"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

Ca

10

Synthesis of methanol in presence of copper, zinc oxide and chromic oxide catalysts.

V. A. Plotnikov, K. N. Ivanov and D. A. Pospekhov. *J. Chem. Ind.* (Moscow) 8, 119-26(1931).—Results of expts. show that the optimum proportions of $ZnO:Cr_2O_3$ with respect to activity is 11:1; to reach the highest activity they have to constitute 30% of the catalyst. Conversion of CO into combustible liquids (mostly MeOH) is highest at $ZnO:Cr_2O_3$ 8:1 and 60-70% Cu^{++}, but the quality of the products is highest at 55% Cu^{++}. The velocity of the reaction increases with excess of H_2; the yield of MeOH and other combustible liquids is also increased, and the % CO_2 decreased. The best temp. is 265°; above 280° the quality of the products of reaction is lowered considerably, below 250° the velocity is too low. The max. of CO conversion, that of activity of the catalyst and that of its stability do not coincide. The stability is increased by addn. of Na_2SiO_3 but the catalytic qualities are lowered. J. G. Tolpin

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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PROCESSES AND PROPERTIES INDEX

CA

10

Complex catalysts for the synthesis of methanol. V. A. PLOTNIKOV, K. N. IVANOV AND D. A. POSPEKHOV. *J. Chem. Ind.* (Moscow) 8, 472-8(1931); cf. *Ibid* 8, 119-26 (1931).—The study of the catalytic synthesis of MeOH from CO and H_2 was continued. The possibilities of further activation of the complex catalyst $Cu\text{-}ZnO\text{-}Cr_2O_3$, the catalytic action of the individual components, and their substitution were investigated. The procedure was the same as that in the former expts.; the reaction was carried out again under the conditions of falling pressure which begins with the inception of the reaction at a certain temp. *Conclusions.*—Cu *per se* is a poor catalyst; Cr_2O_3 alone is more energetic than Cu, effecting the reaction at 205°, the main reaction proceeding thus: $2\,CO + 2\,H_2 = CH_4 + CO_2$. Addn. of ZnO to Cu somewhat increases the activity, and so does the addn. of Cr_2O_3, but the temp. of reaction is reduced to 205-85° with formation of a considerable amt. of MeOH. Addn. of both ZnO and Cr_2O_3 doubles the activity and the conversion of CO into MeOH as compared with Cu contg. only either ZnO or Cr_2O_3. The effect of the combination of ZnO and Cr_2O_3 with Cu does not constitute a simple sum of their influences as individual components. The complex catalyst $Cu\text{-}ZnO\text{-}Cr_2O_3$ is considered as a system in which the individual influences of the components are merged to create a specific MeOH catalyst. Addn. of Na_2CO_3, Ag and MgO led to impairment of the activity of $Cu\text{-}ZnO\text{-}Cr_2O_3$ and the reaction products.

CHAS. BLANC

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

Ca

3

X ray examination of copper methyl alcohol catalysts
K. N. Ivanov. *Mem. Inst. Chem. All-Ukrain. Acad. Sci.* 1, 49-55(In German 56-7)(1934); cf. *C. A.* 29, 6711[4].
Activation of CO and H_2 mols. by Cu-ZnO-Cr_2O_3 catalysts (I) is due to active Cu and CuO mols., the dispersion of which is increased by the ZnO. Cr_2O_3 acts as a promoter, forming solid solns. with CO. Inactivation of I is due to diminution in the dispersion of Cu, to reduction of active CuO, and to increase in the parameters of the Cu lattice consequent on conversion into α-brass. B. C. A.

COMMON ELEMENTS

COMMON VARIABLES INDEX

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ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

The properties and structure of the copper methanol catalysts. K. N. Ivanov. *Acta Physicochim. U. R. S. S.* 1, 493-502(1934)(in German).—Addn. of ZnO increases somewhat, and of Cr_2O_3 very strongly, the activity of the catalyst. Very active catalysts, 5 times as active as any previously reported, were prepd., *e. g.*, Cu 82, ZnO 16, Cr_2O_3 2 and Cu 60, ZnO 35.6, Cr_2O_3 4.4. High ZnO (more than 30%) and low Cr_2O_3 (less than 2%) lead to rapid aging of the catalyst. Reduction of the dried mixed ppt. takes place in a H stream at 200-20°. X-ray studies indicate that the function of Cr_2O_3 is to preserve a small amt. of CuO and that the real "active centers" are the Cu-CuO interfaces. During use, ZnO with Cu forms α-brass, with an increase in lattice const. of Cu and a decreased catalytic activity. F. H. Rathmann

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

The pyrophoric character of some copper catalysts for methanol synthesis. V. A. Plotnikov and K. N. Lazov. *J. Gen. Chem.* (U. S. S. R.) 4, 1003-5; *Mem. Inst. Chem. All-Ukrainian Acad. Sci.* 1, 127-31(1934).—Admixt. of 2% CuO or Cr_2O_3 increases the stability of the Cu dispersion formed during the process of its reduction from CuO. The ability, on contact with air, to form spontaneously centers of oxidation and the extension of this process is assocd. with the presence on the surfaces of adsorbed H in the active state. The prepn. obtained by reduction with CO is similar to that from H_2. The pyrophoric process converts the Cu principally to Cu_2O.

Lewis W. Butz

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PROCESSES AND PROPERTIES INDEX

9

Corrosion of steel in water vapor at high temperatures and pressures. N. N. Gratzinskii and K. N. Ivanov. *Khim. Mashinostroenie* 1934, No. 5, 31-3.—One hundred and ten expts. in an autoclave constructed of soft steel contg. Si 0.116, P 0.08, S 0.05 and C 0.13% were carried out during a total time of 400 hrs. In every expt. the pressure was allowed to drop from 200 to 80 atms. and the temps. used were 350° and 300°. The mixt. of gases used for expt. had an av. compn. of H 67, CO 20, CH_4 4, CO_2 1 and N 8%. In both parts of the autoclave (that which was and that which was not subjected to the action of gases) cementite was deposited. Analysis showed a small increase of carbon in samples which were under action of H and CO. Under the conditions of the expts. cementation is almost counterbalanced by decarburization.

Walter P. Ericks

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

PROCESSES AND PROPERTIES INDEX

BC

A-1

Cathode precipitates formed at high current density. K. N. IVANOV and O. K. KUDRA (J. Phys. Chem. Russ., 1935, 6, 469—477).—X-Ray investigation of powder-like cathode ppts. of Cu, Zn, Cd, and Ag obtained from aq. solutions at high c.d. show them to be disperse and to contain O. The lattice parameters of Cu, Cd, Cu_2O, and ZnO in such ppts. were increased up to 100% owing to absorption of H. Zn and Ag gave normal parameters. CH. ABS. (e)

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

PROCESSES AND PROPERTIES INDEX

The use of siderite as a source for catalysts for the synthesis of ammonia. Ya. A. Fel'dman, K. N. Ivanov, and A. I. Naumova. *J. Chem. Ind.* (Moscow) 12, 1030-8 (1935).—When Bakal siderite is fused without removing any impurities, most of the Fe_2O_3 becomes Fe_3O_4, and a good catalyst for NH_3 synthesis is obtained. Addn. of Al_2O_3 or K_2O does not improve it. H. M. Leicester

18

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Bc

B-II-1

Properties of zinc-chromium catalyst for methyl alcohol synthesis. K. N. Ivanov and V. I. Gusev (J. Chem. Ind. Russ., 1935, 12, 1143—1146).—The activity of the fresh catalyst (8 ZnO, 1·5 Cr_2O_3) (I) is greatest at 370°, and above a certain crit. rate of flow the % conversion of CO-H_2 into MeOH is const. At smaller velocities parasitic reactions (chiefly CH_4 formation) become increasingly important. (I) undergoes gradual inactivation, which man be compensated for by progressively raising the reaction temp. R. T.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

Bc

B-II-1

Properties of zinc-chromium catalysts for methyl alcohol synthesis. K. N. Ivanov, L. I. Koslov, and M. A. Koslov (J. Chem. Ind. Russ., 1936, 13, 406—408).—The activity of Zn-Cr catalysts for MeOH synthesis from $CO-H_2$ is slightly lowered by S, and considerably more so by Pb, Cu, and Fe, at $< 400°$. At $> 400°$, presence of $> 0{\cdot}25\%$ of Fe reduces the activity by 10—12%. R.T.

COMMON ELEMENTS

COMMON VARIABLES INDEX

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ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

CA

4

Electric-furnace alloy steels. K. N. Ivanov. Russ. 58,881, Jan. 31, 1941. K. N. Ivanov; addn. to Russ. 57,173 (preceding abstr.). To increase the amt. of slag in the second stage of the process and to protect the lining of the furnace from erosion, magnesite is added besides crushed refractory brick.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

Co

9

— Apparatus for determining the fluidity of slag in a steel-melting furnace. K. N. Ivanov. *Stal* 6, 410–11 (1946).— The fluidity is detd. by placing the app. in the slag inside the furnace. Construction and operation of the app. are described. Cf. U.S.S.R. patent 60,821. M. Hoveh

COMMON ELEMENTS

OPEN

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

5(1) SOV/67-58-6-22/22

AUTHORS: Ivanov, K. N., Engineer, Margolin, L. R., Engineer

TITLE: Industrial Oxygen Plants Being Produced in the USSR (Ustanovki tekhnicheskogo kisloroda, vypuskayemyye v SSSR)

PERIODICAL: Kislorod, 1958, Nr 6, Rear Cover (USSR)

ABSTRACT: The table gives a survey of the various types of oxygen plants operated in the USSR, namely, SKADS-17, KGN-30, UKGS-100-1, KGSN-100, KZh-150, KG-300M, KT-1000 and their technical and economic index figures, i.e., efficiency of each plant, degree of purity of the oxygen produced, power consumption, prime cost of oxygen, dimensions of plants, their price inclusive of supplementary appliances, capital investment per unit with one block. The specification further comprises elementary data of the scheme (e.g. oxygen-nitrogen high pressure plant (200 atmospheres absolute pressure) , piston engine driven by compressed gas, and pump for liquid oxygen), accessory machine equipment. Remarks are made concerning the nitrogen obtained as a by-product, etc.

Card 1/1 USCOMM-DC-60.601

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.N., inzh.

Factors determining the hydrogen content of steel. Stal' 22 no.2:117-121 F '62. (MIRA 15:2)

1. Zavod "Bol'shevik".
(Steel--Hydrogen content)

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

14(1)

AUTHORS: Ivanov, K. N., Engineer, SOV/67-59-2-18/18
~~Margolin, L. R.~~, Engineer

TITLE: Reference Table (Spravochnyye materialy). Air-fractionating Units With High Efficiency (Vozdukhorazdelitel'nyye agregaty bol'shoy proizvoditel'nosti)

PERIODICAL: Kislorod, 1959, Nr 2, Rear Cover (USSR)

ABSTRACT: This abstract contains a table on the efficiency of various air-fractionating units (KT-3600 AR, BR-4A, BR-5, BR-1, and BR-1M) with the following data: technical-economic indices, degree of purity, specific power consumption, prime cost of oxygen, dimensions of the individual apparatus, building costs, capital investment per unit. Further, the basic data of the individual apparatus, their supplementary machine equipment, and data on special features of the apparatus are listed. There is 1 table.

Card 1/1

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

14(1) SOV/67-59-5-27/30

AUTHORS: 1) Mikhaylov, Ye. I., Engineer, 2) Ivanov, K. N., Engineer (Consultants)

TITLE: Answers to Questions by Readers

PERIODICAL: Kislorod, 1959, Nr 5, p 60 (USSR)

ABSTRACT: 1) Comrade Kosharskiy of Khar'kov asked the following question: Is it possible to use electromagnetically operated stop valves and flow-control valves for oxygen pipes, and if so, by what institutions are such fittings manufactured and installed? Consultant 1) answered: On the basis of the Production Standards (Goskhimizdat 1955) electrically controlled stop valves have been adopted. For pressures up to 16 atmospheres excess pressure normal cast-iron fittings can be used, for higher pressures brass or bronze fittings. These fittings must be tested for strength, leakproofness, and absence of grease, and bear a test mark applied after testing. The particular electrically controlled fittings are manufactured by VNIIKIMASh and the mechanical engineering works "40-letiya Oktyabrya", the valves for pipes with pressures up to 16 atmospheres excess pressure are produced in many different plants. Fittings may also be

Card 1/2

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.N., inzh.

Steel pouring in a nonoxidizing atmosphere. Stal' 22 no.2:125 F '62. (MIRA 15:2)

1. Zavod "Bol'shevik".
(Steel ingots)

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.N.

Stanislav Konotopchenko, an electrician. Avtom., telem. i sviaz' 7 no.10:26-27 O '63. (MIRA 16:11)

1. Nachal'nik Shakhtinskoy distantsii signalizatsii i svyazi Severo-Kavkazskoy dorogi.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, Kirill Pavlovich; SLONIM, A.D., prof., otv. red.

[Muscle system and chemical thermoregulation] Myshechnaia sistema i khimicheskaia termoreguliatsiia. Moskva, Nauka, 1965. 125 p. (MIRA 18:5)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K. P.

"Electrocardiographical Observations of Cardial Trauma," Klin. Med., 26, No.7, 1948

Central Clinical Hosp. im. Semashko, Peoples Commissariat Transp.

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

Importance of electrocardiographic examination in treatment of rheumatism. Sovet. med. no.9:22-23 Sept. 1950 (CLML 20:1)

1. Of the Therapeutic Clinic, Central Institute for the Advanced Training of Physicians (Head -- Prof. I. A. Kassirskiy).

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

KASSIRSKIY, I.A., zasluzhennyy deyatel' nauki, professor; IVANOV, K.P., dotsent (Moskva)

Discussion on the etiology and pathogenesis of endocarditis lenta. Klin.med. 34 no.10:79-84 O '56. (MIRA 10:1)
(ENDOCARDITIS, SUBACUTE BACTERIAL, etiol. and pathogen.)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

KASSIRSKIY, I.A., prof.; IVANOV, K.P., dots. (Moskva)

Combined antibiotic and corticosteroid therapy [with summary in English]. Terap.arkh. 31 no.1:13-24 Ja '59. (MIRA 12:2)

1. Chlen-korrespondent AMN SSSR (for Kassirskiy).
(ADRENAL CORTEX HORMONES, ther. use,
infect. dis., with antibiotics (Rus))
(ANTIBIOTICS, ther. use,
infect. dis., with adrenal cortex hormones (Rus))
(COMMUNICABLE DISEASES, ther.
antibiotics with adrenal cortex hormones (Rus))

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

KASSIRSKIY, I.A; IVANOV, K.P.; RYZHKOVA, N.P.; KOZHUKHOVA, V.K.; PETROVA, L.M.; TARON, M.F. (Moskva)

Rational therapeutic-preventive system in the treatment of rheumatism. Klin.med. 38 no.3:24-34 Mr'60. (MIRA 16:7)

1. Iz III kafedry terapii TSentral'nogo instituta usovershenstvovaniya vrachey (zav.-chlen-korrespondent AMN SSSR prof. I.A.Kassirskiy).
(RHEUMATIC HEART DISEASE)

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

GASTEVA, S.V.; IVANOV, K.P.; CHETVERIKOV, D.A.

Resistance of rats to an acute oxygen deficiency following radiation sickness. Probl. kosm. biol. 4:437-444 '65. (MIRA 18:9)

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

USSR/Medicine - Physiology FD-925

Card 1/1 Pub 33-8/29

Author : Ivanov, K. P.

Title : Nervous mechanisms of reaction of respiration and circulation to reduced barometric pressure in amphibians

Periodical : Fiziol. zhur. 40, 310-315, May/Jun 1954

Abstract : Results of experiments on frogs demonstrated that amphibians can endure rarified atmosphere and consequent low oxygen content. Frogs have been able to live in atmosphere as low as 45mm of mercury column. Hypoxia in frogs seems to be accompanied by gradual languor of cutaneous reflexes and characteristic frequency in respiratory movements and cardiac activity. These symptons are connected with spread of inhibitory effects, originating in the higher branches of the central nervous system, to bulbar and spinal centers. Diagrams. Five Soviet references.

Institution : Chair of Normal Physiology, Leningrad Medical Stomatological Institute

Submitted : July 7, 1953

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

Ivanov, K. P.

USSR/Medicine - Physiology FD-938

Card 1/1 Pub 33-21/29

Author : Ivanov, K. P.

Title : Recording respiratory movements in rodents

Periodical : Fiziol. zhur. 40, 363-365, May/Jun 1954

Abstract : The device described is in the form of an oblong box intended for recording respiration in small animals in a rarefied atmosphere. Because of its simplicity this box can be used in laboratories for experimenting on rodents. The principle behind the use of the oblong box is that majority of rodents have a tendency to remain in their burrows in a state of relative rest for periods of time. Movement of the animal placed in the box is limited, but this does not hinder recording of its respiratory movements since it remains in its normal position. Kymograph is used for recording. Diagrams.

Institution : Chair of Normal Physiology, Leningrad Medical Stomatological Institute

Submitted : March 30, 1953

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K. P.

EXCERPTA MEDICA Sec.2 Vol.9/8 Physiology,etc. Aug56

3525. IVANOV K. P. Chair of norm. Physiol., Stomatol. Inst., Leningrad.
~~Changes~~ of pulmonary ventilation in white rats after removal of various parts of the brain (Russian text)
FIZIOL. Ž. 1955, 41/6 (775-781) Illus. 6

Removal of both cerebral hemispheres, or anaesthesia with chloral hydrate or barbital does not significantly change the pulmonary ventilation in the resting condition or its response to CO_2. However, the normal increase of depth at simulated altitude is diminished, while the normal increase of the respiratory rate is maintained. Lower parts of the brain are also involved in the reaction of pulmonary ventilation to hypoxia, and in bulbar preparations the adequate reaction to simulated altitude is entirely abolished.

Simonson - Minneapolis, Minn.

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

6815 Higher respiratory centres in the amphibian brain. K. P. [illegible] 1957 [illegible] 521 Referat. Zh. Biol. [illegible] No. 75956 An investigation was made of the respiratory [illegible] of the frog to O_2 insufficiency and CO_2 excess after removal [illegible] placed in a steel pressure [illegible]

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

Stomatology Inst. Leningrad

Ivanov, K. P.

IVANOV, K.P.

Central regulation of active pulmonary tonus [with summary in English]. Fiziol.zhur. 43 no.9:858-863 S '57. (MIRA 10:11)

1. Kafedra patologicheskoy fiziologii Sanitarno-gigiyenicheskogo meditsinskogo instituta, Leningrad.
(CENTRAL NERVOUS SYSTEM, physiology,
eff. of stimulation on pulm. tonus in frogs (Rus))
(LUNGS, physiology,
tonus, eff. of stimulation of CNS in frogs (Rus))

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

MAKAROVA, A.P.; IVANOV, K.P.

Acclimatization of lowland sheep to mountain conditions of the Northern Caucasus. Opyt izuch.reg.fiziol.funk. 4:66-70 '58. (MIRA 12:4)

1. Laboratoriya ekologicheskoy fiziologii (zaveduyushchiy - prof. A.D. Slonim) Instituta fiziologii imeni I.P. Pavlova AN SSSR.
(SHEEP--PHYSIOLOGY)
(ALTITUDE, INFLUENCE OF)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

AUTHOR: Ivanov, K.P., Candidate of Medical Sciences 26-58-5-29/57

TITLE: Vertebrates Not Possessing Erythrocytes and Hemoglobin (Pozvonochnyye zhivotnyye, lishennyye eritrotsitov i gemoglobina)

PERIODICAL: Priroda, 1958, Nr 5, pp 97 - 98 (USSR)

ABSTRACT: Formerly, it was thought that all vertebrates with the exception of the larva of the Leptocephalus eel possessed hemoglobin. Based on foreign research, the author describes three species of the Chaenichthidae family possessing neither red blood corpuscles nor hemoglobin.

ASSOCIATION: Institut fiziologii Akademii nauk SSSR, Leningrad (The Institute of Physiology of the USSR Academy of Sciences, Leningrad)

AVAILABLE: Library of Congress

Card 1/1

1. Erythrocytes 2. Hemoglobin 3. Chaenichthidae
4. Vertebrates - Physiology

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

Effect of increased oxygen pressure on animals poisoned by potassium cyanide. Farm.i toks. 22 no.5:468-473 S-O '59. (MIRA 13:3)

1. Laboratoriya ekologicheskoy fiziologii (zaveduyushchiy - prof. A.D. Slonim) Instituta fiziologii imeni I.P. Pavlova AN SSSR.
(ATMOSPHERIC PRESSURE eff.)
(CYANIDES toxicol.)

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

Oxygen requirement and thermoregulation in hypoxia. Fiziol.zhur. 45 no.3:320-325 '59. (MIRA 12:11)

1. From the Laboratory of Ecologic Physiology, I.P. Pavlov Institute of Physiology, Leningrad.
(ANOXIA, effects,
on oxygen requirement & thermoregulation (Rus))
(BODY TEMPERATURE,
thermoregulation in anoxia (Rus))

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

Oxygen consumption and changes in skeletal muscles during hypoxia.
Fiziol.zhur. 45 no.8:988-993 Ag '59. (MIRA 12:11)

1. From the laboratory of Ecologic Physiology, I.P.Pavlov Institute of Physiology, Leningrad.
(ANOXIA, effects)
(OXYGEN, metabolism)
(MUSCLES, metabolism)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.; DEN SU-I

Electrical activity of the muscles and chemical thermoregulation in white rats of various ages. Fiziol.zhur. 46 no.1:64-70 Ja '60. (MIRA 13:5)

1. From the laboratory of ecological physiology I.P. Pavlov Institute of Physiology, Leningrad.
(AGING eff.)
(MUSCLES physiol.)
(BODY TEMPERATURE physiol.)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

Chemical thermoregulation and electrical activity of the muscles during relative rest in various animals. Fiziol. zhur. 46 no. 5:544-551 My '60. (MIRA 13:12)

1. From the Laboratory of Ecological Physiology, Pavlov Institute of Physiology, Leningrad.
(MUSCLES) (TEMPERATURE--PHYSIOLOGICAL EFFECT)
(REST) (RESPIRATION)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

Mammals living without water. Priroda 49 no.11:105-106 N '60. (MIRA 13:11)

1. Institut fiziologii im.I.P.Pavlova AN SSSR, Leningrad.
(Desert fauna)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

GURSKAYA, N.V.; IVANOV, K.P.

Features of the gas equilibrium between the blood and intestinal cavity. Biul. eksp.biol.i med. 50 no.9:45-48 S '60.(MIRA 13:11)

1. Iz laboratorii krovoobrashcheniya i dykhaniya (zav. - prof. G.P.Konradi) i laboratorii ekologicheskoy fiziologii (zav. - prof. A.D.Slonim) Instituta fiziologii imeni I.P.Pavlova (dir. - akademik K.M.Bykov) AN SSSR, Leningrad.
(OXYGEN) (CARBON DIOXIDE) (BLOOD, GASES IN)
(INTESTINES)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P., kand.meditsinskikh nauk

Special characteristics of the physiology of the giraffe.
Priroda 49 no.7:93-94 Jl '60. (MIRA 13:7)

1. Institut fiziologii imeni I.P.Pavlova, Leningrad.
(Giraffes)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

Spatial orientation of birds. Priroda 49 no.9:33-38 S '60. (MIRA 13:10)

1. Institut fiziologii I.P.Pavlova, Leningrad.
(Birds—Migration) (Orientation)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

Role of the skeletal muscle in gas exchange variations in hyper- and hypothermia. Biul. eksp. biol. i med. 50 no. 11:19-23 N '60. (MIRA 13:12)

1. Iz laboratorii ekologicheskoy fiziologii (zav. - prof. A.D. Slonim) Instituta fiziologii imeni I.P. Pavlova (dir. - akademim K.M. Bykov) AN SSSR, Leningrad.
(BODY TEMPERATURE) (METABOLISM) (MUSCLES)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

Mammals living without water. Elet tud 16 no.11:340-342 12 Mr '61.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

Change in the electrical activity of the brain and the "thermoregulatory tonus" of muscles in hypoxia. Fiziol.zhur. 47 no.2:210-216 F '61. (MIRA 14:5)

1. From the Ecological Physiology Laboratory, Pavlov Institute of Physiology, U.S.S.R. Academy of Sciences, Leningrad.
(ANOXEMIA) (ELECTROENCEPHALOGRAPHY)
(BODY TEMPERATURE)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.; GURSKAYA, N.V.

Formation and secretion of gases in the air bladder of fish. Priroda 50 no.6:107-108 Je '61. (MIRA 14:5)

1. Institut fiziologii imeni I.P.Pavlova AN SSSR, Leningrad.
(Air bladder (in fishes))

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P., kand.med.nauk

Thermoregulation in bats. Priroda 50 no.12:109-110 D '61. (MIRA 14:12)

1. Institut fiziologii im. I.P.Pavlova AN SSSR, Leningrad.
(Bats) (Body temperature--Regulation)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

Physiological characteristics of thermoregulation in bats. Biul. eksp. biol. i med. 51 no.4:12-16 Ap '61. (MIRA 14:8)

1. Iz laboratorii ekologicheskoy fiziologii (zav. - prof. A.D.Slonim) Instituta fiziologii imeni I.P.Pavlova AN SSSR (dir. - akademik V.N.Chernigovskiy), Leningrad. Predstavlena V.N.Chernigovskim.
(BODY TEMPERATURE) (BATS)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

"On the energetic equivalent of electrical activity of muscles."

Report presented at the Intl. Symposium on Temperature Acclimation, Leiden, Netherlands 5-7 Sep 1962

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

Physiological mechanisms of chemical thermoregulation. Fiziol. zhur. 48 no.4:436-443 Ap '62. (MIRA 15:6)

1. From the Laboratory for Ecologic Physiology, I.P. Pavlov Institute of Physiology, Leningrad.
(BODY TEMPERATURE) (MUSCLES)
(SPINAL CORD) (OXYGEN IN THE BODY)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

S/239/62/048/010/003/004
I015/I215

AUTHOR: Ivanov, K.P.

TITLE: Physiological mechanisms of chemical thermoregulation

PERIODICAL: Fiziologicheskiy zhurnal SSSR im. I.M. Sechenova v. 48, no. 10, 1962, 1225-1233

TEXT: This is the continuation of a previous study. Experiments were carried out on 30 rabbits, 10 albino rats and 8 frogs. The tonic contraction of the gastrocnemius muscle was measured in the rabbit at a load of 20-40g during the appearance of the so-called "thermoregulating tonus". The method was that of Rohracher (1955) and Ivanov (1960). It was found that cooling of the hoeothermic animals brought about a weak electrical activity

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.; DAVYDOV, A.F.

Physiological mechanism of chemical thermoregulation in bats. Opyt. izuch. reg. fiziol. funk. 6:179-183 '63 (MIRA 17:3)

1. Laboratoriya ekologicheskoy fiziologii (zav. - prof. A.D. Slonim) Instituta fiziologii imeni I.P.Pavlova AN SSSR.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.; MAKAROVA, A.R.; NASLEDOVA, N.I.; RUTTENBURG, S.O.; CHUSOV, Yu.B.

Physiological shifts in the human organism due to repeated cooling. Opyt izuch. reg. fiziol. funk. 6:199-204 '63 (MIRA 17:3)

1. Laboratoriya ekologicheskoy fiziologii (zav. - prof. A.D. Slonim) Instituta fiziologii imeni Pavlova AN SSSR i gruppa fiziologii truda (rukovoditel' - S.O.Ruttenburg) Instituta gigiyeny truda i professional'nykh zabolevaniy (dir. Z.E. Grigor'yev).

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.; ALIMUKHAMEDOV, A.

Physiological mechanisms of chemical thermoregulation in ontogeny. Fiziol. zhur. 49 no.4:482-488 Ap '63. (MIRA 17:4)

1. From the Laboratory of Ecologic Physiology, Pavlov Institute of Physiology, Leningrad.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P., kand.med.nauk

Microvibration of living organisms. Priroda 52 no.4:93-94 '63. (MIRA 16:4)

1. Institut fiziologii AN SSSR im. I.P.Pavlova, Leningrad.
(Muscles--Motility)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

L 27827-65 EWG(j)/EWG(r)/EWT(1)/FS(v)-3/EWG(v)/EWG(a)/EWG(d) Pu-5 DD

ACCESSION NR: AP5000265 S/0239/64/050/012/1476/1483

AUTHOR: Ivanov, K. P.

TITLE: Physiological mechanisms of chemical heat regulation and their characteristics under hypoxia

SOURCE: Fiziologicheskiy zhurnal SSSR, v. 50, no. 12, 1964, 1476-1483

TOPIC TAGS: rat, body heat regulation, body heat exchange, oxygen consumption, muscle, electromyography, temperature effect, hypoxia

ABSTRACT: The attention of the present study was focused on those cases of chemical heat regulation in which the relationship between muscle electric activity changes and gas exchange changes is generally explained by "nonportractile" thermogenesis of muscles and increased

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

ABSTRACT: The attention of the present study was focused on those cases of chemical heat regulation in which the relationship between muscle electric activity changes and gas exchange changes is generally explained by "noncontractile" thermogenesis of muscles and increased heat production of internal organs. Such cases of chemical heat regulation are found under conditions of minimum temperature fluctuations near the critical point (thermoneutral zone) and under conditions of "spontaneous" gas exchange fluctuations with a constant temperature. A series of experiments was conducted on white rats

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ACCESSION NR: AP5000265

under both conditions in a normal atmosphere and then repeated in hypoxic conditions to clarify the muscle electric activity and gas exchange relationship. In minimum temperature fluctuation experiments the animals were kept in a pneumatic chamber at 30° for 45-60 min and at 26-27° after a half hour interval. Oxygen intake and electrical

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hypoxic conditions [illegible]

exchange relationship. In minimum temperature fluctuation experiments the animals were kept in a pneumatic chamber at 30° for 45-60 min and at 26-27° after a half hour interval. Oxygen intake and electrical muscular activity were recorded continuously. In "spontaneous" gas exchange experiments the animals were kept in a chamber at a constant temperature of 26-28° for 1-1.5 hrs with the gas exchange changes recorded every 3 min by an automatic device. In experiments under hypoxic conditions animals were kept in a charber for 60 min with air replaced by a gas mixture containing 7-10% oxygen. In all experiments the electrical activity of the muscles was recorded by a two channel UBPI-01 amplifier and a N-109 loop oscillograph. Quantitative measurement of total electric activity of muscles was recorded by a two channel Kozhevnikov electron oscillograph. One pair of skin electrodes was placed on the back of the neck and the other pair on

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ACCESSION NR: AP5000265

muscle contractile activities (heat regulating tone, motor activity, shiver). Under hypoxia, reduced oxygen consumption was accompanied by a significant decrease in total electric activity of muscles and certain changes of their energy characteristics. The experimental data indicate that the contractile activity of muscles plays an

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

important role in chemical heat regulation. Orig. art. has: 4 tables and 2 figures.

ASSOCIATION: Laboratoriya ekologicheskoy fiziologii Instituta fiziologii im. I. P. Pavlova AN SSSR, Leningrad (Laboratory of Ecological Physiology of the Institute of Physiology AN SSSR)

SUBMITTED: 07Sep63 ENCL: 00 SUB CODE: LS

NR REF SOV: 005 OTHER: 007

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

NR REP SOV: 005 OTHER: 007

Card 3/3

IVANOV, K.P.; RASHEVSKAYA, D.A.; SLEPCHUK, N.A.

Role of various skeletal muscles in chemical thermoregulation. Fiziol. zhur. 51 no.5:593-600 My '65. (MIRA 18:6)

1. Laboratoriya ekologicheskoy fiziologii Instituta fiziologii imeni Pavlova AN SSSR, Leningrad.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

L 28419-66

ACC NR: AP6019081 SOURCE CODE: UR/0239/65/051/005/0593/0600

AUTHOR: Ivanov, K.P.; Rashevskaya, D. A.; Slepchuk, N. A.

ORG: Laboratory of Ecological Physiology, Institute of Physiology im. I. P. Pavlov, AN SSSR, Leningrad (Laboratoriya ekologicheskoy fiziologii Instituta fiziologii AN SSSR)

TITLE: Role of different skeletal muscles in chemical heat regulation 27 24 B

SOURCE: Fiziologicheskiy zhurnal SSSR, v. 51, no. 5, 1965, 593-600

TOPIC TAGS: mouse, rat, rabbit, dog, muscle physiology, electrophysiology, blood circulation

ABSTRACT: Electromyograms of the skeletal muscles of the head (temporal muscle), back, neck, and hind legs of mice, rats, rabbits, and dogs were taken - first at a temperature of the external air in which the animals were kept that approached the critical (i.e., in the thermoneutral zone, which is 19-23° for dogs and 26-30° for rabbits, rats, and mice) and then on cooling the animals by placing them in a chamber filled with colder air or submerging them in water at 16-18°. The electric activity of the muscles (shivering that indicated chemical activity accompanied by a release of heat) was more pronounced in the front part of the body and highest in the neck, followed by the head. The hind legs showed the least activity. Because of the shorter distance along major veins to the front part of the body, temperature regulation in this part is more economical from the standpoint of heat loss over the blood circulation path. The differences between thermal regulation in the front and back part of the body were less pronounced for small animals than for large animals. When mice were cooled to a sufficiently low temperature, all of their muscles participated in thermal regulation to an equal extent. Orig. art. has: 1 figure and 6 tables. [JPRS]

SUB CODE: 06/ SUBM DATE: 12Nov63/ ORIG REF: 004/ OTH REF: 001

UDC: 612.745+612.53

Card 1/1 LC

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

L 14293-66 EWT(m)/EPF(n)-2 DIAAP GG/RD

ACC NR: AT6003877 SOURCE CODE: UR/2865/65/004/000/0437/0444

AUTHOR: Gasteva, S. V.; Ivanov, K. P.; Chetverikov, D. A.

ORG: none

TITLE: Resistance of rats to severe oxygen deficiency during radiation sickness

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy kosmicheskoy biologii, v. 4, 1965, 437-444

TOPIC TAGS: radiation sickness, hypoxia, rat, biologic metabolism, test chamber, ionizing radiation, x ray irradiation, tissue physiology

ABSTRACT: Experiments were conducted to determine the effect of ionizing radiation on oxidizing systems in living tissues by showing whether the resistance of rats to acute hypoxia changes in the course of severe radiation sickness. Male white rats weighing 200—250 g were subjected to a dose of x-rays (750 r) sufficient to cause mass death 80 hours after irradiation. Immediately after irradiation, and then at intervals of 3, 6, 12, 24, 48, 72, and 96 hours, groups of experimental and control rats were placed in an altitude chamber and subjected to rarefied atmosphere

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L 14293-66

ACC NR: AT6003877

(140 mm Hg). The resistance of irradiated rats to hypoxia, evident 6 hours after irradiation, was most pronounced after 72 hours. In order to determine whether a decrease in the intensity of metabolic processes is the chief cause of resistance to hypoxia, the rectal temperature and oxygen consumption of irradiated rats were measured in the designated time intervals. The absence of essential changes in these indices showed that the decrease in the intensity of metabolic processes in irradiated rats is not the sole cause of increased resistance to hypoxia.

Another series of experiments tested oxygen consumption of animals directly under hypoxic conditions. Gas-exchange studies under normal atmospheric and hypoxic conditions were compared, and it was concluded that the mechanism of increased resistance to hypoxia is different at different stages of radiation sickness. Further research is needed to determine the exact causes of increased resistance at different times, which may include hypothermia, disturbances of normal vital activity such as anemia or circulatory disruption, and disturbances in temperature regulation. The observed resistance of rats to acute oxygen deficiency (from 6 hours after irradiation to the terminal stage of acute radiation sickness),

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

L 14293-66
ACC NR: AT6003877

and also the absence of a significant change in the intensity of metabolic processes, indicate that ionizing radiation, in the dose used, does not damage oxidizing systems in the tissues. Orig. art. has: 3 figures. [ATD PRESS: 4091-F]

SUB CODE: 06 / SUBM DATE: none / ORIG REF: 008 / OTH REF: 008

Card 3/3

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

Physiological mechanisms of thermoregulation and their characteristics in hypoxia. Fiziol. zhur. 50 no.12:1476-1483 D '64. (MIRA 18:9)

1. Laboratoriya ekologicheskoy fiziologii Instituta fiziologii imeni I.P.Pavlova AN SSSR, Leningrad.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

AUTHOR: Ivanov [redacted] SOV/ 20-120-6-48/59

TITLE: On the Chlorophaite From the Lower Mesozoic Basalts and Dolerites of the Eastern Slope of the Ural (O khlorofeite iz nizhnemezozoyskikh bazal'tov i doleritov vostochnogo sklona Urala)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol. 120, Nr 6, pp. 1338-1340 (USSR)

ABSTRACT: Only in recent years erupted rock of the mentioned age was found in the above area. These are dolerites and basalts which are found as covers, flows, more rarely as sills and apparently as dikes; these rocks are extremely recent and only slightly cracked. In these rocks the author found chlorophaites as interstitial fillings and almond-shaped units. The shape and dimension of chlorophaite depends on the crystalline structure of the rock (Fig 1). The almond--shaped units are independent of it. Chlorophaite inclusions in corroded disseminations of diamond-shaped augite (Fig 2,2) had the shape of small spheroidal drops. In corroded plagioclase dissmeniations chlorophaite has an irregular, worm-like

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SOV/ 20-120-6-48/59

On the Chlorophaite From the Lower Mesozoic Basalts and Dolerites of the Eastern Slope of the Ural

shape of the same dimensions (Fig 3). The properties of chlorophaite apparently do not depend on the kind of its occurrence in the rock. From the macroscopical point of view it is black, pitchy or glassy with a dull luster, more rarely greenish, brownish-greenish, earthy, sometimes of a radial or concentric structure. Microscopically chlorophaite is optically amorphous, isotropic, rarely crystallized at a different degree, double-refracting. The color is yellowish, more rarely orange, reddish-brownish or greenish. Diffraction of light depends inconstantly on the color and fluctuates within wide ranges: 1,409 - 1,591. The chemical analyses were reduced to the structural formulae (Table 1). The results show that the chlorophaite studied here represents an alumo-ferro-magnesium hydrosilicate of fluctuating composition. A small admixture of calcite could not be separated from it. It belongs to the montmorillonite group from which it differs by a somewhat increased silica- and magnesia content as well as by a smaller iron content. As to the origin of chlorophaite the author is of the same

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

SOV/20-120-6-48/59

On the Chlorophaite From the Lower Mesozoic Basalts and Dolerites of the Eastern Slope of the Ural

opinions as other authors (Refs 1 - 3), i.e. that it is of magmatic origin. There are 3 figures, 1 table, and 3 references, 2 of which are Soviet.

ASSOCIATION: Gorno-geologicheskiy institut Ural'skogo filiala Akademii nauk SSSR (Geological Mining Institute, Ural Branch, AS USSR)

PRESENTED: March 20, 1958, by D. S. Korzhinskiy, Member, Academy of Sciences, USSR

SUBMITTED: March 19, 1958

1. Rock--Geology 2. Volcanoes--Geophysical effects 3. Rock--Structural analysis 4. Rock--Properties

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APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

2562

ON CERTAIN BIOLOGICAL EFFECTS OF PENETRATING RADIATION. S. E. Monoilov and K. P. Ivanov (Kalinin State Medical Inst.) Doklady Akad. Nauk. S.S.S.R. 105, 160-1(1955) Nov. 1. (in Russian)

Aerobic phases of biological oxidation in tissues exposed to radiation were investigated. Isolated frog hearts were analyzed and the electrocardiographs are given. (R.V.J.)

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, Kamen P.

Present trends in microwave physics and techniques. Fiz mat spisanie BAN 7 no.1:3-19 '64.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

S/142/60/003/006/012/016
E192/E532

24,2200

AUTHOR: Ivanov, K.P.

TITLE: Demagnetisation of a Ferrite Medium in an UHF Field at Large Signal Levels

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Radiotekhnika, 1960, Vol. 3, No. 6, pp. 652 - 654

TEXT: The processes taking place in a ferromagnetic can be described by the Bloch equation:

$$\frac{d\bar{M}}{dt} = \gamma\left[\bar{M}\bar{H}\right] - \frac{\bar{M} - \bar{M}_o}{\tau} \qquad (2)$$

where the second term represents the attenuation effect which influences the magnitude of the magnetisation vector. Under the assumption that the fields due to the anisotropy of the crystalline lattice can be neglected, the above equation is used to investigate an infinite ferrite medium situated in an UHF magnetic field $h_o \exp(\omega t)$, which is directed along the

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axis Oy and a constant magnetic field H_0 directed along the axis O_z which magnetizes the medium to the saturation condition. The components of the magnetization vector can be determined from Eq. (2). If equal relaxation times for each principal direction are assumed, the magnetization vector components are expressed by:

$$\frac{dm_x}{dt} + \frac{1}{\tau} m_x = \gamma (m_y H_0 - M_0 h_y - m_z h_y), \quad (3)$$

$$\frac{dm_y}{dt} + \frac{1}{\tau} m_y = -\gamma H_0 m_x, \quad (4)$$

$$\frac{dm_z}{dt} + \frac{1}{\tau} m_z = \gamma m_x h_y, \quad (5)$$

When the amplitude of the UHF field is small, the last term on the righthand-side part of Eq. (3) can be neglected. The simplified Eq. (3) and Eq. (4) are solved under the

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assumption that the magnetization components are sinusoidal and it is shown that the component m_z is in the form:

$$m_z = -\frac{1}{4}\cdot\frac{(\gamma h_0)^2}{(\Delta\omega)^2+\beta^2}M_0 + \frac{1}{4}\cdot\frac{(\gamma h_0)^2 M_0}{\left[(\Delta\omega)^2+\beta^2\right]^{1/2}}\times \qquad (8)$$

$$\times\frac{1}{\sqrt{\beta^2+(2\omega)^2}}\sin(2\omega t-\psi) = \Delta M_z + m_2 ,$$

where:

$$\psi = \operatorname{arctg}\frac{2\omega}{\beta} + \operatorname{arctg}\frac{\beta}{\Delta\omega} .$$

The first term ΔM_z of the righthand-side portion of Eq. (8) is independent of frequency and represents the demagnetizing effect of the UHF field along the axis OZ . The term m_2 in Eq. (8) determines the component having a frequency twice

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that of the UHF field (Ref. 4 - W.P. Ayres, P.H. Vartanian and J.L. Melchor - J. Appl. Phys., 1956, Vol. 27, No. 1, p. 188). The amplitude of this second harmonic has a maximum value at the frequency of the ferromagnetic resonance. The above indicates the possibility of using a gyrotropic medium for the purpose of frequency multiplication. It is of interest to consider the demagnetizing effect of a rotating UHF field. For a field having components:

$$\bar{h}_x = h_o \cos \omega t \quad \text{and} \quad \bar{h}_y = -h_o \sin \omega t$$

which rotates in the negative direction, it can be shown (by solving Eq. 5) that the demagnetizing component at the ferromagnetic resonance frequency is:

$$\Delta M_z \Big|_{\omega = \omega_o} = -\left(\frac{\gamma h_o}{\beta}\right)^2 M_o \qquad (9).$$

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Demagnetisation of ....

On the other hand, if the field rotates in the positive direction, no change in the magnetisation along the axis OZ is observed, i.e. no increase in the magnetization M_o of the ferromagnetic is possible since the medium is saturated by the field H_o. (Editor's note: due to the approximate nature of the Bloch formula, the demagnetizing effect indicated by the author should be more fully investigated.) There are 4 references: 1 Soviet and 3 non-Soviet. The English-language reference quoted is: Ref. 2 - Bloembergen, N. - PIRE, 1956, Vol. 44, No. 10, p. 1259.

ASSOCIATION: Kafedra teoreticheskikh osnov elektrotekhniki Moskovskogo ordena Lenina energeticheskogo instituta (Chair of Theoretical Principles of Power Engineering of the Moscow "Order of Lenin" Power Institute)

SUBMITTED: February 1, 1960

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APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K. P.

Cand Tech Sci - (diss) "Study of the propagation of electromagnetic waves in a system of spiral-anisotropic ferrites." Moscow, 1961. 11 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Order of Lenin Power Inst, Chair of the Theoretical Foundations of Electrical Engineering); 150 copies; price not given; (KL, 7-61 sup, 237)

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.P.

Gyrotropic excitation of a helical line. Radiotekh. i elektron. 8 no.12:2082-2084 D '63. (MIRA 16:12)

1. Institut elektroniki Bolgarskoy Akademii nauk, Sofiya.

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IVANOV, K.P.

Dispersion equation of a spiral line with gyromagnetic filling. Doklady BAN 16 no.7:689-692 '63.

1. Institut elektroniki Bolgarskoy Akademii nauk. Predstavleno chl.korr. E.Dzhakovym.

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IVANOV, K.P.

Dispersion equation of a spiral line encircled by an azimuthally magnetized ferrite tube. Doklady BAN 17 no.4:369-372 '64.

1. Institute of Electronics, Bulgarian Academy of Sciences. Predstavleno chl.-korr. E.Dzhakovym.

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IVANOV, K.P.

Spiral line with thin-walled gyromagnetic tube. Doklady BAN 17 no.12:1083-1086 '64.

1. Institute of Electronics of the Bulgarian Academy of Sciences, Sofia. Submitted July 29, 1964.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

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IVANOV, K.P.

Helical line with a gyrotropic medium. Radiotekh. i elektron. 10 no.7:1341-1343 Jl '65. (MIRA 18:7)

1. Institut elektroniki Bolgarskoy Akademii nauk, Sofiya.

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ACCESSION NR: AP5017673

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621.372.827.09

AUTHOR: Ivanov, K. P.

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TITLE: Helix with gyrotropic environment

SOURCE: Radiotekhnika i elektronika, v. 10, no. 7, 1965, 1341-1343

TOPIC TAGS: helical waveguide, helical antenna

ABSTRACT: Propagation of a monochromatic electromagnetic wave in a helical infinite-length line surrounded by an infinite ferrite medium is theoretically considered. A dispersion equation for the above line with circular magnetization is set up. Such a line does not satisfy the principle of reciprocity: the electromagnetic-wave propagation constant is different for different directions of propagation or for different polarities of magnetic bias. Orig. art. has: 1 figure and 18 formulas.

ASSOCIATION: Institut elektroniki, Bolgarskaya AN, Sofia (Institute of Electronics, Bulgarian AN, Sofia)

SUBMITTED: 21Aug64 ENCL: 00 SUB CODE: EC

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CHETVERIKOV, D.A.; GASTEVA, Svjetlana V.; IVANOV, K.P.; VACEK, A.; POSPISIL, M.

Mechanism of raised resistance of rats to hypoxia in acute radiation injury. Folia biol. (Praha) 10 no.5:386-391 '64.

1. Pavlov Institut of Physiology, Academy of Sciences of the U.S.S.R., Leningrad, and Institute of Biophysics, Czechoslovak Academy of Sciences, Brno.

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IVANOV, K.P.

Technological achievements of the Soviet automobile industry and outlook for its development. Avt.i trakt.prom. no.10:2-8 O '57. (MIRA 10:12)

1. Nauchno-issledovatel'skiy institut transporta avtomobil'noy promyshlennosti.

(Automobile industry)

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IVANOV, K.S., podpolkovnik med.sluzhby

Foreign body lodged for six years in the heart. Voen.-med.zhur. no.8:28 Ag '58 (MIRA 12:1)
(HEART--FOREIGN BODIES)

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SHESTAKOV, V.I.; IVANOV, K.S.

Further study on the biology of mosquitoes living in tree cavities of the southern Maritime Territory. Zool. zhur. 43 no.7:1081-1082 '64. (MIRA 17:12)

1. Research Institute of Epidemiology, Microbiology and Hygiene, Vladivostok.

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KRIVOROTOV, I.A., prof.; STEPANOV, A.S., podpolkovnik meditsinskoy sluzhby, kand.med.nauk; IVANOV, K.S., podpolkovnik meditsinskoy sluzhby.

Complications and changes in the internal organs in thermal burns. Voen.-med. zhur.no.8:3-8 Ag'58. (MIRA 16:7)
(BURNS AND SCALDS)

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AVRAMENKO, V.N., inzh.; DMITRIYEV, Yu.V., kand.tekhn.nauk; IVANOV, K.S., inzh.

Special problems in the stand production of prestressed reinforced concrete construction elements in English factories. Bet.i zhel.-bet. no.12:570-572 D '60. (MIRA 13:11)
(Great Britain--Prestressed concrete)

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IVANOV, K.V., inzhener; PISARCHIK, B.A., inzhener; TYUL'PANOV, A., redaktor; TRUKHANOVA, A., tekhnicheskiy redaktor

[Principles of water supply and sewage disposal on collective farms] Osnovy vodosnabzheniia i kanalizatsii v kolkhozakh. Minsk, Gos. izd-vo BSSR, Red. nauchno-tekhn. lit-ry. No.2. Kanalizatsiia. 1955. 277 p. (MIRA 8:6)

(Sewage disposal) (Water supply, Rural)

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, Konstantin Vladimirovich; ANEYCHIK, A.P., red.; AKALOVICH, N.M., red.; MORGUNOVA, G.M., tekhn. red.

[Technological and hydraulic calculations in water-supply systems] Tekhnologicheskie i gidravlicheskie raschety po vodosnabzheniiu. Minsk, Izd-vo M-va vysshego sredn. spets. i profes. obrazovaniia BSSR. Pt.1.[Water-supply network and its structures] Vodoprovodnaia set' i sooruzheniia na seti. 1963. 300 p. (MIRA 16:11)

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IVANOV, K. V.

USSR/Chemistry - Aluminum sulfate FD-1735

Card 1/1 : Pub. 50-11/18

Author : Ivanov, K. V.

Title : Mechanization of processes in the production of aluminum sulfate which require much labor

Periodical : Khim. prom., No 1, 48-50, Jan-Feb 1955

Abstract : When a perfected procedure for the production of aluminum sulfate is used in which the kaolin is decomposed with sulfuric acid and the excess of acid neutralized with nephelin, the crystalline mass of aluminum sulfate can be removed relatively easily from the crystallizers. Application of this procedure made possible automatic removal of the salt from the crystallization equipment. One figure.

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

USSR / General and Special Zoology. Insects. Harmful Insects and Mites. General Problems. P

Abs Jour: Ref Zhur-Biol., No 1, 1959, 2258.

Author : Ivanov, K. V.
Inst : Not given.
Title : The Breeding Place of the Asiatic Locust in Kara-Kalpakiya Has Been Liquidated.

Orig Pub: Zashchita rast. ot vredit. i bolezney, 1958, V. 3, No 1, 9-11.

Abstract: After liquidating the locust (L) habitats in Kara-Kalpakiya in 1941, an increase in the numbers of L was noted in 1945. The L infested more than 500,000 hectares in 1947. Control of larvae of II-V age groups at the time of mass migration to more succulent plants, was carried out by the belt method in this area. More than

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USSR/Geophysics - Concrete Construction Jun 51

"Economical Design of Massive Hydrotechnical Constructions Made of Sectional (Assembled) Concrete," K. V. Ivanov, Engr

"Gidrotekh i Meliorat" No 6, pp 51-60

Describes std-size honeycomb-shape sectional concrete blocks and their assemblage to build "monolithic" dams and other hydrotech constrs. Concludes "sectional-monolithic concrete constr" possesses advantages over the ordinary one: Vol of concrete works on the same area is reduced by 70% av difficulties of constr are greatly lessened, seasoning of concrete is simplified, standardization is

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USSR/Geophysics - Concrete Construction (Contd) Jun 51

now possible, crit scarce materials like cement and wood are conserved (resp, 37% and 90%). Possibilities for economies are tremendous.

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IVANOV, K. V.

APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.V.; KAZANSKIY, Yu.P.

Book by Preobrashenskii and S.G.Sarkisian "Minerals of sedimentary rocks". Reviewed by K.V.Ivanov, Iy.P.Kazanskii. Izv. AN SSSR.Ser. geol. 20 no.6:97-101 N-D '55. (MLRA 9:2)
(Rocks, Sedimentary)(Petroleum geology)(Preobrashenskii, Ivan Aleksandrovich, 1878-)(Sarkisian, S.G.)

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K.V.

15-1957-7-9270

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 7, p 69 (USSR)

AUTHOR: Ivanov, K. V.

TITLE: Some Problems on the Petrography of Dike Rocks in the Vicinity of Tomsk (Nekotoryye voprosy petrografii daykovykh porod okrestnostey g. Tomska)

PERIODICAL: Tr. Tomskogo un-ta, 1956, vol 135, pp 48-58

ABSTRACT: The magmatic rocks in the vicinity of Tomsk transect and metamorphose Devonian and Lower Carboniferous rocks; they form dikes with a general west-northwesterly trend. The dikes range in thickness from 1 to 2-3 m, and in rare cases up to 20-50 m. The following principal varieties of rocks have been distinguished: 1) dolerite; 2) porphyritic dolerite and essexite-dolerite; 3) monzonite; and 4) hybrid dike rocks. The variations in the rocks were produced by a number of factors, chiefly by differentiation, assimilation, and

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15-1957-7-9270

Some Problems on the Petrography of Dike Rocks in the Vicinity of Tomsk (Cont.)

hybridization at depth, but also by the nature and sequence of magmatic intrusions into the country rocks. These dike rocks have several petrographically similar features, resembling both the Siberian trap rocks and the essexite-diabase and monzonite-essexite rocks of the Kuznetsk basin.

S. P. Bryzgalina

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APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0"

"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

IVANOV, K. V.

15-57-5-6129D

Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 5, pp 61-62 (USSR)

AUTHOR: Ivanov, K. V.

TITLE: Geology and Petrography of the Lower Carboniferous and Dike Rocks in the Vicinity of Tomsk (Geologiya i petrografiya nizhnekamennougol'nykh i daykovykh porod okrestnostey g. Tomska) Author's abstract of his dissertation for the degree of Candidate of Geological and Mineralogical Sciences, presented to the Tomskiy un-t (University of Tomsk), Tomsk, 1956

ABSTRACT: Lower Carboniferous rocks form a thick series, essentially silt-clay, resting with no apparent unconformity on lithically similar rocks of the Upper Devonian. These rocks have a well-defined folded structure. The Carboniferous sequence is divided into the following (beginning at the base): 1) Tournaisian deposits (C_1t); 2) Visean deposits

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"APPROVED FOR RELEASE: 03/20/2001 CIA-RDP86-00513R000619110003-0

15-57-5-6129D

Geology and Petrography of the Lower Carboniferous (Cont.)

(C_1v), containing three formations--a) Lagernosadskaya tolshcha (stratum) (C_1v^1), b) Basandayskaya (C_1v^2), and c) Kolarovo (C_1v^3). All the formations are folded, slightly overturned to the northwest. The trend is northerly to northeasterly. A study of the folded structures indicates that these are full folds bearing a number of signs of the comb-like type typical of regions where the basement is relatively shallow. The composition of the deposits and their great thickness attest to their geosynclinal nature. The typical geochemical facies of the rocks are sulfide and siderite. The dike rocks in the environs of Tomsk generally form linear elongated steeply dipping bodies, grouped in a system of parallel swarms, which extend in a direction predominantly from west and northwest to east and southeast. They are transverse to the structure of the Lower Carboniferous formations. The thickness of the dikes reaches 10 m to 25 m, and even as much as 50 m. A majority of the rocks do not show any well-defined signs of greenstone alteration or autometasomatism. The following

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15-57-5-6129D

Geology and Petrography of the Lower Carboniferous (Cont.)

petrographic types and varieties of dike rocks are distinguished. 1) Dolerites form thin dikes. The chief minerals are labradorite and augite; accessories are biotite, hornblende, ilmenite, and apatite. 2) Porphyritic dolerites and essexites include transitional varieties: porphyritic essexite-dolerites and porphyritic dolerites are biotite and monoclinic pyroxene; the groundmass consists of labradorite, augite, biotite, hornblende, ilmenite, and pyrite. The porphyritic essexite-dolerites are characterized by a high content of biotite and hornblende and by the presence of quartz and potassium feldspar. Olivine in the two latter varieties has been replaced by bowlingite or chlorite-serpentine. 3) Diabases and essexite-diabases are strongly altered. 4) Monzonites are composed of andesine-labradorite, augite, biotite, hornblende (brown and green), potassium feldspar, and quartz. Ore minerals are represented by ilmenite and pyrite. 5) Hybrid rocks include quartz syenodiorite porphyry and essexite-diabase with xenocrysts of quartz. The chemical composition of the dike rocks shows them

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