L 25492-66

ACC NR: AP6011389 0

(the velocity of light in vacuum), and fast waves. Asymmetric waves with phase velocity c always have a positive group velocity; in this respect their behavior differs from that of symmetric waves. In the limit of very high phase velocity the dispersion equation factors into two equations representing two groups of hybrid waves. Cutoff conditions and dispersion curvesfor waves of these groups are presented graphically. The propagation of asymmetric waves in plasma waveguides of types 2) and 3) is discussed in much less detail; the essential equations are given and some limiting forms are pointed out. Orig. art. has: 27 formulas and 5 figures.

SUB CODE: 20 SUBM DATE: 29Mar65 ORIG.REF: 004 OTH REF: 008

Card 2/2 dc

VAGIN, V.I., inzhener.

Improving the construction of squeezing molds for die casting.
Lit.proizv. no.12:13-15 D '55. (MLRA 9:3)
(Die casting) (Molding (Founding))

KARRYYEV, O.M.; VAGIN, V.I.

Results of ten-day campaigns of directors of the district agencies of the public health system. Zdrav. Turk. 2 no.4:40-43 Jl-Ag '58.
(MIRA 12:6)

1. Iz kafedry organizatsii zdravookhraneniya (zav. dots. O.M. Karryyev Turkmenskogo gosudarstvennogo meditsinskogo instituta im. I.V. Stalina.
(TURKMENISTAN--PUBLIC HEALTH, RURAL)

ZOTKIN, Igor' Yur'yevich, inzh.; SLAVENTSOV, P.M., inzh.; VAGIN, V.I. [Vahin, V.I.], inzh.; KOLDA, O.P., inzh.; LEVITSKAYA, G.P. [Levyts'ka, H.P.], red.; OLEFIRENKO, G.Yu.[Olefirenko, H.A.], red.; VAYNSHENER, Y.M.[Vainshener, I.M.], tekhn. red.

[Labor safety in agriculture] Okhorona pratsi v sil's'komu hospodarstvi. Kyiv, Derzhsil'hospvydav URSR, 1962. 258 p. (MIRA 16:6)

(Ukraine--Agricultural machinery--Safety measures)

VAGIN, V. L.

Mbr., Leningrad State University, -1946-.

"Cleavage in Ascothoracida and Its Connection with the Original Type of Cleavage in Arthropoda," Dok. AN, 55, No. 4, 1947

PA 49T61

USSR/Medicine - Muscles Oct 1947
Medicine - Evolution

"Secondary Muscle-Skin Sacs and the Phylogenetic Implication of This Phenomenon," V. L. Vagin, Leningrad State U, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVIII, No 3

In studying the greatly changing females of various types of Dendrogaster, author became interested in the construction of the muscles. States that the subhypodermal muscles lies in two layers. Layer directly under the hypodermis, known as the ring layer, has the appearance of very closely intertwined net. Lower layer composed of anastomotic muscular bundles. Upon

49T61

USSR/Medicine - Muscles (Contd) Oct 1947

cutting these bundles they form many wormlike muscles. However, in other animals the whole body contains secondary vermicular forms of muscles. The somatic muscle structure has appearance of muscle-skin sacs. Discusses this phenomenon in great detail. Submitted by Academician I. I. Shmal'gauzen, 5 Apr 1947.

49T61

VAGIN V. L.

USSR/Medicine - Zoology 11 Jan 1948
Medicine - Larva

"Types of Larval Development in Dendrogasteridae (Ascothoracida, Entomostraca)," V. L. Vagin, Leningrad State U, 4 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LIX, No 2

Describes some particulars of larval stages of certain Dendrogasteridae. Among those studied were the Dendrogaster astropectinis Josii, Dendrogaster rimsky-korsakovi, Dendrogaster murmanensis Kluge n. sp., and Dendrogaster dogieli n. sp. Submitted by Academician I. I. Shmal'gauzen, 3 Nov 1947.

43T54

VAGIN, V. L.

Vagin, V. L. "Ascothorax ophioctenis Djakonov and the position of the order Ascothoracida Vagin in the Entomostraca system", Uchen. zapiski (Leningr. gos. un-t im. Zhdanova), Biological sciences series, Issue 19, 1949, p. 12-72, - Bibliog: p. 71-72.

SO: U-5392, 19 August 53, (Letopis 'Zhurnal 'nykh Statey, No 21, 1949).

VAGIN, V. L.

35227

O Droblenii U Ascothoracida Wagin (Crustacea, Entomostraca) i iskhodnykh Tipakh Dorbleniya Arthropoda Uchen. Zapiski (Leningp. Gos. Un-T im Zhanova), Seriya Biol. Navk, Vyp.20. 1949, s.143-80--Bibliogr: S. 179-80

SO:Letopis 'Zhurnal 'nykh Stately Bol. 34, Moskva, 1949

VAGIN, V.L.

Dendrogasteridae (Entomostraca, Ascothoracida) from starfishes of the Bering Sea [with summary in German]. Trudy Len. ob-va est. 73 no.4: 58-63 '57. (MIRA 11:6)

1.Kafedra zoologii Kazanskogo universiteta.
(Bering Sea--Entomostraca) (Parasites--Starfishes)

VAGIN, V.L.

Ascothorax ophioctenis Djakonov and the position of the order Ascothoracide Vagin in the system of the Entomostraca. Uch.zap. Len.un.no.101:12-72 '49. (MLRA 10:3)

(Aara Sea—Cirripedia)

VAGIN, V.L.

Segmentation in Ascothoracida Wagin (Crustacea, Entomostraca) and initial types of segmentation in Arhropeda. Uch.zap.Len.un.no.113:143-180 '49. (MLRA 10:3)

1. Kafedra zoologii bespozvonochnykh Leningradskogo gosudarstvennoge ordena Lenina Universiteta.
(Cirripedia)

VAGIN, V. L.

Parasites

Characteristics of the morphological evolution of parasites. Vest. Len. un. 6, No. 11, 1951.

9. Monthly List of Russian Accessions, Library of Congress, September 1952. Unclassified.

Asteromyzostomum N.Gen., a new representative of the Myzostomidae (Annelides) Trudy Len. ob-va est. 72 no.4:16-37 '54. (MLRA 8:11)

1. Kafedra zoologii bespozvonochnykh i kafedra entomologii Leningradskogo gosudarstvennogo universiteta
(Annelida)

VAGIN, V.L.

Structure, larval development, and metamorphosis of Dendrogasteridae (Parasitic crustaceans of the order Ascothoracida) Uch.zap.Len.un. no.172:42-89 '54. (MLRA 10:3)

1. Kafedra zoologii bespozvonovhnykh Leningradskogo universiteta.
(Cirripedia)

COUNTRY : USSR
CATEGORY : Zooparasitology. Parasites Belonging to Other Groups of Animals C
ABS. JOUR. : RZhBiol., No. 4 1959, No. 15059

AUTHOR : Vagin, V. L.
INST. : Leningrad Society of Naturalists
TITLE : Dendrogasteridae (Entomostraca Ascothoracida) from Starfishes of the Bering Sea

ORIG. PUB. : Tr. Leningr. o-va yestestvoispyt., 1957, 73, No 4, 58-63
ABSTRACT : Three species, among them a new one, Dendrogaster beringensis, were found. The new species is the deepest sea fish (about 4,000 m) of all those which are now known.

CARD: 1/1

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VAGIN, V.L.

Parascothorax synagogoides gen. n., sp. n., a parasite of Ophiura quadrispina Clark and the geographical distribution of Ascothoracica (Entomostraca). Trudy Inst. okean. 69:271-284 '64.
(MIRA 17:9)

SOV/137-59-5-9839

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 5, p 52 (USSR)

AUTHOR: Vagin, V.N.

TITLE: Smelting 75%-Ferrosilicon With Quartzites From the Tarasov Deposit

PERIODICAL: Tekhn.ekon. byul. Sovnarkhoz Lipetskogo ekon. adm. r-na, 1958, Nr 1, p 20

ABSTRACT: The development of 75% Fe-Si smelting at the Lipetsk Plant with the use of quartzites from the Tarasov deposit was connected with difficulties. The Tarasov quartzites had a porous structure and a high water absorbability; this caused cracking of the quartzite in heating-up and reduced gas permeability of the charge. Selection of voltage ($\sim$ 135 v), of quartzite lump dimensions and of the amount of lime addition served to develop a 75% Fe-Si smelting technology with Tarasov quartzites. The electric power consumption was 8652 - 8790 kw-hrs/ton of the alloy.

Card 1/1 V.B.

LEDENEV, Yu.N., kand. tekhn. nauk, dotsent; BRINZA, V.N., kand. tekhn. nauk, dotsent; VAGIN, V.S., inzh.

Dynamometer for measuring torques on large-diameter shafts. Vest. mashinostr. 44 no.11:49-50 N '64 (MIRA 18:2)

LEDENEV, Yu.N.; VAGIN, V.S.; YABLONENKO, P.I.

Calculating the frame bedplate of a 2000-ton crankshaft press.
Kuz.-shtam. proizv. 7 no.8:33-34 Ag '65. (MIRA 18:9)

VAGIN V. V.

In book-- Moscow, Mashgiz, 1957, 205p.
Shaped Casting of Copper (Cont.) COllection of Articles~~s~~ ~~509~~

Vagin, V. V., Engineer.
Melting and Distribution Submerged-resistor Furnace 203

The author notes that two furnaces are used, one for melting and one for distributing, to avoid interruptions in pressure casting or permanent-mold casting. In order to streamline the casting process a new submerged-resistor furnace was developed by I. I. Teslinov, and put into operation at the Elektrovozostroitel'nyy zavod imeni S. M. Budennyy (Electric Locomotive Plant imeni S. M. Budenny) in August 1954. This furnace is portable and can operate where 220-volt current is available. It acts as both melting and distributing furnace and supplies an interrupted flow of molten metal for casting machines. There are no references.

AVAILABLE: Library of Congress

GO/gmp
9-30-58

This book containxs papers presented during a technical and scientific convention, Moscow, Dec. '55, on theory and practice of shaped co.per-alloy castings.

~~Card 17/17~~

GORSHKOV, A.A., doktor tekhnicheskikh nauk; VAGIN, V.V., inzhener.

Effect of jolting and vibration during solidification on the structural and mechanical properties of aluminum alloys. Trudy Ural. politekh. inst. no.60:183-191 '56. (MLRA 9:10)

(Aluminum founding)

VAGIN, V.V., inzh.; PIROGOV, B.I., inzh.

Use of iron foundry shops for the production of shaped stone castings. Lit. proizv. no. 12:37-39 D '60. (MIRA 13:12)
(Foundries) (Stone, Cast)

VAGIN, V.V., inzh.; PIROGOV, B.I., inzh.

Diabase and amphibolite stone casting. Gor. zhur. no.4:61-63 Ap '60. (MIRA 14:6)

1. Yuzhnyy gorno-obogatitel'nyy kombinat, Krivoy Rog.
(Diabase) (Amphibolite)
(Stone, Cast)

VAGIN, Viktor Vasil'yevich; PIROGOV, Boris Ivanovich; BARINOV, N.A., kand.tekhn.nauk, retsenzent; SIROTIN, A.I., inzh., red.; VLADIMIROVA, L.A., tekhn.red.

[Stone casting] Kamennoe lit'e. Moskva, Mashgiz, 1962. 93 p. (MIRA 15:4)
(Stone)

VAGIN, V.V.; TRAUBE, B.M.

Control of the bed charge height in cupola furnaces. Lit. proizv. no.10:37 O '63. (MIRA 16:12)

VAGIN, V.V.

Centrifugal casting of stone spouts. Lit.proizv. no.7:42 Jl '64. (MIRA 18:4)

VAGIN, V.V., inzh.

Stone casting should be more widely used at Krivoy Rog Basin mining and ore dressing combines. Gor.zhur. no.3:48-50 Mr '65. (MIRA 18:5)

1. Yuzhnyy gornoobogatitel'nyy kombinat, Krivoy Rog.

VAGIN, Ye. A.: Cand Master Agric Sci (diss) -- "The nutritional content and use of corn and silage in feeding rabbits". Moscow, 1958. 16 pp (Min Agric USSR, Moscow Vet Acad), 140 copies (KL, No 1, 1959, 121)

Q-3

USSR/Farm Animals. Rabbits.

Abs Jour: Ref Zhur - Biol., No. 22, 1958, 101231

Author : Vagin, Ye. A.

Inst : Scientific Research Institute of Rabbit Breeding and Fur Animal Husbandry

Title : Replacing Parts of Concentrates in Rabbit Rations by Preserved Corn Ears (Preliminary Report).

Orig Pub: Byul nauchno-tekhn. inform. n.-i. in-ta krolikovodstva i pushn. zverovodstva, 1958, No. 2, 15-16

Abstract: The experiment was carried out on the farm of the Sovkhoz "Petrovskiy" of Poltavskaya Oblast. In the rations of the first test group, 25 percent of concentrates (oats and corn) were

Card 1/2

66

equally replaced. [illegible] of the concentrates were used to silage and ate it readily. Fertility and lactescence of test female rabbits did not diminish. Average live weight of baby rabbits [illegible] 90 days was higher in controls, but for female rabbits it was higher in test groups.

Card 2/2

KIM, Moisey Mikhaylovich; YAGIN, Yevgeniy Aleksandrovich; ASTAKHOV, S.A., red.; SAYTANIDI, L.D., tekhn.red.

[Raising rabbits for meat] Vyrashchivanie krolikov na miaso. Moskva, Izd-vo M-va sel'.khoz.RSFSR, 1959. 21 p. (MIRA 14:1)

(Rabbits--Feeding and feeds)

VAGIN, Yevgeniy Aleksandrovich; ASTAKHOV, S.A., red.; LOGINOVA, Ye.I., tekhn.red.

[Feeds and feeding of rabbits] Korma i kormlenie krolikov. Moskva, Izd-vo M-va sel'. khoz.RSFSR, 1959. 23 p. (MIRA 14:1)
(Rabbits--Feeding and feeds)

CHAPLINSKIY, M.B.; SVERDLOV, A.K.; SHLYGINA, K.N.; BELYAYEV, P.A.; [illegible]UK, T.Ya.; VINOGRADOVA, P.A.; TSVIRKO, A.B.; VAGIN, Ye.A.; AGAFONOV, A.I.

Outbreak of an anginous form of erysipeloid. Zhur. mikrobiol., epid. i immun. 41 no.12:119 D '64. (MIRA 18:3)

1. Institut epidemiologii i mikrobiologii imeni Gamalei AMN SSSR.

VAGIN, Ye.A., kand. sel'khoz. nauk; KVAPIL', A.I., kand. sel'-khoz. nauk[deceased]; KLETSKIN, P.T., kand. sel'khoz. nauk; UTKIN, L.G., kand. biol. nauk. Prinimal uchastiye KLADOVSHCHIKOV, V.F., kand. sel'khoz. nauk; ZAVARS , A.I., red.

[Fur farming and rabbit husbandry] Pushnoe zverovodstvo i krolikovodstvo. Moskva, Kolos, 1965. 286 p. (MIRA 18:7)

1. Nauchno-issledovatel'skiy institut pushnogo zverovodstva i krolikovodstva (for all except Zavarskiy).

VAGIN, Ye.V., kand. khim. nauk

Chromatography for determining hydrocarbon microimpurities.
Trudy VNIIKIMASH no.10:122-131 '65. (MIRA 18:9)

KATINA, N.F., kand. tekhn. nauk; MOROZOV, A.I., kand. tekhn. nauk;
VAGIN, Ye.V., kand. khim. nauk

Adsorption purification of air with synthetic zeolites. Trudy VNIIKIMASH no.10:132-139 '65. (MIRA 18:9)

VAGIN, Ye. V.

"The Separation of Light Rare Gases By the Adsorption-Thermal Method." Cand Chem Sci, Sci-Res Physicochemical Inst imeni L. Ya. Karpov, 22 Nov 54. (VM, 11 Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (11)

SO: Sum. No.521, 2 Jun 55

Vagin, E. V.

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Theory of thermal separation of gas mixtures by the adsorption method. E. V. Vagin and A. A. Zhukhovitskiĭ. *Doklady Akad. Nauk S.S.S.R.* 94, 273-6(1954).—Variables involved in the sepn. of adsorbed gas mixts. by application of a moving temp. gradient are analyzed for the condition of const. total pressure. In the simple case of complete sepn. of the components only the adsorption isobars of the pure components, $a_i(T)$, need to be known to det. the position in the column of each asymptotically distributed component. The temps. detg. the boundaries between the several components follow from $a_{s1} = \int_{T_1}^{T_2} a_1(T)(1/T'(x))dT$ and $a_{s_2} = \int_{T_2}^{T_3} a_2(T)(1/T'(x))dT$, where a_{si} is the amt. of the component (i) contained on a unit area of the column cross-section, and $T'(x)$ characterizes the temp. distribution within the furnace. The theory was successfully checked by expts. involving a He-Se mixt. adsorbed on activated C.

Ludwig Luft-Zurakowski

2

VAGIN, E. V.
USSR/Physical Chemistry

Card 1/1

Authors : Zhukhovitskiy, A. A., Turkel'taub, N. M., Vagin, E. V., and Shvartsman, V. P.

Title : Blurring of bands during chromatographic and thermal separation

Periodical : Dokl. AN SSSR, 96, Ed. 2. 303 - 306, May 1954

Abstract : Report offers a theory and experimental data pertaining to chromatographic and thermal separation. It is shown that, at the assumed rates of the gaseous mixture, the basic factor leading to blurring of bands is the linear diffusion at greater rates with sorption as the finality. Report also contains data on the verification of the theory and calculation (from experimental values) of constants which characterize this phenomenon. Three USSR references. Tables; graphs.

Institution : All-Union Scientific-Research Geological-Exploratory Petroleum Institute

Submitted : February 1, 1954

VAGIN, Ye. V.

USSR/ Chemistry - Physical chemistry

Card 1/1 Pub. 22 - 31/53

Authors : Zhukhovitskiy, A. A.; Vagin, Ye. V.; and Petukhov, S. S.

Title : About the fractional inhibition method

Periodical : Dok. AN SSSR 102/4, 771-774, Jun 1, 1955

Abstract : It is shown that a combination of adsorption and thermal factors makes it possible to carry out numerous effective chromatographic separations of mixtures, especially gas mixtures. A new fractional inhibition method is introduced which solves the problem of optimum combination of adsorption and thermal effects for the purpose of obtaining maximum separation power. Experiments proved that the fractional inhibition method, even in its simplest form, possesses a considerable separating force and appears to be highly perspective for the separation and analysis of complex hardly separable mixtures. Three USSR references (1951-1954). Graphs; drawing.

Institution : All-Union Sc. Res. Inst. of Oxygen Machine Building

Presented by: Academician P. A. Rebinder, December 20, 1954

VAGIN, YE. V.

PETUKHOV, S.S., inzh.; VAGIN, Ye.V., kand. khim. nauk; ZHUKHOVITSKIY, A.A., doktor khim. nauk.

Using adsorption in krypton production. Kislorod 10 no.3:17-21 '57. (MLRA 10:11)
(Adsorption) (Krypton)

VAGIN, Ye.V., kand. khim. nauk; PETUKHOV, S.S., inzh.; L'VOVA, A.P., inzh.

An apparatus for determination of krypton. Kislorod 10 no.3:24-25 '57. (MLRA 10:11)

(Krypton--Analysis)

VAGIN, Ye. V.

67-58-2-9/26

AUTHORS: Petukhov, S.S., Engineer,
Vagin, Ye.V., Candidate of Chemical Sciences

TITLE: A Method of the Automatic Determination of the Krypton Content in its Original Concentration (Metod avtomaticheskogo opredeleniya soderzhaniya kriptona v pervichnom kontsentrate)

PERIODICAL: Kislorod, 1958, Nr 2, pp. 44-46 (USSR)

ABSTRACT: In the production of technical krypton two stages must be distinguished: 1.) Production of the primary concentrate with 0.1-2.2% krypton- and xenon content. 2.) Production of the technical krypton itself. In contrast to antiquated methods which are mentioned but described as of little practical use, the laboratory of rare gases of VNIIKIMASh (All-Union Scientific Research Institute for the Construction of Oxygen Machines) developed a new method of analysis for the determination of primary concentration, which is based on the process of continuous chromothermography developed by A.A.Zhukhovitskiy and Turkel'taub and which is used in the analysis of gas mixtures that contain hydrocarbons. On the basis of this method the said institute developed an automatic gas analyzer which is described. The normal sensitivity of the gas

Card 1/2

A Method of the Automatic Determination of the Krypton Content in its Original Concentration

67-58-2-9/26

analyzer described amounts to 0.01% krypton and xenon, but in the same laboratory it was recently possible to increase this sensitivity to 0.0005%, which fact is particularly stressed. The model of the apparatus recommended here has already undergone tests and has already been ordered for the projecting of a gas analyzer. There are 3 figures, and 3 references, 3 of which are Soviet.

AVAILABLE: Library of Congress

1. Krypton—Properties 2. Krypton—Analysis 3. Gas analyzers —Characteristics

Card 2/2

AUTHORS: Vagin, Ye. V., Candidate of Chemical Sciences, Petukhov, S. S., Engineer

SOV/67-58-4-4/29

TITLE: Technical Conditions for Krypton (O tekhnicheskikh usloviyakh na kripton)

PERIODICAL: Kislorod, 1958, Nr 4, pp. 26-28 (USSR)

ABSTRACT: A krypton-xenon mixture is obtained in the USSR as a by-product at larger oxygen stations. The process itself and the necessary control work are not carried out in a uniform manner, and therefore the quality of the krypton thus produced often varies considerably. Therefore, the characteristics are always mentioned whenever krypton is supplied to consumers in the USSR. As this product is mainly used in electro-vacuum production, it is suggested that a plan be worked out which establishes uniform conditions which must be fulfilled by all oxygen stations that produce krypton. As crude krypton at the same time serves as an initial material for the production of xenon, a formula has been developed concerning the xenon-content in crude krypton. The project mentioned contains the following points: Technical krypton - gas mixture with at least 88% krypton and xenon content,

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including not less than 5 volume % xenon: The mixture destined to be used for filling electrovacuum apparatus. Conditions to be fulfilled in production: 1.) The gas must have neither a smell nor a color. 2.) Secondary components must not exceed 12% of the entire content. 3.) The content of hydrocarbons must not exceed 0,03%. 4.) The gas must not contain any moisture in form of drops. Containers and marking: Steel cylinders able to hold 40 l in accordance with GOST 949-41, painted black with a yellow stripe. The cylinders must be fitted with membrane valves and must be adapted for being filled at 50-100 atmospheres excess pressure (rest pressure not below 1 at. excess pressure.) Terms of delivery: Each cylinder must have a label on which the serial production number, volume, date of filling, pressure and temperature is made visible. Besides, a written characteristic of the composition of the technical krypton delivered must be sent by post to the receiver. Testing methods: For this purpose the apparatus SV 7622 of the VNIIKIMash (All-Union Scientific Research Institute for the Construction of Oxygen Apparatus) is used. For determining the content of oxygen the apparatus VTI (absorption by pyrogallol) is used. A formula is given for the permissible content of

nitrogen and argon. The content of hydrocarbon is determined by means of a titrometric gas analyzer TG-5. The quantity of technical krypton supplied is determined by weight, calculation of the content of krypton and xenon being carried out separately according to the aforementioned formula. A formula is also given for the determination of the specific volume of the technical krypton delivered.

 1. Krypton—Production 2. Krypton—Standards 3. Krypton—Storage 4. Krypton—Applications

5(4)
AUTHORS: Vagin, Ye. V., Zhukhovitskiy, A. A. SOV/76-32-10-20/39

TITLE: The Theory of Thermo-Adsorption Separation (Teoriya adsorbtsionno-termicheskogo razdeleniya)

PERIODICAL: Zhurnal fizicheskoy khimii, 1958, Vol 32, Nr 10, pp 2362-2373 (USSR)

ABSTRACT: The investigations by Wirth (Virt) (Ref 1) and the proposal by Yanovskiy (Ref 2) in connection with the theory of the displacement analysis according to Tiselius (Tizelius)(Ref 3) are rather similar. In the present paper the main foundations of the general theory of the thermo-adsorption separation are given and the dynamics of the process are presented. The relation between the temperature area and the distribution of the substance is determined by the equation of the isobars. For a linear adsorption isotherm $a=Ae^{Q/RT}$. Under the assumption that the adsorption velocity is infinitely high and longitudinal diffusion is not present equations were obtained which characterize the asymptotic distribution. In an asymptotic

Card 1/3

distribution with linear adsorption isothermal lines the component will be distributed in the zone of the high temperature with the highest adsorption coefficient. The law of distribution of the adsorbed amount of substance is determined by the adsorption isobar as it is assumed that the pressure is constant at all points of the layer. A sufficiently long layer must effect an asymptotic distribution of the components in various temperature zones according to the adsorption capacity of the component. According to the Langmuir (Lengmyur) equation the components can not exist in an asymptotic distribution, but separate and are distributed over different temperature zones. An equation is given for the determination of each component. The authors conclude from the assumption that a longitudinal diffusion is not present that the pressure constancy in each cross section of the layer is secured by the pressure of one component. In real processes a temperature range characterizes the transition from one substance to the other, and not any definite temperature. The clear separation improves with an

increase in the difference of the adsorption properties of the gases to be separated, an increase in velocity of the temperature field, and a decrease of the general diffusion coefficient, as well as by an increase in the temperature gradient and a decrease in the temperature T_x. There are 5 figures and 6 references, 3 of which are Soviet.

ASSOCIATION: Institut kislorodnogo mashinostroyeniya (Institute for the Building of Oxygen Machinery)

SUBMITTED: May 5, 1957

5(2)

AUTHORS: Vagin, Ye. V., Candidate of Chemical Sciences, Petukhov, S. S., Candidate of Technical Sciences

SOV/67-59-2-6/18

TITLE: Determination of the Content of Krypton and Xenon (Opredeleniye soderzhaniya kriptona i ksenona)

PERIODICAL: Kislorod, 1959, Nr 2, pp 33-36 (USSR)

ABSTRACT: The determination of the content of krypton and xenon in the primary krypton concentrate is of special importance in technical production. In this connection several methods have already been devised which are discussed in brief (Fastovskiy, Ref 1, VNIIPODZEMGAZ, Ref 2, Janák, Ref 3, VNIIKIMASh with the authors of a previous paper Ref 4, Burbo and Rodzinek Ref 6). The analysis was made by means of an apparatus designed by the Vsesoyuznyy nauchnyy issledovatel'skiy institut kislorodnogo mashinostroitel'stva (All-Union Scientific Research Institute for the Construction of Oxygen Plants) by the authors in cooperation with Engineer A. P. L'vova and the Laboratory Assistant Ye. N. Razheva. The principal diagram of the apparatus is illustrated in figure 1. It is equipped with a dosing gauge by means of which the pressure and quantity of the gas mixture to be investigated (primary krypton

concentrate) is maintained constant throughout the analysis. After the gas has been heated for eight to ten minutes all chemically active impurities enter reaction with calcium, while the remaining gases are then adsorbed in a KSM-silica-gel adsorber at temperatures of liquid nitrogen. By repeatedly freezing out Kr and X as well as by sucking off Ar from the mixture, argon is removed from the desorbed mixture of argon-krypton-xenon. The content of xenon and krypton of the primary concentrate is determined by means of the lower scale of the vacuometer. This scale was computed according to the formula $C_{Kr} = \frac{P_n V_n}{P_o V_o} 100$, where C_{Kr} denotes the content of krypton in the gas to be analyzed, P_n the pressure of krypton in the calibrated volume, V_n the calibrated volume corresponding to the pressure P_n, P_o the initial pressure of the mixture, and V_o the volume of the pipette I (Fig 1). The dependence $V_n = f(P_n)$ is a linear one. The afore-mentioned

apparatus secures accuracy of determination of up to 0.005 % (Tables 1 and 2). The apparatus is introduced in Soviet industry and is used in several works for the purpose of checking the production of crypton. There are 2 figures, 2 tables, and 6 references, 5 of which are Soviet and 1 Czechoslovakian.

14(1)

AUTHOR: Vagin, Ye. V., Candidate of Chemical Sciences

SOV/67-59-3-15/27

TITLE: Apparatus for the Production of Krypton and Xenon (Ustanovka dlya polucheniya kriptona i ksenona)

PERIODICAL: Kislorod, 1959, Nr 3, p 49 (USSR)

ABSTRACT: Under this title the American patent: "Method for Obtaining Krypton and Xenon" by Henri Bonnaud from May 28, 1957, is briefly discussed by the abstracter whose name is mentioned as the author. There is 1 figure.

Card 1/1

5(0) SOV/67-59-4-18/19

AUTHORS: Bondarenko, N. I., Engineer, Kalinin, V. V., Engineer, Samarin, B. P., Engineer, Vagin, Ye. V., Candidate of Chemical Sciences, Petukhov, S. S., [redacted] Technical Sciences

TITLE: Answers to Readers

PERIODICAL: Kislorod, 1959, Nr 4, p 53 (USSR)

ABSTRACT: Question (A. Ye. Bykov, Tekeli, Kazakhskaya SSR): How do you explain the pressure increase in the second stage of the air compressor in the SK-05 apparatus? Answer (N. I. Bondarenko): By the resistance increasing with the passage of air through the decarbonizer. Question (L. G. Konyukh, Kemerovo): Does the USSR manufacture oxygen compressors with capacities of 150 - 200 m^3/hour? Answer (V. V. Kalinin): Yes, the types 2RK-2/4 (120 m^3/hour) and 2RK-4/5 (220 m^3/hour). Question (N. V. Volodina, Stalinogorsk, Tula oblast'): Is oxygen stored in wet gas containers? Answer (B. P. Samarin): Yes, according to the plan of the GPI "Proyektstal'konstruktsiya" and the GIAP, since 1957. 1st Question (V. N. Ol'khovik, Pervomayskiy, Tula oblast'): Which are the purifying methods used today for

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raw crypton? Answer (Ye. V. Vagin, S. S. Petukhov): The principal methods are enumerated and explained. 2nd Question: Is it possible to use NaOH instead of KOH to dry the crypton concentrate? Answer: It is, but under certain conditions.

VAGIN, Ye.V., kand. khim. nauk

Ionized gas analyzer (from "Journal of Chromatography," 1, No.1, 1958). Kislorod 12 no.1:51 '59. (MIRA 12:6)
(Chromatography)

VAGIN, Ye.V., kand. khim. nauk; PETUKHOV, S.S., kand. tekhn. nauk

All-Union Conference on Gas Chromatography. Kislorod 12 no.1:52 '59. (MIRA 12:6)

(Gas chromatography)

ZHUKHOVITSKIY, A.A., otv.red.; VAGIN, Ye.V., red.; GOL'BERT, K.A., red.; DATSKEVICH, A.A., red.; TURKEL'TAUB, N.M., red.; FESENKO, Ye.P., red.; YANOVSKIY, M.I., red.; VLASOV, L.G., red.izd-va; ASTAF'YEVA, A.G., tekhn.red.

[Gas chromatography; transactions of the First All-Union Conference on Gas Chromatography] Gazovaia khromatografiia; trudy Pervoi Vsesoyuznoi konferentsii po gazovoi khromatografii. Moskva, Izd-vo Akad.nauk SSSR, 1960. 326 p. (MIRA 14:3)

1. Vsesoyuznaya konferentsiya po gazovoy khromatografii. 1st, Moscow, 1959.
(Gas chromatography)

S/081/61/000/020/019/089
B101/B147

AUTHOR: Vagin, Ye. V.

TITLE: Theory of the adsorptive-thermal separation method, and adsorptive-thermal separation of light noble gases

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 20, 1961, 76, abstract 20B578 (Sb. "Gaz. khromatografiya", M., AN SSSR, 1960, 118 - 134)

TEXT: A detailed study has been made of the theory of thermal desorption (RZhKhim, no. 13, 1954, 32208; no. 7, 1959, 22727) for the distribution of one or more substances along the absorbent layer in a temperature field. The separation of binary and ternary mixtures of He, Ne, and N_2 on various carbons and on silica gel (SG) КСМ (KSM) has been investigated. The adsorption isotherms of He on АГ-2 (AG-2), КАД (KAD), and КАУ (KAU) carbons, as well as on SG were determined. In addition, the adsorption isobars of Ne and N_2 on AG-2 or СКТ (SKT) carbons were recorded. A method for separating Ne from He on AG-2 or SKT carbon was worked out, using a

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gas interferometer and an electromagnetic gas balance for determining the composition. Experimental data are in good agreement with the results of theoretical calculations. The coefficient of longitudinal diffusion was calculated to be 0.07 - 0.31 cm^2/sec. On an industrial unit consisting of a copper shell with carbon in an insulated jacket, a nitrogen bath with electric heating which produced an adjustable temperature field, and a thermocouple for temperature regulation, the extraction coefficient of Ne, which contained less than 0.2% He, reached 75%. [Abstracter's note: Complete translation.]

Card 2/2

S/064/61/000/001/007/011
B132/B218

AUTHORS: Kazarnovskaya, L. I., Dykhno, N. M, Vagin, Ya. V.

TITLE: Burning of methane in mixtures with inert gases

PERIODICAL: Khimicheskaya promyshlennost', no. 1, 1961, 29-32

TEXT: The authors have developed an industrial method of purifying inert gases obtained in the production of crypton from methane. Several catalysts were used to oxidize methane quantitatively: manganese ores from Nikopol' and Chiatura, nickel catalysts, and activated cupric oxide. The initial mixtures contained nitrogen and methane, and some of them also small amounts of oxygen. Also other carbon hydroxides were burned under the oxidation conditions for methane. The experimental unit used for this purpose is schematically shown in Fig. 1. The catalyst was introduced into stainless steel tube (1) and heated in electric furnace (2). The necessary CH_4/N_2 ratio was brought about by rheometers (3) and (4), and then the mixture was conveyed to mixing vessel (5). In column (6), the mixture was purified from CO_2 admixtures by means of solid NaOH, and then passed into tube (1). A

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Burning of methane in mixtures...

special procedure was applied when the CH_4 content was less than 1%. In this case, part of the gas current was diluted with O_2 up to a ratio 10:1; this was done in mixing vessel (10) by means of rheometers (8) and (9). Then, the gas was purified from CO_2, CH_4 was burned on a platinum coil, and then the CO_2 evolved was determined titrimetically. When the CH_4 concentration was above 1-2%, the gas analyzer BTI (VTI) was used. The catalysts were reactivated by N_2-O_2 mixtures, reactivation being determined from the difference in oxygen content in front of and behind the catalyst layer. As manganese ore is not regenerable, it cannot be used as a catalyst. A nickel catalyst loses its activity if the gas mixture contains CO_2 or high concentrations of CH_4. At methane concentrations below 5%, it may easily be used. At a temperature of 500°C, a volume rate of 65 hr^{-1}, and an initial CH_4 content of 4.5%, the residual methane concentration was less than 0.5-0.7% for 10 hr . The use of activated cupric oxide yielded the best results.

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Burning of methane in mixtures...

This catalyst was produced by the method of M. A. Shpolyanskiy (Ref. 3: Zav. lab. 19, no. 10, 1166 (1953)). It was composed of a 99:1 mixture of CuO and Fe_2O_3 (80%) and kaolin (20%). The experiments were made at 660°C and at a volume rate of 65 hr^{-1} with binary N_2 at a CH_4 content of 4.5%, and with ternary N_2 (82%) at a CH_4 content of 11% (O_2 amounting to 7%). With one catalyst, 15 cycles of methane burning and catalyst reactivation were carried out. The residual CH_4 concentration did not exceed 0.5% before seven to nine hr . After this time, the utilization coefficient of CuO was about 25%. The above experiments were made in a pilot plant schematically shown in Fig. 4. At a CH_4 content of 9.1%, the residual CH_4 concentration could be maintained for three and a half hr at 0.24% if a temperature of 750°C and a volume rate of 70 hr^{-1} were used (Fig. 5). When the volume rate of 70 hr^{-1} was reduced to 35 hr^{-1}, the residual CH_4 concentration dropped below 0.075%. At initial concentrations of methane of 2.3% and 9.1% the residual concentrations were

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0.1-0.2%. A residual concentration of 0.5% was attined after 13 hr at an initial concentration of 2.3%, and after 7 to 8 hr at an initial concentration of 9.1%. When the initial concentration was 0.35%, the residual methane concentrationdid not exceed 0.003% during 5 hr . The authors recommend the following experimental conditions as being most favorable: temperature: 700°C; volume rate: 70 hr $^{-1}$. Activated cuprio oxide is the best catalyst since it warrants a maximum efficiency in burning of methane and can be easily regenerated. A. P. L'vova and Ye. N. Razheva took part in experiments with the pilot plant. There are 7 figures and 5 Soviet-bloc references.

Card 4/4

VAGIN, Ye.V.; PETUKHOV, S.S.; ZHELEZNYAK, V.I.

Chromatographic method for determining microconcentrations of carbon dioxide in oxygen. Zav.lab. 28 no.2:140-141 '62. (MIRA 15:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kislorodnogo mashinostroyeniya.
(Carbon dioxide) (Oxygen--Analysis) (Chromatographic analysis)

VAGIN, Ye.V.

Second All-Union Conference on Gas Chromatography. Zav.lab. 28 no.7:892 '62 (MIRA 15:6)
(Gas chromatography—Congresses)

ZHUKHOVITSKIY, A.A., otv. red.; VAGIN, Ye.V., red.; GOL'BERT, K.A., red.[deceased]; KISELEV, A.V., red.; TURKEL'TAUB, N.M., red.; FESENKO, Ye.P., red.; YANOVSKIY, M.I., red.

[Gas chromatography; transactions] Gazovaia khromatografiia; trudy. Moskva, Nauka, 1964. 483 p. (MIRA 17:12)

1. Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po gazovoy khromatografii. 2d, Moscow, 1962.

L [illegible] AEDC(b)/APWL/

ACCESSION NR: AT4048193 S/0000/64/000/000/0125/0129

AUTHOR: Vagin, Ye. V., Petukhov, S. S.

TITLE: The application of chromatographic methods to the production of oxygen and rare gases

SOURCE: Vsesoyuznaya nauchno-tekhnicheskaya konferentsiya po gazovoy khromatografii. 2d, Moscow, 1963. (Gas chromatography) trudy* konferentsii. Moscow, [illegible]

TOPIC TAGS: gas chromatography, automatic chromatograph, adsorption column, krypton determination acetylene admixture, thermochemical detector, oxygen production, argon production, nitrogen determination

ABSTRACT: The paper concerns chromato-thermographic methods in which the [illegible] accumulation for analysis. The equipment is illustrated schematically [illegible] its main features [illegible] coordinated monitoring system for the adsorption column. The dried gas passes through an adsorption column for analysis of the components and further through a gas counter into the recipient. One of the main requirements for satisfactory performance is a constant volume of the gas specimens to be analyzed;

Card 1/3

ACCESSION NR: AT4048193

this is based on the timer system. Such equipment was used at VNIIKIMASh for determining micro-concentrations of [illegible] in oxygen, as well as nitrogen [illegible] oxygen. The adsorption column was [illegible] the thermochemical type [illegible]

method presented. [illegible]

ASSOCIATION: None

SUBMITTED: 16Jul64 ENCL: 01 SUB CODE: IC, IE

NO REF SOV: 003 OTHER: 002

2/3

Card

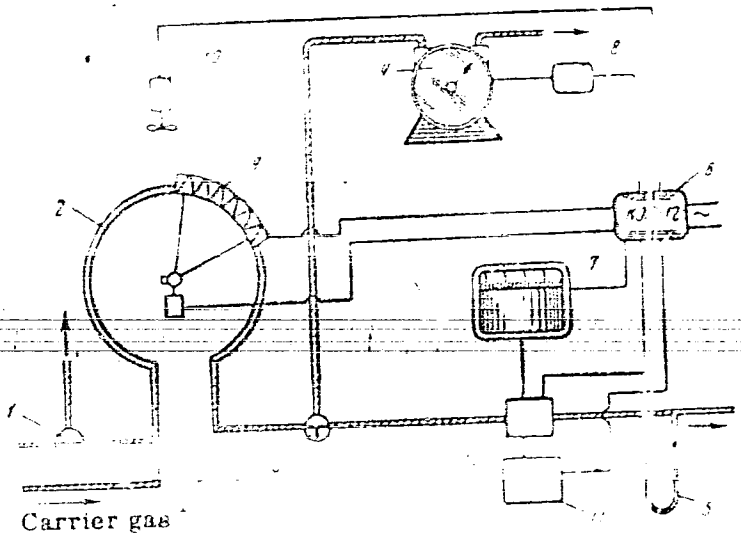
L 14961-65

ACCESSION NR: AT4048193

ENCL: 01

Fig. 1 - Schematic diagram of the chromato-thermographic equipment:

1 - gate valve
2 - adsorption column
3 - gate valve
4 - gas counter
5 - rheometer
6 - timer (kZP-12)
7 - potentiometer
8 - volume indicator
9 - electrical furnace
10 - ventilator
11 - electrical current source
12 - detector



Card 3/3

VAGIN, Yu.V.

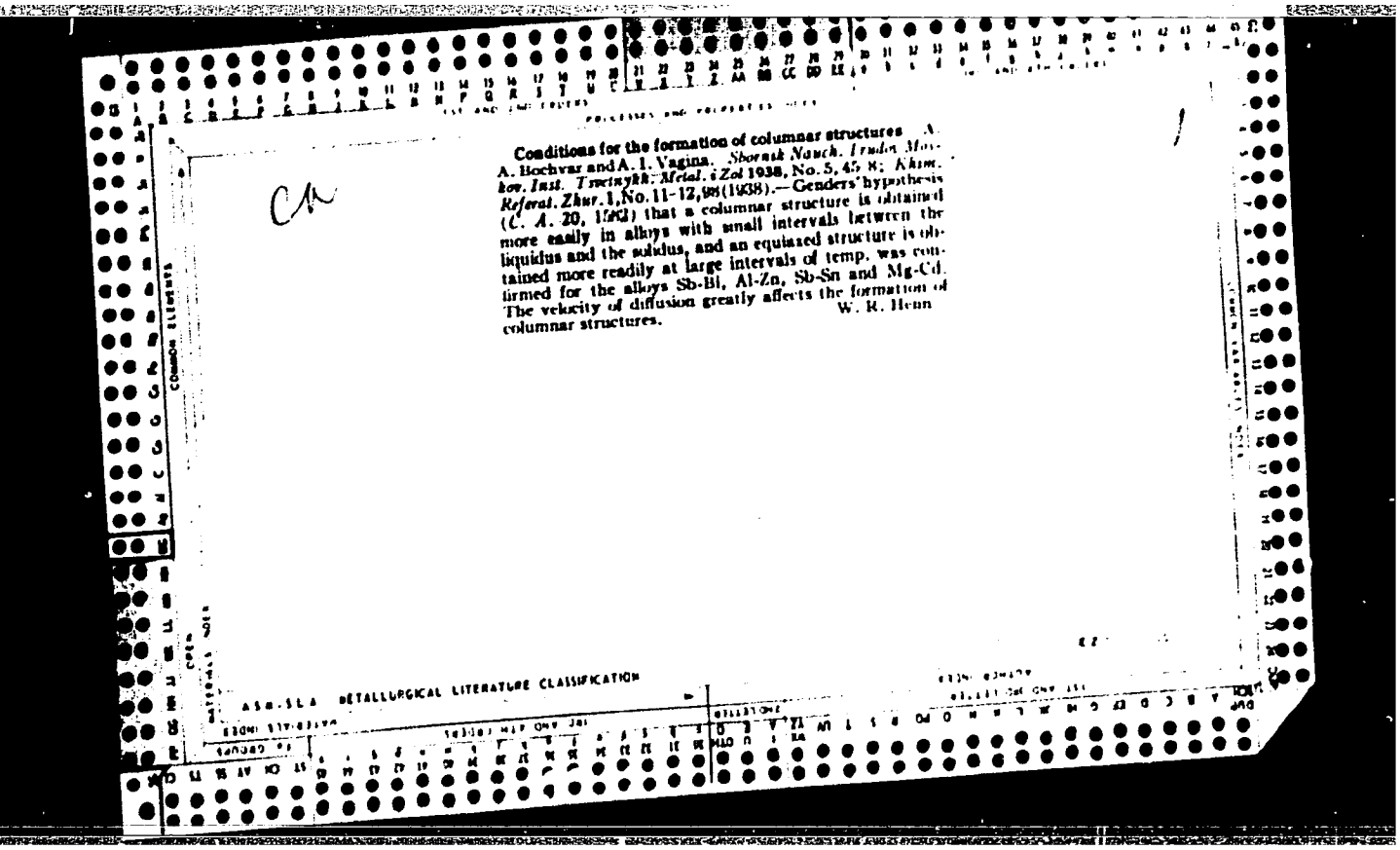
Application of the sequential method of statistical solution to the recognition of forms. NTI no.9:22-26 '63. (MIRA 16:12)

VAGINA, A.A.

Surgical anatomy of the frontal lobe. Sbor. trud. Len. nauchn. ob-va nevr. i psikh. no.6:113-119 '59. (MIRA 13:12)

1. Iz kafedry nervnykh bolezney (zav. - prof. Ye.F. Davidenkova) Leningradskogo pediatricheskogo meditsinskogo instituta (direktor - prof. N.T. Shutova).

(BRAIN--SURGERY)



Conditions for the formation of columnar structures. A. A. Bochvar and A. I. Vagina. *Sbornik Nauch. Trudov Moskov. Inst. Tsvetnykh. Metal. i Zol* 1938, No. 5, 45-8; *Khim. Referat. Zhur.* 1, No. 11-12, 98 (1938).—Genders' hypothesis (*C. A.* 20, 1502) that a columnar structure is obtained more easily in alloys with small intervals between the liquidus and the solidus, and an equiaxed structure is obtained more readily at large intervals of temp. was confirmed for the alloys Sb-Bi, Al-Zn, Sb-Sn and Mg-Cd. The velocity of diffusion greatly affects the formation of columnar structures. W. R. Henn

3(5)

SOV/20-125-4-55/74

AUTHORS: Zkhus, I. D., Vagina, G. P.

TITLE: The Argillaceous Minerals of the Maykop Series in the Ozek-Suat District (Glinistyye mineraly maykopskoy svity rayona Ozek-Suat)

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 125, Nr 4, pp 884 - 887 (USSR)

ABSTRACT: Many research workers consider the Maikop sediments of Ciscaucasia to be petroleum mother rocks (Refs 1, 5 et al.). The expedition mentioned in the association investigated the minerals mentioned in the title in order to determine the diagnostic characteristic features of the mentioned mother rocks. Among them were those of Ozek-Suat (Zaterechnaya ravnina Trans-Terek plain on the platform slope of the Ciscaucasian downwarping). Beside the determination of the indices of refraction and the application of dye (Ref 6) the authors investigated ores and carried out electron microscopic and thermal analyses. Kaolinite, hallusite, hydromica, montmorillonite, and beidellite (Fig 3) were found in the core of 4 boreholes and investigated. The peculiarities of distribution of the argillaceous minerals in the cross section determine the appearance of 6 associations. They form mixtures of several (2 - 4) components. Mostly one mineral pre-

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dominates, more rarely two, whereas the other ones form admixtures. A s s o c i a t i o n s: 1) hydromica with beidellite admixture is characteristic of the lower part of the Maykop sediments, occurs, however, in the upper part as well. Figure 1 shows the curves of heating, table 1 the indices of refraction. 2) Hydromica with admixtures of beidellite and montmorillonite. 3) Montmorillonite with hydromica and beidellite or montmorillonite transformed into hydromica. 4) Beidellite with hydromica admixture. 5) Like 4), only with a greater admixture of hydromica; less distributed than 4). 6) Caolinite-hydromica with beidellite and transformed montmorillonite. On the strength of the results obtained the authors design a picture of the geological history of the region. They confirm the bipartial division of the Maykop sediments (Ref 6). The conceptions by A. V. Frost (Ref 11) concerning the role of montmorillonite as petroleum-forming catalyst are not confirmed by the present paper. Its quantity is rather low here and would not be sufficient for a catalytic action upon the great quantity of the dispersed

The Argillaceous Minerals of the Maykop Series in the Ozek-Suat District SOV/20-125-4-55/74

organic substance. There are 3 figures, 1 table, and 11 Soviet references.

ASSOCIATION: Kompleksnaya yuzhnaya geologicheskaya ekspeditsiya Akademii nauk SSSR (Southern Geological Expedition for Multiple Purposes of the Academy of Sciences, USSR)

PRESENTED: October 27, 1958, by N. M. Strakhov, Academician

SUBMITTED: October 6, 1958

Card 3/3

POL'STER, L.A.; ZKHUS, I.D.; GUSEVA, A.N.; VAGINA, G.P.; VASIL'YEVA, L.B.; DOROSHKO, R.G.; KIEVITS, M.V.; LAGER, P.I.; MARASANOVA, N.V.; KHAYROVA, F.M.; BROD, I.O., otv.red.; NIKOLAYEVA, I.N., red.izd-va; TUMANOVSKAYA, Ye.F., red.izd-va; MAKUNI, Ye.V., tekhn.red.

[Organic matter and clay minerals in eastern Ciscaucasia; terrigenous Mesozoic and Maikop sediments] Organicheskoe veshchestvo i glinistye mineraly Vostochnogo Predkavkaz'ia; terrigennye mezozoiskie i maikopskie otlozheniia. Moskva, Izd-vo Akad.nauk SSSR, 1960. 205 p. (MIRA 14:2)
(Caucasus, Northern--Clay)
(Caucasus, Northern--Organic matter)

ZKHUS, I.D.; Prinimali uchastiye: VAGINA, G.P.; VASIL'YEVA, L.B.; MARASANOVA, N.V.; SHEVELEVA, V.S.

Characteristics of changes in clay minerals as related to oil formation. Biul.MOIP.Otd.geol. 35 no.4:22-29 Jl-Ag '60. (MIRA 14:4)

(Clay) (Petroleum geology)

ARUSTAMOV, L.; SMIRNOV, V.; VAGINA, I.; STEL'MASHCHUK, Ye.

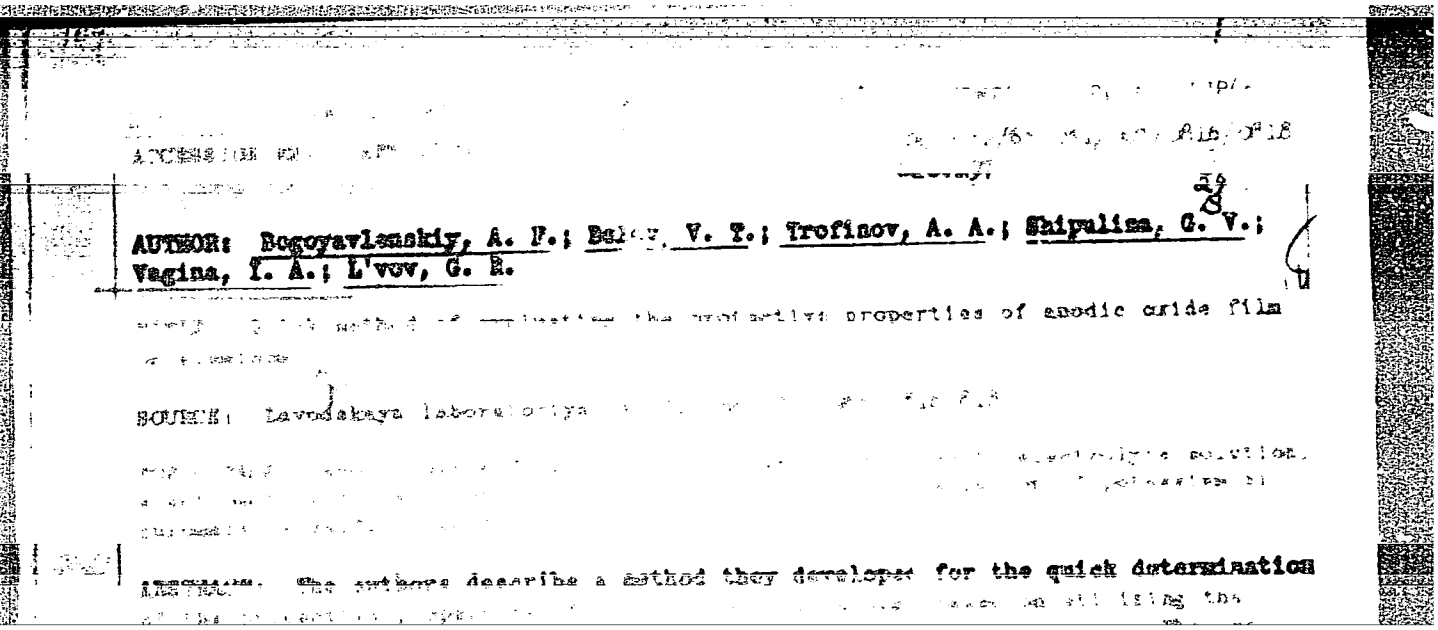
New spark plugs. Za rul. 19 no.10:26-27 O '61.
(MIRA 14:11)

1. Nauchno-issledovatel'skiy eksperimental'nyy institut avtotraktornogo elektrooborudovaniya i priborov.
(Spark plugs)

BOCOY [illegible]KIY, A.F.; BELOV, V.T.; VAGINA, I.A.; LIPATOVA, N.Ye.

Hydration of an anodic oxide film on aluminum in aqueous solutions of inorganic salts. Zhur. fiz. khim. 39 no.5: 1108-1111 My '65. (MIRA 18:8)

1. Kazanskiy aviatsionnyy institut.



AUTHOR: Bogoyavlenskiy, A. P.; Bel[illegible], V. T.; Trofimov, A. A.; Shipulina, G. V.; Vagina, I. A.; L'vov, G. B.

[illegible] the protective properties of anodic oxide film

SOURCE: Zavodskaya laboratoriya [illegible]

[illegible] solution.

[illegible]

ABSTRACT: The authors describe a method they developed for the quick determination [illegible] using the

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L 57742-65

ACCESSION NR: AP5017091

let of electrolyte solution 1 (see figure) was deposited on the purified and de-

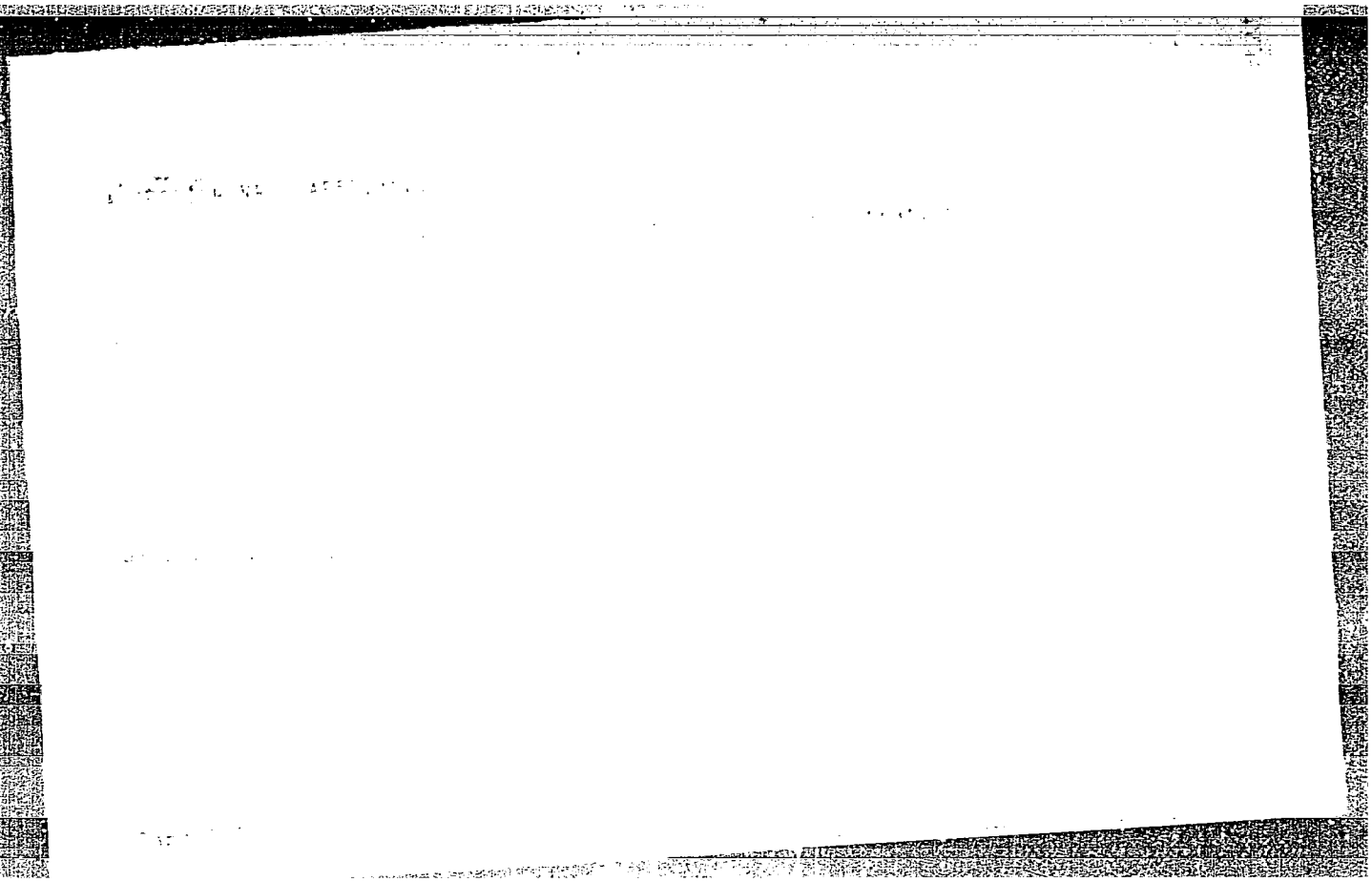
ASSOCIATION: Kazanskiy aviatsionnyy institut (Kazan' Aviation Institute)

SUB CODE: GC, MM

NR REF SOV: 002 OTHER: 000

SOURCE: Zhurnal fizicheskoy khimii, v. 39, no. 5, 1965, 1104-1111

ABSTRACT: The volume of hydrogen formed by interaction of [illegible]



APPROVED FOR RELEASE: 08/31/2001 CIA-RDP86-00513R001858330004-9"

VAGINA, I. I.

"The medical treatment of emphysema in horses," Nauch.-prakt. raboty voyenvet. sluzhby, Moscow 1948, p. 37-39

SO: U-3850, 16 June 53, (Letopis 'Zhurnal 'nykh Statey, No. 5, 1949)

GETMANSKIY, I.K.; VAGINA, I.K.; KUPRIYANOV, V.M.

Powdered "Molodost'" shampoo based on purified sodium alkyl sulfates of synthetic secondary alcohols. Trudy NIISZHIMSa no.3:95-96 '62. (MIRA 16:12)

GETMANSKIY, I.K., inzh.; KUPRIYANOV, V.M.; VAGINA, I.K.; LESHCHENKO, P.S., inzh.; SKRYPINA, T.R.

"Astra" washing powder. Masl.-zhir.prom. 28 no.2:45-46 F '62. (MIRA 15:5)

1. Nauchno-issledovatel'skiy institut sinteticheskikh zhirozameniteley i moyushchikh sredstv (for Getmanskiy, Kupriyanov, Vagina). 2. Shebekinskiy kombinat sinteticheskikh zhirnykh kislot i zhirnykh spirtov (for Leshchenko, Skrypina). (Shebekino--Washing powders)

LIBINSON, G.S.; VAGINA, I.M.; NAGORNAYA, T.N.

Some physicochemical properties of florimycin. Antibiotiki 9 no.7:587-592 Jl '64. (MIRA 18:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut antibiotikov, Moskva.

CHISTOKLETOV, V.N.; VAGINA, L.K.; PETROV, A.A.

Bipolar addition to unsaturated compounds. Part 10: Addition of α,N-diphenylnitrone to vinylacetylene compounds. Zhur.org. khim. 1 no.2:369-375 F '65. (MIRA 18:4)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta.

VAGINA, L.K.; CHISTOKLETOV, V.N.; PETROV, A.A.

1,3-Bipolar addition to unsaturated compounds. Part II: Interaction of 3-phenylsydnone with conjugated enynes and dienes. Zhur. org. khim. 1 no.9:1700-1703 S '65. (MIRA 18:12)

1. Leningradskiy tekhnologicheskiy institut imeni Lensoveta. Submitted June 22, 1964.

SUVOROVSKAYA, Natal'ya Aleksandrovna; TITOV, Valeriy Ivanovich; BRODSKAYA, Valentina Mikhaylovna; VASIL'YEV, Pavel Ivanovich; LIPSHITS, Bella Moiseyevna; ELENTUKH, Mariya Pavlovna; TROITSKAYA, M.I., kand.tekhn. nauk, retsenzent; POMERANTSEV, I.N., kand.tekhn.nauk, retsenzent; KOZHUKHOVA, M.A., kand.tekhn.nauk, retsenzent; VAGINA, N.S., red.; KOSOLAPOVA, E.F., red.izd-va; VAYNSHTEYN, Ye.B., tekhn.red.

[Technical analysis in nonferrous metallurgy] Tekhnicheskii analiz v tsvetnoi metallurgii. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1957. 567 p. (MIRA 11:2)
(Nonferrous metals--Metallurgy)

VAGINA, N.S.

RYABCHIKOV, D.I.; VAGINA, N.S.

Complex formation of tetravalent cerium with acetate ions and oxalate ions. Part 1: Separation of cerium of spectral purity from a sulfuric acid solution. Zhur.neorg.khim. 2 no.9:2109-2114 S '57. (MIRA 10:12)

(Cerium) (Sulfuric acid)

78-3-6-12/30

AUTHOR: Vagina, N. S.

TITLE: Complex Formation of Four-Valent Cerium With Acetate- and Oxalate-Ion. II. Separation of Cerium From Nitric Acid Solutions (Kompleksoobrazovaniye chetyrekhvalentnogo tseriya s atsetat- i oksalat-ionami II. Vydeleniye tseriya iz azotnokislogo rastvora)

PERIODICAL: Zhurnal Neorganicheskoy Khimii, 1958, Vol. 3, Nr 6, pp. 1366-1369 (USSR)

ABSTRACT: The method of production of purest cerium by extraction of cerium-(IV) in diethyl ether was described.
The action of the p_H-value of the acetate - nitrate solutions on the complex formation of cerium was determined and it follows from it that with the increase of the p_H-value of the solution of acetate-nitrate the extraction of cerium by diethyl ether is considerably reduced. However, the complexity of cerium-(IV) increases with the increase of the concentration of nitric acid and thus, the extraction of diethyl ether is promoted.
It is necessary for the separation of cerium-(IV) as

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Complex Formation of Four-Valent Cerium With Acetate- and Oxalate-Ion. II. Separation of Cerium From Nitric Acid Solutions 78-3-6-12/30

hydroxide to achieve a complete conversion of cerium into cerium-(IV).
The most important factor for the complete separation of cerium is the presence of cerium-(IV)-ion in the solution.
There are 6 tables and 10 references, 3 of which are Soviet.

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

SUBMITTED: November 29, 1956

AVAILABLE: Library of Congress

1. Cerium--Production 2. Cerium--Solvent extraction 3. Diethyl ether--Applications

Card 2/2

LOMASHOV, I.P.; KRASYUK, B.A., prof., doktor tekhn.nauk, retsenzent; VAGINA, N.S., red.; ARKHANGEL'SKAYA, M.S., red.izd-va; MIKHAYLOVA, V.V., tekhn.red.

[Germanium and silicon are the most important semiconductors] Germanii i kremnii - vazhneishie poluprovodnikovye materialy. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1960. 51 p. (MIRA 13:7)
(Germanium) (Silicon)

5.2200(D)

68113
SOV/78-5-1-18/45

~~5 (2)~~

AUTHORS: Ryabchikov, D. I., Vagina, N. S.

TITLE: Separation of the Bulk of Yttrium by Means of a Complex Formation

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 1, pp 102 - 106 (USSR)

ABSTRACT: The chromatographic separation of the yttrium group elements is rendered more difficult by the fact that, as a rule, yttrium is present in a large excess (up to 90%). A prior separation of Y would greatly facilitate the separation of the other elements of this group. In reference 1, the authors had investigated the selective complex formation of this group. They now report on the separation of the Y-group in an yttrium- and a dysprosium concentrate by means of ethylene diamine tetraacetic acid (EDTA). Under investigation was a mixture with an 85% yttrium content and another with Y = 35%. The X-ray spectroscopic analysis made by N. V. Turanskaya on these mixtures is given in table 1. The precipitates and filtrates obtained after addition of different amounts of EDTA with different pH, were likewise investigated by X-ray spectroscopy (Tables 2-6), furthermore,

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the average atomic weight of the fractions was determined (Table 7). The distribution of the bulk of Y and Dy was controlled by additions of Y^{91} and Dy^{166} on the basis of β-radiation. The authors state that the different stability of the EDTA complexes at pH = 3 permits the separation of the Y bulk from the other rare earths of this group. The mixture is separable into three fractions within 10 hours, the first one containing elements Ho to Lu, the second containing Y, and the third the last five elements of this group. There are 7 tables and 2 Soviet references.

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AUTHORS: Ryabchikov, D. I., Vagina, N. S.

TITLE: Comparative Evaluation of Various Complexing Agents With Respect to the Preparation of Enriched Concentrates of the Elements of the Yttrium Group

PERIODICAL: Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 2, pp 356-358 (USSR)

ABSTRACT: The latter author investigated the separation of the yttrium group by means of EDTA (Refs 1,2). It was the purpose of the present paper to replace the EDTA by other organic acids. The effect of the complexing agent was investigated on the basis of the separation of the Ho - Lu fraction. The effect of acetic acid, malonic acid, tartaric acid, lactic acid, citric acid, and nitrilo-triacetic acid was studied. The distribution of the rare earths among the individual fractions was determined by means of gravimetric analysis (Table 1), by Y^{91} and Tu^{170} (Table 2), and by X-ray spectrum analysis (Table 3). The authors found that lactic acid and citric acid were most effective. There are 3 tables and 2 Soviet references.

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