

CA

11F

Regulatory role of cations in the respiratory function of erythrocytes. V. V. Koval'skil, L. V. Redina, and Z. S. Chulkova (Akad. Med. Sci., Moscow). *Doklady Akad. Nauk S.S.S.R.* 56, 499-502(1947).--The activity was

studied of carbonic anhydrase as affected by K, Ca, and Mg ions in the blood in children and in adults. The enzyme activity rises steadily with increased concn. of K; Ca activates the enzyme of adults but causes uncertain results in young children; Mg lowers the activity of the enzyme. Erythrocytes of new-born frequently contain more Ca and Mg, and at times K, than is present in mother's erythrocytes.
G. M. Kosolapoff

CA

11F

The daily rhythm of blood sugar. V. V. Koval'skit and
I. A. Pleteneva. *Doklady Akad. Nauk S.S.S.R.* 56, 835-8
(1917). --In pregnant women several types of cycles are ob-
served. The majority show max. levels at about 9 A.M.
and 3 P.M., a smaller no. show max. at noon and 7 P.M.,
and a few show max. at about 0 A.M. and 7 P.M.
G. M. Kosolajoff

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CA

Daily rhythm in the carbohydrate function of the liver.
V. V. Koval'skii and I. A. Fleteneva. *Doklady Akad. Nauk S.S.S.R.* 57, 103-8(1947).—During the daytime periods normal women yield blood sugar values that are always above those shown during the night; the night curve drops to normal level some 2 hours after sugar loading, while the day curve remains above the night curve by some 25 mg. % at that time. Both drop below normal after 3 hrs.

In pregnant women, 3 types of curves are found which correspond to those with the daytime predominance of sympathetic neural and humoral adjustment, those with daytime predominance of parasympathetic neural and humoral adjustment, and those in which both day and night periods are governed by elements of sympathetic and parasympathetic regulation. G. M. K...

KOVAL'SKIY, V. V.

PA 36T5

USSR/Chemistry - Glycogen
Chemistry - Chromatography

Nov 1947

"Chromatographic Analysis of Glycogens," V. V. Koval'skiy, Laboratory of Physiological Chemistry, Academy of Sciences of the USSR, 3 pp

"Dok Ak Nauk" Vol LVIII, No 6

Discusses experiments conducted on chromatographic analysis of glycogens by means of a freshly prepared potassium carbonate, which appeared to be a better absorbent for this experiment. A total of 218 tests were conducted. Author gives the conclusions which were obtained in the majority of the tests. Submitted by Academician Ya. O. Parnas 29 May 1947.

36T5

KOVAL'SKIY, V. V.

PA 3/49T75

USSR/Medicine - Glycogens
Chemistry - Chromatography

Mar/Apr 48

"Study of Glycogens by the Method of Chromatographic Adsorption," V. V. Koval'skiy, Physiol Chem Lab, Acad Sci USSR, 6 pp

"Blokhnimya" Vol XIII, No 2

Reports examination of various glycogens by subject method, using freshly precipitated potassium carbonate as an adsorbent, Chromatograms obtained vary considerably, even for liver and muscle of same animal; they also alter with seasons. Considers glycogen may be regarded as biological concept embracing mixture of separate substances which

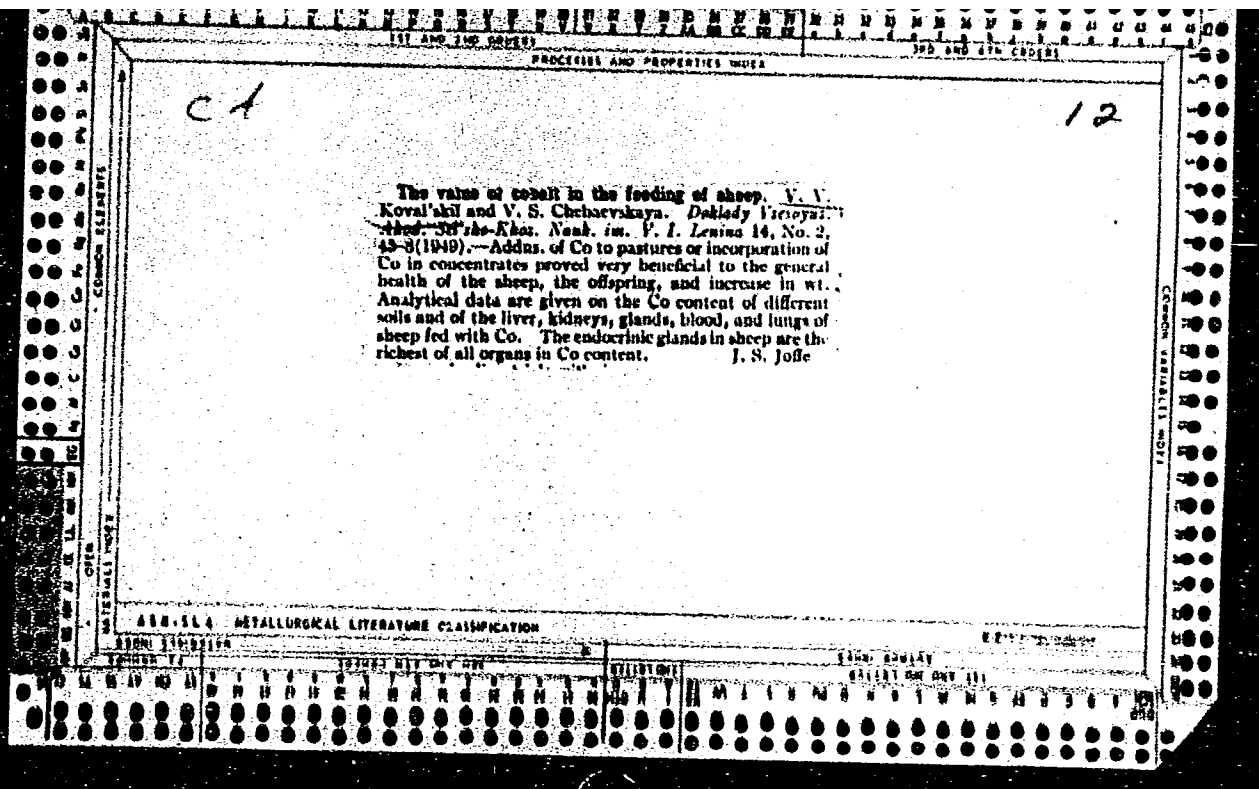
3/49T75

USSR/Medicine - Glycogens (Contd)

Mar/Apr 48

Form a group of glycogen-type polysaccharides. Submitted 12 Jul 47.

3/49T75



CA

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The significance of cations in respirative function of

erythrocytes in infant asphyxia. V. V. Koval'skii and Yu. I. Raetskaya (Ministry Health, Moscow). *Zhurnal detskoj Ginekol.* 1951, No. 5, 21-8.—In infant asphyxia the cation content of erythrocytes changes; K, Ca, and Mg drop by 40-50%. Expts. with Na²⁴ and K⁴² showed that erythrocytes are permeable to these ions. K, Ca, and Mg display daily individual variations in normal pregnant women, changes being pos. or neg. depending on individuals. These 3 ions are somewhat lower in venous blood of rabbit than in the arterial blood. Carbonic anhydrase activity is raised by K generally while Mg lowers its activity; in women Ca usually lowers the activity but may cause a rise of activity in infants. The results are interpretable in terms of cationic permeability of erythrocytes as a regulatory mechanism in respiration, both normal and abnormal (asphyxia).
G. M. Kosolapoff

B.J.R.

Agricultural Research

6404* Cobalt Requirements in the Feeding of Romano
Sheep. (In Russian.) V. V. Koval'skii and V. S. Ghebaevskaya.
Doklady Vsesoyuznoi Akademii Sel'skokhozo-
ustroynogo Nauk imeni V. I. Lenina, v. 16, no. 8, 1951, p.
44-48.
Tests were made on the above. Data are tabulated and dis-
cussed.

CA

UI

Adaptive coloration and periodic exchange in protective reactions. V. V. Koval'skiĭ. *Uspekhi Sovetskoiĭ Biol.* 31, 413-20 (1951).—Coloring influences (including hormones) are reviewed for color changes in invertebrates (chiefly crustaceans and insects) in adapting the organism to temp., season, or environment. 20 references. I. F. S.

CA

11F

Permeability of erythrocytes to cations V. V. Koval'ski
and Z. S. Chulkova. *Doklady Akad. Nauk S.S.S.R.* 79,
895-8(1951).--To follow the periodic variations in concns.
of cations within erythrocytes as a proof of their cationic
permeability, the concns. of K, Ca, and Mg were detd
several times per day in humans. While very considerable
individual variations were found in 98% of total cases,
there were av. differences in concn between the day and
night. In each case groups of subjects were found that had
substantially reciprocal results in comparison with each
other (i.e., in some the high values were at night, in others in
the day). The max. or min. for K occurs at about midnight
and at 3-4 P.M.; Ca at noon 3 P.M. and at about mid-
night; and Mg showed a general decline (or rise in opposite
group) during evening hrs. with a min. (or max.) at about
midnight 1 A.M. and a smaller max. or min. 3-4 hrs.
later. G. M. Kosolapoff

NOV 19 1952

The significance of cobalt for the animal organism. V. V. Koval'skiĭ (Ministry of Agr. U.S.S.R., Moscow). *Afiprotsemeny i Zhiznyĭ Rasteniĭ i Zhivotnykh* (Izd. Nauk S.S.S.R., Trudy Nauch. Muzeĭev, 1952, 45: 33(1032)).—A review with 23 references, covering the content of Co in various animal tissues, effects produced by Co deficiency in animals, and the biochem. significance of Co in metabolic processes, particularly as related to the function of vitamin B₁₂.
G. M. Nosolovskii

PADUCHEVA, A. L.; KOVAL'SKIY, V. V.

Karakul Sheep - Ukraine

Seasonal anemia of karakul breeding ewes as they are raised in southern Ukraine, Kar. i zver, 5, no. 3, 1952.

Monthly List of Russian Accessions, Library of Congress, October 1952. UNCLASSIFIED.

1. KOVAL'SKIY, V. V.
2. USSR (600)
4. Physiological Chemistry
7. Contemporary achievements in studying the physiological role of microelements.
Trudy VIZh 20: 1952

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

KOVAL'SKIY, V. V.; CHEBAYEVSKAYA, V. S.

Distribution of cobalt in blood. Usp. sovrem biol. 33 no.2:317-
318 Mar-Apr 1952. (GLML 22:2)

1. Moscow.

KOVAL'SKIY, V.V., professor.

Chemistry of life. Znan.sila no.10:11-14 0 '53.

(MLRA 6:10)
(Biochemistry)

KOVAL'SKIY, V. V. REVIEWER

USSR/Biology - Biogeochemistry

Nov/Dec 53

"Review of A.O. Voynar's Book 'Biologicheskaya Rol' mikroelementov v Organizme Zhivotnykh i Cheloveka' (The Biological Role of Trace Elements in Animal and Human Organisms)," (V.V. Koval'skiy, reviewer)

Usp Sov Biol, Vol 36, No 3(6), pp 395-398.

The reviewer first briefly surveys the field of biogeochemistry, then gives a short summary of the book and, finally, criticizes the author's treatment of several incidental matters. He says that the author gives a true picture of the

273T6

present state and development of the biochemistry and physiology of trace elements and of their significance in agriculture and biology. The book is divided into 18 chapters. The first and last are on theory and the remainder on the biochemistry of the various trace elements. According to the reviewer, the book is well written and can be used as a handbook on the subject.

273T6

USSR/Biology - Cell material

Card 1/1 : Pub. 86 - 2/40

Authors : Koval'skiy, V. V., Prof.

Title : The importance in stock raising of the presence in the organisms of minute quantities of certain elements

Periodical : Priroda 43/4, 11-20, Apr 1954

Abstract : Besides the C, N, O, H, K, Na, Ca, Mg, Fe, Cl, P, and S, which form the bulk of plant or animal tissue, the author finds some fifty other elements which enter into the composition of the cells in extremely minute proportions. Particularly important for maintaining a healthy condition are the elements, copper, cobalt, zinc, manganese, iodine, fluorine, silicon and bromine. A study of the vitamins shows a connection with certain metals. For instance, the presence of manganese is connected with the accumulation of vitamin B in rice. Certain healthy conditions in live stock are traced to the absence of cobalt and other elements. Illustrations.

Institution :

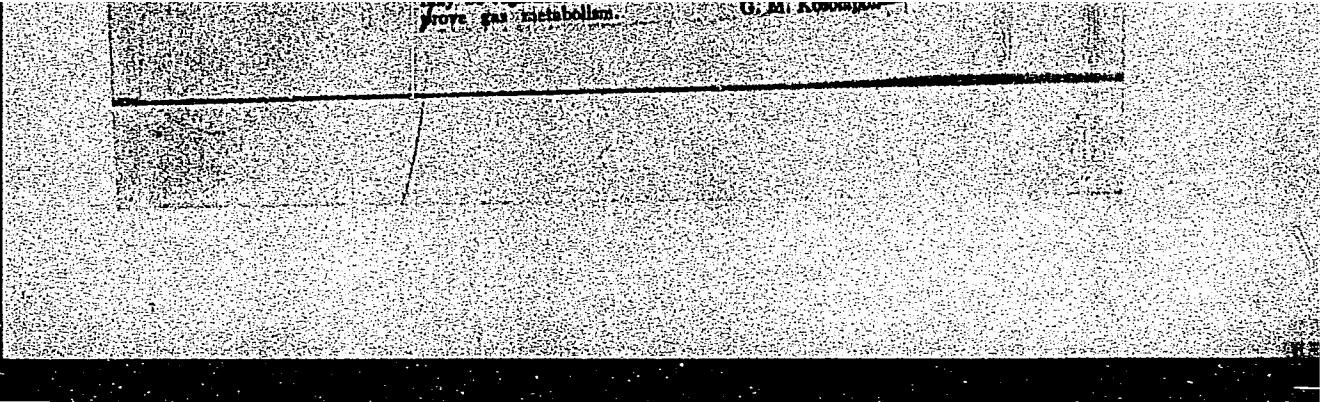
Submitted :

KOVAL'SKIY V.V.

62 Adaptive changes in respiratory function of erythrocytes in asphyxia of newly born. V. V. Koval'skiy, Yu. I. Raetskaya, V. I. Tolchova, and Z. S. Chulkova (Sci. Research Inst. Obstet. and Gynecol., Ministry of Health U.S.S.R., Moscow). *Probl. Zdr. S.S.S.R.* 81, 401-9 (1956). It was

"APPROVED FOR RELEASE: 06/14/2000

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APPROVED FOR RELEASE: 06/14/2000

CIA-RDP86-00513R000825620007-1"

KOVAL'SKIY, V. V.
USSR/Biology - Biochemistry

Card 1/1 Pub. 22 - 26/47

Authors : Koval'skiy, V. V., and Rayetskaya, Yu. I.

Title : Synthesis of B₁₂ vitamin in the organism of sheep under the effect of Co and Ca

Periodical : Dok. AN SSSR 100/6, 1131-1134, Feb 21, 1955

Abstract : The synthesis of B₁₂ blood-producing-vitamins in organisms of sheep raised in provinces poor in Co by enriching the food with Co and Ca salts was investigated. The results obtained are tabulated. Three USSR references (1949-1954). Tables.

Institution : Academy of Sciences USSR, The V. I. Vernadskiy Institute of Geochemistry and Analytical Chemistry and the All Union Institute of Animal Breeding

Presented by: Academician A. P. Vinogradov, October 22, 1954

KOVALSKIY, V. V.

6421. Seasonal variations in metabolism of Karakul sheep. V. V. Kovalski and A. L. Paducheva. *C.R. Acad. Sci., U.R.S.S.*, 1958, 208-209-507 (All-Union Scientific Inst. of Animal Breeding).
Seasonal variations in the body wt. of female Karakul sheep in the Khersonsk region of the U.S.S.R. max. in the summer and min. in the winter and early spring months are found to be closely correlated with the composition of blood, muscle, skin, and subcut. tissue while total solid content is max. and min. at corresponding times. Periodic changes in the physiological activity of the animals, air temperature, and the availability of food are thought to be the cause. (Russian) A. K. GRZYBOWSKI.

KOVAL'SKIY, VIKTOR VLADISLAVOVICH

KOVAL'SKIY, Viktor Vladislavovich; STAROSTENKOVA; M.M., redaktor; GOBIN, M.I.,
~~tehnicheskii redaktor.~~

[The role of microelements in the life of animals in different zones of the U.S.S.R.] Rol' mikroelementov v zhizni zhivotnykh v razlichnykh zonakh SSSR. Moskva, Izd-vo "Znanie," 1957. 39 p. (Vsesoyuznoe obshchestvo po rasprostraneniю politicheskikh i nauchnykh znaniy. Ser.8, no.39) (MIRA 10:11)

1. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I.Lenina. (for Koval'skiy).
(Trace elements) (Stock and stockbreeding)

KOVAL'SKIY, V.V.

26-10-7/44

AUTHORS: Alimarin, I.P. and Saukov, A.A., Corresponding Members of the USSR Academy of Sciences, and Baranov, V.I. and Koval'skiy, V.V., Professors

TITLE: Problems of Contemporary Geochemistry (Problemy sovremennoy geokhimii)

PERIODICAL: Priroda, October 1957, No 10, pp 53-62 (USSR)

ABSTRACT: The article deals with the activities of the Institute of Geochemistry and Analytical Chemistry Imeni V.I. Vernadskiy of the AN USSR (Moscow). Contemporary geochemistry researches the distribution and reactions of chemical elements in the various strata of our planet, the origin and absolute age of rocks and deposits and the migration and concentration of elements under the influence of organisms. This young science is closely related to its initiators, Academicians V.I. Vernadskiy and A.E. Fersman. The Institute has 12 laboratories in isotopes, radiochemistry, biogeochemistry, radiogeochemistry, rare elements, geochemistry of single elements, magmatogenic processes, mineralogical structures, organic reagents, spectral analyses, sedimentary rocks and crystallo-chemistry.

Card 1/2

KOVAL'SKIY, V.V.; PADUCHEVA, A.L., kandidat biologicheskikh nauk; SHRAYER,
B.S.

Water metabolism in Karakul sheep and its seasonal characteristics.
Dokl. Akad. sel'khoz. 22 no. 1: 31-37 '57. (MLRA 10:2)

1. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni Lenina (for Koval'skiy). 2. Vsesoyuznyy nauchno-issledovatel'skiy institut zhivotnovodstva.
(Karakul sheep)

KOVAL'SKIY, V.V.; KAPNER, R.G.

Adaptational changes observed in certain dehydrases and arginase
in animals following various types of feeding. Dokl. AN SSSR 112
no.5:905-908 F '57. (MLRA 10:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut shivotnovodstva.
Predstavleno akademikom L.A. Orbeli.
(Arginase) (Dehydrogenases)

AUTHOR
TITLE

KOVAL'SKIY, V.V.

VINOGRADOV, A.P., Member of the Academy and KOVAL'SKIY, ~~XXXXXXXX~~
The Biological Role of the K⁴⁰ Radioactivity in Animals. 20-2-20/67
(Biologicheskaya rol' radioaktivnosti K⁴⁰ u zivotnykh - Russian)

PERIODICAL

Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 2, pp 315-318,
(U.S.S.R.)

Received 6/1957

Reviewed 7/1957

ABSTRACT

In a former paper of the first mentioned author it was shown that the radioactivity of K⁴⁰ does not play any part in the development and growth of a mould specimen *Aspergillus niger*. Only its chemical properties and concentration are of importance. It was generally concluded from this that this situation is also valid for all living organisms under normal conditions. But for animals this was still to be demonstrated. The isolated heart of a frog was used for a perfusion with Ringer's solution, that is first with normal K, then concentrated K⁴⁰ or K³⁹. The number of contractions of the heart per minute and the deflection were registered. The results showed that only the potash as such led to some variations of the excitability of the heart, independent of the application of K, K³⁹ or K⁴⁰. Solutions with normal K and without K served as controls. The results were correspondent to the former experiment. It follows from the experiment that the radioactivity of K⁴⁰ is not responsible for the biological processes and chemical reactions, neither in the organism of the animals (especially in muscles) nor of the plants.

Card 1/2

KOVAL S.A.Y., V.V.

20-4-56/61

AUTHOR: PADUCHEVA, A.L., KOVAL'SKIY, V.V., SHRAYER, B.S.
TITLE: The Changes of Water Losses Due to Adaption in the Case of Karakul Sheep at Various Temperatures and Scarce Watering. (Prisposobitel'nyye izmeneniya "nechuvstvitel'nykh poter vody" u Karakul'skikh ovets v razlichnykh temperaturnykh usloviyakh i pri pazrezhenii vodopoya, Russian)
PERIODICAL: Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 4, pp 923 - 926 (U.S.S.R.)
ABSTRACT: The biochemical reactions and processes which develop in the organisms as a response to the influences of the environments and which guarantee its adaptation to these influences are an important physiological characteristic. They determine its viability under different conditions of existence. The water transformation by water evaporation from the skin surface and from the respiratory organs is directly connected with the processes which are indispensable for the balance of heat economy, that is, for securing a certain boundary area of temperature fluctuations in the interior of the body, characteristic of every kind of animals, which harmonize with the development of the vitally important processes. In the case of some kinds of animals which have only hardly developed sudiferous glands heat regulation at high temperatures is realized by fast breathing which intensifies water evaporation from the surface of the respiratory organs. For these animals the occurrence of a heat edema is typical.

Card 1/3

The Changes of Water Losses Due to Adaption in the Case of ^{20-4-56/61}
Karakul Sheep at Various Temperatures and Scarce Watering.

According to data, sheep are able to evaporate up to 100 g water per hour on a hot sunny day, which secures about 50% loss of heat. In the region of Kherson the authors investigated the adaptation reactions of sheep to scarcity of water, which was effected by scarce watering (once every three days). This question is of interest in connection with the organization of the water- and pasture-household in scarcely irrigated pastures. The seasonal particularities in the course of a few phases of the water transformation were investigated, their relation to air temperature and the physiological condition of the sheep was ascertained, and a number of reactions of the organism on the restriction of water absorption was characterized. The determination of the quantity of exhaled water in the case of sheep on the pasture was carried out according to two methods: 1) Determination of exhaled water according to the volume of the breathing ventilation. A detailed formula is given for this purpose. 2) Determination of water secretion by its absorption from the exhaled air. This method makes it necessary to put on a gasmask which the sheep do not stand very well, and therefore mainly the first method was employed. The results of both methods are shown in the schedules 1 and 2. In the case of sheep which are watered as usual every day, the average exhaled quantity of water amounts 18 - 49 g/hour at

Card 2/3

KOVAL'SKIY, Viktor Vladislavovich; KARTASHEVA, N.M., red.; ANTONOVA,
N.M., tekhn.red.

[Using tagged atoms in studying metabolism in farm animals]
Mechenye atomy v izuchenii obmena veshchestv u sel'sko-
khoziaistvennykh zhiivotnykh. Moskva, Izd-vo M-va sel'. khoz.
SSSR, 1958. 38 p. (MIRA 12:2)

1. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh
nauk im. V.I.Lenina (for Koval'skiy).
(Radioactive tracers) (Metabolism) (Veterinary research)

KOVAL'SKIY, V.V.

STEPANENKO, B.N., prof., otvetstvennyy red.; MEYSEL', M.N., prof.,
otvetstvennyy red.; KOVAL'SKIY, V.V., prof., otvetstvennyy red.;
BAYEV, A.A., kand.biol.nauk, red.; MEDVEDEVA, G.A, kand.biol.
nauk, red.; TURPAYEV, T.M., kand.biol.nauk, redaktor;
PASHKOVSKIY, Yu.A., redaktor izd-va; PRUSAKOVA, T.A., tekhn.
red.

[Study of the animal organism; Fish culture; Food industry;
proceedings of a conference] Izuchenie zhivotnogo organizma,
Rybnoe khoziaistvo, Fishchevaia promyshlennost'; trudy konverentsii.
Moskva, Izd-vo Akad. nauk SSSR, 1958. 263 p. (MIRA 11:5)

1. Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po primeneniyu
radioaktivnykh i stabil'nykh izotopov i izlucheniya v narodnom
khozyaystve i nauke, 1957.
(Radioactive tracers)

KOVAK, V.V., prof.

Significance of trace elements for the nutrition of man and farm
animals. Biol. v shkole 6:70-77 N-D '58. (MIRA 11:11)
(Trace elements) (Minerals in the body)

KOVAL'SKIY, V.V.

AUTHOR: Koval'skiy, V.V., Professor (Moscow) 26-58-6-37/56

TITLE: A Conference on the Biogeochemical Provinces of the USSR
(Konferentsiya po biogeokhimicheskim provintsiyam SSSR)

PERIODICAL: Priroda, 1958, Nr 6, p 111-112 (USSR)

ABSTRACT: A conference on problems of biogeochemistry was convened at the Institut geokhimii i analiticheskoy khimii imeni V.I. Vernadskogo Akademii nauk SSSR (Institute of Geochemistry and Analytical Chemistry imeni V.I. Vernadskiy of the USSR Academy of Sciences). There were 329 Soviet participants plus scientists from China, Poland and Rumania. The audience heard reports dealing with research on the variability of metabolism in organisms located in different biogeochemical provinces, i.e. abounding in microelements or lacking them. New facts were revealed about the content of microelements in soils, waters, plants and animal tissues in different zones of the USSR.

Card 1/1

1. Biogeochemicals-Conference

KOVAL'SKIY, V.V.

Conference on the biogeochemical provinces of the U.S.S.R.
Biokhimiia 23 no.6:924-925 N-D '58 (MIRA 11:12)
(BIOCHEMISTRY)

KOVAL'SKIY, V.V.; RAMBIDI, M.I.

Effect of cobalt on carbohydrate metabolism in sheep. Dokl.
Akad.sel'khoz. 23 no.11:29-33 '58. (MIRA 11:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhivotnovodstva.
2. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Koval'skiy).
(Sheep) (Carbohydrate metabolism)

AUTHOR: Koval'skiy, V.V., Professor SOV-26-58-9-20/42
TITLE: Geochemical Ecology (Geokhimicheskaya ekologiya)
PERIODICAL: Priroda, 1958,⁴⁷ Nr 9, pp 100-101 (USSR)
ABSTRACT: When A.P. Vinogradov - basing his work on the biochemical explorations of V.I. Vernadskiy - coined the term "biochemical provinces" in 1936, he founded a new branch of ecology, that of geochemical ecology. Between 1944 and 1957, the Institute of Geochemistry and Analytical Chemistry imeni V.I. Vernadskiy of the AS USSR in Moscow was engaged in investigating biochemical provinces. **Azerbaijan** is rich in cobalt which is also expressed in the vitamin B₁₂ content of grazing food. Molybdenum-enriched soils were studied in Armenia in the mountain districts. Nickel contents in the soil were studied in North Kazakhstan. The decreasing copper content in fodder crops in the Dagestan province of the North Caucasus was studied together with an increase in the lead contents and expanding animal diseases.

Card 1/2

Geochemical Ecology

SOV-26-58-9-20/42

ASSOCIATION: Institut geokhimii i analiticheskoy khimii im. V.I. Vernadskogo
AN SSSR, Moskva (The Institute of Geochemistry and Analytical
Chemistry imeni V.I. Vernadskiy AS USSR, Moscow)

1. Geochemistry 2. Ecology--Applications

Card 2/2

KOVAL'SKIY, V.V.; GOLLOBOV, A.D.

[Methods for determining trace elements in soils, plant and animal organisms] Metody opredelenia mikroelementov v pochvakh, rastitel'nykh i zhivotnykh organizmakh. Moskva, Redaktsionno-izdatel'skii otdel VIZH, 1959. 137 p. (MIRA 13:3)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut zhivotnovodstva.

(Trace elements)

KOVAL'SKIY, V.V.; RAYETSKAYA, Yu. I.

Investigating the synthesis of vitamin B₁₂ with the help of radioactive cobalt Co⁶⁰. Dokl. Akad. sel'khoz. 24 no. 11:31-36 '59
(MIRA 13:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut zhitovnovodstva.
2. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni Lenina (for Koval'skiy).
(Cyanocobalamin) (Cobalt--Isotopes)

3 (5), 17 (2)

AUTHORS:

Koval'skiy, V. V., Letunova, S. V.

SOV/20-126-1-46/62

TITLE:

On the Rôle of Silt Microflora in the Cobalt Migration and the Adaptation of Microorganisms to the Medium in Biogeochemical Provinces With Different Cobalt Content (Znachenije ilovoy mikroflory v migratsii kobal'ta i prisposobleniye mikroorganizmov k srede v biogeokhimicheskikh provintsiyakh s razlichnym sodержaniyem kobal'ta)

PERIODICAL:

Doklady Akademii nauk SSSR, 1959, Vol 126, Nr 1, pp 167-170 (USSR)

ABSTRACT:

It is known that Co forms an ingredient of the vitamin B₁₂ which is synthesized only by microorganisms. It is therefore possible to observe from the cobalt content and from that of the mentioned vitamin in silts the extent of the cobalt participation in the biogenic migration. The aim of the present paper was the investigation of the rôle of the microflora of various natural waters in the cobalt migration in the biogeochemical provinces which have a) an excess of Co (the districts of Dastafyurskiy and Stepanakertskiy of the Azerbaydzhan SSR), b) with a Co-content which satisfies the demand of the organisms (central czernozem region: Kursk),

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On the Rôle of Silt Microflora in the Cobalt Migration and the Adaptation of Microorganisms to the Medium in Biogeochemical Provinces With Different Cobalt Content SOV/20-126-1-46/62

and c) with an insufficient Co-content (zone without black earth: regions of Yaroslavl' and Kostroma) (Ref 1). The authors determined the cobalt- and vitamin B₁₂-content in the silt deposits of 96 stagnant waters in the three mentioned provinces. This made it possible to calculate the quantity of silt cobalt related to this vitamin, furthermore the consumption percentage of the silt cobalt for the synthesis of the vitamin. This gives the degree of participation of the silt microflora in the cobalt migration. Table 1 shows that the rôle of this microflora (by means of a Co-inclusion in the vitamin B₁₂) is inconsiderable in all three biogeochemical provinces. The rôle of the silt microflora is not equal in the individual provinces. The participation of the microorganisms which live in silt poor in cobalt in the Co migration is double as active as that of microorganisms living in silt rich in cobalt. In silts poor in cobalt the latter is better exploited for the vitamin synthesis. Table 1 shows the rôle

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On the Rôle of Silt Microflora in the Cobalt Migration and the Adaptation of Microorganisms to the Medium in Biogeochemical Provinces With Different Cobalt Content

SOV/20-126-1-46/62

of the aforesaid microflora in the cobalt migration in individual provinces. Table 2 gives the effect of different concentrations of cobalt chloride on the growth of microorganisms from silts of various provinces. Table 3 shows the effect of the same salt on the growth and on the formation of vitamin B₁₂ in the same provinces. The investigations showed that the silt microflora of the waters in the biogeochemical provinces with a differently high Co-enrichment has considerably varying physiological characteristics like the growth- and synthesis capacity of the vitamin B₁₂. These properties depend under the given conditions on the Co-concentration. This variability is the basis of their adaptation to various Co-concentrations in the medium. The microorganisms living in the silts rich in cobalt are resistant to a high Co-concentration and develop well under such conditions, their synthesis of the vitamin B₁₂ is, however, inhibited in consequence of the suppression of this biochemical function

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On the Role of Silt Microflora in the Cobalt Migration and the Adaptation of Microorganisms to the Medium in Biogeochemical Provinces With Different Cobalt Content

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by the Co-excess. This was proved experimentally in air by the artificial manuring with Co in small waters. The microorganisms living in silts poor in cobalt are not resistant to high Co-concentrations, synthesize, however, vitamin B₁₂ well in the case of a reduced Co-content since they have a higher exploitation capacity of cobalt for these purposes. Thus corresponding physiological forms exist in different biogeochemical provinces which are adapted to the growth and the synthesis of vitamin B₁₂ in a different way. There are 3 tables and 3 Soviet references.

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)

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On the Rôle of Silt Microflora in the Cobalt Migration and the Adaptation of Microorganisms to the Medium in Biogeochemical Provinces With Different Cobalt Content SOV/20-126-1-46/62

PRESENTED: January 10, 1959, by A. P. Vinogradov, Academician

SUBMITTED: January 5, 1959

Card 5/5

PEYVE, Ya.V., glav. red.; ALIYEV, G.A., akademik, red.; ABUTALYBOV, M.G., prof., red.; BERZIN, YA.M. [Berzins, J.], akademik, red.; VINOGRADOV, A.P., akademik, red.; VLASYUK, P.A., akademik, red.; VOYNAR, A.O., prof., red.; DROBKOV, A.A., prof., red.; KATALYMOV, M.V., prof., red.; KOVAL'SKIY, V.V., red.; KOVDA, V.A., red.; KEDROV-ZIKHMAN, O.K., akademik, red.; LEONOV, V.A., akademik, red.; PETERBURGSKIY, A.V., prof., red.; SINYAGIN, I.I., red.; CHERNOV, V.A., prof., red.; CHANISHVILI, Sh.F., red.; SHKOL'NIK, N.Ya., prof., red.; SHCHERBAKOV, A.P., kand. sel'khoz. nauk, red.; VENGRANOVICH, A., red.; DYMARSKAYA, O., red.; KLYAVINYA, A [Klavina, A.], tekhn. red.

[Use of trace elements in agriculture and medicine; transactions]
Primenenie mikroelementov v sel'skom khoziaistve i meditsine; trudy.
Riga, Izd-vo Akad.nauk Latviiskoi SSR, 1959. 706 p. (MIRA 14:12)

1. Vsesoyuznoye soveshchaniye po mikroelementam. 3d, Baku, 1958.
 2. Chlen-korrespondent Akademii nauk SSSR (for Peyve, Kovda). 3. AN Azerbaydzhanskoy SSR (for Aliyev). 4. AN Latviyskoy SSR (for Berzin).
 5. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Vlasyuk, Kedrov-Zikhman). 6. AN Belorusskoy SSR (for Leonov).
 7. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I.Lenina (for Sinyagin, Koval'skiy). 8. Chlen-korrespondent AN Gruzinskoy SSR (for Chanishvili).
- (Trace elements) (Biochemistry) (Agriculture)

KOVAL'SKIY, V.V.

Biogeochemical provinces of the U.S.S.R. and methods of studying
them. Trudy Biogeokhim. lab. no.11:8-32 '60. (MIRA 14:5)

1. Institut geokhimii i analiticheskoy khimii imeni V.I.Vernadskogo
AN SSSR. (GEOCHEMISTRY) (BIOCHEMISTRY)

KOVAL'SKIY, V.V.; RAYETSKAYA, Yu.I.

Vitamin B₁₂ synthesis in the organs of farm animals in biogeochemical provinces with different cobalt concentrations. Trudy Biogeokhim. (MIRA 14:5)
lab. no.11:102-108 '60.

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

(CYANCOBALAMINE)

(COBALT--PHYSIOLOGICAL EFFECT)

(VETERINARY PHYSIOLOGY)

KOVAL'SKIY, V.V.

Biogeochemical province of the Terek-Sulak-Kuma Lowland. Trudy
Biogekhim. lab. no.11:134-143 '60. (MIRA 14:5)

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

(DAGHESTAN--DEFICIENCY DISEASES IN SHEEP) (ATAXIA)
(COPPER--PHYSIOLOGICAL EFFECT)

KOVÁLSZKIJ, V.V. [Koval'skiy, V.V.]

Chemistry of life. Elet tud 15 no.24:747-750 12 Je '60.

KOVALSKY, V.V., (USSR)

"Geochemical Ecology of Animals."

Report presented at the 5th Int'l. Biochemistry Congress,
Moscow, 10-16 Aug 1961.

KOVALSKIY, V.V., RYETSKAYA, YU.I. (USSR)

"Alteration of Purine Metabolism in Animals and Man in
Molybdenum-Rich Biogeochemical Areas."

Report presented at the 5th Int'l. Biochemistry Congress,
Moscow, 10-16 Aug 1961.

KOVALSKY, V. V., RYETSKAYA, YU. I., (USSR)

Synthesis of Vitamin B₁₂ in Animals in Various Biogeochemical Areas of the USSR.

report presented at the 5th Int'l.
Biochemistry Congress, Moscow, 10-16 Aug. 1961

KOVAL'SKIY, V.V.; YAROVAYA, G.A.; SHMAVONYAN, D.M.

Changes in the purine metabolism of man and animals under conditions
prevailing in molybdenum biogeochemical provinces. Zhur. ob. biol.
22 no.3:179-191 My-Je '61. (MIRA 14:5)

I. V.I. Vernadsky Institute of Geochemistry and Analytical Chemistry,
U.S.S.R. Academy of Sciences (PURINE METABOLISM) (MOLYBDENUM--PHYSIOLOGICAL EFFECT)
(ARMENIA--GOUT)

KOVAL'SKIY, V.V.; LETUNOVA, S.V.

Role of phyto- and zooplankton in the migration of cobalt in bodies
of water. Zool. zhur. 40 no.6:809-817 Je '61. (MIRA 14:6)

1. Institute of Geochemistry and Analytical Chemistry, U.S.S.R.
Academy of Sciences, Moscow.

(Plankton)
(Cobalt)

KOVAL'SKIY, V.V.

Biogeochemistry. Priroda 51 no.6:54-59 Je '62.

(MIRA 15:6)

1. Chlen-korrespondent Vsesoyuznoy sel'skokhozyaystvennoy akademii
im. V.I.Lenina. (Trace elements) (Feeds)

KOVAL'SKIY, V.V., prof., red.; DMITROCHENKO, A.P., prof., red.;
KARTASHEVA, N.M., red.; PROKOF'YEVA, L.N., tekhn.red.

[Trace elements in stockbreeding] Mikroelementy v zhivotnovodstve. Pod obshechi red. V.V.Koval'skogo i A.P.Dmitrochenko. Moskva, Sel'khozizdat, 1962. 141 p. (MIRA 15:11)

1. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk im. V.I.Lenina. Otdeleniye zhivotnovodstva. 2. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I.Lenina i Biogeokhimicheskaya laboratoriya Instituta geokhimii i analiticheskoy khimii imeni V.I. Vernadskogo Akademii nauk SSSR (for Koval'skiy).
(Trace elements--Physiological effect) (Feeding)

KOVAL'SKIY, V.V. (Moskva)

Geochemical ecology. Vop. ekol. 4:37-38 '62.
(Ecology) (Trace elements)

(MIRA 15:11)

KOVAL'SKIY, V.V.; SHAKHOVA, I.K.

Activity of the digestive enzymes of sheep under conditions
of a biogeochemical boron province in northwestern Kazakhstan.
Dokl. AN SSSR 146 no.4:967-970 0 '62. (MIRA 15:11)

1. Institut geokhimi i analiticheskoy khimii im.
V.I. Vernadskogo AN SSSR. Predstavleno akademikom
A.I. Oparinym.

(Kazakhstan--Sheep--Physiology)
(Boron--Physiological effect)
(Digestive enzymes)

KOVAL'SKIY, V.V.; REZAYEVA, L.T.; KOL'TSOV, G.V.

Trace element content in the organism and blood cells of ascidians.
Dokl. AN SSSR 147 no.5:1215-1217 D '62. (MIRA 16:2)

1. Institut geokhimii i analiticheskoy khimii im. V.I. Vernadskogo
AN SSSR. Predstavleno akademikom A.P. Vinogradovym.
(Trace elements in the body) (Tunicata)

KOVAL'SKIY, V.V. (Moskva)

Origin and evolution of the biosphere. Usp.sovr.biol. 55 no.1:
45-67 Ja-F '63. (MIRA 16:3)

(BIOCHEMISTRY) (LIFE (BIOLOGY)) (GEOCHEMISTRY)

KOVAL'SKIY, V.V.; REZAYEVA, L.T.

Vanadium content in the blood of *Ascidella aspersa*. Dokl. AN
SSSR 148 no.1:238-240 Ja '63. (MIRA 16:2)

1. Institut geokhimi i analiticheskoy khimii im. V.I. Vernadskogo
AN SSSR. Predstavleno akademikom A.P. Vinogradovym.
(Vanadium in the body) (Tunicata)

KOVAL'SKIY, V.V., prof.

"Biochemistry of lactation" by V.G. Iakovlev. Reviewed by
V.V. Koval'ski. Vest. AN SSSR 33 no.11:137-139 N '63.
(MIRA 17:1)

OPARIN, A.I., akademik; STUDITSKIY, A.N., prof.; NAUMOV, N.P.,
prof.; KOVAL'SKIY, V.V.; YUROVA, I.L., dots.; PLATONOV, G.V.,
prof.; KAGANOV, V.M.; FURMAN, A.Ye., dots.; MEDVEDEV,
N.V., prof.; YAKIMOV, V.P., kand. biol. nauk;
ZHUKOV-VEREZHIKOV, N.N.; BONDARENKO, P.P., prof.;
MAYSKIY, I.N., prof.; TRIBULEV, G.P., dots.;
TSAREGORODTSEV, G.I., dots.; DOBROKHVALOV, V.P., kand.
biol. nauk; YAZDOVSKIY, V.I., prof.; VIKTOROVA, V., red.;
CHEREMNYKH, I., mlad. red.; ULANOVA, L., tekhn.red.

[Studies on the dialectic of living nature] Ocherk dia-
lektiki zhivoi prirody. Moskva, Sotsekgiz, 1963. 527 p.
(MIRA 16:12)

1. Chlen-korrespondent Vsesoyuznoy akademii sel'skokho-
zyaystvennykh nauk imeni V.I.Lenina (for Koval'skiy).
2. Deystvitel'nyy chlen AMN SSSR (for Zhukov-Verezhnikov).
(Biology--Philosophy)

KOVAL'SKIY, V.V.; ROZHKOV, I.S., prof., otv. red.; DOROKHINA, I.N.,
tekhn. red.

[Kimberlites of Yakutia and the basic principles of their
petrogenetic classification] Kimberlitovye porody Iakutii i
osnovnye printsipy ikh petrogeneticheskoi klassifikatsii.
Moskva, Izd-vo AN SSSR, 1963. 182 p. (MIRA 17:1)

1. Chlen-korrespondent AN SSSR (for Rozhkov).

KOVAL'SKIY, V.V.

Geochemical ecology and its evolutionary trends. Izv. AN
SSSR. Ser. biol. no.6:830-851 N-D '63. (MIRA 17:2)

1. Institute of Geochemistry and Analytical Chemistry, Academy
of Sciences of the U.S.S.R., Moscow.

KOVALSKIY, V.V.; LETUNOVA, S.V.

Adaptation of silt microflora to an artificial increase of the
cobalt content of the natural habitat. Mikrobiologiya 32 no.5:
850-855 S-0'63 (MIRA 17:2)

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

KOVAL'SKIY, V.V.; LETUNOVA, S.V. (Moskva)

Effect of cobalt on micro-organisms and their adaptation to natural concentrations of cobalt in the environment. Usp. sovr.biol. 57 no. 1:71-89 Ja-F '64. (MIRA 17:5)

KOV L'ISKIY, V.V.; BLOKHINA, R.I. (Moskva)

Significance of cobalt in the pathogenesis of endemic enlargement of the thyroid gland in a biogeochemical area deficient in iodine and cobalt. Probl. endok. i gorm. 9 no.6:42-46 N-D '63. (MIRA 17:11)

1. Iz laboratorii biogeokhimi Instituta geokhimi i analiticheskoy khimii imeni V.I. Vernadskogo AN SSSR.

KOVAL'SKIY, V.V.; PETRUNINA, N.S.

Geochemical ecology and evolutionary variability of plants.
Dokl. AN SSSR 159 no.5:1175-1178 D '64 (MIRA 18:1)

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

KOVAL'SKIY, V.V.; YEGOROV, O.S.

Quantity of xenoliths in explosive kimberlite breccias and methods
for their calculation. Geol. i geofiz. no.11:140-143 '64.

(MIRA 18:4)

1. Yakutskiy filial Sibirskogo otdeleniya AN SSSR.

KOVAL'SKIY, V.V.; VOROTNITSKAYA, I.Ye.

Biogenic migration of uranium in Issyk-Kul'. Geokhimiia no.6:724-
732 Je '65. (MIRA 18:7)

I. Vernadsky Institut of Geochemistry and Analytical Chemistry,
Academy of Sciences, U.S.S.R., Moscow.

KOVAL'SKIY, V.V., prof.; LETUNOVA, S.V.; KRYLOVA, R.V.; FARBEROV, V.G.

Cobalt in fish culture; biogenic migration of chemical elements
in ponds. Priroda 54 no.5:69-70 My '65.

(MIRA 18:5)

1. Institut geokhimi i analiticheskoy khimii im. V.I. Vernadskogo
AN SSSR (Moskva).

KOVAL'SKIY, V.V.; LUTSKIY, D.Ya.

Constitutive and adaptive variations in the arginase of the liver of sheep showing different meat productivity. Dokl. AN SSSR 161 no.2:475-478 Mr '65. (MIRA 18:4)

1. Institut geokhimi i analiticheskoy khimii im. V.I.Vernadskogo AN SSSR i Institut fiziologii i biokhimi zhivotnykh Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I.Lenina. Submitted September 21, 1964.

KOVAL'SKIY, V.V.; LITSKIY, D.Ya.

Synthesis of glutamic acid from α -ketoglutaric acid and ammonium carbonate in liver homogenates of sheep showing different meat productivity and kept under different protein content in rations.
Dokl. AN SSSR 163 no.3:758-760 J1 '65. (MIRA 18:7)

1. Institut geokhimi i analiticheskoy khimii im. V.I.Vernadskogo AN SSSR i Institut fiziologii i biokhimi sel'skokhozyaystvennykh zhivotnykh Vsesoyuznyy akademi sel'skokhozyaystvennykh nauk im. V.I. Lenina. Submitted September 21, 1964.

KOVAL'SKIY, V.V.; LUTSKIY, D.Yu.

Adaptive modifications of the ornithine cycle in sheep of different coat productivity and with reference to the different protein content in their food rations. Dokl. AN SSSR 163 no.4:1007-1010 Ag '65. (MIRA 18:8)

1. Institut geokhimi i analiticheskoy khimii im. V.I. Vernadskogo AN SSSR i Vsesoyuznyy institut fiziologii i biokhimi sel'skokhozyaystvennykh zhivotnykh Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk im. V.I. Lenina. Submitted December 17, 1964.

KOVAL'SKIY, V.V.; BOROVIK-ROMANOVA, T.F.; LETUNOVA, S.V.; GINEBURG, Ye.O.

Some data on trace element content in microorganisms.
Mikrobiologiya 34 no.3:403-406 My-Je '65.

(MIRA 18:11)

1. Institut geokhimi i analiticheskoy khimii imeni V.I.
Vernadskogo AN SSSR, Moskva.

KOVAL'SKIY, V.V.; KRYMOVA, R.V.; LETUNOVA, S.V., kand. biol. nauk

New data of the study of the regularity of the inclusion of cobalt into the biogenic migration in fishponds. Dokl. Akad. sel'khoz. nauk no.10:24-29 0 '65. (MIRA 18:12)

1. Institut geokhimii i analiticheskoy khimii V.I. Vernadskogo i Vsesoyuznyy nauchno-issledovatel'skiy institut prudovogo rybnogo khozyaystva. 2. Chlen-korrespondent Vsesoyuznoy akademii sel'skokhozyaystvennykh nauk imeni V.I. Lenina (for Koval'skiy).

S/196/62/000/012/009/016
E194/E155

AUTHOR: Koval'skiy, V.Ya.

TITLE: The optimum spectral characteristics of radiation receivers

PERIODICAL: Referativnyy zhurnal, Elektrotehnika i energetika, no.12, 1962, 2, abstract 12 V12. (Svetotekhnika, no.10, 1961, 24-27).

TEXT: Instruments intended for measuring sources with arbitrary distribution of radiant energy over a fairly wide spectral range should employ radiation receivers with inverted-U shaped spectral sensitivity curves. Otherwise the integral sensitivity of the receiver greatly depends on the spectral distribution of the energy source. Because of the difficulty of providing the recommended curves, each instrument should be used for only a limited group of sources. The spectral sensitivity of the receivers in these instruments should be selected so as to avoid appreciable change in the integral sensitivity, when the spectral composition of the radiation alters. The requirements

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The optimum spectral characteristics... S/196/62/000/012/009/016
E194/E155

applicable to such receivers are stated, particularly to those
intended for measuring sources with a line spectrum and sources
with mixed spectrum (fluorescent lamps).
5 illustrations. 3 references.

[Abstractor's note: Complete translation.]

Card 2/2

GELLER, Z.I.; MILOVA, N.A.; KOVAL'SKIY, Ye.V.

Evaporation and combustion of highly viscous cracking-
residue droplets. Izv. vys. ucheb. zav.; neft' i gaz 2 no.6:
73-78 '59. (MIRA 12:10)

1. Groznenskiy neftyanoy institut.
(Cracking process)

ASHIKHMIN, V.I.; KOVAL'SKIY, Ye.V.

Slide rule for thermocouples. Izv.tekh. no.2:20-21 F '60.
(MIRA 13:6)

(Slide rule)

GELLER, Z.I., doktor tekhn.nauk; KOVAL'SKIY, Ye.V., inzh.

Use of the method of temperature waves for determining the thermal conductivity of steel. Izv. vys. ucheb. zav.; energ. 7 no.3; 111-113 Mr '64. (MIRA 17:4)

1. Groznenskiy neftyanoy institut. Predstavlena kafedroy teplotekhniki i gidravliki.

KONOVALOV, M.D.; KOVAL'SKIY, Yu.A.

Automatic weight batching at asphalt-concrete plants. Priboro-
stroenie no.1:31-32 Ja 1961. (MIRA 14:1)

(Automatic control)

(Concrete plants—Equipment and supplies)

KOVAL'SKIY, Yu.A.

Level indicators with analog-to-code converters. Izv. tekhn.
no.9:52-53 S '63. (MIRA 17:1)

9.7140

85897
S/048/60/024/011/033/036
B006/B060

AUTHORS: Mamonov, Ye. I. and Koval'skiy, Yu. M.

TITLE: Semiconductor Units for the Automatic Control of Recording, Reading, and Reproduction of Information by Means of Seignettelectric Matrices

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 11, pp. 1428 - 1431

TEXT: This is the reproduction of a lecture delivered at the Third Conference on Ferroelectricity which took place in Moscow from January 25 to 30, 1960. The authors describe circuits for the automatic control of events in electronic computers working with seignettelectric matrices. The circuits discussed are shown in Figs. 1 and 2. Fig. 3 shows oscillograms of the effect of some control units (pole reversal of a static trigger; signals from one of the latest and one of the oldest discharges of the address register; pulse at the output of the reading and recording amplifiers), and Fig. 4 shows an outside

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85897

Semiconductor Units for the Automatic
Control of Recording, Reading, and
Reproduction of Information by Means
of Seignettoelectric Matrices

S/048/60/024/011/033/036
B006/B060

view of the whole apparatus. The authors thank I. S. Zheludev for
assistance and advice, and B. N. Perekatov for cooperation.
There are 4 figures and 1 Soviet reference.

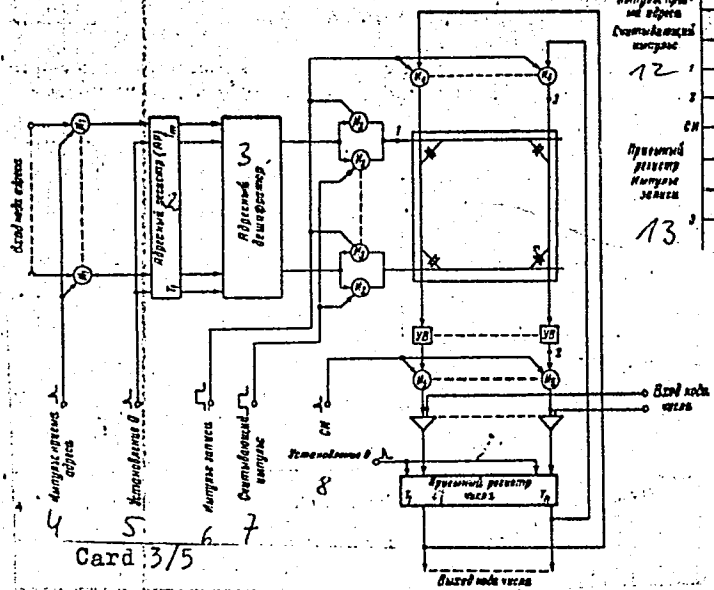
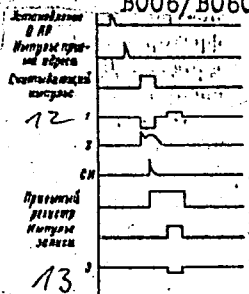
✓

ASSOCIATION: Institut kristallografii Akademii nauk SSSR
(Institute of Crystallography of the Academy of
Sciences USSR)

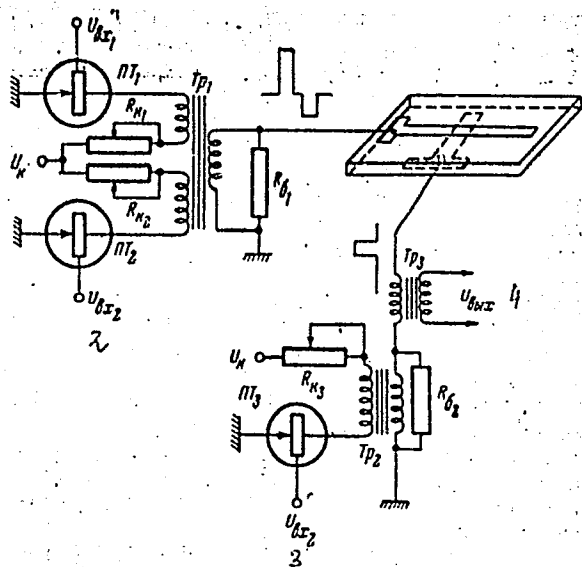
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Рис. 2. Электрические схемы записи, считывания и восприятия информации с трансформаторными связями

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B006/B060

Legend to Fig. 1: Block diagram of a two-dimensional apparatus for information storage with seignettelectric matrix. (1) input of address code; (2) address register; (3) address decoder; (4) pulse of address reception; (5) 0 adjustment; (6) registering pulse; (7) reading pulse; (8) 0 adjustment; (9) digit receiving register; (10) output of digit code; (11) input of digit code; (12) pulse forms of (5), (4), and (7); (13) dto. in the receiving register and the registering pulse.

Legend to Fig. 2: Electric circuit of recording, reading, and perception of information with transformer couplings. $\Pi\Pi_1$ and $\Pi\Pi_2$ are transistors, Tp_1 , Tp_2 , and Tp_3 denote transformers, R_{6_1} , R_{6_2} - resistors, R_{K_1} , R_{K_2} , R_{K_3} - resistors, 1,2,3 - input voltages, 4 - output voltages.

Card 5/5

AUTHORS: Mamonov, Ye. I. and Koval'skiy, Yu. M.

TITLE: Semiconductor control system for a ferroelectric information storage
APPROVED FOR RELEASE: 06/14/2000 CIA-RDP86-00513R000825620007-1Source: Moscow. Inzhenerno-fizicheskii institut. Vychislitel'naya tekhnika.
no. 3. 1962. 112 - 122.

TEXT: A ferroelectric two-dimensional memory matrix with readout by reversal of polarization (switching) is described. The control system comprises an address register (10 binary digits) in the form of a binary counter, a receiving register (32 digits) made up of static transistor flipflops, and write and read

ress: register (10 binary digits) in the form of a binary counter, a receiving register (32 digits) made up of static transistor flipflops, and write and read amplifiers. All are described in details. Oscillograms and pictures of a model designed for storage of 1024 32-digit words are presented. The system was checked with a variety of ferroelectric matrices and found satisfactory. There are 9 figures.

Card 1/1

KOVAL'TSIK, T. L.

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1679
AUTHOR KOVAL'CIK, T. L., MASLAKOVEC, JU. P.
TITLE The Influence exercised by Admixtures on the Electric Properties
of Lead Telluride.
PERIODICAL Zurn.techn.fis, 26, fasc.11, 2417-2431 (1956)
Issued: 12 / 1956

This work investigates the influence exercised by various admixtures on the character of the conductivity of a two-component compound and tries to set up rules (like in the case of germanium and silicon) for the occurrence of p- and n-conductivity. The PbTe examined had a cubic crystal lattice of the NaCl type. Measuring was carried out mainly on polycrystalline pressed samples ($20 \times 8 \times 6 \text{ mm}^3$) which were annealed at 500°C or also on monocrystals.

The influence exercised by the excess lead and tellurium on thermoelectromotoric force and on the conductivity of lead telluride at room temperature is shown in a diagram. In the case of stoichiometrical composition, this PbTe has the electric conductivity $\sigma = 620 \text{ ohm}^{-1} \cdot \text{cm}^{-1}$ (which is caused by electrons), the thermoelectromotoric force $\alpha = -223 \text{ microvolts}/^\circ \text{C}$ (with respect to lead), and the concentration $n = 3,5 \cdot 10^{18}$ of the electricity carriers. A sufficiently great surplus of tellurium makes lead telluride a semiconductor of the p-type. A surplus of lead increases the concentration of the free electrons only slightly. The high concentration of electrons in the lead telluride produced from a crude technical tellurium is due to the influence exercised by the

Zurn.techn.fis,26,fasc.11, 2417-2431 (1956) CARD 2 / 2 PA - 1679
admixtures in not purified tellurium. If admixtures of lead bromide, lead chloride, or lead iodide are added to the purest form of lead telluride, transition to electronic conductivity does not occur, the semiconductor remains positive. Only a sufficiently large surplus of lead makes conductivity negative. The lead at first changes the sign of electromotoric force, reduces the latter, and increases the concentration of the negative electricity carriers up to such values as correspond to the concentration of the introduced bromide. A further addition of lead causes no change of the electric conductivity of the PbTe.

Next, the influence exercised by various foreign admixtures on the properties of lead telluride is discussed. On this occasion PbO, TeO₂, PbBr₂, Pt, Ni, Co, Fe, Ge, Sn, Mg, Nb, Bi, Bi₂Te₃, Ag, Cu, Au and thallium are mentioned.

Discussion of results: All admixtures can be subdivided into four groups according to the character of their influence upon the sign of the conductivity of lead telluride (at room temperature): 1.) Donor-like admixtures, as e.g. Cl, Br, J, Bi, Sb, Nb. 2.) Acceptor-like admixtures, as e.g. Ag and thallium. 3.) Admixtures exercising a similar effect as a surplus of lead (Sn, Ge, Ti, Ni, Co, Fe, Pt, Mg). 4.) Admixtures which are analogous to tellurium (Se, S and O).

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AUTHORS: Aleskovskiy, V.B., Koval'tsov, V.A., Petrov, V.V., Tsyplyatnikov, G.P.

TITLE: Investigation of the Flameless Burning of Hydrogen on a Platinum-Platino-Iridium Thermocouple ↗

PERIODICAL: Tr. Leningr. tekhnol. in-ta im. Lensovet, 1958, Nr 48, pp 219 - 226

ABSTRACT: The flameless burning of H_2 on the surface of the junction of a Pt-Pt-Ir thermocouple was investigated. The thermocouple was placed into a H_2 jet flowing from a pipe surrounded by an oxygen-containing mixture. The current value of the catalytic activity of the thermocouple $A_t = E_t/c$, where E_t is the current value of the thermal emf, c is the O_2 concentration. The value $a = A^t A$, where A corresponds to the final data of the experiment, determines the degree of activation in a given moment; a increases with time. In the case of constant O_2 consumption and variable H_2 consumption the thermal emf passes through a maximum at stoichiometric

Card 1/2

ALESKOVSKIY, V.B.; KOVAL'TSOV, V.A.; PETROV, V.V.; TSYPLYATNIKOV, G.P.

Investigation of flameless hydrogen burning on platinum platinum-
irridium thermocouple. Trudy LTI no.48:219-226 '58. (MIRA 15:4)
(Hydrogen) (Combustion) (Thermocouples)

ALESKOVSKIY, V. B.; KOVAL'TSOV, V. A.; FEDOROV, I. N.; TSYPLYATNIKOV, G. P.

Continuous automatic determination of oxygen in water. Zav.
lab. 28 no.12:1440-1442 '62. (MIRA 16:1)

1. Leningradskiy tekhnologicheskij institut im. Lensoveta.

(Oxygen—Analysis) (Water—Analysis)

KOVAL'TSOV, Viktor Akimovich; ALESKOVSKIY, Valentin Borisovich;
TOMARCHENKO, S.L., red.; LEVIN, S.S., tekhn. red.

[Determination of oxygen dissolved in water] Opređenje
rasvorenogo v vode kisloroda. Leningrad, Goskhimizdat,
1961. 51 p. (MIRA 16:6)
(Oxygen--Analysis) (Feed water)

ALEKSKOVSKIY, V.B.; KOVAL'TSOV, V.A.; FEDOROV, I.N.; TSYPLYATNIKOV, G.P.

Automatic analyzer for determining oxygen in water. Zav. lab.
30 no.1:105-107 '64. (MIRA 17:9)

1. Leningradskiy tekhnologicheskii institut imeni Lensoвета.

KOVAL'TSOV, V.A.; KONOVALOV, G.S.

Automation of physicochemical methods of determining sulfate ions in water. *Gidrokhim. mat.* 37:118-124 '64. (MIRA 18:4)

1. *Gidrokhimicheskiy institut Glavnogo upravleniya gidrometeorologicheskoy sluzhby pri Sovete Ministrov SSSR, Novocherkassk.*

ALESKOVSKIY, V.B.; KOVAL'TSOV, V.A.; TSYPLYATNIKOV, G.P.

New method for determining oxygen content in water. Vodoped., vod.
rezh. i khimkont. na parosil. ust. no.1:156-160 '64.

(MIRA 18:2)

1. Leningradskiy ordena Trudovogo Krasnogo Znameni tekhnologicheskoy
cheskiy institut imeni Lensoveta.

GABRISHOVA, N.N., studentka V.kursa; GOLOVKO, G.N., student V kursa;
KOVAL'TSOVA, V.S., student V kursa; POPENKO, T.V., studentka V
kursu; RUSTAMOV, T., student V.kursa

Neurological disorders in some helminthiases. Sov.med. 25 no.1:
127-130 Ja '62. (MIRA 15:4)

1. Iz kliniki nervnykh bolezney (rukovoditel' - dotsent V.A.Likhtenshteyn)
Dagestanskogo meditsinskogo instituta (dir. - dotsent M.M.Maksudov).
(NERVOUS SYSTEM—DISEASES) (WORMS, INTESTINAL AND PARASITIC)

KOVALYUKH, A.I.

Results of a one-day census of patients in the psychoneurological hospitals of the West Ukrainian provinces. Vop. psikh. no. 3:47-53 '59. (MIRA 13:10)

1. L'vovskaya psikhonevrologicheskaya bol'nitsa, vneshtatnyy nauchnyy sotrudnik Instituta psikiatrii AMN.
(UKRAINE, WESTERN—MENTAL ILLNESS)