

Machine set for cultivating sugar beets and vegetables in  
seedbeds. Riul. tekh.-ekon. inform. Gos. nauch.-issl. inst.  
mauch. i tekh. inform. 17 no.6:63-66

(MIRA. 17:11)

REIKHSFELD, V.O.; MAKOVETSKIY, K.L.; YEROKHINA, L.L.

Cyclic trimerization of acetylene. Zhur.ob.khim. 32 no.2:653  
F '62. (MIRA 15;2)

1. Leningradskiy tekhnologicheskij institut imeni Iensoveta.  
(Acetylene)

MAKOVETSKIY, K. L.; REYKHSFEL'D, V. O.; YEROKHINA, L.L.

Simultaneous cyclic trimerization of butylacetylene with  
phenylacetylene. Zhur. ob. Khim. 34 no.6:1968-1970 Ju '64.  
(NIRA 17:7)

1. Leningradskiy tekhnologicheskii institut imeni Lensoveta.

~~YERKHINA, L.S.~~; KHARLAMOVA, K.S.; LAVOCHKIN, M.P., otvetstvennyy redaktor;  
LIL'YE, A., tekhnicheskiiy redaktor

[Street directory of Moscow; as of November 1, 1956] Spravochnik  
ulits Moskvy. Po sostoianiu na 1 nojabria 1956 g. Sost. L.S.  
Erkhina i K.S.Kharlamova. Otvet.red. M.P.Lavochkin. [Moskva, Izd-vo  
"Moskovskii rabochii"] 1956. 494 p. (MLRA 10:1)

1. Moskovskaya gorodskaya spravochno-informatsionnaya kontera  
"Mogerspravka."  
(Moscow--Streets)

YEROKHINA, L.S.; OVCHINNIKOVA, V.F.; SHURINOVA, M.N.; FAKHRETDINOVA, S.Kh.;  
LAVOCHKIN, M.P., otv. red.; DUDOROVA, L., red.; KUZNETSOVA, A.,  
tekhn. red.

[Streets of Greater Moscow; a guide. As of February 10, 1961.  
Ulitsy Bol'shoi Moskvy; spravochnik. Po sostoianiiu na 10 fev-  
ralia 1961 g. Moskva, Mosk. rabochii, 1961. 551 p. (MIRA 14:6)

1. Moskovskaya gorodskaya spravochno-informatsionnaya kontora  
"Mosgorpravka," Moscow.

(Moscow--Streets)

YEROKHINA, L.S.; SHURINOVA, M.N.; LAVOCHKIN, M.P., otv. red.;  
SULTANOVA, N., red.; YAKOVLEVA, Ye., tekhn.red.

[The streets of Moscow; a manual as of September 1, 1963]  
Ulitsy Moskvy; spravochnik po sostoianiiu na 1 sentiabria  
1963.g. Moskva, Mosk. rabochii, 1964. 477 p.  
(MIRA 17:3)

YEROKHINA, L.V.

AKHMEROV, A.Ih., kand.biol.nauk; BATEMCO, A.I., kand.sel'skokhoz.nauk;  
 BRUDISTOVA, M.A., kand.tekhn.nauk; GOLOVINSKAYA, K.A., kand.biolog.  
 nauk; GORDON, L.M., kand.ekon.nauk; DEBOKHOV, M.M., rybovod-biolog;  
 YEROKHINA, L.V., rybovod-biolog; IL'IN, V.M., rybovod-biolog;  
 ISAYIN, A.I., rybovod-biolog; KADZEVICH, G.V., rybovod-biolog;  
 KOMAROVA, I.V., kand.biol.nauk; KRINOVA, R.V., rybovod-biolog;  
 KULANOVA, A.M., rybovod-biolog; KAMONTOVA, L.H., kand.biol.nauk;  
 MEYSNER, Ye.V., kand.biol.nauk; MIKHAYEV, P.V., kand.biol.nauk;  
 MUKHINA, R.I., kand.biol.nauk; PAKHOMOV, S.P., kand.biol.nauk;  
 SUKHANVERKHOV, F.M., kand.biol.nauk; SOKOLOVA, Z.P., rybovod-bio-  
 log; TSIUNCHIK, R.I., rybovod-biolog; RYZHENKO, M.I., red.; KOSOVA,  
 O.H., red.; SOKOLOVA, L.A., tekhn.red.

[Handbook on pond fish culture] Spravochnik po prudovomu rybovodstvu.  
 Red.kollektia: A.I.Isaev i dr. Moskva, Fishchepromizdat, 1959. 374 p.  
 (MIRA 13:4)

1. Moscow. Vserossiyskiy nauchno-issledovatel'skiy institut prudo-  
 vogo rybnogo khozyaystva.  
 (Fish culture)

VLASTOV, B.V.; YEROKHINA, L.V.

Increase of the reproduction capacity of commercial mollusks (Unio species) with reference to the reproduction of raw material resources of mother-of-pearl in our inland waters. Report No. 1: Problems and methods of work. Trudy Gidrobiol. ob-va 11:394-405 '61.  
(MIRA 15:1)

1. Kafedra zoologii bespozvonochnykh Moskovskogo gosudarstvennogo universiteta i Vserossiyskiy nauchno-issledovatel'skiy institut prudovogo rybnogo khozyaystva, Moskva.  
(Unionidae)



L 10805-66 FWT(m)  
ACC NR: AT5024258

SOURCE CODE: UR/25/0/65/000/032/0253/0256

AUTHOR: Yerokhina, L. V. 44.55

28  
B+1

ORG: Institute of Genetics, Academy of Sciences SSSR (Institut genetikii, Akademiya nauk SSSR) 44.55

TITLE: Study of the change in the proteolytic activity of whole blood in mice exposed to total-body x-ray irradiation

SOURCE: AN SSSR. Institut genetikii. Trudy, no. 32, 1965. Deystviye ioniziruyushchikh izlucheniyy na rastitel'nyy i zhiivotnyy organizmy (Effect of ionizing radiation on plant and animal organisms), 253-256 19, 44.55

TOPIC TAGS: animal physiology, blood, biologic metabolism, radiation biologic effect, proteolysis, mouse, tyrosine

ABSTRACT: A study was conducted of changes in the proteolytic activity in whole blood of totally irradiated animals at different periods after irradiation. Mice 2 to 2.5 months old were subjected to 600 rad of x-rays with a dose power of 50 rad/min. Blood samples were taken from experimental and control animals 1, 2, 4, 7, 14, and 21 days after irradiation. Experiments showed that irradiation of mice with this dose caused an increase in the tyrosine content of whole blood for the entire 21-day

radiation (see Fig. 1). It was found that the intensity of proteolysis in the blood

Card. 1/3

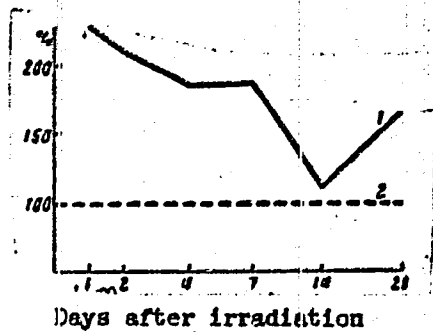


Fig. 1. Tyrosine content in the whole blood of irradiated mice

1 - Experimental mice; 2 - control mice.

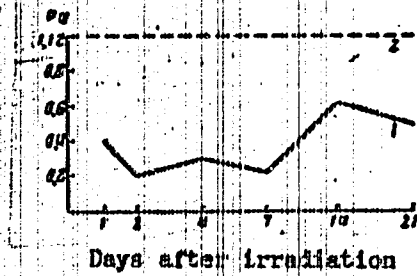


Fig. 2. Whole blood proteinase activity

1 - Experimental mice; 2 - control mice.

an antiproteolytic factor in normal blood, which increases sharply in quantity in the blood of irradiated animals, and thus is the main autolysis inhibitor. Orig. art. has: 3 figures and 2 tables. [JS]

Card 2/3

10805-66

ACC NR: AT5024258

0.

SUB CODE: 06 SUBM DATE: none/ ORIG REF: 009/ OTH REF: 003/

Card 3/3

VINOGRADOV, V.K.; YEROKHINA, L.V.

Effectiveness of feeding carp with granulated food. Trudy  
sov. Ikht. kom. no.14:53-58 '62. (MIRA 15:12)

1. Vserossiyskiy nauchno-issledovatel'skiy institut prudovogo  
rybnogo khozyaystva (VNIIPRKh).

(Carp)  
(Fishes--Food)

BRUYEV, S.N.; YEROKHINA, M.V.

Role of the temperature and pure cultures of lactic acid bacteria  
in the production and preservation of sauerkraut and pickles. Kons.  
i ov.prom. 19 no.1:22-24. Ja. '64. (MIRA 17:2)

1. Moskovskiy institut narodnogo khozyaystva imeni G.V.Plekhanova.

67302

9.4160

SOV/181-1-8-7/32

~~9(6)~~  
AUTHORS:Galavanov, V. V., Yerokhina, N. A.

TITLE:

Production of a Valve Photocell<sup>1</sup> of InSb With Fused n-p Junction<sup>2</sup>

PERIODICAL:

Fizika tverdogo tela, 1959, Vol 1, Nr 8, pp 1198-1200 (USSR)

ABSTRACT:

First, reference is made to several previous papers. Investigation was carried out on monocrystalline n-type InSb with an impurity concentration of  $10^{13}$  to  $10^{17}$   $\text{cm}^{-3}$ . For the first time cadmium was used as alloy metal. A conductivity type inversion is possible also in fusing indium to n-type InSb. This fusing is brought about in graphite containers in an argon atmosphere or in vacuo ( $10^{-4}$  to  $10^{-5}$  torr). After fusion the existence of the p-n-junction was concluded from the sign of the thermoelectromotive force. The fused junction of Cd with InSb had a hole-type conductivity. In indium a p-type conductivity was observed at the boundary between n-type InSb crystal and In-InSb alloy. The electric contacts were made by soldering the electrodes to the alloy of InSb with Cd (or In) and to an InSb crystal with tin. Tungsten rubbing contacts were also used. The elements thus prepared were illuminated by intermittent light

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SOV/181-1-8-7/32

## Production of a Valve Photocell of InSb With Fused n-p Junction

from a projector lamp (340 w) or from a silit resistor heated up to 1000°. The light beam fell upon the photocell on the side of the InSb-Cd (or In) alloy or also from the opposite side. In both cases the alloy of InSb with Cd (or In) became charged positively. The variable signal coming from the photocell was the transmitted to a broad-band amplifier of the 28-IM type. The photocells thus produced have a considerable light sensitivity. The photo-electromotive force depends on crystal surface working and also on fusion method (temperature, duration of fusion). Photocells produced at 330 - 340°C (for Cd) and at 380 - 420°C (for In) and at a fusion time of 5 to 10 minutes were the most sensitive ones. In the case of illumination by means of one of the above light sources, the photo-electromotive force was 50 to 60 mw at 77°K. A graph shows the temperature dependence of the photo-electromotive force for 3 samples with various donor concentrations. The purer the sample the lower the temperature at which the sharp drop of the photo-electromotive force begins. At low illumination intensities, the photo-electromotive force depends linearly on this quantity and tends to saturation in the case of high illumination intensities. The

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Production of a Valve Photocell of InSb With Fused n-p Junction

discussed n-p junctions have a weakly rectifying effect. The voltampere characteristics for two photocells ascertained at the temperature of liquid nitrogen and direct current by means of the probe method are illustrated in a graph. The rectification coefficient is 3 to 4. The authors thank the leader of the laboratory D. N. Nasledov for his interest in the present work and for some useful advice. There are 4 figures and 7 references, 1 of which is Soviet.

ASSOCIATION: Leningradskiy fiziko-tekhnicheskiy institut AN SSSR  
(Leningrad Institute of Physics and Technology of the AS USSR)

SUBMITTED: July 30, 1958

Card 3/3

4 39037-06 INT(L)/INT(M)/T IJP(c) GD-2

ACC NR: AP6018852 SOURCE CODE: UR/0367/65/002/006/1049/1053

AUTHOR: Azimov, S. A.; Beter, Ye. V.; Gulyamov, U. G.; Yeroshkina, N. B.; Levin, A. Ya.

ORG: Institute of Nuclear Physics, AN UzSSR (Institut yadernoy fiziki AN UzSSR)

TITLE: Coherent, inelastic interactions between high-energy pi<sup>+</sup> and pi<sup>-</sup> mesons and heavy nuclei in photoemulsions. This paper was given at the 14th Annual Conference on Nuclear Spectroscopy, Tbilisi, February 1964.

SOURCE: Yadernaya fizika, v. 2, no. 6, 1965, 1049-1053

TOPIC TAGS: pi meson, heavy nucleus, inelastic interaction, pion, nuclear emulsion

ABSTRACT: The characteristics of interactions assumed to be the coherent inelastic reactions  $\pi + A \rightarrow \pi' + \pi'' + A'$  on heavy nuclei in a photoemulsion are investigated for 17.2 GeV/c primary pion momenta. The cross-section of this process is found to be  $5.4 \pm 1.4$  mbn. Compared with the corresponding value for carbon, this indicates a dependence of the cross-section on the atomic number of the type  $A^{1/2}$  or  $A^{2/3}$ . Orig. art. has: 5 figures and 8 formulas. [Based on authors' Eng. abstr.] [JPRS]

SUB CODE: 20 / SUBM DATE: 17Apr65 / ORIG REF: 003 / OTH REF: 012

Card 1/1 45

YEROKHINA, N.K., mladshiy nauchnyy sotrudnik

Using divided charges with air space at the "Lebedi" open pit mine in the Kursk Magnetic Anomaly. Varyv. delo no. 54/11: 244-246 '64. (MIRA 17:9)

1. NIIKMA.

YEROKHINA, N. M., LONZINGER, K. G., BELLINGER, A. I. VOSHCHAKINA, N. V. and SHALIKOVA, N. S.

"Tick Rickettsiosis Foci in Novosibirskaya Oblast," Tracy of Tomsk  
Inst. of Vaccines and Sera, No.7, pp 153-159, found in Medits. Parazitol. i  
Paraziter. Bolez., 3rd quarter, 1956.

SUM: 1391

KOTELYANSKIY, E.O., dotsent; YEROKHINA, N.N., vrach

Clinical aspects and treatment of neoplasms of the limbus and  
cornea. Oft. zhur. 15 no:3:134-138 '60. (MIRA 14:5)

1. Iz Uzhgorodskoy oblastnoy bol'nitsy.  
(EYE--TUMORS)

YEROKHINA, O.

How the costs of grain receiving depots are compensated, Den. 1  
kred. 16 no.5:53 My '58. (MIRA 11:6)

(Grain trade)

YEROKHINA, O.I.

S/136/62/000/004/001/004  
E021/E435

AUTHORS: Berengard, A.S., Vil'komirskiy, I.Ye.,  
Kozhemyakin, V.A., Sedykh, T.S., Yerokhina, O.I.

TITLE: Study of the chlorination of loparite concentrate

PERIODICAL: Tsvetnyye metally, no.4, 1962, 56-61

TEXT: Results are given of investigations carried out to improve the process of chlorination of a loparite concentrate by using the apparatus for "dry" fractional condensation of the volatilizable chlorides. The loparite ore used contained 36.2 to 36.5%  $TiO_2$ , 8.45 to 8.55%  $Nb_2O_5$ , 0.55 to 0.57%  $Ta_2O_5$ , 28.64 to 31.18% total rare earths, 1.5 to 3.04%  $Fe_2O_3$ , 0.87 to 4.76%  $Al_2O_3$ , 2.5 to 5.87%  $SiO_2$ , 9.86%  $Na_2O + K_2O$ , 5.94 to 7.92%  $CaO$ , 0.15% P. A dry method is superior to a wet method because, for separation of the pulp, there is no need to use complex apparatus which has to operate inside aggressive media. The ore is crushed, briquetted with coke and chlorinated. It is shown that for chlorination it is possible to use a chlorine-air mixture containing up to 35% air. This corresponds to the composition of anode chlorine gas. It is

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Study of the chlorination ...

S/136/62/000/004/001/004  
E021/E435

possible to lower the carbon content of the coke briquettes from 18-20 to 12-13% (using concentrated chlorine) which permits reducing the quantity of furnace ash by a factor of about five, increasing the production of the furnace, decreasing the consumption of coke by 30% and increasing the coefficient of utilization of the working space by 6%.  
There are 1 figure and 3 tables.

Card 2/2



BERENGARD, A.S.; VIL'KOMIRSKIY, I.Ye.; KOZHEMYAKIN, V.A.; SEDYKH, T.S.;  
YEROKHINA, O.I.

Investigating the chlorination process of loparite concentrates.  
TSvet. met. 35 no.4:56-61 Ap '62. (MIRA 15:4)  
(Chlorination) (Ioparite)

ACC NR: AT7001920

SOURCE CODE: UR/3010/66/000/017/0055/0058

AUTHOR: Berlyand, O. S.; Yerokhina, R. A.; Kolacheva, Z. A.

ORG: none

TITLE: Exchange of air masses between the stratosphere and troposphere in the Northern Hemisphere

SOURCE: AN SSSR. Mashvedomstvennyy geofizicheskiy komitet. Geofizicheskiy byulleten', no. 17, 1966, 55-58

TOPIC TAGS: atmospheric circulation, stratosphere, troposphere, atmospheric temperature, temperature distribution

ABSTRACT: This article presents the results of an investigation of the mechanism of exchange of air masses between the troposphere and stratosphere for given mean annual zonal distributions of temperature in the 0—16 km layer and the distribution of atmospheric pressure on the Earth's surface by finding a wind velocity field for determining the vertical motion of air masses. It was calculated that during a year an air mass weighing  $3 \cdot 10^{16}$ t, which amounts to 5% of the weight of the entire atmosphere, descends from the tropopause in the 25—35°N zone. The weight of the 10—16-km air layer amounted to approximately 1/6 of the weight of the entire atmosphere. Thus, it is concluded that exchange of the entire air mass between the troposphere and stratosphere occurs within about 3.5 years in the 25—35°N region. Orig. art.

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ACC NR: AT7001920

has: 5 formulas and 3 figures.

SUB CODE: 04/ SUM DATE: none/ ORIG REF: 003/ OTM REF: 001

Card 2/2

AMUCHIN, V.A., red.; BUGAYENKO, P.I., red.; YEROSHINA, N.A., red.;  
KHAKIMOV, V.Z., red.; GEORGIYVA, G.I., red.

[Natural zones and agricultural geography of Soviet Trans-  
carpathia; collection of articles] Prirodnaia sreda i geo-  
grafiia sel'skogo khosiaistva Sovetskogo Zakarpat'ia;  
sbornik statei. Moskva, 1959. 193 p. (MIRA 12:10)  
(Transcarpathia--Physical geography)  
(Transcarpathia--Agriculture)

YEROKHINA, V. G.

AUTHORS: Rogovin, Z. A., Davydov, A. N., Tsarfin, Ya. A. 64-1-4/19  
Morozova, N. V. Yerokhina, V. G.

TITLE: Rapid Method for the Acetylation of Cellulose in a Homogeneous Medium  
(Bystryy metod atsetilirovaniya tsellyulozy v gomogennoy srede)

PERIODICAL: Khimicheskaya Promyshlennost', 1958, Nr 1, pp. 17-20 (USSR).

ABSTRACT: The cellulose acetylations which have hitherto been carried out in plants took from 8 - 12 hours. Therefore it was necessary to find a method of shorter duration. In the present paper a rapid method is suggested which refers among other things to some proposals of Thomas (reference 3) as being superfluous, so e. g. a pretreatment of cellulose with concentrated urea solution. The usual activation with glacial acetic acid at 60°C for 30 minutes is sufficient. Investigations of the influence of the acetylation temperature showed that a temperature of 70°C is not to be surpassed and that with a quantity of 0,3 percentages by weight of sulfuric acid as catalyst at 80°C the triacetylcellulose can be obtained within from 20 - 30 minutes. In order to obtain

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Rapid Method for the Acetylation of Cellulose  
in a Homogeneous Medium

64-1-4/19

triacetylcellulose with sufficiently high molecular weight special attention must be paid to the composition of the mixture to be acetylated. Experimental results show that the decomposition of the obtained acetylcellulose is proportional to the added quantity of acetic acid, on the other hand, however, the procedure becomes too expensive in the case of an increase' addition of acetic anhydride, except the product is isolated in an arid medium so that no hydrolysis of the anhydride can occur. On the strength of various investigations a mixture of 50 - 60% of acetic anhydride and of 50 - 40% of acetic acid was found to be the optimum condition. In investigations of the catalyst quantity and its character it was found that the quantity must be reduced at increased temperature (from 1 - 1.5% to 0,3% in the case of sulfuric acid), aniline sulfate (0,6 percentages by weight) is assumed to be a better catalyst than the ammonium sulfate suggested by Thomas. The investigations are carried on in order to test them in the industrial scale and to obtain a further reduction of the acetic anhydride quantity.

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There are 3 tables, and 3 references, 2 of which are Slavic.

Rapid Method for the Acetylation of Cellulose  
in a Homogeneous Medium

64-1-4/19

ASSOCIATION: Laboratory of the NIIPP at the Chemical Plant, Vladimir  
(Laboratoriya NIIPP na Vladimirsom khimicheskom zavode)

AVAILABLE: Library of Congress.

1. Cellulose-Acetylation

Card 3/3

~~YEROKHINA, V.G.~~; MOROZOVA, N.V.; ROGOVIN, Z.A.

Development of a method for determining the reactivity of cellulose in the process of acetylation. Plast.massy no. 65-66 '60.

(MIRA 13:10)

(Cellulose)

(Acetylation)



SHCHERBAKOV, V.G.; YEROKHINA, V.L.

Effect of a preliminary treatment on the biochemical processes in  
the storage of rice bran. Izv.vys.ucheb.zav.; pishch.tekh. no.5:  
19-23 '63. (MIRA 16:12)

1. Krasnodarskiy politekhnicheskiy institut, kafedra tekhnologii  
zhirov.

ARBUZOV, B.A.; SHAPSHINSKAYA, L.A.; YEROKHINA, V.M.

Interaction of 2,3-dimethylbutadiene with ethylene and propylene  
chlorophosphites. Izv. AN SSSR. Otd.khim.nauk no.11:2074-2076  
N '62. (MIRA 15:12)

1. Kazanskiy gosudarstvennyy universitet im. V.I. Ul'yanova-  
Lenina.

(Butadiene) (Ethylene phosphite)  
(Propylene phosphite)

L 20123-66 ENT(m)/EMP(1) RM

ACC NR: AP6012077

SOURCE CODE: 01/0062/05/000/010/1220/1225

AUTHOR: Arbuzov, B. A.; Shapshinskaya, L. A.; Yerokhina, Y. M. 35  
34  
3

ORG: Kazan' State University im. V. I. Ul'yanov-Lenin (Kazanskiy gosudarstvennyy universitet)

TITLE: Interaction of cyclic chlorophosphites with diene hydrocarbons

SOURCE: AN SSSR. Izvestiya. Seriya khimicheskaya, no. 10, 1965, 1820-1826

TOPIC TAGS: phosphorous compound, chlorine compound, conjugated polyolefin hydrocarbon, chemical reaction

ABSTRACT: The interaction of ring chlorophosphites with conjugated diene systems of both linear and cyclic structure was investigated. The addition of 2,3-butylene- and 3-chloropropylenechlorophosphites to 2,4-hexadiene and alloocimene was accomplished. All of the reactions, take place by the same mechanism and undergo the Arbuzov rearrangement resulting in substituted phospholinoxides. The characteristics of the obtained substituted-3-phospholin-1-oxides are presented.

Such reactive dienes as cyclopentadiene and anthracene do not enter into the diene synthesis with ring chlorophosphites.

The reaction of ring chlorophosphites with acyclic dienes proceeds quite difficultly and does not occur with donor dienes (cyclopentadiene and anthracene). The most reactive ring chlorophosphites in the reactions

Card 1/2

UDC: 542.91+661.718.1

L 20353-66

ACC NR: AP6012077

with dienes are the pyrocatechinchloro(bromo)phosphites which react with divinyl unusually readily at room temperature and without a catalyst. The characteristics of the obtained products are presented. The authors thank I. G. Markovaya for taking the IR-spectra. Orig. art. has: 2 tables. [JPRS]

SUB CODE: 07 / SUBM DATE: 11Jul63 / ORIG REF: 003 / OTH REF: 003

Card 2/2 vmb

YEROKHINA, V.N.; VERNER, D.D.

Potentialtion of hypnic inhibition by means of a small-sized simplified apparatus for electronarcosis. Trudy Gos. nauch.-issl. psikhonevr. inst. no.24,167-172 '61. (MIRA 15:5)

1. 2-oy psikhiatricheskoye otdeleniye i eksperimental'naya gruppa po razrabotke meditsinskogo oborudovaniya Gosudarstvennogo nauchno-issledovatel'skogo psikhonevrologicheskogo instituta imeni Bekhtereva. (ELECTRIC ANESTHESIA)

YEROKHINA, V.N.

Electric sleep therapy in asthenic and depressive states. Vop.  
psikh.i nerv. 8:371-377 '62. (MIRA 17:4)

1. Psikhiatricheskaya klinika (zav. Yu.A.Povorinskij) Leningradskogo  
nauchno-issledovatel'skogo Psikhonevrologicheskogo instituta imeni  
Bekhtereva (dir. - B.A.Lebedev).

S/062/60/000/008/025/033/XX  
B013/B055

AUTHORS: Yershov, N. I., Yerokhina, V. R., and Eydus, Ya. T.

TITLE: Catalytic Isomerization of Cyclopropane in Mixtures With Olefins

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1960, No. 8, pp. 1495-1499

TEXT: In the present paper, the authors studied the effect of admixing cyclopropane to ethylene and propylene on their polymerization over various catalysts. Cyclopropane was prepared by the method described by G. G. Gustavson (Ref. 11). Quantitative determination of the propylene and cyclopropane mixtures was carried out by a method based on the selective absorption of propylene in a KI-Br<sub>2</sub> solution (Ref. 13). The apparatus and

experimental technique was the same as in Ref. 15. The following catalysts were applied: Cobalt on alumina (Ref. 16) (I), silica gel (II), cobalt/silica gel (III), aluminum silicate (IV), and cobalt/aluminum silicate (V). On catalyst (I), neither ethylene nor propylene formed liquid polymerization products at 300°C and below. Addition of cyclopropane (7 - 30%) to

Card 1/3

Catalytic Isomerization of Cyclopropane  
in Mixtures With OlefinsS/062/60/000/008/025/03/XX  
B013/B055

ethylene produced only slight formation of liquid polymerizates. The yield was less than 1% of the initial ethylene and 9 - 13% of the added cyclopropane. The latter was isomerized only up to 20% (Table 1). In experiments with propylene (Table 2), the portion of reacted cyclopropane was lower (5 - 15%). The data listed in the table show that liquid polymerizates are formed in small quantities, or not at all, when cyclopropane is added to ethylene or propylene. The cyclopropane is isomerized only slightly, only up to 20%. In the presence of hydrogen, the yields of liquid hydropolymerizates of ethylene, obtained with and without addition of cyclopropane, did not exceed 4.1% of the initial alkene. The addition of cyclopropane did not affect the yield. 33 - 57% of the cyclopropane entered into reaction, i.e., a much higher percentage than in the absence of hydrogen. No liquid polymerizates were formed in experiments employing catalysts containing silica gel, (II) and (III). Neither propylene polymerization nor cyclopropane isomerization occurred. In tests employing catalysts of propylene polymerization which are based on synthetic aluminum silicate, the cyclopropane in mixture with olefins is isomerized 65 - 100%. It was stated that no final conclusions concerning the polymerizing effect of cyclopropane admixtures could be drawn from the experimental data, since the yields of liquid polymerizates were lower than

Card 2/3

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Catalytic Isomerization of Cyclopropane  
in Mixtures With Olefins

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B013/B055

the amount of reacted cyclopropane. It was, however, possible to determine the activity of the various catalysts. Catalysts containing aluminum silicate were found to be very active in isomerization of cyclopropane in mixtures with ethylene and propylene. Cobalt on alumina was much less efficient. There are 4 tables and 22 references: 12 Soviet, 10 US, 4 British, 7 German, and 1 French.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR  
(Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR) ✓

SUBMITTED: March 9, 1959

Card 3/3

81720  
8/020/60/133/01/30/070  
B011/1003

5.3831  
AUTHORS:

Yershov, N. I., Eydus, Ya. T., Yerokhina, V. P.

TITLE:

Oxygen-initiated Polymerization of Ethylene by Heterogeneous Catalysis in the Presence of Hydrogen

PERIODICAL:

Doklady Akademii nauk SSSR, 1960, Vol. 133, No. 1, pp. 108-111

TEXT: In a preceding investigation (Ref. 1) the authors have found that ethylene is polarized on a Co-clay catalyst during hydrogenation at 100°C. So far, such a polymerization had not been observed if the gas did not contain CO impurities. It was proved that polymerization at 100°C is not initiated by CO but by oxygen. This reaction is reduced by a rise in temperature, and is most vigorous between 100 and 120°C. It is additionally intensified by an increase in the oxygen content up to 2%. It does not take place in the absence of oxygen and hydrogen. In the article under review, the authors report on some results of this new reaction named in the title. The same apparatus and catalyst were used as in Refs 1 and 2. Table 1 lists the experimental results obtained at

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Hydrogen

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a ratio of 1:3.2 between  $C_2H_4$  and  $H_2$ . It may be seen that polymerization yields a gaseous dimer and up to 35% of liquid products (referred to the ethylene used). The waste gas contains 1-1.5% of CO. The authors assume that the said reaction is identical with the hydropolymerization of ethylene under the action of CO (Ref. 2). This was, however, not the case since the reaction did not give the highest yield between 190 and 200°C and was not intensified with rising CO concentration. Table 2 proves that this is the case with  $C_2H_4 : H_2 = 1.1$  and an  $O_2$  content of 2%. At the same time, the ethane yield rises from 45 to 79%. Experimental results obtained at different temperatures, which show the effect of CO addition upon polymerization and hydrogenation, are given in Table 3. The presence of CO and  $H_2O_2$  in the waste gas and the reaction water of several experiments indicate that  $O_2$  added to the reaction mixture reacted vigorously with the main components during the reaction. The authors assume that active surfaces are thus formed, which initiate the polymerization of ethylene. This is proved by the increasing quantity of

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reaction products with rising  $O_2$  content at  $100^\circ C$ . From all this the authors conclude that the reaction named in the title is initiated by  $O_2$ . The polymerization of ethylene in the presence of  $H_2$  is not identical with the hydropolymerization under the action of  $CO$ . There are 1 figure, 3 tables, and 4 references: 3 Soviet and 1 German.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo  
Akademii nauk SSSR (Institute of Organic Chemistry imeni  
N. D. Zelinskiy of the Academy of Sciences, USSR)

PRESENTED: March 10, 1960, by B. A. Kazanskiy, Academician

SUBMITTED: March 8, 1960

4

Card 3/3

YERSHOV, N.I.; EYDUS, Ya.T.; YEROKHINA, V.R.

Catalytic hydrocondensation of carbon monoxide with olefins and the  
hydropolymerization of olefins under the effect of carbon monoxide  
and hydrogen. Report No.32: Conversion of 1-octene. Izv. AN SSSR.  
Otd.khim.nauk no.9:1696-1702 S '61. (MIRA 14:9)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.  
(Carbon monoxide) (Octene) (Hydrogen)

15.8063

28271  
S/062/61/000/010/010/018  
B106/B101

AUTHORS:

Yershov, N. I., Eydus, Ya. T., and Yerokhina, V. R.

TITLE:

Catalytic hydrocondensation of carbon monoxide with olefins and their hydropolymerization under the action of carbon monoxide and hydrogen. Communication 33. Formation of higher hydrocarbons with a number of carbon atoms not being an integral multiple of the initial olefin

PERIODICAL:

Akademiya nauk SSSR. Izvestiya. Otdeleniya khimicheskikh nauk, no. 10, 1961, 1871-1874

TEXT: The catalytic hydropolymerization of olefins under the action of carbon monoxide in the presence of hydrogen and the hydrocondensation of carbon monoxide with olefins yield both real polymers and their hydro-generation products, and a considerable quantity of higher hydrocarbons with a number of carbon atoms not being an integral multiple of the initial olefin. The authors clarified the reasons of formation of these higher hydrocarbons. The yield of these hydrocarbons increases with increasing

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Catalytic hydrocondensation of carbon...

molecular weight of the initial olefin (double bond in 1-position) while the value of the mean multiple  $K_m$  decreases for the whole higher-boiling fraction of the condensate.  $K_m = (\sum \alpha_i n_i) / n$  (2) ( $\alpha_i$  = fraction of the i-th hydrocarbon in the higher-boiling fraction of the condensate;  $n_i$  = number of carbon atoms in the i-th hydrocarbon;  $n$  = number of carbon atoms in the initial olefin). The formation of larger amounts of higher hydrocarbons, the carbon number of which is not an integral multiple of the initial olefin, can be explained neither by hydrocracking of the initial olefin nor by its hydrocondensation with carbon monoxide. Therefore, it is assumed that the formation of the higher hydrocarbons mentioned is due to the cleavage of carbon-carbon bonds during hydropolymerization or hydrocondensation. Radicals are formed which may lead to the formation of higher hydrocarbons with a carbon number not being an integral multiple of the initial olefin. The authors conclude: In catalytic reactions of olefins under the action of carbon monoxide and hydrogen, the hydrocarbon chains grow less by molecular interaction of the initial olefin than by reaction

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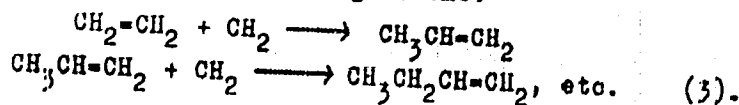
Card 2/4

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Catalytic hydrocondensation of carbon...

of the initial olefin with radicals formed by cleavage of carbon-carbon bonds on the catalyst. Therefore, the higher-boiling reaction products mainly yield hydrocarbons the carbon number of which is not an integral multiple of the initial olefin. Hydrocarbons with fewer carbon atoms than are present in the initial olefin are also formed in small quantity. The cleavage of the C-C bonds is facilitated by plane addition of the absorbed olefin molecule to the catalyst surface and the resulting deformation. This plane absorption only occurs at low carbon monoxide concentrations. At higher concentrations, the carbon monoxide may displace, from the catalyst surface, the carbon atoms of the olefin which do not lie at the double bond. This eliminates the deformation of the olefin molecule. Under such conditions, the hydrocarbon chain may grow without cleavage of carbon-carbon bonds by hydrocondensation of the olefin with the carbon monoxide according to the following scheme:



Thus, the type of adsorption of the olefin molecule and, therefore, also  
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Catalytic hydrocondensation of carbon...

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the direction of the reaction may change as dependent on the content of carbon monoxide and hydrogen in the initial gas mixture and on the capability of the olefin of being adsorbed. These reciprocal transitions of the reactions of olefins under the action of carbon monoxide and hydrogen will be thoroughly studied in the following communication. There are 8 references: 7 Soviet and 1 non-Soviet. The reference to the English-language publication reads as follows: A. W. Fletcher, E. J. Gibson, Radioisotope Conf. II, 41 (1954).

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: April 8, 1961

*A*

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15-8063

28274  
S/062/61/000/010/011/018  
B106/B101

AUTHORS: Eydus, Ya. T., Yershov, N. I., and Yerokhina, V. R.

TITLE: Catalytic hydrocondensation of carbon monoxide with olefins and their hydropolymerization under the action of carbon monoxide and hydrogen. Communication 34. Reciprocal transitions of formation reactions of hydrocarbons from mixtures of ethylene, hydrogen, and carbon monoxide

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 10, 1961, 1874 - 1879

TEXT: It had been assumed previously (Ref. 1: N. I. Yershov, Ya. T. Eydus, Dokl. AN SSSR, 115, 1126 (1957); 119, 1062 (1958)) that one stage of the synthesis of higher hydrocarbons from carbon monoxide and hydrogen is a radically proceeding hydrocondensation of carbon monoxide with olefins. In the subsequent stages of synthesis, this reaction may change into a hydropolymerization of olefins, which constitutes a radical chain reaction. In the present study, the authors considered the possibility of a similar transition of these reactions into each other on Card 1/5

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Catalytic hydrocondensation of...

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a catalyst that is efficient both in the reaction according to Orlov-Fischer-Tropsch, and in hydropolymerization reactions of olefins and their hydrocondensation with carbon monoxide. Such a catalyst was obtained by activating a Co-clay catalyst with addition of 18% ThO<sub>2</sub> (referred to metallic cobalt). A Co-kieselguhr catalyst is also catalytically active in all reactions mentioned. The tests were conducted at 190°C and atmospheric pressure in a flowing system. The volume velocity of the initial gas mixture was close to 100 hr<sup>-1</sup>. Before the tests, the catalyst was reduced with hydrogen at 450°C for 5 hr; the catalyst was regenerated in the same manner. Binary mixtures CO - H<sub>2</sub> (1:2) and ternary mixtures C<sub>2</sub>H<sub>4</sub> - H<sub>2</sub> - CO of different compositions were used as initial mixtures. No liquid hydrocarbons but mainly CH<sub>4</sub>, CO<sub>2</sub>, and H<sub>2</sub>O were formed in the tests with binary mixtures CO - H<sub>2</sub> during the first 5-7 hr of the reaction, immediately after reduction of the catalyst. The same occurred immediately after regeneration of the catalyst. The formation of liquid hydrocarbons only begins after 6-7 hr contact time, their yield grows from

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one regeneration to the other (Fig. 1). Initial mixtures with 7-7.5% CO and with 25-35% CO were used in tests with  $C_2H_4 - H_2 - CO$  mixtures. At lower CO concentrations under otherwise equal conditions, the yield of liquid hydrocarbons was 2-3 times the yield at high CO concentrations. In the presence of small CO amounts the ethylene hydropolymerizes, at higher CO concentrations hydrocondensation with carbon monoxide occurs. Thus, it is possible to attain a transition from one reaction into another, and vice versa, by changing the composition of the initial gas in the presence of the catalyst. A reduction of the  $C_2H_4/H_2$  ratio in the initial mixture favors hydrogenation of ethylene to ethane. It was found that the molar ratios at which CO,  $H_2$ , and  $C_2H_4$  react with formation of liquid hydrocarbons are very similar to the molar ratios of these gases in the initial mixture. Fig. 1 shows that hydropolymerization and hydrocondensation in ternary mixtures also proceed in the first 5-7 hr after reduction or regeneration of the catalyst, and even produce maximum yields of liquid hydrocarbons in the period of regeneration. The synthesis of hydrocarbons from CO and  $H_2$ , however, yields only methane

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at the same stage. This interesting fact may be explained as follows: In the synthesis of hydrocarbons from CO and H<sub>2</sub>, the reduction of carbon monoxide produces radicals which either polymerize (methylene radicals) or condense, e.g., with cleavage of water (hydroxy methylene radicals). During methane formation at the beginning of contact, the interactions of radicals are apparently hindered so that the radicals act on the adjacent particles (hydrogen in binary CO - H<sub>2</sub> mixtures, olefin in ternary olefin - CO - H<sub>2</sub> mixtures). Thus, the same factors that effect methane formation in the synthesis from CO and H<sub>2</sub> favor, in the case of ternary mixtures, the hydropolymerization of olefins under the action of small CO amounts and the hydrocondensation of CO with olefins. In this case, the methylene radicals do not associate but are preserved as reaction centers and reaction initiators with the help of olefins. There are 1 figure, 3 tables, and 10 references: 7 Soviet and 3 non-Soviet. The two references to English-language publications read as follows: E. F. G. Herington, L. A. Woodward, Trans. Faraday Soc. 35, 958 (1939); S. R. Craxford, Trans. Faraday Soc. 35, 947 (1939).

Card 4/5

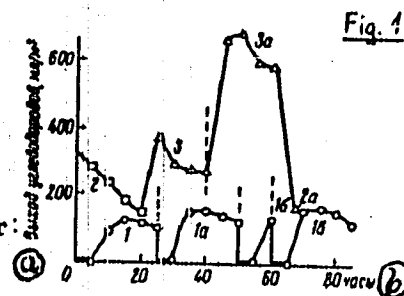
Catalytic hydrocondensation of...

20214 S/062/61/000/010/011/018  
B106/B101

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: April 8, 1961

Fig. 1. Various types of formation reactions of hydrocarbons and their reciprocal transformation. Legend: (a) hydrocarbon yield, ml/m<sup>3</sup>; (b) hours; (1), (1a), (1b), and (1b) synthesis of hydrocarbons from CO and H<sub>2</sub>; (2) and (2a) hydrocondensation of CO with C<sub>2</sub>H<sub>4</sub> (initial mixture contained 25% CO); (3) and (3a) hydrocondensation of C<sub>2</sub>H<sub>4</sub> under the action of CO (initial mixture contained 7-7.5% CO); the vertical broken lines indicate the instant of catalyst regeneration.



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S/062/62/000/005/008/008  
B110/B101

AUTHORS: Yershov, N. I., Eydus, Ya. T., and Yerokhina, V. R.

TITLE: Catalytic hydrocondensation of carbon monoxide with olefins and their hydropolymerization under the action of carbon monoxide and hydrogen. 36. Hydrocondensation and hydropolymerization of olefins on the nickel catalyst

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 5, 1962, 911-916

TEXT: The specific character of the nickel catalyst (as compared with the Co catalyst) was examined, and the hydropolymerization of ethylene, propylene, and butylene under CO action was tentatively performed on it. The catalyst was Ni-Mn-Al<sub>2</sub>O<sub>3</sub> kieselguhr (100:20:10:100). However, the synthesis of liquid hydrocarbons from 1CO+2H<sub>2</sub> (200°C) does not set in until after 20 hrs. The yield first attained 128 ml/m<sup>3</sup>, then 145 ml/m<sup>3</sup>, while that of CO<sub>2</sub> and CH<sub>4</sub> dropped to ~10 and 20-25%. With 15-18% addition of ethylene to 1CO+2H<sub>2</sub>, liquid hydrocarbons formed in the Card 1/4

Catalytic hydrocondensation of carbon ...

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B110/B101

first hours already under ~75% hydrogenation of ethylene. This is brought about (1) by dilution of the initial CO-H<sub>2</sub> mixture with ethylene which, in reducing the reaction rate, also reduces the catalyst heating, and thus inhibits the methane formation; (2) by preferred ethylene adsorption to the most active catalyst centers, at which the methane formation takes place.. Since the hydrocarbon formation from carbon monoxide and hydrogen in the presence of ethylene takes place at the less active catalyst centers, liquid hydrocarbons are immediately formed. Ethylene is most readily hydrogenated on the catalyst: at 100°C, the process was almost as rapid as at 200°C, the yields of gaseous paraffin hydrocarbons being 25-27% at 100°C and 29.4% at 200°C. At 190-200°C on the Ni catalyst, ethylene chiefly reacts with hydrogen, as the latter cannot react with the products of incomplete CO reduction. If, however, this is made possible, ethylene can take part in the synthesis of higher hydrocarbons. Thus, when a binary mixture of 1CO+2H<sub>2</sub> and ethylene was alternately blown through for 3 and 6 min, respectively, the yield of liquid hydrocarbons was 240-260 ml/m<sup>3</sup>. 60-68% of reacting ethylene is

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Catalytic hydrocondensation of carbon ...

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hydrogenated to ethane. When alternately blowing through with propylene (6 min) and  $1\text{CO}+2\text{H}_2$  (3 min), the hydrocarbon yield was raised to 154-172  $\text{ml}/\text{m}^3$ , i. e., it rose by 60-79  $\text{ml}/\text{m}^3$  as compared with the binary mixture. The propylene hydrogenation was relatively poor in this connection (17.5% of initial propylene). When alternately blowing through with butylene (6 min) and  $1\text{CO}+2\text{H}_2$  (3 min), the olefin yield rose to 210  $\text{ml}/\text{m}^3$ , and the yield of gaseous paraffins dropped to 9-10% of initial butylene. When blowing through with ternary mixtures of  $\text{CO}$ ,  $\text{H}_2$ , and olefin (ethylene, propylene, butylene) at  $190^\circ\text{C}$  and an atmospheric pressure with  $\sim 100\text{ hr}^{-1}$  volume rate on the Ni catalyst, the olefin is hydrogenated to the corresponding paraffin. The formation of higher hydrocarbons from  $\text{CO}$  and  $\text{H}_2$  in the presence of ethylene and its homologs takes place at  $190-200^\circ\text{C}$  on the catalyst surface which is free from olefin molecules. This surface is the smaller the higher the olefin concentration in the initial gaseous mixture. This causes the yield of liquid hydrocarbons to decrease on olefin addition. If, however, the olefin reacts with reduction products (methylene and other radicals),

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Catalytic hydrocondensation of carbon ... S/062/62/000/005/008/008  
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hydropolymerization and hydrocondensation prevail over olefin hydrogenation.  
There are 4 tables.

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Akademii nauk SSSR (Institute of Organic Chemistry imeni  
N. D. Zelinskiy of the Academy of Sciences USSR)

SUBMITTED: December 16, 1961..

Card 4/4

EYDUS, Ya.T.; YERSHOV, N.I.; YEROKHINA, V.R.; ANDREYEV, N.S.

Oxygen-initiated heterogeneous catalytic reaction of condensation of olefins in the presence of hydrogen. Part 2: Conversions of ethylene. Kin. i kat. 4 no.3:416-421 My-Je '63.

(MIRA 16:7)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR.  
(Ethylene) (Polymerization)  
(Oxygen)

YERSHOV, N.I.; EYDUS, Ya.T.; YEROKHINA, V.R.; ANTREYEV, N.S.

Oxygen-initiated heterogeneous catalytic reaction of condensation of olefins in the presence of hydrogen. Part 3: Conversions of propylene. Kin. i kat. 4 no.6:829-834 N-D '63. (MIRA 17:1)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR.

YERSHOV, N.I.; EYDUS, Ya.T.; YEROKHINA, V.R.; ANDREYEV, N.S.

Oxygen-initiated heterogeneous catalytic reaction of condensation  
of olefins in the presence of hydrogen. Part 5: Conversion of isobutylene.  
Kin. i kat. 6 no.2:300-30; Mr-Ap '65. (MIRA 18:7)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR.

EYDUS, Ya.T.; YERSHOV, N.I.; YEROKHINA, V.R.; ANDIYEYEV, N.S.

Oxygen-initiated heterogeneous catalytic condensation reaction of  
olefins in the presence of hydrogen. Part 4: 1-Butene conversions.  
Kin. i kat. 5 no.6:1063-1068 N-D '64. (MIRA 18:3)

1. Institut organicheskoy khimii imeni Zelinskogo AN SSSR.

DOBROUSHKIN, D.B.; Prinsipalni uchastkiye: YEROKHINA, Z.A.; OKINEVA, L.A.

Round cross-section ring packings. Kauch. i rez. 24 no. 5:75-30  
My '65. (MIRA 18:7)

1. Sverdlovskiy filial Nauchno-issledovatel'skogo instituta  
rezinovoy promyshlennosti.

BLINOVSKIY, A.A.; BUSLOVA, N.A.; YEROKHOV, N.F.; IVANOV, K.A.; KITAYEVA,  
G.V.; LEYBOSHITS, L.M.; MEDVELEYEV, I.A.; PALLADIYEVA, M.V.;  
PEVZNER, L.M.; PETROVA, Ye.D.; ROGOVSKIY, N.M.; RUDNYI, M.M.;  
SMIRNOV, B.F.; DENISOVA, I.S., red.; RAKOV, S.I., tekhn.red.

[Through our land; tourist sites and itineraries of the Moscow  
Interprovince Tour Administration of the All-Union Central  
Council of Trade Unions] Po rodnoi zemle; turistskie bazy i  
marshruty Moskovskogo meshoblastnogo turistsko-ekskursionnogo  
upravleniia VTsSPS. Moskva, Izd-vo VTsSPS Profizdat, 1959.  
154 p. (MIRA 13:4)

1. Moskovskoye meshoblastnoye turistsko-ekskursionnoye upravleniye  
Vsesoyuznogo tsentral'nogo soveta profsoyuzov (for all, except  
Denisova, Rakov).  
(Tourism) (Steamboat lines)



**YEROKHOV, S.**  
~~XXXXXXXXXXXXXXXXXXXX~~

Flying an An-2 at night. Grashd.av. 13 no.8:13 Ag '56. (MLRA 9:10)

(Instrument flying) (Airplanes)

YEROKHOV, V.F.

Recent data on the composition of products of middle Miocene volcanism  
in Makarov District (Sakhalin). Dokl. AN SSSR 137 no. 3:657-659 Yr  
'61. (MIRA 14:2)

1. Sakhalinskiy kompleksnyy nauchno-issledovatel'skiy institut Sibirskogo  
otdeleniya AN SSSR. Predstavleno akademikom V.S. Sobolevym.  
(Makarov District (Sakhalin)—Rocks, Igneous)

YEROKHOV, V.S.

Some problems of planning design operations, capital investments,  
and the organization of customers' capital construction divisions.  
Trudy MIEI no.153446-448 '61. (MIRA 14:12)

1. Nachal'nik otdela kapital'nogo stroitel'stva Zaporozhskogo  
sovmarkhoza.

(Zaporozh'ye--Construction industry)

GENBOM, B.B., kand.tekhn.nauk; YEROKHOV, Yu.D.; DEM'YANYUK, V.A.

Determining the time and path for motor-vehicle passing. *Avt.prom.*  
31 no.7:11-13 JI '65. (MIRA 18:8)

1. L'vovskiy politekhnicheskij institu'.

YEROKHOVETS, I

2-58-5-11/17

**AUTHORS:** Yerokhovets, I., Chairman and Serebrennikov, I., Rayon Inspector

**TITLE:** On the Importance of Centralizing the Registration and Statistics at the District Inspectorate of TsSU USSR (O znachenii tsentralizatsii ucheta i statistiki v rayonnoy inspekture TsSU SSSR)

**PERIODICAL:** Vestnik Statistiki, 1958, Nr 5, pp 76 - 77 (USSR)

**ABSTRACT:** Information is presented on the activities of the TsSU USSR District Inspectorate of the Altay kray, where the centralization of statistics on agriculture, national education, public health and culture was brought about in 1957. The authors state that this new organization has proved satisfactory, although there are still some difficulties to be overcome.

**ASSOCIATION:** Kamenskiy rayispolkom Altayskogo kraja (Kamenskiy rayispolkom of the Altayskiy kray)

**AVAILABLE:** Library of Congress  
Card 1/1

YEROKIN, P.

Following the example of Valentina Gaganova. Muz.-elev. prom. 25  
no.11:3 N '59 (MIRA 13:3)

1. Balashovskiy mel'nichnyy kombinat.  
(Shchegol'kova, Nina Dmitrievna)

BAGREYEV, Vladimir Vladimirovich; VINOKUROV, Anatoliy Ivanovich;  
KISELEV, Vyacheslav Aleksandrovich; PANICH, Boris  
Bentsionovich; ITSKOVICH, Georgiy Mikhaylovich;  
KONDRASHOV, D.A., inzh., retsenzent; RUBEASHIN, A.G.,  
inzh., retsenzent; ARKUSHA, A.I., nauchn. red.; KOZINTSOV,  
B.S., nauchn. red.; VASIL'YEVA, N.N., red.; YEROMITSKAYA,  
Ye.Ye., red.; SHAURAK, Ye.N., red.; KRYAKOVA, D.N., tekhn.

[Collection of problems in technical mechanics] Sbornik zadach po tekhnicheskoi mekhanike [By] V.V.Bagreev i dr. Leningrad, Sudpromgiz, 1963. 551 p. (MIRA 16:8)  
(Mechanical engineering--Problems, exercises, etc.)

KASHANSKIY, Mikhail Stanislavovich; PINSKIY, Iosif Yevseyevich;  
SOKOLOV, Nikolay Vladimirovich; ALEKSEYEV, F.M., inzh.,  
retsenzent; KLIN, S.V., inzh., retsenzent; YEROMITSKAYA,  
Ye.Ye., red.

[Standardization and technology of the manufacture of  
marine pipe fittings] Tipizatsiia i tekhnologiya izgo-  
tovleniia sudovoi armatury. Leningrad, Sudostroenie,  
1964. 317 p. (MIRA 18:2)



SHEVANDIN, Yevgeniy Mikhaylovich [deceased]; RAZOV, Igor'  
Aleksandrovich; BYTENSKIY, I.A., kand. tekhn. nauk  
nauchn. red.; NEBYLOV, V.M., kand. tekhn. nauk,  
retsensent; YEROMITSKAYA, Ye.Ye., red.

[Cold brittleness and plasticity limit of metals in ship-  
building] Khladnolomkost' i predel'naia plastichnost' me-  
tallov v sudostroenii. Leningrad, Sudostroenie, 1965.  
335 p. (MIRA 19:1)

YER'OMINA, Z.I. [Yer'omina, Z.I.]; GUREVICH, V.G. [Hurevych, V.H.]

Using vanadometry to determine organic pharmaceutical preparations.  
Farmatsev. zhur. 16 no.1:13-18 '61. (MIRA 17:8)

1. Kafedra analiticheskoy khimii Khar'kovskogo farmatsevti-  
cheskogo instituta.

YEROMITSKIY, O. [Yeromits'kiy, O.]

Ion exchangers, the catchers of admixtures. Znan. ta pratsia  
no.6:12-13 Je '60. (MIRA 13:8)

(Ion exchange)

YEROMITSKIY, O. [I'romyts'kiy, O.]

"Nitron." Iznan ta proteia no.9:12-13 S '60. (MIRA 13:9)  
(Textile fabrics, Synthetic)

YEROMITSKIY, O. [Yeromyts'kiy, O.]

Story about "sital." Znan. ta pratsia no.10:22-23 O '61.  
(MIRA 14:8)

(Glass manufacture)

GRIGOR'YEV, Lev Yakovlevich; ASTRATOV, N.A., kand. tekhn. nauk,  
retsenzent; MARTOV, I.M., kand. tekhn. nauk, nauchn.  
red.; YEROMITSKAYA, Ye.Ye., red.

[Ship vessels operating under pressure; determination  
of stresses and deformations] Sudovye sosudy, rabotaiushchie  
pod davleniem; opredelenie napriazhenii i deformatsii. Le-  
ningrad, Sudostroenie, 1965. 194 p. (MIRA 18:6)

PAPIR, Abram Nutovich; PEVZNER, B.M., retsenzent; YEROMITSKAYA,  
Ye.Ye., red.

[Axial-flow pumps for water-jet propellers] Osевые насосы  
vodometnykh dvizhitelei; osnovy teorii i rascheta. Lenin-  
grad, Sudostroenie, 1965. 250 p. (MIRA 18:6)

KOKICHEV, Valentin Nikolayevich; KOZLOV, F.V., retsenzent;  
YER(MITSKAYA, Ye.Ye., red.

[Noncircular joints in marine engineering] Nekruglye  
soedineniia v sudovom mashinostroenii. Leningrad, Sudo-  
stroenie, 1965. 116 p. (MIRA 18:5)



I 31003-66 FBD/EWT(1)/EWP(e)/EWT(m)/BEC(k)-2/T/EWF(k)/EWA(b) IJP(c)  
ACC NR: AF6007801 WG/WH SOURCE CODE: UR/0185/66/011/002/0217/0218

AUTHOR: Starunov, M. H.; Yer'omka, V. D.; Bonchkovs'kyi, V. Y.

ORG: Institute of Radiophysics and Electronics, AN UkrSSR, Khar'kov (Instytut radiofizyky i elektroniky AN URSSR)

TITLE: Laser with maximum Q switching

SOURCE: Ukrayins'kyi fizychnyy zhurnal, v. 11, no. 2, 1966, 217-218

TOPIC TAGS: laser optics, laser modulation, resonator, laser r and d, Q switching

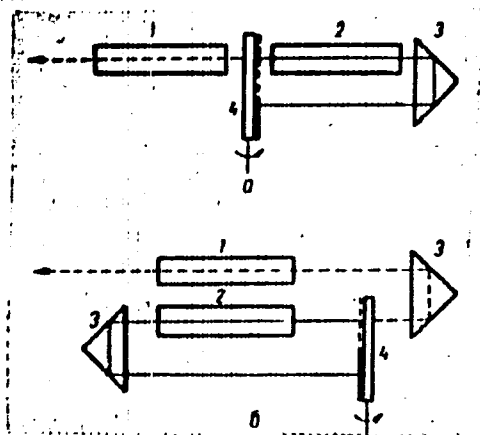
ABSTRACT: Whereas in earlier experiments Q switching was usually effected by interrupting the coupling between the active rod and only one resonator mirror, the authors investigated the properties of a laser in which the coupling with both mirrors is interrupted. An estimate shows that the gain can be increased in this case to almost the theoretical 50%. Two variants of such a laser were tested (Fig. 1). Two ruby crystals each 24 cm long and 1.25 cm in diameter were used. One crystal operated in the Q-switching mode. The ends of the crystals and the hypotenuse faces of the total-reflection prisms were coated with MgF<sub>2</sub> and CaF<sub>2</sub> films, respectively. The resonator comprised alternating dielectric coatings of CaF<sub>2</sub> and ZnS (2 and 14 layers) on plate glass and the prism. The plate was rotated at 12,000 rpm. The pump illumination came from two IFF-15000 and four IFF-5000 lamps and was suffi-

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ACC NR: AP6007801

Fig. 1. Diagram of laser resonator in which the coupling between the active rod and both reflectors is interrupted. 1, 2 -- Ruby crystal, 3 -- internal-reflection prism, 4 -- plane-parallel glass plate with two dielectric coatings.



cient to cause lasing without mirrors of one crystal, by reflection from the free ends, or else of two crystals with bleached ends. In the case of a two-layer coating on the semitransparent mirror, the output energy was somewhat larger than 5 j and 30% more than in the case of a free plate. Under certain conditions, an energy of 11 j was obtained in variant a, as a result of the fact that the reso-

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ACC NR: AF6007801

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nator was Q-switched twice during the pump pulse. The focused giant pulse produced breakdown in air. The laser pulse repetition frequency was 0.1 cps. Orig. art. has: 1 figure and 1 formula. [02]

SUB CODE: 20/ SUBM DATE: 10Aug65/ ORIG REF: 005/ OTH REF: 002  
ATD PRESS: 4214

Card 3/3 LC

BODULIN, V.P., prof.; SHKLYAREVSKAYA, Ye.V., kand. med. nauk; YEROMYSH'YAN,  
G.A., student.

Topical diagnosis of pulmonary echinococcosis. Uch. zap. Stavr.  
gos. med. inst. 8:177-187 '63 (MIRA 17:7)

1. Kafedra obshchey khirurgii (zav. - prof. V.F. Bodulin) Stav-  
ropol'skogo meditsinskogo instituta (rektor zaslužhennyy deya-  
tel' nauki, prof. V.G. Budylin).

KOLPAKOV, L.G.; SAFRONOV, V.Ya.; LOPATIN, G.K.; FEDOROV, T.A.; YERONEN, V.I.

Possibility of using glandless pumps for pipelines. Trudy NIITrans-  
neft' no.3:107-113 '64. (MIRA 18:2)

SOCHILIN, B.G.; BLYUKHMAN, L.S.; YEROMENKOVA, Ye.I.; AZAROV, E.K.,  
red.; ~~SHERMUSHENKO, T.A.~~, tekhn.red.

[Transition of Leningrad enterprises to a shorter workday]  
Opyt perekhoda leningradskikh predpriatii na sokrashchennyi  
rabochii den'. Leningrad, Lenisdat, 1960. 69 p. (MIRA 13:?)  
(Leningrad--Hours of labor)

YERONENKOV, Ye.I.

Increasing the engineering standards, quality, reliability  
and durability of manufactured articles. *Bizn.tekh.-ekon.*  
*inform.Gos.nauch.-issl.inst.nauch.i tekhn.inform. no.8:62-*  
64 Ag '65. (MIRA 18:12)

YEROMENKOVA, Yelena Ivanovna; TSAPKIN, N.V., red.; TIMHIKOVA, I.M.,  
tekh.red.

[What is production cost] Chto takoe sestroimost' produktii.  
Leningrad, Lenizdat, 1960. 41 p.

(MIRA 14:5)

(Costs, Industrial)



YERONIN, F.T.

KALMYKOV, P.Ye.; YERONIN, F.T., Leningrad

Physiological standards of water consumption during considerable exposure to heat. *Fisiol. zhur.* 41 no.4:547-553 J1-Ag '55.

(WATER,  
requirement, eff. of heat)

(MIRA 8:10)

(HEAT, effects,  
on water requirements)

YERONIN, F.T., mayor med.slushby, kand.med.nauk

Improving conditions for working in protective (rubberised) clothing  
in hot weather. Voen.-med.zhur. no.8:74-75 Ag '56 (MIRA 12:1)  
(PROTECTIVE CLOTHING)  
(HEAT---PHYSIOLOGICAL EFFECT)

YERONIN, F.T., kand.med.nauk

Water intake during work under high air temperatures and restoration  
of body weight at different water rations. Med. zhur. Uzb. no.12:  
41-43 D '61. (MIRA 15:2)

1. Iz kafedry obshchey i voyennoy gigiyeny Voenno-meditsinskoy  
akademii imeni S.M.Kirova.

(DRINKING WATER) (THIRST)  
(BODY WEIGHT)

YERONIN, N., polkovnik

Weapons and tactics of the platoon in the United States Army.  
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(United States--Army)

YERONIN, P.

POPOV, Dmitriy Ivanovich; YERONIN, P., redaktor; DANILINA, A., tekhnicheskiy redaktor.

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(Finland)

YERONIN, V. A.

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7,  
p 250 (USSR) 15-57-7-10346

AUTHORS: Snarskiy, A. N., Loginov, B. G., Yeronin, V. A.,  
Shchelkachev, V. N.

TITLE: Results of Heat Application (Vystupleniya v preniyakh)

PERIODICAL: V sb: Metody uvelicheniya nefteotdachi plastov.  
Moscow, Gostoptekhizdat, 1955, pp 107-113

ABSTRACT: Bibliographic entry  
Card 1/1

YERONIN, V.A.; MAL'TSEV, M.V.; VAKHITOV, G.G.; SULTANOV, S.A.

Introducing new machinery and methods in the exploitation of  
Tatar oil fields. Neft. Khov. 35 no.10:24-31 0 "57. (MIRA 11:1)  
(Tatar A.S.S.R.--Petroleum engineering)

Skv/93-58-7-7/17

**AUTHOR:** Vakhitov, G.G.; Yercin, V.A.; Mal'tsev, M.V.; Cholovskiy, I.P.

**TITLE:** Present State and Future Development of the Romashkino Oilfield in the Tatar ASSR (Tekushcheye sostoyaniye i zadachi dal'neyshey razrabotki Romashkinskogo mestorozhdeniya Tatarskoy ASSR)

**PERIODICAL:** Neftyanoye khozyaystvo, 1958,<sup>36</sup> Nr 7, pp. 31-37 (USSR)

**ABSTRACT:** The Romashkino oilfield of the Tatar ASSR was discovered in July 1949. At this field the oil of commercial value is in the oil-bearing sands of the D<sub>III</sub>, D<sub>II</sub>, D<sub>I</sub>, and D<sub>0</sub> (the Mikhaylovskiy) Devonian formations, as well as in the oil-bearing sands of the carbonaceous formation of Lower carbon. The D<sub>I</sub> formation is the most important and it has been arbitrarily subdivided into five layers: a, b, c, d, and e. The d and e layers have better porosity and permeability, and greater oil capacity. Fig. 1 presents the geological profile of the Romashkino oilfield, which is being developed according to a VNII scheme. This scheme provides for the maintenance of reservoir pressure by means of water injection and this makes it possible to artificially separate the oilfield into 23 reservoirs and to exploit the five layers of the D<sub>I</sub> formation jointly. Currently only seven of the 23 reservoirs are being commercially exploited. These are the Mikhaylovskaya, Abdrahmanova, Pavlovskaya, Vostochno-Sukhoyevskaya, Zelenogorskaya, Yuzhno-Romashinskaya, and the Al'met'yev oil reservoirs presented in Fig. 2. The Al'met'yev, Aznakayevo, and Bugil'na oilfield administrations are in charge of the seven oil reservoirs. Table 1 presents data on

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Present State and Future Development of (Cont.)

Sov/93-58-7-7/17

well spacing at the oilfield. The high operating pressure on the injection lines has made it possible to increase the volume of water injection (Ref.1). Shifts in the oil-bearing contours were determined by a 1957 TatNII study using isobar maps (Ref.2). The oil yield was increased by fracturing the formation (Ref.3). By April 1958 about 127 wells were being exploited either by EPN or SKN-5 pumps. The authors make seven suggestions for the improvement of the Romashkino oilfield exploitation. There are 2 figures, 1 table, and 3 Soviet references.

Card 2/2 1. Petroleum--USSR

S/092/60/000/005/002/002  
A051/A026

**AUTHOR:** Yeronin, V.A.:  
**TITLE:** The Tartar Scientific Research Institute for Petroleum  
**PERIODICAL:** Neftyanik, 1960, No. 5, pp. 27 - 28

**TEXT:** A new method used in the Tartar Republic in oil drilling is the maintenance of strata pressure by pumping water into promising drilling levels. The discovery of new oil fields was based on research work done by the All-Union Scientific Research Institute of Petroleum and Gas, (VNII); however, a local center for promoting this work in Tartar SSR was considered necessary and has been growing steadily since 1956, developing into a scientific-technical organization. Early in 1960, as many as 200 specialists with higher education were employed at the institute, 16 candidates of science and one professor. As many as 25 scientific research laboratories have been organized, where 32 subjects were dealt with only during 1959. The VNII was responsible for developing the first 6 drilling sites, but the other projects numbering more than 15, were designed by the local institute of TatNII. New oil fields have been discovered on the territory of Tartar SSR in the last few years, and the institute has already prepared plans for their development. Special attention is devoted by the institute to the problem of further  
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A051/A026

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study of the Romashkinskiy oil fields, introducing new pressure wells, the hydro-explosion of strata and maximum oil yield from the strata under conditions of contour and internal-contour water pumping. The department for drilling laboratories has completed research work on the following subjects: increasing the effectiveness of the fight against absorption of irrigating liquids under conditions encountered in the Romashkinskiy oil deposits; the composition and technique of preparing high-viscose plugging liquids, it was recommended that local materials be used as inert fillers for plugging cements. Suggestions were made for improving the prospecting of promising strata and cementing of casing columns under conditions encountered in Tartar SSR. A summary of experiences was made of drilling oil-wells, having a smaller diameter. The laboratories of the oil field department are studying working parameters of the gusher elevator, they are improving the fight against paraffin deposits, they are working on analysis and improvement of active de-emulsifying apparatus, on testing new types of de-emulsifiers. A number of designs have been drawn up for simultaneous individual oil selection and that of water in the well, located in the water-oil zone. Several instruments with local automation have been produced, the designing of a bellows-sealed automatic relay, tested in the

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AO51/A026

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oil field, has been completed to be used for pumping procedures, using limited-level transmitters; an instrument for recording the dehydration of oil, during the movement of the liquid along the pipes; a consumption-meter, for determining the acceptability of each stratum, especially when water is pumped into the pressure wells; temperature-determining device in an active gusher well, based on electronics and semiconductors. In 1959, departments for oil refining and gas were established, participating in the formation of a Tartar oil-refining base. The institute is said to be located directly on the site of the oil wells, thus facilitating production and attracting oil specialists to scientific research work. ✓

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