5(2, 3)

SOV/20-128-3-28/58

AUTHORS: Gol'dfarb, Ya. L., Vol'kenshteyn, Yu. B.

TITLE: Action of Bromine on 2-Acetothienone in the Presence of Excessive Aluminum Chloride

PERIODICAL: Doklady Akademii nauk SSSR, 1959, Vol 128, Nr 3, pp 536-539 (USSR)

ABSTRACT: In the bromination of acetophenone, the bromine does not enter - as otherwise with ketones - into a side chain but into the ring, in metaposition to the carbonyl group (Ref 1). This happens in the presence of 2.5-3 moles of anhydrous $AlCl_3$ without a solvent. Apparently, this method can also be used for a similar halogenation of other aromatic carbonyl compounds. The role of $AlCl_3$ is probably the blocking of the acyl group by formation of a resistant complex with dimeric cyclic structure. Both from a practical and a theoretical point of view, it was interesting to investigate - by the example of the substance mentioned in the title - this peculiar blocking of the side chain; under usual conditions, this substance can only be halogenated in the side chain

Card 1/3

Action of Bromine on 2-Acetothienone in the Presence of Excessive Aluminum Chloride

(Refs 3, 4). Publication data speak of an α-orienting action of the sulphur atom stronger than the action of meta-orientation (Ref 5). The bromination mentioned in the title yielded a 4-bromo-2-acetothienone (I) not described in publications. 4,5-dibromo-2-acetothienone, the structure of which was confirmed by reference 10, was formed as a by-product. The structure of the bromine-substituted ketone I was confirmed by 2 methods (see Diagram), namely by oxidation or by reduction. The bromination method described above, and the mostly high yields, offer new possibilities of synthesizing the poorly accessible 2,4-substituted thiophenes. Detailed data on the introduction of a 2nd acyl group into the 2-acetothienone, as well as on its chloromethylation by the method of reference I, will be published later. There are 11 references.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk SSSR
(Institute of Organic Chemistry imeni N. D. Zelinskiy of the Academy of Sciences, USSR)

GOL'DFARB, Ya.L.; VOL'KENSHTEYN, Yu.B.

Composition of a mixture of products from the chloromethylation of 2-acetothienone in the presence of excess aluminum chloride, and synthesis of 4- and 5-formyl- and 4- and 5-hydroxymethyl-2-acetothienones. Izv. AN SSSR.Otd. khim. nauk no.12:2238-2240 D '60. (MIRA 13:12)

1. Institut organicheskoy khimii AN SSSR.
(Ketones)

VOL'KENSHTEYN, Yu.B.; LOPATIN, B.V.; PETUKHOV, V.A.

Study of the composition of products of bromination of 2-thienyl-ketones in the presence of an excess of aluminum chloride. Izv. AN SSSR.Otd.khim.nauk no.10:1879-1883 O '61. (MIRA 14:10)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Ketones) (Bromination)

GOL'DFARB, Ya.L.; VOL'KENSHTEYN, Yu.B.

Chloromethylation of acetophenone and 2-acetothienone in the presence of excess aluminum chloride. Zhur. ob. khim. 31 no.2: 616-623 F '61. (MIRA 14:2)

1. Institut organicheskoy khimii AN SSSR.
(Acetophenone) (Ketone) (Chloromethylation)

VOL'KENSHTEYN, Yu.B.; GOL'DFARB, Ya.L.

Bromination of alkyl thienyl ketones. Dokl.AN SSSR 138 no.1:115-118 My-Je '61. (MIRA 14:4)

1. Institut organicheskoy khimii im. N.D.? linskogo AN SSSR.
2. Predstavleno akademikom A.A.Balandinym.

(Ketones) (Bromination)

GOL'DFARB, Ya.L.; VOL'KENSHTEYN, Yu.B.; LOPATIN, B.V.

Bromination and chloromethylation of 2-thiphenealdehyde in the presence of an excess of aluminum chloride. Zhur. ob. khim. 34 no. 3:969-977 Mr '64. (MIRA 17:6)

1. Institut organicheskoy khimii imeni N.D.Zelinskogo AN SSSR.

MAYRANOVSKIY, S.G.; BARASHKOVA, N.V.; VOL'KENSHTEYN, Yu.B.

Polarography of 2-acetylthiophene and its bromo derivatives. On the preceding protonation in the electrochemical breaking of the C-Br bond of 5-bromo-2-acetylthiophene. Izv. AN SSSR. Ser. khim. no.9:1539-1547 '65. (MIRA 18:9)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN SSSR.

MAYRANOVSKIY, G.G.; BARASHKOVA, N.V.; VOL'KENSHTEYN, Yu.B.

Polarography of bromothiophene; effect of the organic solvent concentration on the half-wave potentials. Elektrokhimiia 1 no.1:72-77 Ja '65. (MIRA 18:5)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.

GOL'FARB, Ya.L.; VOL'KENSHTEYN, Yu.B.

Chloromethylation of 5-ethyl-2-acetothienone. Izb. AN SSSR. Otd.khim. nauk no.4:737-742 Ap '63. (MIRA 16:3)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Ketone) (Chloromethylation)

VOL'KENSHTEYN, Yu.B.; LOPATIN, B.V.; PETUKHOV, V.A.

Spectral study of the complex of 2-acetothienone with aluminum chloride. Izv. AN SSSR. Otd.khim.nauk no.5: 917-919 My '62. (MIRA 15:6)

1. Institut organicheskoy khimii im. N.D.Zelinskogo AN SSSR.
(Ketone--Spectra) (Aluminum chloride)

MERZHANOVA, Ye.; MIKHAYLOV, A.; VOL'KENSON, G.

Competitions. NTO no.7:39-40 Jy '59. (MIRA 12:11)

1. Instruktor sektsii metallovedeniya i termoobrabotki TSentral'nogo pravleniya nauchno-tekhnicheskogo obshchestva mashinostroitel'noy promyshlennosti (for Merzhanova).
(Research, Industrial--Competitions)

KAUFMAN, B.N., kandidat tekhnicheskikh nauk; VOL'KENSON, G.M.

Using a material called "Gruntolit" for the reinforcement of canal slopes. Rech.transp. 16 no.2 29-30 F '57. (MIRA 10:3)
(Canals) (Building materials)

VOL'KENSON, G.

Development of volunteer participation in the Black Sea basin.
Mor. flot 23 no.6:35 Je '63. (MIRA 16:9)

1. Chlen sektsii informatsii TSentral'nogo pravleniya Nauchno-tekhnicheskikh obshchestv vodnogo transporta.
(Black Sea region--Merchant marine)

VOL'KENSON, G.

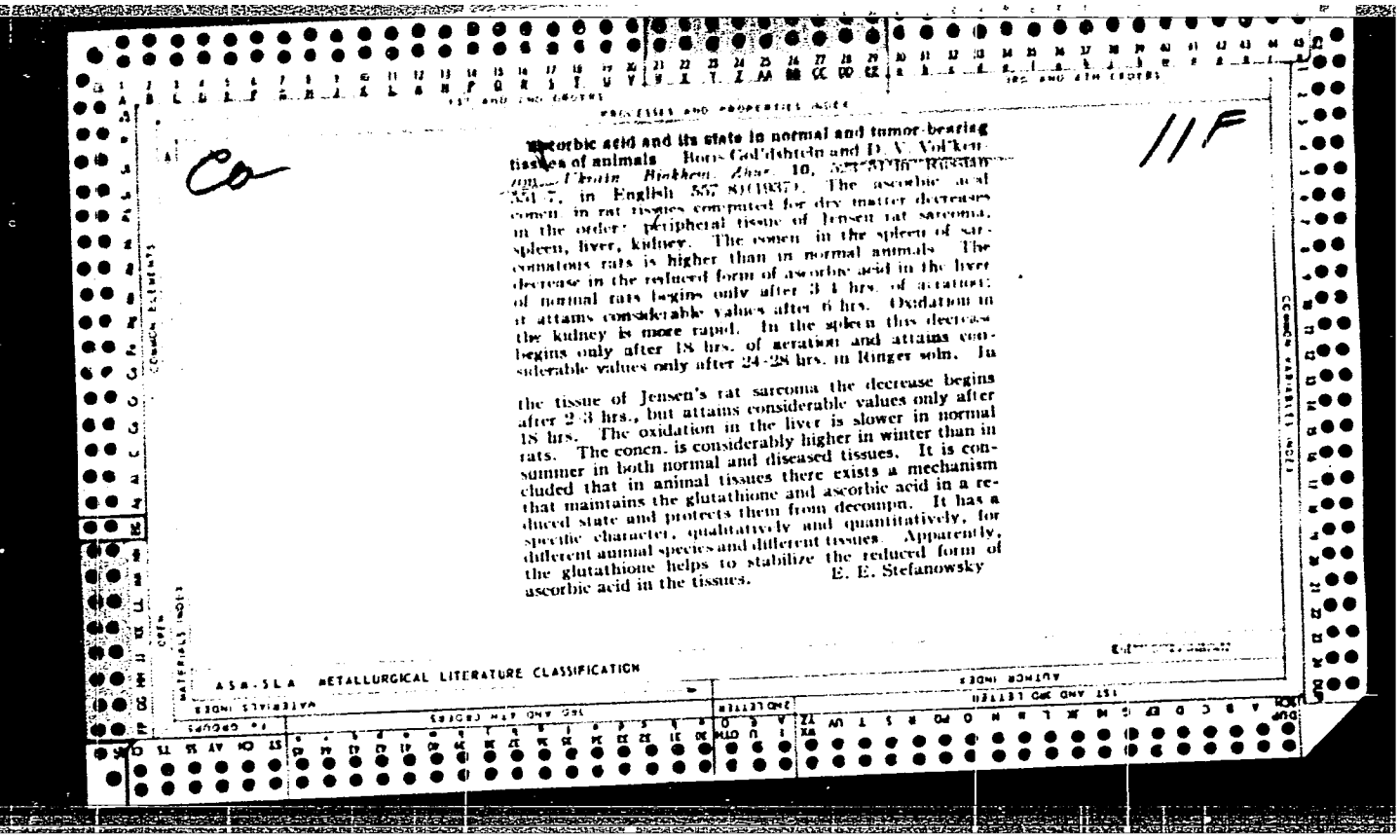
In the public interest. Rech. transp. 22 no.4:43 Ap '63.
(MIRA 16:4)

(Inland water transportation--Technological innovations)

BUNISHKO, A.; VOL'KENSON, G.

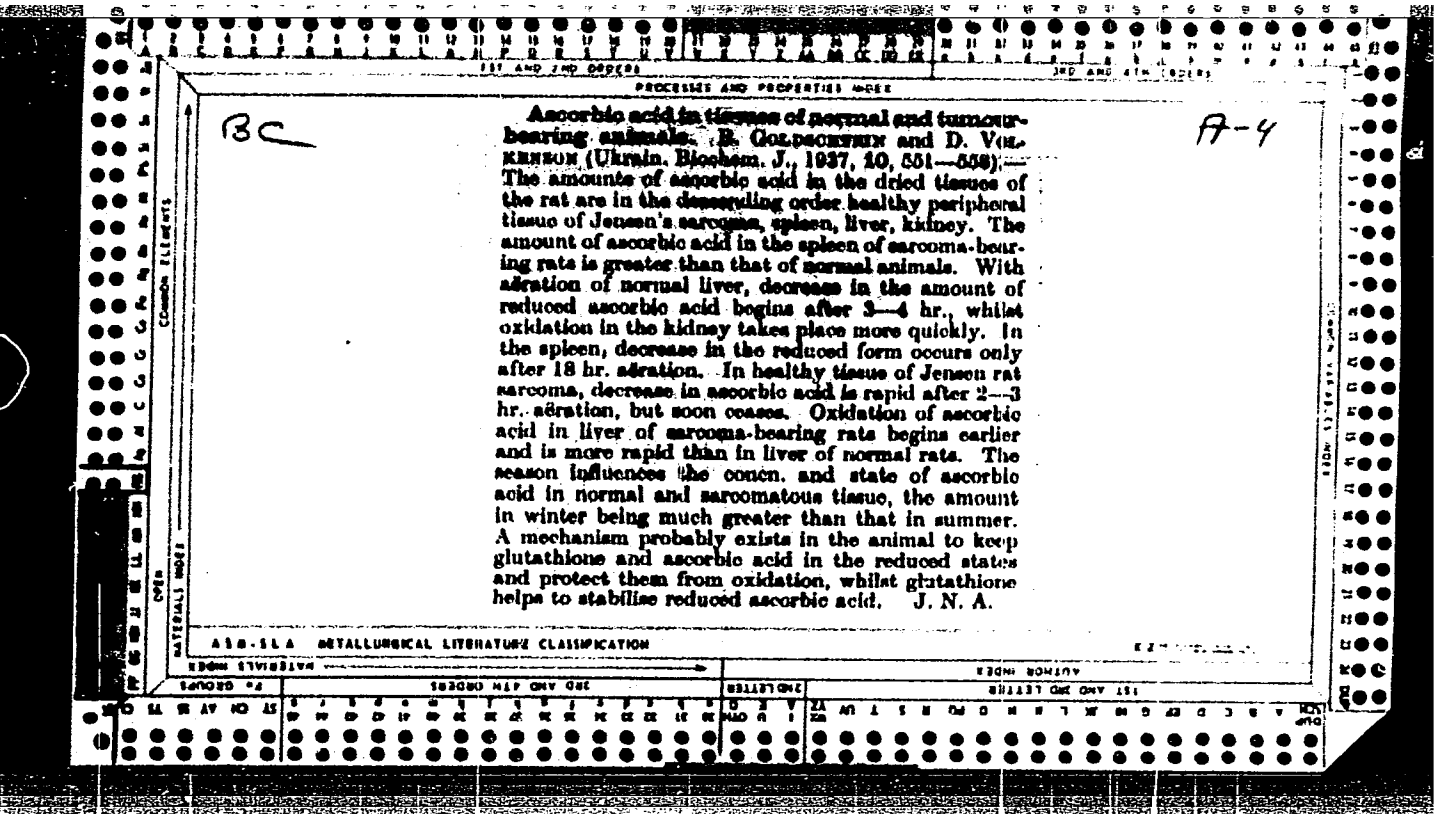
Timber skidding and loading unit. NTO 2 no.3:27 Mr '60.
(MIRA 13:6)

(Lumbering--machinery)



Ascorbic acid and its state in normal and tumor-bearing tissues of animals. Boris Gol'dshtein and D. V. Vol'kenstein. *Ukrain. Biokhem. Zhur.* 10, [illegible] (1937). The ascorbic acid concn. in rat tissues computed for dry matter decreases in the order: peripheral tissue of Jensen rat sarcoma, spleen, liver, kidney. The concn. in the spleen of sarcomatous rats is higher than in normal animals. The decrease in the reduced form of ascorbic acid in the liver of normal rats begins only after 3-4 hrs. of aeration; it attains considerable values after 6 hrs. Oxidation in the kidney is more rapid. In the spleen this decrease begins only after 18 hrs. of aeration and attains considerable values only after 24-28 hrs. in Ringer soln. In the tissue of Jensen's rat sarcoma the decrease begins after 2-3 hrs., but attains considerable values only after 18 hrs. The oxidation in the liver is slower in normal rats. The concn. is considerably higher in winter than in summer in both normal and diseased tissues. It is concluded that in animal tissues there exists a mechanism that maintains the glutathione and ascorbic acid in a reduced state and protects them from decompn. It has a specific character, qualitatively and quantitatively, for different animal species and different tissues. Apparently, the glutathione helps to stabilize the reduced form of ascorbic acid in the tissues.

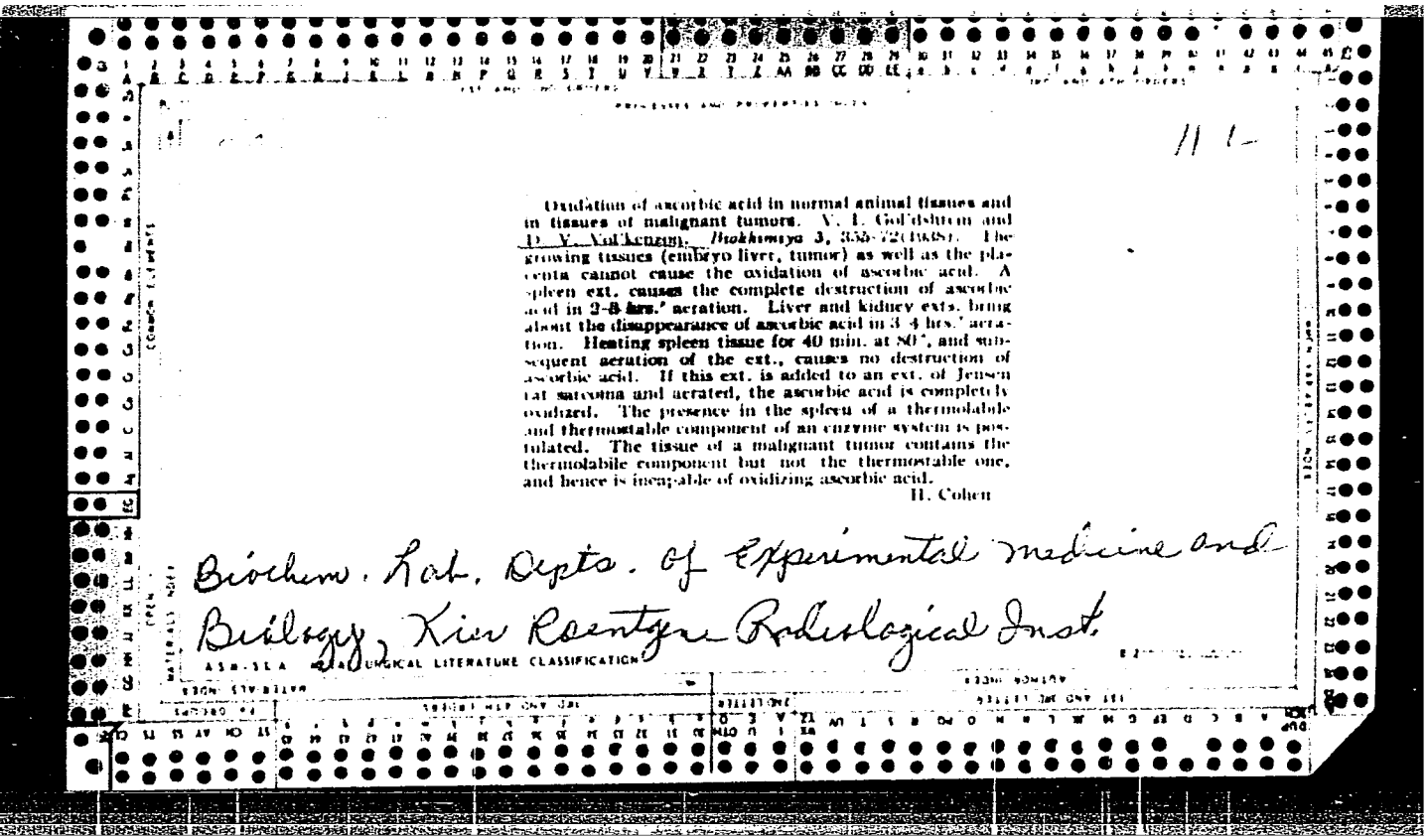
E. E. Stefanowsky



BC

A-4

Ascorbic acid in tissues of normal and tumour-bearing animals. B. Goldschmidt and D. Vishniac (Ukrain. Biochem. J., 1937, 10, 551—558).—The amounts of ascorbic acid in the dried tissues of the rat are in the descending order healthy peripheral tissue of Jensen's sarcoma, spleen, liver, kidney. The amount of ascorbic acid in the spleen of sarcoma-bearing rats is greater than that of normal animals. With aëration of normal liver, decrease in the amount of reduced ascorbic acid begins after 3—4 hr., whilst oxidation in the kidney takes place more quickly. In the spleen, decrease in the reduced form occurs only after 18 hr. aëration. In healthy tissue of Jensen rat sarcoma, decrease in ascorbic acid is rapid after 2—3 hr. aëration, but soon ceases. Oxidation of ascorbic acid in liver of sarcoma-bearing rats begins earlier and is more rapid than in liver of normal rats. The season influences the concn. and state of ascorbic acid in normal and sarcomatous tissue, the amount in winter being much greater than that in summer. A mechanism probably exists in the animal to keep glutathione and ascorbic acid in the reduced states and protect them from oxidation, whilst glutathione helps to stabilise reduced ascorbic acid. J. N. A.



11 1-

Oxidation of ascorbic acid in normal animal tissues and in tissues of malignant tumors. V. I. Gol'dshtein and D. V. Vol'kenzun. *Biokhimiya* 3, 353-72(1938). The growing tissues (embryo liver, tumor) as well as the placenta cannot cause the oxidation of ascorbic acid. A spleen ext. causes the complete destruction of ascorbic acid in 2-8 hrs.' aeration. Liver and kidney exts. bring about the disappearance of ascorbic acid in 3-4 hrs.' aeration. Heating spleen tissue for 40 min. at 80°, and subsequent aeration of the ext., causes no destruction of ascorbic acid. If this ext. is added to an ext. of Jensen rat sarcoma and aerated, the ascorbic acid is completely oxidized. The presence in the spleen of a thermolabile and thermostable component of an enzyme system is postulated. The tissue of a malignant tumor contains the thermolabile component but not the thermostable one, and hence is incapable of oxidizing ascorbic acid.

H. Cohen

Biochem. Lab. Depts. of Experimental Medicine and Biology, Kiev Roentgen Radiological Inst.

ASM-SLA MEDICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

ca

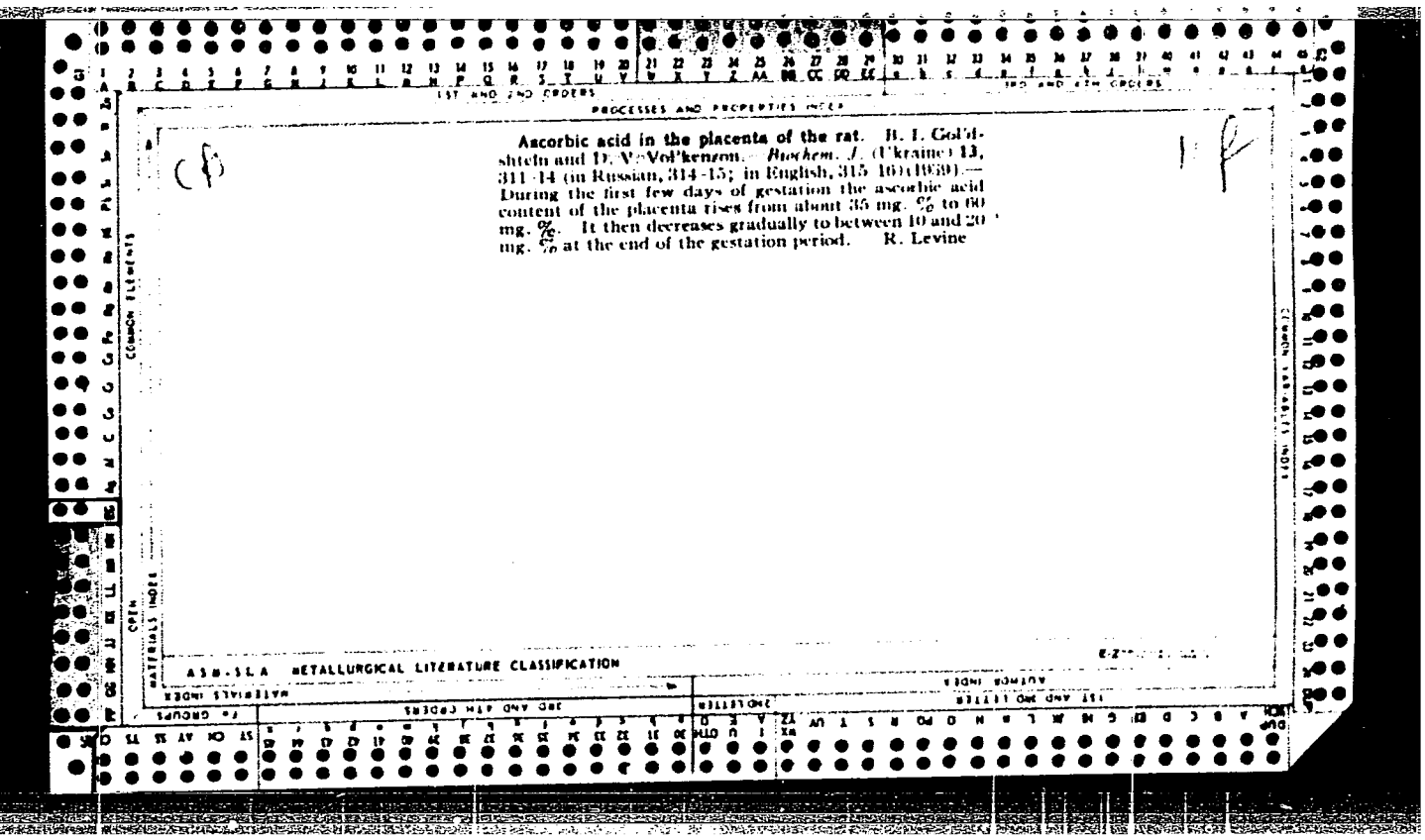
11g

Mechanism of ascorbic acid oxidation in animal tissues
B. I. Gol'dshtein and D. V. Vol'kenzon. *Biokhimiya* 4, 157-69(1939); cf. C. A. 33, 1013⁹.—Ascorbic acid is oxidized in Jensen rat sarcoma (but not in liver, kidney or spleen), during aeration and in the presence of pyrogallol and phenoloxidase. Addn. of H_2O_2 or peroxidase to the tissues of Jensen rat sarcoma and the spleen will cause the oxidation of ascorbic acid. The action will be still more intense if both H_2O_2 and peroxidase are added. Ascorbic acid in liver and kidney tissue is not oxidized by H_2O_2 and peroxidase

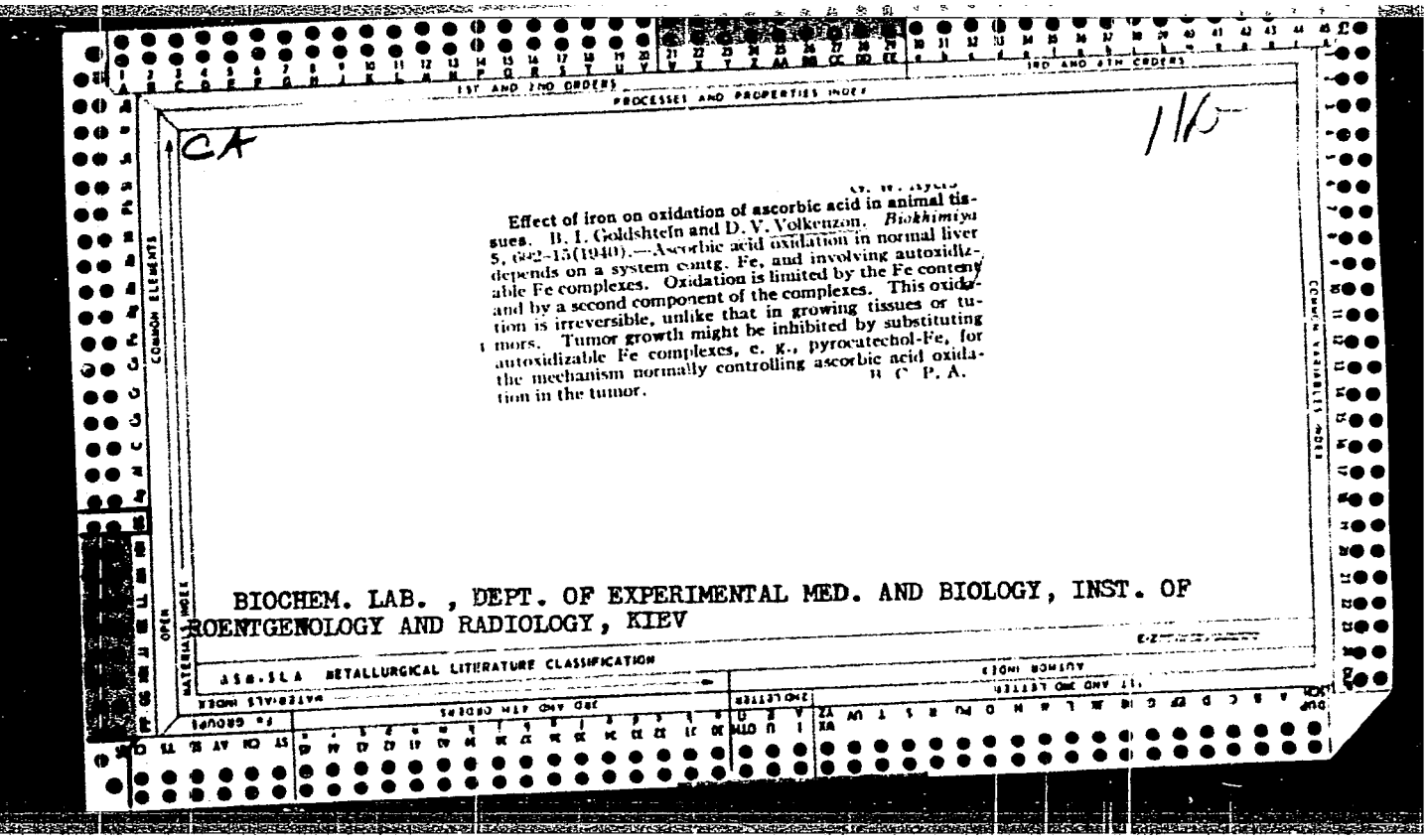
H. Priestley

Biochem. Lab., Dept. of Experimental Biology and Med. Kiev Radiological Inst.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Ascorbic acid in the placenta of the rat. B. I. Gol'dshtein and D. V. Vol'kenzon. *Biochem. J.* (Ukraine) 13, 311–14 (in Russian, 314–15; in English, 315–16) (1939).—During the first few days of gestation the ascorbic acid content of the placenta rises from about 35 mg. % to 60 mg. %. It then decreases gradually to between 10 and 20 mg. % at the end of the gestation period. R. Levine

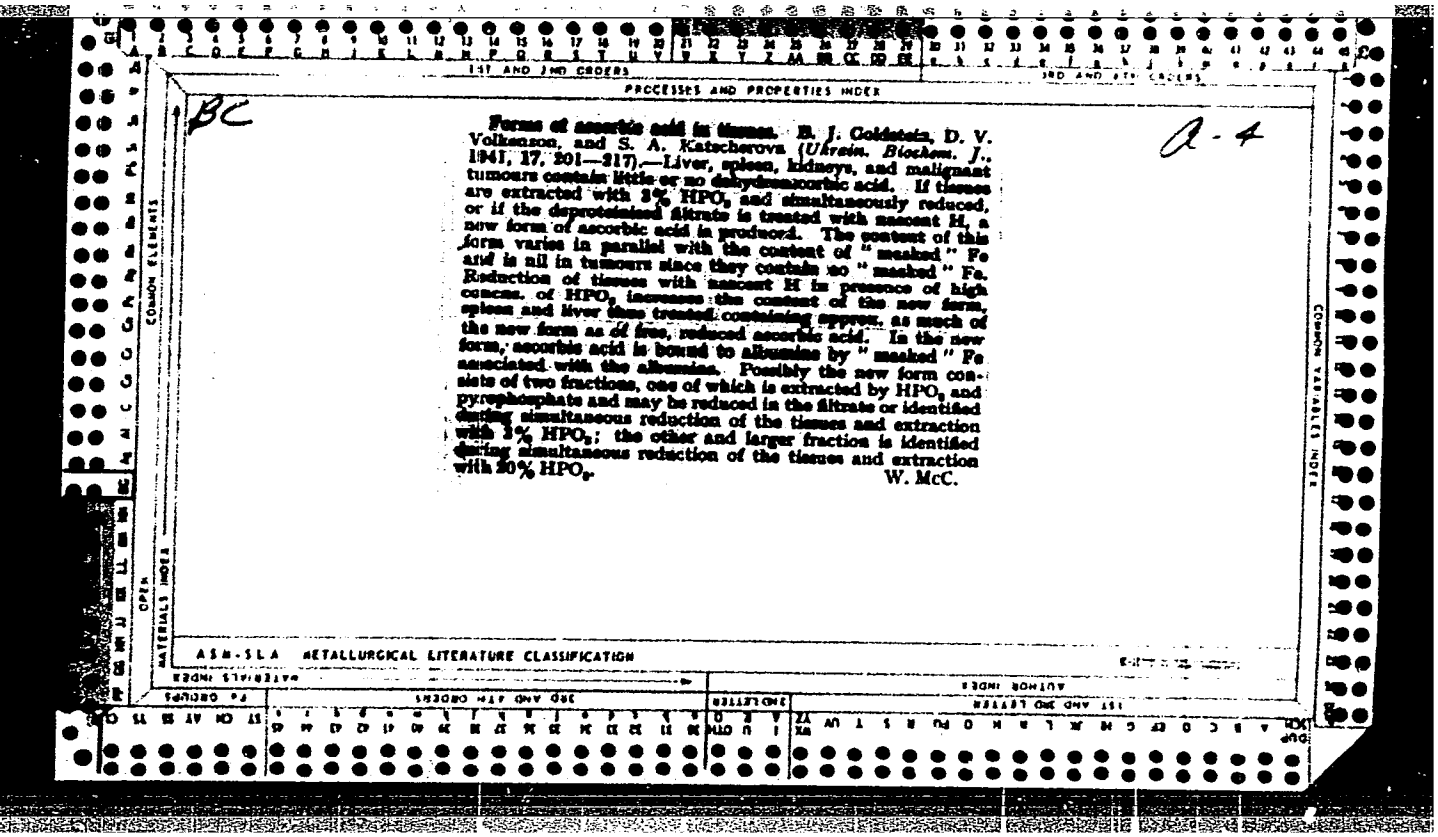


CA

1/10

Effect of iron on oxidation of ascorbic acid in animal tissues. B. I. Goldshtein and D. V. Volkenzon. *Biokhimiya* 5, 662–15(1940).—Ascorbic acid oxidation in normal liver depends on a system contg. Fe, and involving autoxidizable Fe complexes. Oxidation is limited by the Fe content and by a second component of the complexes. This oxidation is irreversible, unlike that in growing tissues or tumors. Tumor growth might be inhibited by substituting autoxidizable Fe complexes, e. g., pyrocatechol-Fe, for the mechanism normally controlling ascorbic acid oxidation in the tumor.
B. C. P. A.

BIOCHEM. LAB. , DEPT. OF EXPERIMENTAL MED. AND BIOLOGY, INST. OF ROENTGENOLOGY AND RADIOLOGY, KIEV



PROCESSES AND PROPERTIES INDEX

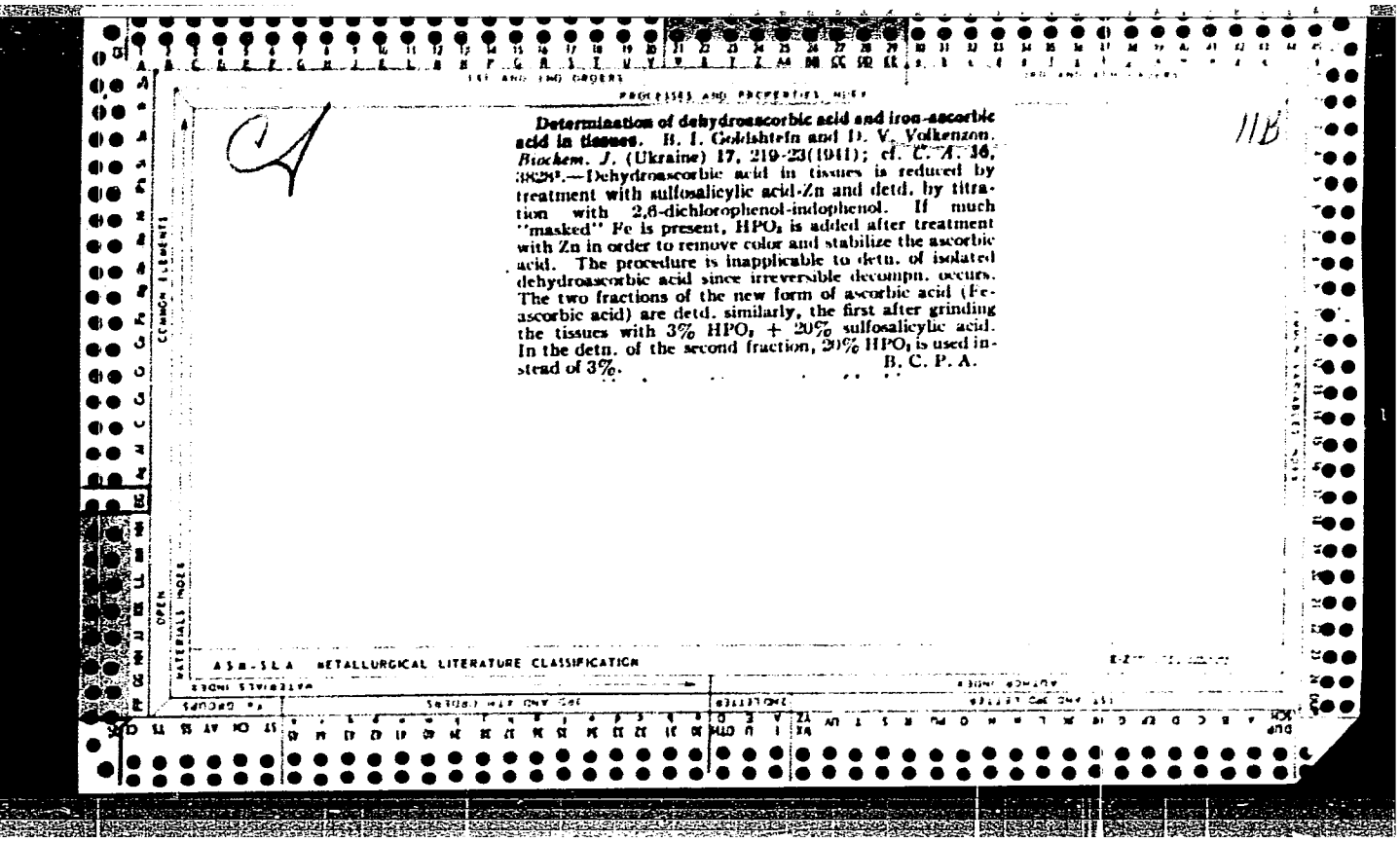
BC

A-4

Forms of ascorbic acid in tissues. B. J. Goldstein, D. V. Volkenzon, and S. A. Katscherova (*Ukrain. Biochem. J.*, 1941, 17, 201—217).—Liver, spleen, kidneys, and malignant tumours contain little or no dehydroascorbic acid. If tissues are extracted with 3% HPO_3 and simultaneously reduced, or if the deproteinised filtrate is treated with nascent H, a new form of ascorbic acid is produced. The content of this form varies in parallel with the content of "masked" Fe and is nil in tumours since they contain no "masked" Fe. Reduction of tissues with nascent H in presence of high concns. of HPO_3 increases the content of the new form, spleen and liver thus treated containing approx. as much of the new form as of free, reduced ascorbic acid. In the new form, ascorbic acid is bound to albumins by "masked" Fe associated with the albumins. Possibly the new form consists of two fractions, one of which is extracted by HPO_3 and pyrophosphate and may be reduced in the filtrate or identified during simultaneous reduction of the tissues and extraction with 3% HPO_3; the other and larger fraction is identified during simultaneous reduction of the tissues and extraction with 20% HPO_3.

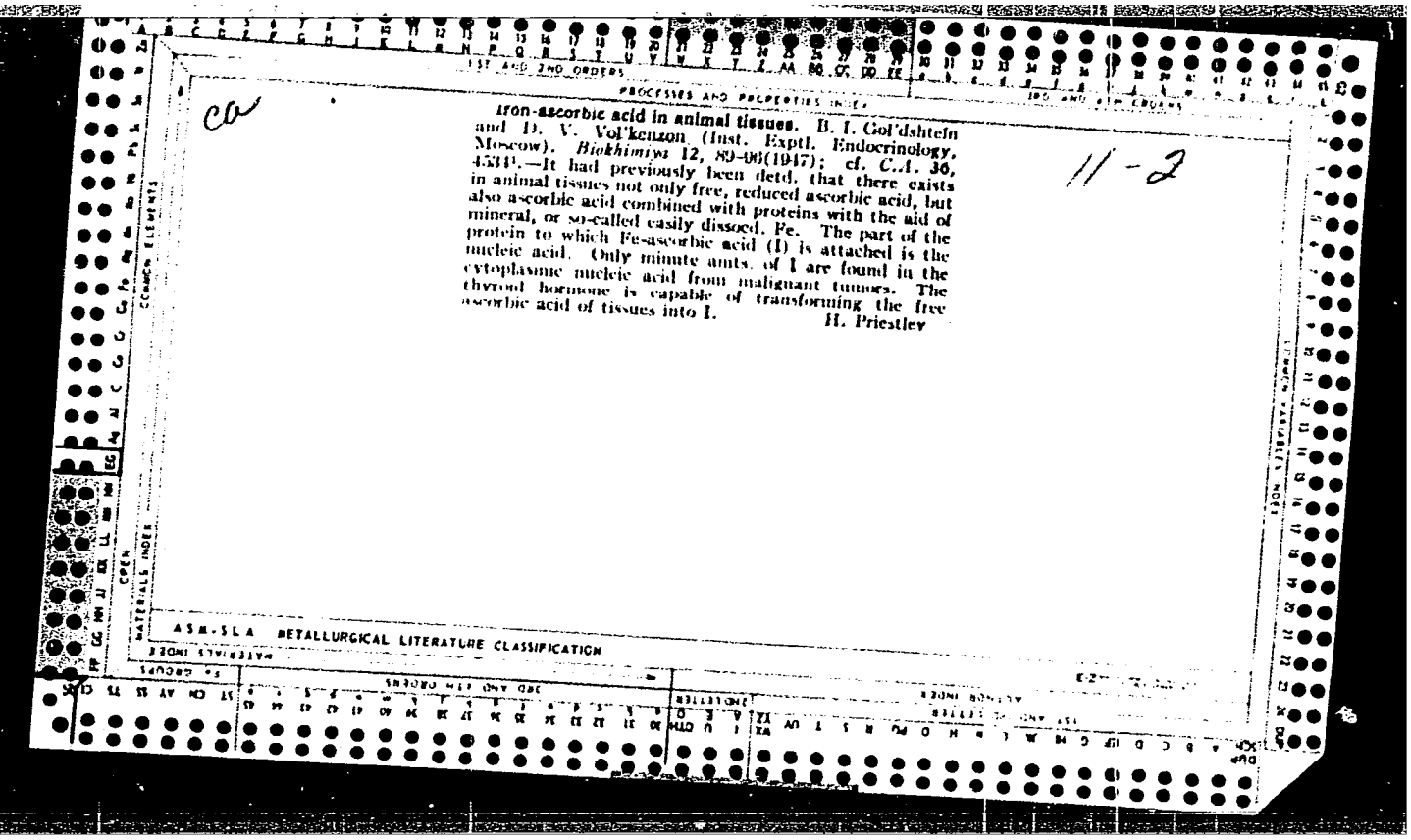
W. McC.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



Determination of dehydroascorbic acid and iron-ascorbic acid in tissues. B. I. Goldshtein and D. V. Volkenzon. *Biochem. J.* (Ukraine) 17, 219-23(1941); cf. *C. A.* 36, 3828⁸.—Dehydroascorbic acid in tissues is reduced by treatment with sulfosalicylic acid-Zn and detd. by titration with 2,6-dichlorophenol-indophenol. If much "masked" Fe is present, HPO_3 is added after treatment with Zn in order to remove color and stabilize the ascorbic acid. The procedure is inapplicable to detn. of isolated dehydroascorbic acid since irreversible decompn. occurs. The two fractions of the new form of ascorbic acid (Fe-ascorbic acid) are detd. similarly, the first after grinding the tissues with 3% HPO_3 + 20% sulfosalicylic acid. In the detn. of the second fraction, 20% HPO_3 is used instead of 3%.

B. C. P. A.



Co

Iron-ascorbic acid in animal tissues. B. I. Gol'dshtein and D. V. Vol'kenzon (Inst. Exptl. Endocrinology, Moscow). *Biokhimiya* 12, 89-93(1947); cf. *C.A.* 36, 4533⁹.—It had previously been detd. that there exists in animal tissues not only free, reduced ascorbic acid, but also ascorbic acid combined with proteins with the aid of mineral, or so-called easily dissocd. Fe. The part of the protein to which Fe-ascorbic acid (I) is attached is the nucleic acid. Only minute amts. of I are found in the cytoplasmic nucleic acid from malignant tumors. The thyroid hormone is capable of transforming the free ascorbic acid of tissues into I.
H. Priestley

11-2

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

CA

11E

The mechanism of the action of vitamin C. B. I. Gol'dshtein, D. V. Vol'kenzon, L. G. Kondrat'eva, and N. D. Ul'yanova (Inst. Exptl. Endocrinology, Moscow). *Biokhimiya* 15, 173-7(1950); cf. *C.A.* 41, 5195*d*.—The chief function of ascorbic acid is to participate in the formation of desoxyribonucleic acid in the nuclei. It regulates the phys.-chem. properties of the nuclei (as the viscosity) and other important biol. functions (as fission). These conclusions are based on the following exptl. results: Nuclei were sepd. from the liver of guinea pigs by the method of Dounce (*C.A.* 37, 3146⁶) at a pH of 4. The nuclei were dissolved in a 0.5% soln. of Na_2CO_3 (0.7 g. 200 ml.). The relative viscosity was detd. at 15° in an Ostwald viscometer. The soln. of the nuclei was hydrolyzed by heating for 2 hrs. at 50-55°. In the hydrolyzate ribose, desoxyribose, and P were detd. One group of guinea pigs received the ordinary lab. ration. Another group received the same ration which had previously been autoclaved. Finally, a third group was completely starved and received only water and ascorbic acid. The most characteristic feature about C-avitaminosis was the sharp drop in the viscosity of the nuclei dissolved in Na_2CO_3, which amounted to about 10% of normal. Ribose increased, and desoxyribose decreased in the soln. of the nuclei of the avitaminous animals. Ribonucleic, instead of desoxyribonucleic, acid had been formed. This also accounted for the change in viscosity. (The mol. wt. of desoxyribonucleic acid is about 50 times as great as that of ribonucleic acid.) No such changes were observed in the starved animals. In exptl. hyperthyroidism, the decrease in ascorbic acid was accompanied by a decrease in the viscosity of the liver nuclei of guinea pigs. On feeding the exptl. animals ascorbic acid and thyroidin, the decrease in viscosity disappeared.

H. Priestley

CA

11B

Determination of iron-ascorbic acid in tissues of the animal organism. B. I. Gol'dshtein, D. V. Vol'kenzon, and S. A. Kacherova (Endocrinological Inst., Moscow). *Biokhimiya* **15**, 414-18(1950); cf. *C.A.* **41**, 5195*d*. — Further evidence is given to support the view that animal tissues contain Fe-ascorbic acid bound with nucleic acids. Although Fe can be titrated under certain conditions by 2,6-dichlorophenolindophenol, the amt. must be much greater than the Fe found in tissues. When the ascorbic acid is titrated in the presence of 40% H_3PO_4, instead of HPO_3, the Fe is not titrated by the indicator. Fe-ascorbic acid is detd. by triturating in a mortar 0.1 g. tissue with 1 ml. distd. water, and 0.4 ml. 20% sulfosalicylic acid in 1 ml. 40% H_3PO_4. The material is quantitatively transferred to a wide test tube, the mortar is washed with 1 ml. 3% sulfosalicylic acid, and 0.02 g. Zn dust is added. The tube is warmed for 30 min. at 52.6°. The contents are filtered, washed twice with 1 ml. sulfosalicylic acid, and titrated with 2,6-dichlorophenolindophenol. The same procedure, but without the Zn dust, is used for detg. free ascorbic acid in the tissue. The difference represents the Fe-ascorbic acid. An increase of both free and Fe-ascorbic acids was found in the tissues of guinea pigs that had been fed daily 25 mg. cryst. ascorbic acid for 35-45 days. It has been shown polarographically that ascorbic acid is liberated when nucleic acid is treated with Zn dust in the presence of HPO_3. The presence of ascorbic acid (in the nucleic acid from rabbit liver) was confirmed by the isolation of the 2,4-dinitrophenylhydrazone.

H. Priestley

VOLKE, Jiri; VOLKOVA, Vera

Polarographic behavior of alkaloids. Cesk. farm. 3 no.8:289-292 Oct 54.

1. Z Polarografickeho ustavu Cs. akademie ved, Praha
(ALKALOIDS, determination
polarography)
(POLAROGRAPHY
alkaloids)

VOLKE, Jiri; VOLKOVA, Vera

Polarographic determination of N-allyl-normorphine. Cesk. farm. 4 no.1:20-21 Jan 55.

1. Z Polarografickeho ustavu CSAV, Praha.

(MORPHINE, derivatives,
N-allyl-normorphine, polarographic determ.)
(POLAROGRAPHY,
of N-allyl-normorphine)

BUNISHKO, A.; VOL'KENSON, G.

On the steamboat "Chekhov." NTO no.11:29 N '59.
(MIRA 13:4)

(Steamboats)

Mining, Drilling

BCS

1

432. Vacuum presses for fine ceramics.—H. Völker (*Keram. Z.*, 2, 125, 1950). The development of the de-airing press is reviewed; various difficulties of de-airing are discussed and some practical hints are given.

KEIL, G.; VOLKER, H.J. (Krumpa); ECKHARDT, H. (Freiberg)

Pour point depressants in transformer oils. Ropa a uhlie 6 no.10: 291-296 O '64.

VOLKER, O.

Homage to Doctor F.K.Studnicka. Lek.listy 5 no.22:671-672 15 Nov 50. (CIML 20:5)

VOLKERT, E.

Principles of forestry survey reporting in Rhineland. E. Volkert (*Z. PflErnähr. Düng.*, 1953, 61, 204—211).—A review. The importance of rainfall and retention of soil moisture are stressed.
P. S. ARUP.

S/080/60/033/009/017/021
A003/A001

AUTHORS: Zolotavin, V.L., Vol'khim, V.V.

TITLE: On the Effect of the Cooling Rate on the Properties of Hydrated Metal Oxides During Their Freezing

PERIODICAL: Zhurnal prikladnoy khimii, 1960, Vol. 33, No. 9, pp. 2141-2143

TEXT: The freezing of hydrated metal oxides leads to the formation of coarsely-grained precipitates with small volume and good filtering properties (Refs. 1-4). It was shown earlier (Refs. 5-7) that the cooling rate in this process plays a role only at deep temperatures. The authors found, however, that this effect can be observed already at -15°C if dissolved substances are present. The investigation of a coagulum of iron hydroxide showed that cooling in a liquid with intensive heat exchange yields a precipitate of larger volume than under conditions of less intensive heat exchange. A coagulum of manganese dioxide was studied in the presence of urea. The solidification of the liquid in the coagulum reduces the volume of the precipitate because the dehydration of the oxide particles is promoted and compressing forces arise. The best effect is obtained by cooling to a temperature below the eutectic point and with a

Card 1/2

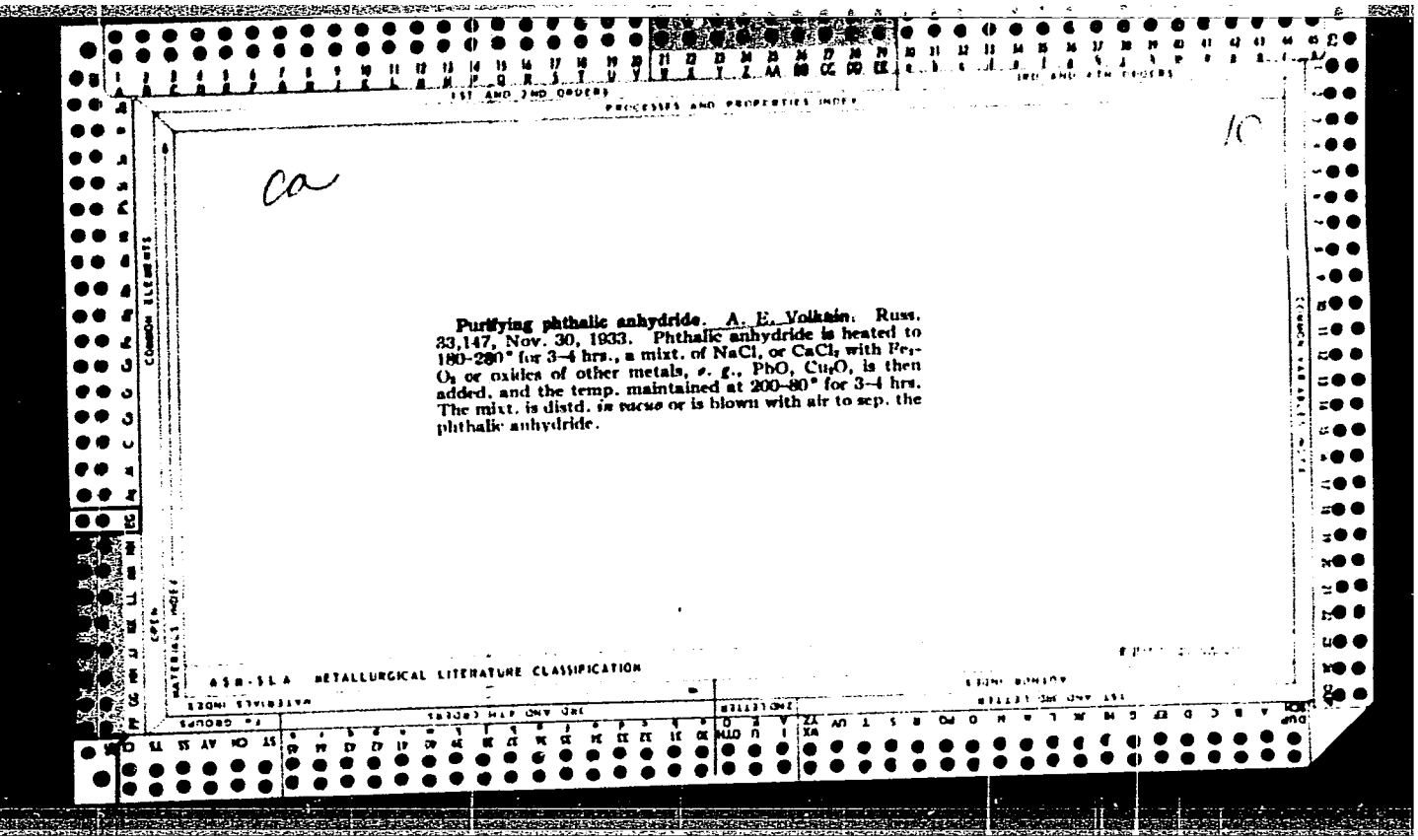
S/080/60/033/009/017/021
A003/A001

On the Effect of the Cooling Rate on the Properties of Hydrated Metal Oxides During Their Freezing

cooling rate as slow as possible. In the absence of dissolved substances the effect of the cooling rate is observed only at very low temperatures. There are 2 figures and 8 references: 3 Soviet, 2 German, 2 French, 2 English.

SUBMITTED: February 15, 1960

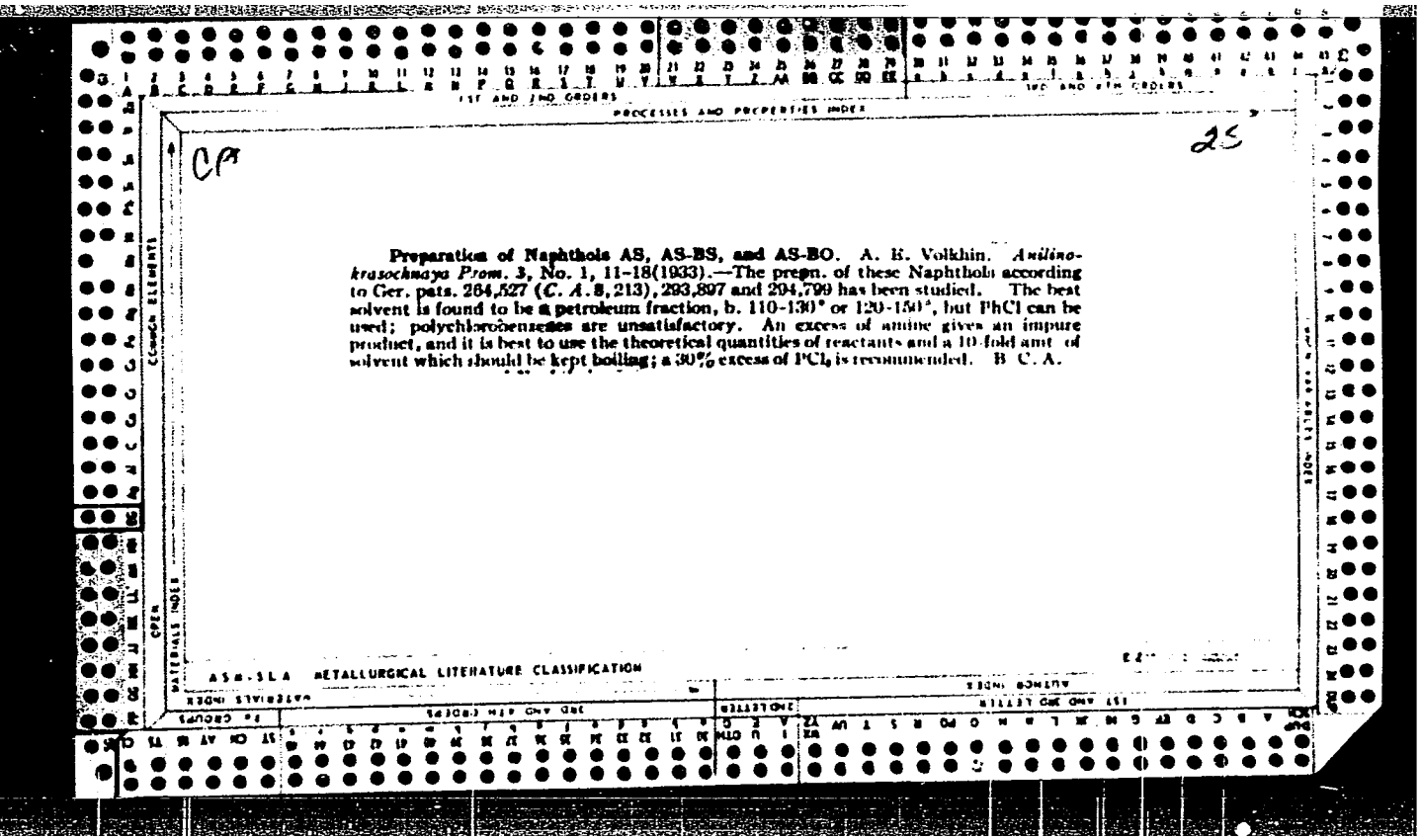
Card 2/2



Ca

10

Purifying phthalic anhydride. A. E. Volkain. Russ. 33,147, Nov. 30, 1933. Phthalic anhydride is heated to 180–280° for 3–4 hrs., a mixt. of NaCl, or $CaCl_2$ with Fe_2O_3 or oxides of other metals, *e. g.*, PbO, Cu_2O, is then added, and the temp. maintained at 200–80° for 3–4 hrs. The mixt. is distd. *in vacuo* or is blown with air to sep. the phthalic anhydride.



CP

25

Preparation of Naphthols AS, AS-BS, and AS-BO. A. E. Volkhin. *Anilino-krasochnaya Prom.* 3, No. 1, 11–18(1933).—The prepn. of these Naphthols according to Ger. pats. 264,527 (*C. A.* 8, 213), 293,897 and 294,799 has been studied. The best solvent is found to be a petroleum fraction, b. 110–130° or 120–150°, but PhCl can be used; polychlorobenzenes are unsatisfactory. An excess of aniline gives an impure product, and it is best to use the theoretical quantities of reactants and a 10-fold amt. of solvent which should be kept boiling; a 30% excess of PCl_5 is recommended. B. C. A.

L 23571-66 EWT(d)/EWP(c)/T/EWP(v)/EWP(k)/EWP(h)/EWP(l)

ACC NR: AP6002600 (A) SOURCE CODE: UR/0286/65/000/023/0095/0095

AUTHORS: Selishchev, Ye. M.; Pashteyn-Sitnikov, N. V.; Volkernyuk, V. V. 35 B

ORG: none

TITLE: Distributive conveyer for automated lines. 14 Class 81, No. 176825 /announced by Special Construction and Technological Bureau for Design of Metal-Cutting Tools and Equipment (Spetsial'noye konstruktorskoye i tekhnologicheskoye byuro proyektirovaniya metallorezhushchego instrumenta i oborudovaniya)/

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 95

TOPIC TAGS: conveying equipment, automation equipment

ABSTRACT: This Author Certificate presents a distributive conveyer for automated lines. Endless closed chains are mounted in the frame of the conveyer and are engaged with drive and tension sprocket wheels. To simplify the design and to increase the operation reliability with various technological handling processes, one of the chains carries pin-shaped push-rods on its outer edge (see Fig. 1). A chute with distributive ports for outlet branches is mounted under the push-rods in the frame of the conveyer. The ports are closed by double-armed spring-loaded

Card 1/3 UDC: 621.867.15

L 23571-66
ACC NR: AP6002600

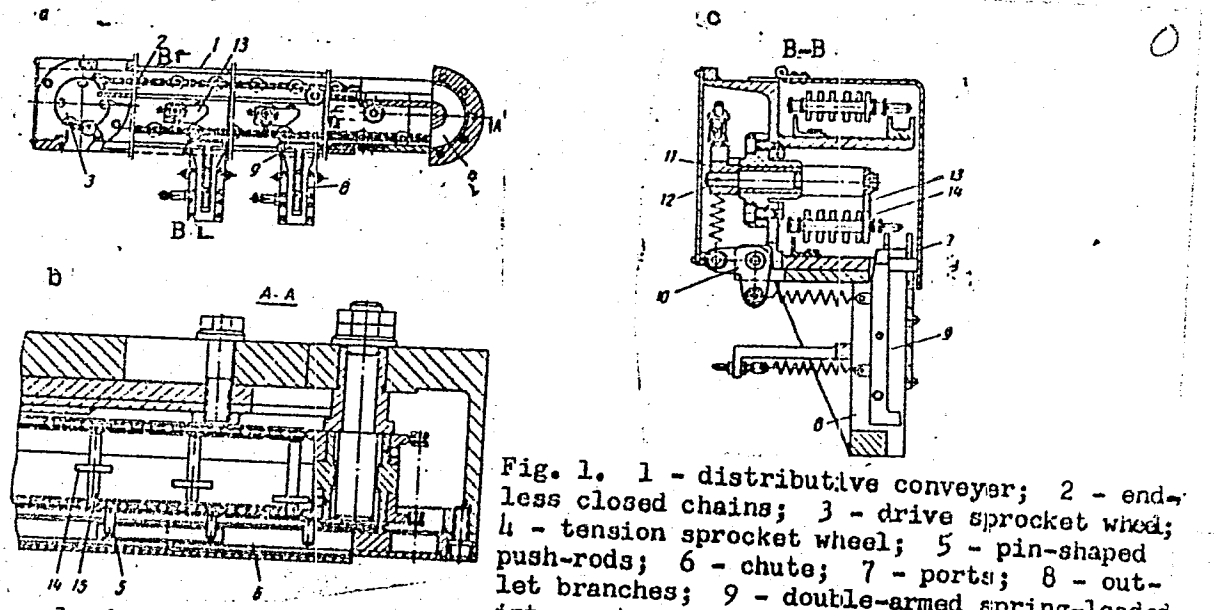


Fig. 1. 1 - distributive conveyer; 2 - endless closed chains; 3 - drive sprocket wheel; 4 - tension sprocket wheel; 5 - pin-shaped push-rods; 6 - chute; 7 - ports; 8 - outlet branches; 9 - double-armed spring-loaded interceptors; 10 - double-armed spring-loaded lever; 11 - lever; 12 - axle; 13 - pawl; 14 - roller; 15 - axle.

Card 2/3

L 23571-66
ACC NR: AP6002600

interceptors which are linked through a system of spring-loaded levers to pawl axles fastened to the frame. During operation of the conveyer the pawls interact with rollers placed on axles mounted between the chains in front of the corresponding push-rods. Orig. art. has: 1 diagram.

SUB CODE: 13/ SUBM DATE: 06Apr64

Card 3/3 PB

VOL'KHIN, B.A.

Determining the maximum width of chambers in northern Ural bauxite mines. Trudy Inst. gor. dela UFAN SSSR no.5:41-47 '63.
(MIRA 16:9)
(Ural Mountain region—Mining engineering)

VOL'KHIN, B.A.; PANTELEYEV, M.G.

Occurrence of rock pressure in experimental use of a system with a flexible metal ceiling in northern Ural bauxite mines. Trudy Inst. gor. dela UFAN SSSR no.5:13-20 '63. (MIRA 16:9)
(Ural Mountain region--Rock pressure) (Mine timbering)

VOL'KHIN, B.A., gornyy inzh.

Investigating rock faulting in Northern Ural bauxite mines. Gor. zhur. no.10:69-72 O '60. (MIRA 13:9)

1. Unipromed', Sverdlovsk. (Ural Mountains--Bauxite) (Faults (Geology))

TURINTSEV, Yu.I., kand. tekhn. nauk; VOL'KHIN, B.A., gornyy inzh.; KRUSHATIN, R.F., gornyy inzh.; TURINTSEVA, V.G., gornyy inzh.

Displacement of rocks and of the ground surface during mining operations at great depths of the Northern Karabash Deposit. (MIRA 17:10)
Gor zhur. no.7:54-57 Jl '64.

1. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut mednoy promyshlennosti, Sverdlovsk.

VOL'KHIN, B.A., gornyy insh.

Features of rock pressure manifestations in a topsliding system.
Gor. zhur. no.4:35-37 Ap '62. (MIRA 15:4)

1. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut mednoy promyshlennosti.
(Ural Mountains--Bauxite) (Rock pressure)

VOL'KHIN, B.A.; PANTELEYEV, M.G.

Manifestation of rock pressure in testing the system of mining with a flexible shield of metal strip at the northern Urals bauxite mine. Vop. gor. davl. no.18:63-69 '63. (MIRA 18:7)

1. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut mednoy promyshlennosti.

VOL'KHIN, B.A., gornyy inzh.; RODCHENKO, Yu.N., gornyy inzh.

Characteristics of the roof structure at the Northern Ural Bauxite Mine and its stability in conditions of exposure. Gor. zhur. no.11:27-30 N '64. (MIRA 18:2)

1. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut mednoy promyshlennosti, Sverdlovsk (for Vol'khin). 2. Severoural'skaya kompleksnaya geologorazvedochnaya ekspeditsiya (for Rodchenko).

VOL'KHIN, B.A.; MOKHOV, A.I.; SUKHORUKOV, V.G.

New device for measuring the displacement of rocks in mine workings. Gor. zhur. no.6:71-72 Je '64. (MIRA 17:11)

1. Ural'skiy nauchno-issledovatel'skiy i proyektnyy institut mednoy promyshlennosti, Sverdlovsk.

14(1) SOV/66-59-5-15/35

AUTHORS: Vol'khin, V., Engineer, Zolotavin, V., Doctor of Technical Sciences

TITLE: Refrigeration Air Thermostat

PERIODICAL: Kholodil'naya tekhnika, 1959, Nr 5, pp 54-55 (USSR)

ABSTRACT: The article describes the design and functioning of a refrigeration air thermostat capable of keeping a steady temperature of -20°C maintained by a toluene thermoregulator working with an accuracy of ±0.1°C. The apparatus consists of a ribbed serpentine evaporator contained in an insulated box; it is equipped with a fan driven by an outside motor; guide plates fixed to the ribs of the evaporator distribute the air evenly. For the construction of the thermostat Freon compressor BR-RKF-0,9 is made use of. The thermostat is intended for use in laboratories, to investigate chemical processes, for which it is important to maintain constant temperature over a certain period of time. The thermostat is also suitable for purification of water.
There are 2 diagrams and 1 reference.

Card 1/1

S/080/63/036/001/021/026
D204/D307

AUTHORS: Volkhin, V.V., Koblova, A.A. and Ponomarev, Ye. I.

TITLE: Precipitation of rhodium hydroxide from very dilute solutions by freezing

PERIODICAL: Zhurnal prikladnoy khimii, v. 36, no. 1, 1963, 212 - 214

TEXT: The present work was aimed at the precipitation of Rh hydroxide from colloidal solutions (10^{-4} -10^{-5} moles Rh per 1), since after dissolving it in H_2SO_4 of correct concentration a solution is obtained which is suitable for galvanic Rh plating. Rh sulfate solutions (0.1200 g/l) were diluted to the required concentration, the pH was adjusted to 7-9, and 20 ml samples were taken. One half was then frozen to -2 — -5°C, whilst the other half was allowed to stand for 12 hrs. The frozen samples were thawed out and were left for 5-6 hrs. It was found that freezing led to 90-97 % precipitation (particularly or 1 x 10^{-4} - 5 x 10^{-5}

Card 1/2

moles Rh/1), i.e. 10-15 times greater than in solutions allowed to stand at room temperatures. The effect of freezing was less pronounced for Rh concentrations below 5 x 10^{-5} moles /l, but was practically unaffected by the presence of Na_2SO_4 or K_2SO_4 (up to 0.1 moles/l). The resulting precipitate was relatively coarse and settled readily. The process is recommended for the removal of traces of Rh from spent electrolytes during regeneration. There is 1 table.

SUBMITTED: December 1, 1961

ZOLOTAVIN, V.L.; VOL'KHIN, V.V.; REZVUSHKIN, V.V.

Effect of freezing on the properties of metallic hydroxide coagulates. Part 1: Effect of freezing and thawing on the properties of iron hydroxide gel. Koll.zhur. 22 no.3:305-313 My-Je '60. (MIRA 13:7)

1. Ural'skiy politekhnicheskiy institut im. S.M.Kirova, Sverdlovsk.

(Iron hydroxide)

ZOLOTAVIN, V.L.; VOL'KHIN, V.V.

Effect of the rate of cooling on the properties of hydrated metal oxides during their freezing. Zhur. prikl. khim. 33 no.9:2141-2143 S '60.
(Metallic oxides—Thermal properties)

33186

S/186/61/003/006/005/010
E051/E135

21.4200

AUTHORS: Vol'khin, V.V., and Zolotavin, V.L.

TITLE: The use of freezing for the separation of radioactive isotopes from solution

PERIODICAL: Radiokhimiya, v.3, no.6, 1961, 719-723

TEXT: In order to obtain radioactive isotope preparations with a high specific activity, it is necessary to use as little isotopic carrier as possible in the separation. When certain elements are precipitated from solution as hydroxides in the presence of only small amounts of carrier, colloidal solutions are formed and only low yields of precipitate can be recovered, even with centrifuging. If the colloidal solutions are frozen and after a time thawed, coagulation of the colloidal particles takes place and much higher yields of precipitated hydroxide can be obtained. To test the effect of freezing on radiocolloidal hydroxides, solution of chromium nitrate (10^{-5} and 10^{-6} M), ferric chloride (10^{-5} M) and niobium and zirconium sulphate (10^{-5}, 10^{-6} and 10^{-11} M), containing respectively

Card 1/3

The use of freezing for the ...

^{51}Cr, ^{59}Fe, ^{95}Nb and ^{95}Zr at a specific activity of ~10 curies/ℓ were made up. The solutions were slowly cooled to -1, -5 or -10 °C, after being brought to pH 6.5-7.0 with alkali. The solutions were kept at these temperatures for eight hours, then allowed to thaw and stand at room temperature for another twelve hours. Similar solutions were allowed to stand at room temperature for the whole twenty hours to act as comparisons. 1 mℓ aliquots of the supernatent liquid from each trial were evaporated to dryness under infrared lamps and their radioactivity compared with standard sources prepared from the original solutions. The activity remaining in solution amounted to 2.7% of the total added at 10^{-5} M concentrations of all four elements for solutions cooled to -5 °C. At 10^{-6} M, 15-35% of the activity remained in solution and at 10^{-11} M, 30-45%. Solutions frozen to -1 and -10 °C gave slightly worse results, but in solutions which had been kept at room temperature some 60% of the activity remained unprecipitated. The yield of precipitate was thus improved 10-20-fold at 10^{-5} M, 3-5-fold at 10^{-6} M and 2-2.5-fold at 10^{-11} M concentration. Moderate concentrations (0.1 M) of

Card 2/3

The use of freezing for the ...

neutral salts had only a slight effect on the yield of precipitate. Still higher yields of precipitated hydroxides could be obtained by centrifuging the solutions after they had been subjected to the freezing process.
I.Ye. Starik, V.M. Vdovenko, L.N. Lazarev and Ya.S. Khvorostin are mentioned in the article.
There are 4 tables and 10 references: 8 Soviet-bloc and 2 non-Soviet-bloc.

SUBMITTED: May 24, 1960

Card 3/3

VOL'KHIN, V.V.; ZOLOTAVIN, V.L.; TIPIKIN, S.A.

Effect of freezing on the properties of metal hydroxide coagulates. Part 4: Manganese dioxide coagulate [with summary in English]. Koll.zhur. 23 no.4:404-407 Jl-Ag '61. (MIRA 14:8)

1. Ural'skiy politekhnicheskiy institut im. S.M. Kirova, Sverdlovsk.
(Manganese oxide) (Particle size determination)

24002
S/080/61/034/006/004/020
D247/D305

21,3200
11,1325

AUTHORS: Vol'khim, V.V., and Zolotavin, V.L.

TITLE: The effect of freezing on the sorption properties of ferric hydroxide and manganese dioxide

PERIODICAL: Zhurnal prikladnoy khimii, v. 34, no. 6, 1961, 1218 - 1225

TEXT: Use of coagulated metal hydroxides in separating radioactive isotopes has produced many difficulties which are attributed to the form in which such compounds are obtained. They are bulky, gelatinous, contain up to 99 % moisture and are difficult to filter. Before recommending freezing as a method for easier separation of such hydroxides, it was necessary to investigate the effect of freezing on the degree of separation of ^{45}Ca, ^{89}Sr, ^{95}Zr, $^{95}-Nb$ and ^{144}Ce isotopes from solutions by sorption with ferric hydroxide and ~~magnesium~~ dioxide. Freezing of coagulated ferric hydroxide

Card 1/4

The effect of freezing ...

obtained after purification of the radioactive effluent was first carried out by S.A. Voznesenskiy, G.A. Sereda, P.F. Dolgikh and L.I. Baskov (Ref. 13: Doklady sovetskikh uchenykh na vtoroy mezhdunarodnoy konferentsii po mirnomu ispol'zovaniyu atomnoy energii (Russian Contributions at the Second International Conference on the Peaceful Uses of Atomic Energy), 4, 189-194, M. 1959). The experiments consisted of ascertaining the effects of freezing on the distribution of the radioactive isotopes between the solvent and the coagulated solids and determining the sorption capacity of the two compounds. A series of tests was carried out to determine the sorption of radioactive isotopes by $Fe(OH)_3$ and MnO_2 in alkaline and acid solutions, both before and after freezing. The resulting pH - sorption curves were found to coincide which showed that freezing did not cause desorption of cations. The solutions used in these experiments all contained coagulating agents and the sorbents were in a fully coagulated form. Behavior of colloidal solutions was also studied using microquantities of ^{89}Sr. It was shown that in both alkaline and acid media freezing tends to suppress pepti-

Card 2/4

The effect of freezing ...

zation, the strongest effect occurring at pH exceeding 6 - 7. Further experiments involved investigations of the so-called "additional sorption" of isotopes during freezing, which took place in both acid and alkaline solutions. This occurred as a result of concentration of the sorbent and isotopes among the ice crystals of the frozen out solvent. Since the particles of $Fe(OH)_3$ and MnO_2 conglomerate on freezing, small amounts of radioactive isotopes were trapped within and remained occluded after thawing. The ease with which such particles could be liberated just by stirring indicated the absence of any mechanical forces. The stability of sorption properties of $Fe(OH)_3$ and MnO_2 subjected to freezing has also been confirmed by comparing them before and after freezing. For this purpose isotherms of strontium sorption on $Fe(OH)_3$ and MnO_2 at 22 ± 1°C were plotted. It is clear from the results that the maximum sorption capacity of $Fe(OH)_3$ and MnO_2 is numerically equal to the cotangent of the angle between the plotted line and the abscissa and is the same for treated and untreated sorbents. It may be said, therefore, that the chemical nature of the sorbtion

Card 3/4

The effect of freezing ...

centers of $Fe(OH)_3$ and MnO_2 remains constant when subjected to freezing at temperatures not below -15°C. There are 6 figures, 1 table and 14 references: 7 Soviet-bloc and 7 non-Soviet-bloc. The references to the English-language publications read as follows: J.D. Kurbatov, J.L. Kulp, E. Mack, J. Am. Chem. Soc., 67, 1923, 1945; M.H. Kurbatov, G.B. Wood, J. Phys. Chem., 56, 698, 1952; R.N. Ghosh, S.N. Chakravary, M.L. Kundu, J. Indian Chem. Soc., 28, 6, 319-322, 1951.

SUBMITTED: September 14, 1960

Card 4/4

S/186/62/004/002/008/010
E075/E136

21.4500

AUTHORS: Vol'khin, V.V., Shtol'ts, A.K., and Dosik, E.M.

TITLE: Treatment of liquid laboratory wastes containing some radioactive isotopes

PERIODICAL: Radiokhimiya, v.4, no.2, 1962, 220-226

TEXT: The object of the work was to investigate the factors that could decrease the volume of calcium phosphate used for coprecipitation of radioactive isotopes during its freezing, and to discover the most favourable conditions for this process. It was also aimed to apply the phosphate coagulation treatment simultaneously with the freezing of the obtained coagulate, for the purification of radioactive wastes. It was found that the main factor influencing the freezing effect is the composition of the liquid coagulant. The higher the concentration of electrolyte in solution, the less the changes in volume of the precipitate on solidification and melting. The maximum decrease in the volume of precipitate (about 20-fold) during the freezing is observed in the absence of electrolytes. It was shown that

Card 1/2

the freezing can be applied successfully to decrease the volume of the wastes, obtained after phosphate purification of radioactive laboratory effluents. The isotopes ^{45}Ca, ^{65}Zn, ^{89}Sr, ^{90}Sr, ^{90}Y, ^{91}Y and ^{144}Ce sorbed by calcium phosphates are not desorbed during the freezing. On dehydration of the solidified and molten precipitate an additional decrease of its volume was observed, which was not less than 30%. The total decrease in the precipitate volume obtained after phosphate coagulation of the liquid wastes with a low salt content was more than tenfold.
There are 2 figures and 1 table.

SUBMITTED: November 15, 1960

VOL'KHIN, V.V.; KOBLOVA, A.A.; PONOMAREV, Ye.I.

Deposition of rhodium hydroxide from highly diluted solutions by freezing them. Zhur.prikl.khim. 36 no.1:212-214 Ja '63. (MIRA 16:5)

(Rhodium oxide)

L 22243-66 EWT(m)/T

ACCESSION NR: AP6005421 SOURCE CODE: UR/0289/65/000/003/0057/0063

AUTHOR: Vol'khin, V. V.; Ponomarev, Ye. I.; L'vovich, B. I.; Kolesova, S. A.

ORG: Perm Polytechnic Institute (Permskiy politekhnicheskiy institut) 20 B

TITLE: The use of freezing for the coagulation of weak colloidal solutions and the granulation of inorganic sorbents 1

SOURCE: AN SSSR, Sibirskoye otdeleniye. Izvestiya. Seriya khimicheskikh nauk, no. 3, 1965, 57-63

TOPIC TAGS: inorganic chemistry, sorption, absorption coefficient, solution property, freezing, chemical precipitation

ABSTRACT: The authors investigated the possibility of the use of freezing during the precipitation of elements without a collector from weak solutions, as well as the effect of freezing on the density, filtering capacity, and the sorption properties of coagulants of inorganic substances. Some results of earlier work are presented together with new experimental data in order to provide an overall concept as to the possibilities of the freezing method. The procedure is described in detail. It is shown that by means of freezing and thawing it is possible to

Card 1/2 UDC: 541.18.047 2

L 22243-66
ACCESSION NR: AP6005421

separate metal ions as hydroxides from solutions with concentrations of precipitant up to 10^{-5} g·ion/liter, and to reduce their content in the solution to a considerable degree at concentrations up to 10^{-6} g·ion/liter. The freezing of the solutions also promotes a more complete separation of chemical compounds with appreciable solubility. The dehydration and the densification of inorganic precipitants by freezing does not lead to the desorption of radioactive isotopes previously absorbed by the inorganic precipitants from the solution. The sorption isotherms (for the initial coagulants) of frozen and thawed precipitants are identical and indicate that the values of the maximum sorption capacity of a substance are equal before and after freezing. The freezing and subsequent thawing make it possible to obtain coagulants of inorganic substances in granular form without substantially reducing their dynamic sorption capacity. The precipitates produced may be recommended for use as sorbents in column chromatography. Orig. art. has: 2 figures and 4 tables.

SUB CODE: 07 / SUBM DATE: none / ORIG REF: 019 / OTH REF: 009

Card 2/2 nst

VOLKHIN, V.V.; PONOMAREV, [illegible]; ZO[illegible] V.

Effect of the method of [illegible] on the [illegible] of hydrated metal oxides. [illegible] AN SSSR, Neorg. mat. [illegible] no.9: 1571-1576 [illegible] '65. (MIRA 18:11)

1. Permskiy politekhnicheskiy institut.

VOL'KHIN, V.V.; PONOMAREV, Ye.I.

Effect of freezing on the properties of metal hydroxide coagulates. Report No.5: Mechanism of the process. Koll. zhur. 27 no.1:14-18 Ja-F '65. (MIRA 18:3)

1. Permskiy politekhnicheskiy institut.

VOL'KHIN, V.V.; KUBAREVA, A.G.

Effect of freezing on the properties of hydrated sulfide precipitates. Izv. vys. ucheb. zav., khim i khim. tekh. 7 no.5: 725-730 '64 (MIRA 18:1)

1. Kafedra obshchey i neorganicheskoy khimii Permskogo politekhnicheskogo instituta.

ZOLOTAVIN, V.L.; VOL'KHIN, V.V.

Effect of freezing on certain properties of a manganese dioxide coagulate. Trudy Ural.politekh.inst.no.121:24-29 '62. (MIRA 16:5)

(Manganese oxides) (Frost) (Coagulation)

ACC NR: AP7001332 SOURCE CODE: UR/0063/66/011/006/0665/0672

AUTHOR: Kudryavtsev, G. I. (Candidate of chemical sciences); Volkhina, A.V. (Cd.Ch.Sc.)

ORG: none

TITLE: Thermostable fibers

SOURCE: Vsesoyuznoye khimicheskoye obshchestvo. Zhurnal v. 11, no. 6, 1966, 665-672

TOPIC TAGS: thermal stability, natural fiber, synthetic fiber, tensile strength

ABSTRACT:

In the beginning of the article, a general discussion is given of the concept of the thermal stability of fibers. Natural and synthetic fibers available at the present time can be used in the temperature range below 150—170° C. Fibers which can withstand temperatures of 200—350° C (or higher) and which can preserve their mechanical properties at such temperatures are needed for the development of high speed aviation, rocket, and missile technology.

In the article, the problem of preserving the mechanical properties of fibers at elevated temperatures is viewed from the standpoint of Zhurkov's fluctuation theory of the strength of polymeric materials. According to this theory, the material ruptures along the chemical bonds of the main valencies of the macromolecule chains because of thermal fluctuations; stresses and heating intensify this

UDC: 677.499+536.495

Card 1/5

process. The known general exponential equation, which expresses the dependence of the longevity of the specimen on temperature and stress, can be simplified to linear form for the temperature dependence of tensile strength. This linearity was confirmed experimentally within the admissible deviation. Thus, the simplified linear equation can be used for practical evaluation of the tensile strength of fibers at various temperatures, provided the quantities U_0 and γ, which express the activation energy required for rupture of chemical bonds and a structural factor, which reflects the packing and orientation of the molecules respectively, are known. However, the authors note that the data on U_0 and γ values are not available in the literature.

The concepts of heat resistance and thermal stability are discussed in the literature. Due to a certain vagueness, it is necessary to give here the definitions of both and to discuss the meaning of these concepts. By heat resistance is understood the changes in tensile strength and elongation of the fiber which increase at elevated temperatures and which are reversible, i.e., a drop in temperature results in a return to the values characteristic of that temperature. This property is not necessarily connected with the melting or softening temperature of the fiber. Thus, an increase in the softening

temperature of polyamide fibers caused by introducing several aromatic or hydroaromatic rings into the macromolecule of the fiber-forming polymer did not result in any significant increase in their heat resistance, according to some Soviet studies in this field (N. M. Bogdanov, V. D. Kalmykova, et al.). Heat resistance is characterized by the temperature dependence of the tensile strength, which, as noted above, is practically a linear function for the majority of known fibers.

Thermal stability is the fiber's stability against all kinds of chemically destructive agents at elevated temperatures. It is expressed by a change in tensile strength after heating at a given temperature for a given time; this change is given as a percent of the initial strength at normal temperature, i.e., mostly room temperature. It is noted in the article that heat resistance actually expresses the rate of thermal destruction and that the distinction between heat resistance and thermal stability is conventional, especially in view of the fact that the preservation of mechanical properties by fibers is required not only immediately after placing them into a high temperature environment, but also for an extended service life.

ACC NR: AP7001332

Further in the article the basic principles of preparing thermostable fibers are discussed and some new processing types are named. At the present time, the basic trend for preparing thermostable fibers is the reprocessing of thermostable polymers which must satisfy the following requirements: 1) sufficiently high melting or softening temperatures; 2) heat resistance; 3) thermooxidative resistance (i.e., thermal stability); 4) high molecular weight, which implies a high mechanical strength; and 5) solubility or fusibility to enable forming.

The dependence of the thermal stability of polymers on their chemical composition and structure has been reviewed by some foreign and Soviet authors. Included among the latter is M. M. Koton (Khimicheskiye volokna, no. 3, 1966, 3-10). Therefore, no detailed discussion of this subject is given. Polyoxadizaoles and polypyromellitimides are mentioned as promising materials, although, as such, these polymers are insoluble and infusible. In this connection, use of the first polycondensation stage of polyamides or polyhydrazides, which are either soluble or fusible, for forming polybenzimideazole, polybenzoxazole, polyoxadiazole or polypyromellitimide fibers is mentioned as a promising method now being developed.

ACC NR: AP7001332

The materials mentioned above are described on the basis of Western sources. However, extensive research has been done by Soviet scientists in the same field of studying the polycondensation and final cyclization stages of these heat resistant and thermostable polymers (see FSB, v. 1, no. 3, 1965, 14-22; v. 1, no. 4, 1965, 46-47; v. 1, no. 10, 1965, 18-29; v. 2, no. 10, 1966, 12-20 and 50-53). Only one of these studies is given as a reference in the present article. Noted attention is given to a US product, namely Du Pont produced heat resistant fiber NT-1, which is described as poly-m-phenyleneisophthalamide. The article contains a large table which contains data mostly on known fiber materials, based on foreign and Soviet sources. Orig. art. has: 4 figures, 2 tables and 3 formulas.

FSB: v. 3, no. 2

SUB CODE: 11,20 / SUBM DATE: none / ORIG REF: 024/ OTH REF: 032

Card 5/5

VOL'KHINA, T.P.; PERETTS, V.B., kand. tekhn. nauk

Studying the effect of lighting on the eyesight of rolling mill operators. Svetotekhnika 4 no. 8:11-14 Ag '58. (MIRA 11:7)

1. Sverdlovskiy institut okhrany truda Vsesoyuznogo tsentral'nogo soveta profsoyuzov.

(Rolling mills)
(Optometry)

VOL'KHINA, V.N., inzhener; LEVENTAL', G.B., kandidat tekhnicheskikh nauk; MELENT'YEV, L.A., professor.

Use of small and medium back-pressure turbines in industrial heating and power plants. Prom.energ. 11 no.5:1-8 My '56. (MLRA 9:9)
(Steam turbines)

VASIL'YEV, Viktor Grigor'yevich; VOLKHONIN, Vladimir Stepanovich; GRISHIN, Grigoriy Leont'yevich; IVANOV, Andrey Khrisanfovich; MARINOV, Nikolay Aleksandrovich; MOKSHANTSEV, Konstantin Borisovich; SHIPULIN, F.K., doktor geologo-minralog.nauk, red.; BEKMAN, Yu.K., vedushchiy red.; POLOSINA, A.S., tekhn.red.

[Geological structure of the Mongolian People's Republic; stratigraphic and tectonic] Geologicheskoe stroenie Mongol'skoi Narodnoi Respubliki; stratigrafiia i tektonika. Pod red. F.K. Shipulina. Leningrad, Gos.nauchno-tekhn.izd-vo neft. i gorno-toplivnoi lit-ry, 1959. 493 p. (MIRA 12:3)
(Mongolia--Geology)

VOLKHONIN, V.S.; LISHNEVSKIY, B.N.

Characteristics of basic tectonic structures in the southern Soviet Far East from the geophysical viewpoint. Izv. vys. ucheb. zav.; geol. i razved. 3 no.9:3-9 S '60. (MIRA 13:12)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki.
(Soviet Far East--Geology, Structural)

VOLKHONIN, V.S.; LISHNEVSKIY, E.N.; TARKOV, A.P.; SUDAKOV, S.P.

Lower Cretaceous sediments in the southern Zeya-Bureya downwarp in connection with oil and gas potentials. Geol.i geofiz. no.5:9-18 '61. (MIRA 14:6)

1.Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki, Moskva.
(Zeya-Bureya Plain--Petroleum geology)
(Zeya-Bureya Plain--Gas, Natural--Geology)

VOLKHONIN, V.S.; LISHNEVSKIY, E.N.; STEPANOV, P.P.

Subsurface structure of the Zeya-Bureya Depression according to geological and geophysical data. Izv. vys. uchsb. zav.; geol. i razv. 7 no.7:27-34 Jl '64 (MIRA 18:2)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut geofizicheskikh metodov razvedki.

VOLKHONSKAYA, R. A.; YENENKO, O. K.; OZEROV, I. M.

Using shale ash in the production of pipes. Trudy VNIIT no. 11: 199-210 '62. (MIRA 17:5)

VOLKHONSKAYA, R.A.; YENENKO, O.K.; IVANOVA, S.N.; MOTIN, Yu.D.; OZEROV, I.M.; PARANIN, D.A.; POLOZOV, V.F.; SOLOVUSHKOVA, G.E.; SUVOROVA, G.F., red.; VENTSEL', I., red.izd-va; BELOGUROVA, I.A., tekhn. red.

[Building materials made of waste products from oil shale winning and processing] Stroitel'nye materialy iz otkhodov dobychi i pererabotki goriuchikh slantsev. Leningrad, 1963. 35 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Stroitel'nye materialy i konstruktsii, no.4) (MIRA 16:11)
(Oil shales) (Building materials)

MINAYEVA, V.G.; VOLKHONSKAYA, T.A.

Flavonoids of the thoroughwax Rupleurum multinerve D. C.
Dokl. AN SSSR 154 no.4:956-959 F '64. (MIRA 17:3)

1. TSentral'nyy sibirskiy botanicheskiy sad Sibirskogo otdeleniya AN SSSR. Predstavleno akademikom A.I. Oparinym.

MINAYEVA, V.G.; VOLKHONSKAYA, T.A.; VALUTSKAYA, A.G.

Comparative study of the flavonoid composition of some Siberian species of Bupleurum L. Rast. res. 1 no.2:233-235 '65.
(MIRA 18:11)

1. TSentral'nyy sibirskiy botanicheskiy sad Sibirskogo otdeleniya AN SSSR.

VOLKHONSKAYA, T.A.; MINAYEVA, V.G.

Study of the flavonoids of garden sorrel. Biul. Glav. bot. sada no.56:57-59 '64. (MIRA 18:5)

1. TSentral'nyy sibirskiy botanicheskiy sad Sibirskogo otdeleniya AN SSSR, Novosibirsk.

VOLKONSKAYA, T.G.

Calculation of supersonic axisymmetric jets. Sbor. rab. VTS MGU 2:76-83 '63. (MIRA 17:7)

VOLKHONSKIY, A.I. (Mozhaysk)

Solution of trigonometric equations which follow the simple ones. Mat. v shkole no.1:20-25 Ja-F '55. (MLRA '8:2)
(Trigonometry--Study and teaching)

VOLKHONSKIY, A.I. (Mozhaysk)

Analysis of problems in stereometry. Mat. v shkole no.4:23-25 Jl-Ag '55. (MLRA 8:9)
(Geometry, Solid--Problems, exercises, etc.)

VOLKHONSKIY, A.I. (Mozhaysk)

The use of models for drawing combinations of polyhedra and spherical bodies. Mat. v shkole no.4:56-63 Jl-Ag '56. (MIRA 9:9)
(Geometrical drawing)

VOLKHONSKIY, A.I. (Mozhaysk)

Use of sequences of right triangles in solving geometric problems. (MIRA 16:9)
Mat. v shkole no.4:43-54 Jl-Ag '63.
(Geometry—Study and teaching)

VOLKHONSKIY, I.M., kandidat sel'skokhozyaystvennykh nauk.

Sweet clover in Leningrad Province. Zemledelie 5 no.4:76-77 Ap '57. (MLRA 10:6)

(Leningrad Province--Sweet clover)

KOLKER, I.I., doktor biologicheskikh nauk; VOLKHONSKIY, S.I., kandidat meditsinskikh nauk.

Penetration of the eye by antibiotics administered with electrophoresis. Vest. oft. 32 no.5:32-36 S-O '53. (MLRA 6:10)

1. Eksperimental'nyy otdel TSentral'nogo nauchno-issledovatel'skogo instituta fizicheskikh metodov lecheniya im. I.M.Sechenova v Yalte. 2. Kabinet oftalmologii TSentral'nogo nauchno-issledovatel'skogo instituta fizicheskikh metodov lecheniya im. I.M.Secheva v Yalte.
(Cataphoresis) (Antibiotics) (Eye)

VOLKHONSKIY, S. I., Can Med Sci.

USSR/Medicine - Antibiotics Sep/Oct 53

"The Penetration of Antibiotics Administered by an Electrophoretic Method Into the Eye," I. I. Kolker, Dr of Biol Sci, S. I. Volkhonskiy, Cand Med Sci, Exptl Div and Cabinet of Opthalmol, Central Sci-Res Inst of Phys Methods of Therapy in I. M. Sechenov, Yalta

Vest Oftal, Vol 32, No 5, pp 32-36

This article describes exptl electrophoretic application of penicillin and streptomycin to the eyes of rabbits. A non-polarizing electrode is used in order to prevent a change in the pH of the drug

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and to preclude the penetration of "parasitic" ions into the humors of the eye. The antibiotics penetrate into the anterior chamber and the vitreous humor of the eye and can be detected in the blood and the urine. This method is suggested for use in the treatment and diagnosis of various eye ailments, among them: blepharitis and conjuntivitis.

L 11008-67 EWT(d)/EWP(1) IJP(c)

ACC NR: AP6030650 SOURCE CODE: UR/0020/66/169/006/1289/1292

AUTHOR: Pyatetskiy-Shapiro, I. I.; Volkonskiy, V. A.; Levina, L. V.; Pomanskiy, A.

ORG: Central Economics Mathematics Institute, Academy of Sciences SSSR (Tsentral'nyy ekonomiko-matematicheskiy institut Akademii nauk SSSR)

TITLE: An iterative method of solving problems of integral programming

SOURCE: AN SSSR. Doklady, v. 169, no. 6, 1966, 1289-1292

TOPIC TAGS: iteration, iterated integral, mathematic analysis, integral programming

ABSTRACT: The iterative method proposed consists of the following: where it is required to maximize the linear functional

$$\sum_{j=1}^{n} c_j x_j \qquad (1)$$

under condition

$$\sum_{j=1}^{n} a_{ij} x_j \leqslant b_i, \quad i = 1, \ldots, m, \qquad (2)$$

where the unknown quantities x_j ($j = 1, \ldots, n$) take on the value 0 or 1 and all coefficients a_{ij}, c_j, b_i are non-negative, the solution is sought as follows. The

Card 1/2 UDC: 519.95

ACC NR: AP6030650

quantity b_0 is fixed and the system of m+1 inequalities

$$\sum_{j=1}^{n} c_j x_j > b_0, \quad \sum_{j=1}^{n} a_{ij} x_j \leqslant b_i, \quad i = 1, \ldots, m, \tag{3}$$

$$x_j = 0, 1 \quad (j = 1, \ldots, n)$$

is solved by the iterative method. The initial selection x_j^0 is arbitrary. It is assumed the k-th step produces the set $x_j^{(k)}$ (j = 1,...,n). The following equation system is computed

$$Ax \leqslant b, \tag{4}$$

Using random selection, the components of vector x_j^k with identical probability are changed, p=min (c, max Δ_i). It is assumed that c = 1/2. Thus, a new set $x^{(k+1)}$ (j = 1,...,n) is produced, and the subsequent iteration is performed. When all Δ_i disappear, the solution is found. Then, increasing b_0, solution is performed for a new system which is closer to the solution of the initial problem. The process is completed when the system of inequalities ceases to be solved after a fixed number of iterations. The paper was presented by Academician L. V. Kantorovich, Sep 7 1965. The authors express their gratitude to A. D. Shapiro for participating in composition of the examples and discussions of the results. Orig art. has: 1 table and 4 formulas.

SUB CODE: 12/ SUBM DATE: 16Nov65/ ORIG REF: 004/ OTH REF: 001

Card 2/2 jb

L 07335-67 EWT(1) GW

ACC NR: AP6012112 SOURCE CODE: UR/0413/66/000/007/0022/0022

AUTHORS: Kaplunov, A. I.; Veksler, B. Ye.; Volkhonskiy, V. M.; Rezennikov, V. S.; Shemshurin, S. V.

ORG: none

TITLE: Thermostabilized generator for a seismic core probe. Class 21, No. 180221

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 22

TOPIC TAGS: seismologic instrument, electronic oscillator

ABSTRACT: This Author Certificate presents a thermostabilized generator for a seismic core probe. The tank circuit contains a ferrite trimmer and an induction coil placed on a ferrite core with a gap (see Fig. 1).

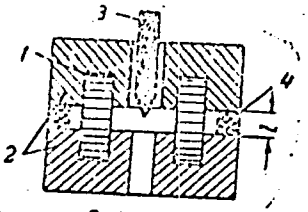

Fig. 1. 1 - induction coil; 2 - core; 3 - trimmer; 4 - gasket

To stabilize the generated frequency in a wide range of temperatures, the core gap has a height of 0.08 to 0.2 times the height of the core. A nonmagnetic ring gasket is placed between the outer walls of the core cups. Orig. art. has: 1 diagram.

Card 1/1 UDC: 550.340.04 621.373.4

L 40994-66 EWT(m)/EWP(t)/ETI IJP(c) JD/JH

ACC NR: AR6013853 (A,N) SOURCE CODE: UR/0276/65/000/011/G016/G016

38

AUTHORS: Lovtsov, D. P.; Volkhontsev, I. B.

B

TITLE: The speed of gas absorption by aluminum and its alloys

27

SOURCE: Ref. zh. Tekhnologiya mashinostroyeniya, Abs. 11G134

REF SOURCE: Sb. Lit'ye i obrabotka splavov chern. i tsvet. met. Krasnoyarsk, 1965, 55-66

TOPIC TAGS: gas diffusion, metal property, aluminum containing alloy

ABSTRACT: This is an analysis of the method used and the results of an investigation dealing with the possibility of gas saturation of the aluminum-based alloys under common atmospheric conditions and under conditions of increased humidity over the surface of the alloy. 3 tables, bibliography of 3 titles. [Translation of abstract]

SUB CODE: 11 /

Card 1/1 11b UDC: 621.745:669.715