

SHERSTNEV, K.M.; GUSEVA, I.S., hand.med.nauk

Distribution of cardiovascular diseases in the Ukrainian S.S.R.  
Mat.po obm.nauch.inform. no.2:173-176 '58. (MIRA 13:6)

1. Iz organizatsionno-metodicheskogo otdela (sav. - K.M. Sherst-  
nev) Ukrainskogo nauchno-issledovatel'skogo instituta klinicheskoy  
meditsiny, Kiyev.

(UKRAINE--CARDIOVASCULAR SYSTEM--DISEASES)

SHERSTNEV, K.M.; GUSEVA, I.S., kand.med.nauk (Kiyev)

Study of the incidence of cardiovascular diseases and rheumatic fever in the urban population of Khmel'nitskiy Province in the Ukraine in 1956. Vrach.delo no.12:1313-1317 D '59. (MIRA 13:5)

1. Ukrainskiy nauchno-issledovatel'skiy institut klinicheskoy meditsiny im. akad. N.G. Strazhesko.  
(KHMEL'NITSKIY PROVINCE (UKRAINE)--CARDIOVASCULAR SYSTEM--DISEASES)  
(KHMEL'NITSKIY PROVINCE (UKRAINE)--RHEUMATIC FEVER)

GUSEVA, I.S., kand.med.nauk (Kiyev)

Study of the contingents of patients in an urban medical center.  
Sov.zdrav. 19 no.2:36-38 '60. (MIRA 13:5)  
(DISEASES--REPORTING)

L 62694-65 EWT(m)/EPF(c)/EWP(j)/EWA(c) RM

ACCESSION NR: AP5018748

UR/0020/65/163/002/0390/0393

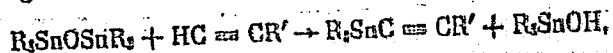
AUTHOR: Shostakovskiy, M. F. <sup>55</sup> (Corresponding member AN SSSR); Komarov, N. V.;  
Guseva, I. S.; Misyunas, V. K. <sup>55</sup>; Sklyanova, A. M.; Burnashova, T. D. <sup>55</sup>

TITLE: Reactions of acetylenes <sup>55</sup> with hexaalkyldistannoxanes <sup>1</sup>

SOURCE: AN SSSR. Doklady, v. 163, no. 2, 1965, 390-393

TOPIC TAGS: organotin compound, acetylenic compound

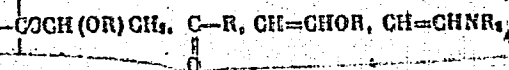
ABSTRACT: It was found that hexaalkyldistannoxanes, in contrast to the corresponding organic and organosilicon analogs, readily react with acetylenic compounds containing an active hydrogen atom to form acetylenic stannanes and stannanols:



R-CH<sub>3</sub>, C<sub>2</sub>H<sub>5</sub>, C<sub>6</sub>H<sub>5</sub>, C<sub>6</sub>H<sub>13</sub> etc.

R' is H, Na,

CH=CH<sub>2</sub>, C≡CH, (CH<sub>2</sub>)<sub>2</sub>C, (CH<sub>2</sub>)<sub>3</sub>Si, C<sub>6</sub>H<sub>5</sub>, -COH,



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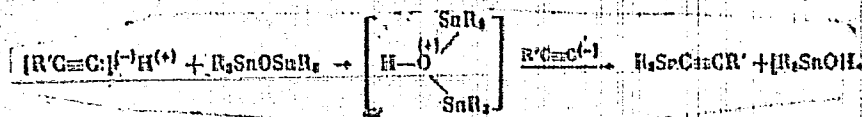
L 62694-65

ACCESSION NR: AP5018748

The reaction is autocatalytic. In addition, the reaction can be caused to take the following course in the presence of excess acetylenic component:



The associated side reactions are described. The mechanism of the reaction studied involves an electrophilic proton attack of the oxygen atom and interaction with the acetylenic anion:



The physicochemical constants of the synthesized compounds are tabulated. The procedures followed in the preparation of trimethylethynylstannane, bis (tri-p-propylstannyl)acetylene, triethylstannyldiacetylene, and triethylstannylethynylvinyl-diethylamine, and in the reaction of hexaethyldistannoxane with triethylethynylstannane and of the latter with triethylstannanol are described. Orig. art. has: 1 table and 10 formulas.

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L. 62691-65

ACCESSION NR: AP5018748

ASSOCIATION: Irkutskiy institut organicheskoy khimii Sibirskogo otdeleniya Akademii nauk SSSR (Irkutsk Institute of Organic Chemistry, Siberian Branch, Academy of Sciences SSSR)

SUBMITTED: 06Jan65 ENCL: 00 SUB CODE: OC

NO REF SOV: 009 OTHER: 000

Card 3/3

L 7896-66 EWT(m)/EPF(c)/EWP(j)/T/EWP(t)/EWP(b)/EWA(c) IJP(c)/RPL  
 ACC NR: AP5024968 JD/WW/RM SOURCE CODE: UR/0286/65/000/016/0032/0032  
 AUTHORS: Komarov, N. V.; Shostakovskiy, M. F.; Guseva, I. S.; Misyunas, V. K.

ORG: none

TITLE: Method for obtaining monosubstituted tin acetylenes. Class 12, No. 173758

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 16, 1965, 32

TOPIC TAGS: acetylene, tin compound, organotin compound, organic oxide

ABSTRACT: This Author Certificate presents a method for obtaining monosubstituted tin acetylenes. Organic bisstannic oxides are reacted with acetylene under pressure to 10-11.5 atm at room temperature.

SUB CODE: GC, OC/ SUBM DATE: 25Mar63

nw

Card 1/1

UDC: 547.314.2'13'181.1.07

SHOSTAKOVSKIY, M.F.; KOMAROV, N.V.; GUSEVA, I.S.; MISTUNAS, V.K.

Interaction between stannanols and acetylenes. Dokl. AN SSSR 158  
no.4:918-921 0 '64. (MIRA 17:11)

1. Irkutskiy institut organicheskoy khimii Sibirskogo otdeleniya  
AN SSSR. 2. Chlen-korrespondent AN SSSR (for Shostakovskiy).



151177

USSR/Biology - Fish, Diseases of May/June 49

Zoology

"Problem of the Perishing of Sturgeon in the Volga,"  
I. V. Gusev, Lab of Fish Diseases, All-Union Sci  
Res Inst of Fishing Econ, 2 pp

"Zool Zhur" No 3

Discusses various attempts to discover the reason  
for sturgeon perishing in the Volga. Tabulates  
data on fish examined in 1947, all of which were  
9 or more years old. Notes no harmful physiologi-  
cal, bacteriological, or parasitological conditions  
among these fish. Unfavorable hydrometeorological  
conditions during 1945 spawning season may have had

151177

USSR/Biology - Fish, Diseases of May/June 49  
(Contd)

some bearing on it. Dir, All-Union Sci Res  
Inst of Fishing Econ: V. A. Dogel'.

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CA

Effect of ammonia in the incoming gas on the catalytic hydrogenation of carbon monoxide to higher hydrocarbons. Ya. T. Eklus and I. V. Guseva (Acad. Sci. U.S.S.R., Moscow). *Izv. Akad. Nauk, Otdel. Khim. Nauk* 1950, 287-91. — In 5-hr. runs with a mix. 1CO:2H<sub>2</sub> flowing at 80-90 l./l. catalyst/hr. at 190° under atm. pressure, over a Co catalyst (5 g. metal over 35 cm.), addn. of NH<sub>3</sub> resulted in marked decrease of the yield of higher hydrocarbons, without any increase of the amt. of CH<sub>4</sub>; the percentage of CO reacted is decreased in the same degree as the yield of hydrocarbons. A ppt. of (NH<sub>4</sub>)<sub>2</sub>CO<sub>3</sub> is formed at the end of the reactor. The effect of NH<sub>3</sub> is reversible, i.e. as soon as the NH<sub>3</sub> is shut off, the yield reverts to its original high level. Judging by the absence of MeNH<sub>2</sub> (also of Me<sub>2</sub>NH, Me<sub>3</sub>N, and CO(NH<sub>2</sub>)<sub>2</sub>) in the products, the inhibition by NH<sub>3</sub> is not due to a reaction NH<sub>2</sub> + CH<sub>3</sub> → MeNH<sub>2</sub>. The formation of (NH<sub>4</sub>)<sub>2</sub>CO<sub>3</sub> can be attributed only to enhanced occurrence of the reaction CO + H<sub>2</sub>O → CO<sub>2</sub> + H<sub>2</sub>, with CO<sub>2</sub> reacting further with NH<sub>3</sub>; in the absence of NH<sub>3</sub>, that reaction ordinarily comes to a halt as soon as the catalyst is formed, but not with NH<sub>3</sub> present.

N. Thon

OUS WA, I, V.

Chemical Abst.  
Vol. 48 No. 9  
May 10, 1954  
Organic Chemistry

7  
© Chem  
Catalytic hydrocondensation of carbon monoxide with  
olefins. IX. Reaction of methyl and ethyl alcohol with  
ethylene. I. A. T. Ekdus and A. V. Guseva. *Bull. Acad.  
Sci. U.S.S.R., Div. Chem. Sci.* 1952, 939-44 (Engl. transla-  
tion).—See *C.A.* 48, 1938a. H. L. H.

GUSEVA I.V.

USSR

Catalytic hydrocondensation of carbon monoxide with olefins.  
XII. Hydrocondensation of carbon monoxide with hex-1-ene.

Ya. T. Eidus, N. K. Yerashov, and Ye. M. Terent'eva. XIII. Effects of varying the ratio of ethylene to hydrogen in the initial gas, of dilution with nitrogen, and of varying the rate of flow on hydrocondensation of carbon monoxide with ethylene. Ya. T. Eidus, K. V. Puzitskii, and I. V. Guseva (*Izvestia Akad. Nauk SSSR, Otdel. Khim. Nauk*, 1934, 883-889, 890-897).—XII. The main product obtained when 1 : 3 hex-1-ene- $H_2$  mixtures are passed over an unspecified catalyst at 190° is  $n-C_6H_{14}$  (71% yield), with about 9% of higher b.p. hydrocarbons (C<sub>7</sub> or more). Mixtures containing hex-1-ene 55-61, CO 4-6-7, and  $H_2$  34-38% give 38-40% yields of higher hydrocarbons, and only 35-36% yields of  $n-C_6H_{14}$ .

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4

XIII. The highest yields of oils from  $C_2H_4$ -CO- $H_2$  mixtures containing 3-6% of CO are obtained with 3 vol. of  $C_2H_4$  to 1 vol. of  $H_2$ ; the content of unsaturated hydrocarbons in the gasoline fraction rises steeply as the  $C_2H_4$  :  $H_2$  ratio rises from 1 to 3. The overall yield of oils falls with increasing dilution with  $N_2$ , from 4-6 to 71%; the yield of heavy oil is const. over this range, of light oil rises, and of gasoline falls, as the  $N_2$  content rises from 5 to 35%. The yields calculated as ml. of oil per cu. m. of gas are unaffected, and calculated as ml./l./hr. rise linearly when the rate of flow of the gas is increased.

R. TATSCOR.

GUSEVA, I.V.

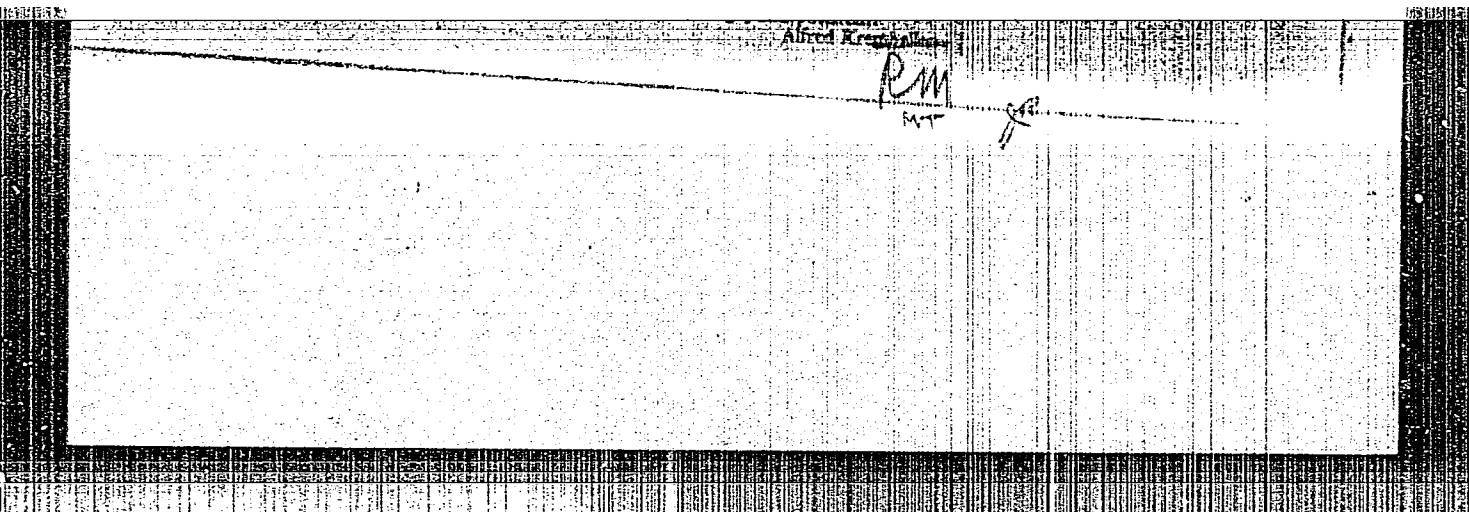
Adsorption of aliphatic alcohols. I. Adsorption on the mercury electrode. I. K. ... and I. V. Guseva. *Vestnik Leningrad. Univ.* 11, No. 23, Ser. *Phys. Chem.*, 123-34 (1956); cf. *C.A.* 49, 11469a. — The min. capacity of the Hg electrode decreased with increasing concn. of EtOH in 2*N* H<sub>2</sub>SO<sub>4</sub>. With solns. of H<sub>2</sub>SO<sub>4</sub> in alic. from Et to nonyl, the capacity decreased with increasing length of C chain. The fraction of the Hg surface covered by alic. moles. in 10<sup>-4</sup>M solns. of the alic. decreased slightly from Et (0.287) to Bu (0.250) and then increased rapidly to nonyl (0.324). The height and the potential of the peak of desorption also showed ssa. at BuOH.

There was an analogy to Traube's rule in the behavior of the alic. from Bu to nonyl. Adhesion detd. the surface concn. of the more sol. alic., but specific adsorption detd. that of AmOH and those less sol. than it. H overvoltage was lowered by EtOH, raised slightly by PrOH, and not affected by higher alic. Since the cathode potential, 1.294 v., was above that for complete desorption, the effects of EtOH and PrOH on overvoltage were probably due to solvation effects.

I. D. Porter.

GUSEVA, I. V.

Adsorption of aliphatic alcohols. II Adsorption on  
No. 1, Ser. Fiz. i Khim. No. 1, 127-33 (1957); cf. C.F. 51  
93701.—The adsorption properties of aliphatic alcohols (series  
from  $\text{EtOH}$  to  $\text{C}_{12}\text{H}_{25}\text{OH}$ ) were studied in a wide concentration range  
(10 to 10<sup>-4</sup> M) by investigating their adsorption on the str.



Q. 007 YA, I, V.

KHEYFETS, V.L.; KRASIKOV, B.S.; SYSOYEVA, V.V.; GUSEVA, I.V.

Investigating the adsorption of aliphatic alcohols. Part 3: Adsorption at the passage from aqueous solutions to alcohol solutions [with summary in English]. Vest. IGU 12 no.22:148-151 '57. (MIRA 11:2)  
(Adsorption) (Aliphatic compounds)



5 (3)

AUTHORS:

Eydus, Ya. T., Yershov, N. I.,  
Gusova, L. V.

SOV/62-59-9-20/42

TITLE:

On the Catalytic Hydrocondensation of Carbon Monoxide With Olefines. Communication 23. On the Hydrocondensation of Carbon Monoxide With Ethylene on Fe- and Ni-Catalysts

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 6, pp 1465-1470 (USSR)

ABSTRACT:

In the present paper an investigation is made of the possibility of polymerizing and copolymerizing ethylene and of hydrocondensating it with carbon monoxide on Ni- and Fe-Cu contacts as well as of the synthesis of hydrocarbons from CO and H<sub>2</sub>. For the investigation the contacts Fe-Cu-ThO<sub>2</sub>-K<sub>2</sub>CO<sub>3</sub> marschalite (100:25:2:2:125), described in reference 4, and Ni-Mn-Al<sub>2</sub>O<sub>3</sub> Kisatibi diatomite (100:20:10:100) (Ref 5), with minor changes, were used. Experiments on the Fe-contact were carried out at 250°, on the Ni-contact at 180°. Table 5 gives the results of the polymerization of C<sub>2</sub>H<sub>4</sub> on the Fe-contact. This contact is active for the synthesis of hydrocarbons from CO and H<sub>2</sub> but

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On the Catalytic Hydrocondensation of Carbon  
Monoxide With Olefines. Communication 23. On the Hydrocondensation of Carbon  
Monoxide With Ethylene on Fe- and Ni Catalysts

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inactive for the polymerization of acetylene. It does not become active for polymerization even after the synthesis of hydrocarbons. Table 4 gives the results of the hydrocondensation on contact 2. The activity of the contact with regard to the said reaction is rather small. The hydrocarbon yield did not exceed 91 ml/m<sup>3</sup>. Parallel investigations of the hydrocondensation of CO with C<sub>2</sub>H<sub>4</sub> in the presence of H<sub>2</sub> and the simultaneous synthesis of hydrocarbons from CO and H<sub>2</sub> on two Fe catalysts resulted in a 50-60 ml/m<sup>3</sup> yield of liquid hydrocarbons. Table 7 (polymerization and hydrocondensation of C<sub>2</sub>H<sub>4</sub> on two Ni catalysts) shows that this reaction cannot take place on Ni catalysts. Tables 8 and 9 give the results of the hydrocondensation of CO with C<sub>2</sub>H<sub>4</sub> on 3 Ni catalysts. The hydrocarbon yield from CO and H<sub>2</sub> was 110 ml/m<sup>3</sup>. The yield from the triple mixture CO-H<sub>2</sub>-C<sub>2</sub>H<sub>4</sub> was only 7-25 ml/m<sup>3</sup>. After this reaction the catalyst activity with regard to the hydrocarbon synthesis was

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On the Catalytic Hydrocondensation of Carbon Monoxide With Olefines. Communication 23. On the Hydrocondensation of Carbon Monoxide With Ethylene on Fe- and Ni Catalysts

SOV/62-59-8-20/42

smaller. The reaction processes on the individual catalysts are explained. There are 9 tables and 5 references, 4 of which are Soviet.

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: November 21, 1957

Card 3/3

5.3400

77079  
SOV/62-59-12-23/43

AUTHORS: Eidus, Ya. T., ~~Gus'eva, I. V.~~

TITLE: Catalytic Polymerization of Olefins. Communication 2.  
Isomerization and Polymerization of Butene-1 Over  
Nickelous Oxide/Aluminum Silicate

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh  
nauk, 1959, Nr 12, pp 2195-2198 (USSR)

ABSTRACT: The catalytic activity of the catalyst NiO/aluminum  
silicate in regard to the migration of the double bond  
in butene-1 and its polymerization at atmospheric  
pressure, at 270° and a space velocity 1,400-1,600 hour<sup>-1</sup>,  
was studied. Attempts were made with three mixtures of  
butene-1 and butene-2 in ratios: 57.8:1; 1:1.1; and  
1:2.9. The yield of polymerization products was 8, 10,  
15% (whose nature was not described) and the yield of  
cracking products was 1, 2, 3%. The reaction does not  
take place in the absence of the above catalyst. The  
reaction over NiO/glass powder practically fails to take  
place (no isomerization; the yield of cracking products

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Catalytic Polymerization of Olefins. Communication 77079  
2. Isomerization and Polymerization of Butene-1 SOV/62-59-12-23/43  
Over Nickelous Oxide/Aluminum Sillicate

was 3.3%). The results have shown that NiO has neither isomerizing nor polymerizing properties, and aluminum silicate must be considered to be active. There is 1 table; and 12 references, 7 Soviet, 5 U.S. The 5 U.S. references are: H. A. Cheney, S. H. Mc Allister, E. B. Fountain, J. Anderson, W. H. Peterson, Industr. and Engng. Chem. 42, 2580 (1950); J. E. Kilpatrick, E. J. Prosen, K. S. Pitzer, F. D. Rossini, J. Res. Nat Bur. Standards 36, No 6, 554 (1946); B. A. Lamb, E. E. Roper, J. Amer. Chem. Soc. 62, 806 (1940); C. D. Hurd, A. R. Goldsby, J. Amer. Chem. Soc. 56, 1812 (1934); H. H. Voge, G. M. Good, B. S. Greensfelder, Industr. and Engng. Chem. 38, 1033 (1946).

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

SUBMITTED: March 26, 1958

Card 2/2

5.3400

77083

SOV/62-59-12-27/43

**AUTHORS:**

Eydus, Ya. T., Puzitskiy, K. V., Guseva, I. V.

**TITLE:**

Concerning the Catalytic Hydrocondensation of Carbon Monoxide With Olefins. Communication 25. The Influence of the Support on the Activity of Cobalt-Thorium Contact in the Hydrocondensation of Carbon Monoxide With Ethylene

**PERIODICAL:**

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 12, pp 2213-2218 (USSR)

**ABSTRACT:**

The above hydrocondensation was carried out in a flow system, with mixtures  $C_2H_4:H_2 = 1:0.8-1$ , containing 5-6% CO, at 190-200° and at atmospheric pressure. Space velocity was 100-120 hour<sup>-1</sup>. Regeneration was carried out with H<sub>2</sub>, at 450° for 3 hours. Catalysts were prepared by precipitation with K<sub>2</sub>CO<sub>3</sub> from their nitrate solutions, in the presence of the support. Prior to use, they were regenerated in a hydrogen atmosphere at 400-450°. For the Co/ThO<sub>2</sub> catalyst, silica gel, aluminum oxide,

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Concerning the Catalytic Hydrocondensation of Carbon Monoxide With Olefins. Communication 25. The Influence of the Support on the Activity of Cobalt-Thorium Contact in the Hydrocondensation of Carbon Monoxide With Ethylene

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activated charcoal, and muslyumovsk clay were used as support. Contact 1. Co/ThO<sub>2</sub>/silica gel (1:0.18:2) was inactive. Contact 2. Co/ThO<sub>2</sub>/silica gel (2:0.18:2) gave the average yield after 10 hours, 33.5 ml/1 · hour. Contact 3. Co/ThO<sub>2</sub>/activated charcoal (1:0.18:2) was slightly active. The catalytical activity of Co/ThO<sub>2</sub> decreases with replacement of silica gel by active charcoal. Contact 4 was similar to contact 3, giving the lower yield. Contact 5. Co/ThO<sub>2</sub>/Al<sub>2</sub>O<sub>3</sub> (1:0.18:5) was active. The yield was 43.3 ml/1 · hour. Ethylene reacted to the extent of 90-97%. 36-45% of it was converted into ethane. Several attempts (from 6 to 14) were made with muslyumovsk clay. It was found that the above clay (450°) can be an effective support for the contact Co/ThO<sub>2</sub>. Contact 15. Co/ThO<sub>2</sub>/muslyumovsk

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Concerning the Catalytic Hydrocondensation of Carbon Monoxide With Olefins. Communication 25. The Influence of the Support on the Activity of Cobalt-Thorium Contact in the Hydrocondensation of Carbon Monoxide With Ethylene

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clay-activated charcoal (1:0.18:2:1). The activity was smaller. Contact 16. Co/ThO<sub>2</sub>/muslyumovsk clay/Al<sub>2</sub>O<sub>3</sub> (1:0.18:2:1). The yield was 41.4 ml/1 · hour. Contact 17. The ratio of the above components was 1:0.18:2:2. The yield was almost halved (17.7 ml/1 · hour). Thus, the activity of Co/ThO<sub>2</sub> contacts, depending on support, decreases, as follows: muslyumovsk clay > diatomite > aluminum oxide > activated charcoal > silica gel. There are 5 tables; 1 figure; and 2 Soviet references.

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

SUBMITTED: May 4, 1958  
Card 3/3



5(3)

SOV/79-29-9-45/76

AUTHORS: Puzitskiy, K. V., Eydus, Ya. T., Ryabova, K. G., Guseva, I. V.

TITLE: On the Synthesis of Carboxylic Acid Derivatives From CO, Olefins, and Compounds Which May Be Acylated, in the Presence of Acid Catalysts. II. Syntheses of Isobutylene- and Butylene Esters

PERIODICAL: Zhurnal obshchey khimii, 1959, Vol 29, Nr 9, pp 3019-3026 (USSR)

ABSTRACT: In the present paper the experimental results concerning the carbalkoxylation of isobutylene and butylene are given. The first step of the synthesis of the esters was made according to Koch by reacting olefin with CO in the presence of concentrated  $H_2SO_4$ . Subsequently alcohol was added to the reaction mass instead of water. This led to good yields of esters of the carboxylic acids. The use of different alcohols led to different esters of the same acid. In experiments with only one alcohol a mixture of esters resulted with one or two esters predominating. The esters separated by rectification were identified among others according to the melting point of the

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SOV/79-29-9-45/76  
On the Synthesis of Carboxylic Acid Derivatives From CO, Olefins, and Compounds  
Which May Be Acylated, in the Presence of Acid Catalysts. II. Syntheses of  
Isobutylene- and Butylene Esters

anilides obtained by the reaction with the esters with aniline magnesium bromide (Ref 5). The synthesis of the methyl- and ethyl esters from isobutylene and butylene, CO and methyl- and ethyl alcohol in the presence of sulphuric acid as catalyst takes place at increased pressure (80 atm) in higher yields than in normal case. The ester mixture obtained at increased pressure from isobutylene (about 65% yield, computed for the initial olefin and 100% for CO) contained esters of trimethyl acetic acid (53%),  $\alpha, \alpha$ -dimethyl butyric acid (6%), and  $\alpha, \alpha$ -dimethyl-valeric acid (3-5%). In the ester mixture obtained from butylene under the same conditions (37-38% yield, computed for olefin and 81-89% for CO) esters of the  $\alpha$ -methyl butyric acid were obtained in yields from 53-60% and esters of trimethyl acetic acid in yields of 4%. The apparatus shown in figure 1 was used for the carboxylation of the olefins at atmospheric pressure. The conditions under which the experiments were carried out under pressure are shown in table 3. The curves and results of distillation of the ester mixtures are shown in figures 3, 4 and in tables 4-7. There are 4 figures, 7 tables, and 15 ref-

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SOV/79-29-9-45/76

On the Synthesis of Carboxylic Acid Derivatives From CO, Olefins, and Compounds Which May Be Acylated, in the Presence of Acid Catalysts. II. Syntheses of Isobutylene- and Butylene Esters

erences, 2 of which are Soviet.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR (Institute of Organic Chemistry of the Academy of Sciences USSR)

SUBMITTED: July 7, 1958

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5(3)

SOV/20-128-3-33/58

AUTHORS: Puzitskiy, K. V., Eydus, Ya. T., Ryabova, K. G., Guseva, I.V.

TITLE: Synthesis of Carboxylic Esters From Carbon Monoxide, Cyclo-  
olefines and AlcoholsPERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 3, pp 555-557  
(USSR)

ABSTRACT: The authors reported on the synthesis method mentioned in the title and developed by them (Ref 1). The synthesis proceeds in 2 stages. Concentrated sulphuric acid was used as a catalyst. It was proved (Ref 2) that  $\alpha$ -olefines  $C_5-C_7$  of a normal structure in this reaction yield the ester of alkane acid which has by 1 carbon atom more than the initial olefina, and contains 2 methyl radicals in the molecule in  $\alpha$ -position. In most cases, an ester of the isomeric acid with one ethyl radical in  $\alpha$ -position originates in a smaller, but still considerable yield. In the 1st stage of synthesis, acyl-sulphuric acids (mixed sulphuric- and carboxylic-acid anhydrides) are temporarily formed which, in the 2nd stage, acylate the alcohols added. The present paper presents the results of the carbomethoxylation and carboethoxylation of cyclopentane and cyclohexene. Table 1 shows the ester synthesis from cyclo-olefines  $C_5-C_6$ . Table 2 shows the constants of the esters

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Synthesis of Carboxylic Esters From Carbon Monoxide, Cycloolefines and Alcohols

SOV/20-128-3-33/58

produced. Figures 1 and 2 present the distillation curves of these esters. There are 2 figures, 2 tables, and 12 references, 7 of which are Soviet.

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: June 3, 1959, by B. A. Kazanskiy, Academician

SUBMITTED: May 27, 1959

Card 2/2

EYDUS, Ya.T.; YERSHOV, N.I.; PUZITSKIY, K.V.; GUSEVA, I.V.

Catalytic hydrocondensation of carbon monoxide with olefins.  
Report No.28: Activity of the cobalt - clay contact in the  
hydrocondensation of carbon monoxide with ethylene and polymeri-  
zation of the latter under the influence of carbon monoxide. Izv.  
AN SSSR Otd.khim.nauk no.5:913-919 My '60.

(MIRA 13:6)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo Akademii  
nauk SSSR.

(Carbon monoxide) (Ethylene) (Catalysts)

S/062/60/000/007/015/017/XX  
B004/B064

AUTHORS: Eydus, Ya. T., Puzitskiy, K. V., Yerшов, N. I.,  
Guseva, I. V., and Kazanskiy, B. A.

TITLE: Catalytic Polymerization of Olefins. Communication 11.  
The Effect of Impurities in the Initial Gas and of the  
Material of the Test Tube Wall Upon the Course of the  
Polymerization Reaction of Ethylene on Nickel Catalysts

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh  
nauk, 1960, No. 7, pp. 1291 - 1294

TEXT: The authors are concerned with studying the effects of all  
reaction conditions upon the catalytic polymerization of olefins. In  
the present paper, they report on the effect of impurities in initial  
ethylene, the influence exerted upon the catalyst by treating it with  
various substances, and finally the effect exerted upon catalysis  
by the material of the tube walls. Up to 5% propylene or up to 10%  
butylene were added to ethylene as impurities. Ethylene was polymerized

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Catalytic Polymerization of Olefins S/062/60/000/007/015/017/XX  
Communication 11. The Effect of Impuri- B004/B064  
ties in the Initial Gas and of the  
Material of the Test Tube Wall Upon the Course of the Polymerization  
Reaction of Ethylene on Nickel Catalysts

to butylene on a  $\text{NiO-Al}_2\text{O}_3$  catalyst. While an addition of 0.5 to 3% impurities showed no effect, the activity of the catalyst decreased at higher amounts of admixtures (yield without addition: 82%, with an addition of 5%: 56.2%). An addition of 30 - 40%  $\text{H}_2$  or preliminary treatment of the catalyst with  $\text{H}_2$  (yield without  $\text{H}_2$ : 58.8%, with  $\text{H}_2$ : 23.0%) showed the same effect. The water vapor content of ethylene also reduced the activity of the catalyst. On comparing the activity of the catalyst in test tubes of glass, brass, or stainless steel it was found that in the steel tube the yield in polymers and the regeneration capacity of the catalyst decrease: maximum yield in the glass- and brass tubes 71.2%, in the steel tube 64.7%. There are 1 figure, 5 tables, and 2 Soviet references. ✓

Card 2/3



Catalytic Polymerization of Olefins...  
Communication 11. The Effect of  
Impurities in the Initial Gas and of the  
Material of the Test Tube Wall Upon the Course of the Polymerization  
Reaction of Ethylene on Nickel Catalysts

S/062/60/000/007/015/017/XX  
B004/B064

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: November 12, 1958

Card 3/3

GUSEVA, I.V.;PRIKHID'KO, N.Ye.;LILEYEV, I.S.

Synthesis of lithium silicates from aqueous solutions. Zhur.  
neorg.khim. 6 no.5:1028-1034 My '61.

(MIRA 14:4)

1. Institut khimii silikatov AN SSSR.

(Lithium silicate)

EYDUS, Ya. T.; PUZITSKIY, K.V.; GUSEVA, I.V.

Synthesis of esters and other derivatives of carboxylic acids under conditions of oxidative catalysis from carbon monoxide, olefins, and compounds subject to acylations. Part 5: Synthesis of esters of cis-9-decalincarboxylic acid from cyclopentene and of 4,7-endomethylenehydrindancarboxylic acid from 4,5,6,7,8,9-hexahydro-4,7-endomethylenindene. Zhur. ob. khim. 31 no.4:1324-1328. Ap '61. (MIRA 14:4)

1. Institut organicheskoy khimii Akademii nauk SSSR.  
(Naphthalenecarboxylic acid)  
(Indancarboxylic acid)

EYDUS, Ta.T.; GUSEVA, I.V.

Catalytic hydrocondensation of carbon monoxide with olefins and their  
hydropolymerization under the effect of carbon monoxide and hydrogen.  
Report No.35: Selective deactivation of catalysts by a consecutive  
hydropolymerization of ethylene and its homologs (propylene and  
1-butene). Izv. AN SSSR. Otd.khim.nauk no.5:907-911 My '62.  
(MIRA 15:6)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.  
(Ethylene) (Polymerization)

YUDS, Ya.T.; PUZITSKIY, K.V.; GUSEVA, I.V.

Synthesis of esters and other derivatives of carboxylic acids under conditions of acid catalysis from carbon monoxide, olefins, and acylating compounds. Part 7: Conversion of C<sub>4</sub>-C<sub>7</sub> alcohols to carboxylic acids and their esters with the aid of formic acid. Zhur.ob.khim. 32 no.9:2983-2989 S '62. (MIRA 15:9)

1. Institut organicheskoy khimii imeni N.D. Zelinskogo AN SSSR.  
(Alcohols) (Acids, Organic) (Formic acid)

PUZITSKIY, K.V.; EYDUS, Ya.T.; RYABOVA, K.G.; GUSEVA, I.V.

Synthesis of esters and other derivatives of carboxylic acids under conditions of acid catalysis from carbon monoxide, olefins, and acylating compounds. Part 9: Synthesis of carboxylic acids and their esters from (C<sub>6</sub>-C<sub>10</sub>) saturated alcohols. Zhur.ob.khim. 33 no.4: 1269-1273 Ap '63. (MIRA 16:4)

(Acids, Organic)

(Esters)

(Alcohols)

L 34501-65 EWT(m)/EPF(n)-2/EMP(t)/EWP(b) Pu-4 IJP(b) JD/JG  
ACCESSION NR: AP5002798 S/0078/65/010/001/0092/0097

AUTHOR: Guseva, I. V.; Lil'ev, I. S.

TITLE: Preparation of lithium aluminosilicates from aqueous solutions

SOURCE: Zhurnal neorganicheskoy khimii, v. 10, no. 1, 1965, 92-97

TOPIC TAGS: lithium aluminosilicate, synthesis, ion exchange, lithium aluminum silicate

ABSTRACT: Hydrated lithium aluminosilicates were obtained by reacting solutions of lithium silicate and lithium aluminate (containing excess LiOH) at 20 and 97 C. At room temperature the composition of the product was almost independent of the LiOH concentration and of the  $Al_2O_3:SiO_2$  ratio in the initial solutions. The product obtained at 20C from solutions containing 10-50 g/l  $Li_2O$  was amorphous  $Li_2O \cdot Al_2O_3 \cdot 2SiO_2 \cdot nH_2O$  (I). Crystalline I was obtained at 97 C from solutions with a 1:1  $Al_2O_3:SiO_2$  ratio, containing less than 30 g/l  $Li_2O$ . The precipitates formed under similar conditions using 1:2 and 1:4 reactant ratios comprised mixtures of  $Li_2O \cdot SiO_2 \cdot nH_2O$  and I. When the  $Li_2O$  content was over 30 g/l the pre-

Card 1/2

L 34501-65

ACCESSION NR: AP5002798

precipitates had compositions approximating  $3\text{Li}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 3\text{SiO}_2 \cdot n\text{H}_2\text{O}$ ; their structure is to be studied further. Even with a 1:4 reactant ratio the precipitates did not have the  $\text{Li}_2\text{O}:\text{Al}_2\text{O}_3:\text{SiO}_2$  ratio of spodumene.  $\beta$ -eucryptite was formed on heating I to 100°C. I was very slightly soluble in water; its solubility was increased by the addition of LiOH or NaOH solutions. When I was treated with NaOH solutions, the Li in the precipitate was completely replaced by Na, indicating the presence of ion exchange properties in I. Orig. art. has: 4 tables and 2 figures.

ASSOCIATION: Institut khimii silikatov im. I. V. Grebenshchinskova Akademii nauk SSSR (Institute of Silicate Chemistry, Academy of Sciences SSSR)

SUBMITTED: 12Nov63

ENCL: 00

SUB CODE: GC, IC

NR REF SOV: 002

OTHER: 000

Card 2/2



1963, No. 1, p. 100.

Preparation of lithium aluminosilicates from aqueous solutions.  
Zhur. neorg. khim. 10 no. 1:92-97, 1963. ANER 18:117

1. Institut khimii silikator imeni Grobenashchikova AN SSSR.  
Submitted Nov. 12, 1963.

ACC-NR-AP6011657

SOURCE CODE: UR/0020/66/167/003/0583/0585

AUTHOR: Yershov, N. I.; Eydus, Ya. T.; Guseva, I. V.

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B

ORG: Institute of Organic Chemistry im. N. D. Zelinsky, Academy of Sciences, SSSR  
(Institut organicheskoy khimii Akademii nauk SSSR)

TITLE: The initiating effect of carbon monoxide during hydropolymerization<sup>1</sup> of ethylene<sup>1</sup> in the presence of hydrogen

SOURCE: AN SSSR. Doklady, v. 167, no. 3, 1966, 583-585

TOPIC TAGS: polymerization initiator, carbon monoxide, ethylene, reaction mechanism

ABSTRACT: The report describes conditions for the hydropolymerization of ethylene at 190C, during which the hydrogen reduction of carbon monoxide is almost completely absent and the monoxide is not detectable in the end products of the process. Preliminary exposure of the reduced Co catalyst to the monoxide, or to a gas containing it, at 100C represents one method of obtaining such conditions. The ratio of ethylene to hydrogen is especially significant in the process and can serve to control the catalyst's ability to reduce CO. In such cases the monoxide functions as the initiating agent through any of the four described reaction variants.

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UDC: 66.097.13

ACC NR: AP6011657

0

The results indicate that the growth of carbon chains during hydropolymerization (possibly also in the Fischer-Tropsch process with a Co catalyst) is not a dehydration-condensation process, but represents a polymerization mechanism with corrections for destruction processes. The paper was presented by Academician B. A. Kazansky 2 Aug 65.

SUB CODE: 07/ SUBM DATE: 02Jul65/ ORIG REF: 009/ OTH REF: 012

GUSEVA, I. V.

AUTHORS: Kheyfets, V. L., Krasikov, B. S., Sysoyeva, V. V., 5L-1-17/20  
Guseva, I. V.

TITLE: Investigation of Adsorption of Aliphatic Spirits. III. Adsorption  
at the Transit From Aqueous to Alcoholic Solutions (Issledovaniye  
adsorbtsii alifaticheskikh apirtov. III. Adsorbtsiya pri perekhode  
ot vodnykh rastvorov k spirtovym).

PERIODICAL: Vestnik Leningradskogo Universiteta Seriya Fiziki i Khimii,  
1957, Vol. 22, Nr 4, pp. 148-151 (USSR).

ABSTRACT: Examined was the adsorption of ethanol, n-propanol and iso-propanol  
in a concentration of  $16$  to  $5 \cdot 10^{-3}$  mol/l on the Hg-electrode, by  
measurement of the voltage, which originated from the capacity of  
the double layer and the electrode potential. The presence of the  
alcohol-hydrates in the solution can be explained by the fact that  
part of it is to be found in the double layer even if there is no  
tendency to specific adsorption. Consequently the capacity of the  
double layer goes down. The desorption of the alcohol from the double  
layer can only be effected, if there are free water molecules pre-  
sent in the solution (no hydrates of the type  $R \cdot CH_2OH \cdot H_2O$ ).  
There are 4 figures, 1 table, and 5 references, 4 of which are Sla-  
vic.

Card 1/2

Investigation of Adsorption of Aliphatic Spirits. III. *5/17/20*  
Adsorption at the Transit From Aqueous to Alcoholic Solutions.

SUBMITTED: February 22, 1956.

AVAILABLE: Library of Congress.

Card 2/2

LUK'YANOV, Pavel Mitrofanovich, doktor tekhn. nauk, prof.;  
VOL'FKOVICH, S.I., akademik, red.; GALEVA, E.I., red.

[History of the chemical trade and chemical industry of  
Russia] Istorija khimicheskikh promyslov i khimicheskoi  
promyshlennosti Rossii. Vol.6. 1965. 479 p.  
(MIRA 18:3)

PROCESSES AND PROPERTIES

7

*Co*

Oil from clary sage. B. N. Rutovskii and K. A. Guseva. *Bull. Nauch. Issledov. Khim.-Farm. Inst.* 1930, 41-3.—The essential oil obtained from plants cultivated in the Natashinskii exptl. plant of the Nauch. Issledov. Khim.-Farm. Inst. had:  $d_{20}^{20} = 0.9249$ ,  $[\alpha]_D^{20} = -10.25^\circ$ ,  $n_D^{20} = 1.4719$ , acid no. 2.43, esterification no. 173.04, esterification no. after acetylation 208.71. It contained 60.87% esters ( $C_{15}H_{25}OOCH_3$ ). Schiff's reaction was neg. Seven fractions were sepl. in a vacuum distn. (1-5 mm pressure). Free  $CH_3COOH$  and linalool (phenylurethan m. 64-65°) were traced in the first fraction. The second and the first fractions contained also a substance which affected the mol. refraction to a great extent. All other fractions were sapon. separately and vacuum-distd. Thus it was possible to establish the presence of *l*-linalool (phenylurethan m. 63-65°). On a further vacuum distn. of some of the fractions *l*-nerolidol was detected by oxidizing these fractions with chromic acid whereby farnesal was obtained. It had the following const.:  $b_{10} 80-90^\circ$ ,  $b_{10} 173^\circ$ ;  $d_{20}^{20} = 0.8054$ ;  $[\alpha]_D^{20} = -3.20^\circ$ ;  $n_D^{20} = 1.4731$  (1.4905); mol. refraction 68.09 (theoretical 69.04); m. p. of semicubane 133-134°. The fraction  $b_{10} 100-110^\circ$  contained the monocyclic sesquiterpene  $C_{15}H_{26}$  which added 6 atoms Br. The sapon. aq. solns. contained an acid boiling at 115-117° which solidified at +2.5° in addn. to AcOH. In an attempt to sep. the terpene the oil was mixed with 70% alc. The alc. layer then contained a substance having  $d_{20}^{20} = 0.9279$ ;  $[\alpha]_D^{20} = -5.75^\circ$ ;  $n_D^{20} = 1.4682$ , while the alc. insol. part had the following const.:  $d_{20}^{20} = 0.9440-0.9511$ ;  $[\alpha]_D^{20} = -16.0^\circ$  to  $-24.85^\circ$ ;  $n_D^{20} = 1.4753-1.4920$ . The oil received a preliminary treatment with 5%  $Na_2CO_3$  to neutralize the free acid, while the aq. soln. contained only AcOH. The alc. insol. part was distd. in 4 fractions (properties are given). The resins amounted to 6%. Linalyl acetate was found in the first fraction, while the second and third fractions after sapon. had the following const.:  $d_{20}^{20} = 0.8748$ ;  $n_D^{20} = 1.4703$ ;  $[\alpha]_D^{20} = -15.76^\circ$ ; mol. refraction 70.80, thus classifying it as nerolidol. The fourth fraction after redistn. over metallic Na contained a bicyclic sesquiterpene with the following properties:  $b_{10} 105-110^\circ$ ;  $d_{20}^{20} = 0.8016$ ;  $n_D^{20} = 1.4030$ ;  $[\alpha]_D^{20} = -33.30^\circ$ ; mol. refraction 65.51. A. A. Bochtlink

ASB-31A METALLURGICAL LITERATURE CLASSIFICATION

CA

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*The influence of manganese on the development of algae.* K. A. Gusev. *Microbiology* (U. S. S. R.) 6, 292-307 (1937). *Chem. Zentr.* 1937, II, 2853. — Mn was found in MgSO<sub>4</sub> in minute amts., which, however, were far too small to stimulate the growth of algae. Mn could not be detected in CaO, KH<sub>2</sub>PO<sub>4</sub>, and Ca(NO<sub>3</sub>)<sub>2</sub>. Even after complicated purification, Fe(SO<sub>4</sub>)<sub>2</sub> contained noticeable amts. of Mn. Purification (from Mn) with activated C was attempted, but without results. Fe salts cannot be filtered through activated C because they are adsorbed. Wood charcoal absorbs phosphate also. The charcoal gives off material which increases the oxidizability. The oxidizability, moreover, reduces the action of the Mn. The salts were finally purified by crystn. from Pt dishes. The medium prepd. by use of the purified salts contained 0.0005 mg. Mn per l. During sterilization of the medium in flasks of ordinary or Jena glass noticeable amts. of Mn were absorbed from the glass but not in sufficient quantity to shift the optimum Mn dose. An alga requiring larger amts. of Fe also in general uses larger amts. of Mn. Fe cannot be substituted by Mn. The color of the alga is not solely dependent on the Fe and Mn.

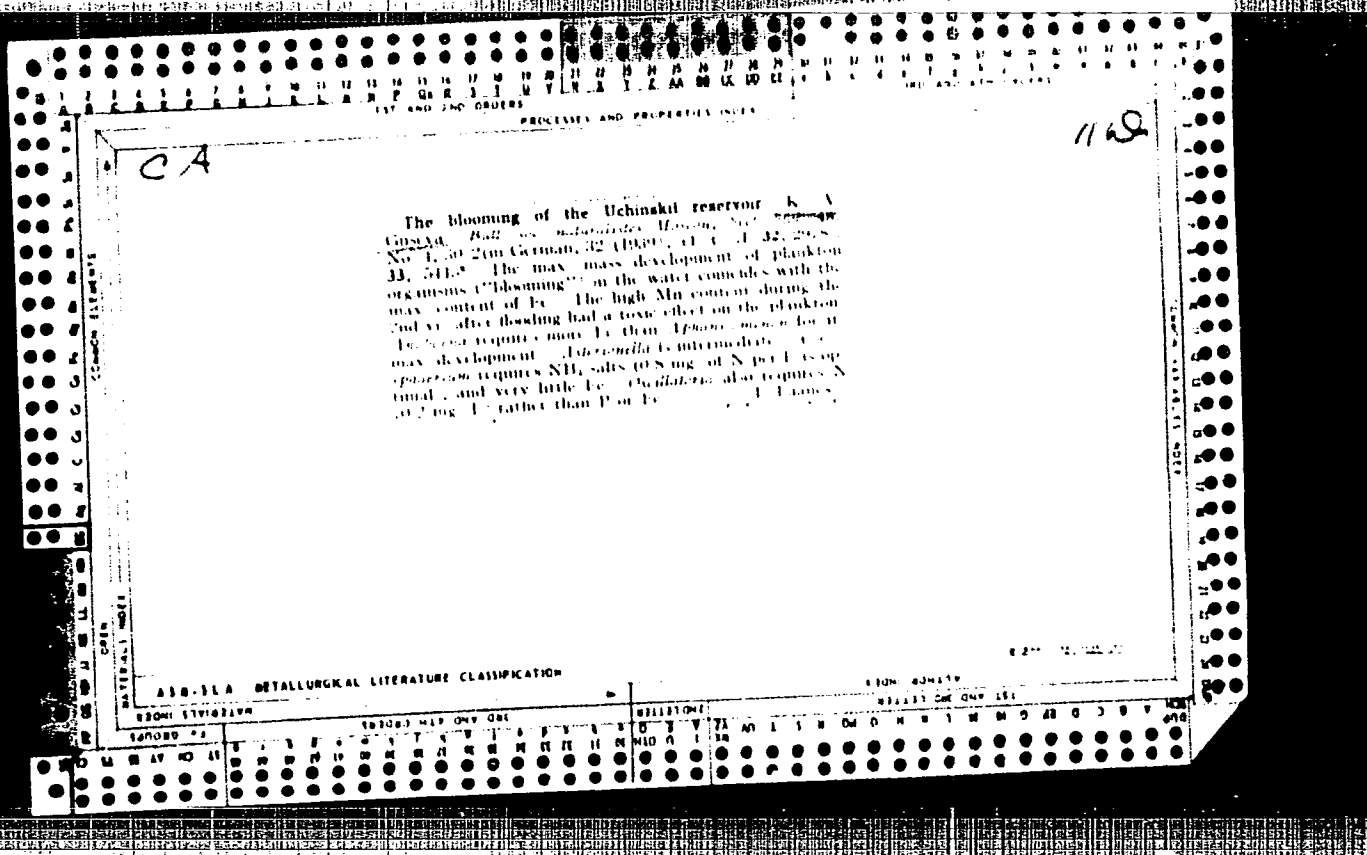
M. G. Moore

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION

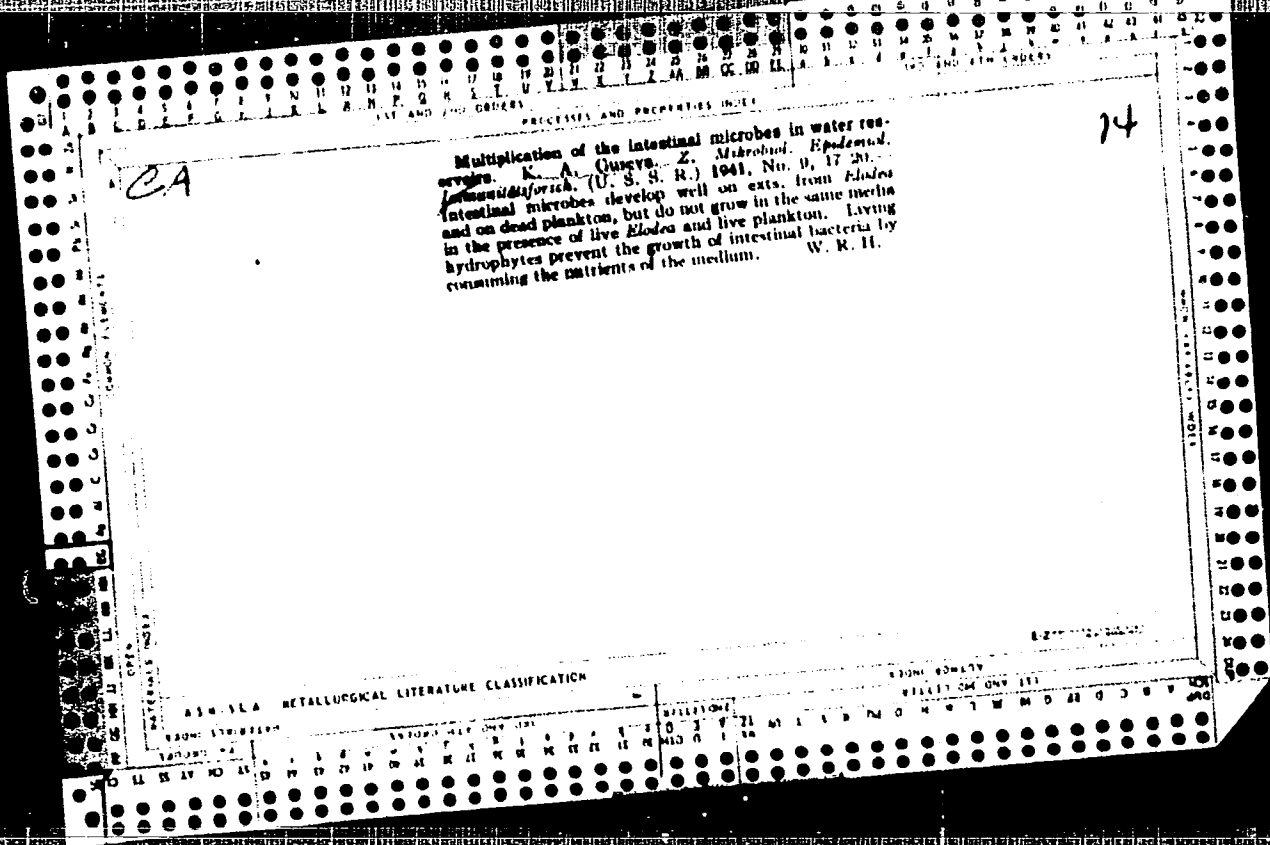


Hydro- and micro-biological studies of the Ucha reservoir of the Moscow-Volga canal. II. The development of *Anabaena lemmermanni* Richter, *Aphanizomenon flos-aquae* and *Asterionella formosa* Hassall in the reservoir during the first summer of its existence. N. A. Guryeva. *Microbiology* (U.S.S.R.) 6, 419-44 (in English, 48)-4 (1967); *Microbiology* 6, 3(1967). - The chief algae causing fluorescence in the Ucha reservoir in the summer of 1966 were *Anabaena lemmermanni* Richter (I) and *Aphanizomenon flos-aquae* (Breb.) (II). I requires 2 mg./l. of Fe while II requires only 1 mg./l. for full development, with a decrease in growth rate in higher concns. of Fe. Hence, II appears only after I has exhausted the Fe content to a certain limit. I requires 2 mg./l. of P<sub>2</sub>O<sub>5</sub>, II requires 0.6 mg./l. I in cultures shows an accumulation of N, but since the cultures were not free from bacteria it could not be decided which was responsible for the accumulation. I dies off when the Fe and P content of the reservoir is depleted. The optimum amt. of nitrate N for II is 0.4-0.6 mg./l., but after preliminary prolonged N starvation a better growth is obtained at 1 mg./l. When NH<sub>4</sub> N is used as a source of N only 0.00 mg./l. is required for max. growth. The decrease in growth of II is due chiefly to a depletion of P, while its final disappear-

ance is due to the increase in inorg. N to 0.4-0.5 mg./l. which is toxic to the algae. An increase of Mn to 0.2-0.3 mg./l. is also toxic, although it has a favorable effect on growth in concns. of 0.005 mg./l. *Aphanizomenon flos-aquae* Hassall, although it does not cause fluorescence, is found in considerable nos. in the spring and autumn. It is intermediate to I and II in N and P requirements. The optimum dosage of Fe is 1-2 mg./l. and of P<sub>2</sub>O<sub>5</sub> 1-5 mg./l. It requires 0.3 mg./l. of nitrate N or 0.005 mg./l. of NH<sub>4</sub> N. N. A. Karyakina







GUSEVA, K. A.

"Efflorescence of Water, Its Cause, Prognosis and Measures for Preventing It." Sub 23 Nov 51, Moscow Order of Lenin State University M. V. Lomonosov.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55

GUSEVA, K.A.

Interrelation of phytoplankton and saprophytic bacteria in reservoirs.  
Trudy probl.i tem.sev.no.1:34-38 '51. (MIRA 9:7)  
(Water--Bacteriology) (Phytoplankton)

1. K. A. GUSEVA
2. USSR (600)
4. Algae - Uchinsk Reservoir
7. Waterbloom, its causes, prognosis and control measures; material from the Uchinsk Reservoir. Trudy Gidrobiol. ob-va. 4. 1952.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

GUSEVA, K.A.; BASKAKOVA, A.N.

Chemical composition of the volatile part of alcohol-soluble  
extract oil from the azalea flower. Trudy VNIISNDV no.2:32-35 '54.  
(MZRA 10:7)

(Azalea) (Eszences and essential oils)



GUSEVA, K.A.; BASKAKOVA, A.N.

Obtaining liquid extract of rose oil. Trudy VNIISNDV no.2:158-159  
'54. (MLFA 10:7)

(Attar of roses)

GUSEVA, K.A.

Phytoplankton of Rybinsk Reservoir seasonal dynamics and the distribution  
of principal groups. Trudy Biol.sta."Borok" no.2:5-23 '55. (MIRA 9:6)  
(Rybinsk Reservoir--Phytoplankton)

GUSEVA, K.A.

Phytoplankton of Rybinsk Reservoir seasonal dynamics and the  
distribution of principal groups. Trudy Biol.sta. "Borok" no.2:  
24-31 '55. (MIRA 9:6)  
(Phytoplankton) (Iron bacteria)

GUSEVA, K.A., inzhener.

Bulgarian rose oil. Masl. -zhir.prom. 22 no.8:24-26 '56.  
(MLRA 10:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskikh  
i natural'nykh dushistykh veshchestv.  
(Bulgaria--Attar of roses)

GUSEVA, K.A.

Effect of water level fluctuations on the development of  
phytoplankton in Rybinsk Reservoir. Trudy Biol. sta. "Borok"  
no.3:112-124 '58. (MIRA 11:9)  
(Rybinsk Reservoir--Phytoplankton)

GUSEVA, K.A.; BASKAKOVA, A.N.

Producing extraction oil from dry azalea flowers. Trudy  
VNIISNDV no.4:178 '58. (MIRA 12:5)  
(Essences and essential oils)  
(Azalea)

GUSEVA, K.A.; RAFANOVA, R.Ya.; INANOV, P.V.

Quality of oil obtained from whole rose flowers and petals by  
steam distillation and extraction. Trudy VNIISNDV no.4:178-181  
'58. (MIRA 12:5)

(Attar of roses)

GUSEVA, K.A.

Role of Lake Beloye in the formation of phytoplankton in  
Rybinsk Reservoir. Trudy Inst.biol.vodokhran. no.2:31-43  
'59. (MIRA 13:5)  
(Beloye, Lake (Vologda Province)-- Phytoplankton)  
(Rybinsk Reservoir--Phytoplankton)



GUSEVA, K.A.

Method for counting phytoplanktonic organisms. Trudy Inst.  
biol.vodokhran. no.2:44-51 '59. (MIRA 13:5)  
(Plankton research)

GUSEVA, K.A.; IL'INSKIY, A.L.

Clogging of fishing nets with the diatom *Melosira italica* during  
the period of winter bloom in Rybinsk Reservoir. Trudy Gidrobiol.  
ob-va 9:183-194 '59. (MIRA 12:9)

1. Institut biologii vodokhranilishch AN SSSR.  
(Rybinsk Reservoir--Diatoms) (Fishing nets)

GUSEVA, K.A.; RAFANOVA, R.Ya., kand.khim.nauk; BULANOVA, A.V.;  
VIRZUB, S.I.

Isolating sclareol and obtaining products from it having the  
odor of amber. Masl.-shir.prom. 25 no.3:29-30 '59. (MIRA 12:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskikh  
i natural'nykh dushistykh veshchestv.  
(Sclareol) (Perfumes, Synthetic)

GUSEVA, K.A., doktor biolog.nauk

Role of blue-green algae in inland waters. Vest. AN SSSR 32  
no.12:109-110 D '62. (MIRA 15:12)  
(Algae—Congresses)

KUZIN, B.S., doktor biol. nauk, otv. red.; BRAGINSKIY, L.P.,  
kand. biol. nauk, red.; GUSEVA, K.A., doktor biol.  
nauk, red.; MIRNOV, N.N., kand. biol. nauk, red.;  
TOPACHEVSKIY, A.V., red.

[Ecology and physiology of blue-green algae; charac-  
teristics of their mass development in bodies of water]  
Ekologiya i fiziologiya sinezelenykh vodoroslei; zakono-  
mernosti ikh massovogo razvitiia v vodoemakh. Moskva,  
Nauka, 1965. 272 p. (MIRA 18:2)

1. Akademiya nauk SSSR. Institut biologii vnutrennikh vod.
2. Chlen-korrespondent AN SSSR (for Topachevskiy).

GUSEVA, K.A.; EKZERTSEV, V.A.

Summing up the studies on phytoplankton and higher aquatic  
vegetation of Volga reservoirs. Trudy Inst.biol.vnutr.vod.  
no.9:78-95 '65. (MIRA 19:1)

VERTSMAN, G.Z., kand. tekhn. nauk; PANTELEYEV, P.I., kand. tekhn. nauk; GOMOLYAKO, I.M.; TAL', K.K.; GUSEVA, K.G.; LUGOVOY, P.A.; MASSAN, A.M.; GALKIN, N.V.; SAFIRYGINA, G.M.; CHESNOKOV, D.S.; DROZDKOV, V.I.; IZYUMOV, P.S.; ZAK, B.O.; KOROGID, P.Ye.; MAKSIMOVICH, L.N.; ZBOROVSKAYA, M.I.; PAVLOVSKAYA, S.A.; BORISOV, A.V.; SELIVANETS, N.Ye.; ITKES, V.M.; YATSKEVICH, Ya.D.; KOZYRSKIY, N.P.; NIKITIN, V.D.; NEKLEPAYEVA, Z.A., inzh., red.; MEDVEDEVA, M.A., tekhn.red.

[Design and planning of railroad stations and junctions]  
Proektirovaniye zheleznodorozhnykh stantsii i uzlov; spravochnoe i metodicheskoe proizvodstvo. Moskva, Transzheldorizdat, 1963. 443 p. (MIrA 16:12)

1. Nauchno-issledovatel'skiy institut transportnogo stroitel'stva (for Guseva). 2. Gosudarstvennyy institut tekhniko-ekonomicheskikh izyskaniy i proyektirovaniya zheleznodorozhnogo transporta (for Zak). 3. Kiyevskiy gosudarstvennyy proyektno-izyskatel'skiy institut (for Kozyrskiy). 4. Moskovskiy institut inzhenerov zheleznodorozhnogo transporta In. I.V. Stalina (for Nikitin).

(Railroad engineering)

GUSSVA, K.I. (Moskva)

Practicality of taking blood from the ulnar vein for clinical analysis; taking blood simultaneously for biochemical analysis and Wassermann reaction. Lab.delo 3 no.6:49-50 N-D '57.  
(BLOOD--ANALYSIS AND CHEMISTRY) (MIRA 11:2)



USSR/Farm Animals - Swine

Q

Abs Jour : Ref Zhur - Biol., No 15, 1958, 69361

Author : Guseva, K.M., Knyazev, G.A., Kotov, P.F.

Inst : Scientific Research Institute of Agriculture of the  
Central Chernozem Belt

Title : Green Fodder for Swine

Orig Pub : Byul. nauchno-tekhn. inform. n.-i. in-ta s.-kh. TsChP,  
1956, No 1, 41-42

Abstract : No abstract.

Card 1/1

- 45 -

GUSEVA, Klavdiya Mikhaylovna

[Hints for young farmers in charge of calves] Sovety molodym teliat-  
nitsam. Moskva, Mosk. rabochii, 1961. 99 p. (MIRA 14:11)  
(Calves)

GUSEVA, K.M.

Training groups of the population to care for patients at home.  
Mirav. Truk. 7 no.11&48 N\*63 (MIRA 17&3)

1. Zamestitel' glavnogo vracha po lechetnoy chasti polikliniki  
No.2 Ashkhabada.

GUSEVA, K.V., inzhener.

Time needed for drying pine and spruce boards and blocks in  
petrolatum. Der.prom.5 no.8:13-14 Ag '56. (MLRA 9:10)

1.Nauchno-issledovatel'skiy institut Ministerstva stroitel'stva  
SSSR. (Lumber--Drying) (Petrolatum)

GUSEVA, L.

They are building new radio equipment. Radio no.6:8 Je '55.  
(Ulan-Ude--Radio clubs) (MLRA 8:8)

UZDENIKOV, A.; ZAYTSEV, V.; GUSEVA, L.; ZOREN, Ye.

Abstracts. Apt. delo 11 no.4:72-73 JI-Ag '62.

(MIRA 17:11)

USSR/Farm Animals. Horses.

Q

Abs Jour: Ref Zhur-Biol., No 20, 1958, 92521.

Author : Guseva, L.A.

Inst : Moscow Veterinary Academy.

Title : Arterial Vessels of Muscles of the Brachial Joint in Horses.

Orig Pub: Tr. Mosk. vet. akad., 1956, 10, 280-291.

Abstract: The arterial canal of the large, deltoid, subscapular, prespinous and postspinous muscles was investigated in 23 cadavers of horses from one to 11 years of age. It was established that the large musculus teres is vascularized by 12-14 muscular branches of the subscapular artery with the diameter of each branch at .5 to 2 mm. The vessels in the interior of the muscle are anastomosed. The deltoid muscle has 20-22

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USSR/Farm Animals. Horses.

Abs Jour: Ref Zhur-Biol., No 20, 1958, 92521.

branches (rami) of the peripheric lateral brachial and subscapular artery; the subscapular muscle is provided with rami of the subscapular, acromial, transverse cervical, peripheral lateral brachial arteries and branches from the axillary artery. Branches of the peripheral subscapular artery enter into the middle part of the muscular venter, into the proximal region - branches of the cervical transverse artery, and into the distal region - branches of the axillary artery. The prospinous muscle is vascularized by branches of the acromial, subscapular, cervical transverse and peripheral lateral brachial arteries. The postspinous muscle is provided with branches of the subscapular, cervical transverse, acromial and peripheral lateral brachial arteries.

Card : 2/3



USSR/Farm Animals. Horses.

Q

Abc Jour: Ref Zhur-Biol., No 20, 1958, 92521.

Each muscle has at least two sources of vascularization. Muscles with longitudinal distribution of muscular bundles (dynamic type) have their arterial vessels run transversely as a rule, while in muscles with pluriose distribution of bundles (stato-dynamic type), the vascular direction runs both lengthwise and oblique-longitudinally in relation to the long axis. -- A.V. Belousov.

Card : 3/3

GUSEVA, L.A.

Changes in the glycogen content of the liver and muscles in animals adapted and not adapted to cold. Vop. med. khim. 8 no.2:199-204  
Mr-Apr '62. (MIRA 15:4)

1. Institute of Industrial Hygiene and Occupational Diseases,  
Academy of Medical Sciences of the U.S.S.R., Moscow.  
(GLYCOGEN) (GOLD--PHYSIOLOGICAL EFFECT)  
(ADAPTATION (BIOLOGY))

GUSEVA, L.A.; ZDANOVSKAYA, Ya.L.; KRIVOSHEINA, N.A.; KHUSTALEVA, I.V.;  
CHEBOTAREV, I.T.; DREVLYANSKAYA, N.I., red.; PROKOF'YEVA, L.N.,  
tekhn. red.

[Manual for laboratory work in the anatomy of farm animals] Po-  
sobie k prakticheskim zaniatiyam po anatomii sel'skokhoziaistven-  
nykh zhivotnykh. Moskva, Sel'khozizdat, 1962. 170 p.

(MIRA 15:7)

(Veterinary anatomy)

CUSEVA, L.A.

Content of adenosine triphosphoric acid and creatine phosphate  
in the brain and muscles of animals adapted and unadapted to  
cold. Vop. med. khim. 9 no.2:180-184. Mar-Apr '63.

(MIRA 17:8)

1. Laboratoriya promyshlennogo mikroklimata Instituta gigiyeny  
truda i professional'nykh zaboievaniy AMN SSSR, Moskva.

ETINGOV, V.I., inzh.; GUSEVA, L.A., inzh.

Characteristics of flaw detection in welded joints of high-pressure vessels used in the chemical industry. Svar.proizv. no.2:38-39 F '64. (MIRA 18:1)

1. Irkutskiy filial Vsesoyuznogo nauchno-issledovatel'skogo i konstruktorskogo instituta khimicheskogo mashinostroyeniya.

L 41579-65

ACCESSION NR: AP5008773

S/0240/65/001/003/0017/0022

12  
B

AUTHOR: Guseva, L. A.

TITLE: Adaptation to cold and associated changes in certain biochemical indices of the oxidative processes

SOURCE: *Gigiyena i sanitariya*, no. 3, 1965, 17-22

TOPIC TAGS: oxidation, adaptive processes, metabolism, body heat exchange, body resistance

ABSTRACT: A group of human subjects whose work involved varying degrees of exposure to cold were subjected to chilling. Changes in the oxidative processes were evaluated on the basis of measured accumulation of blood lactic and pyruvic acids and urinary excretion of incompletely oxidized metabolic products. Chilling caused a lowering of body temperature in the nonadapted persons, despite the high intensity of their oxidative processes: increased content of blood pyruvic and lactic acids reduced urinary excretion of organic acids and decrease in the coefficient of acid formation (ratio of organic acids to nitrogen). Cold-adapted persons did not exhibit the temperature reaction. The initial acid content of

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ACCESSION NR: AP5008773

their blood was higher, but it was not changed by chilling. The urinary excretion of organic acids and the coefficient of acid formation likewise remained unaffected by chilling. Thus, exposing adapted persons to cold does not drastically change their metabolic processes since their metabolism has already advanced to a higher level as a result of adaptation to cold. Orig. art. has: 2 figures, 3 tables.

ASSOCIATION: Institut giglyeny truda i profzabolevaniy AMN SSSR, Moscow (Institute of Industrial Hygiene and Occupational Diseases, Academy of Medical Sciences, SSSR)

SUBMITTED: 07May64

ENCL: 00

SUB CODE: LS

NO REF SOV: 010

OTHER: 003

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Card 2/2

CHERYN', Vitaliy Dmitriyevich; SKVARONSKIY, B.I., nauchnyy red.;  
GUSEVA, L.F., red.; GOLOVANIYEVSKAYA, E.N., red.; NESNYSLOVA,  
L.M., tekhn. red.

[Laboratory tests of building materials; for masons]Laboratornye  
raboty po ispytaniyu stroitel'nykh materialov; dlia kamenshchikov.  
Moskva, Proftekhizdat, 1962. 103 p. (MIRA 15:12)  
(Building materials--Testing)



FIGNER, Avraam Il'ich; ANTIK, I.V., nauchn. red.; GUSEVA, L.F.,  
red.

[Technology of the manufacture of electron-tubes; survey  
of foreign patents] Tekhnologiya izgotovleniia elektro-  
vakuumnykh priborov; obzor inostrannykh patentov. M.  
skva, Tsent. nauchno-issl. in-t patentnoi informatsii i  
tekhniko-ekonom. issledovaniia, 1964. 25 p.

(MIRA 18:7)

GUSEVA, L. G.

A STUDY OF THE FAST ELECTRONS IN A PLASMA  
L. G. Guseva. Translated from Zhur. Tekh. Fiz. 47-37(1971). 12p.

The energy distribution of fast electrons in a positive column discharge in mercury vapor was studied. In order to obtain reliable results, probes of specific designs which would introduce the least disturbance in the discharge were used. In addition, the spontaneous electric oscillations in the region between the probe and the anode is damped by a constant magnetic field. It was found that the energy distribution is Maxwellian for electrons with energy considerably higher than the ionization energy. The characteristic variations of the electron current curve, obtained by a hot probe at low pressure and low discharge current, are caused by the presence of a layer of space charges, near the wall of the discharge tube, constituting an appreciable fraction of the radius of the column. Using all of the necessary precautionary measures, the experimental determination of the average number of ionizations produced by each electron of the plasma showed that the results agree with the theoretical data calculated from the value of  $T_e$  and the shape of the curve of effective ionization. This fact is a reliable proof of the accuracy and reality of the value of  $T_e$  obtained by the probe measurements. The inelastic collision of the electrons with the atoms plays an important role in the mechanism of gaseous discharge. These collisions are caused by electrons with sufficient energy. The analysis of the probe measurement characteristics makes it possible to study the energy distribution of the electrons.

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L. B. GUSEVA

There are however, up to this present time, only probe measurements which can obtain the distribution function of the slow electrons (with energy usually less than the ionization energy). The study of the electron current properties in probe measurements for fast electrons has encountered a number of difficulties. The purpose of this paper is to directly study by experiment the energy distribution function of electrons in the high energy region.

USSR/Physics - <sup>GUSEVA, L. G.</sup> Electric discharge

FD-892

Card 1/1 Pub 153-1/26

Author : Guseva, L. G. and Klyarfeld, B. N.

Title : Voltage of discharge flash in mercury vapors

Periodical : Zhur. tekhn. fiz. 24, 1169-1178, Jul 1954

Abstract : Analysis of elementary processes at low pressures showed a satisfactory agreement between the constants of these processes and the behavior of the left branch of the flash curve. In the region of 300-8000 volts the curve of flash voltages exhibits a complex bend similar to that found by F. Penning (Proc. Amst. Acad., 34 1305 (1931) for helium. Indebted to A. V. Rybchinskiy. Twenty references including 12 foreign.

Institution : --

Submitted : February 1, 1954

USSR/Physics - Discharge gas density

FD-3155

Card 1/2 Pub. 153 - 8/29

Author : Klyarfel'd, B. N.; Timofeyev, A. A.; Neretina, N. A.; Guseva, L. G.

Title : Characteristics of probes at positive potentials and measurement of density of gas in discharges

Periodical : Zhur. tekhn. fiz., 25, No 9 (September), 1955, 1581-1596

Abstract : The authors review the discharge phenomena near a probe that has a positive potential relative to the plasma. Utilization of certain properties of the volt-ampere characteristics of such a probe permit them to measure the variation of the gas density under the action of discharge fed by a direct or alternating current. They find that with increasing positive potential on the probe relative to gas-discharge plasma the volt-ampere characteristics of the probe indicate the existence of two regimes: a) regime of probe corresponding to non-independent form of discharge, and b) regime of anode corresponding to independent discharge able to exist even when the main discharge is switched off; the transition between the two regimes of probe operation is effected in most cases by a jump suggestive of the phenomenon of rupture. Difference in potentials between plasma and positively charged probe at which rupture of layer near probe occurs increases with decrease in the density of the gas and with increase in density of discharge current; these properties can be used to measure the gas density in the limits of intense discharge, and suggests a convenient method for measuring

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FD-303

densities in various gases and vapors. The region of measurements of gas densities can be regulated by changes in the radius of the cylindrical probe used, since the rupture strength of the layer increases with decrease in radius; this is the result of decrease in the thickness of that part of the layer near the probe in which the electrons produce intense ionization of the gas. Comparatively small increase in probe current in the positive branch of the characteristics of a plane probe is mainly determined by increase in plasma of ions generated in the layer; recharging of positive ions amplifies this effect by several times. Transition of the probe to the anode regime is accompanied by formation around the probe of a new intense plasma of small size separated from the remaining plasma by a potential drop. Ordinarily this regime is unstable and the probe passes continuously from the anode regime to the probe regime and reversely, thus forming deep oscillations in the voltage strength with frequency of  $10^4$  to  $10^6$  cycles. The proposed mechanism governing these oscillations consists in the periodic accumulation of positive ions around the probe with formation of new small plasma and in the disintegration of this plasma after the voltage at the probe drops to a small value. For the study of dynamic variation of gas density in discharges the authors developed an impulse probe method permitting measurement of instantaneous values of gas density in various phases of discharge burning on alternating or periodic current. Nineteen references: e.g. B. Klyarfeld, L. Parvova, *ibid.*, 15, 840, 1945; V. Granovskiy, T. Suyetin, *ibid.*, 16, 1023, 1946 and 17, 291, 1947; etc.

Submitted : March 22, 1955

69253

SOV/112-59-17-37044

24,3500

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 17, p 182 (USSR)

AUTHOR: Guseva, L.G.

TITLE: Ignition of Discharge in Molecular Gases at  $pd < (pd)_{min}$

PERIODICAL: Tr. Vses. elektrotekhn. in-ta, 1958, Nr 63, pp 7-16

ABSTRACT: Ignition of discharge in  $H_2$ ,  $N_2$ ,  $O_2$ ,  $CO_2$  and in the air was studied. The measurements were carried out in a uniform field up to voltages of 130 - 160 kv. In general a correlation was found between the course of the left branches of ignition voltage curves and the values of the equivalent section for ionizing the given gas by electronic shock.

From author's résumé.

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66394

SOV/58-59-10-23100

24,2120

Translation from: Referativnyy Zhurnal, Fizika, 1959, Nr 10, p 187 (USSR)

AUTHOR: Guseva, L.G.

TITLE:1 Low Gas Pressure Discharge Ignition in Inhomogeneous Fields

PERIODICAL: Tr. Vses. elektrotekhn. in-ta, 1958, Nr 63, pp 17 - 37

ABSTRACT: The author shows that in Hg vapors and air the discharge ignition voltage for the left-hand branch of the Paschen curve depends on the pressure and interelectrode distance. Measurements were carried out for the case of inhomogeneous fields at various discharge space configurations up to voltages of 100 kV. Under low gas pressure the electron paths deviate sharply from the direction of the electric field lines of force, while the positive ion paths run close to these lines. Therefore the discharge in an inhomogeneous field does not develop between the most widely separated sections of both electrodes as in the case of a homogeneous field, but rather along the path on which is satisfied the necessary condition for sustaining an

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Low Gas Pressure Discharge Ignition in Inhomogeneous Fields

66394

SOV/58-59-10-23100

independent discharge. This condition requires that a considerable part of the ions being formed in the discharge space strike the point on the cathode from which the primary electrons are flowing.

N.G. Kashnikov



Card 2/2

GUSEVA, L.G., Cand Phys-Math Sci -- (diss) "Igniting of a high-voltage form of discharge in purified gases." Nov, 1959. 14 pp  
(All-Union Order of Lenin Electrical Engineering Inst in V.I. Lenin). 150 copies. Printed on a duplicating <sup>machine</sup> ~~apparatus~~ (KL,40-59,101)

**AUTHOR:** Guseva, L.G. \_\_\_\_\_

SOV/109-4-8-6/35

**TITLE:** Ignition of Discharges in the Non-uniform Fields at Low Gas Pressures

**PERIODICAL:** Radiotekhnika i elektronika, 1959, Vol 4, Nr 8, pp 1260 - 1266 (USSR)

**ABSTRACT:** Breakdown voltages of five different discharge tubes, having non-uniform fields, were investigated. Also, the effect of the polarity of the electrodes was studied. The electrode configurations are shown in Figures 1. The electrodes were fixed to a special anode support which was capable of withstanding a voltage of 100 kV. The measurement of the breakdown voltage was effected by the method described by the author in two earlier papers (Refs 1, 2). The distribution of the fields between the electrodes was determined by means of the equipotential surfaces plotted experimentally. The trajectories of the charged particles in the inter-electrode space were constructed graphically. The configuration I (see Figure 1a) was studied most thoroughly. The breakdown voltage was measured as a function of the

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SOV/109-4-8-6/35

Ignition of Discharges in the Non-uniform Fields at Low Gas Pressures

distance between the flat portions of the electrodes. The non-uniformity of the field was defined as a ratio of the distance  $d$  and the diameter  $D$  of the external cylindrical electrode. For the distances  $d < 0.3 D$ , the field between the electrodes could be regarded as uniform. With increasing  $d$ , the field became more non-uniform and the voltage drop was concentrated in the vicinity of the internal electrode. The curves  $U_s = f(p_0)$  for three different inter-electrode distances are illustrated in Figure 2. Curves 1 correspond to the case when the internal electrode had a positive potential, while Curves 2 correspond to a negative internal electrode; the dashed curves represent the case of a uniform field between the electrodes. The discharge was carried out in air. The electrostatic field and the electron trajectories for configuration I are illustrated in Figure 3. The breakdown voltages for configuration II (Figure 1b) are illustrated in Figure 4; the tube was filled with air ✓

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