

YEZDAKOV, V. I.

USSR / Soil Science. Physical and Chemical Properties of Soil. J

Abs Jour : Ref Zhur - Biologiya, No 11, 1958, No. 48633

Author : Yezdakova, L. A.; Rish, M. A.; Yezdakov, V. I.
Inst : Acad. Sciences Uzbek SSR
Title : Role of Soil Composition on the Content of Individual Elements in Plants

Orig Pub : Izv. AN UzSSR, 1956, No 12, 63-69

Abstract : Soils on the slopes of Kara-Tyube in the neighborhood Samarkand in separate plots were enriched with Co(0.001%), Cr(up to 0.1%), Be(up to 0.001%), V(up to 0.03%) and other elements. In soils, formed on gray granites, the following occurrences of enrichment were noted: ephedra by Sr, wormwood by Pb, Drobov's onion [?] by Ag. In plants on soils of black Silurian shales a high

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USSR / Soil Science. Physical and Chemical Properties of Soil. J

Abs Jour : Ref Zhur - Biologiya, No 11, 1958, No. 48633

content of Sr was noted (camelsthorn, jerusalem-sage, wormwood). In the ashes of some plants the amount of K reaches 5%. -- S. A. Nikitin

Card 2/2

24

Country : USSR

J

Category: Soil Science. Mineral Fertilizers.

Abs Jour: RZhBiol., No 14, 1958, No 63094

Author : Rish, M.A.; Yezdakov, V.I.

Inst : Tadzhik Teachers' College

Title : The Accumulation of Microelements by Plants Grown
in Enriched Soils of the Uzbek SSR (Report 1)

Orig Pub: Tr. Tadzh. uchit. in-ta, 1957, 4, 79-84

Abstract: The authors carried out spectrum analyses of the
ashes of a series of plants collected from the
slopes of the Zeravshanskiy mountain chain in
the Samarkandskaya oblast', Uzbek SSR, which showed
that on the northern slope of the Cherepakha moun-
tain in the zone impoverished in the microelements Cu,
Zn, Mo, Cr and Co, certain plants accumulate Co, V,

Card : 1/2

J-40

Country : USSR

Category: Soil Science. Mineral Fertilizers.

J

Abs Jour: RZhBiol., No 14, 1958, No 63094

Ag and Pb. Plants growing high in mountains composed of double-micaceous granite are richer in Ba than plants found lower. Plants grown in the foothill steppe contained Pb, Ag and Co. -- V.D. Astaf'yeva

Card : 2/2

AKHMEDZYANOV, F.U.; YEZDAKOV, V.I.

Accelerating oil production by air injection in the Communist
Youth International oil field. Izv. vys. ucheb. zav.; neft' i
gas no.6:51-54 '58. (MIRA 11:9)

1. Uzbekskiy gosudarstvennyy universitet im. A. Navoi.
(Uzbekistan--Secondary recovery of oil)

MEZDAKOV, V.I.; KUCHKAROV, P.

Flotation dressing of the Sel'-Bokho ozocerite ore. Dokl. AN Uz.
SSR no.8:13-16 '58. (MIRA 11:9)
(Sel'-Bokho--Ozocerite) (Flotation)

ZAKIROV, K.Z., akademik; RISH, M.A.; YEZDAKOV, V.I.

Trace element accumulation by plants in ore field areas. Uzb.
biol.zhur. no.1:15-20 '59. (MIRA 12:7)

1. Uzbekskiy gosudarstvennyy universitet kafedry sistematiki
vysshikh rasteniy i obshchey khimii. 2. AN UzSSR (for Zakirov)
(Plants-Chemical composition) (Prospecting)

YEZDAKOV, V.I.

Adsorption of vapors by clays. Uzb.khim.zhur. no.1:29-38 '59.
(MIRA 12:6)

1. Uzbekskiy gos.universitet im. Alishera Navoi.
(Adsorption) (Clay)

YEZDAKOV, V. I. Dr. Chem Sci -- (diss) "Adsorption Properties of Clays
from Uzbekistan," Tashkent, 1960, 34 pp, 250 copies (Tashkent State U. Im
V. I. Lenin) (KL, 47/60, 97)

YEZDAKOV, V.I.

Electron microscope study of clays of the Zeravshan Valley. Uzb.
khim. zhur. no.4:25-34 '60. (MIRA 13:9)

1. Uzbekskiy gosuniversitet im. A. Navoi.
(Clay)

YEZDAKOVA, L.A.; OSMOLOVSKAYA, N.K.

Content of various forms of nitrogen and water-soluble
carbohydrates in tobacco leaves topdressed with lithium.
Nauch. dokl. vys. shkoly; biol. nauki no.3:135-137 '64
(MIRA 17:8)

1. Rekomendovana laboratoriyey biogeokhimii Samarkandskogo
gosudarstvennogo universiteta im. Alishera Navoi.

YEZDAKOVA, L.A.

Lithium in plants. Eot. zhur. 49 no.12:1798-1800 D '64
(MIRA 18:2)

1. Samarkandskiy gosudarstvennyy universitet imeni Alishera
Navoi.

YEZDAKOVA, L. A.

USSR / Soil Science. Physical and Chemical Properties of Soil. J

Abs Jour : Ref Zhur - Biologiya, No 11, 1958, No. 48633

Author : Yezdakova, L. A.; Rish, M. A.; Yezdakov, V. I.

Inst : Acad. Sciences Uzbek SSR

Title : Role of Soil Composition on the Content of Individual Elements in Plants

Orig Pub : Izv. AN UzSSR, 1956, No 12, 63-69

Abstract : Soils on the slopes of Kara-Tyube in the neighborhood Samarkand in separate plots were enriched with Co(0.001%), Cr(up to 0.1%), Be(up to 0.001%), V(up to 0.03%) and other elements. In soils, formed on gray granites, the following occurrences of enrichment were noted: ephedra by Sr, wormwood by Pb, Drobov's onion [?] by Ag. In plants on soils of black Silurian shales a high

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USSR / Soil Science. Physical and Chemical Properties of Soil. J

Abs Jour : Ref Zhur - Biologiya, No 11, 1958, No. 48633

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Card 2/2

24

RISH, M.A.; YEZDAKOVA, L.A.

Chemical ecology of the boxthorn *Lycium ruthenicum*. Trudy Biogeo-
khim. lab. no.11:246-250 '60. (MIRA 14:5)

1. Uzbekskiy nauchno-issledovatel'skiy institut karakulevodstva i
Uzbekskiy gosudarstvennyy universitet imeni Alishera Navoi.
(UZBEKISTAN—BOXTHORN) (PLANTS, EFFECT OF LITHIUM ON)

YEZDAKOVA, L.A.

Influence of lithium on the water balance of tobacco. Nauch.
dokl. vys. shkoly; biol. nauki no.2:174-180 '61. (MIRA 14:5)

1. Rekomendovana kafedroy fiziologii rasteniy Uzbekskogo gosudar-
stvennogo universiteta im. A.Navoi.
(TOBACCO) (LITHIUM—PHYSIOLOGICAL EFFECT)

YEZDAKOVA, L.A.

Effect of supplementary fertilization with lithium on the photosynthesis and respiration of tobacco leaves. Nauch. dokl. vys. shkoly; biol. nauki no.2:137-142 '62. (MIRA 15:5)

1. Rekomendovana kafedroy fiziologii rasteniy i mikrobiologii Samarkandskogo gosudarstvennogo universiteta im. A.Navoi.
(PLANTS, EFFECT OF LITHIUM ON) (PHOTOSYNTHESIS)
(PLANTS—RESPIRATION)

KALASHNIKOV, N.V.; STOTSKIY, L.R.; GLINER, B.M. [deceased]; DOBRYNINA, N.P.; DUBROVSKAYA, Kh.A.; YEZDAKOVA, M.L.; LYUBIMOV, N.G.; PONOMAREVA, K.A.; REYKHTSAUM, P.B.; SMIRNOV, V.I.; SUSHKIN, I.N.; SHAKHMAEVA, Ye.A., vedushchiy red.; POLOSINA, A.S., tekhn. red.

[Units of measurement and abbreviations of physical and technical values; manual for editors and writers] Edinitsy izmereniia i oboznachenia fiziko-tekhnicheskikh velichin; spravochnik dlia rabotnikov izdatel'stv i avtorov. Moskva, Gos. nauchno-tekhn. izd-vo neft. i gorno-toplivnoi lit-ry, 1961. 254 p. (MIRA 14:9)

1. Gosudarstvennoye nauchno-tekhnicheskoye izdatel'stvo neftyanoy i gorno-toplivnoy promyshlennosti (for Kalashnikov, Dobrynina, Smirnov). 2. Moskovskiy institut neftekhimicheskoy i gazovoy promyshlennosti im. akad. Gubkina, (for Stotskiy). 3. Gosudarstvennoye nauchno-tekhnicheskoye izdatel'stvo Ministerstva promyshlennosti i prodovol'stvennykh tovarov (for Dubrovskaya). 4. Gosudarstvennoye nauchno-tekhnicheskoye izdatel'stvo literatury po chernoy i tsvetnoy metallurgii (for Yezdakova, Sushkin). 5. Gosgortekhzdat (for Lyubimov). 6. Gosudarstvennoye nauchno-tekhnicheskoye izdatel'stvo mashinostroitel'noy literatury (for Ponomareva). 7. Gosudarstvennoye nauchno-tekhnicheskoye izdatel'stvo khimicheskoy literatury (for Reykhtsaum).

(Engineering--Nutation)

(Units)

YEZDAKOVA, N.S.

Late results and work capacity following operations for echinococcosis.
Zdrav. Kazakh. 22 no.2:14-18 '62. (MIRA 15:4)

1. Iz kafedry fakul'tetskoy khirurgii (zav. - prof. A.Ya.Yasnogorodskiy)
Semipalatinskogo meditsinskogo instituta.
(HYDATIDS) (DISABILITY EVALUATION)

USSR / Farm Animals. Cattle

Q

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 7335

Author : Yezdakova, O. D.

Inst : All-Union Scientific Research Institute of
Animal Husbandry

Title : Testing the Method of a Rapid Determination
of the Milk's Protein Quantity

Orig Pub : Byul. nauchno-tekhn. inform. Vses. n.-i.
in-t zhivotnovodstva, 1957, No 2, (4), 44-47

Abstract : A new method of determining protein in milk
without its being burned with sulfuric acid
(the method of Kofrani) and its modifications
are described. The advantages of the new me-
thod over the method of Kjeldahl are pointed
out.

Card 1/1

YEZDANYAN, B.A.

Cytology and prospects of the development of medical science.
Zhur. eksp. i klin. med. 3 no.423-5 '63 (MIRA 16:12)

YEZDANYAN, B.A.

Development of the spermatogonium from living substance, Arkh. anat.,
Moskva 30 no.6:51-57 Nov-Dec 1953. (CML 25:5)

1. Of the Department of Histology and Embryology (Head --- Prof. V. G.
Yeliseyev), First Moscow Order of Lenin Medical Institute.

YEZDANYAN, B. A.

Dissertation: "Morphological and Histochemical Changes in the Semen of White Rats During Various Conditions of the Organism and Experimental Actions on It." Card Med Sci, First Moscow Order of Lenin Medical Inst, 16 Jun 54. (Vechernyaya Moskva, Moscow, 7 Jun 54)

SO: SUM 318, 23 Dec. 1954

EZDANYAN B A

YEZDANYAN, B. A.

"On Histochemical Changes in Spermatogenic Epithelium on Partial Removal of the Cerebral Cortex in White Rats," p. 230

from the book "Effect of Higher Divisions of the Nervous System on Processes on Inflammation and Regeneration," edited by V. G. Yelisseyev, Trudy 1-go Moskovskogo Ordena Lenina Meditsinskogo Instituta imeni I. M. Sechenova Vol. 2, Moscow, 1957, \pm 249 pp.

YEZDANYAN, B.A.

State of testicles in cryptorchism. Izv. AN Arm. SSR Biol. i
sel'khoz. nauki 11 no.6:51-56 Je '58. (MIRA 11:7)

1.Kafedra gistologii i embriologii I Moskovskogo ordena Lenina
meditsinskogo instituta.

(TESTICLE--ABNORMALITIES AND DEFORMITIES)

YEZDANYAN, B.A.

Regenerative ability of the mammalian testicle. Izv.AN Arm.
SSR.Biol.nauki 12 no.4:67-73 Ap '59. (MIRA 12:9)

1. Pervyy Moskovskiy meditsinskiy institut.
(REGENERATION (BIOLOGY)) (TESTICLE)

FANARDZHIAN, N.; YEZDANYAN, B.A.

Morphophysiological characteristics of functional localization in the cerebellum. Izv. AN Arm. SSR. Biol. nauki 13 no.6:31-45 Je '60. (MIRA 13:8)

1. Institut fiziologii im. akad. L.A. Orbeli AN ArmSSR i kafedra gistologii Yerevanskogo meditsinskogo instituta. (CEREBELLUM)

LAZAREV, P.V.; PROKIN, V.A.; GOLUB, Yu.B., nauchn. red.; YEZDROVA,
V.I., red.

[Prospecting the copper-pyrite deposits of Bashkiria]
Opyt provedeniia poiskovykh i razvedochnykh rabot na medno-
kolchedannykh mestorozhdeniyakh Bashkirii. Moskva, Gos.
geol.kom-t SSSR, 1963. 47 p. (MIRA 17:9)

1. YEZDROVA, V. I.
2. USSR (600)
4. Pyrites-Kola Peninsula
7. Iron pyrite deposits of the Karelo-Finnish S. S. R. and of the Kola Peninsula.
[Abstract.] Izv. Glav. upr. geol. fon. no. 2, 1947.
9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

EL' VARDANI, S.A. [El Wardani, S.A.]; ZUBKOVA, I.M. [translator];
YEZDROVA, V.I. , referent

On the geochemistry of germanium (from "Geochimica et Cosmochimica
Acta," 13, No.1). Biul.nauch.-tekhn.inform.VIMS no.1:12-14 '60.
(MIRA 15:5)

1. Otdel nauchno-tekhnicheskoy informatsii Vsesoyuznogo nauchno-
issledovatel'skogo instituta mineral'nogo syr'ya.
(Germanium)

SKROBOV, S.A., red.; YEZDROVA, V.I., red.; MAKEYEV, V.I., red. izd-
va; GUROVA, O.A., tekhn. red.

[Papers on the methodology of prospecting for minerals]Ma-
terialy po metodike razvedki poleznykh iskopaemykh; trudy so-
veshchaniia. Moskva, Gosgeoltekhizdat, 1962. 610 p.

(MIRA 15:11)

1. Vsesoyuznoye soveshchaniye po metodike razvedki poleznykh
iskopaemykh, Moscow, 1960.

(Prospecting--Congresses)

SKROBOV, S.A., red.; YEZDROVA, V.I., red.; MAKEYEV, V.I., red.izd-va;
GUBOVA, O.A., tekhn. red.

[Materials of the All-Union Conference on the Methods of
Prospecting for Mineral Deposits] Materialy Vsesoiuznogo sove-
shchaniya po metodike razvedki poleznykh iskopayemykh, Moscow,
1960. Moskva, Gosgeoltekhizdat, 1962. 610 p. (MIRA 16:3)

1. Vsesoyuznoye nauchno-tekhnicheskoye soveshchaniye po metodike
razvedki mestorozhdeniy poleznykh iskopayemykh, Moscow, 1960.
2. Predsedatel' Organizatorskogo komiteta po podgotovke i prove-
deniyu soveshchaniya po metodike razvedki poleznykh iskopayemykh
1960 goda (for Skrobov).

(Prospecting)

ORLOVA, Ye.V.; YEZDROVA, V.I., nauchnyy red.

[Geological conditions in areas of volcanic sedimentary deposits of boron as revealed by the studies of boron-bearing regions in North and South America]. Osobennosti geologicheskoy obstanovki vulkanogenno-osadochnykh mestorozhdenii bora na primere boronnykh provintsi Severnoi i Iuzhnoi Ameriki. Moskva, 1961. 29 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut mineral'nogo syr'ia. Otdel nauchno-tekhnicheskoi informatsii. Seriya geologicheskaya, no.13). (MIRA 16:4)

(America—Boron)

AGADZHANYAN, N.A.; BIZIN, Yu.P.; DORONIN, G.P.; IL'IN, Ye.A.; KUZNETSOV,
A.G.; YEZEPCHUK, N.I. 2k

Effect of the human organism of a prolonged stay in a closed
chamber of small size. Probl. kosm. biol. 4:31-43 '65.
(MIRA 18:9)

ACCESSION NR: AT4042698

S/0000/63/000/000/0318/0321

AUTHOR: Kuznetsov, A. G.; Agadzhanyan, N. A.; Bizin, Yu. P.; Yezepchuk, N. I.; Kalinichenko, I. R.; Karpova, L. I.; Neumy*vak, I. P.

TITLE: The nature of changes of the functions of respiration and the cardiovascular system on prolonged exposure to conditions of lowered barometric pressure.

SOURCE: Konferentsiya po aviatsionnoy i kosmicheskoy meditsine, 1963. Aviatsionnaya i kosmicheskaya meditsina (Aviation and space medicine); materialy konferentsii. Moscow, 1963, 318-321

TOPIC TAGS: low barometric pressure, respiratory function, cardiovascular function, gas exchange dynamics, respiratory minute volume, lung vital capacity, pressure chamber, oxygen consumption, EKG

ABSTRACT: Two subjects were exposed to a decreased barometric pressure corresponding to 7000 m (partial O₂ pressure 150--160mm Hg). Gas exchange dynamics, the functions of the cardiovascular system, and the condition of the peripheral blood were studied. Gas exchange dynamics were studied by measuring the respiratory minute-volume, the vital capacity of the lungs, and the volume of the reserve and the residual air. Results of a prolonged stay in the chamber with lowered barometric pressure indicated that in a state of rest the oxygen consumption of

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ACCESSION NR: AT4042698

the subjects declined by 6--17% during the first month and by 34--36% during the second month. This was accompanied by a somewhat less marked decline in CO₂ production. At the same time, the respiratory coefficient rose from 0.75--0.82 to 0.97--1.1. The amount of heat given off by the organism of the subjects dropped during the first month by 7.5--14% and for the second month by 28--34.5%. The respiratory minute-volume decreased during the first month of the experiment on the average of 5--10% and during the second month by 9.5--25%. Prolonged stay in the chamber with lowered barometric pressure caused an increase in the heart rate by 8--10 beats (20%) and a lowering of the systolic pressure by 10--16% and of the diastolic pressure by 7--8%. The EKG performed during the course of this experiment did not show any substantial changes. There was, however, some reduction in the maximum values of the P and R peaks. A study of the peripheral blood indicated that hematological changes observed in the subjects during the course of the experiment were very insignificant. The changes in gas dynamics which were observed were strictly reversible. Respiratory indices of the two subjects returned to normal levels 8--10 days after the completion of the experiment.

ASSOCIATION: none

Card 2/3

ACCESSION NR: AT4042698

SUBMITTED: 27Sep63

NO REF SOV: 000

ENCL: 00

OTHER: 000

SUB CODE: LS

Card 3/3

L 14271-66 ENT(1)/FS(7)-3 SCTB DD/RD

ACC NR: AT6003838

SOURCE CODE: UR/2865/65/004/000/0031/0043

AUTHOR: Agadzhanaya, N. A.; Bizin, Yu. P.; Doronin, G. P.; Il'in, Ye. A.;
Kuznetsov, A. G.; Yezepchuk, N. I.

55
BT/1

ORG: none

TITLE: Effect on the human organism of a prolonged sojourn in a closed chamber
of small volume

SOURCE: AN SSSR. Otdeleniye biologicheskikh nauk. Problemy kosmicheskoy
biologii, v. 4, 1965, 31-43

TOPIC TAGS: man, respiration, life support system, space chamber test, space
physiology, central nervous system, cardiovascular system, space psychology

ABSTRACT: Experiments were performed in order to study the nature of changes
in the basic functions of the organism during a prolonged stay by 2 subjects
in a specially equipped pressure chamber with a 7-m³ capacity. Air com-
position, temperature, and humidity were automatically maintained at a
constant level by means of a special life-support system developed by G. I.
Badikov, B. A. Miloslavov, and G. I. Solov'ev. The automatic system

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ACC NR: AT6003838

maintained a partial oxygen pressure of 155—165 mm Hg, the CO₂ content below 2 mm Hg, the air temperature at 19.5 to 23.5° C, and the relative humidity at 40—70%. Telephone communications with the subjects were kept to a minimum.

Higher nervous activity, the bioelectrical activity of the cerebral cortex, standard EKG, arterial pressure, gas exchange, functions of external respiration, and oxygen saturation of the blood were studied during the course of the experiment. Daily tests of blood and urine were made. Detailed medical examinations were made before and after the experiment.

As the experiment progressed, the time required for performance of conditioned motor acts increased from 15—20 sec at the beginning of the experiment to 25—28 sec 30 days later, and to 35—37 sec by the end of the experiment. The quality of coordination did not show any substantial changes. There were no changes in the time required for solving arithmetical problems. Indications were obtained that prolonged isolation in a small chamber leads to the development of protective inhibition and a lowering of the flexibility of the nervous processes. The second half of the experiment was characterized by a loss of interest, the appearance of irritability, and in-

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ACC NR: AT6003838

creased emotional instability. The lowering of the tonus of the cerebral cortex was evident from the EEG, which toward the end of the experiment showed a sharp decrease in the alpha index, accompanied by a dominance of slow waves (4—8 cps) and the appearance of waves with a frequency of 0.5—2 cps.

Experimental data showed that by the end of 60 days, the pulse frequency tended to drop by 8—10 strokes (20%), systolic pressure by 10—16%, and diastolic pressure by 7—8%, indicating a drop in the vascular tone and a weakening of the functional ability of the cardiovascular system. An increase in the stroke and minute volume of the heart, a drop in the peripheral resistance of the circulatory system, and an increase in the latent period of vascular reactions were observed.

Tests performed after the experiment showed a depression in the adaptative mechanisms of the body and a sharp increase in the excitability of the circulatory system. X-ray studies showed that prolonged hypokinesia and isolation caused a significant decrease in the size of the hearts of both subjects. This is considered to be the result of detraining.

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During the course of the experiment, oxygen consumption dropped on the average by 32%, while CO₂ production diminished by 26%. Pulmonary ventilation dropped by 2—2.5 liters/min. These results indicate a drop in energy expenditures from 30.15 to 20.85 kcal/kg per diem.

During the course of the experiment there was a short-term increase in the number of erythrocytes and reticulocytes. Occasionally, there was also an increase in the number of lymphocytes. Beginning with the second half of the experiment, the absolute number of eosinophils increased by a factor of 1.5—2. An investigation of the phagocytic activity of neutrophils showed an increase of this activity toward the end of the experiment.

The reactions of individuals to a prolonged stay in a small chamber differ considerably, and this factor should be taken into account in the selection of cosmonauts for flights of long duration. At the same time, it is necessary not only to increase afferentation but also to properly work out a schedule for work and rest. This means that the assigned tasks have to be more varied, more creative, and require a greater variety of physical skills. Entertainment will also have to be carefully worked out and should include music, radio, and television in order to create a psycho-

Card 4/5

L 14271-66

ACC NR: AT6003838

logically stimulating environment. Orig. art. has: 3 figures and 1 table.
[ATD PRESS: 4091-F]

SUB CODE: 06, 05 / SUBM DATE: none / ORIG REF: 010 / OTH REF: 006

OC
Card 5/5

ALEKSANDROV, N.I.; GEFEN, N.Ye.; BUDAK, A.P.; YEZEPCCHUK, Yu.V.; FILIPPENKO,
A.I.; RUNOVA, V.F.

Search for effective chemical vaccines against some zoonoses.
Report No.1: Production of chemical by deposited anthrax vaccine
and study of its effectiveness in animal experiments. Zhur. mikrobiol.
epid. i immun. 32 no.5:42-46 My '61. (MIRA 14:6)
(ANTHRAX)

ALEKSANDROV, N.I.; GEFEN, N.Ye.; YEZEPCCHUK, Yu.V.; BUDAK, A.P.; RUMOVA, V.F.

Study of the optimum conditions for the formation of the protective extracellular anthrax antigen on a milk medium. Zhur.mikrobiol., epid.i immun. 33 no.4:9-14 Ap '62. (MIRA 15:10)
(BACILLUS ANTHRACIS) (ANTIGENS AND ANTIBODIES)

ALEKSANDROV, N.I.; GEFEN, N.Ye.; RONOVA, V.F.; BUDAK, A.P.; YEZEPCUK, Yu.V.
LEBEDINSKIY, V.A.; FILIPPENKO, A.I.

Improvement of the culture medium and search for a method of
purifying the protective anthrax antigen. Zhur. mikrobiol.
epid. i immun. 40 no.1:103-107'63. (MIRA 16:10)

*

ALEKSANDROV, N.I.; GEFEN, N.Ye.; BUDAK, A.P.; RUNOVA, V.F.;
YEZEPCHUK, Yu.V.; BAZHINOV, A.G.

Study of the reactogenicity of chemically precipitated
anthrax vaccine in small groups of people. Zhur. mikrobiol.,
epid. i immun. 40 no.3:32-34 Mr '63. (MIRA 17:2)

ACCESSION NR: AF4009079

S/0016/64/000/001/0119/0125

AUTHOR: Aleksandrov, N. I.; Gefen, N. Ye.; Runova, V. F.; Yezepchuk, Yu. V.

TITLE: The search for effective chemical vaccines against some zoonoses. VI. Experimental production of chemical anthrax vaccine under semi-commercial conditions

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 1, 1964, 119-125

TOPIC TAGS: vaccine, chemical vaccine, anthrax vaccine, anthrax, anthrax bacillus, chemical anthrax vaccine,

ABSTRACT: As a follow-up to previously reported studies on mice, guinea pigs, rabbits, sheep and monkeys, which showed that a chemically-treated anthrax vaccine was just as effective as live STI vaccine for s.c. immunization against anthrax, the authors attempted to produce their chemical vaccine on a large scale. When anthrax bacilli were grown in 100-liter flasks in a medium consisting of milk, peptone, glucose, vitamin B₁ and salts, antigen accumulation reached a maximum in 18-24 hours and all of the biochemical processes were found to be the same as in 5-liter flasks. The immunological effectiveness of the antigen produced was also found to be the same. Sterilization of large volumes of antigen with 0.4% Card 1/2

ACCESSION NR: AP4009079

formalin at room temperature was found to be preferable to the use of beta-propiolactone or merthiolate. Orig. art. has: 2 figures and 3 tables.

ASSOCIATION: none

SUBMITTED: 25Mar62

DATE ACQ: 03Feb64

ENCL: 00

SUB CODE: AM, BC

NO REF SOV: 002

OTHER: 002

Card 2/2

ACCESSION NR: AP4043756

S/0016/64/000/008/0045/0050

AUTHOR: Aleksandrov, N. I.; Gefen, N. Ye.; Voronin, Yu. S.;
Yezepchuk, Yu. V.; Kozyrev, M. B.; Lebedinskiy, V. A.; Nikonov, I. V.;
Runova, V. F.; Tamarin, A. L.; Filippenko, A. I.

TITLE: Further experimental studies of the efficacy of chemical
anthrax vaccine

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii,
no. 8, 1964, 45-50

TOPIC TAGS: vaccine, antigen, anthrax

ABSTRACT: Rabbits were vaccinated with unsterilized anthrax antigen,
formalin-sterilized anthrax antigen, and live CTN vaccine, then
infected with a virulent strain of B. anthracis. Comparison of
results for the three groups showed no difference in efficacy between
the unsterilized antigens containing viable CTN cells and the formalin-
sterilized antigen. The survival rate was 11 out of 12 rabbits in the
first group, 9 out of 11 in the second group, and 11 out of 11 in the
third. All the controls died. The immunogenic effect of the antigen

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ACCESSION NR: AP4043756

thus neither depends on nor is enhanced by the presence of viable cells in the vaccine. Formalin-sterilized antigen was used in the remainder of the experiments. The dependence of the degree of immunity induced on the size of the vaccination dose was also investigated in rabbits. The level of immunity was directly dependent on dose size: less than half (5 out of 12) of the rabbits vaccinated with 50 mg of antigen survived infection with 100 Dlm of virulent B. anthracis. Larger doses (100 mg and 300 mg) were about equally efficacious (survival of 6 out of 9 and 7 out of 9 rabbits). All the controls died. The dependence of immunogenic effect on the number of injections into which the vaccination dose is split and on the time interval between them was studied next. A total vaccination dose of 100 mg was administered in one, two, and three injections. Up to 20 days following completion of vaccination, the number of injections made no real difference in immunogenic effect. Mortality increased sharply when immunity was tested 40 days after completion of the vaccination series, however. The immunity produced by live CTH vaccine was longer lasting, and did not fall off sharply until 80 days after vaccination. It should be noted that the CTH dosage

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ACCESSION NR: AP4043756

used (250×10^6 spores) was five times the dose recommended for humans. The efficacy of anthrax antigen was also studied in rhesus monkeys, in which 300 mg of antigen administered in either two or three injections produced a somewhat stronger immunity than did the live CTH vaccine in human-size doses. A final experiment was conducted to determine the efficacy of "native-sorbed" antigen concentrate (obtained by $Al(OH)_3$ precipitation of the culture filtrate without first treating the latter with acid or alcohol). This process not only yields an antigen which is more effective than that obtained by alcohol sorption, but produces it in quantities 15 times greater than the yields attainable by the alcohol process. The results of the experiment showed the immunogenic activity of "native-sorbed" antigen to be about the same as that of acid-sorbed antigen. In view of the much higher yield of the native-sorbed antigen concentrate, its use would seem to be preferable to that of the others. These concentrates produced practically no local reaction, unlike the formalin-sterilized antigen used in the earlier experiments. Orig. art. has: 3 tables.

Card 3/4

ACCESSION NR: AP4043756

ASSOCIATION: none

SUBMITTED: 28May63

ENCL: 00

SUB CODE: CB, LS

NO REF SOV: 003

OTHER: 000

Card 4/4

ALEKSANDROV, N.I.; GEFEN, N.Ye.; DOBROVOL'SKIY, K.F.; YEZERCHUK, Yu.V.;
LEBEDINSKIY, V.A.; MIKHAYLOV, B.Ya.; RUNOVA, V.F.; SEREGINA, A.I.;
FILIPPENKO, A.I.

Immunogenicity of chemical anthrax vaccine in experiments on sheep.
Zhur. mikrobiol., epid. i immun. 42 no.1:57-60 Ja '65.

(MIRA 18:6)

L 13096-66 EWT(1)/FNA(j)/T/EWA(b)-2 JK

AUTHOR: Aleksandrov, N. I.; Gerasimov, N. G.; Dobrovolskiy, K. F.; Tezupchuk, Yu. V.

UFG: none

TITLE: Immunogenicity of chemical anthrax vaccine tested in sheep

SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 1, 1965, 57-60

TOPIC TAGS: vaccine, immunology, anthrax

ABSTRACT: The authors improved the chemical anthrax vaccine that they had developed several years before. Studies were conducted on the immunogenicity of the vaccine in sheep. Immunity to infection from *B. anthracis* spores and anthrax bacillae. Further research on the immunity. THE. AN. VACC. 1965. 1. 57-60.

SUB CODE: 06 / SUBM DATE: 29Jun63 / ORIG REF: 003 / OTH REF: 008

Card 1/1

UDC: 616.981.51-085.372-036.8-092.9

ALEKSANDROV, N.I.; GEFEN, N.Ye.; RUNOVA, V.F.; YEZEPCCHUK, Yu.V.

Search for effective chemical vaccines against some zoonoses.
Report No.6: Experience with preparation of chemical anthrax
vaccine under semi-industrial conditions. Zhur. mikrobiol.,
epid. i immun. 41 no.1:119-125 Ja '64. (MIRA 18:2)

AKOPYAN, A.Kh.; YEZEPOVA. G.T.

So-called postinfarction syndrome. Azerb. med. zhur. 41 no.5:73-77 My
'64. (MIRA 18:10)

YEZERA, I.P., [Ezera, I.], kand. sel'skokhoz. nauk

Research and achievements of Latvian livestock breeders. Inform.
biul. VDNKH no.12:5-6 D '64 (MIRA 18:2)

LIBERMAN, A.L.; VASINA, T.V.; YEZERNITSKAYA, M.G.

Linear relationships between the differences of the boiling points
of stereoisomeric methyl-prim. alkyl cyclohexanes. Neftekhimiya 3
no.6:825-827 N-D '63. (MIRA 17:3)

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

L 47358-66 E-T(m)/EMP(j) RM
ACC NR: AP6030555 (AN) SOURCE CODE: UR/0413/66/000/016/0033/0033

INVENTOR: Tsvanger, T. A.; Rostunov, V. F.; Golovnya, B. A.; Turetskaya, R. A.; Golubtsov, S. A.; Layner, D. I.; Malysheva, L. A.; Komrakova, V. V.; Yezerets, M. A.; Maslyukov, A. I.; Nastasin, A. A. 30

ORG: none

TITLE: Method of obtaining phenylchlorosilane. Class 12, No. 184855.
[announced by State Scientific Research Institute of State Design and Planning
Scientific Research for the Processing of Nonferrous Metals (Gosudarstvennyy
nauchno-issledovatel'skiy institut "Giprotsetmetobrabotka")]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 16, 1966,
33

TOPIC TAGS: phenylchlorosilene, chlorobenzene

ABSTRACT: An Author Certificate has been issued for obtaining phenylchloro-
silanes by the reaction of chlorobenzene with the silicon-copper contact mass in
the presence of an activator. To raise the yield of diphenyldichlorosilane and to

UDC: 547.419.5.07

Card 1/2

L 47358-56

ACC NR: AP6030558

increase the efficiency of the process, zinc oxide, in amounts up to 4%, is used
as the activator. [Translation] [NT]

SUB CODE: 11/ SUBM DATE: 01Dec64/

Card 2/2 mt

SOV/137-58-7-14586

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 92 (USSR)

AUTHORS: Solovushkov, A.A., Yezernitskaya, M.Ye.

TITLE: Hydrometallurgical Extration of Tellurium from Copper-electrolysis Slimes (Iz vlecheniye tellura gidrometallurgicheskim putem iz shlamov ot elektroliza medi)

PERIODICAL: Byul. tsvetn. metallurgii, 1957, Nr 21, pp 27-29

ABSTRACT: A hydrometallurgical method of recovering Te from cake obtained by leaching a sinter of anode slime with soda has been developed and checked out on pilot-plant scale at the Pyshma Electrolytic Copper Plant. In accordance with this procedure, moist cake of varying Te contents (0.85-1.26%) is leached with 10% H_2SO_4 . Reduction of Te^{6+} to Te^{4+} is done by $FeSO_4$ in a 5% HCl solution at $95^{\circ}C$ in 2 hours (6 times as much $FeSO_4$ being used as the combined $Te+Se$ contents of the solution). The Cu and Fe are removed from the solution in the form of hydrates by neutralizing the solution first with Na_2CO_3 (to residual acidity of 30-35 g/liter), and then by $NaOH$ (to excess alkalinity of 10-12 g/liter). The Te is precipitated from the solution in the form of TeO_2 by neutralization of the solution by

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SOV/137-58-7-14586

Hydrometallurgical Extraction of Tellurium (cont.)

HCl. The TeO_2 obtained is used to make caustic electrolyte. Recovery of the Te in the electrolyte came to ~60%. When the process is perfected and improved equipment is employed, recovery of Te by this method may be increased considerably.

N.P.

1. Tellurium--Precipitation
2. Copper solutions--Processing
3. Copper solutions--Chemical reactions

Card 2/2

1197 ERNITSKOYE M. 1A8

ERNITSKOYE M. 1A8

ERNITSKOYE M. 1A8

ERNITSKOYE M. 1A8

SMIRNOV, M.P.; KUDRYASHOVA, L.N.; SOLOVUSHKOV, A.A.; YEZERNITSKAYA, M. Ye.

Alkali method of lead smelting. Sbor. nauch. trud. GINTSVETMET
no.15:257-297 '59. (MIRA 14:4)

(Lead—Metallurgy) (Sodium hydroxide)
(Leaching)

68240

S/156/60/000/03/010/020
E071/E435

18.3100

AUTHORS: Soshnikova, L.A. and Yezernitskaya, M.Ye.

TITLE: Extraction of Selenium and Tellurium from Slurries of Sulphuric Acid and Cellulose-Paper Plants by Roasting with Calcined Soda

PERIODICAL: Tsvetnyye metally, 1960, Nr 3, pp 55-59 (USSR)

ABSTRACT: Laboratory and pilot plant experiments on extraction of selenium and tellurium from slurries, by-products from sulphuric acid and cellulose-paper plants are described. Analyses of the slurries investigated are given in Table 1. At present selenium is extracted from the above slurries by an oxidizing roasting, during which it is volatilized in the form of selenium dioxide and recovered in wet scrubbers. However, by this method tellurium cannot be recovered. A method of recovery of both these elements by roasting with calcined soda at 300 to 350°C during which their soluble sodium salts are formed, was developed by Gintsvetmet (under the leadership of A.A.Solovushkov). At higher roasting temperatures sodium tellurite is oxidized to tellurate which is insoluble in water and, therefore, the correct

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S/136/60/000/03/010/020
E071/E435

Extraction of Selenium and Tellurium from Slurries of Sulphuric
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control of the roasting temperature is important. After roasting, selenium and tellurium salts are extracted with water. The solution is neutralized to pH = 5.0 to 5.4 whereupon tellurium precipitates in the form of dioxide. After the removal of tellurium, selenium is precipitated with sulphurous gas after acidifying with hydrochloric acid. The results of laboratory experiments are given in Table 2; 90 to 98% recovery of selenium and 35 to 88% tellurium were obtained. Tellurium dioxide can be dissolved either in acid or in alkali. In the first case it is precipitated with sulphur dioxide, in the second case electrolytic precipitation is applied. The proposed technological scheme is shown in Fig 1. It was tested on a pilot plant scale on the Shchelkov Chemical Works. Initially slurries containing a large proportion of arsenic (20 to 30%) were partially freed from it by extraction with a 25% soda solution. Subsequently, it was found that this pretreatment can be avoided provided slurries

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S/136/60/000/03/010/020

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Extraction of Selenium and Tellurium from Slurries of Sulphuric
Acid and Cellulose-Paper Plants by Roasting with Calcined Soda

are mixed so as to reduce the arsenic content to 10 to 15%. The content of the main components in the slurries treated on the pilot plant is given in Table 3. Fig 2 shows diagrammatically the equipment layout for roasting with calcined soda, which was done in an electric shaft furnace, and for leaching the roasted material and recovery of selenium and tellurium in a plant. The recoveries of selenium and tellurium (70 to 90%) were somewhat lower than in the laboratory experiments. This is attributed to the inefficiency of the roasting and leaching equipment. Altogether 1000 kg of various slurries were treated, producing 100 kg of selenium and 35 kg of tellurium. It was calculated that the cost of production of selenium by this method will be about 15% lower than by the usual method (oxidizing roasting). The residues left after leaching containing lead, antimony and tellium can be further treated for the recovery of these elements.

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S/136/60/000/03/010/020

E071/E435

Extraction of Selenium and Tellurium from Slurries of Sulphuric
Acid and Cellulose-Paper Plants by Roasting with Calcined Soda

There are 2 figures, 3 tables and 7 references,
6 of which are Soviet and 1 Polish.

Card 4/4

S/136/62/000/007/001/001
E193/E383

AUTHORS: Soshnikova, L.A. and Yozernitskaya, M.Yo.

TITLE: Preparation of tellurium by electrolytic reduction
of tellurium dioxide

PERIODICAL: Tsvetnyye metally, no. 7, 1962, 60 - 64

TEXT: In the introductory paragraphs of this review article its authors discuss the advantages of the electrolytic process of extracting Te from TeO_2 and describe briefly the processes patented abroad and those which are at present used on an industrial scale in Canada, Peru and Japan. Passing on to the Soviet developments, they mention the work carried out in 1940 by Gayev and Golikov (Tsvetnyye metally, no. 5, 1940, 6) and then comment on the results obtained by Yesiyuki and Itiro (Rept. Res. Inst. Underground Resources Mining Coll., Akitai Univ., 1957, no. 18, 23-29) who had studied the effect of the concentration of Te and alkali in the electrolyte on its conductivity, the effect of the current density, temperature and Te and alkali content in the electrolyte on the electrolysis potential and the current efficiency, and the effect of the

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S/136/62/000/007/001/001
E193/E383

Preparation of tellurium . . .

electrode materials on the association potential of sodium tellurite. As a result of this work the following optimum conditions have been recommended: the lower limit of Te content of the electrolyte - 50 g/l.; free alkali content - 100 g/l.; current density - 200 A/m²; electrolyte temperature - 40 to 50 °C; electrode material - stainless steel. These conditions, however, differ from those in current use abroad. Thus, it has been found that dense cathode deposits can be obtained only from electrolytes with a high Te content (270 - 300 g/l.); on the other hand, too high a concentration of Te in the electrolyte may bring about oxidation of four-valent Te to its six-valent form. The latter effect can be minimized by providing adequate circulation of the electrolyte, by maintaining its temperature at 40 - 55 °C and by using low current density (< 60 A/m²). The quality of the cathode deposits is not affected by the alkali content. The highest conductivity of the electrolyte is attained at the alkali concentration of 150 - 200 g/l.; since, however, the solubility of sodium tellurate in alkali is limited, the optimum concentration of the latter is 60 - 80 g/l. In view of

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Preparation of tellurium

S/136/62/000/007/001/001
E193/E383

these considerations the optimum electrolysis conditions appear to be: Te content in the electrolyte - 100 to 200 g/l.; alkali concentration - 60 to 80 g/l.; temperature of the electrolyte - 40 to 45 °C; current density - 60 A/m²; a rate of circulation of the electrolyte sufficiently high to ensure a complete change of the electrolyte in the tank 2 to 3 times per hour. Under these conditions the electrolyte remains clear for long periods and very dense cathode deposits are obtained. Electrolytic Te is practically free from As, Sb and Sn. Further refining can be done by remelting (best carried out in a covered graphite crucible) in the course of which the Fe, Al, Mg and Si content is considerably reduced; the Cu and Pb content is also decreased, although to a lesser extent. ✓

Card 3/3

SOSHNIKOVA, L.A.; YEZERNITSKAYA, M.Ye.

Extracting tellurium from copper electrolyte slimes. Sbor.
nauch. trud. Gintsvetmeta no.19:358-366 '62.

(MIRA 16:7)

(Tellurium)

(Copper industry--By-products)

YEZERNITSKIY, G.A.
LIPES, V.E., kandidat sel'skokhozyaystvennykh nauk; YEZERNITSKIY, G.A.,
starshiy nauchnyy sotrudnik

Spacing and method of planting peanuts. Trudy VKMII no.10:5-15'54.
(Peanuts)

YEZERNITSKIY, G.A.

Progressive cultural practices for peanuts and sesame. Trudy
VKNI no.10:119-129 '54. (MLBA 8:9)
(Peanuts) (Sesame)

YEZERNITSKIY, G.A.

Daghestan A.S.S.R. offers great possibilities for the development of fruit canning industries on a large scale. Kons.i ov.prom.
17 no.6:33-35 Je '62. (MIRA 15:5)

1. Gosudarstvennyy soyuznyy proyektnyy institut po proyektirovaniyu predpriyatiy pishchevoy promyshlennosti.
(Daghestan A.S.S.R.---Fruit, Canned)

ACCESSION NR: AP4042499

S/0103/64/025/007/1134/1139

AUTHOR: Bakakin, A. V.; Bermant, M. A.; Yezzerov, V. B.

TITLE: Application of systems with variable structure to the stabilization of a plant with changing parameters when displacement of a control element is constrained

SOURCE: Avtomatika i telemekhanika, v. 25, no. 7, 1964, 1134-1139

TOPIC TAGS: variable structure control system, plant stabilization, control system stability, second order differential equation

ABSTRACT: A study is made of the dynamics of an automatic control system with a variable structure. The system is described by a differential equation in the form

$$\ddot{\phi} - b(t)\dot{\phi} = a(t)\mu + F(t); \mu = u(\phi, \dot{\phi})K\omega,$$

where ϕ is the relative deviation of a controlled coordinate, μ is the relative deviation of the controller, $F(t)$ is a disturbing force, and K is a positive constant (gain factor) which is applicable to

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ACCESSION NR: AP4042499

the stabilization of the unstable second-order plants with variable parameters. A phase representation of the system is given, from which it follows that the system is stable for arbitrary initial conditions and arbitrary values of K when there are no constraints upon u . When u is constrained by the condition $|u| < 1$, then it is shown that the control system is unstable for certain domains of initial conditions. It is shown how, in this case, by proper choice of gain factor K (of the controller), stability of the control system can be secured in the entire domain of variation of parameters of the controlled object and for arbitrary finite values of F . Orig. art. has: 5 figures and 14 formulas.

ASSOCIATION: none;

SUBMITTED: 25Apr63

ATD PRESS: 3070

ENCL: 00

SUB CODE: MA

NO REF SOV: 004

OTHER: 000

Card 2/2

SUDAKOVA, I.M.; YEZERZHA, A.A.; PETROVSKAYA, E.S.

Using a photoelectrocolorimeter (FKK-1) in counting nematodes.
Dokl. AN Uz. SSR 21 no. 11:65-66 '64. (MIRA 18:12)

1. Sredneaziatskiy nauchno-issledovatel'skiy institut fitopato-
loggi. Submitted Febr. 8, 1963.

CA YEZERSKAYA, A.V.

10

Isomerization of ammonium thiocyanate in solution.
S. S. Urazovskii and A. V. Yezerkaya (S. M. Kirov Chem.
Technol. Inst., Kharkov). *Zhur. Obshchei Khim.* (J.
Gen. Chem.) 20, 240-2 (1950). Isomerization of NH_4SCN
to $(\text{NH}_2)_2\text{CS}$ proceeds readily in PhOH at 120-40°. With
an initial concn. of 0.0731 g./100 ml. PhOH , at 120°,
the amt. of NH_4SCN in soln., as titrated with AgNO_3 ,
first increased with time, owing to the slowness of the
soln., and despite the simultaneous conversion. Once
soln. was complete, the amt. decreased by a 1st-order
reaction. The 1st-order rate const., at 120, 130, and
140°, is $k = 0.440, 0.916, \text{ and } 1.807 \times 10^{-3}$ (time in
min.), as against $k = 0.009 \times 10^{-3}$ in the fused state at
140°. The degrees of conversion, av. temp., 48, 80, and
65%, as against 28% in the fused state at 140°, and the
activation energy 22725 cal./mole (120-40°) as against
22100 in the fused state at 140°. Addn. of the reaction
product, $(\text{NH}_2)_2\text{CS}$, accelerates markedly the soln. of
solid NH_4SCN in PhOH . N. Thon

YEZERSKAYA, A.V.
CA

10

Isomerization of ammonium thiocyanate in solution
S. S. Urazovskii and A. V. Ezerskaya (S. M. Kirov Inst.
Chem. Technol., Kharkov). *J. Gen. Chem. U.S.S.R.* 20,
251-3(1960)(Engl. translation).—See *C.A.* 44, 5814d.
R. M. S.

YEZERSKAYA, I.

Streptomycin. PAS. Fthivazid. Nauka i zhizn' 23 no.2:63 F '56.
(MIRA 9:5)

(ANTIBIOTICS) (TUBERCULOSIS)

YEZERSKAYA, I.

AUTHOR: Yezerkaya, I., Physician

25-2-37/43

TITLE: Calcification (Petrifikaty)

PERIODICAL: Nauka i Zhizn', 1958, # 2, p 77 (USSR)

ABSTRACT: The author explains the meaning of calcification with regard to tuberculosis.

AVAILABLE: Library of Congress

Card 1/1

YEZERSKAYA, I., vrach.

Petrificates. Naula i zhizn' 25 no.2:77 F '58.
(LUNGS--CALCIFICATION)

(MIRA 11:3)

TYDEL'SKAYA, I.I.; YEZERSKAYA, M.A.; FAL', N.I.

Effect of *Streptococcus viridans* antisera on hemopoiesis;
an experimental study. Zhur.mikrobiol., epid. i immu. 42
no.10:90-94 0 '65. (MIRA 18:11)

1. Ukrainskiy institut klinicheskoy meditsiny imeni akademika
N.D.Strazhesko. Submitted May 11, 1964.

YEZERSKAYA, M.A.

Some data on the treatment of chronic myelosis with myelosan. Vrach.
delo no.10:23-28 0 '60. (MIRA 13:11)

1. Otdel klinicheskoy gematologii (zav. - prof. D.N.Yanovskiy)
Ukrainskogo nauchno-issledovatel'skogo instituta klinicheskoy
meditsiny imeni akademika N.D.Strazhesko.
(MARROW--DISEASES)
(METHANESULFONIC ACID)

YEZERSKAYA, M. A., Cand. Med. Sci. (diss) "Comparative Evaluation of Modern Means of Treatment of Chronic Leukemia," Kiev, 1961, 17 pp. (Kiev Med. Inst.) 250 copies (KL Supp 12-61, 284).

YEZERSKAYA, N.A.

Use of polarography and of asperometric titration in the determination of gold. Izv.Sekt.plat.i blag.met. no.32:38-51 '55.(MLRA 9:5)
(Gold) (Titration) (Polarography)

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 11, p 271 (USSR) SOV/137--58-11-23775

AUTHORS: Markova, N. V., Yezerskaya, N. A.

TITLE: Analysis of Platinum in Concentrates (Analiz shlikhovoy platiny)

PERIODICAL: Tr. N.-i. gorno-razved. in-ta "Nigrizoloto", 1957, Nr 23, pp 139-145

ABSTRACT: Descriptions are given for the combined procedures for the analysis of Pt in concentrates in which Pt and Os-Ir are determined gravimetrically and Ru, Pd, and Ir colorimetrically. 0.3-0.5 g specimens are used for the analysis. The test sample is treated with aqua regia and filtered. The filtrate is concentrated by evaporation, Na nitrite is added, and Ni, Cu, Fe, and Au are precipitated with soda. Then Au and Fe are determined volumetrically and Ni and Cu polarographically. Pt, Pd, Rh, and Ir remain in the filtrate. Os-Ir is determined in the insoluble residue. In the filtrate Pd is precipitated with dimethylglyoxime and filtered off, after which the nitrites are decomposed in the filtrate and the latter is divided into two portions. In the first portion Pt is precipitated with calomel, in the second portion the dimethylglyoxime is decomposed and Rh and Ir are precipitated with suspended

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SOV/137 -- 58-11-23775

Analysis of Platinum in Concentrates (cont.)

ZnO and determined colorimetrically in aliquot portions.

Z. G.

Card 2/2

YEZERSKAYA, N.A.; MARKOVA, N.V.

Extraction of small quantities of gold from cyanogen, hydrochloride,
and iodine solutions by means of anionites. Zhur.prikl.khim. 30
no.7:1071-1074 J1 '57. (MIRA 10:10)

1.Nauchno-issledovatel'skiy institut "Nigrizoloto".
(Gold)

AUTHORS: Pshenitsyn, N. K., ~~Isakova, E. A.~~ SOV/78-3-8-13/48
Ratnikova, V. D.

TITLE: Polarographic Investigations of the Reaction of Chloro-
iridate Ions on a Platinum Electrode (Polarograficheskoye
issledovaniye vosstanovleniya khloroiridat-iona na
platinovom elektrode)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol. 3, Nr 8,
pp. 1791-1796 (USSR)

ABSTRACT: The conditions for the production of volt-ampere curves of
tetravalent iridium on a platinum electrode were investigated.
It was found that with the decrease of the pH value $1/2$ is
displaced to the side of the more positive potential. The in-
crease in temperature causes the displacement of the potenti-
als of the semiwave to the negative potentials. In the reduc-
tion of a chloroiridate ion on a platinum electrode first a
chloroiridite ion is formed, which then is converted to an
aquo-chloroiridite ion. To determine the composition of the
final products formed by the reduction of a chloroiridate
on a platinum electrode also the absorption spectrum of the

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Polarographic Investigations of the Reaction of
Chloroiridate Ions on a Platinum Electrode

SOV/73-3-8-13/43

solutions K_2IrCl_6 , K_3IrCl_6 , $K_2[IrCl_5 \cdot H_2O]$ was taken. The absorption spectrum of the reduced product showed that a mixture of tetravalent and trivalent iridium exists. The diffusion current of tetravalent iridium is proportional to its concentration in the solution and may be made use of for analytical purposes, for the determination of smaller amounts of iridium in the presence of rhodium, platinum, palladium and some not noble metals. There are 10 figures, 2 tables, and 14 references, 10 of which are Soviet.

ASSOCIATION:

Institut obshchey i neorganicheskoy khimii im. N.S. Kurnakova
Akademii nauk SSSR (Institute of General and Inorganic
Chemistry imeni N.S. Kurnakov, AS USSR)

SUBMITTED:

July 6, 1957

Card 2/2

YEZERSKAYA, Y. A.

18(6)	PHASE I BOOK INFORMATION	SOV/3199
	Academy nauk SSSR. Institut obshchey i neorganicheskoy khimii Im. M. I. Kurukova	
	Analiz blagorodnykh metallov (Analysis of Noble Metals). Moscow, 1959. 193 p. Errata slip inserted. 2,700 copies printed.	
	Resp. Ed.: M. K. Fehmitern, USSR Academy of Sciences, Corre- sponding Member; and O. Ye. Zvyagintsev, Doctor of Chemical Sciences; Eds. of Publishing Houses: T. G. Lavi, and D. M. Trifonov; Tech. Ed.: I. N. Guseva.	
	PURPOSE: This collection of articles is for scientists engaged in the study and analysis of the noble metals.	
	CONTENT: This is a collection of articles on the analysis of the noble metals. It includes chapters on the determination of these metals by various methods, as well as reports presented by scientific research organizations and by industrial enterprises at the Third and Fourth Conference on Noble Metals held in 1954 and 1957, respectively. The analysis and reports describe the new atomic techniques for ana- lysis, the determination of platinum metals, and physicochemical methods of analysis (spectrophotometric, polarographic and potentiometric). Special attention is given to spectral analysis for the determination of admixtures in alloys of platinum metals, silver, and gold, as well as in refined noble metals. The collection also includes analytical methods, tables and charts for materials containing metals of the platinum group, as well as a review of the literature on the analysis of platinum metals published in the last five years. No personalities are mentioned. References follow each chapter.	
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AUTHORS: Pshenitsyn, N. Z., Yezerakaya, N. A. SCV/75-14-1-16/32

TITLE: Amperometric Titration of Iridium by the Use of a Rotating Platinum Electrode (Amperometricheskoye titrovaniye iridiya s ispol'zovaniyem vrashchayushchegosya platinovogo elektroda)

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 1, pp 81-86 (USSR)

ABSTRACT: The fact that well marked voltamper curves of Na_2IrCl_6 can be obtained with a platinum electrode (Ref 1) was made use of for an amperometric method of titrimetric determination of iridium. The authors used the reduction of Ir(IV) to Ir(III) as a basis for the titration. The reaction proceeds quickly and gives titration curves having a sharp break in the equivalence point. Hydroquinone and ascorbinic acid were used as titration agents. The cathode wave of the reduction of Ir(IV) at the potential corresponding to the limit current was used for the evaluation. The latter cannot be based on the anode current of hydroquinone or ascorbinic acid, as Ir(III), which forms during the reaction, gives way to an oxidation wave (Ref 1) that coincides with those belonging to the two reagents. Titration took place by an

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already earlier described experimental procedure (Ref 1). A rotating platinum electrode was the indicator electrode, and a saturated calomel electrode served for comparison. Measurements were carried out by the aid of the SEM-8 "Golepolarizatsiya" polarograph. The procedure followed in preparing and storing the solutions of hydroquinone and ascorbic acid is accurately described. The titration with hydroquinone usually takes place in the presence of hydrochloric acid (p_H 1.5) in a 0.1M NaCl solution. Rh, Pt, Pd, Cu, Ni, Se and Te do not disturb. Au(III) is reduced by hydroquinone and therefore causes disturbance. Ru(IV) also disturbs often, but in the case of not too large amounts of ruthenium this influence can be eliminated by evaporating the sample solution with hydrochloric acid in the presence of sodium chloride, as under these circumstances ruthenium passes to a compound which is not reduced by hydroquinone. The disturbing influence of iron(III) can be eliminated by the addition of phosphoric acid. The mean relative reproducibility of the results amounts to 1 - 2 %. Conditions in titration with

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ascorbic acid are quite the same. In this determination the relative error is 1 - 5 %, whereas in the titration of very small amounts of iridium ($1 \cdot 10^{-5}$ m and less) it is within the range of 10 - 15 %. The method elaborated permits the determination of small amounts of Ir(IV) (10^{-5} - 10^{-3} m). There are 4 figures, 5 tables, and 7 references, 5 of which are Soviet.

ASSOCIATION: Institut obshchey i neorganicheskoy khimii AN SSSR, Moskva
(Institute of General and Inorganic Chemistry of the AS USSR,
Moscow)

SUBMITTED: December 19, 1957

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SOV/75-14-4-15/30

AUTHORS: Pshenitsyn, N. K., Yezerkaya, H. A., Bardin, M. B.

TITLE: Polarography of Precious Metals

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 4, pp 466-471
(USSR)

ABSTRACT: The present article gives a summary of the papers published until the end of 1958 in the field of polarography and amperometry of the precious metals gold, platinum, palladium, iridium, rhodium, ruthenium and osmium. The papers on amperometric titration are divided into 2 groups: a) with the use of a mercury dropping electrode, b) with the use of a rotating platinum electrode. 14 of the discussed 62 papers were published in Soviet periodicals. There are 62 references, 14 of which are Soviet.

SUBMITTED: May 16, 1958

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B004/B01655400
AUTHORS:Pshenitsyn, N. K., Yezerzkaya, N. A.

TITLE:

Polarographic Analysis of Reduction and Oxidation of Complex Chlorides of Ruthenium on a Platinum Electrode

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1960, Vol. 5, No. 5, pp. 1068-1073

TEXT: The purpose of the paper is the quantitative polarographic determination of ruthenium. The authors discuss the properties of the complex compounds that would be applicable for this purpose. The experiments were carried out with the brown salt $K_2[RuOHCl_5]$, prepared according to N. K. Pshenitsyn and S. I. Ginzburg (Ref. 6), and the red salt $K_2[RuH_2OCl_5]$, prepared according to R. Sharona (Ref. 3).

The measurements were made on the Czechoslovakian polarograph of the LP-55 type. Table 1 gives the experimental data obtained on reduction of $Ru(IV)$ -hydroxypentachloride on a platinum electrode with a background of 2 N HCl + 1 N NaCl. Table 2 indicates the proportionality existing between the diffusion current and the Ru concentration. The volt-ampere characteristics obtained for a fixed and a rotating Pt electrode are depicted in Fig. 1 and Fig. 2, respectively. Fig. 3 compares the diffusion currents of K_2IrCl_6 and $K_2[RuOHCl_5]$. The authors came to the following conclusion: The solution of $Ru(IV)$ -hydroxypentachloride contains the

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polymerized ions $[Ru_2OCl_{10}]^{4-}$. Irreversible reduction to Ru(III)-aquopentachloride occurs. This was confirmed by a change in the absorption spectrum (Fig. 4) during the reaction. The volt-ampere characteristics of the reduction of $[Ru_2OCl_{10}]^{4-}$ on the fixed platinum electrode permitted the quantitative determination of 5 - 500 γ/ml Ru. Furthermore, the oxidation of $K_2[RuH_2OCl_5]$ was investigated. The polarogram illustrated in Fig. 5 is unsuited for analytical purposes, since the oxidation wave is masked by the chlorine wave. However, the formation of a complex chloride of tetravalent Ru was confirmed spectrophotometrically (Fig. 6). This chloride differs from hydroxo-pentachloride and will be further investigated. There are 6 figures, 2 tables, and 10 references, 5 of which are Soviet.

SUBMITTED: May 22, 1959