Grigor'yev, N.D.

AUTHOR: Grigor'yev, N.D. Engr Col, Docent, Candidate of Military Science

86-58-3-9/37

TITLE: Firing Unguided Aircraft Rockets Against Aerial Targets (Strel'ba neupravlyayemymi reaktivnymi snaryadami po vozdushnym tselyam)

PERIODICAL: Vestnik vozdushnogo flota, 1958, Nr 3, pp 22-28 (USSR)

ABSTRACT: The article deals with the use of aircraft rockets in air battles. According to the author, unguided aircraft rockets are divided into two groups: impact-fuze rockets. The superiority of unguided rockets over cannon projectiles is found, first of all, in their greater destructive power. The radius of destruction by the time-fuze rocket may sometimes reach 100 - 150 m. Impact-fuze rockets are fired from distances not greater than 2000 m from the target. When semi-automatic sights are used for aiming, the procedure of firing impact-fuze rockets is similar to that of firing from aircraft cannons. The firing of time-fuze rockets differs greatly from the

Card 1/3

Firing Unguided Aircraft Rockets Against Aerial (Cont.)

firing of cannons or of impact-fuze rockets. In order to avoid damage to his own aircraft by rocket fragments, the pilot of a single aircraft should fire the rockets from a distance not less than 400 - 500 m from the target. For a formation this distance should be not less than 600 - 800 m. In formation flying, three methods of firing can be used: each pilot in the formation aims and determines the instant of firing individually; each pilot aims individually but the rockets are fired on a command given by the lead pilot; the rockets are fired on a command given by the lead pilot and no individual aiming is done by the wing pilots. In addition to the rockets, a fighter plane is also equipped with cannons which can be used simultaneously with the rockets. There are three methods of firing the rockets and cannons during an attack: rockets and cannons are fired simultaneously; the rockets are fired first and then the sight is switched over to "Cannons"; the cannons are fired first and then the sight is switched over to "Rockets". The advantages and disadvantages of these methods are discussed by the author in detail.

Card 2/3

Firing Unguided Aircraft Rockets Against Aerial (Cont.)

Fighter combat formations remain the same regardless of whether cannons or rockets are used. A simultaneous attack on bombers by a pair of fighters at close ranges should be carried out in an echelon formation with 60 - 100 m distances between the fighters. If the same attack is carried out by a flight of fighters in Vee formation, the overall depth of the formation should not be greater than 150 - 200 m. When the radio range finders are used, the distance between the pairs of fighters, which attack one after another, should be increased so that at the instant the second pair begins to aim the first pair is out of the field of the radio range finder. The greatest errors in firing time-fuze rockets are due to inaccurate determination of range and of fuze setting. Therefore, whenever possible, radio range finders should be used. Two diagrams.

AVAILABLE: Library of Congress

Card 3/3

ASPISOV, D.I.; GRIGOR'YEV, N.D.

Acclimatization of the American mink (Mustela vison Brisa) in the Volga-Kama region. Uch.zap.Kaz.un. 120 no.6:322-334 '60. (MIRA 16:2)

(Volga Valley--Minks) (Kama Valley--Minsk)
(Acclimatization)

GRIGOR'YEV, N.F.

Some characteristics of geological conditions associated with permafrost in the Ust'-Yana region in Yakut A.S.S.R. Trudy Sev.-Vost.otd.Inst.merzl.AN SSSR no.1:139-152 '58. (MIRA 16:12)

[redacted]

Fro[illegible] of lake bottoms under water in Eastern Antarctica. Inform. biul. Sov.antarkt.eksp. no.6:16-17 '59. (FIR: 1:1)

1. Severo-Vostochnoye otdeleniye Instituta merzlotovedeniya AN SSSR. (Antarctic regions--Frozen ground)

GRIGOR'YEV, N.F., kand. geogr. nauk

Some results of permafrost research in eastern Antarctica. Inform. biul. Sov. antark. eksp. no.7:10-12 '59 (MIRA 13:3)

1. Severo-vostochnoye otdeleniye instituta merzlotovedeniya im. V. A. Obrucheva AN SSSR.
(Burder Hill region--Frozen ground)
(Mirnyy region--Frozen ground)

GRIGOR'YEV, N.F., kand.geograf.nauk

Icings in eastern Antarctica. Inform.biul.Sov.antark.eksp. no.14:5-8 '60. (MIRA 13:6)

1. Severo-vostochnoye otdeleniye Instituta merzlotovedeniya im. V.A.Obrucheva Akademii nauk SSSR.
(Bunger Hills region—Ice)

GRIGOR'YEV, N.F., kand.geograf.nauk

Thermokarst phenomena in eastern Antarctica. Inform. biul. Sob. antark. eksp. no.25:14-18 '61. (MIRA 14:5)

1. Institut merzlotovedeniya AN SSSR.
(Bunger Hills—Frozen ground)

GRIGOR'YEV, Nikolay Filippovich; SHUMSKIY, P.A., doktor geogr. nauk, prof., otv. red.; ZOLOTOV, P.F., red. izd-va; VOLLOVA, V.V., tekhn. red.

[Formation of the relief and frozen rocks in the coastal area of eastern Antarctica] Formirovanie rel'efa i merzlykh gornykh porod poberezh'ia Vostochnoi Antarktidy. Moskva, Izd-vo Akad. nauk SSSR, 1962. 147 p. (MIRA 15:2)

1. Direktor Instituta merzlotovedeniya im. V.A.Obrucheva AN SSSR (for Shumskiy).
(Bunger Hills region, Antarctica—Geology)

GRIGOR'YEV, N.F.

Role of cryogenic factors in the dynamics of the coast of Yakutia.
Okeanologiia 3 no.3:477-481 '63. (MIRA 16:8)

1. Institut merzlotovedeniya Sibirskogo otdeleniya AN SSSR.
(Yakutia—Coast changes)

USSR/Farm Animals. Horses. Q-2

Abs Jour : Ref Zhur - Biol., No 7, 1958, 30903

Author : Rozhdestvenskaya G., Grigor'yev N.
Inst : -
Title : The Problem of the Periods of Growth and Development of Young Horses.
(K voprosu o periodakh rosta i razvitiya konskogo molodnyaka).

Orig Pub : Konevodstvo, 1957, No 9, 32-36.

Abstract : As a result of the studies carried out at an experimental stud on the foals of the Orel Trotter breed, of the Russian Heavy-Draft breed, and of the Budennyy breed, three periods during one year of postembryonic development were distinguished. The first period (from birth to 3 months of age) is characterized by an intensive increase in measurements of the body, and a high protein content in the blood serum. In the Orel Trotter and in the

Card 1/2

Abs Jour : Ref Zhur - Biol., No 7, 1958, 30903

Russian Heavy-Draft breeds, the second period lasts from 4 to 7-8 months, and in the Budennyy breed from 3 to 7 months. During this period, the intensiveness of the increase of the measurements and the body weight drops by 1½-2 times, the albumin-globulin ratio decreases by 45-60%, and the nitrogen of free amino groups decreases by 31-38%, as compared with the first period. The third period in the Orel Trotter and Russian Heavy-Draft breeds lasts from 8-9 to 12 months, and in the Budennyy breed from 7 to 12 months. The sexual reflexes appear in colts, and the first rut occurs in the colts and in the fillies. Likewise, the uniformity of the increase of measurements in all directions, as well as the rise of the biochemical protein activity, are observed. The recommendations as to the organization of the feeding of foals during all three periods are appended.

Country : USSR
Catogory : Farm Animals.
Cattle.
Abs. Jour : Ref Zhur-Biol., No 21, 1953, 96928

Author : Grigoryev, N. G.
Institut. :
Title : Some Indicators of Protein Metabolism in Heifers.

Orig Pub. : Zhivotnovodstvo, 1957, No 9, 44-46

Abstract : The contents of general protein and of globulins increase in the blood of calves of the brown Latvian breed during the age period of 1 to 12 months, while the content of albumins decreases. The greatest changes of these indicators are noted until the calves reach the age of 5-6 months. The smallest contents of general nitrogen of filtrates, of urea and of serum protein aminogroups are observed at the ages of 1, 6 and 11-12 months, the largest con-

Card: 1/2

Country : USSR
Category : Farm Animals.
Cattle.
Abs. Jour : Ref Zhur-Biol., No 21, 1958, 96028

Author :
Institut. :
Title :

Orig Pub. :

Abstract : tents at the ages of 4 and 8 months.

Card: 2/2

GRIGOR'YEV, N. G. Cand Biol Sci -- (diss) "Nitrous substances of the blood serum of growing horses." Mos, 1958. 18 pp (Mos Vet Acad of the Min of Agriculture USSR), 140 copies (KL, 11-58, 115)

GRIGOR'YEV, N.

Grigor'yev, N. and Basistov, A. "Use of the sound-range altimeter at low altitudes," Vestnik vozdush. flota, 1948, No. 12, p. 40-46

SO: U-2888, Letopis Zhurnal'nykh Statey, No. 1, 1949

GRIGOR'YEV, N.

AID P - 414

Subject : USSR/Aeronautics

Card 1/1 Pub. 135, 10/17

Authors : Grigor'yev, N., Lt. Col. of the Engineers, and Sinyagin, A., Major of the Engineers

Title : Resolving capacity of a radiolocation station

Periodical : Vest. vozd. flota, 9, 52-60, S 1954

Abstract : The authors consider 1) the resolving capacity of a radiolocation station in relation to the distance, and 2) the resolving capacity in relation to the angle of two points of location. He gives examples of the procedure for two airplanes. Some numerical data are given. Diagrams and formulae.

Institution : None

Submitted : No date

GRIGOR'YEV, N.

AID P - 763

Subject : USSR/Aeronautics

Card 1/1 Pub. 135 - 9/15

Authors : Grigor'yev, N., Eng., Lt. Col. and Filippovskiy, L., Engineer Major

Title : Infrared technology and its application to aviation

Periodical : Vest. vozd. flota, 11, 57-70, N 1954

Abstract : Infrared radiation is currently utilized in modern warfare, especially in aviation. The author explains the nature of this radiation and describes how it is used. He describes the principles of instruments based on infrared radiation, such as: photoelements, bolometers, receivers with thermoelements, optical-acoustic infrared receivers, electrical sights, electro-optical telephones, thermo-range finders, etc. Diagrams.

Institution : None

Submitted : No date

N. G. GRIGORIEV

"Practical Methods for Calulating a Magnetron'sResonator System" from Annotations of Works Completed in 1955 at the State Union Sci. Res. Inst; Min. of Radio Engineering Ind.

So: B-3,080,964

GRIGOR'YEV, N. Eng. Lt. Col. and STAROSTIN, N. Maj.

"Aircraft Interception Radar Stations," from the book, Modern Military Technology, 1956, page 176.

Translation 1114585

AID P - 5232

Subject : USSR/Aeronautics - education

Card 1/1 Pub. 135 - 18/26

Author : Grigor'yev, N. G., Eng.-Lt. Col.

Title : Collection of descriptions of best rational suggestions

Periodical : Vest. vozd. flota, 11, 72-73, N 1956

Abstract : The author gives a short revue of the "Collection of Descriptions of Best Suggestions", which was published by innovators on N... unit for popularization of the work of innovators and inventors in that unit.

Institution : None

Submitted : No date

GRIGOR'YEV, N G

86-58-3-31/37

AUTHOR: Grigor'yev, N.G., Engr Lt Col

TITLE: Instructive Analysis (Pouchitel'nyy analiz)

PERIODICAL: Vestnik vozdushnogo flota, 1958, Nr 3, pp 80-81 (USSR)

ABSTRACT: The author describes briefly what measures should be taken during the inspection of an aircraft prior to flights in order to eliminate carelessness in maintenance of aircraft.

AVAILABLE: Library of Congress

Card 1/1

FEDYAYEV, S.M., polkovnik.; GRIGOR'YEV, N.G., inzh.-podpolkovnik

"Nonmetallic materials and their use in aeronautical construction." Reviewed by S. M. Fediaev, N.G. Grigor'ev. Vest. Vozd. Fl. 41 no.8: 89-91 Ag '58. (MIRA 11:9)
(Airplanes--Materials)

GRIGOR'YEV, N.G., inzhener-podpolkovnik

On an air target. Vest.Vozd.Fl. no.6:86-89 Je '61. (MIRA 14:8)
(Guided missiles)

GRIGOR'YEV, N.G., inzh.; UMNYAGIN, M.G., inzh.; KHARAKHIN, [illegible]

Development of technology in the metallurgical machinery industry.
Vest. mashinostr. 44 no.9:79-83 S '64.
(MIRA 17:11)

BALASHEV, L.L., prof.; GRIGOR'YEV, N.G., kand. biol. nauk; ZHURBITSKIY, Z.I., prof.; PETERBURGSKIY, A.V., prof.; POPOV, P.V., kand. sel'khoz. nauk; RADKEVICH, P.Ye., prof.; SOKOLOV, A.V.; TURCHIN, F.V., prof.; SHKONDE, E.I., kand. sel'khoz. nauk; SHTERNBERG, M.B., kand. biol. nauk; VOL'FKOVICH, S.I., akademik, red.; KORNEYEV, N.Ye., kand. veter. nauk, red.; NAYDIN, P.G., prof., red.; PLESHKOV, B.P., kand. sel'khoz. nauk, red.; POPOV, I.S., akademik, red.; ROMASHKEVICH, I.F., kand. sel'khoz. nauk, red.; RODE, A.A., prof., red.; ROZOV, N.N., prof., red [redacted], red.

[Chemicalization of agriculture; scientific and technical dictionary handbook] Khimizatsiia sel'skogo khoziaistva; nauchno-tekhnicheskii slovar'-spravochnik. Moskva, Nauka, 1964. 398 p. (MIRA 17:10)

1. Chlen-korrespondent AN SSSR (for Sokolov). 2. Vsesoyuznaya akademiya sel'skokhozyaystvennykh nauk imeni V.I.Lenina (for Popov)

GRIGOR'YEV, N.I. (Leningrad, V.O. 8-ya liniya, 29, kv.20)

"The liver in fasting and nutritional deficiency" by Heinz David. Reviewed by N.I.Grigor'ev. Arkh.anat., gist i embr. 43 no.7:115-118 Jl '62. (MIRA 15:9)

(LIVER) (DEFICIENCY DISEASES)

GRIGOR'YEV, N.I., kand. tekhn. nauk

Probable asymmetry of leadings and fatique strength. Vest. mashinostr. 43 no.7:16-20 Jl '63. (MIRA 16:8)

(Strains and stresses)

[redacted], V. I.

36424 Operativnoye udaleniye inorodnykh tel serdtsa I Perikarda posle ognestrelnykh ranenly. Khirurgiya, 1949, No. 11, s. . -22

SO: Letopis' Zhurnal'nykh Statey, No. 4?, 1949

GRIGOR'YEV, N.I.; ZAKHAR'YAN, S.T., redaktor; ROTERMEL', R.P., tekhnicheskiy redaktor

[Surgical therapy of nonpenetrating wounds of the heart, the pericardium and the mediastinum] Operativnoe lechenie slepykh ranenii serdtsa, perikarda i sredostenila. Moskva, Gos. izd-vo med. lit-ry, 1953. 135 p. [Microfilm] (MLRA 7:10)
(Heart--Surgery)
(Mediastinum--Surgery)

GRIGOR'YEV, N.I., doktor med. nauk (Molotov)

Unusual endurance of the heart after closed injury of the left ventricle. Khirurgiia no.10:59-61 O '54. (MLRA 8:1)

(HEART, wounds and injuries
left ventricle, blind shell splinter inj., surg.)
(WOUNDS AND INJURIES
heart, left ventricle, blind shell splinter inj., surg.)

GRIGOR'YEV, N.I., dotsent(Molotov)

A case of transpleural removal of a neurofibroma on the thoracic section of the sympathetic trunk. Khirurgiia no.8:64-65 Ag. '55. (MLRA 9:2)

(SYMPATHETIC NERVOUS SYSTEM, neoplasms
chain
neurofibroma, thoracic, surg. transpleural approach)
(NEUROFIBROMA
sympathetic chain, thoracic, surg. transpleural approach)

GRIGOR'YEV, N.I., dotsent

Bronchogenic cyst of the mediastinum. Khirurgiia no.8:75-76 '55.
(MLRA 9:2)

1. Iz Molotovskogo meditsinskogo instituta.
(MEDIASTINUM--TUMORS)

GRIGOR'YEV, N.I., dotsent (Molotov)

Congenital diverticulum on the pericardial sac. Klin.med.33 no.6:80-82 Je '55. (MLRA 8:12)

1. Iz kafedry 2-y fakul'tetskoy khirurgii (zav.-prof. N.M. Stepanov) Molotovskogo meditsinskogo instituta.
(PERICARDIUM, diverticula)

GRIGOR'YEV, N.I., dotsent

Combined wound of the heart and lungs. Vest.khir.75 no.6:113-114 Jl '55. (MLRA 8:10)

1. Iz fakul'tetskoy khirurgicheskoy kliniki (sav.-prof. N.M. Stepanov) Molotovskogo meditsinskogo instituta. Molotov (oblastnoy) ul. kul'tury, d.26, kv.16.
(HEART--WOUNDS AND INJURIES) (LUNGS--WOUNDS AND INJURIES)

GRIGOR'YEV, N.I., doktor meditsinskikh nauk (Molotov)

Surgery for late pulmonary hemorrhages in wounds and suppurations of the lungs [with summary in English, p.156]. Vest.khir. 77 no.3: 30-34 Mr '56. (MLRA 9:7)

(ABSCESS
lungs, causing hemorrh., surg.)
(LUNGS, wounds and injuries
in wds. & suppurations, surg. causing hemorrhage, surg.)
(HEMORRHAGE
lungs, in wds. & suppurations, surg.)
(LUNGS, abscess
causing hemorrh., surg.)
(WOUNDS AND INJURIES
lungs, causing hemorrh., surg.)

BARTNOVSKIY, Aleksandr Leont'yevich; KOZIN, Vasiliy Onisimovich; KUCHERENKO, Sergey Aleksandrovich; BUZINNER, D.M., insh., retsenzent; GRIGOR'YEV, M.I., insh., retsenzent; CHISTOV, G.I., insh., retsenzent; SHTILLER, Ya.V., insh., retsenzent; NOVIKAS, M.N., insh., red.; BORROVA, Ye.N., tekhn. red.

[Specialized measurements in communication systems, automatic control, and remote control] Spetsial'nye izmereniia v ustroistvakh sviazi, avtomatiki i telemekhaniki. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soobshcheniia, 1961. 251 p. (MIRA 14:8)

(Electronic measurements) (Railroads--Electronic equipment)

BUNIN, Dmitriy Anatol'yevich; KOLOKOL'NIKOV, Aleksandr Nikolayevich; LISENKOV, Viktor Mikhaylovich; SERGEYEV, Ivan Sergeyevich; SOKOLOV, Viktor Fedorovich; USTINSKIY, Aleksandr Andreyevich; GRIGOR'YEV, N.I., inzh., retsenzent; NOVIKAS, M.N., inzh., red.; KHITROV, P.A., tekhn.red.

[Radio-relay communication in railroad transportation] Radiorelelnaia sviaz' na zheleznodorozhnom transporte. Moskva, Vses. izdatel'sko-poligr.ob"edinenie M-va putei soobshcheniia, 1961. 270 p. (MIRA 14:6)

(Railroads--Communication systems)

GRIGOR'YEV, N.I.; SAMOLDIN, B.N.

Unjustified sluggishness. Elek.i tepl.tiaga 4 no.1:8
Ja '60. (MIRA 13:4)

1. Starshiy zavodskoy inspektor Glavnogo upravleniya Ministerstva putey soobshcheniya na Rizhskom vagonostroitel'nom zavode (for Grigor'yev). 2. Zavodskoy inspektor Glavnogo upravleniya Ministerstva putey soobshcheniya, Riga (for Samoldin).
(Electric railroads--Trains)

BRYLEYEV, A.M., doktor tekhn.nauk, prof.; SHISHLYAKOV, A.V., kand.tekhn. nauk; PUGIN, D.K., kand.tekhn.nauk; YEFIMOV, G.K., inzh.; MOZHAYEV, S.S., inzh.; GRIGOR'YEV, N.I., inzh., retsenzent; KAZAKOV, A.A., kand.tekhn.nauk, retsenzent; PETUSHKOVA, I.K., inzh., red.; USENKO, L.A., tekhn.red.

[New systems of coded automatic block signaling] Novye sistemy kodovoi avtoblokirovki. Moskva, Vses. izdatel'sko-poligr. ob"edinenie M-va putei soob., 1961. 135 p. (Moscow. Vsesoiuznyi nauchno-issledovatel'skii institut zheleznodorozhnogo transporta. Trudy, no.219) (MIRA 15:1)

(Railroads—Signaling—Block system)

GRIGOR'YEV, Nikolay Ivanovich; BARKOVSKIY, I.V., redaktor; MAKRUSHIN, V.A., tekhnicheskiy redaktor

[Inequalities in the algebra course for class 10; a practical manual] Neravenstva v kurse algebry 10 klassa; metodicheskaia razrabotka. Leningrad, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, Leningradskoe otd-nie, 1956. 82 p. (MLRA 9:11)
(Inequalities (Mathematics))

MAR'YANOVSKIY, I.M.; GORBACHEV, A.G.; RYVKIN, G.M.; RYABOY, A.Ya.; KONAKOV, G.A.; GRIGOR'YEV, N.I.

Authors' abstracts of dissertations. Vest.mashinostr. 42 no.5:89 My '62. (MIRA 15:5)

1. Leningradskiy politekhnicheskiy institut imeni M.I.Kalinina (for Mar'yanovskiy, Gorbachev). 2. Moskovskiy stankoinstrumental'nyy institut (for Ryvkin). 3. Krasnoyarskiy institut tsvetnykh metallov imeni M.I.Kalinina (for Ryaboy). 4. Khar'kovskiy politekhnicheskiy institut imeni A.A.Zhdanova (for Konakov). 5. Leningradskiy korablestroitel'nyy institut (for Grigor'yev).
(Bibliography—Mechanical engineering)

SIROTSKIY, V.F., doktor tekhn.nauk; GRIGOR'YEV, N.I., inzh.; ARTEM'YEV, P.P., kand.tekhn.nauk

Angles of declination of cargo cables of portal cranes during operation. Rech.transp. 18 no.7:19-21 Jl '59. (MIRA 12:11)
(Cranes, derricks, etc.)

GRIGOR'YEV, N.I., inzh.

Vibration damping of gantry crane boom systems. Trudy LIVT no.4:27-34 '60. (MIRA 15:3)
(Cranes, derricks, etc.--Vibrations)

GRIGOR'YEV, N.I., inzh.

Probability characteristics of operating crane loads. Vest.mash. 41 no.10:21-24 O '61. (MIRA 14:10)
(Cranes, derricks, etc.)

GRIGOR'YEV, N. I., Cand. Tech. Sci. (diss) "Damping of Vibrations in Portal Cranes," Leningrad, 1961, 21 pp. (Leningrad Shipbuilding Inst.) 200 copies (KL Supp 12-61, 265).

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

BC

A-4

[illegible] and changes in epithelium of [illegible] gall bladder. N. I. Grigoriev (Compt. rend. Acad. Sci. U.R.S.S., [illegible], [illegible], 81—86).—The gall bladders of [illegible] ([illegible]-cm. stages), rabbit, and chick embryos, of young [illegible] and chicks, of axolotls, frogs, and of [illegible] were used; the tissues were kept in "hanging drops" and observed for [illegible] weeks. The epithelium was similar in all species, except the size of the cells; there were some lymphocytes at various levels of the epithelial layers; the basal membrane was insignificant. There was extensive growth, starting in a layer of polygonal cells. The [illegible] of the epithelial cells contained [illegible]. There was [illegible] and karyogenesis in [illegible] within 1—2 days in all cases. [illegible] Growth [illegible] mammals and birds, in [illegible] days in [illegible] and reptiles. [illegible] of [illegible] was observed; this amount decreases with age of the [illegible], partly by degeneration. A. S.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

USSR/Medicine - Transplantation Oct 1947
Medicine - Liver

"The Change of the Liver of Grass Frogs in Auto-transplantation," N. Grigor'yev, 3½ pp

"Dok Akad Nauk SSSR" Vol LVIII, No 1

Presents results of an experiment in which a section of liver was excised and transplanted in the abdominal lymphatic sack. At intervals of from several hours up to 132 days after the transplantation, it was subjected to microscopic study. Submitted by Academician I. I. Shmal'gauzen, 20 Mar 1947.

52T48

[redacted], V. I.

2[redacted] [redacted], V. I. [redacted] autotransplantatsii. Trudy Akad. [redacted], T. III, 1[redacted], S. [redacted]- 2.

SO: Letopis, No. 31, 1949).

GRIGOR'YEV, N.I., (Leningrad).

Mikhail Dorimedontovich Lavdovskii; 50th anniversary of his death. Usp. sovr.biol. 35 no.5: 444-456 My-Je '53. (MLRA 6:6)
(Lavdovskii, Mikhail Dorimedontovich, 1847-1903)

GRIGOR'YEV, N. I.

GRIGOR'YEV, N. I. -- "The Reactivity of Ethylene in the Small Intestine, Gall Bladder, and Liver of Vertebrate Animals and Man." Min Health RSFSR. Leningrad Sanitary-Hygiene Medical Inst. Leningrad, 1955. (Dissertation for the Degree of Doctor of Biological Sciences.)

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

GRIGOR'YEV, N.I. (Leningrad, B.O., 8-ya liniya, d.39, kv.20)

Reactive changes of the human embryonic liver in tissue cultures [with summary in English]. Arkh.anat.gist. i embr. 34 no.6:64-74 N-D '57. (MIRA 11:3)

1. Kafedra gistologii s embriologiyey (zav.-chlen-korrespondent AMN SSSR prof. S.I.Shchelkunov) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(LIVER, embryol.
reactivity in various stage of develop. in tissue culture, review)

GRIGOR'YEV, N. I.

Report on activities of the editorial board of "Arkhiv anatomii, gistologii i embriologii" in 1957 and its job in 1958. Arkh. anat.gist. i embr. 35 no.3:125-126 My-Je '58 (MIRA 11:7)
(ANATOMY--PERIODICALS)

GRIGOR'YEV, N.I. (Leningrad, Vas. Ostrov, 8 liniya d.39, kv.20)

Works of Hans Elias on liver structure [with summary in English]. Arkh.anat. gist. i embr. 35 no.4:91-99 Jl-Ag '58 (MIRA 11:10)
(LIVER, anat. & histol.
contribution of Hans Elias (Rus))
(ELIAS, HANS MICHAEL, 1907)

GRIGOR'YEV, N.I.

Cambial nature of tissues in vertebrate animals [with summary in English]. Trudy LSOMI 42:435-447 '58 (MIRA 11:12)

1. Kafedra gistologii i embriologii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. kafedroy - chlen-korrespondent AMN SSSR, prof. S.I. Shchelkunov).
(HISTOLOGY,
cambial properties of vertebrate tissue (Rus))

GRIGOR'YEV, N.I.

Regeneration of epithelium in the gall bladder of different vertebrates. [with summary in English]. Trudy LSGMI 42:448-465 '58 (MIRA 11:12)

1. Kafedra gistologii i embriologii Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta (zav. kafedroy - chlen-korrespondent AMN SSSR, prof. S.I. Shchelkunov).
(GALL BLADDER, physiol.
regen (Rus))
(REGENERATION,
gall bladder (Rus))
(EPITHELIUM)

GRIGOR'YEV, N.I.; LEV, I.D.

Work of the editorial board of "Arkhiv anatomii, gistologii i embriologii" in 1958 and plans for 1959. Arkh. anat. gist. i embr. 36 no.3:108-110 Mr '59. (MIRA 12:7)
(ANATOMY--PERIODICALS)

GRIGOR'YEV, N.I. (Leningrad, V.O., 8 liniya, 39, kv.20)

"Liver; structure and function" by H.Popper, F.Schaffner. Reviewed by N.I.Grigor'ev. Arkh.anat. gist.i embr. 38 no.4:110-114 Ap '60. (MIRA 14:5)

(POPPER, H.) (SCHAFFNER, F.) (LIVER)

GRIGOR'YEV, N.I. (Leningrad, V.O. 8-ya liniya, 39, kv.20)

"Physiology and experimental pathology of the liver" by A.Fischer. Reviewed by N.I.Grigor'ev. Arkh.anat.gist.i embr. 39 no.11:119-120 N '60. (MIRA 14:5)

(LIVER) (FISCHER, A.)

GRIGOR'YEV, N.I. (Leningrad, V.O., 8-ya liniya, 39, kv.20)

"Histology and microscopic anatomy of man" by W.Bargmann. Reviewed by N.I.Grigor'ev. Arkh. anat. gist. i embr. 41 no.10:119-121 O '61. (MIRA 14:12)

(HISTOLOGY) (BARGMANN, W.)

GRIGOR'YEV, N.I. (Leningrad, V.O., 8-ya liniya, 39, kv.20)

Phylogenetic changes in the distribution of cambial parts of enterodermal tissues in vertebrates. Arkh. anat., gist. i embr. 41 no.11:86-95 N '61. (MIRA 14:12)

1. Kafedra gistologii i embriologii (zav. - prof. N.I.Grigor'yev) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(KARYOKINESIS) (VISCERA)

EL'BERG, G.A., doktor med.nauk;GRIGOR'YEV, N.I., professor

Use of bone homografts in surgical practice. Vest.khir. no.8: 71-75 '61. (MIRA 15:3)

1. Iz kliniki obshchey khirurgii (zav. - prof. A.V. Smirnov), kafedry gistologii (zav. - prof. N.I. Grigor'yev) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.
(BONES—TRANSPLANTATION)

GRIGOR'YEV, N.I. (Leningrad, V.O., 4, 8-ya liniya, 39,kv.20)

Liver regeneration in lower vertebrates. Arkh. anat., gist. i embr. 43 no.8:77-87 Ag '62. (MIRA 17:8)

1. Kafedra gistologii s embriologiyey (zav. -- prof. N.I. Grigor'yev) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.

GRIGOR'IEV, N.I.

Tissue and organ regeneration. Arkh. anat., gist. i embr. 48 no.6: 112-115 Je '65. (MIRA 18:7)

1. Kafedra gistologii i embriologii (zav. - prof. N.I.Grigor'yev) Leningradskogo sanitarno-gigiyenicheskogo meditsinskogo instituta.

GRIGOR'YEV, N. Khx., Cand of Vet Sci -- (diss) "Pathomorphological Changes in the Intestines and Livers of Chickens During Gallium Heteracidosis and the Testing of Antihelminthic Efficacy of CertainPeperasine Salts," Moscow, 1959, 19 pp (Moscow Veterinary Academy)
(KL, 5-60, 129)

GRIGOR'YEV, N.Kh., aspirant

Use of piperazine sulfate in ascarid and heterakid infestations of hens. Ptitsevodstvo 9 no.9:41-42 S '59.

1. Moskovskaya veterinarnaya akademiya.
(Parasites--Poultry) (Nematoda) (Piperazine)

GRIGOR'YEV, N. Kh. (Candidate of Veterinary Sciences, Checheno-Ingush NIVS)

"Prophylaxis of duck diseases"

Veterinariya, vol. 39, no. 4, April 1962 p. 64

GRIGOR'YEV, N.Kh., kapitan, voyennyy letchik vtorogo klassa

Inspection day. Vest. Vozd. Fl. no.8:56-59 Ag '60.
(MIRA 13:9)
(Airplanes--Maintenance and repair)

GRIGOR'YEV, N.Kh.

Use of BF-2 glue in museum practice. Lab. delo 8 no.2:61 F '62.
(MIRA 15:2)

1. Checheno-ingushskaya nauchno-issledovatel'skaya veterinarnaya stantsiya, Groznyy.
(MUSEUMS--EQUIPMENT AND SUPPLIES) (GLUE)

[illegible] A.Kh., kand. v [illegible]; [illegible], A. A.; [illegible]

Che[illegible] al prevention of [illegible] and [illegible] on [illegible]. Vete[illegible]rila 39 no.7:51-52 Jl '62. (MIRA 18:1)

1. [illegible]-issledovatel'skaya veterinarnaya [illegible], [illegible] ptitsevodcheskogo [illegible]-Ismailskaya [illegible] [illegible] veterinarnyy [illegible] ptitsevodcheskogo [illegible] [illegible] [illegible]ovkhoza

Cheri[illegible]-I[illegible]ke, A Sk ([illegible]).

APPROVED FOR RELEASE: Thursday, July 27, 2000 CIA-RDP86-00513R00051681(

GRIGOR'YEV, N.Kh., kand. veter. nauk

Feeding vitamin-enriched distillers' grains to weaned pigs.
Veterinariia 41 no.1:101 Ja '64. (MIRA 17:3)

1. Chechenо-Ingushskaya nauchno-issledovatel'skaya veterinarnaya stantsiya.

GRIGOR'YEV, N.Kh., kand. veter. nauk

Piperazine dihydrochloride as an effective anthelmintic.
Veterinariia 41 no.11:54-55 N '64. (MIRA 18:11)

1. Checheno-Ingushskaya nauchno-issledovatel'skaya veterinarnaya stantsiya.

GRIGOR'YEV, N.Kh., kand. veter. nauk

Sharp metallic objects in feeds as a cause of diseases and loss of ducks. Veterinariia 42 no.8:79-80 Ag '65. (MIRA 18:11)

1. Checheno-Ingushskaya nauchno-issledovatel'skaya veterinarnaya stantsiya.

DERIPASKO, P.G.; KOVALEV, G.V., veterinarnyy vrach; GRIGOR'YEV, N.Kh.

Reducing echinococcus in sheep. Veterinariia 42 no.9:45-46 S '65. (MIRA 18:11)

1. Nachal'nik veterinarnogo otdela Nauchno-issledovatel'skoy veterinarnoy stantsii Checheno-Ingushskoy ASSR (for Deripasko). 2. Veterinarnyy otdel Nauchno-issledovatel'skoy veterinarnoy stantsii Checheno-Ingushskoy ASSR (for Kovalev). 3. Zaveduyushchiy otdelom parazitologii Nauchno-issledovatel'skoy veterinarnoy stantsii Checheno-Ingushskoy ASSR (for Grigor'yev).

10(4,5) PHASE I BOOK EXPLOITATION SOV/1866

Grigor'yev, Nikolay Leonidovich

Gidravlika (Hydraulics) Moscow, Izd-vo "Morskoy transport", 1958. 319 p. Errata slip inserted. 3,000 copies printed.

Ed.: M.I. Petin; Tech. Ed.: Ye.A. Tikhonova.

PURPOSE: This textbook is approved by the Department of Educational Institutions of the USSR Ministry of the Merchant Marine, and is intended for students of nautical schools. It may also be of use to students in building, road building, hydrological vtuzes, etc.

COVERAGE: This textbook, third revised edition, deals with specific problems of sea-bottom dredging. Some new developments in centrifugal pumps and deep-suction pipes and apparatus are discussed in detail in the section on hydrodynamics. The sections on hydraulics and sanitary techniques were shortened. A historical outline of the development of hydraulics in the USSR is given in the Introduction. Personalities mentioned include: Professors M.A. Velikanov, G.A. Gurzhiyenko, K.K. Fedyayevskiy, Academician A.N. Kolmogorov, who investigated turbulent flow; Academician S.A. Khristianovich, unsteady flow in open chan-

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Hels ; Professors V.I. Aravin, B.G. Nelson-Skornyakov, A.A. Uginchus. I.D. Chertousov, and Engineer P.A. Shankin, analysis of filtration through earth dams. There are no references.

TABLE OF CONTENTS:

GRIGOR'YEV, N.Kh., kand. veter. nauk

Prophylaxis of duck diseases. Veterinariia 39 no.4:64-66 Ap '62.
(MIRA 17:10)

1. Checheno-Ingushskaya nauchno-issledovatel'skaya veterinarnaya stantsiya.

Physics

NSA

3320
ON IONIZATION IN THE STRATOSPHERE PRODUCED BY VARIOUS COMPONENTS OF COSMIC RADIATION. N. L. Grigorov, I. M. Savvinova, and S. P. Shabolov. Doklady Akad. Nauk S.S.S.R. 81, 379-82(1951). (In Russian)
Graphs of ion pairs produced per cc of air per sec by ionizing and relativistic particles from 5 to 25 km altitude are presented. The ionization chamber used is described briefly.

Grigor'ev, N.L.

USSR/Nuclear Physics - Cosmic Rays C-7

Abs Jour : Ref Zhur - Fizika, No 1, 1958, 582

Author : Alekseyeva, K.I., Grigor'ev, N.L.

Inst : Moscow State University

Title : Inelastic Interaction of Protons with Energies Above 7 Bev with Nuclei of Carbon and Hydrogen.

Orig Pub : Zh. eksperim. i teor. fiziki, 1957, 32, No 2, 404-405

Abstract : The authors have measured the cross section for inelastic interaction of protons from cosmic ryas, having energies 7 -- 20 Bev (geomagnetic latitude 31° N, altitude 20 -- 25 km) with carbon and hydrogen nuclei. To record the interactions of the protons, a system consisting of a large number of Geiger-Muller counters was used with graphite and paraffin absorbers. The results obtained (L_{λ} -- range of protons before interaction, σ_{λ} -- corresponding

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Abs Jour : Ref Zhur - Fizika, No 1, 1958, 582

cross section): $L_{\mu}^{c} = 67^{+13}_{-9}$ g/cm^2, $\sigma_{\mu}^{c} = 300 \pm 50$ millibarns (determined from the reduction in the flux of showere-forming particles); $L_{\mu}^{c} = 73 \pm 7$ g/cm^2; $\sigma_{\mu}^{c} = 270 \pm 30$ millibarns (from direct observation of the number of interactions in the graphite); $L_{\mu}^{\mu} = 47^{+37}_{-15}$ g/cm^2, $\sigma_{\mu}^{\mu} = 35 \pm 16$ millibarns (from the difference in the number of electron-nuclear showers recorded in the paraffin and in the graphite).

Card 2/2

GRIGOR'YEV, N.L.; SHESTOPEROV, V.Ya.

Possible way in which broad air showers develop [with summary in English]. Zhur.eksp. i teor.fiz. 34 no.6:1539-1547 Je '58. (MIRA 11:9)

1. Moskovskiy gosudarstvennyy universitet.
(Cosmic rays)

GRIGOR'EV, N. L.

A STUDY OF THE INTERACTION OF NUCLEONS WITH ENERGY (I - 5) × 10^{11} ev WITH LIGHT ATOMIC NUCLEI

N.L. GRIGOR'EV, V.V. GUSEVA, N.A. DOBROTIN, K.A. KOTEL'NIKOV, V.B. MURZIN, S.V. RYABIKOV, [illegible].A. SLAVATINSKIY

L. The interaction of cosmic-ray nucleons with atomic nuclei has been investigated at 3860 m above sea level (Pamirs Station of the Physics Institute, Academy of Sciences, U.S.S.R.) with the aid of an arrangement that permits of a comprehensive study of an individual act of nuclear interaction.

2. The arrangement consisted of two cloud chambers with a target of a light substance (LiH in the main series of experiments) interposed between them. In thistarget the interactions under study were generated. The bottom cloud chamber was placed in a 6500-oersted magnetic field, which enabled us to measure directly the pulses of secondary particles. Under the chambers was a special device ("ionization calorimeter") made up of 120 ionization chambers arranged in 8 trays with filters between them. This device made it possible (from the total amount of energy generated) to determine the energy of the particle that produced the interaction being studied.

Report presented at the International Cosmic Ray Conference, Moscow, 6-11 July 1959

VERNOV, S.N.; GRIGOR'YEV, N.L.; IVANENKO, I.P.; LEBEDINSKIY, A.I.; MURZIN, V.S.; CHUDAKOV, A.Ye.

Possible formation mechanism of "terrestial corpuscular radiation" induced by cosmic rays. Dokl. AN SSSR 124 no.5:1022-1025 F '59. (MIRA 12:3)

1.Chlen-korrespondent AN S.S.S.R. (for Vernov). 2. Moskovskiy gosudarstvennyy universitet imeni M.V. Lomonosova.
(Cosmic rays) (Particles, Elementary)

GRIGOR'YEV, N.M., inzh.

Council of Construction and Architecture (Section of Construction and Building Materials). Izv.ASiA no.3:154 '59.
(MIRA 13:6)

(Building materials)

GRIGOR'YEV, N.N.

We are for the cage system. Nauka i pered. op. v sel'khoz. 7 no.5: 72-73 My '57. (MLRA 10:6)

1. Direktor Georgiyevskogo gosplemrassadnika ptitsy.
(Poultry)

GRIGOR'YEV, M.N.; PUGACHEVA, A.I.

Building up a breeding stock of turkeys in Stavropol Territory. Ptitsevodstvo 9 no.10:30-32 O '59.
(MIRA 13:2)

1. Direktor Georgiyevskogo gosplemrassadnika, Stavropol'skiy kray (for Grigor'yev). 2. Starshiy zootekhnik Georgiyevskogo gosplemrassadnika, Stavropol'skiy kray (for Pugacheva).
(Georgievsk District--Turkeys)

130-7-3/24

AUTHORS: Migutskiy, L.R. and Grigor'yev, N.N.

TITLE: Use of Hammer Mills for Crushing Limestone. (Primeneniye molotkovykh drobilok dlya izmel'cheniya izvestnyaka)

PERIODICAL: Metallurg, 1957, Nr 7, pp.5 - 6 (USSR)

ABSTRACT: Dissatisfied with the performance of the Gipromez-designed rod mills installed at the Cherepovets works for grinding limestone for use in self-fluxing sinter production, the authors proposed that hammer mills should be used instead. For this the type CM-19A hammer mill previously used for preliminary crushing of limestone was reconstructed by the works into type CM-19A-P, giving a finer product. The article gives a general outline of the modifications and tabulations of operating and cost data for the reconstructed mill, a larger hammer mill and the rod mill. The respective productivities are 25.40 and 12 tons/hr, the energy consumptions 4.6, 9.2 and 12.9 KWh/ton, costs 37.2, 156.3 and 165.3 thousand roubles, weights 6.5, 15.5 and 55.0 tons. From the same size-graded feed the reconstructed hammer mill gave 4.48 and 95.52% of 5-3 and -3 mm fractions, respectively, the

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130-7-3/24

Use of Hammer Mills for Crushing Limestone.

corresponding values for the rod mill being 6.43 and 93.57%. There are 2 tables and 1 figure.

ASSOCIATION: Cherepovets Metallurgical Works (Cherepovetskiy Metallurgicheskiy Zavod)

AVAILABLE: Library of Congress.

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L 25361-65 EWT(m)/EWP(t)/EWP(b) IJP(c) JD/JG
ACCESSION NR: AP4046736 S/0054/64/000/003/0134/0139

AUTHOR: Solov'yeva, L. A.; Stolyarov, K. P.; Grigor'yev, N. N. 15 9

TITLE: Determination of small gallium concentrations by the method of microluminescent titration 27

SOURCE: Leningrad. Universitet. Vestnik. Seriya fiziki i khimii, no. 3, 1964, 134-139

TOPIC TAGS: analytical chemistry, microluminescent titration, gallium analysis, microanalysis

ABSTRACT: The method of microluminescent titration described by the authors previously (see Zh. A Kh 17, 565 (1962)) is applied for the determination of small concentrations of gallium in relatively small samples (10 to 50 milligrams). The sensitivity of this simple method is between that of the titrimetric and the photometric methods. (1.0 - 10.0 μg in 2 ml samples) The microluminescent titration method was tested on artificial mixtures and on samples of ferrite, silicate,

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L 25361-65
ACCESSION NR: AP4046736

and repheline. Orig. art. has: 3 figures and 6 tables

ASSOCIATION: None

SUBMITTED: 25Jan64 ENCL: 00 SUB CODE: GC

NR REF SOV: 007 OTHER: 009

Card 2/2

L 5038-66 EWT(1)/EWT(m)/T/EWP(t)/EWP(b)/EWA(h) IJP(c) JD/AT

ACC NR: AP5027419 SOURCE CODE: UR/0181/65/007/011/3378/3385

AUTHOR: Grigor'yev, N. N.; Dykman, I. M.; Tomchuk, P. M.

ORG: Institute of Semiconductors, AN UkrSSR, Kiev (Institut poluprovodnikov AN UkrSSR)

TITLE: Temperature and mobility of hot electrons in polar semiconductors

SOURCE: Fizika tverdogo tela, v. 7, no. 11, 1965, 3378-3385

TOPIC TAGS: semiconductor alloy, indium alloy, electron gas, electron mobility, Coulomb scattering, impurity scattering

ABSTRACT: The function of electron distribution in alloyed polar semiconductors in electric fields of arbitrary strength has been determined with the aid of a kinetic equation. The interaction between the electrons, between the electron and the optical lattice oscillations, and between the electron and impurity ions were taken into account. The dependence of the mobility μ and the electron temperature T in n-InSb on the applied field shows that T and μ change slightly with the field only in the region of very weak fields. With the growth of the applied field, the electron temperature T increases, and dT/dF increases up to some limiting field F* at which dT/dF → ∞. Beginning with some electron concentrations n the value of F* rapidly increases with the rise of n. The competing Coulomb and lattice scattering mechanisms determine the dependence of μ on F. At small n, the mobility noticeably decreases with the field. At sufficiently large n in weak fields, it may even increase. The dependence of mobility

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L 5038-66

ACC NR: AP5027419

μ on the field F, lattice temperature T_0, and the concentration n shows that the sharpest dependence of μ on n takes place in weak fields at low T_0. In this region, the Coulomb scattering mechanism plays a very important role, and the increase of n is followed by a rapid decrease of mobility. With the increase of the field and T_0, the electron temperature also increases, as does the influence of the lattice scattering mechanism, which is not linked to the concentration dependence. Orig. art. has: 3 figures and 23 formulas. [JA]

SUB CODE: NP,SS/ SUBM DATE: 19Apr65/ ORIG REF: 005/ OTH REF: 009/ ATD PRESS: 4/32

BC

Card 2/2

GRIGOR'YEV, N.N.

Thallium detection in ores, industrial wastes, and concentrates. K. F. Stolyarov and N. N. Grigor'ev (State Univ., Leningrad). *Zavodskaya Lab.* 22, 1059-60 [1956]. The Tl detection method consisted in the formation of KI phosphors which luminesce with a green light if Tl^+ is present, after excitation with ultraviolet light λ = 254-313 mμ. KCl and KBr luminesce similarly, but their luminescence is weaker. The color of the luminescence varies with the Tl concn., is yellow at [Tl] = 1000 γ/ml., green at 100 γ/ml., bright blue at 10 γ/ml., light blue at 1 γ/ml., and violet-blue at 0.1-0.01 γ/ml. Special tests show the possibility of Tl detection in the presence of other substances present in sulfide ores, when Sn, Zn, and Ni concns. exceed the Tl concn. 200,000 times and Cd 400,000 times. Fe^{+++}, Hg^+ and Cu^{++}, and Pb^{++} interfere because of the I deposition when these ions interact with KI and the insol. iodide forms a film which absorbs ultraviolet rays. The formation of complex cyanides with Fe and Pb eliminates their interference with Tl detection. The tests are performed by placing some powd. sample upon a microscope slide, adding a drop of HCl, 1 drop of 0.5*N* KI, drying at 150-200°, and examg. the luminescence under a microscope.

W. M. Sternberg

5(2)
AUTHORS: Stolyarov, K. P., Grigor'yev, N. N. 307/75-14-1-14/32

TITLE: A New Luminescence Method of Microchemical Analysis (Crystallophosphoric) (Novyy lyuminestsentnyy metod mikrokhimicheskogo analiza (kristallofosfornyy)) Communication 1. Detection of Antimony (Soobshcheniye 1. Otkrytiye sur'my)

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 1, pp 71-74 (USSR)

ABSTRACT: A mercury-quartz lamp of the PRK-4 type was used as a source of ultraviolet rays in the authors' investigation of the microcrystalloscopic luminescence analysis. A capillary served to record the samples (some thousandths of ml). The precipitates were separated by filtering or centrifuging. A scheme of the device employed is shown in an illustration. Also a method for the detection of antimony is worked out in the present paper. It is based on the formation of the crystal phosphor CaO.Sb, which has a yellow-green luminescence under ultraviolet irradiation. An accurate description is given of the preparation of annealed calcium oxide, on which the reaction takes place. The color of luminescence changes in dependence on

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the antimony concentration. It plays from greenish to yellow in high concentrations, and from white to yellow in the case of low ones. The limit of determinability is at 0.0x 001 antimony ions and a maximum dilution of 1 : 1[illegible]. Li, Pb, Mg(I), Mg(II), Tl, Mo, Se, Te and W also form crystal phosphor substances with CaO. The detection of antimony in the presence of the above elements is only possible under the condition that the absolute content of these admixtures in the drop do not exceed a fixed maximum value. These maximum values are specified for each of the mentioned elements. Mn, Co, Ni, Cu, Cr(III) and Fe do not form crystal phosphor substances with CaO, but they are a source of disturbance in the detection of antimony, as they extinguish or at least cause the appearing luminescence to dim strongly. Another specification in the paper shows the maximum admissible amounts of these elements in the determination of Sb(III). The detection of antimony is also possible by the aid of potassium ferrocyanide. The sequence chosen for the process exerts an important influence upon the sensibility of the reaction. The forming crystal phosphor $K_4[Fe(CN)_6].Sb$ has a

Card 2/3 strong yellow luminescence under ultraviolet ($\lambda > 313 m\mu$)

A New Luminescence Method of Microchemical Analysis (Crystallophosphoric). Communication 1. Detection of Antimony SOV/75-14-1-14/32

irradiation. The procedure followed for the determination is accurately described. The limit of determinability is at 0.001 γ antimony ions and a maximum dilution of 1 : 10^7. As many elements yield precipitations with potassium ferrocyanide, the separation of antimony by extraction with diethyl ether from hydrochloric solution is recommended. The maximum amounts of Sn, Ge and Cu, which allow the detection of antimony without separation, are specified. The detection methods described are applicable for the quantitative analysis of mineral raw substances and alloys. The treatment of these substances and the detection of antimony are very accurately described. There are 1 figure and 4 tables.

ASSOCIATION: Leningradskiy gosudarstvennyy universitet im. A. A. Zhdanova (Leningrad State University imeni A. A. Zhdanov)

SUBMITTED: November 14, 1957

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5(2)
AUTHORS: Stolyarov, K. P., Grigor'yev, N. N. SOV/75-14-4-22/30

TITLE: New Luminescence Method of Microchemical Analysis (Crystallophosphoric) Communication 2. Detection of Tin

PERIODICAL: Zhurnal analiticheskoy khimii, 1959, Vol 14, Nr 4, pp 491-492 (USSR)

ABSTRACT: It is easy to determine tin ions with potassium iodide on paper as a crystallized phosphorescing substance is formed (Ref 1). The solutions of the chlorides, bromides, and iodides of sodium and potassium were tested as reagents to tin. Potassium iodide which gives a bright yellow luminescence with solutions of tin salts proved to be the best reagent. This luminescence appears after drying of the reaction products and irradiation with ultra violet light. There is a difference between the luminescence of potassium iodide activated by tin and the luminescence of a potassium iodide crystal activated by thallium in the color and by the fact that the color is independent of the concentration of tin. The variations of the tin concentration only cause a variation in the intensity of the color. The authors investigated the sensitivity of this reaction. The limit of detection is

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0.02 μg of tin at a maximum dilution of 1 : 5.10^5. The sensitivity increases when the paper underlayer is replaced by an unglazed porcelain plate. In this case the smallest detectable quantity in a maximum dilution of 1 : 5.10^6 is 0.0002 μg. The order in which the analysis is conducted is of great influence on the sensitivity of the reaction. There is a detailed description of the developed determination method. The elements disturbing the analysis are divided into two groups (Ref 1). Elements forming similar crystallized, phosphorescing substances, and causing therefore disturbance, are Hg_2^+, Tl^+ and partly also Ag^+ and Cu^+. The elements of the second group quench the luminescence of crystallo phosphorus. They are Hg^{2+}, Sb^{3+}, Bi^{3+}, As^+, Ag^+, Pb^{2+}, Fe^{3+} and Cu^{2+}. Zinc, cobalt, nickel, germanium, zirconium, thallium, indium, titanium, cadmium, manganese, tungsten, molybdenum and bivalent iron do not disturb the determination of tin. The determination of tin in the presence of mercury ions is possible if more potassium iodide is added. The disturbing effect of small quantities of thallium can also be eliminated

New Luminescence Method of Microchemical Analysis
(Crystallophosphoric) Communication 2. Detection of Tin

by making the determination with ultraviolet rays of λ = 365 mμ . Large quantities of thallium are better to separate by extraction of tin. The ions of Sb^{3+} , Bi^{3+}, As^{3+}, Ag^{+} and Pb^{2+} form strongly adsorbing iodide precipitates. Silver iodide itself can also be luminescent but this luminescence does not occur under the conditions needed for determining tin. The maximum permissible concentration ratios for these disturbing elements in the determination of one drop of 0.001 ml volume tin (at 0.002 μg Sn^{2+} ions) are the following:

Sn^{2+} : Sb^{3+} = 1 : 100,000 ; Sn^{2+} : Bi^{3+} = 1 : 100,000 ;

Sn^{2+} : As^{3+} = 1 : 10,000 ; Sn^{2+} : Ag^{+} = 1 : 30,000 ;

Sn^{2+} : Pb^{2+} = 1 : 10,000 ; Sn^{2+} : Cu^{2+} = 1 : 1,000 .

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