KAZAKOVA, N.M.

Terrace profiles as a method of studying the most recent tectonic movements of the earth's crust. Trudy Inst.geog. no.62:100-111 '54.
(Valleys) (Earth movements) (MIRA 8:5)

KAZAKOVA, N.M.

Experience in compiling geomorphological-tectonic maps. Trudy Inst. geog. no.62:112-123 '54. (MIRA 8:5)
(Geology--Maps)

KAZAKOVA,N.M.

Origin of Lake Sevan. Trudy Inst.geog. no.65:135-146 '55.
(Sevan, Lake) (MLRA 8:11)

KAZAKOVA, N.M.

KAZAKOVA, N.M.

Basic features of the relief of Moscow Province. Trudy Inst. geog. no.71:5-14 '57. (MLRA 10:9)

(Moscow Province--Physical geography)

3(5) PHASE I BOOK EXPLOITATION SOV/1781

Akademiya nauk SSSR. Institut geografii.

Voprosy fizicheskoy geografii (Problems in Physical Geography) Moscow, Izd-vo AN SSSR, 1958. 370 p. Errata slip inserted. 1,500 copies printed.

Resp. Ed.: G.D. Rikhter, Doctor of Geographical Sciences, Professor; Ed. of Publishing House: D.N. Tugarinov; Tech. Ed.: N.D. Novichkova.

PURPOSE: This book is intended for meteorologists, hydrologists, pedologists, geologists, and students of physical geography in general.

COVERAGE: These articles are dedicated to Academician A.A. Grigor'yev in commemoration of his seventy-fifth birthday anniversary. They treat problems in physical geography pertaining to the northern regions of the USSR and particularly those of Yakutia. The majority of the articles are devoted to questions of latitudinal and vertical zonation and contain much factual material on the relationship between the various geographic components. Practical conclusions and meteorological principles are cited. Each article is accompanied by maps, photographs and numerous bibliographic references.

Problems in Physical Geography SOV/1781

Card 3/8

KAZAKOVA, N.M.

Division of the Sevan Basin into geomorphological sections.
Trudy Inst. geog. 74:43-75 '58. (MIRA 11:7)
(Sevan region--Physical geography)

GAYGEROV, S.S.; ZAYCHIKOV, P.F.; KAZAKOVA, N.N.

Some characteristics of the vertical structure of the stratosphere.
Trudy TSAO no.59:3-10 '64. (MIRA 19:1)

ACCESSION NR: AR1020753 S/0169/64/000/001/B058/B058

SOURCE: RZh. Geofizika, Abs. 1B327

AUTHORS: Kazakova, N. N.; Matveyev, L. T.

TITLE: Methods and main results of calculation of vertical motions of air (based on the data of the drifting station "Severnyy polyus-7")

CITED SOURCE: Tr. Arkt. i Antarkt. n.-i. in-ta, v. 253. 1963, 161-171

TOPIC TAGS: Vertical air motion, pulsation air velocity, turbulent air velocity, convective air velocity, ordered air velocity, vertical stratospheric air velocity, vertical tropspheric air velocity

TRANSLATION: A brief classification of vertical motions as a function of the scale of the process (phenomenon) is given. Three categories of vertical velocities are distinguished: pulsation (turbulent) velocities, convective velocities, and ordered (large-scale) velocities. Calculation of vertical velocities of the first and second category was made by using a method proposed

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ACCESSION NR: AR4020753

by P. F. Zaychikov and one proposed by one of the authors of the article. At the limits of the troposphere, the values of the vertical velocity calculated by the two independent methods are in satisfactory agreement. In the stratosphere, the first method gives high values for vertical velocities.

L. Matveyev

DATE ACQ: 03Mar64 SUB CODE: AS, AI ENCL: 00

Card 2/2

ACCESSION NR: AT4046489 S/3116/63/253/000/0161/0171

AUTHOR: Kazakova, N. N.; Matveyev, L. T.

TITLE: Methods and main results of the computation of vertical wind motions (according to data of the drifting station "Severnyy Polyus-7")

SOURCE: Leningrad. Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut. Trudy*, v. 253, 1963. Sbornik statey, posvyashchennyy pamyati V. V. Prolova: voprosy* gidrometeorologii polyarnykh oblastey (Collection of articles in memory of V. V. Prolov: problems in the hydrometeorology of the polar regions), 161-171

TOPIC TAGS: wind motion, vertical air current, radiosonde measurement, vertical wind gradient, tropospheric wind gradient, stratospheric wind gradient

ABSTRACT: Investigations of vertical currents are of great scientific and practical importance since these currents directly affect the flight of aircraft and the transfer of atmospheric contaminants, including radioactive pollutants. Vertical motions observed in the

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ACCESSION NR: AT4046489

atmosphere can be divided into three basic classes on the basis of typical horizontal dimensions: 1) irregular (pulsational) vertical currents; 2) convectional vertical currents; and 3) regular vertical currents. Particular attention in this article is given to the study of irregular (pulsational) and convectional vertical currents. Analysis of radiosonde data indicates that the dependence of vertical velocity on the thermodynamic parameters of the state of the atmosphere can be expressed by the formula:

$$\overline{w} = 2 \cdot 10^{-2} \cdot u \sqrt{17{,}9 - 11{,}6 \lg Ri}$$

where u is the mean horizontal wind velocity. The horizontal areas within which these vertical currents preserve their sign may extend several kilometers. The absolute value of the vertical velocities varies from tens of centimeters to several meters per second. In the troposphere there is basic agreement between the values for vertical velocities determined by radiosonde and those determined on the basis of the above formula. This is true as regards the mean values as well as the recurrence of various gradations of vertical velocity. In the stratosphere the values of vertical velocities determined by

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ACCESSION NR: AT4046489

means of radiosondes must be regarded as too large. For a more precise determination of these values, methods other than radiosonde should be used to supplement the computation of these vertical velocities. Orig. art. has: 18 formulas, 6 tables, and 1 figure.

ASSOCIATION: Arkticheskiy i antarkticheskiy nauchno-issledovatel'skiy institut, Leningrad(Arctic and Antarctic Scientific Technical Institute)

SUBMITTED: 00 ATD PRESS: 3117 ENCL: 00

SUB CODE: ES NO REF SOV: 009 OTHER:

Card 3/3

KACAKOVA, N.N.; MATVEYEV, L.T.

Methodology and basic results of calculating the vertical motions of the air; according to data of the drifting station "Severnyi polius-7". Trudy AANII 253:161-171 '63. (MIRA 17:11)

L 15265-66 EWT(1)/FCC GW

ACC NR: AR5016456 SOURCE CODE: UR/0135/65/000/003/B010/B010

AUTHOR: Gaygerov, S.S.; Zaychikov, P.F.; Kazakova, N.N.

ORG: none

TITLE: Some peculiarities of stratospheric vertical structure

SOURCE: Ref. zh. Geofizika, Abs. 6B243

REF SOURCE: Tr. Tsentr. aerol. observ., vyp. 59, 1964, 3-10

TOPIC TAGS: stratosphere, temperature measurement, atmospheric temperature, temperature dependence

TRANSLATION: A study was made of some problems regarding the accuracy of radio probes of altitudinal temperature, as connected with the problem of analyzing them together with the data obtained by rockets at altitudes of over 20-25 km. The data obtained by the radar method for determining altitudes (radioprobe RiZ-1) should be considered basic. In plotting isoterms for temporary profiles above 25 km, it is necessary to apply smoothing technics and to renounce (at the current level of measuring accuracy) the objective of finding a detailed distribution of temperature. In analyzing baric topography charts, the support of wind data is necessary. In combining the above data with that obtained by rockets, it is imperative to take into account the insufficient

Card 1/3 UDC: 551.513.551.510.35

L 15265-66
ACC NR: AR5015456

accuracy of the barometric method in the calculation of altitudes by radioprobes (RZ-049 and A-22). Temporary profiles are given in accordance with the radio- and rocket-probes on Kheis (Heiss) island (17-25 June, 1961, and on 1 December, 1959 to 31 January, 1960); in the mid-latitudes of the European Territory of the Soviet Union (1-9 August, 1960) and of the radioprobes in Moscow (12-16 July 1955). An analysis of the profiles confirms the relatively stable regime of the summer circumpolar stratospheric anticyclone and shows that its vertical power encompasses the stratosphere and extends to the lower mesosphere. In the Arctic region, due to the proximity of the eye of the anticyclone, the wind system is comparatively changeable, with eastern winds predominating. Meridional and even eastern component winds are also noted. In moderate latitudes the stratospheric summer jet-flow is much more intensive than in the arctic region, and encompasses much of the stratosphere. The wind velocities in the upper stratosphere may exceed 50 m/sec. The direction of the eastern stratospheric winds is comparatively stable. The appearance of meridional components may be expected only in the mesosphere, though the accuracy in calculating winds above 50 km is considerably decreased. The winter structure of the stratosphere in the region of Franz Joseph Land is divided into three distinct areas: 1) the lower stratosphere from the tropopause up to 20-23 km, with a prevailing decrease in temperature at higher altitudes and with evident effects of tropospheric disturbances, 2) the upper stratosphere, where temperature increases at higher altitudes, and 2) a well defined stratum of minimum temperature in the stratosphere (isopause), separating the other two

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L 15265-66
ACC NR: AR5014455

stratа. In summer, a minimum temperature in the isosphere is not infrequently connected with a conversion of the wind to eastern circulation, which is well noticeable in the mid-latitudes. References 10. Z. Makhover.

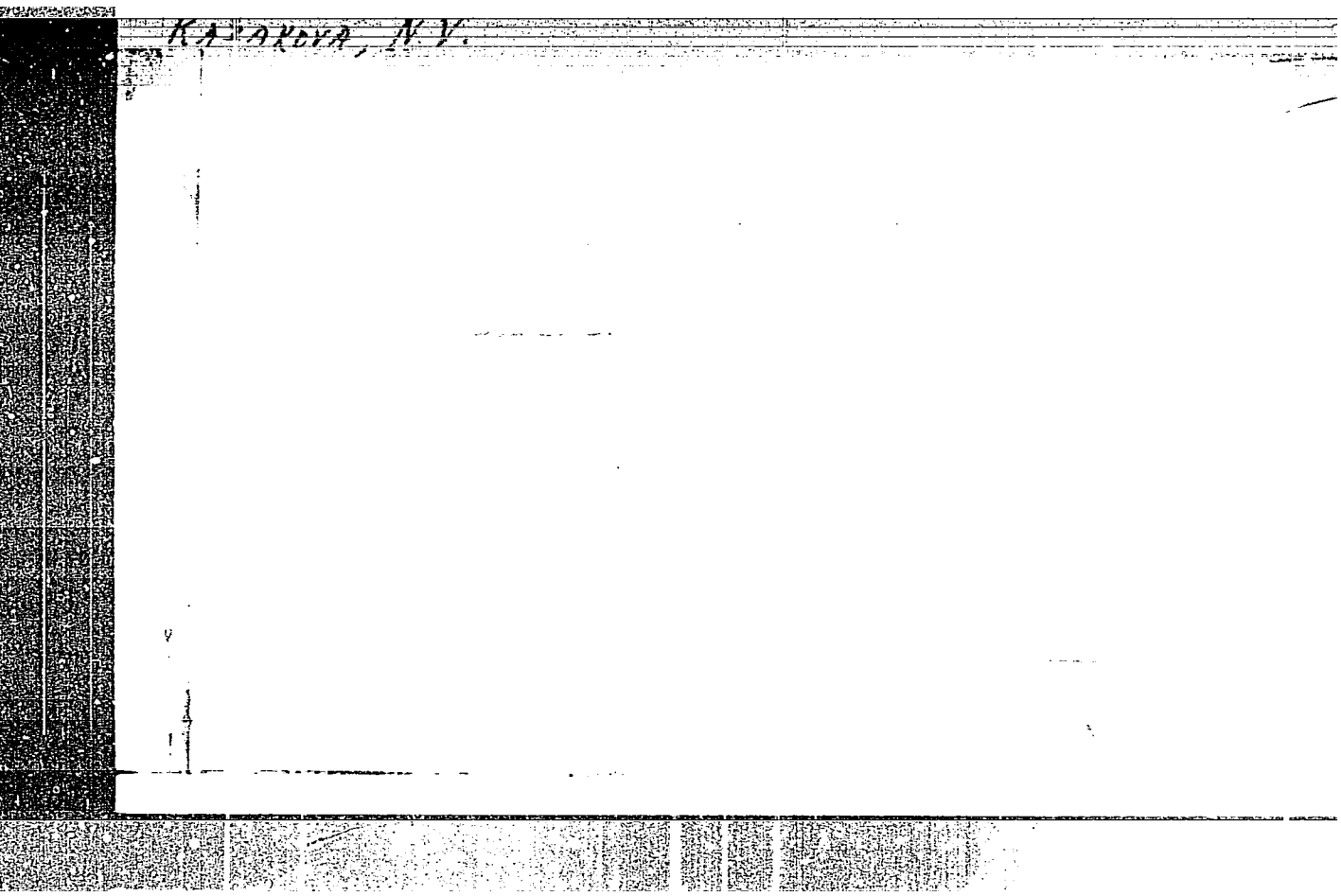
SUB CODE: 03, 04

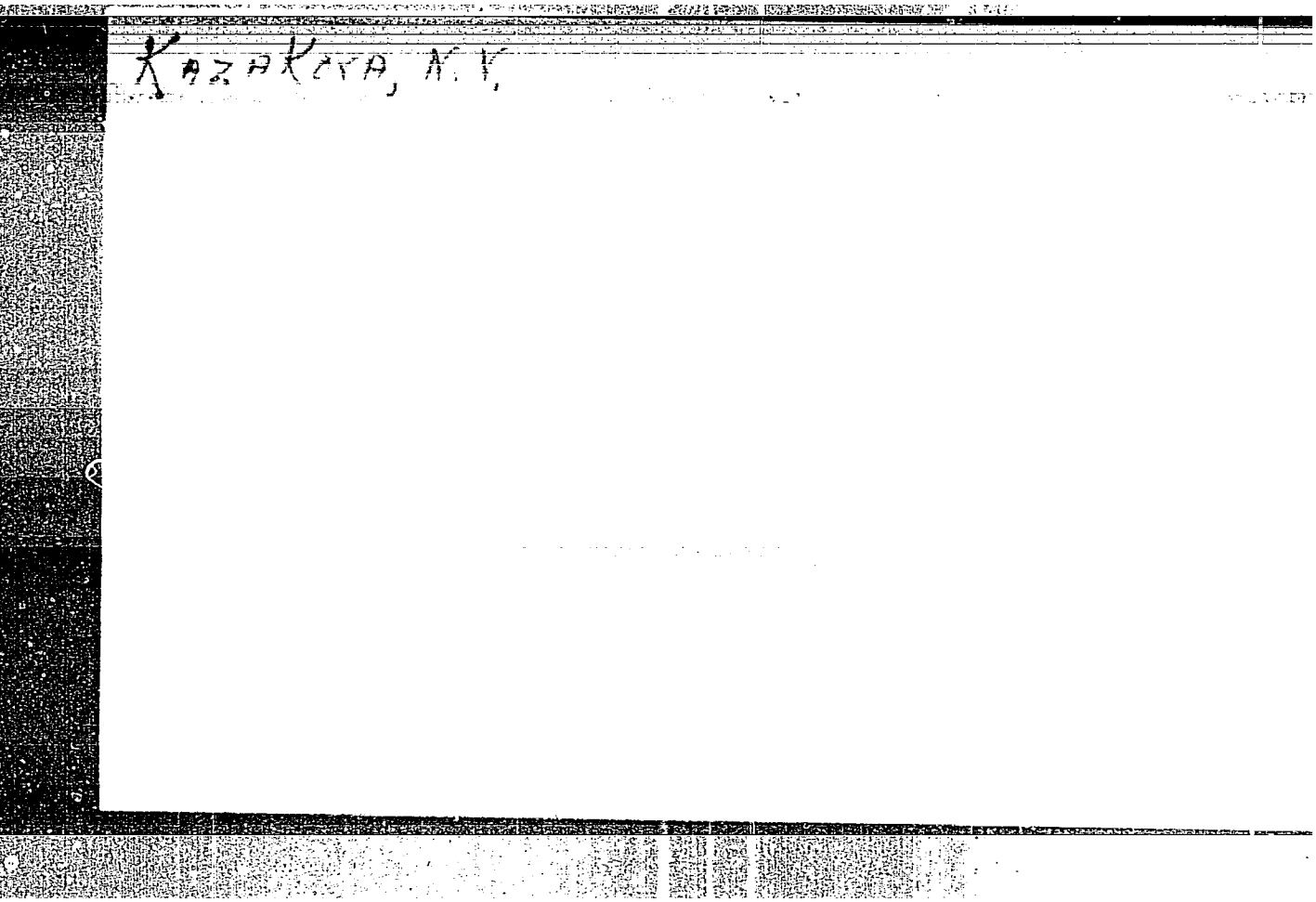
Card 3/3

KAZAKOVA, N. V.

KAZAKOVA, N. V. -- "The Blood Supply of the Heart of Man and Certain Mammals." Stalingrad State Medical Inst. Stalingrad, 1955. (Dissertation for the Degree of Candidate of Medical Sciences.)

SO: Knizhnaya letopis', No. 4, Moscow, 1956





129 - 2-7/10

AUTHOR: Kazakova, N.V., Candidate of Technical Sciences and Koroleva, N.V., Eng.

TITLE: On the Temper Brittleness of Steel. (Ob otpusknoy khrupkosti stali).

PERIODICAL: Metallovedeniye i obrabotka metallov, 1957, No. 2, pp. 39-45 (U.S.S.R.)

ABSTRACT: The phenomena taking place at grain boundaries in steel during development of temper brittleness and also during the reestablishment of toughness have been studied by means of an electron microscope which made it possible to establish a relationship between the changes taking place, and the tendency of the steel to develop temper brittleness in various grades of steel. For the tests structural low alloy steel, containing 2.92% Ni and 1.15% Cr (see Table 1, p.40), was chosen for the tests. The changes in toughness were measured on 14 x 14 mm forged and annealed roads which were hardened from 850°C in oil and tempered at 630°C for two hours. To obtain toughness in the steel cooling was effected in water, and to obtain brittleness cooling was effected at a rate of 10°C/hr down to 300°C and then into water.

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TITLE: On the Temper Brittleness of Steel. (Ob otpusknoy khrupkosti stali).

It was found that the development of brittleness is accompanied by the appearance of inter-layers of a new phase at the boundaries of the austenitic grains. The quantity of the inter-granular phase increases bringing about a thickening of the inter-layers and an increase in the length of the boundaries occupied by this phase, which extends also to sub-boundaries (see Fig. 2, insert facing p. 33) When the toughness is reestablished the process proceeds in the opposite sequence (18). The relationship between the tendency of steel to develop temper brittleness and the amount of the phase separated out at the grain boundaries during cooling after tempering were investigated in steels with various tendencies to temper brittleness, the compositions of which are given in Table 1, p. 40. To ensure equal hardness of the Chapry

TITLE: On the Temper Brittleness of Steel. (Ob otpusknoy khrupkosti stali).

specimens, depending on the grade, the steel was hardened at the temperature of Ac_3 + 30°C and tempered at 600 to 640°C. The criterion of the tendency of the steel to develop temper brittleness was the displacement of the temperature of transition of the steel into the brittle state under the influence of slow cooling after tempering, as compared to rapid cooling; the date obtained are given in Table 2, p.43. Investigating the influence of the grain boundary it was found that for one of the steels an increase in the grain size from 7 to 5 "Balls" involved a temperature shift, characterising the tendency of the steel to develop temper brittleness, to double the value and for an increase of the grain size from 7 to 3 "Balls" is trebled. It is concluded that development of temper and temperature brittleness of structural steel during slow cooling after tempering and during long duration holding at 350 to 550°C is the result of the formation of a new phase at the grain boundaries which weakens the bond between the grains, and that the reestablishment of the toughness is due to the dissolution of this phase; this inter-granular phase is not a carbide one. The

TITLE: On the Temper Brittleness of Steel. (Ob otpusknoy khrupkosti stali).

inter-granular phase contains elements which are soluble in α-iron; the solubility of this phase changes rapidly in the temperature range 525 - 575°C, either as a result of changes in the limit solubility of its components or because the dissociation temperature is within this range. The temperature difference criterion used by the authors is sufficiently sensitive and permits quantitative evaluation of even insignificant influences of various factors on the temper brittleness. An evaluation of the temper brittleness on the basis of changes in the impact strength of specimens tested only at 20°C may lead to erroneous conclusions.

Card 4/5

81509

18.7500 SOV/137-59-5-10754

Translation from: Referativnyy zhurnal, Metallurgiya, 1959, Nr 5, p 184 (USSR)

AUTHORS: Kazakova, N.V., Koroleva, N.V.

TITLE: The Effect of Decomposition Products of Supercooled Austenite in the Intermediate Region on the Proneness of Steel to Temper Brittleness

PERIODICAL: V sb.: Materialy Nauchno-tekhn. konferentsii po probl. zakalki v goryachikh sredakh i promezhutochn. prevrashcheniyu austenita. Nr 1, Yaroslavl', 1957, pp 211 - 227

ABSTRACT: The authors investigated the influence of the partial austenite transformation at various temperatures of the intermediate region on proneness to temper brittleness of 35KhNZ, 35KhNZM, 35KhNZV and 35KhM steel. The estimation of the proneness to temper brittleness of steel was carried out according to results of impact tests at +200° to -180°C on Charpy specimens. The specimens had been subjected to isothermic treatment at 250° - 450°C with different holding times and had also been subjected to tempering at 600° - 630°C with different cooling methods. The lowest

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The Effect of Decomposition Products of Supercooled Austenite in the Intermediate Region on the Proneness of Steel to Temper Brittleness

temperature of the tests, where the fracture of the specimens remained fully fibrous, was taken as the critical temperature of brittleness T_{br}. The relative raising of T_{br} in slow cooling after tempering in comparison to rapid cooling was taken as a criterion of the proneness to temper brittleness of the steel. Halves of impact-tested specimens were subjected to metallographic investigations. It was stated that the austenite decomposition promoted the raising of T_{br} already at 250°C. The decomposition at 300°C has still a stronger effect. Beginning at 350°C, T_{br} for steel slowly cooled after tempering raises more slowly than for rapid-cooled steel. As a result, the difference in T_{br} decreases and at a high degree of austenite decomposition it becomes equal to zero in the upper section of the intermediate region. The higher the temperature of austenite decomposition, the lower is the degree of austenite decomposition when the difference of T_{br} becomes equal to zero. Microstructural investigations have revealed that the development of temper brittleness was connected with the separation of an intergranular phase whose chemical composition was different from the basic mass of the grains. A separation of the inter-

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The Effect of Decomposition Products of Supercooled Austenite in the Intermediate Region on the Proneness of Steel to Temper Brittleness

granular phase was not observed if tempering brittleness was absent. If products of austenite decomposition are present in the structure of the steel, then the rupture of steel during the impact tests takes place along the grain body even if there is a brittling phase on the grain boundaries.

M.Sh.

KAZAKOVA, N. V.

S/193/62/000/003/001/002
A004/A101

AUTHORS: Reybakh, M. S., Tairlin, A. M., Kleshchevnikova, S. I., Volkov, V. L., Matveyev, B. I., Kazakova, N. V.

TITLE: Film-type apparatus for the continuous triethoxysilane synthesis

PERIODICAL: Byulleten' tekhniko-ekonomicheskoy informatsii, no. 3, 1962, 21 - 23

TEXT: This new apparatus for the continuous triethoxysilane synthesis, in which the reaction and desorption zones are separated, has been developed by an organization of the Gosudarstvenny komitet po khimii (State Committee on Chemistry) at the Council of Ministers of the USSR. The apparatus is a film-type mass-exchange column, whose design and operation are described. A table gives comparative data on the triethoxysilane synthesis in film-type and bubbler apparatus. The raw material consumption in the former is only half of the latter, while the output of the film-type apparatus is by 25% higher than that of the bubbler type. Comparing the technical and design data of the continuous film-type apparatus with those of the periodic bubbler apparatus, it is shown that the working volume and hydraulic resistance of the film-type apparatus are considerably lower than

Card 1/2

Film-type apparatus for the...

those of the bubbler apparatus, while the specific surface of heat exchange and the specific surface of phase contact are many times larger (345 and 130 times respectively), which ensures a sharp reduction in desorption time. There are 1 figure and 2 tables.

Card 2/2

REYBAKH, M.S.; TSIRLIN, A.M.; KLESHCHEVNIKOVA, S.I.; VOLKOV, V.L.; MATVEYEV, B.I.; KAZAKOVA, N.V.

Wetted-wall apparatus for continuous synthesis of triethoxysilane. Biul.tekh.-ekon.inform.Gos.nauch.-issl.inst.nauch.i tekh.inform. no.9:21-23 '62. (MIRA 15:9)

(Distillation apparatus)
(Silane)

L 25787-65 EWT(m)/EPF(c)/EWP(j) Pc-4/Pr-4 RM

ACCESSION NR: AR4040353 S/0081/64/000/006/N010/N010

SOURCE: Ref. zh. Khimiya, Abs. 6N79

AUTHOR: Reybakh, M. S.; Kazakova, N. V.; Tsirlin, A. M.; Matveyev, B. I.

TITLE: Effect of some technological factors on the yield of triethoxysilane

CITED SOURCE: Vestn. tekhn. i. ekon. inform. N.-i. in-t tekhn.-ekon. issled. Gos. kom-ta khim. i neft. prom-sti pri Gosplane SSSR, vyp, 9, 1963, 10-12

TOPIC TAGS: triethoxysilane synthesis, reaction temperature, contact time, trichlorosilane, alkoxysilane synthesis

TRANSLATION: The authors studied the effect of temperature, reaction time and the proportions of the starting materials on the synthesis of triethoxysilane from $SiHCl_3$ and ethanol. The optimum conditions were a temperature of 30-31°C, a 97% alcohol content (with respect to the stoichiometric amount) and a contact time of 1 minute. The reaction product was freed of HCl and distilled [illegible] $HSi(OC_2H_5)_3$ in 80-83% yield with a 10-15% content of $Si(OC_2H_5)_4$ and [illegible] ethers. In a pilot plant, approximately 3 kg of pure $HSi(OC_2H_5)_3$ could be produced in one cycle. A schematic illustration of the apparatus is included.

L. R.

Card 1/2

L 25787-65

ACCESSION NR: AR4040353

SUB CODE: OC, GC ENCL: 00

Card 2/2

GORELIK, D.S.; KAZAKOVA, O.A.

Determining the degree of rinsing of milori blue. Lakokras. mat. i ikh prim. no.5:79-80 '61. (MIRA 15:3)
(Prussian blue)

GORELIK, D.S.; KAZAKOVA, O.A.

Method for determining metallic zinc in zinc oxide prepared in rotating furnaces. Lakokras. mat. i ikh prim. no.5:50-51 '63. (MIRA 16:11)

15.2250

25935
S/136/61/000/008/001/005
E021/E180

AUTHORS: Fialkov, A.S., Kazakova, O.B., Galkina, N.I., and Temkin, I.V.

TITLE: The influence of surface-active materials on the properties of carbon-graphite materials

PERIODICAL: Tsvetnyye metally, 1961, No.8, pp. 41-46

TEXT: In the first experiments carbon-black with a specific surface area of 15.17 m^2/g, pH of 8.47 and specific resistance of 1440 ohm mm^2/m was used. A 30 g sample was treated with a 1% aqueous solution of the surface active material. The moisture was then removed and the adsorption of pitch by the sample from a solution of pitch in benzol was determined. The results were as follows:

Surface active material	% pitch adsorbed
Untreated carbon black	65
ОП-10 (OP-10) emulsifier	58
ОП-7 (OP-7) emulsifier	57
ОП-4 (OP-4) emulsifier	53
Aerosol 103	53
Sulphanol (Nekal)	51
Alkoman	50

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The influence of surface-active ...

The influence of adding surface active material on the properties of pitch is shown in Table 1. The pitch was coked in a closed porcelain vessel with a gradual heating to 950 °C, followed by holding for 8 hours. The physico-mechanical properties of coke obtained from pitch with different additions of surface active material are shown in Table 2. Fig.1 shows the pore distribution of coke. [Abstractor's note: meaning of $\Delta V/\Delta r$ not explained]. Curve 1 is for coke from untreated pitch; curve 2 for coke from pitch treated with 0.5% oleic acid; curve 3 with 3% oleic acid. It can be seen that the surface-active material results in a structure with finer pores and the quantity of coarse pores decreases. Semi-fabricated components of lamp-black and high temperature pitch were tested and the effect of additions of oleic acid (abscissa %) on the physico-mechanical properties is shown in Fig.3. Curve 1 is the bending strength in kg/cm^2 (left-hand ordinate); curve 2 is the specific electrical resistance in ohm mm^2/m (middle ordinate); curve 3 is the hardness in kg/mm^2. Thus the shielding action of surface active materials on the surface of carbon powders is demonstrated. Additions of surface-active material to pitch result in a finer pored structure of the

The influence of surface-active ...

coke made from it, because of a decrease in surface-tension and viscosity of the pitch. Additions of surface-active material to carbon-graphite mixtures improve the physico-mechanical properties of the carbon-graphite materials.
There are 3 figures, 4 tables and 6 Soviet references.

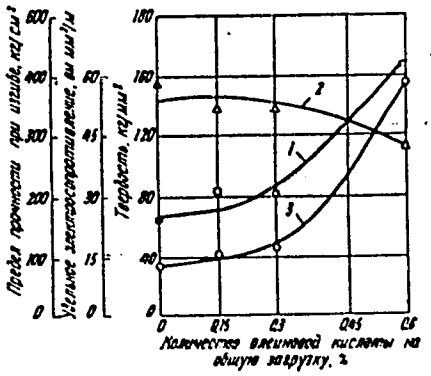

Fig.3

Card 3/7

KAZAKOVA, O.N.

Field research in physical geography. Izv.Vses.geog.ob-va 87 no.2:147-152 Mr-Ap '55. (MLRA 8:9)
(Physical geography)

KAZAKOVA, O.N.

KAZAKOVA, O.N.

New work of Leipzig geographers on physical geography of the globe ("The face of the Earth; with geographical dictionary" [in German] by Ernest Neef and others. Reviewed by O.N. Kazakova. Vest. LGU 12 no.2:188-189 '57. (MIRA 11:2)
(Physical geography)

KAZAKOVA, O.N.

Boundaries between physicogeographical complexes [with summary in English]. Vest. LGU 12 no.24:117-122 '57. (MIRA 11:5)
(Physical geography)

KAZAKOVA, O.N.

Methods for studying the confines of land forms in the instance of the Karelian Isthmus and the northern part of the Lake Ladoga region. Nauk. zap. L'viv. un. 40:81-86 '57. (MIRA 11:6)

1.Gosudarstvennyy universitet im. A.A. Zhdanova, Leningrad.
(Karelia--Physical geography)

KAZAKOVA, O.N.

Division of Vologda Province by land forms. Vest.LGU 13 no.24:75-81 '58. (MIRA 12:4)

(Vologda Province--Physical geography)

AUTHOR: Kazakova, O.N. (Reviewer) SOV-12-90-4-20/22

TITLE: Schultze, J.H. Natural Landscapes of the German Democratic Republic. Supplementary volume of Petermann's Geogr. Mitt., 257, Gotha 1955. (Schultze, J.H. Die naturbedingten Landschaften der Deutschen Demokratischen Republik. Ergaenzungsheft zu Petermann's Geogr. Mitt., 257, Gotha, 1955)

PERIODICAL: Izvestiya Vsesoyuznogo geograficheskogo obshchestva, 1958, Vol 90, Nr 4, pp 402-403 (USSR)

ABSTRACT: The author describes a book and landscape map of East Germany. The landscape map is a 1:1,000,000 scale on which 23 large and 304 smaller landscapes are singled out.

1. Physical geography--East Germany

Card 1/1

KAZAKOVA, O.N.

Third All-Union conference on the study of land forms. Vest.LGU 14 no.6:158-160 '59. (MIRA 12:6)
(Physical geography)

KAZAKOVA, O.N.; CHOCHIA, N.S.

Seeing through the eyes of a geographer ("Island of perennial summer; journey through Ceylon" by IU.K.Efremov. Reviewed by O.N.Kazakovao N.S.Chochia). Vest.LGU 15 no.12:152 '60.
(MIRA 13:6)

(Ceylon--Geography--Description and travel)
(Efremov, IU.K.)

KAZAKOVA, O.N.

Coastal landscapes of the Aral Sea and the history of their development. Trudy Lab. ozeroved. 10:22-35 '60. (MIRA 14:6)

(Aral Sea region—Physical geography)

KAZAKOVA, O.N.

Development of the theory of geography and land forms in the German Democratic Republic and Federal German Republik. Vest.LGU no.24:83-89 '62. (MIRA 16:2)
(Germany—Geography) (Germany—Landforms)

KAZAKOVA, O.N.; PAVLOVA, N.N.; DASHKEVICH, Z.V.

Landform map of Vologda Province. Mat. Kom. po land. kart. no.1: 10-16 '61. (MIRA 16:10)

KAZAKOVA, O.N.

Basic problems of geography and the study of landforms in the German Democratic Republic, the Federal Republic of Germany, Switzerland, and Austria. Vest. LGU 20 no.24:99-108 '65. (MIRA 19:1)

1. Submitted April 20, 1965.

KAZAKOVÁ, O.V.

KAZAKOVA, O.V.; YELAGIN, V.D., redaktor; TIMOKHIN, S.T., tekhnicheskiy redaktor.

[Analyzers; the sense organs. Methods for lessons in anatomy and physiology in class 8 of the secondary school] Analizatory; organy chuvstv. Metodika urokov po anatomii i fiziologii v VIII klasse srednei shkoly. Moskva, Izd-vo Akademii pedagogicheskikh nauk RSFSR, 1954. 43 p. (MLRA 7:8)
(Sense organs)

USSR / General Division, Problems of Teaching A-7

Abs Jour : Ref Zhur - Biol., No 1, 1958, No 143

Author : Verzilin, N.M., Kazakova, O.V., Korsunkaia, V.M. Rykov, N.A.

Inst : Not Given

Title : On the Methodical Preparation of Biology Teachers for Work in Schools

Orig Pub : Izv. Akad. med. nauk RSFSR, 1955, vyp. 74, 185-212

Abstract : On the basis of a study of tests of the work of young Leningrad teachers, it is shown that the reasons for the poor preparation of graduates of pedagogical institutes consist in the insufficient number of hours alloted to methods (3.2%) in the educational plan of the institutes, in the low quality of the program on methods, in the absence of textbooks, and also in connection with other subjects, in the unsatisfactory organization of lectures and practical study, and others. The fundamental fault is the gap between theory and practice. The preparation of teachers demands fundamental changes.

Card : 1/1

KAZAKOVA, Ol'ga Vasil'yevna; DENINA, N.F., redaktor; [illegible] tekhnicheskiy redaktor

[Lesson methods for the subject "Nervous system."] Metodika urokov po teme "Nervnaia sistema." Moskva, Izd-vo Akademii pedagog. nauk RSFSR, 1956. 46 p. (MLRA 9:11)
(NERVOUS SYSTEM)

KAZAKOVA, Ol'ga Vasil'yevna; SERBIN, G.M., redaktor; SOKOLOVA, R.Ya., tekhnicheskiy redaktor

[Practical lessons on the subjects: Organs of digestion. Metabolism] Metodika urokov po temam: Organy pishchevareniia. Obmen veshchestv. Moskva, Izd-vo Akademii pedagog. nauk RSFSR, 1956. 95 p.(MLRA 9:11)
(METABOLISM) (DIGESTIVE ORGANS)

KAZAKOVA, O.V.

First public textbooks of human anatomy and physiology in Russia during the first half of the 19th century. Trudy Inst.ist.est.i tekh. 16:239-252 '57. (MIRA 10:10)
(Sayan Mountains--Description and travel)
(Elenkin, Aleksandr Aleksandrovich, 1873-1942)

AUTHORS: Kazakova, O. V., Member AMN SSSR, 307/20-120-2-38/63
Orekhovich, V. N., Shpikiter, V. O.

TITLE: The Influence of Temperature Upon the Velocity of Procollagen Splitting by Collagenase (Vliyaniye temperatury na skorost' rasshchepleniya prokollagenov kollagenazoy)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 120, Nr 2, pp. 359-360 (USSR)

ABSTRACT: The present paper deals with this influence with regard to soluble collagens of the skin of rats, the skin of the air bladder of the carp (Ichthiokoll) and the skin of the cod-fish. These proteins approximately have the same molecular weights and size of molecules (reference 1) as well as a similar configuration of the polypeptide chains. On the other hand they differ by the quantitative content of oxyproline (reference 2). The latter fact causes a different temperature of the heat-denaturation of procollagens in the solution which is accompanied by a splitting of hydrogen chains and by the decomposition of molecules into their component parts (references 1,3-5). The collagenase preparation was produced

Card 1/4 of a filtrate of Clostridium histolyticum culture by means of

precipitation with ammonium sulfate (reference 6). A dialysis against water and drying in a vacuum from a frozen state follows. The proteins were extracted from small pieces of tissue by acid citrate-buffer and produced by dialysis of the extracts against a double substituted sodium-phosphate-solution. Figure 1 shows the velocity curves of the splitting of different procollagens by collagenase (curves A,B,V) in dependence on temperature; the velocity is expressed in conventional units. The velocity curves of heat-denaturation (curves a,b,v) are given in the same figure in the same units. As may be seen from this a very intensive splitting of the procollagen of rat skin takes place at 24° , the same velocity is observed in the carp at 18° , and in the protein of codfish at 10° . The denaturation of the same proteins only sets in at 36, 28 and 12° . Thus it becomes clear that collagenase already acts intensively enough at temperatures at which no denaturation does yet occur, and the original configuration of the substrates is preserved. Nevertheless the hydrogen bonds must be weakened with a temperature increase and the inner stability of the molecules reduced.

The Influence of Temperature Upon the Velocity of S.V/20-120-2-38/63
Procollagen Splitting by Collagenase

This weakening is not sufficient for the molecule decomposition, but suffices for making the substrate susceptible to the influence of the enzyme. In other words, an unstable state of the substrate is necessary for the action of collagenase. The higher this state, the faster is the velocity of splitting. The position of the velocity curves of splitting can be explained by a different degree of the natural stability of molecules of the investigated proteins. In any case further investigations in this field are necessary. There are 1 figure and 9 references, 2 of which are Soviet.

ASSOCIATION: Institut biologicheskoy i meditsinskoy khimii Akademii meditsinskikh nauk SSSR (Institute of Biological and Medical Chemistry, Academy of Medical Sciences, USSR)

SUBMITTED: January 27, 1958

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The Influence of Temperature Upon the Velocity ... SOV/20-120-2-38/65
... Procoll... ... Splitting ... Collagenase

1. Collagen—Analysis 2. Collagen—Temperature factors
3. Tissues(Biology)—Chemical properties

Card 3/3

AUTHORS: Kuzakova, O. V., Orekhovich V. N., SOV/20-122-4-33/57
Member, Academy of Medical Sciences, USSR, Shpikiter, V. O.

TITLE: On the Nature of the Bonds Subject to Splitting by Collagenase (O prirode svyazey, rasshcheplyayemykh kollagenazoy)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 4, pp 657 - 660 (USSR)

ABSTRACT: It is of interest that the collagenase has an astonishingly narrow specific effect, being able alone to split the proteins of the collagen group. The explanation of this manifestation might give valuable evidence on the mode of action of this ferment. After a survey of publications (Refs 1-6) the authors stated that both the ferment itself and the mechanism mentioned are but little investigated. Therefore, the problem under review is of great importance. As substrate, procollagen from the skin of rats was used that was extracted by citrate buffer, and was well washed and dried in vacuo in frozen state. The starting material for the production of collagenase was a filtrate from the

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culture of "Cl.histolyticum" (produced in Institut epidemiologii i mikrobiologii AMN SSSR= Institute of Epidemiology and Microbiology of the Academy of Medical Sciences, USSR). The electrophoresis (method according to Gallop, Ref 7) was carried out at 4° for 18-20 hours at a current of 30 mA. After termination of the electrophoresis, the starch slab was cut in stripes of 1 cm from which eluates of 10 ml each were produced by means of 0,9% salt solution. In these the content of collagenase- and nonspecific proteinase activity was investigated. To the determination of the nonspecific activity the method according to Gallop (Ref 7) was applied and completed. The method of milk precipitation was used, since the proteolytic ferments of Cl.histolyticum coagulate the milk well, whereas collagenase is not capable of doing so (Ref 8). Figure 1 shows the distribution of the collagenase- and of the nonspecific proteinase-activity in the starch block. From these results it may be concluded that the collagenase represents a specific proteinase that splits

the peptide linkages, which are chiefly formed by amino groups of glycine, and, according to preliminary information, by the carboxyl groups of oxyproline alanine and proline. L.A.Lokshina and O.V.Troitskaya have assisted in this work. There are 2 figures and 11 references, 1 of which is Soviet.

ASSOCIATION: Institut biologicheskoy i meditsinskoy khimii Akademii meditsinskikh nauk SSSR (Institute of Biological and Medical Chemistry of the Academy of Medical Sciences, USSR)

SUBMITTED: June 14, 1958

KAZAKOVA, O.V.; OREKHOVICH, V.N.

Isolation and properties of cathepsins from transplantable M-1 rat sarcoma. Vop. med. khim. 9 no.1:63-70 Ja-F '63. (MIRA 17:6)

1. Institut biologicheskoy i meditsinskoy khimii AMN SSSR, Moskva.

KAZAKOVA, O.V.; OREKHOVICH, V.N.

Study of the properties of cathepsins I and II from transplantable M-1 rat sarcoma. Vop. med. khim. 9 no.5:500-507 S-O '63. (MIRA 17:1)

1. Institut biologicheskoy i meditsinskoy khimii AMN SSSR, Moskva.

ZVEREV, Ivan Dmitriyevich; KAZAKOVA, Ol'ga Vasil'yevna; YAKOVLEVA, Ol'ga Sergeyevna; GAL'PERIN, S.I., doktor med. nauk, prof., red. ; PRIDANTSEVA, A.M., red.

[Human anatomy, physiology and hygiene; a textbook for 8th grade students of evening (staggered) general secondary schools] Anatomiia, fiziologiia i gigiena cheloveka; posobie dlia uchashchikhsia VIII klassa vechernei (smennoi) srednei obshcheobrazovatel'noi shkoly. Izd.3. Moskva, Prosveshchenie, 1964. 167 p. (MIRA 17:7)

KAZAKOVA, P. B.

"Soft Brain Membranes and Their Fibrosis in Certain Psychic Diseases." Sub 30 Oct 51, Central Inst for the Advanced Training of Physicians.

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

SO: Sum. No. 480, 9 May 55.

SNESAREV, Pavel Yevgen'yevich, zasl. deyatel' nauki, prof.; AVTSYN, A.P., prof., otv. red.; SMIRNOV, L.I., prof., red. [deceased]; ALEKSANDROVSKAYA, M.M., red.; TSIVIL'KO, V.S., red.; GERGER, E.L., red.; IL'INA, L.I., red.; KAZAKOVA, P.B., red.; KUZNETSOVA, V.I., red.; SOKOLOVA-LEVKOVICH, A.P., red.; BEL'CHIKOVA, Yu.S., tekhn. red.

[Selected works] Izbrannye trudy. Moskva, Gos. izd-vo med. lit-ry Medgiz, 1961. 462 p. (MIRA 14:7)

1. Chlen-korrespondent AMN SSSR (for Smirnov)
(NEUROLOGY)

LEVKOVICH-SOKOLOVA, A.P., kand.med.nauk; KAZAKOVA, P.B., kand.med.nauk; IL'INA, L.I., kand.med.nauk

Morphological changes in the brain in cases of combined alcoholism and atherosclerosis. Trudy Gos. nauchno-issl. inst. psikh. 22:447-476 '60. (MIRA 15:1)

1. Laboratoriya patomorfologii tsentral'noy nervnoy sistemy (zav. - laboratoriyey - kand.med.nauk A.P.Levkovich-Sokolova, nauchnyy konsul'tant - prof. A.P. Avtsyn) i klinika sosudistykh psikhozov (zav. klinikoy - prof. V.M.Banshchikov) Gosudarstvennogo nauchno-issledovatel'skogo instituta psikhiatrii Ministerstva zdravookhraneniya RSFSR.

(CEREBRAL ARTERIOSCLEROSIS) (ALCOHOLISM)

KAZAKOVA, P.B., kand.med.nauk

Pathoanatomical changes in a case combining late cerebral injury and atherosclerosis. Trudy Gos. nauchno-issl. inst. psikh. 22: 490-501 '60. (MIRA 15:1)

1. Otdel patomorfologii tsentral'noy nervnoy sistemy (zav. laboratoriyey - kand.med.nauk A.P.Sokolova, nauchnyy konsul'tant - prof. A.P.Avtsyn) i klinika sosudistykh psikhozov (zaveduyushchiy klinikoy - prof. V.M.Banshchikov) Gosudarstvennogo nauchno-issledovatel'skogo instituta psikhiatrii Ministerstva zdravookhraneniya RSFSR.

(CEREBRAL ARTERIOSCLEROSIS) (BRAIN--WOUNDS AND INJURIES)

KAZAKOVA, P.B.

Fibrosis of the pia mater in schizophrenia. Zhur. nevr. i psikh 61 no.8:1244-1250 '61. (MIRA 15:3)

1. Otdel gistopatologii tsentral'noy nervnoy sistemy (rukovoditel' - prof. P.Ye. Snesarev [deceased]) Nauchno-issledovatel'skogo instituta psikhiatrii (dir. - prof. V.M. Banshchikov) Ministerstva zdravookhraneniya RSFSR, Moskva.
(PIA MATER--DISEASES) (SCHIZOPHRENIA)

KAZAKOVA, P.B., kand.med.nauk; ROMANOVA, I.S., kand.med.nauk

Role of the vascular factor in the genesis of a spasm syndrome in hypertonic psychoses; a clinical anatomical study. Trudy Gos.nauch-issl.inst.psikh. 25:499-517 '61. (MIRA 15:12)

1. Klinika sosudistykh psikhozov (zav. - prof. V.M.Banshchikov) Gosudarstvennogo nauchno-issledovatel'skogo instituta psikhiatrii Ministerstva zdravookhraneniya RSFSR.
(HYPERTENSION)(PSYCHOSES)(SPASMS)

KAZAKOVA, P.B., kand.med.nauk; MASHANOVA, G.A., mladshiy nauchnyy sotrudnik

Differential diagnosis of atherosclerotic parkinsonism and paralysis agitans; the clinical aspects and pathomorphology. Trudy Gos.nauch-issl.inst.psikh. 25:278-314 '61. (MIRA 15:12)

1. Klinika sosudistykh psikhozov (zav. - prof. V.M.Banshchikov) i otdeleniye patomorfologii tsentral'noy nervnoy sistemy (zav. otdeleniyem - kand.med.nauk A.P.Levkovich-Sokolova) Gosudarstvennogo nauchno-issledovatel'skogo instituta psihiatrii Ministerstva zdravookhraneniya RSFSR.
(CEREBRAL ARTERIOSCLEROSIS)(PARALYSIS AGITANS)

KAZAKOVA, P.B., kand.med.nauk

Pathomorphological changes in the brain atherosclerotic dementia with no insultus in the course of the clinical picture. Trudy 1-go MMI 21:430-452'63. (MIRA 16:9)

1. Kafedra psikhiatrii (zav. - prof. V.M.Banshchikov) 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova i Gosudarstvennyy nauchno-issledovatel'skiy institut psikhiatrii Ministerstva zdravookhraneniya RSFSR (dir. - prof. D.D.Fedotov).
(CEREBRAL ARTERIOSCLEROSIS) (DEMENTIA)

RAKHAL'SKIY, Yu.Ye., dotsent; KAZAKOVA, P.B., kand.med. nauk

Diffuse changes in the brain in atherosclerosis with mental disorders; clinical morphological investigation. Trudy 1-go MMI 21: 453-470'63. (MIRA 16:9)

1. Kafedra psikhiatrii (zav. - dotsent Yu.Ye. Rakhal'skiy) Orenburgskogo meditsinskogo instituta, Institut psikhiatrii Ministerstva zdravookhraneniya RSFSR (dir. - prof. D.D.Fedotov) i kafedra psikhiatrii (zav. - prof. V.M. Banshchikov) 1-go Moskovskogo ordena Lenina meditsinskogo intituta imeni I.M.Sechenova.
(CEREBRAL ARTERIOSCLEROSIS) (PSYCHOSES)

KAZAKOVA, P.B., kand.med. nauk; MOSUNOV, B.N.

Pathogenesis of psychoses occuring after surgical treatment of rheumatic heart defects; clinical morphological investigation. Trudy 1-go MMI 21:407-429'63. (MIRA 16:9)

1. Kafedra psikhiatrii (zav. - prof. V.M. Banshchikov) 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni I.M. Sechenova, Institut psikhiatrii Ministerstva zdravookhraneniya RSFSR (dir. - prof. D.D. Fedotov) i Institut serdechno-sosudistoy khirurgii AMN SSSR (dir. - prof. S.A.Kolesnikov)
(PSYCHOSES) (HEART—SURGERY)
(RHEYMATIC HEART DISEASE)

25(6) SOV/66-59-5-19/35

AUTHOR: Kazakova, R., Engineer

TITLE: Determination of Acidity in Ice Cream

PERIODICAL: Kholodil'naya tekhnika, 1959, Nr 5, pp 58-59 (USSR)

ABSTRACT: High grade ice cream must have a certain acidity, which is determined in accordance with the titration method with the 0.1 N solution of NaOH with phenol-phthalein indicator. Titration is considered finished when the pink color which lasts about one minute disappears. However, certain kinds of ice cream include ingredients which are liable to interfere with the coloring thereby rendering the acidity test uncertain. In these cases the application of the potentiometric method of titration alone permits accurate determination of acidity. It has been ascertained by VNIKhI that acidity determined by the end of above titration with phenol-phthalein in uncolored ice cream corresponds to pH = 8,5; this pH value must therefore be taken as final in all cases of potentiometric titration of colored ice cream, which is described in the article. The measuring of the potential, developing in the course of the potentiometric titration is accomplished by means of two electrodes - a calomel one as electrode of comparison, and a glass one as measuring electrode. Before titration

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Determination of Acidity in Ice Cream

the electrodes are immersed in a so-called buffer solution (pH = 7) with a view to eliminating the potential error of asymmetry of the glass electrode. For carrying out the method of potentiometric titration it is necessary to use the potentiometer of the type L5 issued by the "Moskip" Plant and functioning on the basis of the compensation method.

PHASE I BOOK EXPLOITATION 1236

Okhotsimskiy, D. Ye., Kondrasheva, I.L., Vlasova, Z.I., Kazakova, R.K.

Raschet tochechnogo vzryva s uchetom protivodavleniya (Calculation of Point-source Blast Taking Counterpressure into Consideration) Moscow, Izd-vo AN SSSR, 1957. 65 p. (Series: Akademiya nauk SSSR. Matematicheskiy institut. Trudy, t. 50) 2,500 copies printed. Resp. Ed.: Petrovskiy, I.G., Academician; Deputy Resp. Ed.: Nikol'skiy, S.M., Professor; Ed. of Publishing House: Gurov, K.P.; Tech. Eds.: Vanyushenkova, V.V., Makuni, Ye. V.

PURPOSE: This volume of the Works of the Mathematics Institute, Academy of Sciences, is written for the specialists working in the field of blast waves.

COVERAGE: This work consists of an introduction and four sections. In the introduction, the authors describe certain Soviet and American studies in this field and outline briefly the methods of solution, the characteristics of the results, and the computation techniques. In section one the statement of the problem is given. Assumed is a gas which satisfies Clapeyron's equation. Density ρ., pressure

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Calculation of Point-source Blast (Cont.) 1236

p_0, blast energy Eo and $\gamma = c_p/c_v$ are taken as original parameters of the problem. Lagrange coordinates S and t are taken as independent variables where S is the coordinate of the particle at the moment of the passage of the blast wave and t is the time from the moment of a blast. By certain equations there are introduced dimensionless Lagrange coordinates σ and τ, dimensionless pressure p, density ρ. velocity of particles u and dimensionless Eulerian coordinate ξ. In section two the initial system of partial differential equations which describes the adiabatic motion of a gas in dimensionless coordinates is given in the form:

$$(1)\qquad \begin{aligned} \frac{\partial u}{\partial \tau} &= -\frac{\xi^2}{\sigma^2}\cdot\frac{\partial p}{\partial \sigma} \\ \frac{\partial \xi}{\partial \sigma} &= \frac{\sigma^2}{\xi^2}\cdot\frac{1}{\rho} \\ \frac{\partial \xi}{\partial \tau} &= u \\ \frac{\partial \vartheta}{\partial \tau} &= 0 \quad (\text{where } \vartheta = \frac{p}{\rho^\gamma}) \end{aligned}$$

New variables φ, ψ and Θ, connected with dimensionless time, pressure, density and velocity, are introduced and the system of equations (1) is written in final form:

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Calculation of Point-source Blast (Cont.) 1236

Where C is the velocity of the blast wave. To integrate system (2) at the given boundary conditions, as initial conditions are used the solution of the automodel problem (for $\tau=\tau_0$, where t is sufficiently small) obtained by L.I. Sedov [Ref. 1]. Before integrating system (2), the behavior of unknown functions in the neighborhood of the blast origin ($\sigma \to 0$) is investigated. Considering the order of change of unknown functions in the neighborhood of the blast origin and conditions on the outer boundary of certain intervals close to the origin, asymptotic formulas are derived by which it is possible to calculate the values of functions in the central interval using the values of functions on the outer boundary. Section three deals with the numerical solution of the system of partial differential equations (2) by the method of finite differences. The computational net is constructed taking σ = constant, τ = constant, and a mesh size $\Delta\tau = \frac{\Delta\sigma}{c}$. Such a mesh size selection is convenient, because the wave always will pass through the lattice point of a calculation net. The system of differential equations (2) is reduced to a system of difference equations by subsitituting for partial derivatives the finite differences according to the scheme.

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Calculation of Point-source Blast (Cont.) 1236

$$\frac{\partial\varphi}{\partial\sigma} = \frac{\frac{\varphi_{i+1}^{n}+\varphi_{i+1}^{n+1}}{2} - \frac{\varphi_{i}^{n}+\varphi_{i}^{n+1}}{2}}{\Delta\sigma_{i,i+1}}$$

$$\frac{\partial\varphi}{\partial\tau} = \frac{\frac{\varphi_{i}^{n+1}+\varphi_{i+1}^{n+1}}{2} - \frac{\varphi_{i}^{n}+\varphi_{i+1}^{n}}{2}}{\Delta\tau}$$

Where n is the number of the curve τ = const. and i is the number of the point σ_i on it. The computational procedure for the unknown functions φ, ψ, θ in the lattice points of the computational net is established. For the calculation of unknown functions on the blast wave a special method is presented. More detailed analysis is given of the calculation of functions in the central interval, where asymptotic formulas were applied. The size of the computational net is increased after the blast wave gets further away from the blast center. On the basis of the calculated values of $\varphi, \psi, \theta, \xi$ hydrodynamic parmeters ρ, p, u are established. Three criteria are presented concerning the control of the accuracy of the calculations, two of which (control based on the coincidence of Lagrange and Euler coordinates on the shock wave and control with respect to the energy based on the energy conservation law) are more applicable. The selection of the central interval, on which the accuracy of the

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EMEYEV, T.M.; PLATONOV, A.K.; KAZAKOVA, R.K.

Determining parameters of the orbit of an artificial satellite according to data on ground observations. Isk.sput.Zem. no.4:43-55 '60. (MIRA 13:5)
(Artificial satellites) (Orbits)

PHASE I BOOK EXPLOITATION SOV/4281

Akademiya nauk SSSR

Iskusstvennyye sputniki zemli, vyp. 4 (Artificial Earth Satellites, No. 4) Moscow, 1960. 205 p. Errata slip inserted. 6,500 copies printed.

Resp. Ed.: L.V. Kurnosova; Ed. of Publishing House: M.I. Fradkin; Tech. Ed.: T.P. Polenova.

PURPOSE: This collection of articles is intended to disseminate data collected in investigations performed by means of artificial earth satellites.

COVERAGE: The collection consists of 15 articles dealing with scientific data on Soviet artificial earth satellites (AES) and cosmic rockets. The topics discussed include measurements of the density of the upper atmosphere, motion of AES, measurements of micrometeorites and meteoric matter, magnetometric measurements of cosmic rays, electrical potential, and spectrum of positive ions. The collection is part of a series published regularly. References follow each article.

The article discusses one of the possible methods of determining the conditions of illumination of satellites. The relative motion of the first, second, and third Soviet AES to the earth is briefly analyzed.

An abbreviated method of orbital parameter determination and forecasting of satellite motions is given. The method is based on data from the processing of optical and radiotechnical observations.

The finite difference method is applied in the calculation of certain problems of celestial mechanics in the solution of systems of nonlinear differential equations determining the motion of AES in larger time intervals.

The author discusses the problems of shocks of meteorites at high (cosmic) velocity against the surface of a planet. This problem is related to the study of shocks of micrometeorites against the surface of AES

The author attempts to connect phenomena occurring in the upper atmosphere with the presence there of particles of meteoric origin traveling at high velocities.

The working principle and installation of the magnetometric equipment on the AES are described. Characteristics of materials and the stability and precision of operation are discussed.

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KAZAKOVA, R.M., inzh.; OLENEVA, G.Ye., inzh.; SAVINOVSKIY, N.G., kand.tekhn.nauk.

Ways of improving the quality of ice cream. Khol.tekh. 40 no.1:44-47 Ja-F '63. (MIRA 16:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut kholodil'noy promyshlennosti.

(Ice cream, ices, etc.)

25049
S/064/61/000/007/001/005
B124/B206

5 2420

AUTHORS: Boguslavskiy, I. M., Vol'fkovich, S. I., Kazakova, S. B., Bogdanova, N. S.

TITLE: Production of hydrogen fluoride from silicon tetrafluoride

PERIODICAL: Khimicheskaya promyshlennost', no. 7, 1961, 6 - 8

TEXT: During the production of superphosphate fertilizers by decomposition of apatite and phosphorites with sulfuric acid, about 45% of the fluorine present in the ore escapes in the form of SiF_4, together with the waste gases. HF can be produced from SiF_4 by the process studied and proposed in this paper, without great capital investment for the raw material production. Production cost of HF is also greatly reduced due to complete utilization of SiF_4 for the production of HF and high-quality SiO_2. The process consists of two main stages: production of solid ammonium fluoride and -bifluoride from SiF_4-containing gases and decomposition of ammonium fluoride and -bifluoride by means of sulfuric acid, by which HF and $(NH_4)_2SO_4$ are obtained. The main reactions of the first stage are:

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Production of hydrogen...

$SiF_4 + 2NH_4F = (NH_4)_2SiF_6$ (1); $(NH_4)_2SiF_6 + 4NH_3 + 2H_2O = 6NH_4F + SiO_2$ (2); $2NH_4F \longrightarrow NH_4F \cdot HF + NH_3$ (3). SiF_4 is absorbed by a recycled NH_4F solution; reaction (1) takes place in the absorption apparatus. The $(NH_4)_2SiF_6$ solution obtained is led from the absorption apparatus for neutralization with ammonia, which is carried out under continuous cooling of the NH_4F solution formed. The precipitated SiO_2 is filtered off and rinsed with water. The greater part of the mother liquor is led to the evaporator, and the rest in the form of a 10-12% solution to the absorption of SiF_4. The NH_4F solution is evaporated to a salt concentration of 94-95%, reaction (3) taking place. The ratio between ammonium fluoride and -bifluoride in the evaporated solution depends on the boiling point of the solution. Table 1 shows data on the evaporation of NH_4F at various temperatures and pressures; practically no fluorine is present in the condensate at 147°C, and the sum of the salts in the solution reaches 98% in this case. The solution solidifies at about 100°C. The solid $NH_4F \cdot HF$ - NH_4F salt mixture with a total fluorine content of 60% represents an

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Production of hydrogen...

intermediate product in the production of HF. The second stage of the process can be characterized by the reactions: $NH_4F \cdot HF + H_2SO_4 = NH_4HSO_4 + 2HF$ (4); $NH_4F + H_2SO_4 = NH_4HSO_4 + HF$ (5) and $NH_4HSO_4 + NH_3 = (NH_4)_2SO_4$ (6). 93-95% sulfuric acid is used for the decomposition of the salt mixture consisting of 80% ammonium bifluoride and 20% ammonium fluoride; decomposition is carried out at 180-190°C. Table 2 shows the experimental results for the decomposition of NH_4F with sulfuric acid in a steel-boat, which was placed in an electric tubular furnace with a constant stream of dry air; the experiments were conducted with temperatures maintained constant to within ± 3°. The heating time varied from 5 to 30 min. The HF evolved was absorbed by water in vessels made from organic glass, the melt was weighed, analyzed for residual fluorine, and the fluorine yield was calculated. With 30 min reaction time and 180-190°C, the fluorine yield amounts to 97-98%. The ammonium bisulfate melt obtained contains about 40% free sulfuric acid. Neutralization of the latter with the calculated amount of ammonia converts the ammonium bisulfate into ammonium sulfate. Fig. 4 shows the decomposition curve of ammonium fluoride and -bifluoride with sulfuric acid as a function of its concentration, calculated for ammonium bisulfate (decomposition time 40 min at 195°C). On the basis of

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Production of hydrogen...

laboratory results, the pilot plant of the NIUIF under the direction of V. D. Podkopayev, designed a pilot installation for the production of HF by decomposition of ammonium fluoride and -bifluoride with sulfuric acid, which yielded good results. In order to select the most corrosion-resistant material for the thickener and reactor, the steel types investigated were immersed in anaqueous solution with 26% NH_4F and 19% $NH_4F \cdot HF$; the specimens were in a vessel made from АТМ-1 (ATM-1) graphite, with an external heating coil. The solution was periodically heated for 7 hr daily, the specimens being held for 120 hr at 80°C and 880 hr at room temperature. Steel of the type Х23Н28М3Д3Т (Kh23N28M3D3T) was most corrosion-resistant. Moreover, the most resistant material was ascertained in a molten mixture of H_2SO_4, NH_4F, and $NH_4F \cdot HF$ at 190-200°C, the specimen being fixed to the bottom of the vessel by a Teflon strip and the melt being mixed by a mechanical mixer. The test lasted 92 hr with a continuous feed of the mixture, and showed that steels of the type Х23Н23М3Д3 (Kh23N23M3D3) and 0Х23Н28М3Д3Т (OKh23N28M3D3T) are the most resistant. Data obtained for Ст-0 (St-0) steel (loss in weight 43.0 g/m^2·hr) need a checkup under working conditions. There are 4 figures and 2 tables.

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B124/B206

Production of hydrogen...

ASSOCIATION: NIUIF

Table 1: Evaporation of ammonium fluoride solutions at various temperatures and pressures.

Legend: 1) pressure, mm Hg; 2) temperature, °C; 3) composition of the evaporated solution, %; 4) sum of the salts.

Давление мм рт. ст. 1)	Температура °C 2)	3) Состав упаренного раствора, % F	NH_3	сумма солей 4)	NH_3 / F
760	126	40,65	27,69	70,49	0,681
760	146	57,14	30,89	91,99	0,542
760	151	59,55	31,30	93,98	0,525
560	113	35,53	25,13	62,54	0,707
560	115	38,06	26,69	64,75	0,703
460	109	36,79	26,54	65,61	0,722
460	123	50,47	29,79	82,91	0,590
460	130	54,70	30,86	88,43	0,560
460	142	59,50	32,63	95,25	0,549
460	147	62,33	32,61	98,21	0,523

Card 5/6 Tab. 1

KUBASHKINA, B.K.; KAZAKOVA, S.F.

Utilization of the phage titer growth method in the study of external objects. Zhur. mikrobiol. epid. i immun. 29 no.11:104-105 N '58. (MIRA 12:1)

1. Iz Saratovskoy gorodskoy sanitarno-epidemiologicheskoy stantsii.
(WATER, microbiology,
Enterobacteriaceae, determ. by phage titer growth method (Rus))
(MILK, microbiol.
same)
(BACTERIA,
Enterobacteriaceae in milk & water, determ. by phage titer growth method (Rus))
(BACTERIOPHAGE,
phage titer growth method of determ. of Enterobacteriaceae in water & milk (Rus))

17(2,6) SOV/16-59-6-22/46

AUTHORS: Rubashkina, B.K. and Kazakova, S.F

TITLE: Using the Method of the Phage Titer Increase for Studying Objects in the External Environment

PERIODICAL: Zhurnal mikrobiologii, epidemiology i immunobiologii, 1959, Nr 6, pp 110-112 (USSR)

ABSTRACT: The epidemic situation in Saratov indicates that milk and water are two important sources for the spread of gastro-intestinal infections caused by the Escherichia coli group of bacteria. The detection of pathogenic microbes in water and milk is, however, very difficult and for this reason the authors attempt to test milk and drinking water samples using the increase in the phage titer reaction (Timakov and Gol'dfarb's method). At the end of 1958 Rubashkina and Kazakova reported on this method at the Institut imeni Gamaleya. The present investigations were performed with Shigella flexneri and Shigella sonnei phage indicator. The increase in the phage titer reaction was positive in 27 of the 103 milk samples tested with the dysentery phage indicator. Parallel bacteriological study of the milk samples and rinsings from used milk churns revealed 6 cases of Shigella flexneri and 1 case of Shigella sonnei. Similarly,

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positive phage titer increase reactions were obtained in 10 of 37 samples of water. The positive reactions were obtained with samples from pumps and inspection manholes, which proved, upon bacteriological examination, to be polluted with dysentery and typhus bacilli, whereas water from water works and central water mains gave a negative reaction. The sensitivity and specificity of the method, plus the small amount of time it requires, recommend it for epidemiological practice.

ASSOCIATION: Saratovskaya gorodskaya sanitarno-epidemiologicheskaya stantsiya (Saratov City Sanitary-Epidemiological Station)

SUBMITTED: April 9, 1958

Card 2/2

KAZAKOVA, S. I.

"Investigation of an Air Current in the Process of Pollination of a Forest." Cand Tech Sci, Leningrad Order of Lenin Forestry Engineering Academy imeni S. M. Kirov, Leningrad, 1955. (KL, No 11, Mar 55)

SO: Sum. No. 670, 29 Sep 55--Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (15)

KAZAKOVA, T., inzhener.

Improve the installation used in active ventilation of grain.
Muk.-elev.prom. 23 no.3:5-6 Mr '57. (MLRA 10:5)

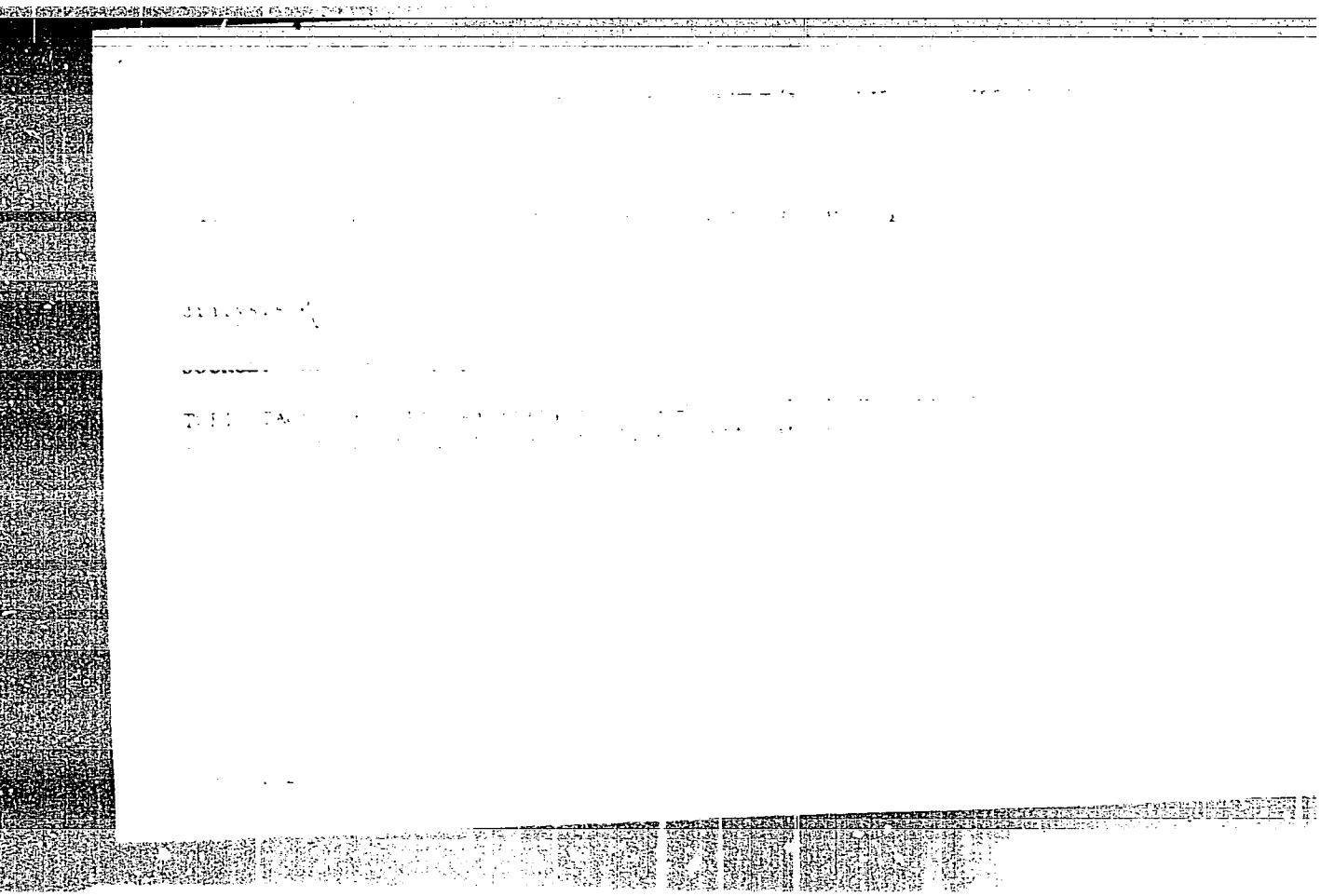
1. Tekhnicheskiy otdel Ministerstva khleboproduktov RSFSR.
(Grain--Drying)

GOLUTVINA, M.M.; KAZAKOVA, T.A.; NIKOLAYEV/, Yu.M.; MARKELOVA, N.V.

New rapid method for determining the content of Sr^{90} in the bones. Med.rad. no.1:62-67 '62. (MIRA 15:1)
(BONES) (STRONTIUM--ISOTOPES)

GOLUTVINA, M.M.; KAZAKOVA, T.A.; NIKOLAYEV, Yu.M. (Moskva)

Rapid method of determining the strontium-90 content in milk.
Vop.pit. 22 no.1:66-69 Ja-F'63 (MIRA 16:11)



L 30042-65

ACCESSION NR: AP5001645

in any of these products. Thus, other radionuclides were found

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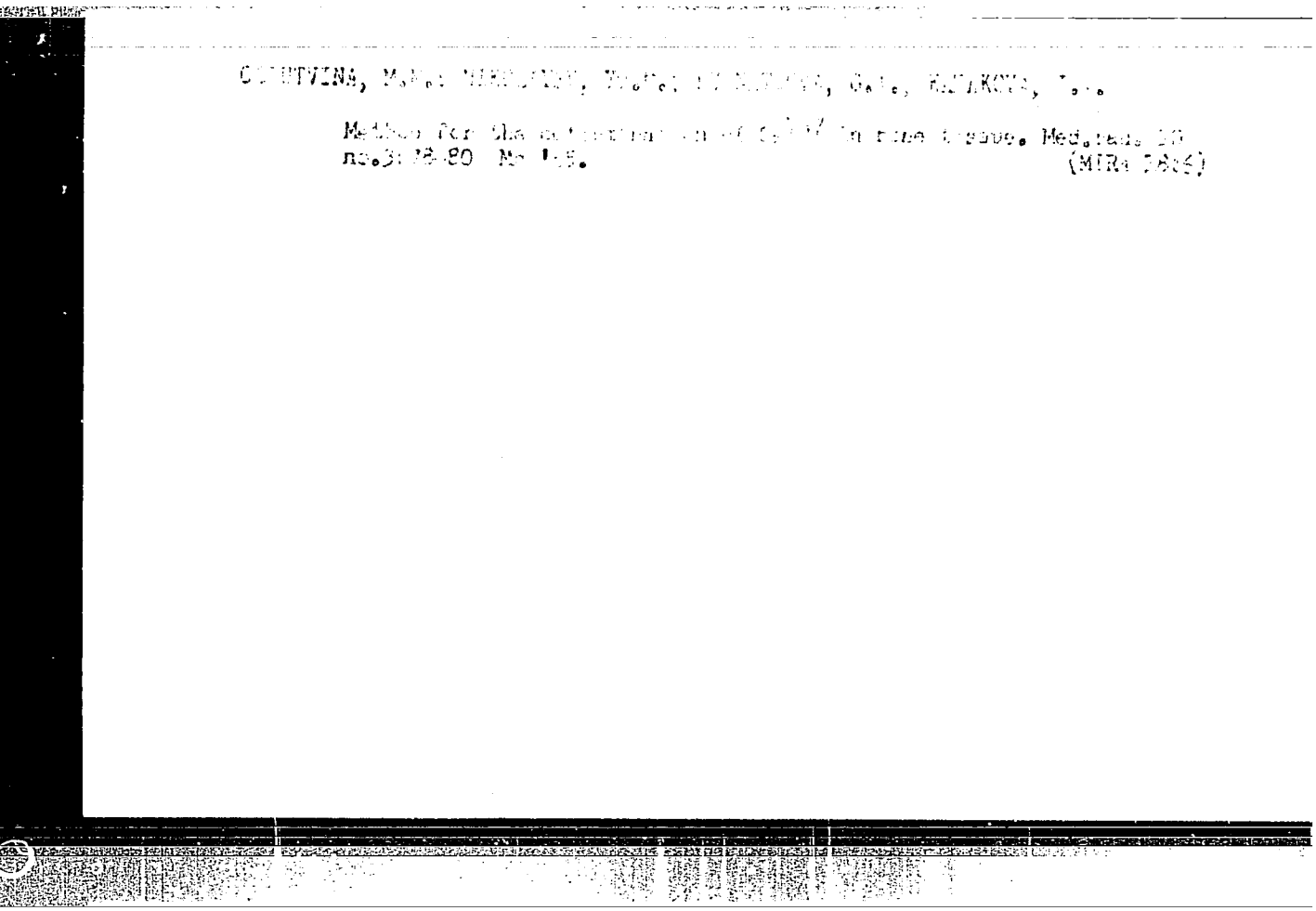

L 01282-67 EWT(m)/EWP(t)/ETI IJP(c) JD/JG/GD
ACC NR: AT6031237 SOURCE CODE: UR/0000/65/000/000/0001/0010

AUTHOR: Golutvina, M. M.; Yartsev, Ye. I.; Kazakova, T. A.

57
B+1

ORG: none

TITLE: On the content of cesium-137 in the bone tissue of man

SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii. Doklady, 1965. K voprosu o soderzhanii tseziya-137 v kostnoy tkani cheloveka, 1-10

TOPIC TAGS: cesium, cesium 137, strontium, tissue cesium 137 content, cesium 137 determination

ABSTRACT: A reliable and time-saving method developed by the authors for determining the amount of cesium-137 in the bone tissue of deceased persons is described. This method was used to determine the amount of cesium-137 in the hip bone tissue of 99 residents of Moscow who died in 1961, 1963, and 1964. The amount of cesium-137 in adults who had died in 1963 was 0.12 pcurie/g ash; in children the amount was 2—4 times greater. The ratio of strontium-90 to cesium-137 in the bones of adults for this period was (3—4):1; in stillborn children and in

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L 01282-67
ACC NR: AT6031237

children who died between the ages of 0—4 this ratio was 6.5:1 and 8:1, respectively. In children 5—19 years old the relationship was practically the same as for adults. Orig. art. has: 3 tables. [Based on authors' abstract] [SP]

SUB CODE: 06/ SUBM DATE: none/ ORIG REF: 005/ OTH REF: 002/

Card 2/2 mjs

L 3198-66

ACCESSION NR: AP5009204 S/0241/65/010/003/0078/0080

AUTHOR: Golutvina, M. M.; Nikolayev, Yu. M.; Kuznetsova, G. A.; Kazakova, T. A.

TITLE: Method of determining cesium 137 in bone tissue

SOURCE: Meditsinskaya radiologiya, v. 10, no. 3, 1965, 78-80

TOPIC TAGS: man, bone, cesium 137, radioactive isotope, chemical method

ABSTRACT: An improved, less time consuming, and simpler method of determining cesium 137 in bone tissues in the form of a hexachlortellurite precipitate is described. After removal of marrow and muscles, the bone (300-500 g) is placed into a quartz cup and heated in a dryer until all the fat has melted. The fat is poured off and the bone is placed into an oven and calcinated at 400-450°. To speed up the process during calcination the bone is treated several times with concentrated HNO_3. Then the bone ash (60-80 g) is ground, placed in a heat resistant tumbler, and a cesium carrier is added (100-150 mg). After dilution with concentra-

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L 3198-66

ACCESSION NR: AP5009204

ted HCl, the bone ash solution is cooled and a 10% tellurium dioxide solution is added until complete precipitation of the hexachlortellurite (Cs_2TeCl_6) takes place. The precipitate is allowed to stand overnight and then centrifuged. After HCl is removed from the precipitate it is covered, dried, and weighed. The cesium yield is determined chemically. Radioactivity of the cesium products is measured with a malophone and a halogen anticoincidence counter with +40% error in about 30 min. The cesium 137 preparations were checked with a gamma spectrometer which confirmed the radioactivity results and also indicated the absence of any other gamma active isotopes. A table is presented showing cesium 137 content in bone tissue ranging from 1.3 to $4.5 \cdot 10^{-11}$ c/kg for 5 persons who died in 1963 and who during their lifetimes had no contact with fission products. Orig. art. has: 1 table.

ASSOCIATION: None.

SUBMITTED: 20Apr64 ENCL: 00 SUB CODE: LS

NR REF SOV: 006 OTHER: 008

OC

Card 2/2

1053. **Hexokinase formation by cells of ascitic cancer in mice (Russian text)** KAZAKOVA T. B. Dept. of Biochem., Inst. of Exp. Med., Acad. of Med. Sci. of the USSR, Leningrad *Biokhimiya* 1958, 23/4 (620–629) Graphs 8 Tables 2

Hexokinase (HK) activity of Ehrlich's ascites carcinoma increases on incubation of the cell suspension at 37°. The increase is greater under aerobic conditions. The enzyme is evidently localized on the surface of the cancer cell as an active ecto-enzyme. Poisons which inhibit oxidative and glycolytic phosphorylation, such as dinitrophenol and bromoacetate, also inhibit the formation of HK by ascitic cells in vitro. The same effect is obtained in the presence of agents which may affect protein synthesis, i.e. ribonuclease and antimetabolites of folic acid (aminopterin and 4-aminopteroylamino-adipic acid). On incubation of the cancer cells in vitro HK appears in the ascitic fluid. The HK activity of the blood serum of animals bearing ascitic cancer is higher than in normal animals, and increases with the growth of the tumour. It is assumed that HK formation in vivo is followed by liberation of the enzyme into the ascitic fluid and from there into the animal's blood stream.

KAZAKOVA, T. B.: Master Biol Sci (diss) -- "The formation of hexokinase in the cells of Ehrlich's aseptic carcinoma". Leningrad, 1959. 16 pp (Inst of Experimental Med of the Acad Med Sci USSR), 200 copies (KL, No 14, 1959, 119)

NEYFAKH, S.A.; KAZAKOVA, T.B.; MEL'NIKOVA, M.P.; TUROVSKIY, V.S.

"Membrane" mechanism of the regulation ofthe glycolysis rate in cells. Dokl.AN SSSR 138 no.1:227-230 My-Je '61.
(MIRA 14:4)

1. Institut eksperimental'noy meditsiny Akademii meditsinskikh nauk SSSR. Predstavleno akademikom V.A.Engel'gardtom.

(GLYCOLYSIS) (MITOCHONDRIA)

KAZAKOVA, T.B., MELNIKOVA M.P., TUROVSKY V.S., NEYFAKH S.A. (USSR)

"The Mechanism of the Glycolysis-Accelerating Action of Mitochondria"

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

NEYFAKH, S.A.; GAYTSKHOKI, V.S.; KAZAKOVA, T.B.; MEL'NIKOVA, M.P.; TUROVSKIY, V.S.

Chemical nature of the mitochondrial factor stimulating glycolysis. Dokl.AN SSSR 144 no.2:449-452 My '62. (MIRA 15:5)

1. Institut eksperimental'noy meditsiny Akademii meditsinskikh nauk SSSR. Predstavleno akademikom A.I.Oparinym.
(GLYCOLYSIS) (CELLS)