"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

NIKITINA, Ye.A.; PYATNITSKAYA, G.N.; ANGELOV, I.I.

Preparation of silicomolybdic acid from molybdenum anhydride and silicic acid. Zhur.ob.khim. 23 no.10:1617-1622 O '53. (MLRA 6:11)

1. Laboratoriya neorganicheskoy khimii Instituta khimicheskikh reaktivov.
(Silicomolybdic acid)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, A.B.; MEL'NICHUK, L.P.; BROUN, Zh.L.; CHIBISOV, K.V.

Evolution of additives' centers during the process of after-ripening and accelerated aging of photographic emulsions. Part 1: Changes in the spectral absorption during chemical ripening and accelerated aging. Zhur. nauch. i prikl. fot. i kin. 9 no.5:321-327 S-O '64.

(MIRA 17:10)

1. Odesskiy gosudarstvennyy universitet imeni Mechnikova.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, G.Kh.

Regulation of the blood coagulation system under conditions of extracorporeal circulation. Vest. khir. no.10:81-84 '64. (MIRA 19:1)

1. Iz laboratorii iskusstvennogo krovoobrashcheniya (nauchnyy rukovoditel' - prof. B.V. Petrovskiy, zav. - doktor med. nauk G.M. Solov'yev) Nauchno-issledovatel'skogo instituta eksperimental'noy khirurgicheskoy kliniki (zav. - prof. B.V. Petrovskiy) 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PETROVSKIY, B.V.; SOLOV'YEV, G.M.; SHUMAKOV, V.I.; BUNYATYAN, A.A.; KHODAS, M.Ya.; SHABALKIN, B.V.; RYSHKIN, V.S.; PYATNITSKAYA, G.Kh.

Results of work with the apparatus of artificial blood circulation of the Craford-Senning system. Trudy 1-go MMI 33:9-14 '64. (MIRA 18:3)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

Pyatnitskaya, G. N.

3

Chem

The production of silicotungstic acid without the use of ether. E. A. Nikitina, G. N. Pyatnitskaya, and I. I. Angelov. *Zhur. Obshchei Khim.* 26, 10-4(1956).—Attempts at direct reaction of silicic and tungstic acids in aq. suspension at pressures up to 63.5 atm., and temps. up to 165–200°, failed to produce silicotungstic acid. It was produced as follows: $5(NH_4)_2O.12WO_3$ with KOH gives $5K_2O.12WO_3$; this is mixed with K_2SiO_3 and H_2SiF_6 at a temp. below 35°: $5K_2O.12WO_3 + K_2SiO_3 + 4H_2SiF_6 = K_4F_4[Si(W_2O_7)_6] + 4K_2SiF_6 + 2H_2O$. H_2SiO_3 can be substituted for the K_2SiO_3. $K_4H_4[Si(W_2O_7)_6]$ with 25% $BaCl_2$ soln. forms $Ba_4[Si(W_2O_7)_6].xH_2O$. This can be formed also from the Na or the NH_4 salt. The Ba salt with 50% H_2SO_4 yields silicotungstic acid. The theory of heteropoly acids is discussed in terms of the capacity of metals to substitute for the numerous H atoms. C. H. Fuchsman

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

ANGELOV, I.I.; PYATNITSKAYA, G.N.

Preparation of cadmium sulfate, zinc sulfate, and zinc oxide of high purity. Trudy IREA no.22:155-158 '58. (MIRA 14:6)

(Cadmium sulfate)
(Zinc sulfate)
(Zinc oxide)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

ANGELOV, I.I.; PYATNITSKAYA, G.N.

Preparation of potassium sulfide pentahydrate. Trudy IREA no.22:163-167 '58. (MIRA 14:6)
(Potassium sulfide)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, I.N.

All-Union Conference on problems in the campaign against alcoholism. Zhur.nev. i psikh. 59 no.6:763-765 '59. (MIRA 13:1)
(ALCOHOLISM)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, I. N.

Cand Med Sci - (diss) "Formation of amino-acids from pyruvic acid and ammonium salts in the kidneys of rats,and a study of several properties of the ferment system catalyzing this process." Moscow, 1961. 16 pp; (Academy of Medical Sciences USSR); 300 copies; price not given; (KL, 7-61 sup, 261)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, I. N.

PYATNITSKAYA, I. N.

Checking the activity of pepsin solutions and gastric juice preparations. Apt.delo 6 no.4:16-18 Jl-Ag '57. (MIRA 10:9)

1. Iz kafedry biokhimii Kubanskogo meditsinskogo instituta
(PEPSIN) (GASTRIC JUICE)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PORTNOV, A.A., obshchiy red.; BABAYAN, E.A., red.; BORINEVICH, V.V., red.; GUREVICH, Ye.I., red.; PYATNITSKAYA, I.N., red.; ROZHNOV, V.Ye., red.; STREL'CHUK, I.V., red.; FEDOTOV, D.D., red.; KHMELEV, N.S., red.

[Alcoholism; a collection of articles on its clinical aspects, pathogenesis, treatment, and prevention] Alkogolizm; sbornik rabot po klinike, patogenezu, lecheniiu i profilaktike. Pod obshchei red. A.A.Portnova. Moskva, 1959. 447 p. (MIRA 13:3)

1. Russia (1923- U.S.S.R.) Ministerstvo zdravookhraneniya. (ALCOHOLISM)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

BANNIKOVA, Lyudmila Aleksandrovna, kand. sel'khoz. nauk;
PYATNITSKAYA, Irina Nikolayevna, st. nauchn. sotr.;
ZHAROVA, V.S., retsenzent; KULESHOVA, V.D., retsenzent;
TIKHONOVA, T.V., red.

[Rapid methods of bacteriological analysis of milk and dairy products] Uskorennye metody bakteriologicheskogo kontrolia moloka i molochnykh produktov. Moskva, Pishchevaia promyshlennost', 1965. 36 p.
(MIRA 18:6)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, I.N.

Synthesis of amino acids from keto acids and ammonium salts in rat kidneys. Biokhimiia 25 no.1:86-89 Ja-F '60. Biokhimiia 25 no.1:86-89 Ja-F '60. (MIRA 13:6)

1. Laboratory of Physiological Chemistry, Institute of Biological and Medical Chemistry, Academy of Medical Sciences of the U.S.S.R., Moscow.

(KIDNEYS metab.)
(PYRUVATES metab.)
(AMMONIA metab.)
(AMINO ACIDS metab.)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, I.N.

PYATNITSKIY, N.P.; PYATNITSKAYA, I.N.; RAKITINA, S.F.

Method of quantitative determination of pepsin and hydrochloric acid in a small Pavlov's pouch in dogs [with summary in English]. Biul.eksp.biol. i med. 44 no.9:10-15 S '57. (MIRA 10:12)

1. Iz kafedry biokhimii (zav. - prof. N.P.Pyatnitskiy) Kubanskogo meditsinskogo instituta (dir. - prof. V.K.Suprunov), Krasnodar. Predstavlena deystvitel'num chlenom AMN SSSR V.N.Chernigovskim.

(GASTRIC JUICE,
acidity & pepsin in Pavlov's pouch, determ. (Rus))
(PEPSINS, determination
in Pavlov's pouch (Rus))

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

BABKO, Anatoliy Kirillovich; PYATNITSKIY, Igor' Vladimirovich; STUKOVNIN, N.D., red.; VORONINA, R.K., tekhn. red.

[Quantitative analysis]Kolichestvennyi analiz. Izd.2., perer. i dop. Moskva, Gos.izd-vo "Vysshaia shkola," 1962. 507 p. (MIRA 16:1)

(Chemistry, Analytical—Quantitative)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, Lyubov' Konstantinovna

Hygienical (otsenka shlakoblochnykh) of Dwelling Homes

Dissertation for candidate of a Medical Science degree. Chair of General Hygiene (head, Prof. L.I. Los') Saratov Medical Institute, 1955.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

ZAMARIN, L.G.; LOS', L.I.; PYATNITSKAYA, L.K.

Content of copper, manganese, molybdenum and iodine in cow's milk of Saratov Province. Vop. pit. 21 no.6:81-82 N-D '62. (MIRA 17:5)

1. Iz kafedry obshchey gigiyeny (zav. - prof. L.I. Los') meditsinskogo instituta i kafedry vnutrennikh nezaraznykh bolezney sel'skokhozyaystvennykh zhivotnykh (zav. - prof. A.M. Kolesov) Zootekhnicheskoveterinarnogo instituta, Saratov.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, L. K.

PYATNITSKAYA, L. K.: "A hygienic evaluation of cinder-block dwelling houses." Saratov, 1955. Min Health RSFSR. Saratov State Medical Inst. (Dissertation for the Degree of Candidate of Medical Sciences)

SO: Knizhnaya Letopis' No. 47, 19 November 1955. Moscow.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, L.K., kand. med. nauk.

Hygienic evaluation of low residential buildings in Saratov constructed from 1946 to 1955. Gig. i san. 23 no.12:58-60 D '58. (MIRA 12:1)

1. Iz kafedry obshchey gigiyeny Saratovskogo meditsinskogo instituta.
(HOUSING
low residential housing, hyg. assessment (Rus))

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, M.P., Cand Tech Sci--(diss) " The use of triple overlappings of aerial photographs in the composition of large-scale topographic maps." Len,1958. 13 pp (Min of Higher Education USSR. Len Order of Lenin and Order of Labor Red Banner Mining Inst. Chair of Geodesy), 150 copies (KL,49-58,124)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, M.P.

Use of triple overlapping in air photography for the compilation of large-scale topographical maps. Zap. LGI 37 no.1:42-63 '58. (MIRA 12:8)

(Aerial photogrammetry) (Maps, Topographic)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

NIKUL'SHIN, R.K., inzh.; PYATNITSKAYA, N.I., inzh.

Correlation of the Souders' formula for freons. Trudy OTIPiKhP 12:139-142 '62. (MIRA 17:1)

1. Nauchno-issledovatel'skaya laboratoriya po kholodil'noy tekhnike Odesskogo tekhnologicheskogo instituta pishchevoy i kholodil'noy promyshlennosti.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

BELLER, N.N.; PYATNITSKAYA, N.V.

Using surfactants when drilling in producing strata in the Yakushino oil field. Trudy KNII NP no.17:32-36 '62. (MIRA 17:8)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

BELLER, N.N.; CHURKIN, Yu.D.; PYATNITSKAYA, N.V.

Antifoaming reagents for aqueous and cross-linked muds and a method for testing them. Trudy KNII NP no.17:23-31 '62. (MIRA 17:8)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA T. M.

U.S.S.R. / Human and Animal Physiology. Internal Secretion. T

Abs Jour: Ref Zhur-Biol., No 5, 1958, 22421.

Author : Pyatnitskaya T. M.
Inst : Not given.
Title : The Problem of Liver Changes in Methylthiouracil Therapy.

Orig Pub: Probl. endokrinol. i. gormonoterapii, 1956, 2, No 4, 96-100.

Abstract: One group of rats received daily injections of 20mg Methyl-Thiouracil (I) for 60 consecutive days. A second group - 20 mg of I with 0.5 unit insulin (II) sub-cutaneously, a third group - 50 mg I, 0.5 units II and 1ml 5% solution of glucose III. Twelve to fourteen days later the animals receiving I began to lose weight and be-

96

Card 1/3 Yaroslavl Med Inst, USSR

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

U.S.S.R. / Human and Animal Physiology. Internal Secretion. T

Abs Jour: Ref Zhur-Biol., No 5, 1958, 22421.

Abstract: came sluggish and began to shed their fur. In the liver, fatty microdrop infiltration was noted. The animals receiveing I, II, and III gained weight, remained active, did not shed their fur, and the liver tissue did not differ from controls. The animals receiving I and II behaved like the animals of Group I, but to a lesser degree. In a second series, one group of rats received daily injections of I in lethal doses - (31mg) for 30 days; a second group - 1, 0.25 units of II and 0.5 ml of 5% solution of III.

Fatty infiltration of the liver was noted only in the group receiving I but this was less marked than in the first series of experiments. No

Card 2/3

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

U.S.S.R. / Human and Animal Physiology. Internal Secretion. T

Abs Jour: Ref Zhur-Biol., No 5, 1958, 22421.

Abstract: histological changes of the liver were observed in rats killed 30 days after the termination of the experiment. In the course of study of the functional condition of the liver in Thyrotoxicosis, treated with I, and II (8 units) and-III and II, a decrease of harmful effects of I on the liver was noted.

Card 3/3

97

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

SHIMANOVICH, A. N.; PYATNITSKAYA, V. S.; KHAZINA, B. N.; VOYTKOVICH, I. I.

Parenchymatous keratitis in acquired syphilis. Vest. derm. i ven. 36 no.7:67-68 Jl '62. (MIRA 15:7)

1. Iz kafedry dermato-venerologii Belorusskogo instituta usovershenstvovaniya vrachey (zav. - dotsent N. F. Pavlov) i Slutskoy polikliniki.

(SYPHILIS) (CORNEA—DISEASES)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

CHERIKOVSKAYA, T.Ya.; PIGULEVSKAYA, N.N.; PYATNITSKAYA, Ye.F.

Biological action of valerian preparations. Apt.delo 4 no.4:42-44 Jl-Ag '55. (MLRA 8:10)

1. Iz laboratorii farmakologii TSentral'nogo nauchno-issledovatel'skogo aptechnogo instituta (TsANII) Glavnogo aptekoupravleniya Ministerstva zdravookhraneniya SSSR.
(VALERIAN, effects,
standard)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

GAVRILOVA, K.N.; PYATNITSKAYA, Ye.N.

Work of the operative group in supplying agrometeorological information during the harvesting campaign. Meteor. i gidrol. no.10: 40-41 O '60. (MIRA 13:10)
(Irkutsk Province—Meteorology, Agricultural)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

USSR/General Problems in Pathology - Comparative Oncology U-1

Abs Jour : Ref Zhur - Biol., No. 18, 1958, 84968

Author : Kachkov, A. P., Pyatnitskaya, Ye. N.
Inst : no institute is given
Title : Hemorrhagic Diatheses in Malignant Tumors

Orig Pub : Klinich. Meditsina, 1957, Vol. 35, No. 1, 89-95

Abstract : Report is given of nine patients in whom, on the background of the basic disease (malignant tumor), there were pronounced manifestations of a hemorrhagic diathesis, usually developing in the terminal stages of the disease. Damage to the bone marrow by metastases does not always occur in such cases. - N.M. Otsep

Card 1/1

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

KACHKOV, A.P., kandidat meditsinskikh nauk; PYATNITSKAYA, Ye.N.
(Moskva)

Hemorrhagic diathesis in malignant tumors. Klin. med. 35 no.1:89-95
Ja '57 (MLRA 10:4)

1. Iz kafedry obshchey khirurgii (dir.-prof. V.I. Struchkov)
lechebnogo fakul'teta i Moskovskogo ordena Lenina meditsinskogo
instituta i Klinicheskoi bol'nitsy imeni Medsantrud (glavnyy
vrach A.P. Timofeyeva)
(HEMORRHAGIC DIATHESIS, etiol. and pathogen.
neoplasms)
(NEOPLASMS, compl.
hemorrhagic diathesis)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, G.K.

Evaluation of the secretory function of the stomach in gastritis based on the acidity of the gastric juice and excretion of uropepsinogen. Sov. med. 28 no.7:22-25 Jl '64. (MIRA 18:8)

1. Lyuberetskaya poliklinika (glavnyy vrach B.A.Samosudov) Moskovskoy oblasti.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, G. N.,
N. O. VALTER, Russ. 53,855, Sept. 30, 1938.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, G.N.

Chemical Abst.
Vol. 48 No. 9
May 10, 1954
Inorganic Chemistry

(3) Chem

Preparation of silicomolybdic acid from molybdenum oxide and silicic acid. [redacted] G. N. Pyatnitskaya, and [redacted] *Zhur. Obschei Khim.* [redacted]; cf. *C.A.* [redacted], 493'.—$H_3[Si(Mo_2O_7)_6]$ was prepd. for the first time without the use of a volatile solvent. An excess of SiO_2 up to 500%, 16 hrs.' heating at 90–95°, and H_2O 8 l. per 500 g. MoO_3 are required. The yield is 80–90% on the basis of MoO_3 reacting and 50% on the basis of the oxide initially taken. The unchanged oxide is used over again but the SiO_2 must be replaced; after drying it loses its reactivity. Materials used should be of the highest purity since it is almost impossible to sep. the silicomolybdic acid from impurities.

I. Bencowitz

9-2-54

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

KUZNETSOV, V.I., doktor khimicheskikh nauk; GLOBUS, R.L.; KARSKAYA, T.N.; MIKHAYLOV, G.I.; PEVTSOV, G.A.; PYATNITSKAYA, G.N.; ROZHDESTVENSKIY, M.S. [deceased]; SOKOLOV, N.I.

[Chemical reagents and preparations] Khimicheskie reaktivy i preparaty; spravochnik. Sostaviteli V.I.Kuznetsov [i dr.] Moskva, Ges. nauchno-tekhn. izd-vo khim. lit-ry, 1953. 668 p. (MLRA 7:4)
(Chemical tests and reagents)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

621.383 3782

The Energy Distribution of Electrons and the Relationship between Photocurrent and the Angle of Incidence of Light in the case of Caesium Oxide Photocathodes. A. M. Pyatnitski. (Bull. Acad. Sci. U.R.S.S., ser. phys., 1944, Vol. 8, No. 5, pp. 304-308.) In Russian. Results of an experimental investigation are shown in the following curves: Fig. 1 (left) the photocurrent against the angle of incidence of light; Fig. 1 (right) reflection, transmission and absorption of light against the angle of incidence; Fig. 2 (upper curves) the photocurrent for an angle of incidence of 70° against the wavelength of light; Fig. 2 (lower curves) reflection, transmission and spectral characteristics against the wavelength; Fig. 3 (left) reflection, transmission and absorption, and Fig. 3 (right) the photocurrent for different structures of the cathode and different angles of incidence; Fig. 4 volt-ampere characteristics for infrared light falling at different angles from the front and the rear of the cathode.

Conclusions: (a) The photocurrent depends on the angle of incidence of light. The relationship is determined by the structure of the cathode and the wavelength of the light. (b) The spectral characteristic also depends on the angle of incidence. (c) The maximum of energy distribution, independently of the wavelength, is shifted towards a greater energy value when the cathode is illuminated from the rear.

An abstract in English was noted in 2032 of July.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, I.N. (Moskva)

Problem of the pathological development of the personality in chronic alcoholism. Probl.sud.psikh. 9:400-407 '61. (MIRA 15:2)
(Alcoholsim) (Personality, Disorders of)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, I.N.

Properties of the enzymatic system of the rat kidney. Biokhimiia 25 no.6:1081-1084 N-D '60. (MIRA 14:5)

1. Laboratory of Pathology of Protein Metabolism and Immunology, Institute of Biological and Medical Chemistry, Academy of Medical Sciences of the U.S.S.R., Moscow.
(KIDNEYS) (AMINO ACID METABOLISM)
(ENZYMES)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, I. N., Cand. Medic. Sci. (diss) "Clinical Nature of Developed Forms of Alcoholic Illness (Chronic Alcoholism)," Moscow, 1961, 18 pp. (1st Mosc. Med. Inst.) 250 copies (KL Supp 12-61, 288).

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

LOS', L.I.; PYATNITSKAYA, L.K.

Content of copper, manganese, molybdenum, nickel and lead in some food products of plant origin in Saratov Province. Vop. pit. 21 no.6:82-83 N-D '62. (MIRA 17:5)

1. Iz kafedry obshchey gigiyeny (zav. - prof. L.I. Los') Saratovskogo meditsinskogo instituta.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKAYA, Ye.N., otv.red.; ROGOVSKAYA, Ye.G., red.; VLADIMIROV, O.G., tekhn.red.

[Agroclimatic handbook for Irkutsk Province] Agroklimaticheskii spravochnik po Irkutskoi oblasti. Leningrad, Gidrometeor.izd-vo, 1959. 157 p. (MIRA 13:11)

1. Russia (1923- U.S.S.R.) Glavnoye upravleniye gidrometeorologicheskoy sluzhby. Irkutskoye upravleniye.
(Irkutsk Province--Crops and climate)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKIY, A.,

Energy Distribution of the Electrons and Dependence of Photocurrent for Acesium-Oxide Cathodes on the Angle of the Incidence of Light.

SO: Zhur. Phys. Vol. 9, No. 1, p. 64, 1945.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

AUTHOR: Pyatnitskiy, A., Voronezh 107-9-41/53

TITLE: Once More About the Electro-Chemical Coloring of Metals (Yeshche ob elektrokhimicheskom okrashivanii metallov)

PERIODICAL: Radio, 1957, # 9, p 52 (USSR)

ABSTRACT: The method of the electro-chemical coloring of metals, described in "Radio" # 1, 1957, requires an ammeter, a rheostat and a battery with a high capacity, which are not always available for the radio amateur. Therefore, the author suggests a method requiring only a flashlight battery and an electrolyte. This method is described in detail. It has the advantage of requiring no stabilized electrical operating conditions, and the process of coloring is carried out much more rapidly.

The article contains 1 Russian reference.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKIY, A.A., prof.; MONAKHOV, I.F., dotsent, otv.red.; KRAVCHENKO, K.F., dotsent, red.; KOLOKOLOV, K.M., dotsent, red.; MONAKHOV, I.F., red.; POGREBTSOVA, L.V., red.izd-va; NAUMOVA, Yu.A., tekhn.red.

[Introduction to the theory and practice of strain measurement] Vvedenie v teoriiu i praktiku tenzometrirovaniia. Novocherkassk, Redaktsionno-izdatel'skii otdel NPI, 1960. 72 p. (MIRA 14:6)

(Strain gauges)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKIY, A. A.

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B020/B066

AUTHORS: Bondarev, P. G., Zusmanovskaya, L. L., Kut'kov, A. A., Litvinova, [illegible] M., Pyatnitskiy, A. A.

TITLE: Mechanical Properties of Caprone at Low Temperatures

PERIODICAL: Plasticheskiye massy, 1960, No. 12, pp. 43 - 45

TEXT: To study the effect of low temperatures on the mechanical properties of polyamides, the authors made a number of mechanical tests on samples cooled down to -60°C. Samples from "5" ("B") caprone resin were tested which had been cast in an autoclave, in a hand-operated injection press, and in a press with hydraulic drive, since the type of casting device applied is known to have a certain influence on the mechanical properties of products. Besides, different casting methods and heat treatments were used. In the low-temperature tests, five stages were distinguished: 1) Temperature-change stability test according to ГОСТ 928-56 (GOST 928-56), 2) test of samples cooled down to -50°C, 3) investigation of the reversibility of original mechanical properties of samples which had been briefly cooled and then brought to normal

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temperature, 4) determination of mechanical properties of samples which had been subjected to several cycles of temperature change in the range of from + 20 to -60°C, and 5) determination of mechanical properties of samples kept at -60°C for 100 hours. The tests for tension, compression, static bending, and impact strength were made according to GOST 4649-55, 4651-49, 4648-56, and 4647-55 (for normal temperatures). The limits of tensile, compressive and static flexural strength were determined on a 50-t tearing machine "Amsler". Impact strength was tested by means of a pendulum hammer (GOST 4647-55). The samples were cooled in an МТС-500 (MTS-500) device of the firm "Nema". All caprone samples stood the temperature-change test according to GOST 928-56. The tearing strength increased slightly at low temperatures (up to -60°C) with falling temperature, the specific impact strength dropped appreciably, the limit of compressive strength increased slightly, and the limit of static flexural strength dropped considerably. The mechanical properties of caprone regenerated at normal temperature, irrespective of the fact whether it had been kept at low temperatures for a short or a long period, once or repeatedly. In the impact test, uncooled samples do not break but bend and crack between two supports (Fig.1); "frozen" samples

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are distinguished by high brittleness (Fig.2), and samples which had been cooled and then brought back to normal temperautre behave like uncooled samples (Fig.3). Maximum tearing strength at low temperatures is observed in samples which had been previously treated with paraffin in a vapor bath, maximum impact strength in samples which had not been treated with water or vapor. There are 3 figures, 1 table, and 4 references: 3 Soviet and 1 German.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKIY, A.A., professor

Studies of the Faculty of Mechanics dedicated to the 50th anniversary of the Institute (1907-1957). Part 1. Trudy NPI 46:3-17 '58. (MIRA 13:5)

1. Kafedra teorii mekhanizmov i detaley mashin Novocherkasskogo ordena Trudovogo Krasnogo Znameni politekhnicheskogo instituta imeni S.Ordzhonikidze.
(Gearing)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

SOKOLOVSKIY, M.V.; KAUROV, V.V.; PYATNITSKIY, A.A., prof., retsenzent; PELEVIN, N.N., inzh., red.; TIKHANOV, A.Ya., tekhn. red.

[Manufacture of cylindrical reductors for general use] Proizvodstvo tsilindricheskikh reduktorov obshchego naznacheniia. Moskva, Mashgiz, 1963. 169 p. (MIRA 17:2)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKIY, A.A., kand. tekhn. nauk; VDOVIN, R.M., insh.

Using the running-down method for finding power losses for bubbling in reducing gears. Mashinostroenie no.3:111-115 My-Je '63. (MIRA 16:7)

1. Kiyevskiy politekhnicheskiy institut.
(Gearing)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

Pyatnitskiy, A.A.

25(2) PHASE I BOOK EXPLOITATION SOV/2095

Konferentsiya po voprosam rascheta, konstruirovaniya i issledovaniy zubchatykh peredach i peredach gibkoy svyazi'yu. Odessa, 1957

Raschet, konstruirovaniye i issledovaniye peredach; trudy konferentsii, [t.] 1 (Design, Construction and Analysis of Transmissions; Transactions of the Conference on Problems in Design, Construction and Analysis of Gear and Flexible Transmissions, Vol 1) [Odessa] Odesskiy politekh in-t, 1958. 199 p. 5,000 copies printed.

Sponsoring Agencies: Nauchno-tekhnicheskoye obshchestvo mashinostroitel'noy promyshlennosti, Odesskoye oblastnoye pravleniye, and Odesskiy politekhnicheskiy institut.

Ed.: I.P. Nikiforov, Engineer; Tech. Ed.: A. N. Komissarenko; Editorial Board: L.S. Berovich, Candidate of Technical Sciences, N.S. Belyayev, Engineer, M.D. Genkin, Candidate of Technical Sciences, K. I. Zablonskiy, Candidate of Technical Sciences (Resp. Ed.), F. S. Zak, Candidate of Technical Sciences, Ya.G. Kist'yan, Candidate of Technical Sciences, V. N. Kudryavtsev, Doctor of Technical Sciences, V.P. Mal'tsev, Candidate of Technical Sciences, M. S. Polotskiy,

Card 1/8

Candidate of Technical Sciences, and L.B. Erlikh, Candidate of Technical Sciences.

COVERAGE: This book is the first of three volumes dealing with the transactions of the conference. This first volume contains articles on the design and construction of gearings and worm gearings. The second volume treats flexible transmissions, and the third, theoretical and experimental analysis of transmissions. References follow several of the articles.

TABLE OF CONTENTS:

Foreword 3

Kudryavtsev, V.N., Ways of Increasing the Outer Dimensions and Weight of Gear Transmissions 5
The author discusses the system of gearing designed by N.L. Novikov. He claims that it is the most efficient way of increasing load capacity while minimizing tooth chipping. Various other methods of increasing the load capacity of a gearing are also discussed.

Pyatnitskiy, A.A., Weight Characteristics of Toothed Gears and Gear Trains 67
The author derives equations for coefficients which can be used as criteria for "weight quality" of gears and gear trains. He also compares steel gears with nonmetallic ones, and straight-tooth gears with gears with helical teeth.

Zablonskiy, K.I. Investigation of Load Concentration Along Tooth Bearings of Gears 77
The essentials of tooth loading, deformation, and design are analyzed. The author concludes that in order to obtain a correct solution for load concentration, the local rigidity of teeth should be considered.

Beloborodov, V.A. The Problem of Developing Mechanical Marine Transmissions 87
The use of gear trains in marine drives is discussed, and the construction of a reversible speed reducer is described.

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DOBROVOL'SKIY, Viktor Afanas'yevich; ZABLONSKIY, Konstantin Ivanovich; MAK, Solomon L'vovich; RADCHIK, Aleksandr Semenovich; ERLIKH, Lazar' Borisovich; PYATNITSKIY, A.A., prof., retsenzent; ACHERKAN, N.S., doktor tekhn. nauk, prof., otv. red.; BYKOVSKIY, A.I., insh., red.; GORNOSTAYPOL'SKAYA, M.S., tekhn. red.

[Machine parts] Detali mashin. Izd. 6., dop. Moskva, Mashgiz, 1962. 601 p. (MIRA 16:5)

(Machinery)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

BONDAREV, P.G.; ZUSMANOVSKAYA, L.L.; KUT'KOV, A.A.; LITVINOVA, L.M.; PYATNITSKIY, A.A.

Mechanical properties of capron at low temperatures. Plast. massy no.12:43-45 '60. (MIRA 13:12)
(Nylon--Testing) (Polyamides)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

BOYKO, L.S.; SOKOLOVSKIY, M.V.; FEY, V.M.; YANKOVSKIY, I.Ye.; GUMENNYY, V.N.; KAUROV, V.V.; PYATNITSKIY, A.A.; CHASOVNIKOV, L.D., dots., retsenzent

[Reducing and variable speed gears; atlas of designs] Reduktory i variatory; atlas konstruktsii. Moskva, Mashinostroenie, 1964. 95 p. (MIRA 17:11)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

3

CA

Secondary electron emission of an oxygen cesium electrode. P. V. Timofeev and A. I. Pyatnitskii. *Physik. Z. Sowjetunion* **10**, 518-30 (1936). The dependence of the secondary electron emission on the thickness of the metallic oxide layer which forms the basis of the cathode has been investigated. The influence on the emission of a definite mixture of Cs metal on the cathode surface has been detd.

Harold Gershinowitz

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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PROCESSES AND PROPERTIES INDEX

3

Distribution of the energy of secondary electrons emitted by a composite cesium cathode. A. I. Pyatnitskii. *J. Tech. Phys.* (U. S. S. R.) 8, 1014-22(1938); cf. C. A. 30, 4740[6].—The energy distribution does not obey Maxwell's distribution law. Most of the emitted electrons have extremely low energies, ranging in value from zero to several volts.

John Livak

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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3

Secondary electron emission from oxygen-cesium emitters at different densities of the primary current. P. V. Timofeev and A. I. Pyatnitskii. *J. Tech. Phys.* (U. S. S. R.) **10**, 39-40(1940).—The secondary emission of O-Cs emitters, in most cases steadily increases under the continuous action of the electron beam. This increase occurs as the result of the rearrangement of free Cs in the interior and on the surface of the emitter. It was found that up to the c. ds. of 10^{-4} amp./sq. cm. the coeff. of the secondary emission remains const. and begins to drop rapidly with the further increase of the current. To obtain the max. value of secondary emission for larger densities of primary current, it is necessary to increase the potential removing the secondary electrons. Roksalana Gamow

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PYATNITSKIY, A I

109-6-5/17

AUTHOR: PYATNITSKIY, A.I.

TITLE: On the Energy Distribution of Electrons Emitted by Sb-Cs-Cathodes. (O raspredelenii energiy elektronov iz sur'myano-tseziyevykh katodov, Russian)

PERIODICAL: Radiotekhnika i Elektronika, 1957, Vol 2, Nr 6, pp 714 - 725 (U.S.S.R.)

ABSTRACT: Measurements of the photocurrent and the secondary emission by the Sb-Cs cathode and an Ag-Cs layer were carried out according to the method of exchange cathodes in a spheric al condenser. The measurement results indicate an essential difference in the course of the volt-ampere characteristic of the photocurrent at the Sb-Cs cathode and the Ag-Cs layer. They confirm the presence of secondary electrons with insufficient energy on the Sb-Cs cathode. The results finally showed the strong dependence of the number of these electrons on the amount of cesium on the cathode. On the basis of the measuring results the energy diagram of the Sb-Cs cathode is investigated here. The data of the present paper again confirm that the Sb-Cs cathode has the nature of a semiconductor. They also confirm that it is necessary to take into account the specific properties of the Sb-Cs cathode which are connected with the presence of the cathode in the atmosphere of cesium

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PYATNITSKIY, A.I.

AUTHOR: Pyatnitskiy, A. I. 48-22-4-22/24

TITLE: On the Passage of Electrons Through Thin Glass Films (O prokhozhdenii elektronov cherez tonkiye plenki stekla)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1958, Vol. 22, Nr 4, pp. 456-463 (USSR)

ABSTRACT: Thin glass films permitting the passage of electrons are applied more and more in engineering. The author investigated the electron passage through such glass films and the behaviour of the latter in an electron bombardment. The glass films destined for the measurements were welded into a piston. The thickness of the films was determined by weighing, either before or after the measurements. Two samples were investigated: No. 23 with a specific weight of g = 2,55 and BD - 1 with a specific weight of g = 25%. The weighing and the determination of the surface furnished almost identical values of error (in the order of 3%) and by that the accuracy of the determination of the film thickness was about 10%. At the same time phenomena were observed, which are connected with the effect of the elec-

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trons impingging upon the glass film and with its charge. As can be seen from figure 3, the electron passage through the glass film is small below a voltage of 20 kV and amounts only to a few percent of the total number of electrons striking the films. The measurements of the reflection of the primary electrons showed, that in the normal case ($\Psi = 0^{o}$) the number of reflected electrons is extremely low and the main losses are due to the absorption of electrons in the film substance. The curves of electron passage exhibit a peculiar hysteresis. The position of the point of rapid rise of the passage depends on the thickness of the film and on its conductivity (Figure 5). It must be mentioned, that in thinner films (order of magnitude of 0,5 μ) the hysteresis is less marked. If the curves of passage and reflection are known, it is possible to determine the absorption.

There are 8 figures and 9 references, 4 of which are Soviet.

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy institut (All-Union Electrotechnical Institute)

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Card 2/2

1. Glass films--Test methods 2. Glass films--Test results
3. Electron bombardment--Applications

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKIY, A. I

AUTHOR: Pyatnitskiy, A. I. 48-22-4-23/24

TITLE: Secondary Electron Emission of Antimony-Cesium Emitters at "Shooting Through" (Vtorichnaya elektronnaya emissiya sur'myano-tseziyevykh emitterov "na prostrel")

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1958, Vol. 22, Nr 4, pp. 464-472 (USSR)

ABSTRACT: The author employed tubes of two types for his measurements. The first type was described in a previous paper (ref 1). The antimony coatings were applied to the glass films no. 23 and Rf-1. Sb-Cs-emitters were produced by the usual method. The first measurements are shown by figure 2. Detailed data could be obtained from measuring the electron passage through the glass film with an antimony-cesium emitter with varying thickness. The characteristics of the electron passage through the glass is shown by figure 3. The greatest reduction of the coefficient of passage η is observed at velocities of the primary beam near V_K that is to say at 12, 13, 14, 15 and more kV. Here, the reduction of the coefficient decreases at an increase of velocity, and the curves of passage of the glass film and of the glass film

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with antimony approach each other. Figure 4 gives the experimental results showing the coefficient of passage of electrons at various points along the glass film. The reduction of the emission coefficient η in the range of small thickness can be explained by an incomplete utilization of the energy of the primary beam. The thickness of the emitter layer, corresponding to the curve maximum determines the effective depth of secondary emission, that is to say, the depth below the emitter surface, from which the there produced secondary electron is able to surmount the potential barrier with a mean initial energy and to emerge from the surface. The characteristics of the dependence of the coefficient of secondary emission on the velocity of the primary electrons $\eta = f(V_1)$ are given in figure 5, 4 and 7 for antimony-cesium emitters. Figure 8 shows curves of an emitter poisoned by air, which has almost completely lost its sensitivity. A slow reduction of the number of secondary electrons after the current maximum can have various reasons: among them a modification of the conditions of excitation of secondary electrons within the emitter layer, in particular

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a reduction of the probability of excitation at an acceleration of the primary electrons. The increase of the electron proportion with high energies in the beam of primary electrons can also be of effect here, these electrons penetrating into the Sb-Cs-layer after passing the glass film. In order to determine the energies of the electrons being emitted from the emitter, volt-ampere characteristics were determined (figure 10). By means of differentiating these curves the distribution characteristics of the secondary electrons with respect to the energy could be determined (figure 11). The magnitude of the secondary emission of the "Sb-Cs-emitter "at a shooting-through" proved to be dependent upon the current density of the primary beam. The result of the work seems to prove earlier voiced opinions, that the secondary emission of effective emitters is mainly determined by the character of the processes of excitation of secondary electrons in the emitter. The author expresses his gratitude to P. V. Timofeyev for recommending the subject matter, and for this attention.

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Secondary Electron Emission of Antimony-Cesium Emitters at "Shooting Through" 48-22-4-23/24

N. I. Yashopol'skiy, N. D. Morgulis, P. G. Borzyak, and Krasovskiy participated in the discussions of the two lectures of A. I. Pyatnitskiy.
There are 12 figures and 7 references, all of which are Soviet.

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy institut (All-Union Electrotechnical Institute)

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1. Glass films--Test methods 2. Glass films--Test results
3. Antimony--Applications 4. Secondary emission--Measurement
5. Electron bombardment--Applications

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

AUTHORS: Aranovich R. M., Pyatnitskiy, A. I. 48-22-5-6/22

TITLE: Secondary Emission From Composite Emitters at High Coefficients of Secondary Emission (Vtorichnaya emissiya iz slozhnykh emitterov pri bol'shikh koeffitsiyentakh vtorichnoy emissii)(Data From the VIIIth All-Union Conference on Cathode Electronics, Leningrad, October 17-24, 1957) (Materialy VIII Vsesoyuznogo soveshchaniya po katodnoy elektronike, Leningrad, 17-24 oktyabrya 1957 g.)

PERIODICAL: Izvestiya Akademii Nauk SSSR Seriya Fizicheskaya, 1958, Vol. 22, Nr 5, pp. 518-527 (USSR)

ABSTRACT: The high inertia of the autoelectronic current is an essential particularity of the autoelectronic emission. The first one becomes manifest by the fact that the secondary autoelectronic current weakly follows the changes of the primary current. As a retardation (Ref 1) of the formation of the autoelectronic current, which lasts unto 24 hours, makes this effect practically [illegible], the idea has formed to create emitters of an intermediary type in which a normal secondary emission would be intensified or increased by a partly utilisation of the electric field which forms because of the positive charges

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Secondary Emission From Composite Emitters at High Coeffi- 48-22-5-6/22
cients of Secondary Emission (Data From the VIIIth All-Union Conference on Cathode Electronics, Leningrad, October 17-24, 1957)

on the surface of the emitter. The first author used two production methods for emitters: a) MgO-coating of the backing by magnesium evaporation in an oxygen atmosphere and b) by pulverisation of finely dispersed MgO. Such emitters had a considerable coefficient of secondary emission (order of 8o); their inertia in the range of sound was not high. An essential deficiency of such emitters was their low operational stability and a certain difficulty of the production of layers which work together with a cesium photocathode. In this work effective emitters were investigated, which consist of thin MgO layers. These layers were faced upon nickle backing as carbonate, which then by annealing in vacuum was decomposed and converted into MgO. The measuring results allow to make some basic conclusions which are necessary for the understanding of the action of the mentioned emitters. 1) The characteristics of the variable component are perfectly different from the curves which were obtained for the total current. In the process of emission one ought to start from the presence of two completely different electron groups. The ratio between those can change

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

Secondary Emission From Composite Emitters at High Coeffi- 48-22-5-6/22
cients of Secondary Emission (Data From the VIII th All-Union Conference on Cathode Electronics, Leningrad, October 17-24, 1957)

very much: According to the density of the primary current, the velocity of the primary electrons, the magnitude of the suction voltage, the structure of the layer and other factors. Such a sharp difference of the characteristics of the variable component came surprisingly. From a comparison with references 6-10 the authors come to the conclusion that the component without modulability must consist of autoelectrons which arrived in the vacuum without any high energy loss from the backing of the emitter. The variable component of the current, however, cannot completely be attributed to the so called "true secondary" electrons. A considerable possibility of a direct emission into the vacuum by avoiding the dielectric also exists beneath the main process of the emission of the autoelectrons from the metal through the dielectric into the vacuum. To this contribute many cracks on the emitter after the heating (fig.15 a,b). 2) The characteristics of the variable component are neither the characteristic of the total current nor of the current of the so called "true secondary" electrons. They only characterize the variable component of the secondary electrons

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Secondary Emission From Composite Emitters at High Coefficients of Secondary Emission (Data From the VIIIthe All-Union Conference on Cathode Electronics, Leningrad, October 17-24, 1957) 48-22-5-6/22

which must not be mixed up with the current of the "true secondary" electrons, as it often happens in single cases. In the discussion on this abstract participated: Ye. A. Krasovskiy, I. F. Pes'yatskiy, O. M. Sorokin, L. N. Dobretsov and the first author. There are 15 figures and 12 references, 9 of which are Soviet.

1. Secondary emission--Analysis 2. Secondary emitters--Production 3. Secondary emitters--Effectiveness 4. Magnesium oxides--Applications

Card 4/4

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

S/109/60/005/008/016/024
E140/E355

9.4300(1043,1138,1143)

AUTHOR: Pyatnitskiy, A. I.

TITLE: Electron Current Amplification by Electron Irradiation of Semiconductors

PERIODICAL: Radiotekhnika i elektronika, 1960, Vol. 5, No. 8, pp. 1309 - 1314

TEXT: Electron irradiation was applied to the surface of the base layer of p-n junctions in germanium and silicon. The resultant amplification of electron current was studied. With reverse bias of the junction, the amplification factor reaches values of 1.5×10^3 at electron energies of 12 - 15 keV. The factor remains constant with back bias in the range 0.5 to 50 V. Further increase of bias increases the amplification factor. The factor is inversely related to the current density of the irradiating beam. It decreases with duration of irradiation, particularly at low energies, and the reverse dark current increases, reaching saturation. These phenomena are reversible, the irradiated surface returning to the initial state after the beam is cut off.

Card 1/2

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E140/E355

Electron Current Amplification by Electron Irradiation of Semiconductors

Acknowledgments are made to P.V. Timofeyev for proposing the work and to R.M. Aranovich and Ye.K. Ornat for assistance.
There are 8 figures and 6 references: 5 Soviet and 1 non-Soviet.

ASSOCIATION: Vsesoyuznyy elektrotekhnicheskiy institut imeni V.I. Lenina (All-Union Electrotechnical Institute imeni V.I. Lenin)

SUBMITTED: December 21, 1959

Card 2/2

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

S/032/61/027/003/021/025
B101/B203

AUTHOR: Pyatnitskiy, A. I.

TITLE: Apparatus for determining the oxygen content in gases

PERIODICAL: Zavodskaya laboratoriya, v. 27, no. 3, 1961, 348-349

TEXT: The author describes an apparatus for determining 0.001 - 0.1% of O_2 in gases, which is based on a method developed by M. Mugdan and I. Sixt (Ref. 1: Angew. Chemie 46/5, 90 (1933)). A figure shows a diagram of the apparatus. Container 1 holds an ammoniacal solution of cuprous chloride. Container 2 is used to determine the oxygen content. In contrast to similar methods, the ammoniacal solution of CuCl enters 2 without entering into contact with air. Attachment 15 with ground-in, rotating upper part serves for this purpose. It contains tube 5 leading to the hydrogen production apparatus, and tube 6 establishing the connection to 1. The lower part of 15 contains tube 11 with funnel-shaped extension for decanting the used solution. Cocks 4, 7, 8 must have 7-8 mm openings. The volume of 2 should be 1-1.5 liters, that of tube 3, 25-40 ml. The narrow part 9 of container 2 should have the same volume as 3. To determine the

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B101/B203

Apparatus for determining...

O_2 content, 5 is connected with the hydrogen apparatus. The position of the upper part of 15 is shown like in the figure: tube 10 above funnel 11. 4, 7, 8 and pinchcock 12 are opened. By briefly compressing tube 13, 11 is blown through. Then, 12 is closed, and hydrogen enters 2. About 15 volumes of the apparatus of hydrogen should be let through. Then, 12 is opened, 7, 8 are closed. 13 is taken off, and by 1-2 seconds' opening of 7, the hydrogen pressure in 2 is equated to the atmospheric pressure. Pinchcock 14 is opened. The CuCl solution is drained through 10 and 11. When the solution has become colorless, the upper part of 15 is turned so that the CuCl solution flows through 4 into 3. 3 is filled wholly or up to a mark. 14 and 4 are closed, the hydrogen flow is stopped, the upper part of 15 taken off, 8 opened, and the solution entering 2 is shaken until it has assumed constant color. It is collected in 9, and its color compared with standard solutions in flasks made of the same glass as 9 and with the same diameter. The apparatus can be used to determine O_2 in all gases which do not react with the copper ammonia solution (as H_2S, Cl_2, etc.). There are 1 figure and 4 references: 3 Soviet-bloc.

Card 2/3

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

Apparatus for determining...

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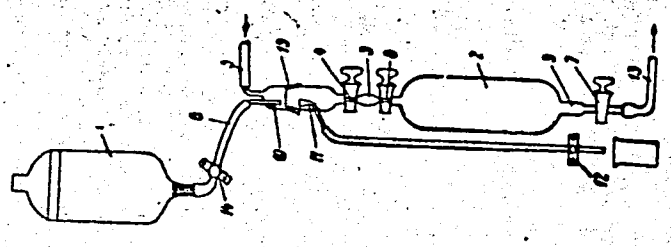
B101/B203



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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

L 09000-67 EWT(1)

ACC NR: AP6012153 SOURCE CODE: UR/0413/66/000/007/0070/0071

AUTHORS: Pyatnitskiy, A. I.; Nadol'nikov, A. G.; Aranovich, R. M.; Kurnosova, V. M.

33

ORG: none

TITLE: Cryostat for radiation receivers. Class 42, No. 180383 [announced by All-Union Electrical Engineering Institute im. V. I. Lenin (Vsesoyuznyy elektrotekhnicheskiy institut)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 7, 1966, 70-71

TOPIC TAGS: cryostat, cooling

ABSTRACT: This Author Certificate presents a cryostat for radiation receivers. In its cooling system the coolant is formed by throttling compressed gas which is initially cooled in a helical heat exchanger first by a coolant and then by the return flow of liquefied gas passing through the liquefying chamber. To increase the efficiency and usefulness of the cryostat and to simplify its design, the upper part of the heat exchange helix passes into a heat conducting tube which is placed in the chamber with the liquid coolant (see Fig. 1). The lower part passes through a vacuum tube with the return flow of liquefied gas, which is connected with the liquefying chamber.

UDC: 621.565.4

Card 1/2

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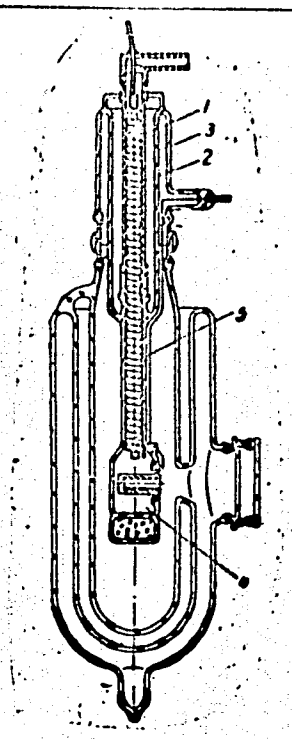
ACC NR: AP6012153

Fig. 1. 1 - heat exchange helix; 2 - heat conducting tube; 3 - chamber with liquid coolant; 4 - liquefying chamber; 5 - return gas flow tube



Orig. art. has: 1 diagram.

SUB CODE: 20/13/ SUBM DATE: 07Jan65

Card 2/2 nst

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKIY, A. M.

29823 Pyatnitskiy, A. M. Pyurantnyye Preparaty Penits - Illina. Sbornik Nauch. Rabot Lechebn. Uchrezhdeniy Mosk. Voen. OKR. Gor'kiy, 1948, S. 347-48.

SO: Letopis' Zhurnal Statey, No. 30, Moscow, 1948

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

CA

5

Energy distribution of electrons and the dependence of the photocurrent on the angle of incidence of light for O-Cs cathodes. A. M. Pyatnitskii. *Bull. acad. sci. U.R.S.S., Ser. phys.* 8, 304-6(1944).—Photocurrent from complex O-Ag-Cs photocathodes depends upon the incidence angle of the light; the character of this dependence is detd. by the structure of the cathode and the wave length of the light. Max. of the energy-distribution curves upon "back" illumination is shifted toward higher values in comparison with those obtained by frontal illumination; this effect is not dependent upon the wave length of the light used. G. M. Kosolapoff

COMMON ELEMENTS

OPEN

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COMMON VARIABLES INDEX

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AUTHOR INDEX

1ST AND 2ND LETTER

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

FYATNITSKIY, A. M.
25823

Fyurantnyye Preparaty Penitsillina.
Sbornik Nauch. Rabot Lecheb.
Uchrezhdeniy Mosk Voen. Okr.
Gor'kiy, 1948, S. 347-48.

SO: LETOPIS NO. 30, 1948

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKIY, A.N.

The Committee on Stalin Prizes (of the Council of Ministers USSR) in the fields of science and inventions announces that the following scientific works, popular scientific books, and textbooks have been submitted for competition for Stalin Prizes for the years 1952 and 1953. (Sovetskaya Kultura, Moscow, No. 22-40, 20 Feb - 3 Apr 1954)

Name	Title of Work	Nominated by
Bogachev, I.N. Pyatnitskiy, A.N.	"P.P. Anosov and the Secret of Damascus Steel" (popular-scientific book)	Ural Polytechnic Institute imeni S.M. Kirov

SO: Moscow, 1 July 1954

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKIY, A. (Voronezh)

More on electrochemical painting of metals. Radio no.9:52 S '57. (MIRA 10:10)

(Metals--Finishing)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

DOVGOPOL, V.I.; LUZIN, P.G.; PISARENKO, G.A., inzhener, retsenzent; DOBROTVORSKIY, M.M., professor, retsenzent; BELYNSKIY, S.V., doktor tekhnicheskikh nauk, retsenzent; PYATNITSKIY, A.N. I. o. glavnogo redaktora; DUGINA, N.A., tekhnicheskiy redaktor.

[Casting chilled-rim cast-iron wheels] Otlivka koles iz otbelennogo chuguna; opyt Uralvagonzavoda. Moskva, Gos.nauchno-tekhn.izd-vo mashinostroit. i sudostroit. lit-ry, 1953. 85 p. [Microfilm](MLRA 7:10)

1. Uralo-Sibirskoye otdeleniye Mashgiza(for Pyatnitskiy)
(Wheels) (Iron founding)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKIY, A.N.

GORLOVSKIY, M.A.; PYATNITSKIY, A.N.; YUFEREV, Ya.S., otvetstvennyy redaktor; ADAMOVA, L., redaktor; NOSOVA, L., tekhnicheskiy redaktor

[History of the workers' movement in the Urals; sketches of the plight of the serf in the Central Urals and their struggle to abolish serfdom (1800-1870)] Iz istorii rabochego dvizheniia n Urale; ocherki o polozhenii krepostnykh rabochikh Srednego Urala i ikh bor'be za likvidatsiiu krepostnichestva (1800-1870 gg.). [Sverdlovsk] Sverdlovskoe kn-vo, 1954.379 p. (MIRA 9:12)

(Ural Mountain region--Serfdom)

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

L 4238-66 EWT(m)/EPA(w)-2/EWA(m)-2 IJP(c) GS

ACCESSION NR: AT5007980 S/0000/64/000/000/1080/1084 44 28 B+1

AUTHOR: Grits, Yu. A.; Iremashvili, D. V.; Naumov, A. A.; Pyatnitskiy, A. P.; Chernov, A. A.; Yudin, L. I.; Yasnov, G. I.; Panasyuk, V. S.; Ostreyko, G. N.

TITLE: Strong-current high-frequency pulse accelerators for one-revolution injection into a synchrotron 19

SOURCE: International Conference on High Energy Accelerators. Dubna, 1963. Trudy. Moscow, Atomizdat, 1964, 1080-1084

TOPIC TAGS: high energy accelerator, synchrotron, electron accelerator

ABSTRACT: Plans were begun in 1959 for the strong-current synchrotron B-3M with external injection of the electrons (Budker, G. I.; Naumov, A. A., et al., present collection, p. 1065). For this there was required an injector of electrons at currents of several tens of amperes and energy not less than 1 Mev. The time duration of the injected bunch of electrons (current pulse) must be sufficient for filling the chamber of the synchrotron, which amounts to about 20 nanoseconds in the case of equilibrium orbit length of 700 cm and relativistic electrons. The deviation from the mean energy of the electrons in a bunch must not exceed ±0.5%. The beam pulse power of the injector amounts to tens of megawatts. In order to obtain

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ACCESSION NR: AT5007980

such high beam power, the electric field realizes energy that is accumulated over a period of time much larger than the duration of the electron pulse. G. I. Budker and A. A. Naumov have proposed several types of accelerators which are based on this principle, which are being developed in part at the Nuclear Physics Institute, SO AN SSSR. The necessity for the rapid construction of an injector of such a type prompted the utilization of the mentioned principle, in which a radio-engineering resonant circuit serves to store the electric field energy. A similar accelerator was proposed and described by a group of authors (Tolok, V. T.; Bolotin, A. I., et al. *Atomnaya energiya* 11, 41 (1961)). In order to increase the duration of the pulse of accelerated particle current for arbitrary rigid requirements on the homogeneity of the electrons relative to energy, it was required to greatly lower the frequency of the high-frequency voltage in comparison with the case discussed in the last mentioned work (Tolok, V. T., et al.). The development of a 3.5-Mev injector and current around 100 amperes was undertaken at the Physico-technical Institute, Academy of Sciences Georgian SSR, where a group of associates had proposed the design and construction of an injector forming the basis of the present development. Later, because of causes not in the control of the developers, the preparation of the injector began to fall considerably behind that of the accelerator itself. This forced a search for the possibility of producing

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ACCESSION NR: AT5007980

injectors of such type simpler to design and construct with the object of ensuring the initial cycle of work on the construction of an accelerator. In a short time the mentioned Nuclear Physics Institute prepared an injector using a long coaxial line as the resonant circuit. With the help of this injector, work was begun on the investigation of the electron-optical properties of the accelerator and channelizing structure. After about one year this injector was replaced by a more effective one, the so-called small spiral injector, which was made in the mentioned Physicotechnical Institute of the Academy of Sciences Georgian SSR. Still unbuilt is the ultimate injector with electron energy of 3.5 Mev and current around 100 amperes. The work on the injector described in the present report was carried out by A. A. Naumov. It is discussed under the topics: block scheme (self-excited generator of sub-excitation, high-frequency generator, resonant injector circuit, pulse modulator, electron beam modulator, fixation of high-frequency phase, starting accelerator pulses); design and construction; electron guns; radio-engineering devices; measurement of the parameters. In the development of the different components of the injectors mentioned in this report a number of associates took part in the work: at the Nuclear Physics Institute, SO AN SSSR (V. A. Borisov, I. A. Samokhin, V. G. Gindenko, A. P. Afonin, A. V. Makiyenko, V. P. Alekseyev, L. I. Kol'chenko) and the Physicotechnical Institute, Academy of Sciences Georgian SSR (V. I. Vishnevskiy, Ya. R. Abas-Ogly, V. Ye. Zelenin, M. I. Matrosov,

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L 4238-66

ACCESSION NR: AT5007980

4

Yu. Sh. Venediktov, V. N. Rybin, G. M. Sigidin). Orig. art. has: 3 figures.

ASSOCIATION: Institut yadernoy fiziki SO AN SSSR (Nuclear Physics Institute, SO AN SSSR)

SUBMITTED: 26May64 ENCL: 00 SUB CODE: NP

NO REF SOV: 003 OTHER: 000

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APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKIY,

KATS, L.I.; PYATNITSKIY, A.S.

Some data on clouds in the region of the Kiev Aerometeorological Station of the Civil Air Fleet. Trudy Ukr. NIGMI no.7:153-158 '57. (MIRA 11:4)

(Kiev--Clouds)

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKIY, A.S.

Strong winds in the region of the Kiev Air Weather Station of the Civil Air Fleet. Trudy UkrNIGMI no.25:36-40 '61. (MIRA 14:8)

1. Aviameteorologicheskaya stantsiya v Grazhdanskom vozdushnom flote, Kiyev.

(Kiev region--Winds)

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PYATNITSKIY, B.A.

CA

3

Observations on the chemiluminescence of amarine and lophine by means of a photoelement. A. P. Pospelov, B. A. Pyatnitzkii and S. N. Zhurkov. *J. Russ. Phys. Chem. Soc.*, Phys. Pt., **61**, 631-9(1929).—The investigation consisted in the photoelectric study of a weak luminescence obtained in the oxidation of amarine ($C_{21}H_{18}N_2$) and lophine ($C_{21}H_{16}N_2$) by bromine water and bromine vapors. Intensity of the luminescence increased with the decrease in the amt. of original compd. and decreased with the increase in the quantity of oxidizing agent introduced. For amarine the fraction of the energy of the reaction transformed into light energy was 0.5. × 10^{-7}. V. V.

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Ch

3

Law of the quenching of the phosphorescence of salicylic acid at liquid-air temperature. B. A. Pyatnitskii. *J. Expt. Theoret. Phys.* (U. S. S. R.) 9, 310-13(1939).—At liquid-air temps. the quenching of the bright-blue fluorescence of salicylic acid as measured by a Se photo-elec. cell obeys the law $I = I_0 e^{-\alpha t}$ up to 90% quenching, where $\alpha = 1.1 \pm 0.04$ and $I = 255$, 373 and 712 for the 3 groups of radiations obtained. The av. life of the excited fluorescence center is 0.9 sec. F. H. Rathmann

Chair of Physics, Zoovet. Inst., Voronezh

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

Phosphorescence of paraffin. B. A. Pyatnitskii. *J. Exptl. Theoret. Phys.* (U. S. S. R.) 9, 1351(1939).—P. finds that the quenching of the phosphorescence of paraffin obeys the hyperbolic law $I = I_0 a^2/(Q + t)^2$ in the initial stages up to $t = 3$ sec., and the law $I = I_0' e^{-t}$ where $I_0' = I_0/1 + (n_0/N_0)$, $n_0/N_0 = 1.7$, and $a = 0.3$ sec. for $t = 7$-10 sec. F. H. Rathmann

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CA

1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

3

Phosphorescence extinction of acetophenone at the temperature of liquefied air. B. A. Pyatnitskii. *Compt. rend. acad. sci. U. R. S. S.* **26**, 220-1(1940).—Continuing previous research (*C. A.* **33**, 7665[9]), P. measured the phosphorescence intensity of acetophenone with a differential Se photocell, the strength of the current being read by means of a mirror galvanometer, off a scale at a distance of 1 m. The acetophenone was poured into a cylindrical bowl surrounded with liquid air. The results of the measurements of 4 series as shown in graphs are: (1) The phosphorescence extinction of acetophenone follows the simple exponential law $\alpha = 0.6$. (2) The brightness, radiation intensities and the total light increase with the lowering of the temp. of acetophenone. (3) A stimulation for 30 sec., by means of a quartz lamp, leads to a duration of 5 sec. of the phosphorescence of 95% of the light total. (4) The av. duration of the center stimulated is 1.7 sec. 3 references. A. H. K.

Chair Physics, Zoovet, Inst., Voronezh

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

CA

Quenching of phosphorescence of benzene and some aromatic compounds at liquid-air temperature. B. A. Pyatnitskii. *Doklady Akad. Nauk S.S.S.R.* 57, 771-4(1947).—C_6H_6, BrOH, cinnamic acid, gallic acid, salicylic acid, and phthalic acid show blue to greenish emission on excitation by a quartz-mercury lamp. The quenching of the emission at liquid-air temp. follows common exponential law. On excitation for 15 sec., the light output reaches 93-95% in 5-10 sec. Acidic groups enhance emission very greatly and reduce the duration of the excited state. G. M. K.

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKIY, B. A. PA 35/49T89

USSR/Physics Sep 48
Phosphorescence
Luminous Phenomena

"Temperature Extinguishing of Phosphorescence by Benzoic Acid," B. A. Pyatnitskiy, Gor'kiy Eng Constr Inst imeni V. P. Chkalov, 4 pp

N
613.452
(4)

"Dok Ak Nauk SSSR" Vol LXII, No 1

Graphs and tables show influence of temperature on factors governing the extinguishing of fluorescence in benzoic acid. Benzoic acid is one of the organic luminophors which yield intense postluminescence at low temperatures. Submitted by Acad S. I. Vavilov, 12 Jul 48.

35/49T89

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PA 29/49T102

PYATNITSKIY, B. A.

USSR/Physics Feb 49
Phenols
Phosphorescence

"The Influence of Isomerism on the Phosphorescence of Phenols," B. A. Pyatnitskiy, Gor'kiy Eng and Constr Inst imeni V. P. Chkalov, 4 pp

"Dok Ak Nauk SSSR" Vol LXIV, No 6 - pp 813-16

Two of the eight conclusions obtained are: (1) the exponential law describes the extinguishing of phosphorescence in phenols, and (2) the number and position of hydroxyls in the benzene ring influences the extinguishing of phosphorescence. Submitted by Acad S. I. Vavilov, 15 Nov 48.

29/49T102

[redacted]

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PYATNITSKIY, B. A.

USSR/Physics - Phosphorescence 11 Sep 49
Chemistry - Benzene

"Influence of Temperature Upon the Phosphorescene of Phthalic and Benzoic Acids," B. A. Pyatnitskiy, Gor'kiy Constr Engr Inst imeni V. P. Chkalov, 4 pp

"Dok Ak Nauk SSSR" Vol LXVIII, No 2 - pp 281-284

Discusses mechanism of the phosphorescence of benzoic and phthalic acids, which phosphoresce intensely at the temperature of liquid oxygen (-183°). Notes that quenching energy is only about half as much for phthalic acid as for benzoic acid,

[redacted] 3/50T85

USSR/Physics - Phosphorescence 11 Sep 49
(Contd)

i.e., it is inversely proportional to number of carboxyl groups in benzene ring. Submitted by Acad S. I. Vavilov 9 Jul 49.

[redacted] 3/50T85

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PA 149T95

USSR/Physics - Phosphorescence 21 Sep 49
Biphenyl

"Influence of Temperature on the Phosphorescence of Diphenyl," B. A. Pyatnitsskiy, T. P. Vinokurova, Gor'kiy State Pedagogical Inst imeni A. M. Gor'kiy, 2½ pp

"Dok Ak Nauk SSSR" Vol LXVIII, No 3, p.483-5

From studies and tables for different temperatures, it follows that mechanism of phosphorescence in diphenyl 90-130° K has following general outlines: spontaneous transitions of electrons from the metastable to the normal level with radiation accompanied by transitions

[redacted] 149T95

USSR/Physics - Phosphorescence 21 Sep 49
(Contd)

without radiation. Probability of the latter increases with temperature and is determined by value of quenching energy. Submitted by Acad S. I. Vavilov 18 Jul 49.

PYATNITSKIY, B. A.

[redacted] 149T95

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKIY, B. A.

USSR/Physics - Phosphorescence 21 Mar 50
Benzol

PA 165T87

"Phosphorescence of Benzol Hydrocarbons at the Temperature of Liquid Oxygen," B. A. Pyatnitskiy, Gor'kiy Eng-Const Inst imeni V. P. Chkalov

"Dok Ak Nauk SSSR" Vol LXXI, No 3, pp 457-463

Transition from excited state to metastable is effected with most probability when compound is present with paramagnetics and in a medium able to enter in a hydrogen bond with a molecule of the aromatic compound (vide A. N. Terenin, "Acta Phys Chim URSS" 18, 210, 1943). Coefficient of

165T87

USSR/Physics - Phosphorescence (cont.) 21 Mar 50

phosphorescence damping (a in $I = I_0 \exp(-at)$) for xylol toluol, cymol, ethyl benzol, etc., in pure form or in solid alcohol solution (0.05 M). Submitted 7 Jan 50 by Acad S. I. Vavilov.

165T87

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"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

1. PYATNITSKIY, B. A.

2. USSR 600

4. Phosphorescence

7. Extinction of phosphorescence and duration of metastable stage of molecules of aromatic compounds at low temperatures, Izv. AN SSSR. Ser. fiz., 15, No. 5, 1951.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5"

"APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001343720015-5

PYATNITSKIY, B.A.

USSR/ Physical Chemistry - Molecule. Chemical bond B-4

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 10870

Author : Teplyakov P.A., Pyatnitskiy B.A.
Inst : Academy of Sciences USSR
Title : Effect of Concentration and Solvent on Phosphorescence of Aromatic Compounds at Low Temparature

Orig Pub : Izv. AN SSSR, ser. fiz., 1956, 20, No 5, 520-523

Abstract : At the temparature of liquid oxygen an investigation was made of phosphorescence attenuation and duration of metastable state of acids: benzoic (I), gallic (II), Cinnamic (III), salicylic (VI), p-aminobenzoic (V), anthranilic (VI), hydrocinnamic (VII), bromobenzoic (VIII), phthalic (IX), sulfobenzoic (X), and of hydroquinone (XI), and resorcinol (XII) in alcohol, acetone, ether, water and CCl_4, depending on concentration (from 5.10^{-1} to 5.10^{-4} M). In the case of I - VI, XI and XII, there is observed in all the solvents at various concentrations and in crystalline state an exponential law of phosphorescence attenuation. In the case of solutions of some acids, deviations from the exponential law have been found to occur. For VII in alcohol and for VIII in alcohol, acetone, water and ether, the attenuation law can be

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USSR/ Physical Chemistry - Molecule. Chemical bond B-4

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 10870

represented in the form of two exponents. In the case of solutions of III, IV and VII in alcohol there is a correlation between duration of metastable state and the concentration. Duration of the glow of the other substances in all the solvents remains constant within the entire investigated interval of concentrations, i.e., there is no concentration-induced attenuation at the metastable level.

Card 2/2

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