

ULUBKOVA, M.V.; KUZ'MINA, L.A.

Use of  $O^{14}$  in the study of photoreduction and chemosyntheses in green algae. Dokl.AN SSSR no.5:915-917 D '53. (MIRA 6:12)

1. Institut geokhimii i analiticheskoy khimii im. V.I.Vernadskogo Akademii nauk SSSR. Predstavleno akademikom A.I.Oparinyam.  
(Algae) (Photosyntheses) (Tracers (Biology))

ULUBEKOVA, M. V.

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

②  
The use of carbon<sup>14</sup> in the study of photoreduction and chemosynthesis in green algae. M. V. Ulubekova and L. A. Kuz'mina. *Doklady Akad. Nauk S.S.S.R.* 93, 915-17 (1953).—Reduction of CO<sub>2</sub> labeled by C<sup>14</sup> in *Scenedesmus obliquus* and *Chlorella vulgaris* was studied under condition of artificial illumination in sterile mineral medium. The amt. of absorbed C<sup>14</sup> during photoreduction is much greater than during chemosynthesis. As the duration of light and dark periods increases the amt. of C<sup>14</sup> absorbed by the cells increases and shows different distribution. At first C<sup>14</sup> is found mainly in the sol. fractions, and later it appears in the insol. fractions. Decarboxylation of Ba salts of the sol. fraction showed that in photoreduction the percentage of C<sup>14</sup> in carboxyl groups is but 40-50% of that found in chemosynthesis; hence reduction of CO<sub>2</sub> during photoreduction is much more complete in the same unit of time.  
G. M. Kosolapov

ULUBEKOVA, M. V.

Study of photosynthesis in green algae by means of carbon-14. M. V. Ulubekova. *Doklady Akad. Nauk S.S.S.R.* 104: 301-303 (1957). Photosynthesis was studied in *Scenedesmus* and *Chlorella* in phosphate buffer at pH 7 at several levels of light intensity, with  $C^{14}O_2$  as the tracer for the assimilation of  $CO_2$ . Both species give very similar amts. of assimilated C both in photosynthesis and in the photoreduction step, under conditions of mild light intensity. At high light intensity up to 3-4% by wt. of  $CO_2$  is assimilated.  $H_2NOH$  at 0.001M concn. represses photosynthesis and photoreduction considerably, while chemosynthesis is little affected; at 0.0003M concn. about 25-30% repression of photoreduction is observed. The plant specimens contain considerable amts. of insol. matter (after treatment with 85% EtOH, hot  $H_2O$ , and 0.5% NaOH), about 53% in light, and 48.5% in dark specimens. In *Scenedesmus* the highest amt. of assimilated  $C^{14}$  after photosynthesis is found in the EtOH and the aq. exts. after short exposures, while after long irradiation the insol. fraction increases in its radioactivity, while the  $C^{14}$  level in the  $H_2O$ -sol. fraction drops. The general distribution pattern in the dark is similar. The rate of utilization of  $CO_2$  in photoreduction is comparable to that of photosynthesis.

G. M. Konolapoff

Inst. Geochem. & Analyt. Chem. im. V.I. Vernadskiy, A S U S S R

ULJBEKOVA, M.V.

Study of the isotopic composition of oxygen in cells of algae  
during photosynthesis. Dokl. AN SSSR 112 no.4:772-773 F '57.  
(MIRA 10:4)

1. Institut geokhimi i analiticheskoy khimii im. V.I. Vernadskogo  
Akademii nauk SSSR. Predstavleno akademikom A.P. Vinogradovym.  
(Algae)(Photosynthesis)  
(Oxygen--Isotopes)

ULUBEKOVA, M. V. Cand Biol Sci -- (diss) "Study ~~of~~ of the assimilation of  
carbonic acid by green algae by <sup>method</sup> ~~the method~~ of tagged atoms." Mos, 1958.  
16 pp (Mos State Univ im M. V. Lomonosov), 110 copies (KL, 52-58, 101)

ULJBEKOVA, M.V.

Phosphorus and iron in cells of photosynthesizing green algae.  
Fiziol.rast. 6 no.3:363-365 My-Je '59. (MIRA 12:8)

1. V.I.Vernadskiy Institute of Geochemistry and Analytical  
Chemistry, the U.S.S.R. Academy of Sciences, Moscow.  
(Photosynthesis) (Iron) (Phosphorus)

17(1)

## AUTHORS:

Vinogradov, A. P., Academician, Kutyrin, V. M., SOV/20-125-5-54/61  
Ulubekova, M. V., Zadorozhnyy, I. K.

## TITLE:

The Isotopic Composition of Photosynthetic Oxygen (Izotopnyy sostav kislороda fotosinteza)

## PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 5, pp 1151-1153 (USSR)

## ABSTRACT:

The oxygen mentioned in the title occurs in water and is the result of dehydrogenation (Refs 1,2). The attempt was made to interpret the difference between the isotopic composition of oxygen occurring in water and obtained from the photosynthesis (1 - 2.5%) as a methodical mistake or by an exchange between oxygen separated in the photosynthesis and cellular water (Ref 3). Without knowledge of the mechanism of oxygen separation in the photosynthesis the probability of such an exchange could not be denied (Ref 3). This exchange was, however, soon refuted: in the electrolysis (Ref 4) as well as in the case of the catalase effect (Ref 5) no exchange takes place between  $O_2$  and  $H_2O$ ,  $OH$ ,  $HOOH$  as well as  $-O-O-$ . Since it was therefore necessary to define precisely the composition mentioned in the title, especially for marine organisms, the authors

Card 1/3

## The Isotopic Composition of Photosynthetic Oxygen

SOV/20-125-5-54/61

investigated the topic mentioned with the water weed (*Elodea canadensis*) (fresh water), on the one hand, and with phytoplankton (mainly Diatomaceae algae, sea water), on the other hand. The photosynthesis took place in water treated with argon free from oxygen ( $O_2$ -content 0.3-1 ml/liter) at sunny weather and under optimum conditions. Table 1 shows the results. The disturbing effect of the residual respiration oxygen, which was heavier in consequence of preferred absorption of  $O^{16}$ , was eliminated as far as possible by repeated extraction of the oxygen produced by photosynthesis. The method used for fresh water and the water weed had to be replaced by that of Winkler for marine plankton since the extraction of oxygen weakened the intensity of the photosynthesis. The average value of the isotope content of the photosynthetic oxygen of marine phytoplankton (0.2002) ( $O^{18}$  related to  $O^{17}$ ; the small content of  $O^{17}$  was neglected) is higher only by 0.0009%, i. e. higher by 1.0  $\mu$  than that of sea water (mass-spectrum determination in Table 2). This means that 90% of the photosynthetic oxygen occurs in water. In the case of the water weed a similar calculation yields 82%. In the experiments with the

Card 2/3



The Isotopic Composition of Photosynthetic Oxygen

SOV/20-125-5-54/61

water weed the respiration intensity was not determined. By eliminating the respiration the isotopic composition of photosynthetic oxygen approaches in all cases that of water so far that undoubtedly the total photosynthetic oxygen occurs in water. Inconsiderable deviations of the isotope content in photosynthetic oxygen from the isotopic composition of water in the experiments with the water weed and in the experiment Nr 2 with marine phytoplankton resulted from the deviation of the fractionating coefficients of the oxygen isotopes in the respiration from the assumed average value. There are 2 tables and 8 references, 2 of which are Soviet.

SUBMITTED: January 16, 1959

Card 3/3

ULUBEKOVA, M.V.

ULUBEKOVA, M.V.

Studying photoreduction in cells of *Scenedesmus obliquus* by  
the use of  $C^{14}$  and  $O^{18}$ . *Fiziol.rast.* 7 no.3:296-299  
'60. (MIRA 13:6)

I. V.I. Vernadsky Institute of Geochemistry and Analytical  
Chemistry, U.S.S.R. Academy of Sciences, Moscow.  
(Algae) (Plants, Effect of light on)

84662

S/O20/60/134/006/031/031  
B016/B067

17.1156

AUTHORS:

Vinogradov, A. P., Academician, Kutyurin, V. M.,  
Ulubekova, M. V., and Zadorozhnyy, I. K.

TITLE:

Isotopic Composition of the Oxygen of Photosynthesis and  
Respiration <sup>2</sup>

PERIODICAL:

Doklady Akademii nauk SSSR, 1960, Vol. 134, No. 6,  
pp. 1486-1489

TEXT: In an earlier paper (Ref. 1) the authors had arrived at the con-  
clusion that the difference between the isotopic composition of the oxygen  
of photosynthesis and of water oxygen can be explained. This is due to  
the fractionation of the oxygen isotopes during respiration, which en-  
riches the oxygen remaining after respiration with O<sup>18</sup> thus making it  
heavier. Since photosynthesis and respiration take place simultaneously,  
the oxygen analyzed is that which was not consumed in respiration. Its  
isotopic composition depends on the ratio of the intensities of these two  
processes, furthermore on the fractionation coefficient of the oxygen  
isotopes during respiration. The authors are of the opinion that the mean

✓

Card 1/3

84662

S/020/60/134/006/031/031  
B016/B067

Isotopic Composition of the Oxygen of  
Photosynthesis and Respiration

value of this coefficient  $\alpha = 1.018$  assumed in publications (Ref. 3) can hardly be used for the calculations in the individual case. To determine the quantitative influence of respiration on the isotopic composition of the oxygen of photosynthesis they tried to determine simultaneously the  $\alpha$  of respiration and the isotopic composition. For this purpose they used cultures of *Scenedesmus obliquus* and the water plant *Elodea canadensis* which were investigated in an apparatus (Fig. 1). Fig. 2 shows the apparatus used for the purification of the gas. The experiments with both types of plants were made with an exposure of 5500 lux and at pH 7. The remaining conditions are given in Tables 1 and 2. The data obtained (Table 1) show that the fractionation coefficient of the oxygen isotopes during the respiration of both plants depends on the physiological state of the plants. In endurance tests (18-20 h), when plants are starving, the respiration intensity is reduced to 1/5 to 1/10, while the coefficient  $\alpha$ , however, rises, i.e., the degree of fractionation increases under unfavorable conditions. This recalls the metabolism of sulfur bacteria (Ref. 7). The difference between the fractionation coefficient of *Scenedesmus* and *Elodea* indicates the specificity of the oxygen metabolism in different types of plants. This confirms the above mentioned doubts

X

Card 2/3

84662

Isotopic Composition of the Oxygen of  
Photosynthesis and Respiration

S/020/60/134/006/031/031  
B016/B067

as to the usability of a mean coefficient  $\alpha$  for all plants. As to the use of this coefficient for each type of plant the authors hold the opinion that the influence exerted by respiration on the isotopic composition (on the example of Scenedesmus and Elodea) can be determined by determining  $\alpha$  under the conditions of photosynthesis. The authors arrive at the conclusion that the opinion expressed in the beginning concerning the "rendering heavier" of photosynthesis oxygen by respiration is correct, and they derive equations (1) and (2) for the isotopic composition of the oxygen remaining after respiration as well as for the respiration intensity. K. P. Florenskiy is mentioned (Ref. 4). There are 2 figures, 2 tables, and 10 references: 4 Soviet and 3 US. X

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo Akademii nauk SSSR (Institute of Geochemistry and Analytical Chemistry imeni V. I. Vernadskiy of the Academy of Sciences, USSR)

SUBMITTED: July 29, 1960

Card 3/3

ULUBEKOVA, N. V., KUTYURIN, V. M. (USSR)

"Photochemical Exchanges of the Hydrogen Atoms of  
Chlorophyll during Photosyntheses."

Report presented at the 5th International Biochemistry Congress,  
Moscow, 10-16 August 1961

ULUBEKOVA, M. V., KARYAKIN, A. V., KUTYURIN, V. M., and CHIBISOV, A. K.  
(USSR)

"Spectroscopic Study of Chlorophyll and its Dervatives in vitro."

Report presented at the 5th International Biochemistry Congress,  
Moscow, 10-16 Aug 1961

KUTYURIN, V.M.; ULUBEKOVA, M.V.; ARTAMKINA, I.Yu.

Method for extracting chlorophyll from plants. Fiziol. rast. 9  
no.1:115-120 '62. (MIRA 15:3)

1. V.I.Vernadskiy Institute of Geochemistry and Analytical Chemistry,  
U.S.S.R. Academy of Sciences, Moscow.  
(Chlorophyll)



11-378-02

ENTR. NO. (K) ... AFFID. NO. ...

ACCESSION NR: AP3000527

S/0020/63/150/002/0411/0413

67

AUTHOR: Vinogradov, A. P. (Academician); Kutyurin, V. M.; Ulubekova, M. V.;  
Zakharova, N. I.; Zadorozhnyy, I. K. 66

TITLE: Oxygen of photosynthesis and phosphates

SOURCE: AN SSSR. Doklady, v. 150, no. 2, 1963, 411-413

TOPIC TAGS: photosynthesis oxygen and phosphates, endocellular water, phosphorylation process, Elodea canadensis

ABSTRACT: This study investigated the proposal by Roux (C. R., Vol. 251, no. 18, 1925, 1960) that the oxygen during photosynthesis is formed from the hydroxyl radicals of phosphate ions. Measurement of tagged O sup 18 in endocellular water and in the oxygen given off by Elodea canadensis in solutions of H sub 2 O sup 18, KH sub 2 PO sub 4 sup 18, or Kh sub 2 P sup 32 O sub 4 sup 18 showed that the photosynthesis oxygen comes only from water and not from phosphate ions. That phosphate ions do not enter into the photolysis (as opposed to phosphorylation process) was further confirmed by analysis of tagged phosphorus in the plants. "In conclusion, we express thanks to N. M. Nazerov and K. G. Semenyuk for assistance in this work." Orig. art. has: 2 tables.

ASSOCIATION: Inst. of Geochemistry and Analytic Chemistry, Academy of Sciences

Card 1/2

VINOGRADOV, A.P., akademik; KUTYURIN, V.M.; ULIBEKOVA, M.V.; ZAKHAROVA, N.I.;  
ZADOROZHNYI, I.K.

Oxygen of photosynthesis and phosphates. Dokl. AN SSSR 150 no.21  
411-413 My '63. (MIRA 16:5)

1. Institut geokhimii i analiticheskoy khimii im. V.I.Vernadskogo  
AN SSSR.

(Photosynthesis) (Oxygen) (Phosphates)

CH. 101-101

of 101-101

CH. 101-101, Pratol, posterior, v. 11, no. 1, 1964, 7-12

Pratol, posterior, v. 11, no. 1, 1964, 7-12

Card 1/2

L 20789-65  
ACCESSION NR: AR1016197

SUB CODES: 145

ENCLOSURE

Card 2/2

KUTYURIN, V.M.; ULJBEKOVA, M.V.; NAZAROV, N.M.

Effect of light and oxygen on the photosynthesis and respiration of aquatic plants. Fiziol. rast. 11 no.6:965-973 N-D '64.

(MIRA 18:2)

1. Vernadsky Institute of Geochemistry and Analytical Chemistry,  
Moscow.

ИМУЩ. Казанский, М. М.; Игубаева, М. В.; Казанский, Л. П.

ndg

pure argon. The concentration of argon was found to be near its concentration

ACCESSION NR: AP4013340

The author concludes that the maximum rate of algal photosynthesis, when the soil-

ACCESSION NR: AP4042026

S/0020/64/157/001/0223/0226

AUTHOR: Kutyrin, V. M.; Ulubekova, M. V.; Nazarov, N. M.

TITLE: Influence of oxygen concentration on the rate of photosynthesis and respiration of algae.

SOURCE: AN SSSR. Doklady\*, v. 157, no. 1, 1964, 223-226

TOPIC TAGS: photosynthesis, life support, oxygen concentration, respiration, plant physiology, light intensity, Chlorella, Scenedesmus, Elodea, algae

ABSTRACT: The authors previously established (DAN, 154, no. 3, 1964) that the rate of photosynthesis in Scenedesmus obliquus decreases as oxygen concentration increases. The present investigation was designed to show what influence oxygen had upon algal photosynthesis and whether the photosynthetic rate was dependent upon the physiological state of algae and the intensity of light. Experiments were conducted on Scenedesmus obliquus at 22C, on Chlorella pyrenoidosa at 39C, and on Elodea canadensis at 22C. All algae were cultivated in phosphate

Card 1/2



ACCESSION NR: AP4042026

buffer solutions (pH 5.6). Kinetic determination of the isolation and absorption of oxygen was accomplished amperometrically. The results of the tests indicated that the influence of oxygen on the observed rate of photosynthesis depends upon the physiological state of the plant and the intensity of light. Algal respiration does not intensify as a result of preliminary illumination. The respiration of algae in darkness is directly proportional to oxygen concentration and differs from respiration in light. It is doubtful whether the "true" rate of algal photosynthesis can be determined by addition of the observed rates of photosynthesis and respiration in darkness. The authors express thanks to K. S. Spektrov for contributing the *Chlorella pyrenoidosa* culture. Orig. art. has: 2 figures and 1 table.

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V. I. Vernadskogo Akademii nauk SSSR (Institute of Geochemistry and Analytical Chemistry, Academy of Sciences SSSR)

SUBMITTED: 15Aug63

ATD PRESS: 3059

ENCL: 00

SUB CODE: LS

NO REF SOV: 005

OTHER: 003

Card 2/2

ULUITU, M.

Synthesis of adrenal cortex hormones and factors influencing  
it. Fiziol. norm. pat. 11 no.1:27-37 Ja-F '65.

1. Institutul de fiziologie normala si patologica "D. Danielopolu"  
al Academiei R.P.R. (director: acad. G. Benetato).

VODKAILO, Shtefan; ULJITU, Marchel

On the etiology and pathogenesis of the neurovascular syndrome in newborn infants. *Pediatrica* 38 no.10:9-15 0 '60. (MIRA 13:11)

1. Iz 2-y ginekologicheskoy kliniki Kluzhskogo mediko-farmatsevticheskogo instituta (zav. - dotsnet Nikolaye Kozha, dir. - akad. Aurel Moga).

(BIRTH INJURY)

(ASPHYXIA NEONATORUM)

BENETATO, Gr.; HAULICA, I.; ULUITU, M.; BUBULIANU, E.; MOCODEAN, I.;  
STEFANESCU, P.; SUHACIU, G.

Concerning the central nervous action of angiotensin on aldosterone secretion and electrolyte balance. Rumanian med. rev. 7 no.3:3-7 J1-S'63

✖

BAKAYEV, M.T.; NUGMANOV, K.Kh.; SEYDUALIYEV, Z.S.; IBRAYEV, Sh.I.;  
ULUKBEKOV, O.K.; MUSIN, A.Ch., doktor tekhn. nauk, prof.,  
red.; ABDRAKHMAMOV, A., kand. filolog. nauk; ASAINOV, K.,  
red.; AYTUKHAMBETOVA, S., red.; ZHUKOVA, N.D., red.;  
KHUDYAKOV, A.G., tekhn. red.

[Russian-Kazakh dictionary of terminology] Russko-kazakhskii  
terminologicheskii slovar'. Alma-Ata, Izd-vo Akad. nauk  
Kazakhskoi SSR. Vol.12[Mining]Gornoe delo. 1962. 281 p.  
(MIRA 15:11)

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata. Institut yazy-  
kozmaniya.

(Mining engineering--Dictionaries)  
(Russian language--Dictionaries--Kazakh)

ULUKBEKOV, O.K., kand.tekhn.nauk; BEKTYBAYEV, A.D.

Evaluating the efficiency of various well-boring methods. Vest.  
AN Kazakh. SSR 18 no.7:64-68 J1 '62. (MIRA 15:7)  
(Boring)

NURGALIYEV, T.N.; ULUKBEKOV, O.K.; BEKTYBAYEV, A.D.

Appraising direct and indirect methods of accounting for loss and  
depletion of ore. Trudy Alt. GMI AN Kazakh. SSR 15:197-202 '63.  
(MIRA 17:3)

ULUKBEKOV, O.K.; BEKTYABAYEV, A.D.; PUSTOVALOV, A.I.; NURGALIYEV, T.

Studying the technological and economic indices of parallel  
and fan boreholes in systems with ore breaking by levels. Trudy  
Alt. GMNII AN Kazakh. SSR 15:203-207 '63. (MIRA 17:3)



KUTYURIN, V.M.; ULUBEKOVA, M.V.; KAZANSKIY, L.P.

Change in the rate of photosynthesis by *Scenedesmus obliquus* observed together with a growth in the hydrogen concentration in the medium. Dokl. AN SSSR 154 no. 3:725-727 Ja '64.  
(MIRA 17:5)

1. Institut geokhimii i analiticheskoy khimii im. V.I. Vernadskogo AN SSSR. Predstavleno akademikom A.P.Vinogradovym.

KUTYURIN, V.M.; VOSKRESENSKAYA, N.P.; ULUBEKOVA, M.V.; GRISHINA, G.S.;  
ZADOROZHNYI, I.K.

Effect of the spectral composition of light on the frac-  
tionation of oxygen isotopes during its absorption by water  
plants. Fiziol. rast. 11 no.1:7-12 Ja-F '64.

(MIRA 17:2)

1. Institut ~~geokh~~khimii i analiticheskoy khimii imeni  
Vernadskogo AN SSSR i Institut fiziologii rasteniy imeni  
K.A. Timiryazeva Akademii nauk SSSR, Moskva.

DAMIROV, I.A.; ULUKHANOV, B.G.

Saint-John's-wort growing in Azerbaijan. Azerb. med. zhur.  
41 no.8:20-26 Ag '64. (MIRA 18:11)

ULUMBEKOV, E.G.

Enzymes oxidizing carbohydrates in tissue receptors. Nauch.  
trudy Kaz. gos. med. inst. 14:303-304 '64. (MIRA 18:9)

1. Kafedra gistologii (zav. - prof. G.I.Zabusov) Kazanskogo  
meditsinskogo instituta.

ULUMBEKOV, E.G.

Some dehydrogenases of encapsuled nerve endings. Arkh. anat., gist.  
i embr. 47 no.12:89-92 D '64. (MIRA 18:4)

1. Kafedra gistologii (zav. - prof. G.I.Zabusov) Kazanskogo  
meditsinskogo instituta. Adres avtora: Kazan', Universitetskaya  
ul., 13, Kazanskiy meditsinskiy institut.

ULUPOV, Mark

Cherepovets Metallurgical Plant. Nauka i zhizn' 27 no.11:64 N '60.  
(MIRA 13:12)

(Cherepovets--Steel industry)

GERVASH, A.; ULUPOV, M.

We visited only three plants. Znan.sila 35 no.1:2 of cover.  
Ja '60. (MIRA 13:5)

(Novosibirsk--Machinery industry)

(Novosibirsk--Turbogenerators)

(Novosibirsk--Steelworks--Equipment and supplies)

POLAND

ULATIN, O.N. and SESTAKOF, D.; II Clinic of Internal Diseases, Istanbul University, Turkey (Z II Kliniki Chorob Wewnastrznych Uniwersytetu w Istambule, Turcja).

"The Use of Heparin Loading Test in the Investigation of Hypercoagulability"

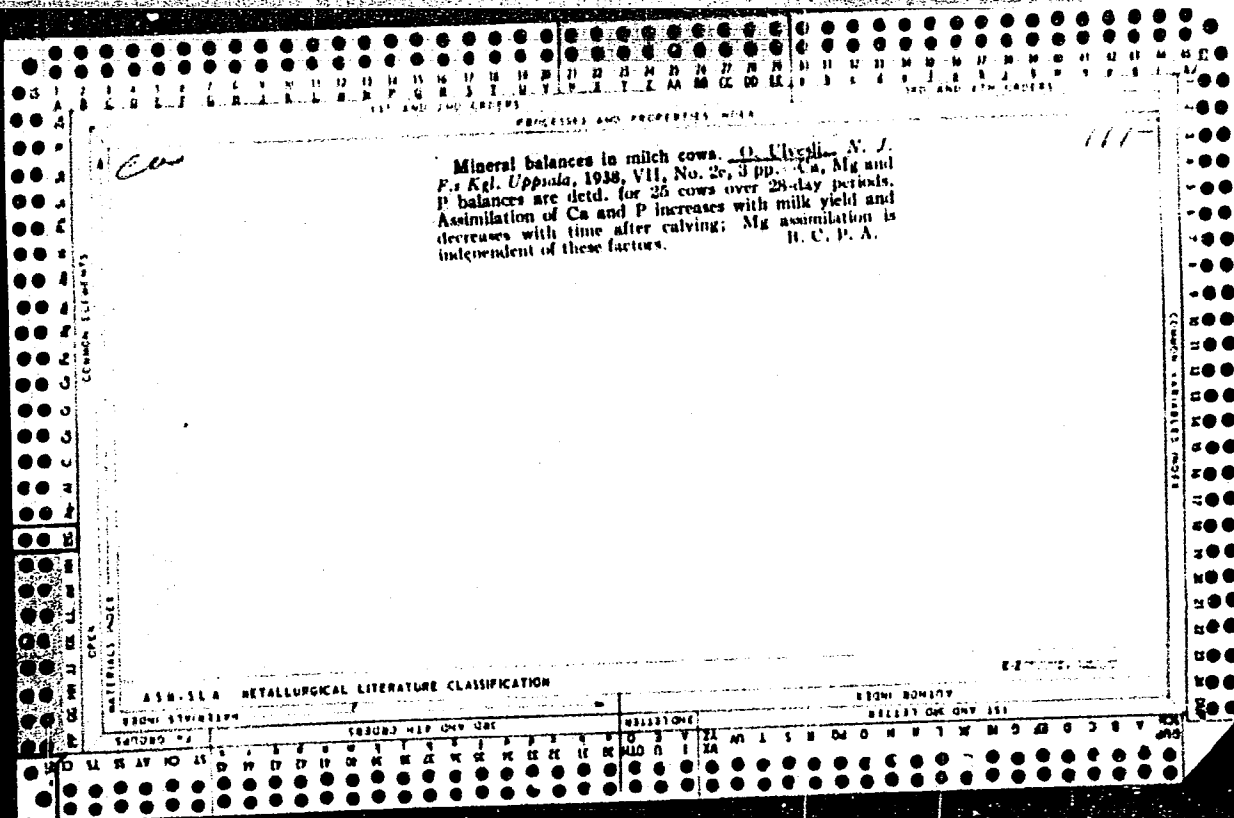
Warsaw, Polski Tygodnik Lekarski, Vol 17, No 52, 24 Dec 62, pp 2021-2025

Abstract: [ Authors' English summary ] "Heparin loading test" was introduced in order to reveal hypercoagulability. It has been shown that antithrombotic effect of heparin was different in normal persons and in arteriosclerotic patients. In arteriosclerotic cases heparin is either consumed or rapidly neutralised.

The article contains three diagrams and twenty references( all Western).

1/1





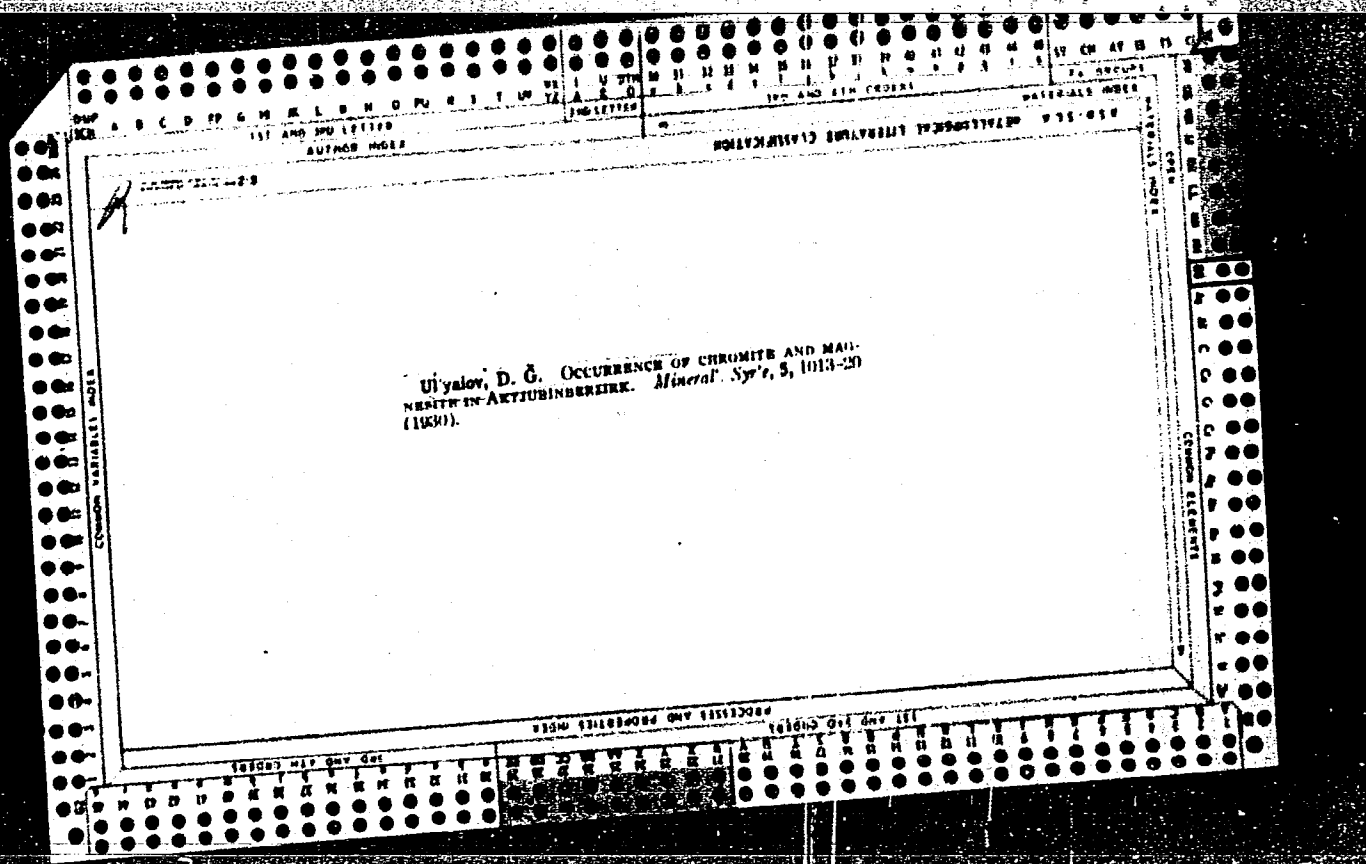
ULVETCZY, Tibor

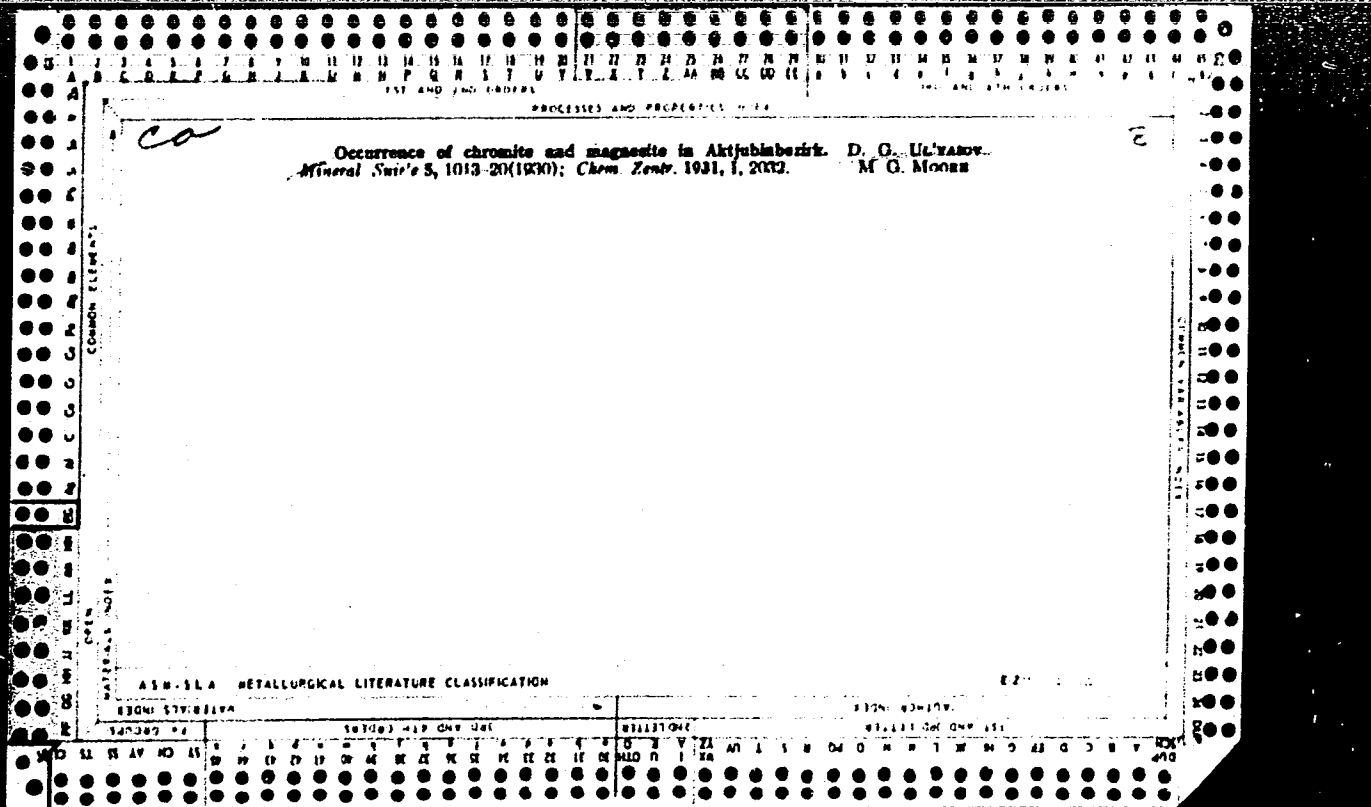
A simple amateur signal generator. Radiotekhnika 5 no.5:196-197  
My '65.

OBERLIK, Gustav, inz.; ULVR, Josef

Methods of etching and the macrostructure representation.  
Mat listy 19 no. 3:202-203 Mr 164.

1. Zavody V.I.Lenina National Enterprise, Plzen.





UL'YAKHIN, A.A.; GOLUBEV, R.N.; BYKOV, M.S., inzh. (Yaroslavl')

Specialization of track machinery stations. Put' i put'khoz. 8 no.8:  
27 '64. (MIRA 17:9)

1. Zamestitel' nachal'nika sluzhby puti, Yaroslavl', Severnoy dorogi  
(for Ul'yakhin). 2. Nachal'nik otdela mekhanizatsii sluzhby puti,  
Yaroslavl', Severnoy dorogi (for Golubev).

OLEYAKHIN, N. G.

Tobacco Manufacture and Trade.

Pneumatic transportation of makhorka. Mekh. trud. rab. 6 no. 2, 1952.

9. Monthly List of Russian Accessions, Library of Congress, June 1952~~3~~ Unclassified.

ULYAKHIN, N.G.

Units for fixing knots in caprone fishing nets. Biul.tekh.-ekon.  
inform. no.2:46-47 '58. (MIRA 11:4)  
(Nets)



ULYAKHIN, N.G.

"Tiss"-type instrument used in determining fish fry contaminated  
by radioactive substances. Biul. tekhn.-ekon. inform. no.3:57 '58.  
(Radioactive substances—Physiological effect) (MIRA 11:6)  
(Fish-culture)

ULYAKHIN, N.G.

New automatic machines used on fishing boats. Biul. tekhn.-ekon.  
inform. no.3:57-58 '58. (MIRA 11:6)  
(Fishing--Implements and appliances)

KORNEYEV, B.N., inzh.; UL'YAKHIN, P.M., inzh.; CHALENKO, N.Ye., inzh.;  
YEFREMENKO, F.V., inzh.

Wide work mining. Sbor.DonUGI no.20:77-89 '61. (MIRA 15:6)  
(Donets Basin--Coal mines and mining)

KORNEYEV, B.N., inzh.; UL'YAKHIN, P.M., inzh.; YEFREMENKO, F.V., inzh.;  
CHALENKO, N.Ye., inzh.

Economic efficiency of wide work mining. Sbor.DonUGI no.20:  
90-108 '61. (MIRA 15:6)  
(Donets Basin--Coal mines and mining)

KORNEYEV, B.N., inzh.; UL'YAKHIN, P.M., inzh.; CHALENKO, N.Ye., inzh.;  
YEFREMENKO, F.V., inzh.

Technological layouts and efficiency of scraper rock filling of  
the mined-out area of longwalls in flat seams. Sbor. DonUGI  
no.29:17-31 '63. (MIRA 16:10)

(Donets Basin—Mine filling)

ULYAKHIN, S.

Banks and Banking

Financing individual housing construction, Sov. fin., 13, No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

ULYAKHIN, S.

Building

Financing individual housing construction, Sov. fin., 13, No. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, July 1952. Unclassified.

ULYAKOV, I  
CA

PROCESSES AND PROPERTIES INDEX

The fixing of phosphates by various soils and their availability to plants. I. Ulyakov, *Poiskovy Udobreniya, Vsesoyuz. Nauch.-Issledovatel. Inst. Udobreniy, Agrotikh. i Agropromyshlenniya im. Gorkhova 1930, No. 23, 3-32; Khim. Referat. Zhur. 1940, No. 2, 51; cf. C. A. 34: 42114.*—Vegetation and lab. expts. with various podzol soils, chernozem soils and Chakvin red soils indicate that on most soils the effects of  $\text{Ca}(\text{H}_2\text{PO}_4)_2$  and  $\text{CaH}_2\text{PO}_4$  are identical. Local addn. of phosphates with lime is recommended. The coeffs. of utilization of phosphates are given. On red and podzol soils the  $\text{Ca}(\text{H}_2\text{PO}_4)_2$  and  $\text{CaH}_2\text{PO}_4$  were transformed after 6 months mainly into the  $\text{R}_2\text{O}_3$  compds. On chernozem soils the greatest part of the phosphates combined with Ca and Mg and only very little with  $\text{R}_2\text{O}_3$ . This conclusion is based mainly on the results from aq. HCl and citric acid exts. from the soils. The HCl ext. dissolves Ca and Mg phosphates at an equil. value of pH 3. The citric acid ext. dissolves only the  $\text{R}_2\text{O}_3$  phosphates at the same pH value. W. R. Henn

15

USSR-SEA METALLURGICAL LITERATURE CLASSIFICATION

FROM NOMINAT

COLLECTIONS

FROM LIBRARY NO. 22

OPEN

CONCERN ELEMENTS

MATERIALS INDEX

FROM LIBRARY NO. 22



REF ID: A66001

STUDY OF PHOSPHATE NUTRITION OF SUMMER WHEAT AND THE PROBLEMS OF COMPLEMENTARY FERTILIZATION

I. P. Chekoy and P. E. Ryabosteva. *Chemistry of Industry (U. S. S. R.)*, No. 3, 64 (1930); *Chem. & Ind. (U. S. S. R.)*, No. 3, 64 (1930). Storing of  $P_2O_5$  in summer wheat is very considerable up to the time of heading; after this period the wheat contains sufficient P to assure, if necessary, the requirements of the reproductive organs. It is therefore rational to apply phosphates to summer wheat before seeding.

A. Pappasou-Couture

ASACSLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND LETTERS

3RD AND 4TH LETTERS

5TH AND 6TH LETTERS

7TH AND 8TH LETTERS

9TH AND 10TH LETTERS

11TH AND 12TH LETTERS

13TH AND 14TH LETTERS

15TH AND 16TH LETTERS

17TH AND 18TH LETTERS

19TH AND 20TH LETTERS

21ST AND 22ND LETTERS

23RD AND 24TH LETTERS

25TH AND 26TH LETTERS

27TH AND 28TH LETTERS

29TH AND 30TH LETTERS

31ST AND 32ND LETTERS

33RD AND 34TH LETTERS

35TH AND 36TH LETTERS

37TH AND 38TH LETTERS

39TH AND 40TH LETTERS

41ST AND 42ND LETTERS

43RD AND 44TH LETTERS

45TH AND 46TH LETTERS

47TH AND 48TH LETTERS

49TH AND 50TH LETTERS

51ST AND 52ND LETTERS

53RD AND 54TH LETTERS

55TH AND 56TH LETTERS

57TH AND 58TH LETTERS

59TH AND 60TH LETTERS

61ST AND 62ND LETTERS

63RD AND 64TH LETTERS

65TH AND 66TH LETTERS

67TH AND 68TH LETTERS

69TH AND 70TH LETTERS

71ST AND 72ND LETTERS

73RD AND 74TH LETTERS

75TH AND 76TH LETTERS

77TH AND 78TH LETTERS

79TH AND 80TH LETTERS

81ST AND 82ND LETTERS

83RD AND 84TH LETTERS

85TH AND 86TH LETTERS

87TH AND 88TH LETTERS

89TH AND 90TH LETTERS

91ST AND 92ND LETTERS

93RD AND 94TH LETTERS

95TH AND 96TH LETTERS

97TH AND 98TH LETTERS

99TH AND 100TH LETTERS

L 36378-65 EWT(6) BND-2/BWP(1) Pz-4/Pq-4/Pz-4/Pk-4 IJP(e) BB/GG

ACCESSION NR: AP5006189

8/0103/65/026/062/0375/0379

AUTHOR: Pakulov, N. I. (Kharkov); Ul'yanchenko, I. E. (Kharkov)

TITLE: Computer electronic output device

SOURCE: Avtomatika i telemekhanika, v. 26, no. 2, 1965, 375-379

TOPIC TAGS: digital computer, computer output device, electronic output device

ABSTRACT: An electronic device with cathode-ray scope display for the output of alpha numeric data from a digital computer is described. All functions of scanning the ferrite matrix, of producing the raster on the screen, and of determining the coordinates of the symbol in question are combined in coordinate counters with added weight resistors which cut down on the amount of equipment required. A model tested in the laboratory is claimed to have these characteristics: clock frequency, 100 kc; speed, 2000 characters per min; number of ferrite cores in the matrix, 12; power consumption, 10 w; size, 100 x 100 x 100 mm. There are 17

L 36338-65

ACCESSION NR: AP5006 89

ASSOCIATION: n ne

SUBMITTED: 16Sep63

ENCL: 00

SUB CODE: DP,EC

NO REF SOV: 001

OTHER: 001

ATD PRESS: 3219

Card 2/2

GULYAYEV, A. P., doktor tekhn. nauk, prof.; UL'YANE, Ye. A., inzh.

Effect of small additions of rare-earth metals and boron on the properties of structural steel. Metalloved. i term. obr. met. no.10:50-55 0 '61. (MIRA 14:10)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy metallurgii.

(Steel, Structural--Metallurgy)

UL'YANENKO, L.N.

Reconditioning babitt-lined bearings. Sakh.prom. 30 no.4:52-53  
Ap '54. (MLRA 9:8)

1. Smelyanskiy mashinostroitel'nyy zavod.  
(Bearings (Machinery))

*Ul'yanenko, L. N.*  
UL'YANENKO, L. N.

Rapid method for making coil chains. Sakh. prom. 31 no.12:49-50  
D '57. (MIRA 11:1)

1. Smelyanskiy tekhnikum pishchevoy promyshlennosti.  
(Chains)

UL'YANETS, A.G.

Tractor-type electric power plant. Put' i put. khoz. no.5:26  
My '59. (MIRA 12:8)

1.Zaveduyushchiy masterskimi st.Belgrad, Moldavskoy dorogi.  
(Tractors) (Electric power plants)





UL'YANETSKAYA, P.O.

Pathology of the small branches of the pulmonary artery and the closing arteries of the lung. Arkh.pat.17 no.1:61-62 Ja-Mr '55.  
(MLRA 8:10)

1. Iz patologoanatomicheskoy laboratorii kafedry TSentral'nogo instituta usovershenstvovaniya vrachev.  
(CARDIAC ENLARGEMENT, pathology, pulm. arteries)  
(ARTERIES, PULMONARY, pathology in cardiac enlargement)

EXCERPTA MEDICA - Sec.5 Vol.9/11 Gen.Pathology Nov 56

3292. ULYANETSKAYA P.O. Central Inst. for Med. Educ. Training, Moscow.  
\*Blocking arteries and arteriovenous anastomoses in the case of myocardial infarction (Russian text) ARKH. PATOL. (Moscow) 1956, 18/2 (44-52) Illus. 7

A brief review of the literature on 'glomus-like' arteries and arteriovenous anastomoses (demonstrated in the heart by Zink, Hirsch, Bucher, Conti and Inyinskiy) is followed by a report on histological findings obtained in 18 cases of cardiac infarction (about 10-15 samples from various regions stained by haematoxylin-eosin, Van Gieson and Weigert staining). In the region of cicatrizing myocardial infarctions newly formed blocking arteries and arteriovenous anastomoses are found from the 19th day onward, sometimes in considerable numbers. As a rule they show a typical blocking arterial structure with well-developed longitudinal musculature between the endothelium and the internal elastic layer and a considerably thinner layer of transverse muscles, sometimes containing smaller vessels. The wall of these blocking arteries consists of 3 layers: a powerful longitudinal musculature is found on both sides of a few transverse muscle fibres in the middle. In some cases a 4th external layer of transverse muscle is seen. These blocking arteries can also occur in the form of vasa vasorum of thicker branches of the coronary artery. As regards their histogenesis it is presumed that smooth muscle fibres develop from the vascular connective tissue with its low differentiation, or result from an increase in endothelial and perivascular elements. In the resulting blocking arteries isolated sclerosis may develop. The formation of blocking arteries and arteriovenous anastomoses in myocardial scars is regarded as a mechanism of adaptation in order to improve the myocardial circulation.

Brandt - Berlin

UL'YANETSKAYA, P.O.

Closing arteries and arteriovenous anastomoses in myocardial  
infarctions. Arkh.pat. 18 no.2:44-52 '56 (MIRA 11:10)

1. Iz patologoanatomicheskoy laboratorii i bal'neologii v Kislovodske  
(zav. - prof. V.Ye. Mezlin) Tsentral'nogo instituta usovershenstvovaniya  
vrachey.

(MYOCARDIAL INFARCT, physiology,  
arteriovenous anastomoses & closing arteries (Rus))  
(BONES, in various diseases,  
leukemia (Rus))

UL'YANETSKAYA, P. O., Cand Med Sci -- (diss) "Closing arteries and arteriovenous anastomosis with infarctures of the miocardium." Moscow, 1957, 15 pp (Academy of Medical Sciences) 200 copies (KL, 36-57, 108)

USSR/Morphology of Man and Animals - Vascular System.

S-5

Abs Jour : Ref Zhur - Biol., No 6, 1958, 26490

Author : Ulyanetskaya, P.O.

Inst :

Title : Closing Arteries and Arterio-Venous Anastomoses in Myocardial Infarcts.

Orig Pub : Avtoref. diss. kand. med. n., Akad. med. nauk, SSSR, M., 1957.

Abstract : NO abstract.

Card 1/1

UL'YANETSKAYA, P.O. (Kislovodsk)

Locking arteries in the valves in heart defects. Arkh.pat. 21 no:9:  
42-47 '59. (MIRA 14:8)

1. Iz patologoanatomicheskoy laboratorii kafedry terapii i  
bal'neologii (zav. - prof. V.Ye. Nezlin) Tsentral'nogo instituta  
usovershenstvovaniya vrachey.  
(RHEUMATIC HEART DISEASE)

ADESTOV, G.N.; BORISOV, V.I.; DVORYANINOV, N.V.; DUBKOV, V.B.;  
KUZOVKIN, V.N.; MIKHAYLOV, S.B.; TUZHILKIN, V.G.;  
CHERNOMASHINTSEV, A.I.; SHIKHOV, B.N.; YAKUBOVICH,  
I.Ye.; UL'YANETSKIY, A.M., nauchn. red.; PROSVIRIN, A.D.,  
otv. red.; MONAKHOVA, N.F., red.; KOGAN, F.L., tekhn. red.

["Motor vehicles of the U.S.S.R." catalog; the GAZ-51,  
GAZ-51A, GAZ-63 and GAZ-63A motortrucks; structural changes  
and the interchangeability of parts and units] Katalog-  
spravochnik "Avtomobili SSSR: avtomobili GAZ-51, GAZ-51A,  
GAZ-63, GAZ-63A; konstruktivnye izmeneniia i vzaimozamenia-  
emost' detalei, uzlov i agregatov. Moskva, 1963. 74 p.  
(MIRA 16:12)

1. Moscow. Tsentral'nyy institut nauchno-tekhnicheskoy in-  
formatsii po avtomatizatsii i mashinostroyeniyu. 2. Glavnyy  
konstruktor Gor'kovskogo avtomobil'nogo zavoda (for  
Prosvirin).

(Motortrucks--Catalogs)

UL'YANICH, M.I.

Dust removal in ballast plants. Put' i put.khoz. 8 no.4:42-43 '64.  
(MIRA 17:4)

1. Glavnyy inzh. Znamenskogo shchebenochnogo zavoda Odessko-Kishinevskoy dorogi.



UF 'YANIN, N. G.

37284. K ekologii teterava, beloy i seroy kyropatok severnogokazakhstana. Trudy naurzum. Gos zapovednika, vyp. 2, 1949, s. 5-57. - Bibliogr: 18 nazv.

SO: Letopis' Zhurnal nykh Statey, Vol. 7, 1949

L 1746L-63

EWP(q)/EWT(m)/IDS AFFTC/ASD JD/JG

ACCESSION NR: AP3004780

S/0129/63/000/008/0002/0006

AUTHORS: Gulyayev, A. P.; Ul'yanin, Ye. A.

TITLE: Rare earth metals in structural steel

SOURCE: Metallovedeniye 1 termicheskaya obrabotka metallov, no. 8, 1965, 2-6

TOPIC TAGS: rare earth metal, construction steel, 40 KhN steel, 40 Kh steel, 40 KhR steel, 40 KhNR steel, Pr, Ce, La, Nd, praseodymium, cerium, lanthanum, neodymium

ABSTRACT: Authors studied the effects of rare earth metals such as cerium, lanthanum, neodymium and praseodymium upon the properties of 40 Kh steel. In addition to analyzing the effect of individual rare earth metals, complex admixtures in the form of mischmetal, containing 50% Ce, 22% La, 10% Nd and 5% Pr, were studied at the same time. The effect of these metals upon the hardenability, strength, plasticity, ductility and reversible temper brittleness tendencies were studied. Authors found that oxidation of the rare earth metals depends upon amount of admixture. The more rare metal quantity put in, the faster they burned out. All of the rare metals are powerful

Card 1/2

61  
59

L 17464-63

ACCESSION NR: AP3004780

2

desulfurizers. Degree of desulfurization increases with increase of rare metal admixture. All of the rare earth elements increase hardenability. The degree of their effect is variegated, however. Cerium and lanthanum do not increase the critical diameter as much as do neodymium and praesodymium. When neodymium and praesodymium are put into the steel, the harderability increases in proportion to the admixtures. Mischmetal occupies an intermediate position between cerium-lanthanum and neodymium-praesodymium. None of the rare metals have an effect upon the strength and plasticity of the 40 Kh steel. Cerium has no effect upon temper brittleness/tendency. Temper brittleness is somewhat checked with a 0.30% admixture of La. Neodymium and praesodymium reduce the temper brittleness tendency. Orig. art. has: 5 tables.

ASSOCIATION: TsNIICHM (Central scientific research institute for ferrous metallurgy),

SUBMITTED: 00

DATE ACQ: 06Sep63

ENCL: 00

SUB CODE: ML, EL

NO REF SOV: 003

OTHER: 002

Card 2/2

ACC NR: AP7002576

(A, N)

SOURCE CODE: UR/0413/66/000/023/0073/0073

INVENTOR: Fatkina, A. M.; Gulyayev, A. P.; Ul'yanin, Ye. A.; Tyurin, Ye. I.

ORG: none

TITLE: Nickel steel. Class 40, No. 189152 [announced by the All-Union Scientific-Research Institute of Oxygen Machine Building Industry (Vsesoyuznyy nauchno-issledovatel'skiy institut kislorodnogo mashinostroyeniya)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 73

TOPIC TAGS: nickel steel , *LOW TEMPERATURE METAL* , *MECHANICAL PROPERTIES*

ABSTRACT:

This Author Certificate introduces a nickel steel with improved mechanical properties at subzero temperatures containing 0.06% max carbon, 0.45 to 0.60% manganese, ~~0.17—0.37%~~ silicon, and 6.0—6.5% nickel.

SUB CODE: 11/ SUBM DATE: 14Sep65/ ATD PRESS: 5113

Card 1/1

UDC: 669.14.018.41:669.15'24-194

L 17457-63 EWP(q)/EWT(m)/BDS AFFTC/ASD JD/JG

ACCESSION NR: AP3004791

S/O129/63/000/008/0062/0063

AUTHOR: Ul'yanin, Ye. A.

92  
72

TITLE: National conference in Minsk devoted to the application of rare metals

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 8, 1963, 62-65.

TOPIC TAGS: rare metals steel production, cast iron production

ABSTRACT: Author gives a resume of a conference which was held in Minsk on 8-9 April 1963 and which was devoted to the application of rare metals in industry. Fifteen papers were presented dealing with the employment of rare earth metals in the production of quality steels and alloys as well as of high-strength cast iron. Papers were presented by Cand. of Tech. Sc. L. I. Fedorov, acting president of Goskomitet Sovieta Ministrov ESSR; Cand. of Tech. Sc. K. F. Klubnichkin (Giredmet, Moscow); Dr. of Tech. Sc. N. A. Voronova and Eng. O. A. Mogilevtsev (Institute of ferrous metallurgy, Dnepropetrovsk); Dr. of Tech. Sc. A. P. Gul'yayev and Eng. Ye. A. Ul'yanin (TsNIIChM, Moscow); Ye. M. Nosov and S. S. Zatulovskiy of the "Bolshevik" factory and Institute of cast industry; Cand. of Econ. Sc. N. A. Kas'yanova (Giredmet, Moscow); Dr. of Tech. Sc. G. V. Estulin and Eng. T. V. Svistunova (TsNIIChM, Moscow); Dr. of Tech. Sc. V. I. Yavoyskiy

Card 1/2

L 17457-63

ACCESSION NR: AP3004791

20

and Cand. of Tech. So. Yu. V. Kryakovskiy (Moscow institute for steels and alloys);  
 Eng. O. S. Komarov and Cand. of Tech. Sc. D. N. Khudokarmov (NIIAvtoprom branch,  
 Minsk); Eng. V. D. Bolotskiy and Cand. of Tech. Sc. D. N. Khudokarmov; V. V.  
Tarasov and A. N. Yershovich (MAZ and Minsk branch of NIIAvtoprom); Cand. of Tech.  
 Sc. L. A. Shevchik (FTI, AN, BSSR, Minsk); Cand. of Tech. Sc. M. V. Voloshchenko  
 (Foundry institute, Kiev); Cand. of Tech. Sc. V. N. Polissadov (Moscow evening  
 metallurgical institute); M. D. Lifshits (Lyubertsy\*); and Parkhomenko (Dnie-  
 propetrovsk institute of ferrous metallurgy). Conference recommended to the  
 scientific-research organizations and national leaders that works devoted to the  
 study of the effect of rare earth elements upon the properties of various materi-  
 als be expanded. Suggestion was made to the machine-building industry to make  
 widespread test runs of steels and alloys with admixtures of rare earth elements.  
 Orig. art. has: no graphics.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 063ep63

ENCL: 00

SUB CODE: ML

NO REF SOV: 000

OTHER: 000

Card 2/2

ACCESSION NR: AP4009586

S/0148/64/000/001/0056/0061

AUTHOR: Gulyayev, A. P.; Ul'yanin, Ye. A.; Bogolyubov, V. A.;  
Merkulova, R. F.

TITLE: The behavior of rare-earth metals in liquid steel

SOURCE: IVUZ. Chernaya metallurgiya, no. 1, 1964, 56-61

TOPIC TAGS: rare-earth metals, ferrocerium, cerium, lanthanum,  
neodymium, praseodymium, desulfurizer, oxide-sulfide mixtures,  
electron microanalyzer, ferrotitanium, liquid steel

ABSTRACT: A study was made of the behavior of individual samples of rare-earth metals in steel on the basis of the speed of their burning-out process and their effect on the oxygen and sulfur content in the steel. The introduction of cerium, lanthanum, neodymium and praseodymium is followed by a sharp reduction in the oxygen content of the steel. The oxidation of rare-earth metals increases with their increasing content in steel. These metals are also active desulfurizers. A study was made also of the nonmetallic inclusions of rare-earth metals in forged steel.

Card 1/2

ACCESSION NR: AP4009586

The chemical composition of the steel was established by the use of an electron microanalyzer on any area larger than one square micron. Methodical difficulties prevented the establishment of the exact chemical composition of the inclusions (impurities); all that could be found was that they contain about 50% rare-earth metal. The optical properties of cerium, lanthanum, neodymium and praseodymium inclusions are fairly similar, the last two of them frequently occurring in the form of separate isolated globules. Orig. art. has: 3 figures and 4 tables.

ASSOCIATION: None

SUBMITTED: 10Aug63

DATE ACQ: 14Feb64

ENCL: 00

SUB CODE: EL

NO REF SOV: 004

OTHER: 000

Card 2/2



ACCESSION NUMBER

DATE

CLASSIFICATION

NUMBER OF PAGES

DATE OF ACQUISITION

TOPIC TAGS

modern physics of metals and alloys and thermodynamics of high pressure as

Card 1/4

2 1963 VOL 1  
ACCESSION NO. 101117001

1963  
101117001

ANALYSIS OF THE

heat treatment methods. The results of the analysis are given by P. A. S. ...

L 36197-65  
ACCESSION NR AP4047312

VALUATION: S N REF: 000 ENCL: 00 SUB CODE: MM

A: SOCIATION: None  
SUBMITTED: 00  
REF SOV: 000

ENCL: 00  
OTHER: 000

SUB CODE: MM

UL'YANIN, Ye.A.; BABAKOV, A.A.; FEDOROVA, V.I.

Properties at low temperatures of chromium-manganese steel  
with nitrogen. Metalloved. i term. obr. no. 12:14-19  
D '65. (MIRA 18:12)

1. Tsentral'nyy nauchno-issledovatel'skiy institut chernoy  
metallurgii imeni Bardina.

UL'YANIN, Ye.A., kand. tekhn. nauk

All-Union Scientific Technical Conference "Advanced Methods  
for the Heat Treatment of Parts of Machines and Instruments."  
Vest. mashinostr. 44 no.11:80-81 N '64 (MIRA 18:2)

(N) L 12093-66 EWT(m)/EWP(w)/EWP(v)/I/EWP(t)/EWP(k)/EWP(z)/EWP(b)/EWA(c)

ACC NR: AP6000604 LJP(c) JD/HM/HW/JG SOURCE CODE: UR/0129/65/000/012/0014/0019

AUTHOR: Ul'yanin, Ye. A.; Babakov, A. A.; Fedorova, V. I.

ORG: TsNIICHERMET

TITLE: Properties of chromium-manganese steel with nitrogen at low temperatures

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 12, 1965, 14-19, and bottom half of insert facing p. 41

TOPIC TAGS: chromium steel, manganese steel, nitrogen, impact strength, brittleness

ABSTRACT: These properties were investigated at temperatures reaching -196°C for two series of laboratory melts with various contents of Cr and N (19.9-22.0% Cr, 0.24-0.35% N) and identical contents of all the other alloy elements (0.035-0.05% C, 0.38-0.51% Si, 5.9-6.17% Mn, 4.99-5.18% Ni, 0.003-0.007% P and 0.007-0.013% S). The steels with 0.32-0.35% N have an austenitic structure to 1200°C, and the steels with 0.24-0.26% N, an austenitic-ferritic structure containing up to 30% δ-ferrite, with the content of δ-ferrite being the greater the higher the amount of ferrite-forming Cr in the steel. Tensile tests at room temperature showed that all the melts have high mechanical properties after quenching from 1050 and 1200°C. At +20 and -196°C N-containing Cr-Mn steel displays high strength, plasticity and impact toughness; thus the presence of as much as 30% of δ-ferrite in this steel does not appreciably

Card 1/2

UDC: 620.17:669.15-194;669.26'74

58  
56  
B

L 12093-66

ACC NR: AP6000604

2

affect its mechanical properties. If the content of  $\delta$ -ferrite is smaller than 15%, it apparently exerts a positive effect, since it reduces proneness to the growth of austenite grain during high-temperature hardening. Moreover, small amounts of  $\delta$ -ferrite in austenitic steel enhance its weldability. The steel investigated is prone to embrittlement when heated at 500-800°C and hence to a decrease in its strength, plasticity and impact toughness. The proneness of steel to embrittlement during tempering is determined by its C content. Melts containing 0.010% C do not get embrittled during tempering. The brittleness of austenitic Cr-Ni-Mn steel during 700-800°C tempering is caused by the segregation of the  $M_{23}C_6$  carbide along grain boundaries. Orig. art. has: 4 tables, 5 figures.

SUB CODE: 11, 13/ SUEM DATE: none/ ORIG REF: 006/ OTH REF: 000

gc  
Card 2/2



1-10001-07 ENT(G)/ENT(L)/ENT(U)/ATI ENT(C) JD  
ACC NR: AP6035957 SOURCE CODE: UR/0129/66/000/010/0054/0058

AUTHOR: Ul'yamin, Ye. A.

ORG: TSNIIKHERMET

TITLE: Steels and alloys for cryogenic application

SOURCE: Metallovedeniye i termicheskaya obrabotka metallov, no. 10, 1966, 54-58

TOPIC TAGS: cryogenic steel, cryogenic alloy, austenite steel, age hardenable alloy/  
Kh21G7AN5 steel, Kh17G9AN(EI878) steel, Kh25N16G7AR(EI835) steel, KhN77TYu alloy,  
Kh12N20T3R alloy, Kh35VTYu alloy

ABSTRACT: Since Kh18N10T and Kh14G14N3T austenitic stainless steels do not satisfy all the requirements of cryogenic engineering due to low strength, several other steels and alloys have been tested at low temperatures. . . One of these was Kh21G7AN5 austenitic steel, which along with high strength, retains a sufficiently high degree of ductility and notch toughness at temperatures as low as -253C after annealing at 1050C followed by water quenching. This steel has satisfactory weldability, forgeability, and can be cold formed easily. Similar properties have been found in some other austenitic steels alloyed with nitrogen, such as Kh17G9AN4(EI878) and Kh25N16G7AP(EI835) steels. These steels, however, become brittle even after short exposure to 600-800; their notch toughness drops to 1-3 kgm/cm<sup>2</sup> at -196 and -235C. This disadvantage can be eliminated by lowering the carbon content to 0.03%.

Card 1/2

UDC: 536.48:669.14.018.8

L 10001-67

ACC NR: AP6035957

Also, several age-hardenable nickel and iron-nickel alloys such as KhN77TYu, Kh12N20T3R, and Kh35VTYu were tested. It was found that an optimum combination of mechanical properties of these alloys is obtained by annealing followed by aging at 700C (Kh12N20T3R and KhN35VTYu alloys for 3 hr, and KhN77TYu for 16 hr). After this heat treatment, the alloys have a yield strength of 50—70 kg/mm<sup>2</sup>, tensile strength of 100—120 kg/mm<sup>2</sup>, and notch toughness<sup>1</sup> of 5—8 kg/cm<sup>2</sup> at +20 to -253C. These properties can be somewhat improved by aging immediately after hot rolling or forging. For cold-resistant castings with a satisfactory impact strength at temperatures from +20 to -196C, a D2S cast iron (2.7% C; 2.9% Si; 1.77% Mn; 30% Ni; 3% Cr and 0.09% Mg) has been developed. Orig. art. has: 1 figure and 5 tables.

SUB CODE: 11/ SUBM DATE: none/ ORIG REF: 004/ OTH REF: 010/ ATD PRESS: 5105

Card 2/2

UL'IANETSKIY, A.

Author: Ul'ianetskiy, A.

Title: How to increase the endurance of automobile tires. (Kak uvelichit' probeg avtomobil'nykh шин). 78 p.

Publisher:  
~~XXXXXXXXXX~~ Published by the Armed Forces

City: Moscow

Date: 1950

Available: Library of Congress

Source: Monthly List of Russian Accessions, v. 3, no. 12, page 643

UL'YANINSKIY, A.V.

MAKSIMOV, G.A., professor, doktor tekhnicheskikh nauk; UL'YANESKIY, A.V., professor, doktor tekhnicheskikh nauk, retsentsent; NESTERENKO, A.V., professor, doktor tekhnicheskikh nauk, redaktor. PERSON, M.N., tekhnicheskiiy redaktor.

[Heating and ventilation] Otoplenie i ventilatsiia. Moskva, Gos. izd-vo lit-ry po stroit. i arkhitekhture. Pt.2. [Ventilation] Ventilatsiia, 1955. 343 p. (MLRA 9:5)  
(Ventilation)

N/5  
622.52  
.U4

UL'YANOV, Andrey Vladimirovich

Geologiya Neftyanikh i Gazovykh Mestorozhdeniy (Geology of Petroleum and gas deposits, by) A. V. Ul'yanov i G. A. Khel'kvist. Moskva, Gostop-tekhnizdat, 1955.

297 (3) P. Illus., Diagr., Maps, Tables.

"Literatura": P. (299)

KULIKOV, Igor' Onufriyevich; GUSEV, Nikolay Dmitriyevich;  
ULYANINSKIY, Boris Aleksandrovich; PITSEK, Viktor  
Grigor'yevich; KAZAKOV, B.Ye., otv. red.

[Mines on Spitsbergen] Shakhty na Shpitsbergene. Mo-  
skva, Nedra, 1964. 108 p. (MIRA 18:2)

15-57-5-7237  
Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5,  
p 212 (USSR)

AUTHOR: Ul'yaninskiy, B. V.

TITLE: High Pressure Chamber for Microscopic Study of  
Formational Liquids (Kamera vysokogo davleniya dlya  
issledovaniya plastovykh zhidkostey pod mikroskopom)

PERIODICAL: Novosti neft. tekhn. Neftepromysl. delo, 1956, Nr 8,  
pp 20-21

ABSTRACT: Bibliographic entry  
Card 1/1

USSR Metallurgical conference, metal heat treatment, metallurgical research,  
metal durability, steel treatment

Abstract

Scientific achievements in the field of metal  
research, physics of metals and the theory of heat treatment of metals  
and alloys; Dr. of Tech. Sci. Prof. P. O. Pashkov (Volgograd Polytechnic  
Institute) on the possibility for increasing the strength of steel  
legs by using aluminum



L. SPENCER  
ADVISOR

... use of heat after pressure treatment and  
HF current heating; Dr. of Tech. Sci. I. N. KUDIN and Cand. of Tech. Sci.  
A. N. MARSHALKIN on abandonment of the theory of metastable ...  
the case of rapid ...

ASSOCIATION: none

SUBMITTED: 00

EXCL: 00

SER. CODE: AM 10

Card 1/3

GULYAYEV, A.P.; UL'YANIN, Ye.A.

Effect of rare-earth metals on the properties of 40Kh, 40KhR, and  
40KhNR structural steels. Sbor. trad. TSNIICM no.39:5-15 '65.

(MIRA 18:7)

611 1001052117 31  
HOKEYEV, V.M.; NAMIOT, A. Yu.; VONDAREVA, M.M.; IUL'YANINSKIY, B.V.

Paraffin deposits from formation oils. Trudy VNIИ no.8:369-  
378 '56. (MLRA 9:12)

(Paraffins) (Petroleum engineering)