CURSH... ..H. ..A.; STEFANOVICH, V.V.

Pr..uction and use of cationic surface-active substances based on alkylbenzols. Khim. prom. no.6:416-418 Je '64. (MIRA 18:7)

ACC NR: AP5026518 SOURCE CODE: UR/0286/65/000/019/0049/0049

AUTHORS: Gershenovich, A. I.; Stefanovich, V. V.; Mil'rud, S. S.; Khodkina, V. Ya.; Shmygul', V. G.; Vydrova, Ye. A.

ORG: none

TITLE: Method for obtaining surface-active quaternary ammonium compounds. Class 23, No. 175163 announced by Organization of State Committee for Chemical Industry at the Gosplan SSSR (Organizatsiya gosudarstvennogo komiteta khimicheskoy promyshlennosti pri gosplane SSSR)

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 19, 1965, 49

TOPIC TAGS: surface active agent, ammonium compound, polymer, polymerization

ABSTRACT: This Author Certificate presents a method for obtaining surface-active quaternary ammonium compounds by chloromethylating aromatic hydrocarbons, followed by condensation of the chloromethylated product with pyridine or its homologues or with tertiary aliphatic amines. To simplify the process, chloromethylation is carried out in a hydrochloric acid medium and the condensation in an aqueous medium.

SUB CODE: 07/ SUBM DATE: 08Sep64

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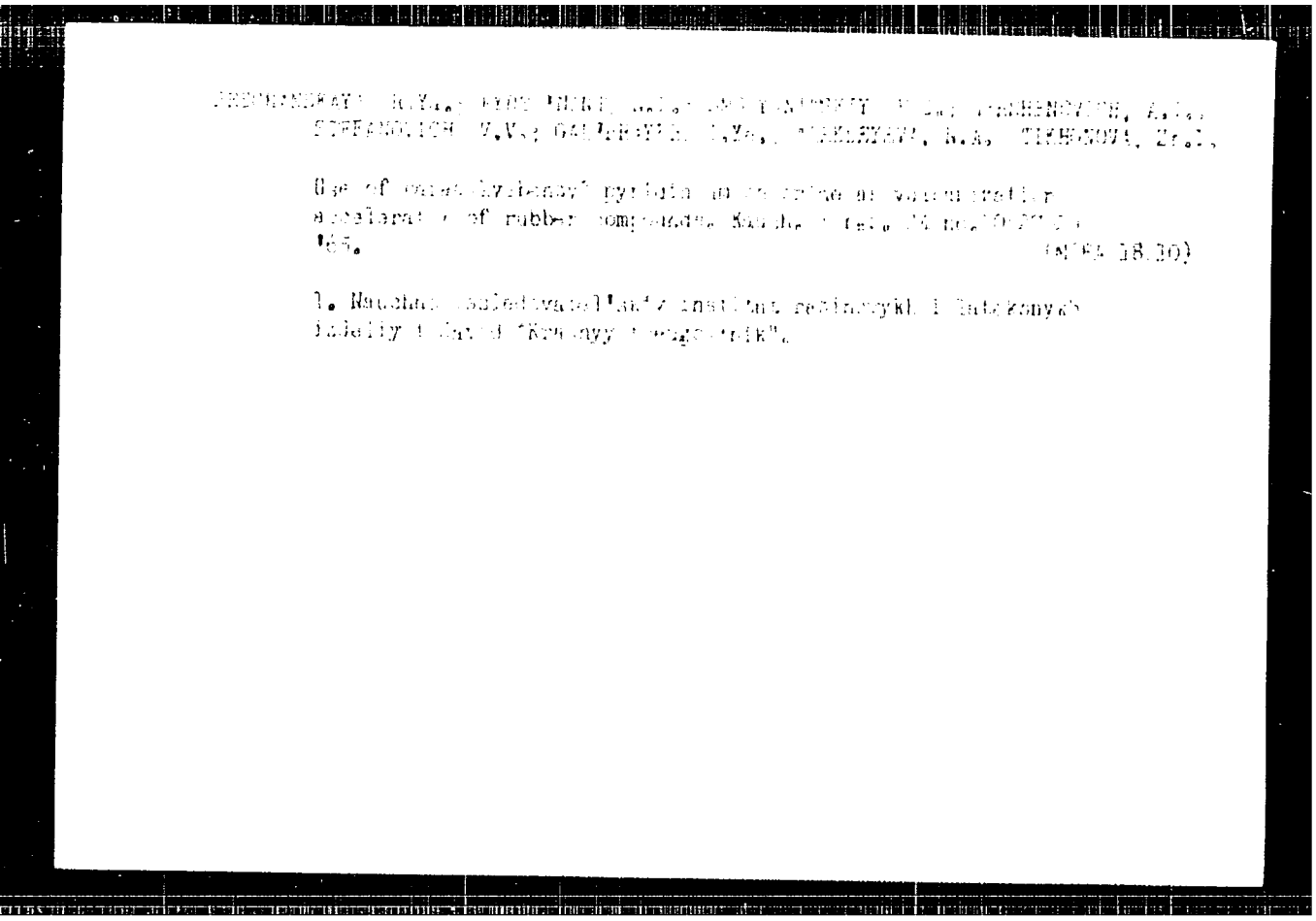
UDC: 661.185--322.3



GERSHENOVICH, C.M.; DMITRIYEVA, V.S.

Types of helminths and the extent of helminth infection in Krasnovodsk. Zdrav. Turk. 4 no.6:29-30 N-D '60. (MIRA 14:1)

1. Iz Krasnovodskoy gorodskoy sanitarno-epidemiologicheskoy stantsii (glavnyy vrach - G.M.Gershenovich).
(KRASNOVODSK--WORMS, INTESTINAL AND PARASITIC)

GERSHENOVICH, G.M.; DMITRIYEVA, V.S.

Two outbreaks of typhoid fever having one way of diffusion.
Zdrav. Turk. 5 no.1:14-15 Ja-F '61. (MIRA 14:6)

1. Iz Krasnovodskoy sanitarno-epidemiologicheskoy stantsii (glavvrach - G.M.Gershenovich).
(KRASNOVODSK—TYPHOID FEVER)

GERSHENOVICH, G.M.

Epidemiology of diphtheria in Krasnovodsk. Zdrav. Turk. 5 no.4: 16-19 Jl-Ag '61. (MIRA 14:10)

1. Iz Krasnovodskoy sanitarno-epidemiologicheskiy stantsii (glavnyy vrach - G.M.Gershenovich, nauchnyy rukovoditel' - prof. Ye.Ya. Gleyberman).

(KRASNOVODSK—DIPHTHERIA)

GERSHENOVICH, G.M.

Role of health education in reducing the indidence of diphtheria. Zdrav. Turk. 5 no.6:30-31 N-D '61. (MIRA 15:2)

1. Iz Krasnovodskoy gorodskoy sanitarno-epidemicheskoy stantsii (glavnyy vrach - G.M.Gershenovich, nauchnyy rukovoditel' - prof. Ye.Ya. Gleyberman).

(TURKMENISTAN—DIPHTHERIA)

GERSHENOVICH, G.M.

Diphtheria incidence in Krasnovodsk and some measures for eradicating it. Zdrav.Turk. 6 no.4:42-43 Jl-Ag '62. (MIRA 15:8)

1. Iz Krasnovodskoy gorodskoy sanitarno-epidemiologicheskoy stantsii (glavnyy vrach - G.M.Gershenovich, nauchnyy rukovoditel' - prof. Ye.Ya.Gleyberman).
(KRASNOVODSK--DIPHTHERIA--PREVENTION)

GERSHENOVICH, I. I.

USSR/Medicine - Gums May 48
Medicine - Penicillin

"Penicillin Therapy of Noma and Ulcerous and Necrotic Gingivitis," Docent I. F. Gershenovich, Clinic of Hosp Pediatrics, Tashkent Med Inst, 2½ pp

"Vop Ped i Okhran Mat i Det" Vol XVI, No 1

Data on subject is limited. During past 2 years author has treated 11 children suffering from noma and ten from ulcerous and necrotic gingivitis. Penicillin was injected intramuscularly every 4-6 hours. For three children treated with VIEM penicillin, daily dose was 5,000 Oxford units. With

6/49T77

USSR/Medicine - Gums (Contd) May 48

American penicillin, daily dose varied between 40,000 and 100,000 Oxford units. Maximum was 200,000-250,000 Oxford units. In isolated cases treatment was extended 16-17 days.

6/49T77

GERSHENOVICH, M.S.

"Occupational diseases; manual for doctors." Reviewed by M.S. Gershenovich. Gig. i san. 25 no. 5:115-116 My '60.
(MIRA 13:10)

(OCCUPATIONAL DISEASES)

GERSHENOVICH, R.S. DECEASED 1962/4
1889 1960

SEE ILC

MEDICINE

GERSHENOVICH, Rafail Samuilovich

[Visceral leishmaniasis in children] Leishmaniozy vnutrennikh organov u detei. Tashkent, Medgiz, UzSSR, 1959. 181 p.
(MIRA 14:2)
(KALA-AZAR)

BALYKOV, V., inzh.; GERSHENOVICH, S., inzh.

New narrow-range cutter loaders. Mast. ugl. 7 no.1:18-20 Ja '58.
(Coal mining machinery) (MIRA 11:2)

TOPCHIYEV, A. V., BALYKOV, V. M., GERSHENOVICH, S. YE.

Donets Basin - Coal Mines and Mining

Work of the coal combine KKP-1 in the steep strata of the Donets Basin. Mekh. trud. rab. 6 no. 4, 1952.

Monthly List of Russian Accessions, Library of Congress, August 1952. Unclassified.

TOPCHIYEV, A. V.; BALYKOV, V. M.; GERSHENOVICH, S. Ye.

Coal Mines and Mining - Donets Basin

Work of the coal combine KKP-1 in the steep strata of the Donets Basin. Makh. trud. rab. 6 no. 4 (1952)

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

BALYKOV, V., inzhener; GERSHENOVICH, S., inzhener.

Cutter-loaders for steeply inclined seams. Mast.ugl.3 no.11: 3-6 N'54. (MLRA 8:3)
(Coal--Mining machinery)

BALYKOV,V., inzhener; GERSHENOVICH,S.

Pamphlets on mining practices in progressive mines. Mast.ugl.4 no.9:29 S'55. (MLRA 9:1)

(Coal mines and mining)

BALYKOV,V.M., inzhener; GERSHENOVICH,S.Ye., inzhener

Review of "The master miner's handbook". N.A.Zaitsev. Reviewed by V.M.Balykov,S.E.Gershenovich. Mekh.trud.rab.9 no.8:46 Ag'55. (MLRA 9:10)

(Mining engineering) (Zaitsev,N.A.)

BALYKOV, V.M., inzhener; GERSHENOVICH, S.Ye., inzhener.

The "Ostravan-500" coal cutter-loader. Mekh.trud.rab.10 no.4:41-42 Ap '56. (Czechoslovakia--Coal mining machinery) (MIRA 9:7)

BALYKOV, V.M., inzhener; GERSHENOVICH, S.Ye., inzhener.

New K-19 cutter-loader for steep-dipping seams. Mekh.trud.rab.10 no.10:11-13 O '56. (MLRA 10:1)
(Coal mining machinery)

BALYKOV, V.M., inzhener; GERSHENOVICH, S.Ye., inzhener.

Valuable aid for engineers and technicians working on pitching seams in the Donets Basin. "Mining pitching seams in the Donets Basin." E.IA. Nekrasovskii, N.F. Kremenchutskii. Reviewed by V.M. Balykov, S.E. Gershenovich. Ugol' 31 no.5:44-45 My '56. (MLRA 9:8)

(Donets Basin--Coal mines and mining)
(Nekrasovskii, E.IA.)
(Kremenchutskii, N.F.)

TOPCHIYEV, Aleksey Vasil'yevich; BALYKOV, Vladimir Mikhaylovich; GERSHENOVICH, Samuil Yefimovich; SOSNOV, Georgiy Akimovich; SOSNOV, V.D., otv.red.; SHOROKHOVA, A.V., red.izd-va; NADEINSKAYA, A.A., tekhn.red.; BOLDYREVA, Z.A., tekhn.red.

[Mechanization of mining operations in thin steeply dipping coal seams] Mekhanizatsiia vyemki uglia pri razrabotke tonkikh krutykh plastov. Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1960. 217 p. (MIRA 13:12)

(Coal mining machinery)

BALYKOV, Vladimir Mikhaylovich; VINOGRADOV, Aleksandr Semenovich; GERSHE-NOVICH, Samuil Yefimovich; BOGUTSKIY, N.V., otv. red.; ABRAMOV, V.I., red. izd-va; LOMILINA, L.N., tekhn. red.

[K19 equipment complex for mechanization of coal recovery from thin steeply dipping beds] Kompleks oborudovaniia K19 dlia mekhanizatsii vyemki uglia iz tonkikh krutopadaiushchikh plastov. Moskva, Gos. nauchno-tekhn.izd-vo lit-ry po gornomu delu, 1961. 135 p. (MIRA 14:9)

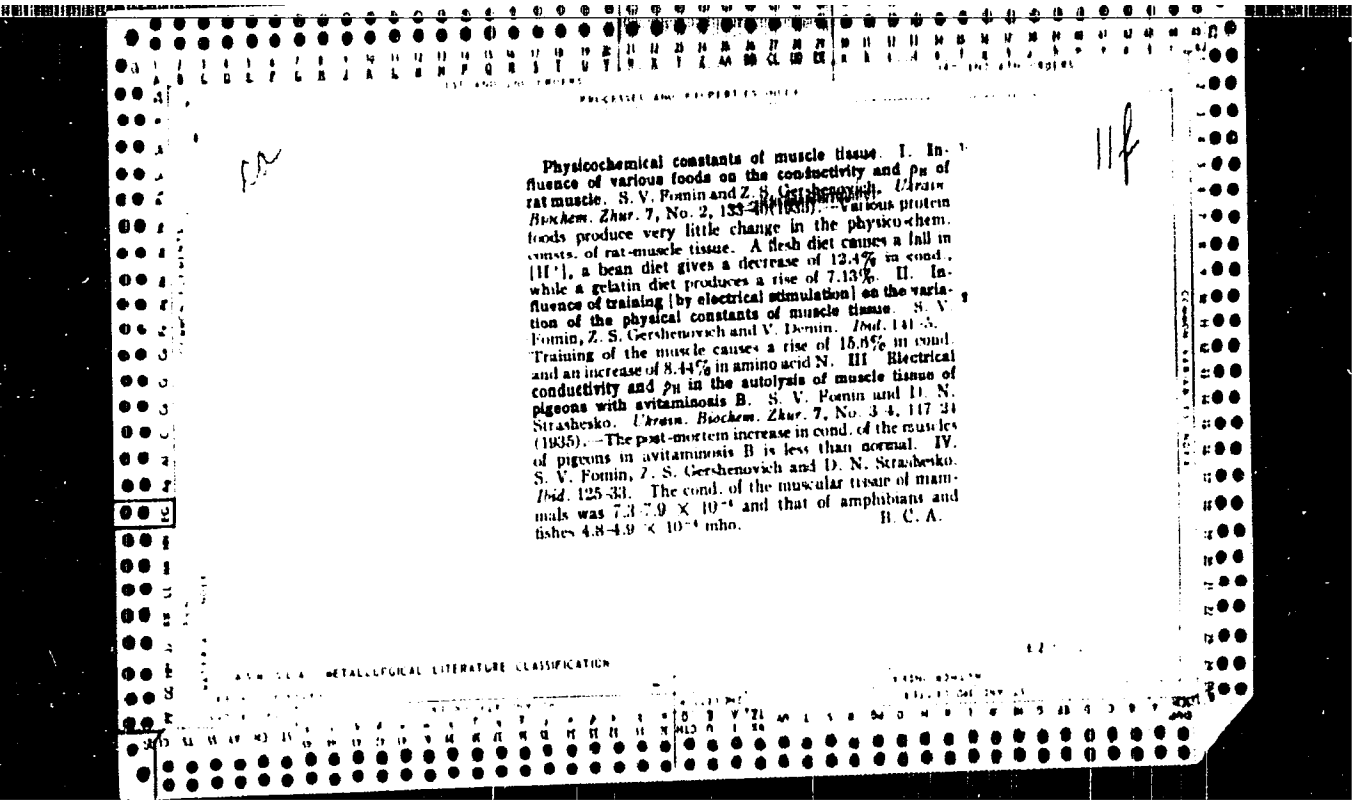
(Mining machinery)

BALYKOV, Vladimir Mikhaylovich; BOGUTSKIY, Nikolay Vasil'yevich; KHAZIN, Yakov Naumovich; GERSHENOVICH, S.Ye., nauchn.red.

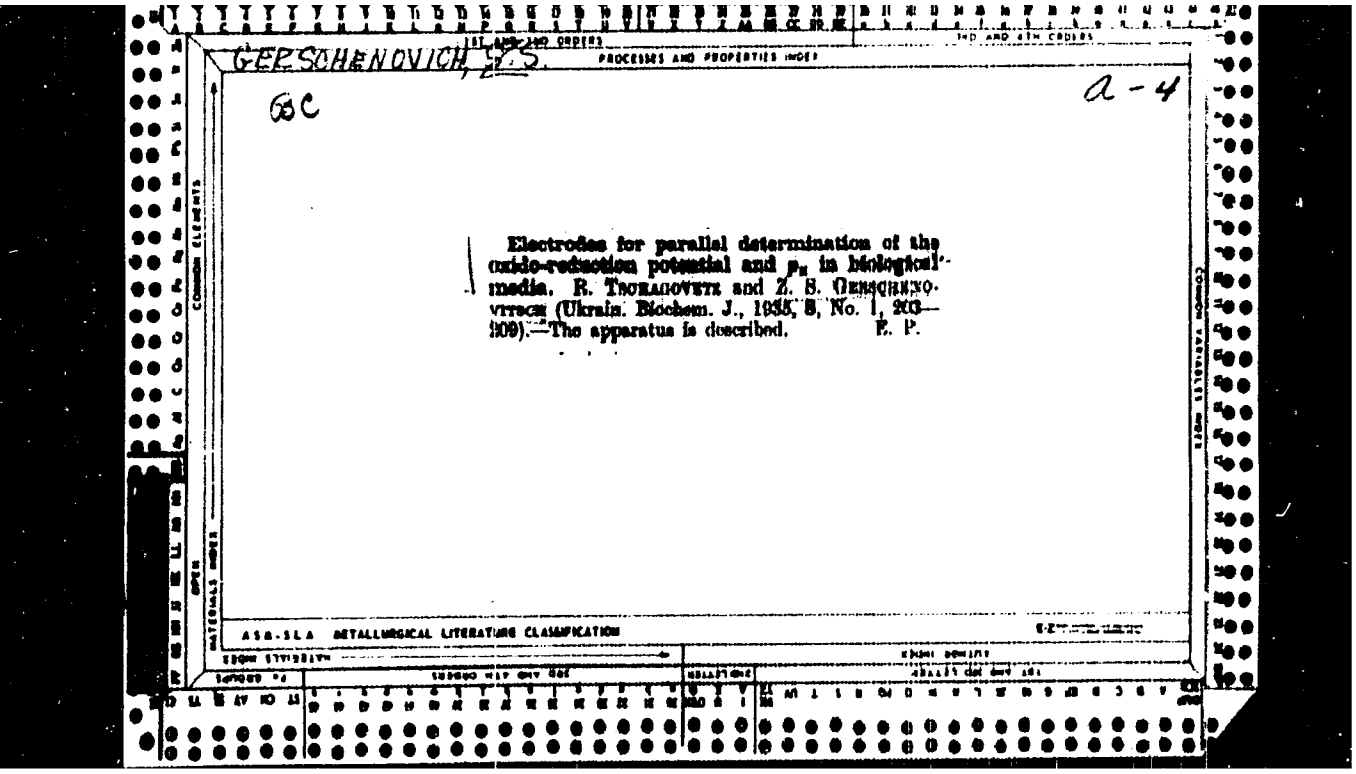
[Coal cutter-loaders] Ugol'nye kombainy. Moskva, TSNIIPI, 1965. 40 p. (MIRA 18:10)

GERSHENOVICH, V., inzhener-mayor

Steam generator for an apparatus for determining oil demulsification time. Tyl i snab.Sov.Voor.Sil 21 no.3:89 Mr '61. (MIRA 14:6)
(Steam boilers)



Physicochemical constants of muscle tissue. I. Influence of various foods on the conductivity and p_H of rat muscle. S. V. Fomin and Z. S. Gershenovich. *Ukrain. Biochem. Zhur.* 7, No. 2, 133-40 (1935).—Various protein foods produce very little change in the physico-chem. consts. of rat-muscle tissue. A flesh diet causes a fall in [H⁺], a bean diet gives a decrease of 12.4% in cond., while a gelatin diet produces a rise of 7.13%. II. Influence of training [by electrical stimulation] on the variation of the physical constants of muscle tissue. S. V. Fomin, Z. S. Gershenovich and V. Demin. *Ibid.* 141-5. Training of the muscle causes a rise of 15.8% in cond. and an increase of 8.44% in amino acid N. III. Electrical conductivity and p_H in the autolysis of muscle tissue of pigeons with avitaminosis B. S. V. Fomin and D. N. Strashesko. *Ukrain. Biochem. Zhur.* 7, No. 3-4, 117-24 (1935).—The post-mortem increase in cond. of the muscles of pigeons in avitaminosis B is less than normal. IV. S. V. Fomin, Z. S. Gershenovich and D. N. Strashesko. *Ibid.* 125-33. The cond. of the muscular tissue of mammals was $7.3-7.9 \times 10^{-4}$ and that of amphibians and fishes $4.8-4.9 \times 10^{-4}$ mho. B. C. A.



GERSCHENOVICH, Z. S.

GC

a-4

Electrodes for parallel determination of the oxido-reduction potential and p_H in biological media. R. Tsukanovych and Z. S. Gerschenovych (Ukrain. Biochem. J., 1955, 8, No. 1, 103–109).—The apparatus is described. P. P.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

GERSHENOVICH, Z. S. (Co-author)

See: PUSHILOVA, V. A.

Gershenovich, Z. S. and Pushilova, V. A. - "Glycolysis of the blood of cancer patients," Trudy Rost. rentgeno-radiol. i onkol. in-ta, Issue 2, 1948, p. 19-26

SO: U-3566, 15 March 53, (Letopis 'Zhurnal 'nykh Statey, No. 14, 1949).

2-327 [illegible], Z. [illegible]
(Cvyaz' [illegible] ob[illegible] i [illegible]voy [illegible].)
[illegible] (Sb. [illegible] Moldova), T. [illegible], [illegible],
S. [illegible]-10?. - Bibliogr: 1? nazv.

SO: L[illegible], No. [illegible], 19[illegible].

GERSHENOVICH, Z.S.; KIICHEVSKAYA, A.A.

Brain

Respiration of the brain tissue at high oxygen pressure. Ukr. biokhim. zhur., 22, No. 3, 1950.

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

CA

11 A'

Interaction of thiamine and ascorbic acid I. S. Ger-
shenovich and A. I. Minkina (Rostov Univ.). Biokhimiya
16, 38-40 (1951). When equal vols. of 0.001 N solns. of
ascorbic acid and thiamine are mixed, 43% of the ascorbic
acid is still left after 48 hrs., whereas in a control expt. with-
out thiamine all the ascorbic acid disappeared. During
the first 4 hrs., the oxidation of ascorbic acid actually pro-
ceeds more rapidly in the presence of thiamine than in its
absence. Oxythiamine exerts a stabilizing effect even dur-
ing the first 4 hrs. Both thiamine and oxythiamine stabilize
ascorbic acid even in the presence of Cu, which is a powerful
oxidation catalyst. The detns. of ascorbic acid, dehydro-
ascorbic acid, and diketogulonic acid with 2,4-dinitrophenyl-
hydrazine have shown that thiamine inhibits the transfor-
mation of ascorbic acid into dehydroascorbic acid. When
oxythiamine is used, ascorbic acid disappears, and dehydro-
ascorbic acid accumulates. In the control, diketogulonic
acid accumulates. H. Priestley

Sci Res Biol Inst, Rostov U

1951

USSR/Medicine - Prevention of Oxygen Nov/Dec 52
Spasms

"Glutamic Acid and Respiration of the Brain Tissues Under Conditions of an Increased Oxygen Pressure," Z. S. Gershenovich, A. A. Krichevskaya, Dept of Biochemistry, Sci-Res Biol Inst, Rostov State U

Biokhimiya, Vol 17, No 6, pp 684-690

Detailed description of expts dctg the effects of a high concn of O on the animal brain. Mice and rats some of which have received injections of glutamic acid, were placed in a barographic chamber, and their reactions to a high O concn were observed and recorded. Convulsions were noted as starting at pO_2=1.14. The administration of glutamic acid proved effective in its protective action against high concns of O_2. The d,l-glutamic acid proved more effective than the l (+) glutamic acid. It was observed that d,l-glutamic acid assisted in maintaining the tissue respiration of the brain at a higher level than the l-acid.

247T20

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GERSHENOVICH, Z.S.

Biochemical changes of the seeds of ligneous species subjected to the process of stratification. Z. S. Gershenovich, P. D. Koval, and I. Novikova. *Uchenye Zapiski Rostov-na-Donu Gosudarst. Univ., Trudy Biol. Pochvennogo Fakul'teta*, 1953, No. 3, 179–84; *Referat. Zhur., Khim.* 1954, No. 37003.—Stratification of seeds of a series of ligneous species revealed that such seeds contain increased amts. of moisture and amino N and decreased amts. of fat and starch as compared with the control seeds. In the readily germinating seeds (privet, maple) these chem. changes occur much faster than in the seeds germinating relatively less readily (ash)

B. Wierbicki

Adenosinetriphosphoric acid (ATP), creatine phosphate (CP), and the activity of adenosinetriphosphatase (ATP-ase) of the brain under high-oxygen-pressure atmospheres. Z. S. Gershenovich and Z. G. Bronovitskaya (V. M. Molotov State Univ., Rostov-on-Don). *Biokhimiya* 20, 426-30 (1955); cf. *C.A.* 49, 10470d.—Rats and guinea pigs were divided into two groups each, the control groups were kept under normal conditions; the exptl. animals were placed in a special chamber of pure O under pressure of 6-8 atms. Animals so treated suffer four-stage effects: the excitement stage, when the test animals scurry around in the chamber, keep sniffing and exhibit motions of body washing; a short period of immobility; a period of intermittent convulsions of the muscles of the neck and later of the entire body, the intensity and frequency of which increase with the rise in the pressure; the convulsions cease, the animal falls on its side, respiration becomes infrequent and less frequent, and bloody foam appears at the mouth. In this terminal stage the animals die. After decompression animals were decapitated, the brains were quickly removed and placed in liquid air in which they froze within 1-1.5 min. The brain was then ground to a powder and extd. with 4 % CCl_3COOH for 10 min. at 2-4°. In the protein-free filtrate detns. were made for inorganic P (IP), ATP, and CP. No CP was demonstrated because it disappeared between the time of decapitation and freezing of the brain. In control animals ATP varied between 4.57-7.00 with an average of 6.44 mg. %; in exptl. animals it was 6.08-9.10 with an av. of 8.03 mg. %. In instances of extreme O intoxication IP diminished and ATP rose by 21.0%. No such changes in IP and ATP were detected in either the liver or heart, pointing to the brain-specificity of O intoxication effects. In control animals CP varied between 0.00-6.78 with an av. of 4.1, and in exptl. animals between 2.93-6.14 with an av. of 4.47 mg. %. The level of the easily hydrolyzed P of ATP varied between 4.17-9.40 with an av. of 6.70 mg. %. In rats subjected to acute O intoxication the ATP level remained unchanged. The activity of ATP-ase *in vivo* under O influences is reduced by an av. of 28%. *In vitro* ATP-ase activity is increased by an av. of 0%. E. S. Levine

GERSHENOVICH, Z.S.; MINKINA, A.I.

Interaction of thiamine and ascorbic acid. Vitaminy no.2:158-173 '56.
(MLRA 10:8)

1. Nauchno-issledovatel'skiy biologicheskiy institut pri universitete, Rostov na Donu

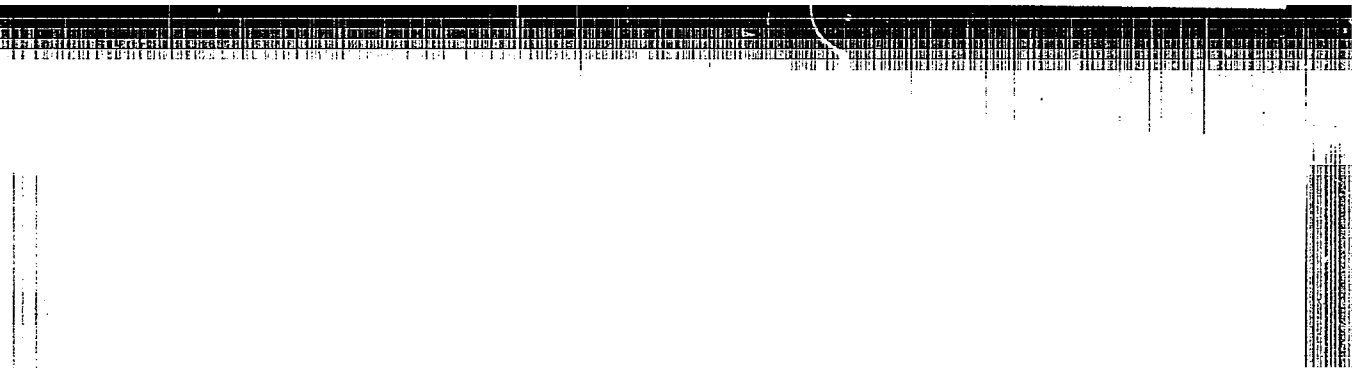
(THIAMINE) (ASCORBIC ACID)

GERSHENOVICH, Z.S.; KRICHEVSKAYA, A.A.

Activity of glutamine synthetase of the brain and liver following exposure of animals to high oxygen pressure [with English summary in insert]. Biokhimiia 21 no.6:715-722 N-D '56. (MLRA 10:7)

1. Kafedra biokhimii Rostovskogo-na-Donu universiteta i Otdel biokhimii Nauchno-issledovatel'skogo biologicheskogo instituta.

(BRAIN, metabolism,
glutaminesynthetase, eff. of high oxygen pressure in animals (Rus))
(LIVER, metabolism,
same)
(ENZYMES,
glutaminesynthetase in brain & liver, eff. of high oxygen pressure in animals (Rus))
(GLUTAMATES (same))



APPROVED FOR RELEASE: 09/24/2001 CIA-RDP86-00513R000514920001-9"

KRICHEVSKAYA, A.A.; GERSHENOVICH, Z.S.; SHCHERBATYKH, V.P.

Ammonia formation from amides in brain and liver homogenates exposed to increased oxygen pressures. Biokhimiia 24 no.3: 459-464 My-Je '59. (MIRA 12:9)

1. Chair of Biochemistry of the State University and the Biochemical Department of the Research Biological Institute, Rostov on Don.

(LIVER, metab.
ammonia synthesis from amides in homogenates exposed to high oxygen pressure (R_{us}))
(BRAIN, metab.
same)
(AMMONIA, metab.
brain & liver homogenates exposed to high oxygen pressure (R_{us}))
(ATMOSPHERIC PRESSURE, eff.
on brain & liver homogenate ammonia synthesis (R_{us}))

GERSHENOVICH, Z.S.; KRICHEVSKAYA, A.A.

Amide and carboxyl groups of brain proteins in oxygen intoxication.
Biokhimiia 25 no.2:310-317 Mr-Ap '60. (MIRA 14:5)

1. Kafedra biokhimii universiteta i otdel biokhimii Nauchno-issledovatel'skogo instituta, Rostov-na-Donu.
(BRAIN) (PROTEINS IN THE BODY)
(OXYGEN--TOXICOLOGY)

GERSHENOVICH, Z.S.; KRICHEVSKAYA, A.A.

Protective role of arginine in oxygen poisoning. Biokhimiia 25 no.5:791-795 S-O '60. (MIRA 14:1)

1. Chair of Biochemistry, State University, and Biochemical Department, Research Biological Institute, Rostov-on-Don.
(OXYGEN—TOXICOLOGY) (ARGININE)

[illegible]R[illegible]VICH, [illegible]., and V[illegible]R, Ye. I. (USSR)

"Ammonia-Glumatic Acid-Glutamine of the Brain in Hypothermia Followed by Heating."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 Aug 1961

[redacted], Z. S., and KR[redacted]VSKAYA, A. A. (USSR)

"Functional Groups of Brain Proteins in Various States of the Animal."

Report presented at the 5th International Biochemistry Congress, Moscow, 10-16 Aug 1961

GI[illegible]F[illegible]VI[illegible], Z. [illegible]., [illegible]NOVITSKAYA, Z. G. (USSR)

"Participation of Hexosamine in the Metabolic Dynamics of the Brain."

Report presented at the 5th Int'l. Biochemistry Congress, Moscow, 1[illegible]-16 Aug 1961.

BRONOVITSKAYA, Z.G.; GERSHENOVICH, Z.S.

Oxidative phosphorylation of the brain exposed to oxygen under increased pressure. Biokhimiia 25 no.6:981-986 N-D '60. (MIRA 14:5)

1. State University, Rostov-on-Don.
(BRAIN) (PHOSPHORYLATION) (OXYGEN—PHYSIOLOGICAL EFFECT)

S/898/62/000/000/001/001
D296/D307

AUTHORS: Bronovitskaya, Z.G. and Gershenovich, Z.S.

TITLE: Glucosamine in the brain during exposure to high pressure oxygen

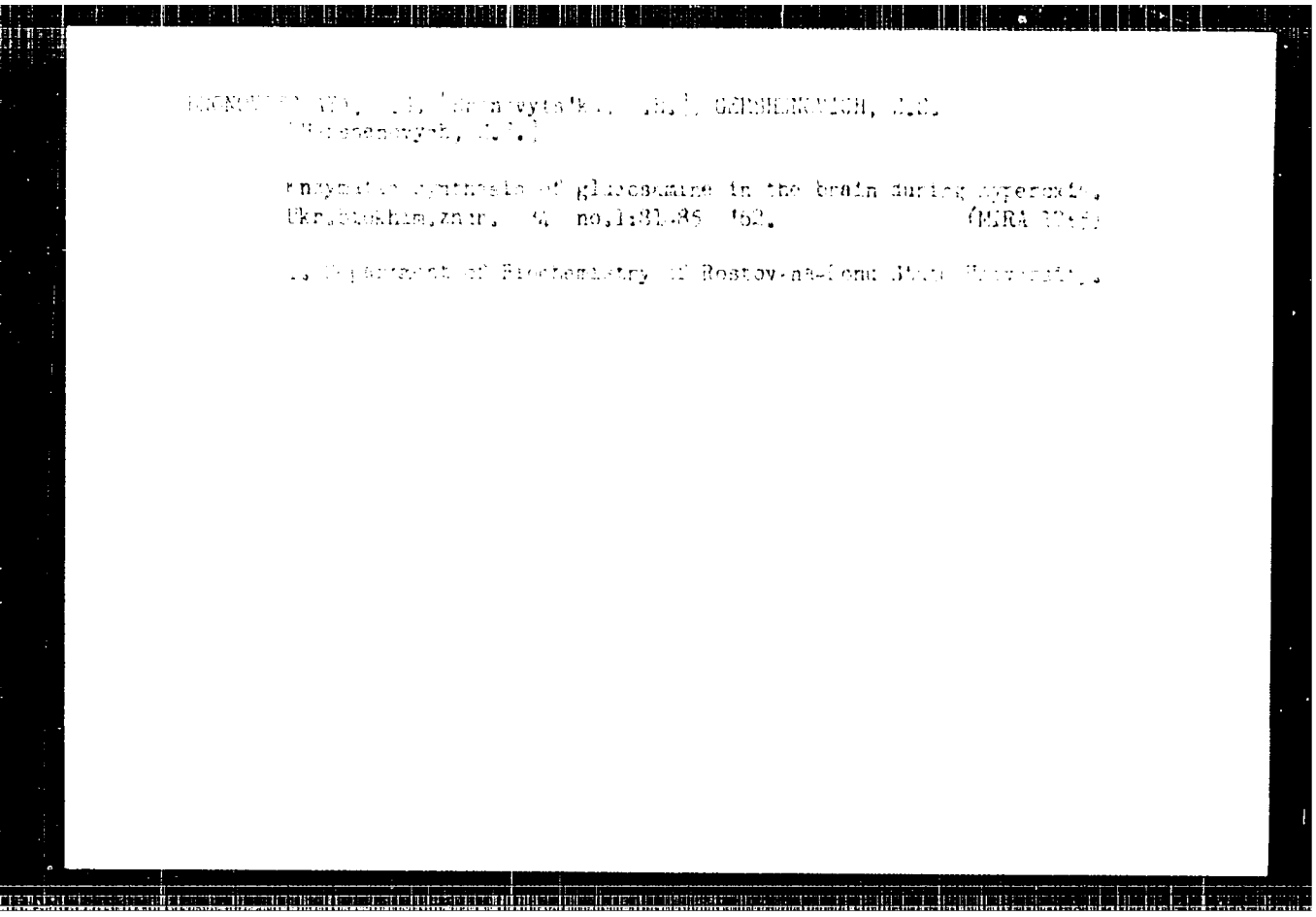
SOURCE: Uglevody i uglevodnyy obmen; materialy II Vsesoyuznoy konferentsii po probleme 'Khimiya i obmen uglevodov', 24-27 yanvarya 1961 g. Moscow, Izd-vo AN SSSR, 1962, 141-150

TEXT: Numerous metabolic processes in animal tissues including the brain tissue are connected with the liberation of ammonia. Ammonia metabolism and carbohydrate metabolism are closely interrelated and glucosamine is an important intermediate product of metabolism. Exposure to oxygen under high pressure (6 atmospheres) in pressure chambers leads to intoxication, convulsion and death. In this state the ammonia level of the brain exceeds the normal level by a factor of 10. To establish the tole of the intermediate product glucosamine in this process the authors exposed rabbits to high pres-

Card 1/2

sures of oxygen and investigated: 1) the synthesis of glucosamine by brain slices in a state of hyperoxia, 2) the glucosamine level in the brain under normal conditions and after exposure of the animals to oxygen, 3) the glucosamine levels in the serum, and 4) the activity of the enzymes participating in the synthesis of glucosamine. It was found that the synthesis of glucosamine in vitro by brain slices was not influenced by oxygen under high pressure. The glucosamine levels in the cortex of rabbits exposed to oxygen remained unchanged, but this does not necessarily mean that the rate of synthesis and the rate of utilization have increased to the same degree. The latter view was confirmed by the fact that high pressure oxygen leads to higher serum glucosamine levels and suppresses the activity of the transferase systems which participate in the synthesis of glucosamine. This means that less ammonia can be utilized in the brain to form glucosamine and this fact may serve as explanation for the disorders of ammonia metabolism observed during hyperoxia. There are 2 figures and 3 tables.

ASSOCIATION: Rostovskiy gosudarstvennyy universitet (Rostov State University)



[redacted] acid-glutamine system in the brain of rats in various phases of hypothermia. Ukr. biokhim. zhur. 34 no.3:406-[redacted] '62. (MIRA 18:5)

1. Kafedra [redacted] Kuybyshevskogo gosudarstvennogo universiteta.

ACCESSION NR: AP4002656 S/0218/63/028/006/0937/0941

AUTHOR: Gershenovich, Z. S.; Veksler, Ya. I.

TITLE: Protective effect of arginine in hypothermia

SOURCE: Biokhimiya, v. 28, no. 6, 1963, 937-941

TOPIC TAGS: arginine, protective effect, hypothermia, hypothermia protective effect, cold sickness, brain ammonia content, ammonia metabolism, gluatmine

ABSTRACT: The authors previously established that the accumulation of free ammonia in the brain during hypothermia is one of the causes of cold sickness. The purpose of this investigation was to study the effect arginine has in binding the free ammonia in brain during hypothermia. A neutralized solution of arginine hydrochloride in a physiological solution was administered intraperitoneally to 200 mixed white rats on the basis of 120 mg of arginine per 100 g live weight 60 minutes before cooling. A control group (250 rats) were injected with the physiological solution intraperitoneally but without arginine. The animals were cooled by refrigerated blankets to rectal temperatures of 20-19, 18-17, and 15-14°C. Some animals from both groups were sacrificed to determine the content of ammonia,

Card 1/3

ACCESSION NR: AP4002656

glutamine, and glutamic acid in the brain. The remaining animals were observed for a month after cooling. Differences are noted in the behavior of both groups immediately upon the initiation of cooling. Survivability of the animals in each group is very demonstrative of the effect of arginine administration. In the control group cooled to 20°, 32% of the animals died, whereas not one of the arginine-protected rats died. At 18-17° 52% of the rats in the control group died at various periods after cooling while in the treated group only 6% died. At 15-14° mortality of the control group was 73% and of the treated group -- 54%. The concentrations of ammonia, glutamine, and glutamic acid were recorded. At 20° the ammonia content in the brain of the arginine-treated rats was 60% less than the untreated group. At the end of the self-warming period (37° rectally) the ammonia level was still only 71% of the level in untreated rats. The amount of glutamine in the brain of the treated rats during hypothermia was 25% above the control group at 20°; at the end of hypothermia it was 36.5%. The level of glutamic acid in the brain was decreased in the treated group during the self-warming process and amounted to 61.8% in relation to the control group at 37°. Several hypotheses are presented to account for the mechanism of action of arginine in hypothermia and especially for its effect on metabolism in the brain. Orig. art. has: 2 tables.

Card 2/3

ACCESSION NR: AP4002656

ASSOCIATION: Kafedra biokhimii Gosudarstvennogo universiteta Rostov-na-Donu (Chair of Biochemistry, State University, Rostov-on-Don)

SUBMITTED: 21Nov62 DATE ACQ: 03Jan64 ENCL: 00

SUB CODE: AM NO REF SOV: 003 OTHER: 022

Card 3/3

ACCESSION NR: AP4010766 S/0020/64/154/001/0220/0222

AUTHOR: Bronovitskaya, Z. G.; Gershenovich, Z. S.; Pisarenko, N.

TITLE: Enzyme synthesis of glucosamine in liver under hyperoxidation

SOURCE: AN SSSR. Doklady*, v. 154, no. 1, 1964, 220-222

TOPIC TAGS: glucosamine, glucosamine synthesis, enzyme, enzyme synthesis animal tissues, in vivo analysis, in vitro analysis, fructose 6-phosphate, ammonium ions, hyperoxidation, liver preparation, brain preparation

ABSTRACT: The possibility of the synthesis of glucosamine by enzymic liver preparation from fructose 6-phosphate and ammonium ions is investigated. Glucosamine could be synthesized in a system containing an enzyme, hexophosphate and glutamine or ammonium chloride. The experimental conditions are given and it is established that the synthesis is most intensive during the first 30 minutes. The volume of glucosamine synthesis from glutamine is 0.22 μ mole/hour ml, from

Card 1/2

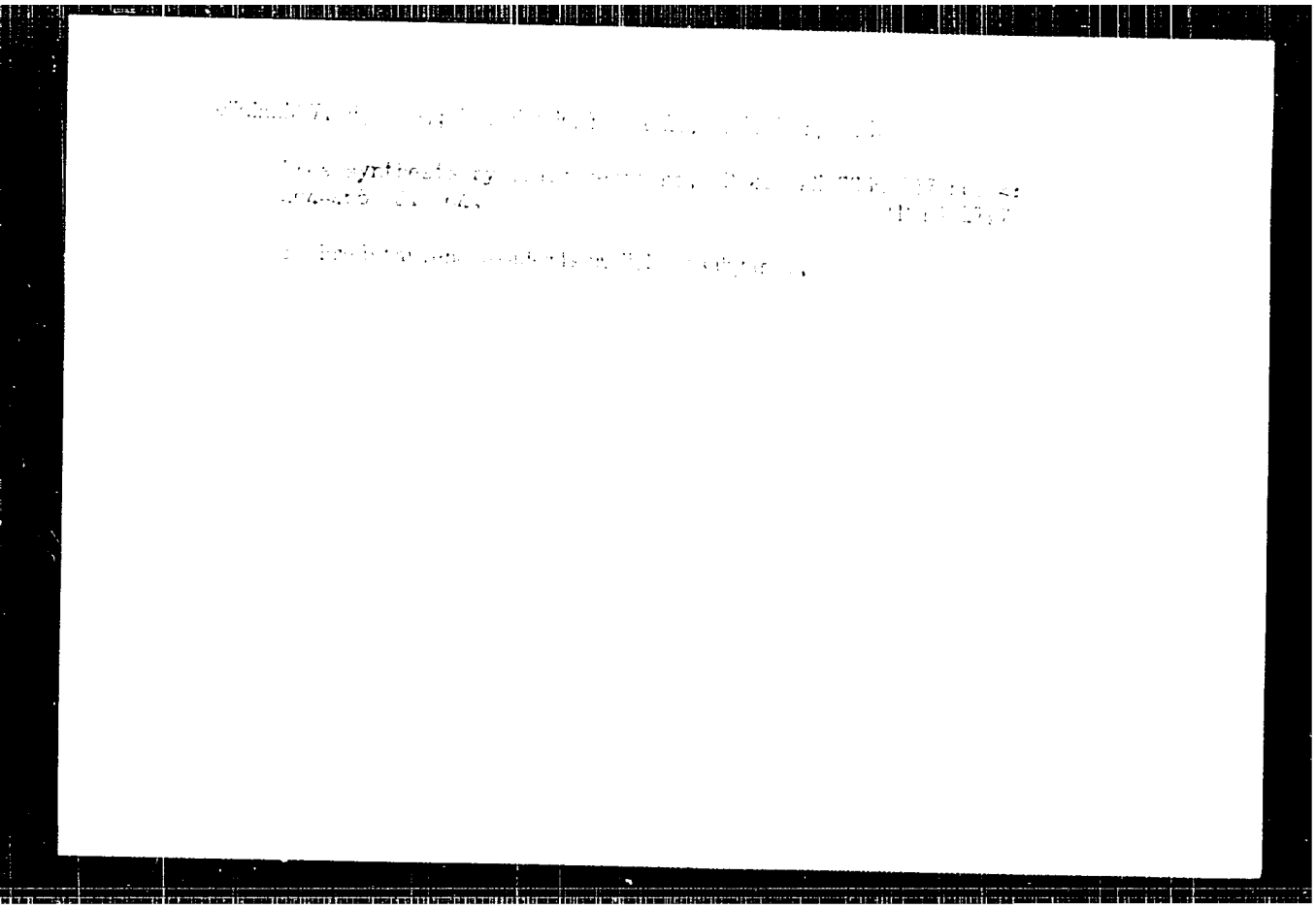
ACCESSION NR: AP4010766

ammonium chloride about 0.16μ mole/hour ml. The experiments consist of two parts: (1) exposure of the animal to an increased oxygen pressure, (2) preparation of an enzymic preparation and the determination of its activity under usual gas conditions. It is found that after the action of oxygen the glucosamine content is 49% lower than in the control sample. The enzyme is affected by hyperoxidation and a comparison of the metabolisms in the liver and brain shows that the liver synthesizes glucosamine predominantly and the brain consumes it.

ASSOCIATION: none

SUBMITTED: 27May63	DATE ACQ: 10Feb64	ENCL: 00
SUB CODE: CH	NO REF SOV: 004	OTHER: 009

Card 2/2



ACCESSION NR: AP4042801 S/0020/64/157/003/0714/0715

AUTHOR: Lukash, A. I.; Gershenovich, Z. S.

TITLE: Change in brain protein property during hyperoxia

SOURCE: AN SSSR. Doklady*, v. 157, no. 3, 1964, 714-715

TOPIC TAGS: hyperoxia, protein metabolism, brain, proteolysis

ABSTRACT: The intensity of brain proteolysis has been studied in white rats following their exposure to increased oxygen pressures. The intensity of proteolytic processes was gaged as a function of the accumulation of protein cleavage products during the incubation of brain tissue. Examinations were conducted during convulsions which developed following exposure to 6 atm of pure oxygen for 20—30 min and during torpor following exposure to 3.5 atm of oxygen for 90 min. Test results were compared with control animals. It was found that hyperoxia lowered the quantity of water-soluble proteins in the brain. During the incubation of brain tissue, the rate of proteolysis was altered, depending on the previous functional condition of the animals. Orig. art. has: 2 tables.

Card 1/2

ACCESSION NR: AP4042801

ASSOCIATION: Rostovskiy-na-Donu gosudarstvennyy universitet (Rostov-on-the-Don State University)

SUBMITTED: 16Mar64 ATD PRESS: 3069 ENCL: 00

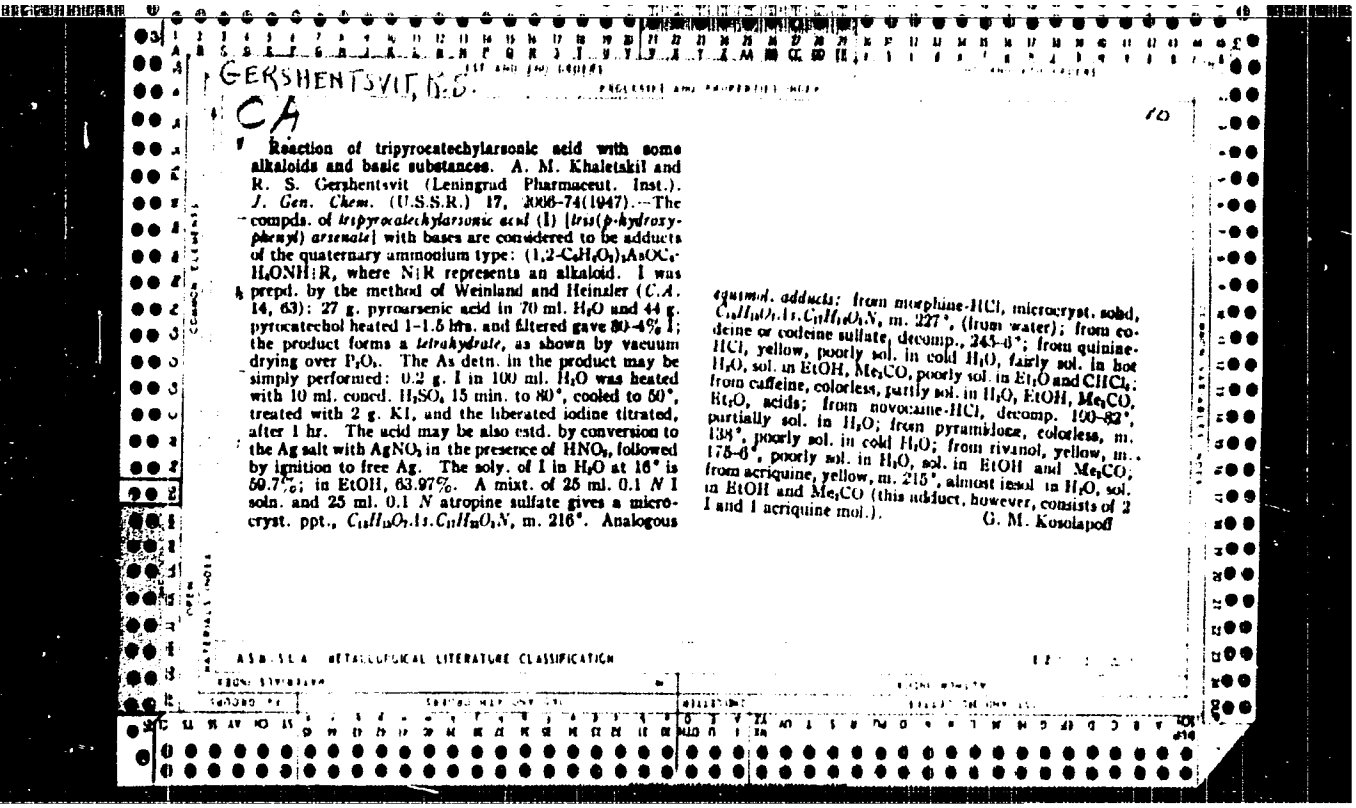
SUB CODE: LS NO REF SOV: 004 OTHER: 002

Card 2/2

VEKSLER, Ya.I.; GERSHENOVICH, Z.S.

Regulation of oxidation and phosphorylation coupling in cerebral tissues in overcooling and heating. Biokhimiia 30 no. 3:449-456 My-Je '65 (MIRA 19:1)

1. Kafedra biokhimii Gosudarstvennogo universiteta, Rostov-na-Donu.



GERSHENTSVIT, K.D.

CA

10

Reaction of tripyrocatechylarsonic acid with some alkaloids and basic substances. A. M. Khaletskii and R. S. Gershentsvit (Leningrad Pharmaceut. Inst.). *J. Gen. Chem.* (U.S.S.R.) 17, 2006–74(1947).—The compds. of *tripyrocatechylarsonic acid* (I) [*tris(p-hydroxyphenyl) arsenate*] with bases are considered to be adducts of the quaternary ammonium type: $(1,2\text{-}C_6H_4O_2)_3AsOC_6H_4ONH{:}R$, where N:R represents an alkaloid. I was prepd. by the method of Weinland and Heinzler (*C.A.* 14, 63): 27 g. pyroarsenic acid in 70 ml. H_2O and 44 g. pyrocatechol heated 1–1.5 hrs. and filtered gave 80–4% I; the product forms a *tetrahydrate*, as shown by vacuum drying over P_2O_5. The As detn. in the product may be simply performed: 0.2 g. I in 100 ml. H_2O was heated with 10 ml. concd. H_2SO_4 15 min. to 80°, cooled to 50°, treated with 2 g. KI, and the liberated iodine titrated, after 1 hr. The acid may be also estd. by conversion to the Ag salt with $AgNO_3$ in the presence of HNO_3, followed by ignition to free Ag. The soly. of I in H_2O at 16° is 59.7%; in EtOH, 63.97%. A mixt. of 25 ml. 0.1 *N* I soln. and 25 ml. 0.1 *N* atropine sulfate gives a microcryst. ppt., $C_{18}H_{19}O_7As.C_{17}H_{23}O_3N$, m. 216°. Analogous *equimol. adducts:* from morphine·HCl, microcryst. solid, $C_{18}H_{19}O_7As.C_{17}H_{19}O_3N$, m. 227° (from water); from codeine or codeine sulfate, decomp., 245–6°; from quinine·HCl, yellow, poorly sol. in cold H_2O, fairly sol. in hot H_2O, sol. in EtOH, Me_2CO, poorly sol. in Et_2O and $CHCl_3$; from caffeine, colorless, partly sol. in H_2O, EtOH, Me_2CO, Et_2O, acids; from novocaine·HCl, decomp. 190–92°, partially sol. in H_2O; from pyramidone, colorless, m. 138°, poorly sol. in cold H_2O; from rivanol, yellow, m. 178–9°, poorly sol. in H_2O, sol. in EtOH and Me_2CO; from acriquine, yellow, m. 215°, almost insol. in H_2O, sol. in EtOH and Me_2CO (this adduct, however, consists of 2 I and 1 acriquine mol.). G. M. Kosolapoff

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

GERSHENTSVIT, R.S.; Prinimali uchastiye:GERASIMOVA, studentka; ZELIKMAN, student; KATSNEL'SON, student

Investigation of the stability of fat bases in pharmacy. Trudy Len.khim.-farm.inst. no.13:259-263 '62. (MIRA 15:10)

1. Kafedra analiticheskoy khimii (zav. prof. V.P.Il'inskiy) Leningradskogo khimiko-farmatsevticheskogo instituta.
(OILS AND FATS)

GERSHENTSVIT, R.S.; FAL'K, Ye.Yu.

Use of X-ray and structural analysis for studying fat bases in pharmacy. Trudy Len.khim.-farm.inst. no.13:264-267 '62.
(MIRA 15:10)

1. Kafedra analiticheskoy khimii (zav. prof. V.P.Il'inskiy) Leningradskogo khimiko-farmatsevticheskogo instituta.
(X RAYS--INDUSTRIAL APPLICATIONS) (OILS AND FATS)

GERSHENTSVIT, R.S.; AKKERMAN, B.D.

Studying the oxidation resistance of fat bases enriched with vitamin F. Trudy Len. khim.-farm. inst. 12:173-178 '61.
(MIRA 15:3)

1. Kafedra analiticheskoy khimii Leningradskogo khimiko-farmatsevticheskogo instituta Ministerstva zdravookhraneniya RSFSR i kafedra obshchey khimii Leningradskogo obshchevoyskovogo komandnogo uchilishcha imeni Kirova.
(OILS AND FATS) (MATERIA MEDICA)
(VITAMINS--F)

ACCESSION NR: AP4039279 S/0046/64/010/002/0156/0162

AUTHORS: Gershenzon, E. L.; Eknadiosyants, O. K.

TITLE: On the nature of liquid atomization in an ultrasonic fountain

SOURCE: Akusticheskiy zhurnal, v. 10, no. 2, 1964, 156-162

TOPIC TAGS: ultrasonic atomization, saturation vapor pressure, surface tension, sonoluminescence, cavitation, spray velocity

ABSTRACT: The ultrasonic atomization of sixteen liquids with different saturation vapor pressures, surface tensions, and viscosities has been studied experimentally. A constant intensity 2 Mc frequency was used at constant temperature and exit spray velocity. The various liquids used had a factor 4 spread in their surface tension σ magnitudes, a factor 12 in viscosity η and a factor 100 in saturation vapor pressure p. The tabulated results indicate that the various liquids used can be divided into two groups, each with a constant A^2/β ratio, where A - atomization rate g/sec and $\beta = p/\eta\sigma$. These results are plotted on a log-log scale of A versus β, with an average slope 2. It is noted that β is also a direct function of temperature. The effect of cavitation during spray formation is studied and is shown to be very significant as it is present in the form of sonoluminescence, which, when plotted as a function of σ^2/p for several of the liquids, exhibits a

Card 1/2

ACCESSION NR: AP4039279

linear dependence on a log-log scale. "The authors express their gratitude to L. D. Rozenberg for his advice and remarks. N. I. Bezrukova, A. D. Karyugina, and V. N. Kharitonov also took part in the experiments." Orig. art. has: 6 formulas, 5 figures, and 2 tables.

ASSOCIATION: Akusticheskiy institut AN SSSR Moscow (Acoustics Institute AN SSSR)

SUBMITTED: 24Jun63 DATE ACQ: 12Jun64 ENCL: 00

SUB CODE: GP NO REF SOV: 005 OTHER: 007

Card 2/2

ACC NR: AT7001813 SOURCE CODE: UR/2778/66/000/015/0072/0078

AUTHOR: Yurchuk, V. A.; Zlatin, A. L.; Gershenzon, G. S.

ORG: none

TITLE: Resistance telemetering system

SOURCE: Leningrad. Nauchno-issledovatel'skiy institut gidrometeorologicheskogo priborostroyeniya. Trudy, no. 15, 1966, 72-78

TOPIC TAGS: telemetry system, telemetry transmitter, telemetry receiver, hydrometeorology, telemetry, electric resistance telemeter, resistance telemeter, pulse bridge telemeter

ABSTRACT: The authors discuss the principles of the construction of simple pulse-bridge telemetric systems for measuring hydrometeorological resistance when the measurement of meteorological elements is reduced to the measurement of electric resistance. The system consists of a measuring-and-transmitting unit and a receiving-and-recording unit. Circuit diagrams are given for the transmitter and receiver units, and the design of the various elements in the units is described. Orig. art. has: 3 figures and 19 formulas. [Based on authors' abstract] [SP]

SUB CODE: 08, 09/SUBM DATE: none/ORIG REF: 001/

Card 1/1

L 27266-66 EWT(1)/FCC GW

ACC NR: AP6009546 SOURCE CODE: UR/0413/66/000/005/0078/0079

AUTHORS: Gulyayev, A. A.; Manuylov, K. N.; Gershenzon, G. S.; Mogil'ner, I. N.; Stepanova, N. K.; Shapiro, M. Ya.

ORG: none

TITLE: Atmospheric pressure transducer. Class 42, No. 179497 [announced by Scientific Research Institute of Hydrometeorological Instrument Manufacture (Nauchno-issledovatel'skiy institut gidrometeorologicheskogo priborostroyeniya)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 5, 1966, 78-79

TOPIC TAGS: atmospheric pressure, pressure transducer

ABSTRACT: This Author Certificate presents an atmospheric pressure transducer containing elastic sensor elements, e.g., in the form of vacuum sylphons fastened to a beam connected to vibrotrons, a zero unit, a compensator, and a readout system. To increase the accuracy of measurements and to improve the dynamic properties of the transducer, the beam is suspended from two identical vibrotron strings and has a constant stationary load and a movable compensation load (see Fig. 1).

Card 1/2 UDC: 551.508.49

L 27266-66

ACC NR: AP6009546

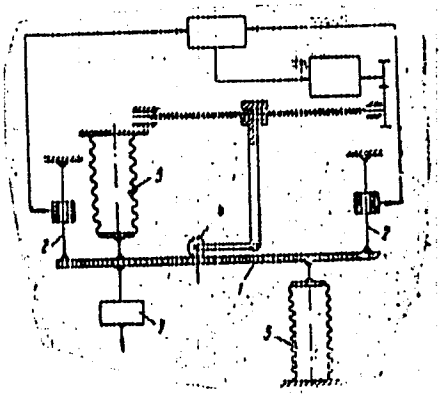


Fig. 1. 1 - beam; 2 - vibrotron strings;
3 - constant stationary load;
4 - movable compensation load;
5 - sensor elements.

Two sensor elements are fastened to the beam on opposite sides so that one increases the string tension in one of the vibrotrons and the other decreases the string tension of the other vibrotron. Orig. art. has: 1 diagram.

SUB CODE: 10, 04/ SUBM DATE: 16Dec64

Card 2/2 CC

9.6110
3.5800

B/169/62/000/008/022/090
E202/E592

AUTHORS: Gershenzon, Ts.S., Mamuylov, K.N.

TITLE: The rate of response of temperature gradient using various measuring instruments

PERIODICAL: Referativnyy zhurnal, Geofizika, no. 8, 1962, 9, abstract 8B83. (Tr. N.-i. in-ta gidrometeorol. priborostr., no. 10, 1961, 99-100)

TEXT: The vertical gradient of temperature during atmospheric sounding may change stepwise.. Hence the problem at what thermometric conditions, the sonde element having a determined inertia coefficient ε and a threshold sensitivity, will react to the rate of changing of the said temperature gradient. As a result of theoretical calculations, the authors conclude that the threshold sensitivity γ, referred to the unit of rate of heating of the medium, should be expressed as follows:

$$\gamma = \left| \tau_{1Kp} - \varepsilon \left(1 - e^{-\tau_{1Kp}/\varepsilon} \right) \right|$$

Card 1/2

3/169/62/000/008/022/090
E202/E392

The rate of response ....

Where τ_{1K_p} is the period of time from the moment of change of temperature gradient of the medium until the moment when this change is recorded by the instrument. An auxiliary table is given for determination of τ_{1K_p}.

[Abstracter's note: Complete translation.]

Card 2/2

GERSHENZON, I.V.

Achievements of the innovators of the Black Sea Economic Region.
Mashinostroitel' no.4:10-11 Ap '65. (MIRA 18:5)

NEVZOROV, N.V.; SHCHERBACHEV, V.D.; GERSHENZON, M.L.; NEMCHINOV, V.S., akademik, red.; NEKRASOV, N.N., red; ZUBKOV, A.I., kand. ekonom. nauk, red.; VASIL'YEV, P.V., doktor ekonom. nauk, otv. red.; DROBOT, V.F., red. izd-va; POLYAKOVA, T.V., tekhn. red.

[Forest resources of Krasnoyarsk Territory and possibilities for their industrial utilization] Lesnye resursy Krasnoiarskogo kraia i perspektivy ikh promyshlennogo ispol'zovaniia. Moskva, Izd-vo Akad. nauk SSSR, 1961. 164 p. (MIRA 14:9)

1. Krasnoyarskaya kompleksnaya ekspeditsiya. 2. Chlen-korrespondent AN SSSR (for Nekrasov). 3. Sotrudniki lesoekonomicheskogo otryada Krasnoyarskoy kompleksnoy ekspeditsii Soveta po izucheniyu proizvoditel'nykh sil AN SSSR (for Nevzorov, Shcherbachev).
(Krasnoyarsk Territory--Forests and forestry)

MELAMED, M.; GERSHENZON, O.

Maximum utilization of grain waste for the production of mixed feeds. Muk.-elev. prom. 28 no.1:22-23 Ja '62. (MIRA 16:7)

1. Glavnyy inzh. Tashkentskogo mel'nichnogo kombinata No.2 (for Melamed). 2. Nachal'nik otdela tekhnokhimicheskogo kontrolya Tashkentskogo mel'nichnogo kombinata No.2 (for Gershenzon).
(Feeds) (Grain--Milling)

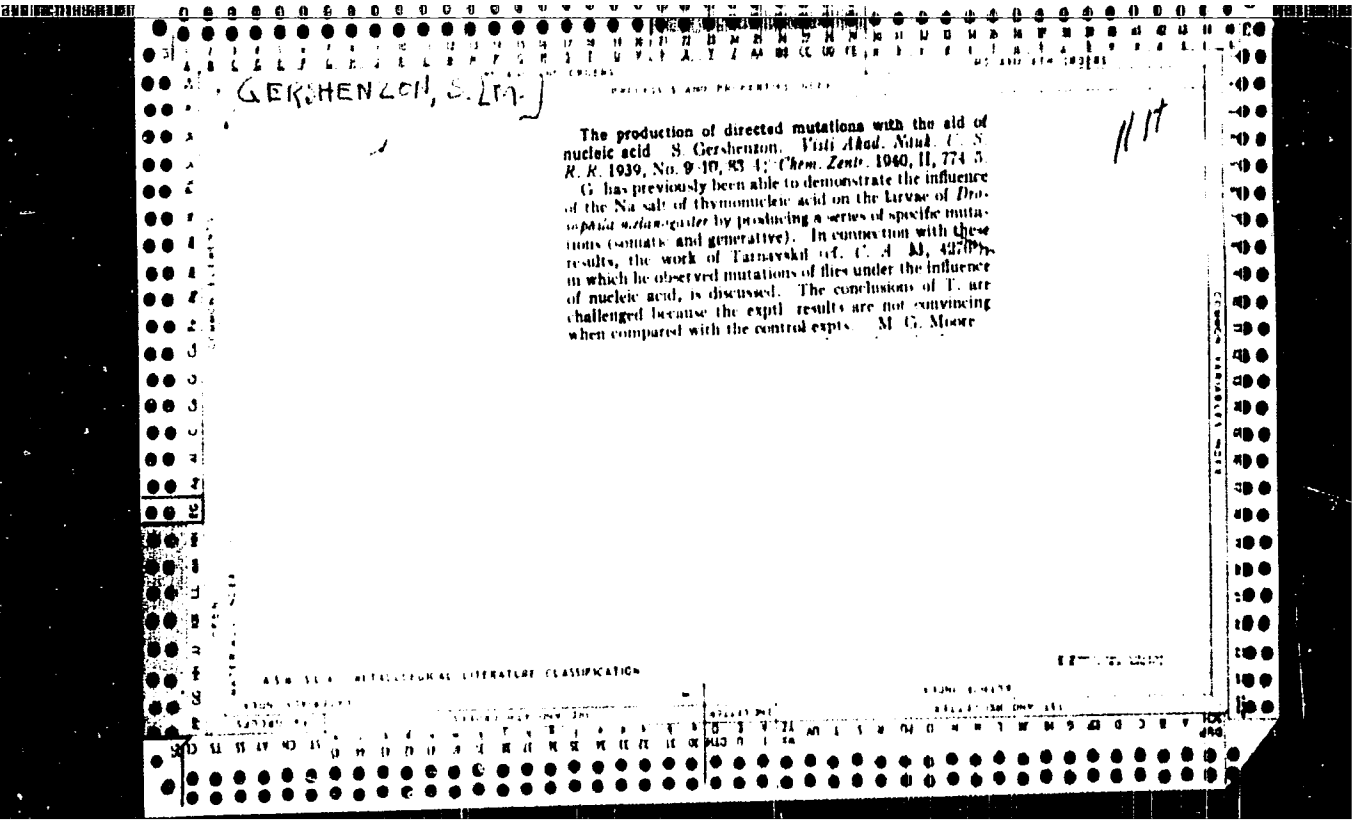
GERSHENSON, S. M.

"Recapitulation of Characters and Genetics", (p. 1065) by Gershenson, S. M.

SO: Advances in Contemporary Biology (USPEKHI SOVREMENNOI BIOLOGII) Vol. V, No. 6 1936

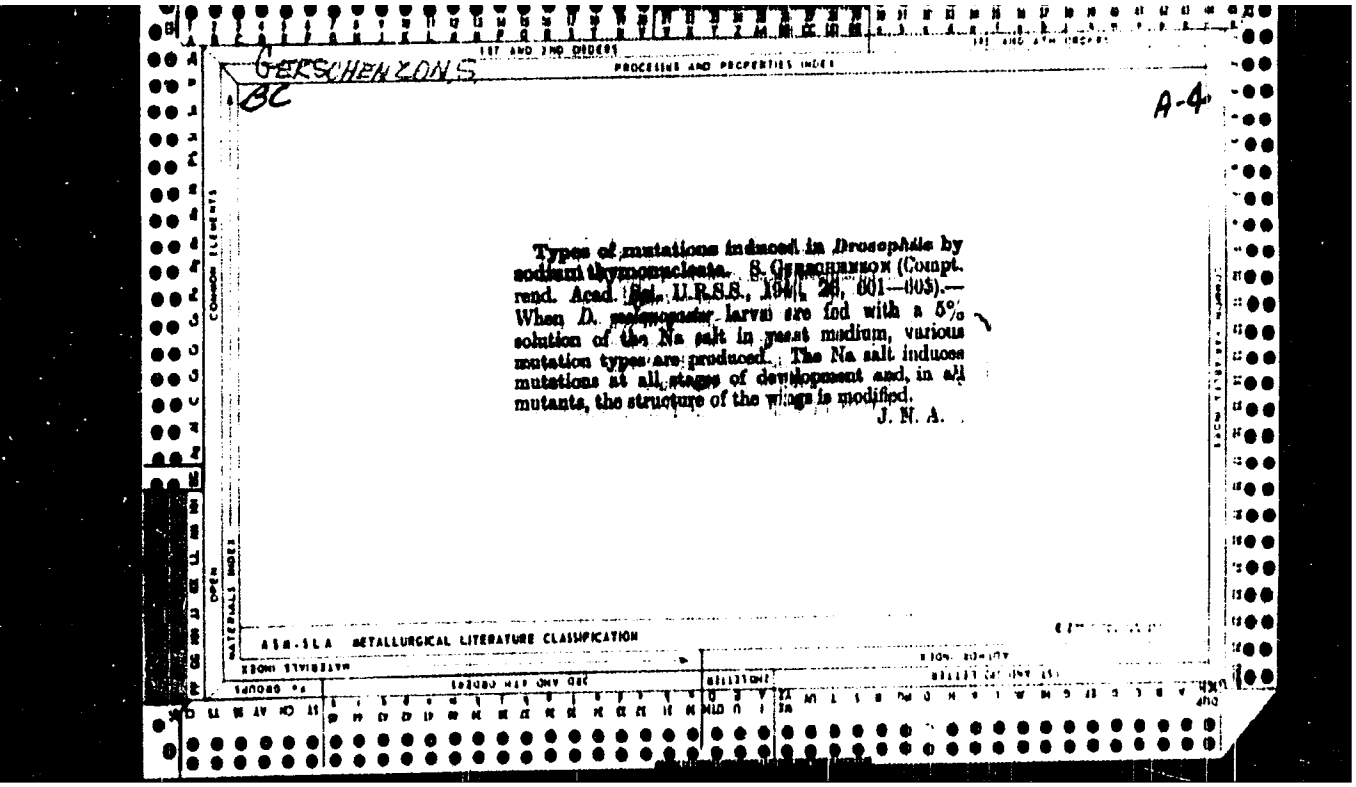
GERSHENZON, S.

"Induction of Directed Mutations in Drosophila," Dok.AN, 25, No. 3, 1939.
Inst. Zool. Mbr., Acad. Sci.



GERSHENZON, S. [illegible]

The production of directed mutations with the aid of nucleic acid. S. Gershenzon. *Visti Akad. Nauk. U. S. R. R.* 1939, No. 9-10, 83-4; *Chem. Zentr.* 1940, II, 774-5. G. has previously been able to demonstrate the influence of the Na salt of thymonucleic acid on the larvae of *Drosophila melanogaster* by producing a series of specific mutations (somatic and generative). In connection with these results, the work of Tarnavskii (cf. C. A. 33, 4270[illegible] in which he observed mutations of flies under the influence of nucleic acid, is discussed. The conclusions of T. are challenged because the exptl. results are not convincing when compared with the control expts. M. G. Moore



GERSCHENZON S

BC

A-4

Types of mutations induced in *Drosophila* by sodium thymonucleate. S. Gerschenzon (Compt. rend. Acad. Sci. U.R.S.S., 1941, 28, 601—603).— When *D. melanogaster* larvæ are fed with a 5% solution of the Na salt in yeast medium, various mutation types are produced. The Na salt induces mutations at all stages of development and, in all mutants, the structure of the wings is modified.

J. N. A.

A58-5LA METALLURGICAL LITERATURE CLASSIFICATION

GERSHENZON, S.

"Fate of Mutant Individuals in a Wild Population of Drosophila Fasciata," Dok.AN, 28, No. 6, 1940. Inst. of Zoology; Acad. Sci. Ukrainian SSSR.

GERSHENZON, S.

"Inheritance of Black Coat Color in the Common Hamster (Cricetus Cricetus L.)."
Dok.AN, 29, No. 8-9, 1940; Dept. of Darwinism. Kiev State Univ.

GERSHENSON, S. M.

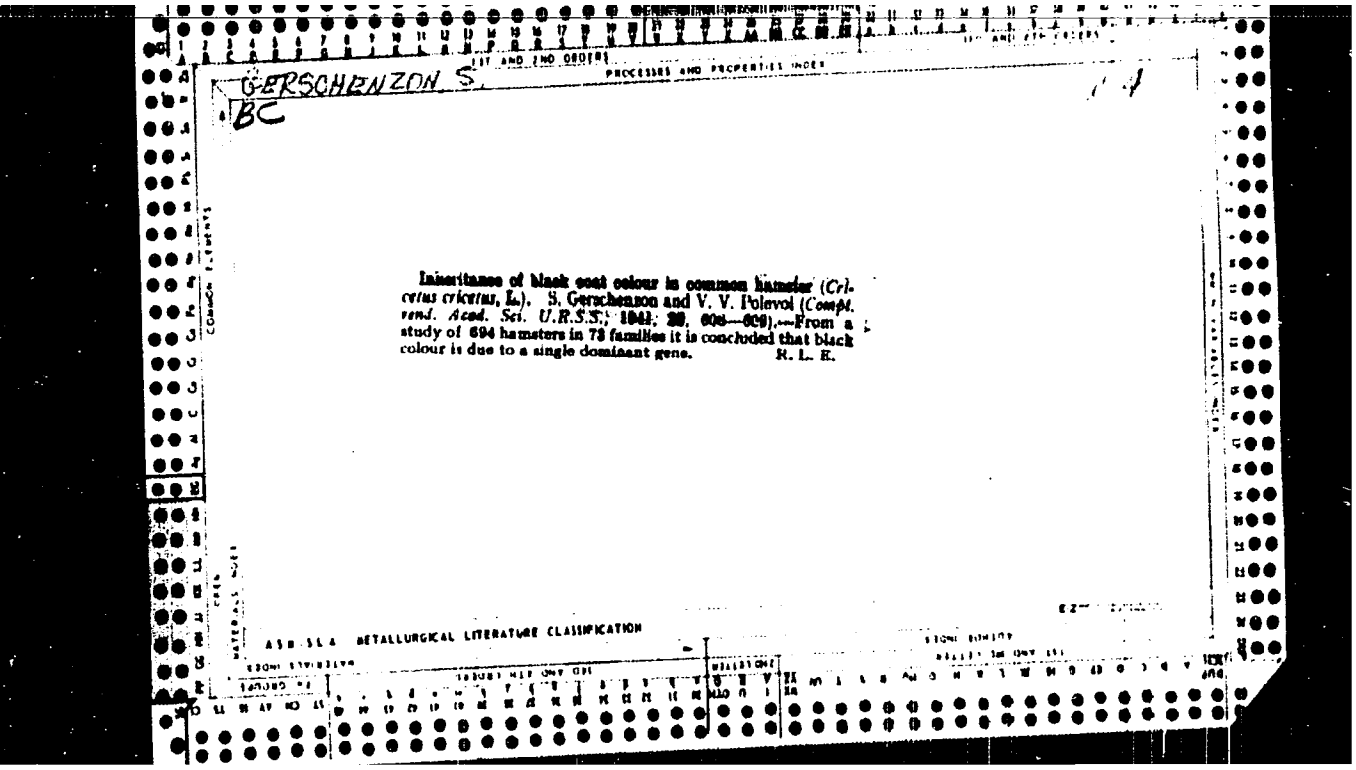
"The 'mobilization reserve' of intra specific variation." (p. 85) by S. M. Gershenson.

SO: Journal of General Biology (Zhurnal Obschei Biologii) Volume II No. 1, 1941.

GERSHENSON, S. M.

"An experimental study of Natural selection in a Mutant population of Drosophila virilis," (p. 395) by S. M. Gershenson.

SO: Journal of General Biology (Zhurnal Obschei Biologii) Volume II No. 3, 1941.



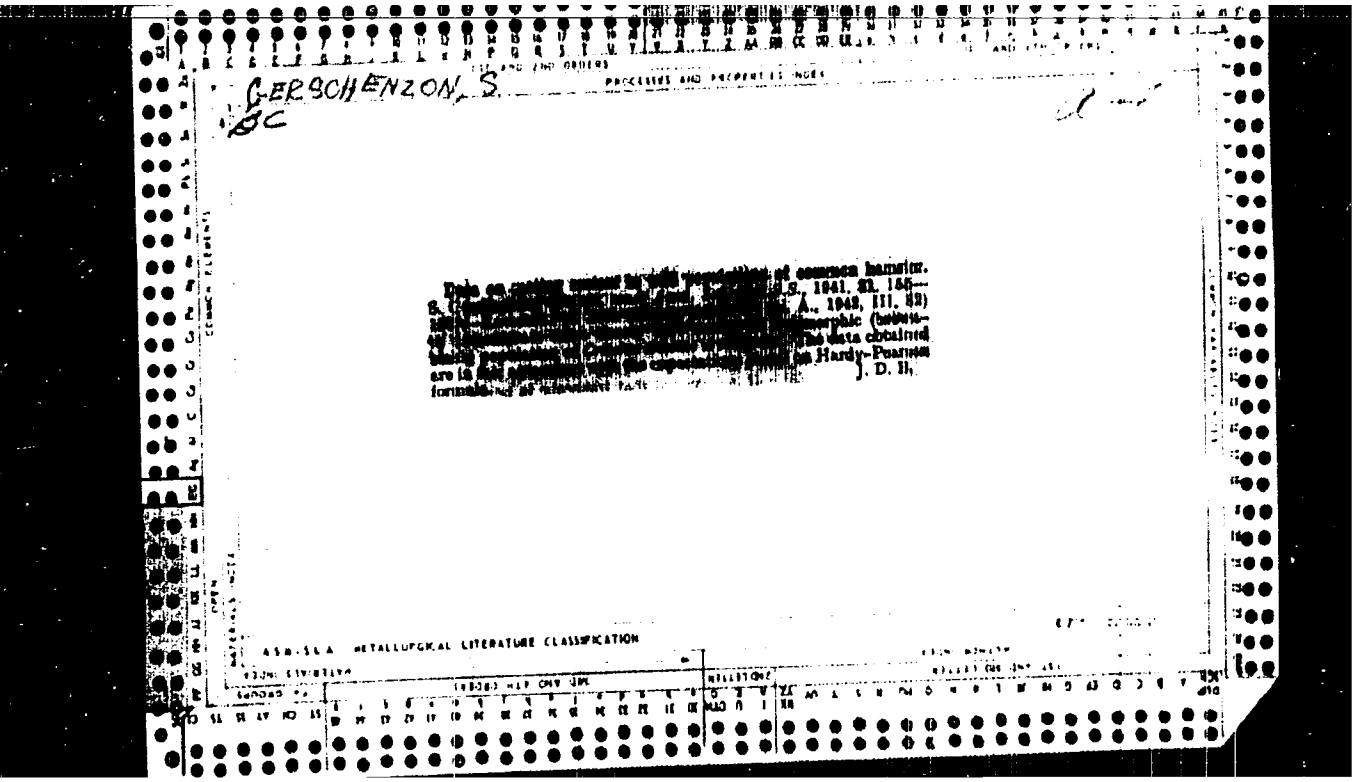
GERSCHENZON S.
BC

Inheritance of black coat colour in common hamster (*Cricetus cricetus*, L.). S. Gerschenzon and V. V. Polevoi (*Compt. rend. Acad. Sci. U.R.S.S.*, 1941, **30**, 608—609).—From a study of 694 hamsters in 78 families it is concluded that black colour is due to a single dominant gene. R. L. E.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

GERSHENZON, S.

"Mating System in a Natural Population of the Common Hamster," Dok. AN, 30, No. 1, 1941. Dept. of Darwinism Kiev State Univ.



GERSHENZON, S.

"Distribution of Black Hamster in the Ukrainian SSR," Dok. AN, 47, No. 8, 1945.

GERSHENZON, S.

"Seasonal Fluctuations in the Frequency of Black Hamster," Dok. AN, 48, No. 9, 1945.

GERSHENZON, S. M.

USSR/Medicine - Flies Dec 1947
Medicine - Heredity, Experimental

"Mutation in Drosophila Through the Action of Dichlorethylsulphide," S. M. Gershenzon, R. A. Zil'berman, O. L. Levochkina, A. M. Pashkovskiy, P. O. Sit'ko, M. D. Tarnavskiy, Genetics Sec, Inst Zool, Acad Sci USSR, 2 pp

"Dok Akad Nauk SSSR, Nova Ser" Vol LVIII, No 7

Chemical stimulation of mutation was begun before war. In postwar period yperite included in experiments. Ob served that this substance had high mutation genesis quality which acts directly on chromosomes but does not cause any biological changes in cytoplasm. Submitted by Academician A. V. Palladin, 27 Jun 1947.

60T53

GERSHENZON, S. M.

USSR/Medicine - Heredity, Mechanism Mar/Apr 48
Medicine - Nucleins

PA5/49T63 "Induction of Mutation in Drosophila by Thymonucleic Acid," S. M. Gershenzon, R. A. Zil'berman, O. L. Levochkina, P. O. Sit'ko, N. D. Tarnavskiy, Zool Inst, Acad Sci USSR, 20 pp

"Zhur Obshch Biol" Vol IX, No 2

Presents results obtained by nurturing larva of two lines of D. melanogaster in media containing 5% and 12% sodium thymonucleate. Morphosis (principally wing indentations) were frequently observed in resultant flies; moreover, there were increases in

5/49T63

USSR/Medicine - Heredity, Mechanism (Contd) Mar/Apr 48

mortality rate and lengthening of growth period. Discusses reasons for failure of previous efforts in this field and significance of results in relation to some general problems of genetics. Submitted 28 Jul 47.

5/49T63

GERSHENZON, S.M.

First results of breeding Antheraea pernyi based on the hybridization of Chinese and local species. Trudy Inst. zool. AN URSR no.7:30-60 '52. (MLRA 8:12)

(Silkworms)

GERSHENZON, S.M.

Use free mating in breeding Antheraea pernyi. Trudy Inst.zool. AN URSR no.7:126-128 '52. (MLRA 8:12)

(Silkworms)

GERSHENZON, S.M.

Methods for disinfecting the graine of the tussah moth. Dop.AN URSR no.6:460-462 '54. (MLRA 9:9)

1.Institut zoologii AN URSR. Predstaviv diysniy chlen AN URSR V.G. Kas'yanenko.
(Silkworms--Diseases)

GERSHENZON, S. M.

Species specificity of viruse of polyhedra disease in insects.
Mikrobiologiia 24 no.1:90-98 Ja-F '55. (MLRA 8:4)

1. Institut zoologii Akademii nauk USSR, Kiyev.
(VIRUSES,
polyhedral, species specificity)
(INSECTS, diseases,
polyhedral, species specificity of viruses)

Gershenzon, S.

The nature of the intranuclear inclusions in polyhedral disease of insects. S. Gershenzon. *Doklady Akad. Nauk S.S.S.R.* 104, 925-8(1955).—Examn. of the polyhedral occlusions which are found in the cell nuclei of a variety of moths affected by polyhedral disease, showed that these polyhedral particles have somewhat different dimensions in the various insect species but all of them appear to be in the nature of virus proteins and not products of reaction of the host cells. They can be stained only with great difficulty. Typical photographs are shown. G. M. Kosharoff

Inst. Zoology, AS USSR

GERSHENZON, S.M.

Investigation of the Japanese method of feeding silkworm larvae. Dop. UN URSR no.2:195-196 '56. (MLRA 9:12)

1. Institut zoologii Akademii nauk URSR. Predstavleno akademikom Akademii nauk USSR R.Ye. Kavetskim.
(Silkworms)

USSR/Virology. Viruses of Man and Animals. E-3

Abs Jour: Ref. Zh.-Biol., No 9, 1957, 35426

Author : Gershenson, S.M.
Inst :
Title : The Reconstitution of Active Polyhendron Nucleic Virus From the Nucleic Acid and Protein Within the Cell

Orig Pub: Dopovidi AN URSR, 1956, No 5, 492-293

Abstract: The virus desoxyribonucleic acid was isolated from the polyhedrons of an oak bombyx Antheraea pernyi Guer according to the method of Zinger and Shwander (Helvet. chimica acta, 1949, 33, 853). The polyhedral protein was isolated by means of putting the polyhedrons in a mild alkali medium, in which the virus was washed away from the polyhedrons or destroyed. The preparations of DNK had no traces of protein, but the protein preparations had no traces of DNK and were non-infectious. Infection experiments were conducted on healthy male

Card : 1/3 -8-

USSR/Virology. Viruses of Man and Animals.

Abs Jour: Ref. Zh.-Biol., No 9, 1957, 35426

caterpillars of an oak bombyx. In each series of the experiments one group of caterpillars was given only virus DNK, a second group only polyhedral protein, and a third group a mixture of these. Each caterpillar received 0.05 milliliters of the preparation, aseptically. DNK was dissolved in water at 4 degrees (0.1 gr to 5 ml.), the polyhedral protein in a soda-salt solution (0.5 gr. to 5 ml.) after which the pH was brought to 8.0. To get the mixture, solutions of the same volume were mixed for 4 hours at 4 degrees and then at room temperature for 3 more. Three series of experiments were conducted (1954, 1955, 1956). The results are summarized in a table.

	Material Injected	No. of Caterpillars in exper.	Died	
			Virus Jaundice	Other Causes
I	DNK	100	3	7
II	Albumen	100	1	3
III	Mixture (I+II)	100	44	4

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In the opinion of the author, the death from jaundice of 4 caterpillars from groups I and II was in all probability connected with the activation of latent viruse, with which these caterpillars had been infected prior to the beginning of the experiment. The caterpillars of group III became sick with jaundice in the same period of time as caterpillars infected with polyhedral viruses, isolated from sick persons. Simultaneous or separate injections into the caterpillars of solutions of virus DNK and polyhedral protein did not cause sickness. The data received indicates, in the opinion of the author, that the combination in vitro of noninfectious solutions of virus DNK and protein leads to the constitution of a polyhedral virus.

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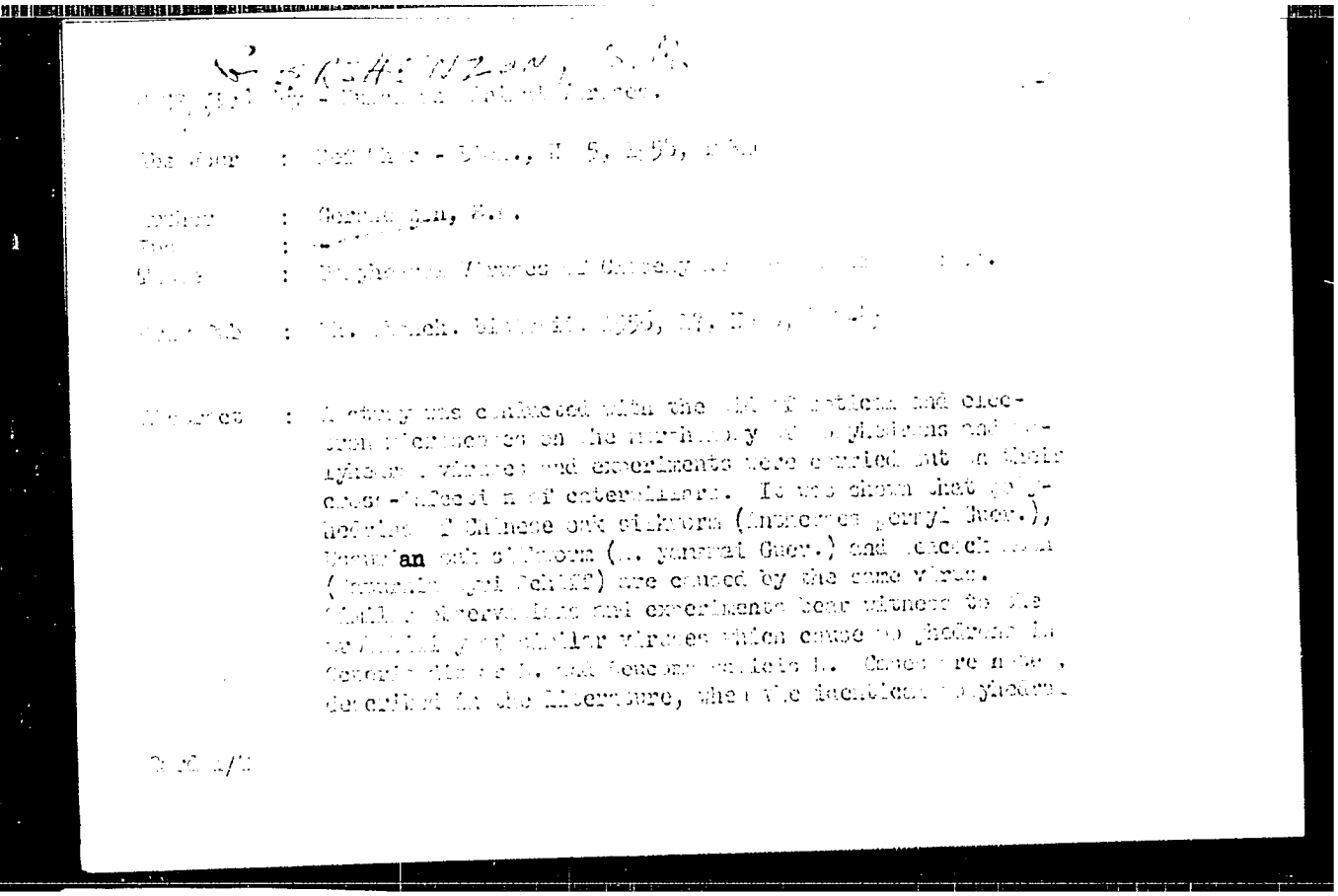
Effect of retarding graine development on the proneness to jaundice of mulberry silkworms. Dop.AN URSR no.6:608-610 '56. (MLRA 10:2)

1. Institut zoologii AN URSR. Predstaviv akademik AN URSR V.G. Kas'yanenko.

(Silkworms--Diseases)



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Initial stages in the development of polyhedral disease of insects. Mikrobiologiia 25 no.1:90-98 '56 (MLRA 9:5)

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(VIRUS DISEASES,
polyhedral dis. of silkworm, stages of develop.(Rus))
(MOTHS,
silkworm, polyhedral dis., stages of develop.(Rus))

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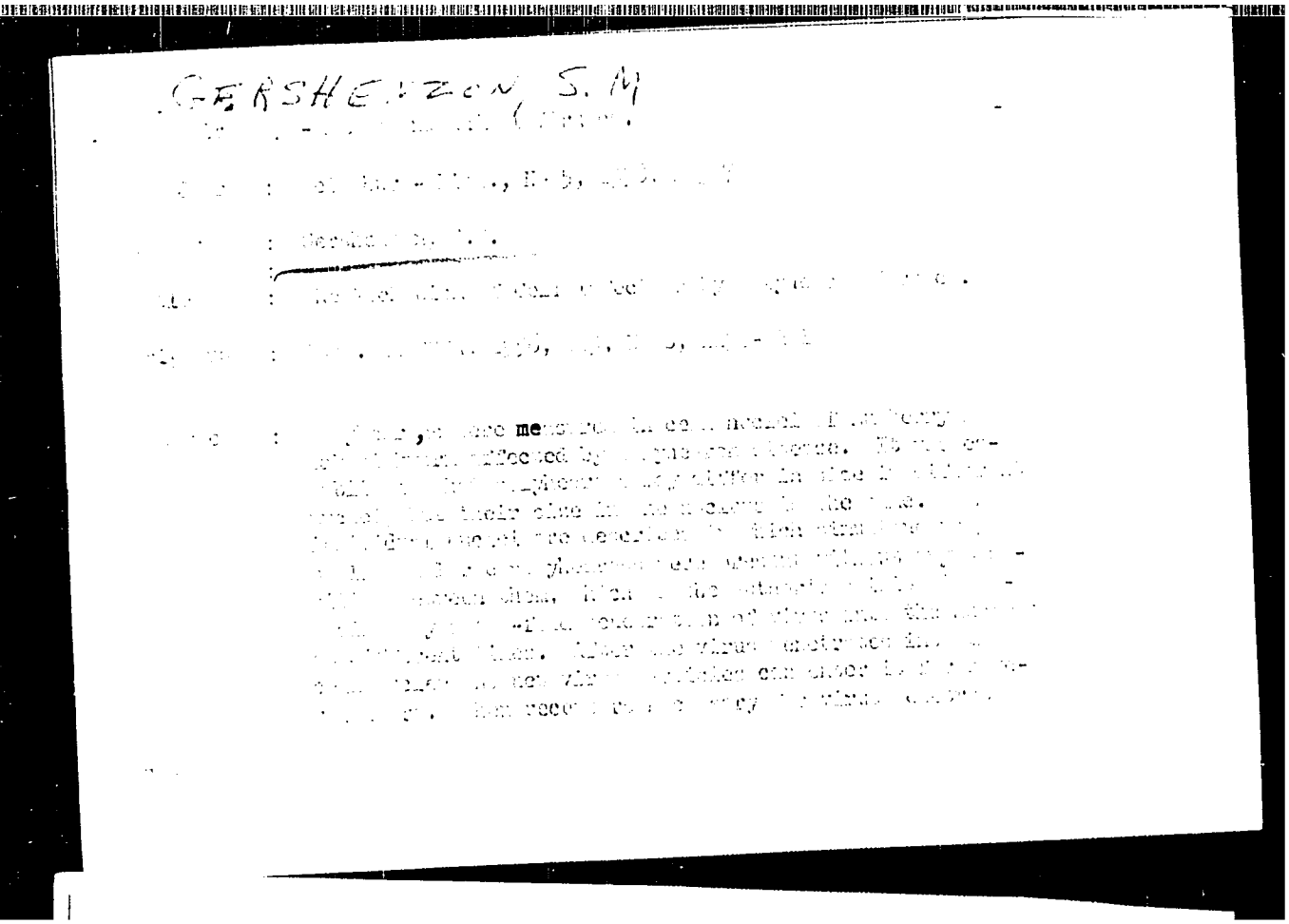
Reconstruction of active polyhedral virus from inactive protein and nucleic acid. Biul.MOIP.Otd.biol. 61 no.6:99-101 N-D '56. (MLRA 10:8)
(VIRUSES) (NUCLEIC ACIDS)
(PROTEINS)



GERSHEVICH, S. M.