MALIVANKOVA, V.

"Testing Wrapping Materials for Odor." p. 12, Praha, Vol. 9, no. 1/2, Jan./Feb. 1954.

SO: East European Accessions List, Vol. 3, No. 9, September 1954, Lib. of Congress

MALIVANKOVA, V.

"Lactic Fermentation of Sulfite Liquor." p. 111, Praha, Vol. 9, no. 5, May 1954.

SO: East European Accessions List, Vol. 3, No. 9, September 1954, Lib. of Congress

Malivankova, V.

Nature of slime and combat against it. p. 261. PAPIR A CELULOSA. (Ministerstvo lesu a drevarskeho prumyslu) Praha. Vol.9, no. 12, Dec. 1954.

SOURCE: EEAL - LC Vol. 5 No. 10 Oct. 1956

Malivankova, V.

Acetone-butanol fermentation of sulfite liquors. p. 35. KVASNY PRUMYSL. (Ministerstvo potravinarskeho prumyslu) Praha. Vol. 2, no. 2, Feb. 1956.

Source: EEAL LC Vol. 5, No. 10 Oct. 1956

LESHCHINSKAYA, Ye.N., kand.med.nauk; BITKOVA, A.N.; MALIVANOVA, O.M.

Biological properties and biochemical features of cultures of BCG grown in various culture media. Probl.tub. no.6:65-73 '61. (MIRA 14:9)

1. Iz Instituta epidemiologii i mikrobiologii imeni N.F. Gamalei AMN SSSR (dir. O.V. Baroyan).
(BCG) (CULTURES AND CULTURE MEDIA)

TOGUNOVA, A.I., prof.; MALIVANOVA, G.M.; LESHCHINSKAYA, Ye.N.; NESTERENKO, L.A.

Data on the experimental study of dry glutamate BCG vaccine for intracutaneous use. Probl. tub. 41 no.6:60-63 '63. (MIRA 17:9)

1. Iz Instituta epidemiologii i mikrobiologii imeni Gamalei (dir. - prof. P.A.Vershilova) AMN SSSR.

CZECHOSLOVAKIA / Chemical Technology. Drugs. Vitamins. Antibiotics.

Abs Jour: Ref Zhur-Khimiya,No.22, 1958, 79955.

Author : Khalabala, Maliy, Khalabaia, Kral, Kral, Solikh.
Inst : Not given.
Title : A study on Incompatible Substances and Substances Difficultly Compatible. VI. Candles with an Increased Content of Ichthamol. VII. The Incompatibility of Mercurous Chloride and Saccharose. VIII. Stability of Calcareous Solutions of Acetylsalicylate.

Orig Pub: Farmacia (Ceskosl.), 1956, 25, No. 2, 43-45; No. 3, 73-75; No. 8, 236-239.

Abstract: No abstract.

Card 1/1 12

PETEYEV, A. Kh., MALIY, F. V.

Caviar

"Increasing labor productivity in packing caviar." Ryb. khoz. 28 no. 6, 1952.

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

MALY, L. S., [illegible]

Clover seed culture. Moskva, Moskovskii bol'shevik, 1944. [illegible] p.

MALIY, T.Ye.; NOZHEVNIKOV, A.M.; SEROV, K.F., red.; SOLOV'YEVA, N.P., red.; NIKOL'SKIAYA, K.G., tekhn. red.

[Disk brakes]Diskovyi tormoz; uchebnoe posobie po distsipline "Avtotormoza" dlia studentov V i VI kursov spetsial'nostei "Vagonostroenie i vagonnoe khoziaistvo," "Teplovozy i teplovoznoe khoziaistvo," "Elektrifikatsiia zheleznodorozhnogo transporta." Moskva, 1962. 30 p. (MIRA 15:12)

1. Moscow. Vsesoyuznyy zaochnyy institut inzhenerov zheleznodorozhnogo transporta.

(Railroads--Brakes)

MALIY, T.Ye.; NOZHEVNIKOV, A.M.; SERGEYEVA, I.N., red.

[Electric air brakes for the rolling stock of the railroads of the U.S.S.R.; lecture on the topic "Automatic brakes" for fifth-year students specializing in "Car manufacture and maintenance," "Diesel locomotives and their maintenance," and "Electrification of railroads"] Elektropnevmaticheskie tormoza dlia podvizhnogo sostava zheleznykh dorog SSSR; lektsiia po distsipline "Avtomaticheskie tormoza" dlia studentov V kursa spetsial'nostei "Vagonostroenie i vagonnoe khoziaistvo," "Teplovozy i teplovoznoe khoziaistvo," "Elektrifikatsiia zheleznodorozhnogo transporta." Moskva, Vses. zaochnyi in-t inzhenerov zheldor. transp., 1964. 42 p. (MIRA 18:3)

MALIYAROVSKIY, V.N.

Prothrombin activity of the blood and tolerance of the plasma to heparin in stenocardia and myocardial infarct. Terap. arkh. 32 no. 3:73-75 Mr '60. (MIRA 14:1)
(ANGINA PECTORIS) (HEART—INFARCTION)
(BLOOD—COAGULATION)

MALIYENKO, M.P.

Relation between the depth of the root system and winter hardiness of winter wheat. Fiziol. rast. 7 no.2:185-190 '60. (MIRA 14:5)

1. Department of Botany and Plant Physiology of the Uman Agricultural Institute.
(Wheat)
(Plants--Frost resistance)
(Roots(Botany))

MALIYENKO-PODVYSOTSKIY, A.G., dotsent

Health risks resulting from vacuums which form in water supply lines. Gig. i san. 21 no.9:66-67 S '56. (MLRA 9:10)

1. Iz Leningradskogo instituta usovershenstvovaniya vrachey
(WATER SUPPLY
prev. of vacuum in pipes)

MALIYENKO-PODVYSOTSKIY, A.G., dotsent

Letter to the editor. Gig. i san. 22 no.7:69-71 Jl '57. (MIRA 10:10)
(SEWAGE IRRIGATION)

Maliyenko-Podvysotskiy, A.G.

MALIYENKO-PODVYSOTSKIY, A.G.

Sanitary regulations for the use of sewage for agricultural irrigation should be revised. Gig. i san. 22 no.12:64 D '57 (MIRA 11:3)

1. Iz Leningradskogo finansovo-ekonomicheskogo instituta i Instituta dlya usovershenstvovaniya vrachey.

(SEWAGE IRRIGATION)

FRENKEL', Z. G., prof.; MALIYENKO-PODVYSOTSKIY, A.G., kand. tekhn. nauk; KHODASEVICH, B.G., kand. sel'skokhoz. nauk

Concerning the article entitled "Objectives in safeguarding the sanitation of natural waters during the new phase in the development of the chemical industries" by Professor S.N. Cherkinskii, corresponding member of the Academy of Medical Sciences of the U.S.S.R. Gig. i san. 24 no.5:62-63 My '59. (MIRA 12:7)

(INDUSTRIAL WASTES) (SEWAGE IRRIGATION)
(CHERKINSKII, S.N.)

MALIYEV, A. S.

Ryady fur'ye povyshennoy skhodimosti dlya funktsiy, opredelennykh v dannom promezhutke. IAN, Ser, fiz. Matem. (1932), 1437-1450.
O razlozhenii v ryady fur'ye povyshennoy skhodimosti funktsiy, opredelennykh v dannom promezhutke. IAN, ser. Fiz.-Matem. (1933), 1113-1120.

SO: Mathematics in the USSR., 1917-1947
edited by Kurosh, A. G,
Markushevich, A. I.
Rashevskiy, P. K.
Moscow-Leningrad, 1948

112-57-7-15918

Translation from: Referativnyy zhurnal, Elektrotekhnika, 1957, Nr 7, p 298 (USSR)

AUTHOR: Maliyev, A. S.

TITLE: On the Design of Mechanical Characteristics of Relay Contact Pileups (K raschetu mekhanicheskikh kharakteristik kontaktnykh grupp rele)

PERIODICAL: Sb. Leningr. in-ta zh.-d. transp., 1956, Nr 151, pp 171-198

ABSTRACT: A calculation method is offered of mechanical characteristics of relay pileups, using dimensionless coefficients that are the travel ratios of various points of the spring; the coefficients are introduced to curtail cumbersome calculations. The strength-of-materials theory is used in examining various cases of spring interaction: a free spring with one fixed end; a spring resting on a rigid stop; a spring resting on the end of another spring; a spring resting on a spring and a rigid stop; a spring contacting another spring that is lying on a rigid stop or is resting on a third spring. An accurate definition is given of the pressure against a stop and the contact pressure, the relation being indicated between the measured pressure and the grammeter reading.

N. V. Z.

Card 1/1

MALIYEV, A.S., doktor tekhn.nauk, prof.

Stressed state of a thick slab, symmetrical in relation to its median plane. Sbor. LIIZHT no.156:57-88 '58. (MIRA 11:9)
(Elastic plates and shells)

MALIYEV, A.S., prof., doktor tekhn.nauk

Stresses in a thick plate inversely symmetrical in relation to its median plane. Sbor.LIIZHT no.164:242-257 '59. (MIRA 13:8)
(Elastic plates and shells)

MALIYEV, A.S., prof., doktor tekhn.nauk

Using the method of initial quantities in the plane problem of the theory of elasticity. Sbor.LIIZHT no.164:258-275 '59. (MIRA 13:8)

(Elasticity)

MALIYEV, A.S., doktor tekhn.nauk, prof.

Stresses of an elastic layer. Trudy LIIZHT no.178:66-84 '61.
(MIRA 15:7)

(Elastic plates and shells)

MALIYEV, A.S., doktor tekhn.nauk, prof.; PUGACH, Ye.P., kand.tekhn.nauk; SMIRNOVA, V.V., inzh.

Theoretical solution of the problem of flexure in the elastic phase of a plate with two supported and two free edges under a concentrated force. Trudy LIIZHT no.178:85-106 '61. (MIRA 15:7)
(Elastic plates and shells) (Bridges)

SOLOV'YEV, Lev Nikolayevich; SHAKHBAZYAN, Sh.A., retsenzent; MALIYEV, D.A., red.; ZHEREBKOV, I.V., red.izd-va; MARINYUK, M.V., tekhn.red.

[For young grinding-machine operators] V pomoshch' molodomu shlifovshchiku. Rostov-na-Donu, Rostovskoe knizhnoe izd-vo, 1959. 73 p. (MIRA 13:5)
(Grinding and polishing)

MALIYEV, Kazbek Soslanbekovich; NERSESOV, Aristakes Karpovich; BEDRAK, T.V., red.; DATRIYEVA, Ye.U., tekhn.red.

[Best field crop varieties for North Ossetia] Luchshie sorta polevykh kul'tur dlia Severo-Osetinskoi ASSR. Ordzhonikidze, Severo-Osetinskoe knizhnoe izd-vo, 1960. 57 p.
(MIRA 14:3)

(Ossetia--Field crops--Varieties)

MALIYEVSKIY, A.D.

AUTHOR DZANTIYEV B.G., LEVKOVSKIY V.N., MALIYEVSKIY A.D., PA - 3136

TITLE The (n,α) -Reactions of 14 -MeV Neutrons With Cadmium.
(Reaktsii (n,α) 14 MeV neytronov s kadmiyem -Russian)

PERIODICAL Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 3, pp 537-540 (U.S.S.R.)
Received 6/1957 Reviewed 7/1957

ABSTRACT The present paper investigates the (n,α) -reactions on cadmium, in which palladium isotopes are created. Parallel hereto the cross section of the production of Pd^{109} from silver was determined by means of a (n,p)-reaction. Because of the many stable cadmium isotopes the products created on the occasion of the reactions could be identified only by means of the radiochemical method.
Realization of the reactions Cd(n,α)Pd and identification of the products of the reactions: Metallic cadmium or its salts were irradiated with ~4 MeV (d,d) -neutrons, 14 MeV (t,d) -neutrons and fission neutrons. The radioactive palladium was precipitated from the targets by a precipitation of dimethyl glyoxime in an acid medium. The activity of the thus obtained radiochemical pure samples was measured by means of a GEIGER counter, or these samples were dissolved. From this solution, silver (AgCl) was segregated within fixed time intervals for the purpose of identifying the palladium isotope on the basis of the daughter products. On the occasion of irradiation with 4 MeV neutrons no radioactivity was observed in the palladium fraction. In the case of irradiation with fission neutrons an activity of the palladium with T = 14 hours was observed. In the case of irradiation with

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The (n,α) Reactions of 14 MeV Neutrons With Cadmium. PA - 3136

14 MeV neutrons radioactive components with halfvalue periods (22+ 1) minutes, (5,5+ 0,2) hours and (14,0+ 0,5) hours were found to exist in the palladium fraction 3. The ratio of the initial activities of these components amounts to (26,4 + 0,8):(0,41 + 0,04): 1,0. A table shows the results of the graphical analysis of the decay curves of the cadmium samples which were separated by the different cadmium targets. These results are then discussed in detail.

Measuring of the cross sections of the reactions $Cd^{113}(n,\alpha)Pd^{109}$, $Cd^{114}(n,\alpha)Pd^{111}$, $Cd^{114}(n,\alpha)Pd^{111*}$ and $Ag^{109}(n,p)Pd^{109}$ as well as of the reactions with 14 MeV neutrons. All necessary activities were measured by means of a GEIGER counter at equal geometrical conditions. The cross sections thus computed and the standard deviations are shown together in a table.
(4 ill. and 5 tables)

ASSOCIATION Chemical-Physical Institute of the Academy of Science of the U.S.S.R.
PRESENTED BY KONDRAT'YEV V.N., Member of the Academy
SUBMITTED 20.11.1956
AVAILABLE Library of Congress
Card 2/2

MALIYEVSKIY, A.D.

USSR/Nuclear Physics - Structure and Properties of Nuclei C-4

Abs Jour : Ref Zhur - Fizika, No 1, 1958, 467

Author : Dzantiyev, B.G., Levkovskiy, V.N., Maliyevskiy, A.D., Serdobov, M.V.

Inst : Institute of Chemical Physics, Academy of Sciences, USSR

Title : The Pd^{111} Isomer.

Orig Pub : Dokl. AN SSSR, 1957, 113, No 4, 773-776

Abstract : To identify uniquely the 5.5-hour activity, experiments were set up on the separation of the isomers using the Szillard-Chalmers method in a mixture of radioactive isotopes of Pd, formed after the reaction Cd (n, α) and Pd (n, γ). Salicylaldoxime was chosen for use as an organic reagent, forming with Pd compounds that are insoluble in water. In the first case, the salicylaldoximate pf Pd was precipitated from a solution of cadmium nitrate,

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USSR/Nuclear Physics - Structure and Properties of Nuclei C-4

Abs Jour : Ref Zhur - Fizika, No 1, 1958, 467

Pd (n, γ) reaction, and has proved its genetic connection with Pd^{111} and Ag^{111}. According to the data of this experiment, the lower limit of the coefficient of internal conversion was determined for the transition $Pd^{111*} \rightarrow Pd^{111}$ ($\alpha \geq 0.25$). A study of the kinetics of the accumulation of Ag^{111} in specimens of irradiated Pd has made it possible to determine the relative yield of Pd^{111*} and Pd^{111} in the reaction (n, γ). It was found that $\sigma Pd^{111} / \sigma Pd^{111*} \approx 22$.

Card 3/3

BLYUMBERG, E.A.; MALIYEVSKIY, A.D.; EMANUEL', N.M.

Critical phenomena observed during the liquid phase oxidation of butane in benzene. Dokl.AN SSSR 136 no.5:1130-1132 F '61.
(MIRA 14:5)

1. Institut khimicheskoy fiziki AN SSSR. 2. Chlen-korrespondent AN SSSR (for Emanuel').
(Butane) (Oxidation)

L 15482-63 EPF(c)/EWT(m)/BDS Pr-4 RM/WW

ACCESSION NR: AP3005450 S/0204/63/003/004/0541/0547

AUTHORS: Blyumberg, E. A.; Maliyevskiy, A. D.; Emanuel', N. M 60 59

TITLE: Effect of solvents upon the mechanism of the liquid phase oxidation of n-butane

SOURCE: Neftekhimiya, v. 3, no. 4, 1963, 541-547

TOPIC TAGS: n-butane liquid phase oxidation, acetic acid, butane, chromatography, paper chromatography, gas-liquid chromatography, methylethylketone, ethylacetate, liquid phase oxidation, n-butane

ABSTRACT: Authors studied the kinetics of oxidation of n-butane in pure form and in a mixture with acetic acid at a temperature of 145C and 50 atm. in order to determine whether or not the acetic acid affects the composition of oxidation products of n-butane. The analysis of the products was conducted by means of gas-liquid chromatography, paper chromatography, and ordinary chemical methods. It was found that acetic acid is not an inert solvent in liquid phase oxidation of n-butane. It shows a considerable effect on the mecha-

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L 15482-63

ACCESSION NR: AP3005450

nism of reaction. When the oxidation of n-butane is carried out in acetic acid media, the formation of methylethylketone, ethylacetate and other products is not as noticeable as is the case when it is oxidized in benzol solutions or without solvents. The oxidation of pure n-butane is much faster than its oxidation in solutions with acetic acid. An assumption is made that the change of composition of oxidation products of butane in acetic acid is related to the decrease of rate of the chain reaction of n-butylhydroperoxide, which results in the formation of methylethylketone. The use of benzol as a solvent for butane has its limits. The solution attains a critical concentration of benzol at which the butane oxidation process is completely stopped. Orig. art. has: 1 table, and 4 figures.

ASSOCIATION: Institut khimicheskoy fiziki, AN SSSR (Institute of chemical physics, AN SSSR)

SUBMITTED: 17Aug62 DATE ACQ: 06Sep63 ENCL: 00

SUB CODE: CH NO REF SOV: 011 OTHER: 000

Card 2/2

MALIYEVSKIY, A.D.; BLYUMBERG, E.A.; EMANUEL', N.M.

Critical phenomenon in the liquid-phase oxidation of a methyl-ethyl ketone in a benzene solution. Neftekhimia 4 no.3:472-476 My-Je '64. (MIRA 18:2)

1. Institut khimicheskoy fiziki AN SSSR.

BUCHACHER, Ye.A.; KUDINOV, A.M.; NEYAGLOV, A.V.; MIKERIN, B.I.; MALIYEVSKIY, A.S.

Modernizing the driving unit of a contactor for sulfuric-ac d alkylation. Nefteper. i neftekhim. no.12:36-41 '63. (MIRA 17:4)

1. Bashkirskiy nauchno-issledovatel'skiy institut po pererabotke nefti i Novo-Ufimskiy neftepererabatyvayushchiy zavod.

BUCHACHER, Ye.A.; KUDINOV, A.M.; NEYAGLOV, A.V.; MIKERIN, B.I.; MALIYEVSKIY, A.S.

Mixing unit for a sulfuric-acid alkylation contactor with electric drive. Trudy BashNII NP no.7:56-62 '64.

(MIRA 17:9)

MALJEVAC, I., Dr.; HAUPTMANN, E., dr.; GVOZDANOVIC, V., dr.

Cruveilhier-Baumgarten diseases and syndrome; with a case report.
Lijec. vjes. 79 1-2:39-49 Jan-Feb 57.

1. Iz Interne klinike i Zavoda za rentgenologiju Medicinskog fakulteta u Zagrebu.
(CRUVEILHIER-BAUMGARTEN SYNDROME, case report
(Ser))

GALINOVIC-WEISGLASS, Marija; MIMICA, Milorad; MALJEVAC, Ivo

Aero-biological investigations in Zabreb and on the Island of Rab.
A. Investigation on fungi. Rad. med. fak. Zagreb. 10 no.1:25-38 '62.
(AIR MICROBIOLOGY) (FUNGI)

VOLARIC-MRSIC, Iva; MIMICA, Milorad; MALJEVAC, Ivo

Aero-biological investigations in Zagreb and on the Island of Rab. B. Investigations on pollen. Rad. med. fak. Zagreb. 10 no.1:39-46 '62.

(POLLEN)

KOSTIAL, Krista; MALJKOVIC, Tea; SLAT, Blanka; WEBER, O.

Toxicity of some new chelating agents for radiostrontium removal. Arh. hig. rada 13 no.4:295-298 '62.

1. Institute for Medical Research, incorporating the Institute of Industrial Hygiene, Zagreb.
(EDATHAMIL) (CHELATING AGENTS) (STRONTIUM ISOTOPES)
(RADIATION PROTECTION)

KNYAZHETSKAYA, Yekaterina Andreyevna; MALKES, B., red.

[The fate of a map] Sud'ba odnoi karty. Moskva, Mysl', 1964. 117 p. (MIRA 18:7)

PASETSKIY, V.M.; BURKHANOV, V.F., kand. geogr. nauk, otv. red.; PROKHODTSEVA, S.Ya., red.; MALKES, B.N., mladshiy red.; MAL'CHEVSKIY, G.N., red.kart; VILENSKAYA, E.N., tekhn. red.

[On an ice island]Na ledianom ostrove. Moskva, Gos.izd-vo geogr.lit-ry, 1962. 236 p. (MIRA 15:10)
(Arctic regions--Drifting ice stations)

SVET, Yakov Mikhaylovich; MALKES, B.N., red.; BELICHENKO, R.K., mladshiy red.

[Navigator from foggy Albion (James Cook)] Moreplavatel' tumannogo Al'biona (Dzhems Kuk). Moskva, Geografgiz, 1963. 78 p. (MIRA 17:6)

MALKES, D. A., Engr

USSR/Engineering - Construction, Methods 31 Mar 52

"Placing Concrete Into a Dam From Bridges," D. A. Malkes, Engr, Promstroyproyekt

"Byul Stroitel Tekh" No 6, pp 7-11

Describes erection of a dam 650 m long requiring 150,000 cu m of concrete, which was delivered in dump trucks along steel bridge constructed over dam site on especially built bridge piers. Concrete placing was realized through hoppers, installed in bridge floor and continued under floor level into chutes made of meter sections of steel pipe. Method is highly appraised as most efficient.

213T58

MALKES, D.A., inzh.; SUSHKOV, P.M., inzh.

Standard plan for the organization of construction of a sintering plant. Prom.stroi. 37 no.2:28-35 F '59. (MIRA 12:3)

1. Gosudarstvennyy institut tipovogo proyektirovaniya i tekhnicheskikh issledovaniy (for Sushkov).
(Metallurgical plants--Design and construction)

VECHTOMOV, M.I., inzh.; KUDRYAVTSEV, V.A., inzh.; MALKES, D.A., inzh.; OSTROVSKIY, G.I.; POVERENNYY, L.D.; SUSHKOV, P.M., inzh.; TYULENEV, N.Z., inzh. Prinimali uchastiye: GALYAMOVA, N.S., inzh.; PUTEYEVA, N.P.; IZRAYLOVICH, Ye.A., inzh.; MARCHENKO, G.A., inzh.; MALYGINA, Z.S.; SOKOLOVA, Ye.A.; SOKOV, V.N., inzh.; TARASOVA, S.N.; YASHAYEV, A.L., inzh.; FILIMONOV, S.V.; DRALICH, K.F., inzh., nauch. red.; NOVITCHENKO, K.M., inzh., nauchnyy red.; SIMAKOV, S.N., inzh., nauchnyy red.; FAKTOROVICH, Yu.A., kand. tekhn. nauk, nauchnyy red.; STUPIN, Ye.N., otv. red.; LUTOV, N.S., red.; IVANOV, V.S., red.; BAGUZOV, N.P., glav. red.; VOLCHEGORSKIY, M.S., zam. glav. red.; DOBRYNIN, S.N., red.; NAZAROV, I.A., red.; KOLESNIKOV, S.I., red.; MEL'NIKOV, N.P., red.; SUSNIKOV, A.A., red.; STAROVEROV, I.G., red.; LYTKINA, L.S., red. izd-va; GORDEYEV, P.A., red. izd-va; OSENKO, L.M., tekhn. red.

[Handbook for the designer of industrial, residential, and public buildings and structures; organization of construction and execution of building and assembly operations. Industrial construction] Spravochnik proektirovshchika promyshlennykh, zhilykh i obshchestvennykh zdanii i sooruzhenii; organizatsiia stroitel'stva i proizvodstvo stroitel'no-montazhnykh rabot. Promyshlennoe stroitel'stvo. Pod red. P.M.Sushkova. Moskva, Gos.izd-vo lit-ry po stroit., arkhit. i stroit. materialam, 1961. 372 p. (MIRA 15:2)

(Industrial buildings)

DOVGARD, P.I.; KRUGMAN, K.I.; MALKES, F.S.; RODOVSKAYA, M.V.; ULANOVA, T.A.; KAMERON, A.A., redaktor; KANDYKIN, A.Ye., tekhnicheskiy redaktor.

[Soviet railroad literature published in 1954] Zheleznodorozhnaia literatura SSSR, 1954. Moskva, Gos. transp.zhel-dor.izd-vo, 1956. 314 p. (MLRA 9:6)

1.Russia (1923- U.S.S.R.) Ministerstvo putey soobshcheniya. TSentral'naya nauchno-tekhnicheskaya biblioteka. 2.Zamestitel' direktora TSentral'noy nauchno-tekhnicheskoy biblioteki Ministerstva putey soobshcheniya (for Kameron).
(Bibliography--Railroads)

S/120/60/000/01/007/051
E201/E391

5.5500

AUTHORS: Nagornaya, L.L, Kilimov, A.P., Malkes, L.Ya., Shubina, L.V. and Timchenko, A.I.

TITLE: Plastic Scintillators with 1,2-diarylethylenes

PERIODICAL: Pribory i tekhnika eksperimenta, 1960, Nr 1, pp 34 - 36 (USSR)

ABSTRACT: Properties of 1,2-diaryl derivatives of ethylene as luminescent additives to plastic scintillators are compratively unknown (Refs 1-3). This is surprising because of the good properties reported for 1,2-di-(1-naphthyl)-ethylene (Ref 4). The present paper describes results obtained in an investigation of scintillation and luminescence properties of polystyrene solutions of three 1,2-diarylethylenes:
1-phenyl-2-(4-methoxyphenyl)-ethylene (I),
1-phenyl-2-(4-chlorophenyl)-ethylene (II),
1-phenyl-2-(4-biphenylyl)-ethylene (III) .
The properties of stilbene and 1,2-di-(1-naphthyl)-ethylene are also reported. The luminescence spectra were obtained with an SF-4 spectrophotometer, used as a monochromator and

Plastic Scintillators with 1,2-diarylethylenes

fitted with a photoelectric device (Ref 8); they are shown in Figure 1. The scintillation efficiency was deduced from the current at the output of a photomultiplier FEU-19. The samples were excited with gamma-rays from Ag^{110} of 0.1 millicurie intensity. It was found (Figure 2 and a table on p 36) that the scintillation efficiency of a 1% solution of III in polystyrene amounts to 147% compared with the efficiency (taken as 100%) of a 2% solution of p-terphenyl in polystyrene. It was also found that the scintillation efficiency of 1,2-diarylethylenes is proportional to the photoluminescence yield. There are 2 figures, 1 table and 8 references, 6 of which are Soviet and 2 English.

ASSOCIATION: Khar'kovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta khimicheskikh reaktivov (Khar'kov Branch of the All-Union Chemical Reagents Scientific-research Institute)

SUBMITTED: December 13, 1958

Card 2/2

MALKES, L. Ya.; NAGORNAYA, L.L.; TIMCHENKO, A.I.

Absorption spectra and luminescence properties of para-monohalo-substituted trans-stilbenes. Opt. i spektr. 10 no.4:557-558 Ap '61. (MIRA 14:3)

(Stibene--Spectra)

89516
S/079/61/031/002/009/019
B118/B208

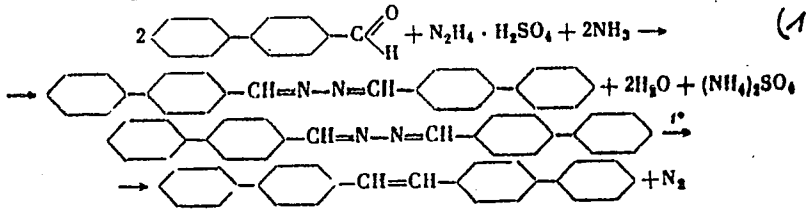
5.3610

AUTHORS: Malkes, L. Ya. and Timchenko, A. I.

TITLE: Synthesis of trans-p, p'-diphenyl stilbene

PERIODICAL: Zhurnal obshchey khimii, v. 31, no. 2, 1961, 560-562

TEXT: In view of Refs. 1-3 concerning the synthesis of -p, p'-diphenyl stilbene (in the following called DPS), especially of the paper by Ye. Ye. Baroni and G. Bushbek (Ref. 3), the authors obtained only a trans-stilbene in the stilbene synthesis by thermal decomposition of benzalazine. The DPS synthesized in Ref. 3 obviously appeared in the cis-form. The synthesis of DPS by thermal decomposition of p, p'-diphenyl benzalazine was devised on the basis of an attempt of synthesizing trans-stilbene



Card 1/3

Synthesis of trans-p,..

(Scheme 1). The initial product was diphenyl from which p-phenyl benzaldehyde (Ref. 5) was obtained. When treating the hydrazine hydrate solution with the solution of p-phenyl benzaldehyde, p, p'-diphenyl benzalazine is formed. By thermal decomposition of the latter, nitrogen separates out, and DPS is obtained whose constants are identical with those of Ref. 2. The high fluorescence of DPS observed both in crystalline and dissolved state, which is also mentioned in Ref. 3, gives rise to the assumption saying that in addition to the principal mass of cis-DPS an impurity of the trans-form was also present. This is confirmed by comparing the absorption spectra in dioxane. The spectrum of DPS obtained in Ref. 3 has, as is shown in the figure, a principal maximum at λ 280 mμ, and a secondary maximum at λ 340 mμ. The spectrum of DPS obtained in the present study shows a distinct band at λ 340 mμ. The empirical formula of DPS being the same in both cases ($C_{26}H_{20}$), it may be assumed that the absorption maximum at λ 280 mμ corresponds to the cis-form, and that at λ 340 mμ, to the trans-form. The secondary maximum at λ340 mμ in the stilbene of Ref. 3 indicates the co-existence of a trans-form. The appearance of maxima of both forms (at λ 280 mμ and 340 mμ) also obeys the well-known rule (Ref. 6) of the

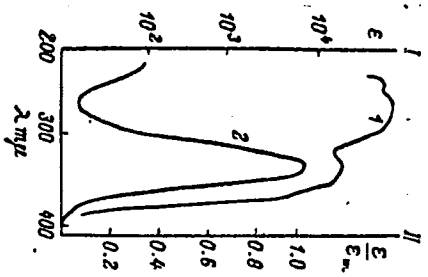
Card 2/3

Synthesis of trans-p,..

absorption maximum of trans-stilbene derivatives being shifted toward the long-wave region, with respect to the cis-form. There are 1 figure and 7 references: 1 Soviet-bloc and 4 non-Soviet-bloc.

ASSOCIATION: Khar'kovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta khimicheskikh reaktivov (Khar'kov Branch of the All-Union Scientific Research Institute of Chemical Reagents)

SUBMITTED: March 30, 1960



Legend to the figure: 1) Spectrum obtained by Ye. Ye. Baroni and G. Bushbek
2) Spectrum of the trans-configuration obtained by the authors

Card 3/3

MALKES, L.Ya.; SHUBINA, L.V.

Synthesis of some new azines. Zhur.ob.khim. 31 no.10:3402-3406 O '61. (MIRA 14:10)

1. Khar'kovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta khimicheskikh reaktivov.
(Azines)

MALKES, L.YA.

2

S/120/62/000/001/012/061
E039/E520

21.6000

AUTHORS: Naboykin, Yu.V., Dobrokhotova, V.K., Uglanova, V.V., Zadorozhnyy, B.A. and Malkes, L.Ya.

TITLE: New organic single crystal scintillators

PERIODICAL: Pribory i tekhnika eksperimenta, no.1, 1962, 57-59

TEXT: Anthracene is one of the most widely used scintillation crystals because of its high light output. However, there are difficulties associated with the preparation of single crystals of anthracene and it is chemically unstable, hence with long usage the single crystals deteriorate. Stilbene only has about half the light output of anthracene but it is cheap and is therefore widely used. Other crystals such as tolane have a low light yield so that efforts were made to discover new scintillator materials. The effect of small admixtures on the luminescent properties of crystals has been investigated by a number of authors and in this paper is given a summary of all the data on the scintillation efficiency of the single crystals investigated. The light yield compared with stilbene is given and also the optimum concentration of admixture and the maximum in the radiated spectrum. It is shown

Card 1/2

New organic single crystal scintillators S/120/62/000/001/012/061
E039/E520

that single crystals of naphthalene with 1,2 - di(β-napthyl) ethylene and n-phenyl-stilbene admixtures not only have a high light yield (150% of stilbene) but have a luminescence time no greater than stilbene. They are also cheap and hence should be widely used. Single crystals of diphenyl and diphenylene oxide have the advantage over naphthalene of being stable in air but have a lower light output. The dependence of light output on concentration of admixture is shown graphically. The addition of about 0.1% of 1,2 - di(β-napthyl)-ethylene or 1-(β-napthyl)-2-(n-biphenyl)-ethylene to napthalene produces the maximum increase in sctillation efficiency. The luminescent spectra of these new materials is also presented and it is apparent that the maxima in the spectra coincide with the region of maximum sensitivity of antimony-cesium photocathodes. There are 3 figures and 1 table.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, stsintillyatsionnykh materialov i osobo chistykh khimicheskikh veshchestv
(All Union Scientific Research Institute on Single Crystals, Scintillating Materials and Specially Pure Chemical Materials)

Card 2/2
SUBMITTED: June 19, 1961

NAGORNAYA, L.L.; MALKES, L.Ya.; SHUBINA, L.V.

Optical study of certain 1.2-diaryl-substituted of ethylene in polystyrene. Opt. i spektr. 12 no.1:117-120 Ja '62. (MIRA 15:2)
(Ethylene--Spectra)
(Styrene--Spectra)

NAGORNAYA, L.L.; MALKES, L.Ya.; SHUBINA, L.V.

Optical study of 1,2-diaryl-substituted derivatives of ethylene in liquid solutions. Opt.i spektr. 12 no.5:644-646 My '62. (MIRA 15:5)

(Ethylene--Optical properties)

MALKES, L.Ya.; SHUBINA, L.V.

Synthesis of some 1,2-substituted ethylene with an α-naphthyl group. Zhur. ob. khim. 32 no.1:287-290 Ja '62. (MIRA 15:2)

1. Khar'kovskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta khimicheskikh reaktivov.
(Ethylene)

MALKES, L.Ya.; TIMCHENKO, A.I.; NAGORNAYA, L.L.

Synthesis and ultraviolet absorption spectra of p-monohalo-substituted derivatives of trans-stilbene. Zhur.ob.khim. 32 no.3:893-896 Mr '62. (MIRA 15:3)
(Stilbene—Spectra)

S/079/62/032/005/003/009
D204/D307

AUTHORS: Malkes, L.Ya., and Shubina, L.V.

TITLE: Synthesis of some 1,2 - diaryl substituted ethylenes

PERIODICAL: Zhurnal obshchey khimii, v. 32, no. 5, 1962, 1542-1544

TEXT: In continuation of earlier work the authors prepared I: 1,2-di-(β-naphthyl) ethylene; II: 1-(β-naphthyl)-2-(4-biphenylyl) ethylene, and III: 1-phenyl-2-(4-biphenylyl)ethylene, by the reaction $R-CH = N-N = CH - R' \xrightarrow{heat} R-CH = CH - R' + N_2$, in search for effective scintillating materials. Compound II is new. The azines were decomposed by heating in steel, sealed apparatus, at 280 - 310°C over 45 - 50 min. for I, 270 - 300°C over ~25 min. for II, and 295 -305°C over 40 - 50 min. for III. The yields for I, II and III were 30, 25.5 and 11 % respectively and the m.p's were: I - 235°C, II - 261 - 262°C, III - 224°C. The absorption spectrum of II was measured, in heptane solution, in the ~200 - 400 mμ region, to characterize the compound. There is 1 figure.

SUBMITTED: May 9, 1961

Card 1/1

L 9862-63 EWP(j)/EPF(c)/EWT(m)/BDS--ASD/ESD-3--Pc-4/Pr-4--RM/WW/MAY/JFW
ACCESSION NR: AP3001352 S/0048/63/027/006/0748/0753

AUTHOR: Nagornaya, L. L.; Nurmukhametov, R. N.; Malkes, L. Ya.; Shubina, L. V.

TITLE: Luminescence of naphthyl and anthryl derivatives of ethylene [Report of the Eleventh Conference on Luminescence held in Minsk from 10 to 15 September 1962]

SOURCE: AN SSSR. Izv. Seriya fizicheskaya, v. 27, no. 6, 1963, 748-753

TOPIC TAGS: ethylene derivative scintillators, arylethylenes, fluorescence quenching by UV

ABSTRACT: Some aryl derivatives of ethylene are known to be efficient luminophors and are used for the preparation of crystal and plastic scintillators. Increase of the pi-electron system conjugated with the ethylene grouping has been reported to increase the luminescence efficiency. Accordingly, the authors investigated the effect of alpha-naphthyl and 9-anthryl radicals on the luminescence of arylethylenes and made an attempt to elucidate the nature of the photochemical processes involved. There were obtained the luminescence spectra at 20°C and

Card 1/3

L 9862-63
ACCESSION NR: AP3001352

77°K of crystalline powders and different solutions of 1,2-di(alpha-naphthyl)ethylene, 1-phenyl-2(9-anthryl)ethylene, 1-(alpha-naphthyl)-2-(9-anthryl)ethylene and two stereoisomers of dianthrylethylene. Also the influence of UV irradiation on the stability and optical characteristics of the specimens was studied. The spectra are described and in part reporudced in the figures. The absorption and fluorescence spectra of the first compound in heptane and polystyrene at 20°C are reminiscent of the spectra of stilbene, but shifted somewhat to the red side. The fluorescence of the compounds decreases with time under UV irradiation. It is hypothesized that the decrease is connected with trans-cis isomeric photo-transformation. The relatively low scintillation yield of the investigated arylethylenes in solutions is explained by enhancement of nonradiative processes owing to occurrence of hindered rotations and the associated process of photostereoisomerization. In the solid phase these processes are inhibited and the fluorescence yields and scintillation efficiencies increase accordingly. Orig. art. has: 5 figures and 1 table.

ASSOCIATION: none

Card 2/3

SHIMANSKAYA, N.P.; MALKES, L.Ya.; BEZUGLYY, V.D.

Polarographic method applied for the study of the thermal decomposition of azines. Zhur.ob.khim. 33 no.7:2094-2098 Jl '63. (MIRA 16:8)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut monokristallov, stsintillyatsionnykh materialov i osobo chistykh khimicheskikh veshchestv, Khar'kov.

(Azines) (Polarography)

L 41587-65 EWT(m)/EPF(c)/EWP(j)/T Pc-4/Pr-4 RM

ACCESSION NR: AP5009020 S/0366/65/001/002/0347/0348

21
B

AUTHORS: Shubina, L. V.; Malkes, L. Ya.

TITLE: New synthesis of 1,4-distyrylbenzene

SOURCE: Zhurnal organicheskoy khimii, v. 1, no. 2, 1965, 347-348

TOPIC TAGS: benzene, styrene, isomeric transition, acetic acid, dicarboxylic acid

ABSTRACT: The synthesis of 1,4-distyrylbenzene was obtained from the following reaction

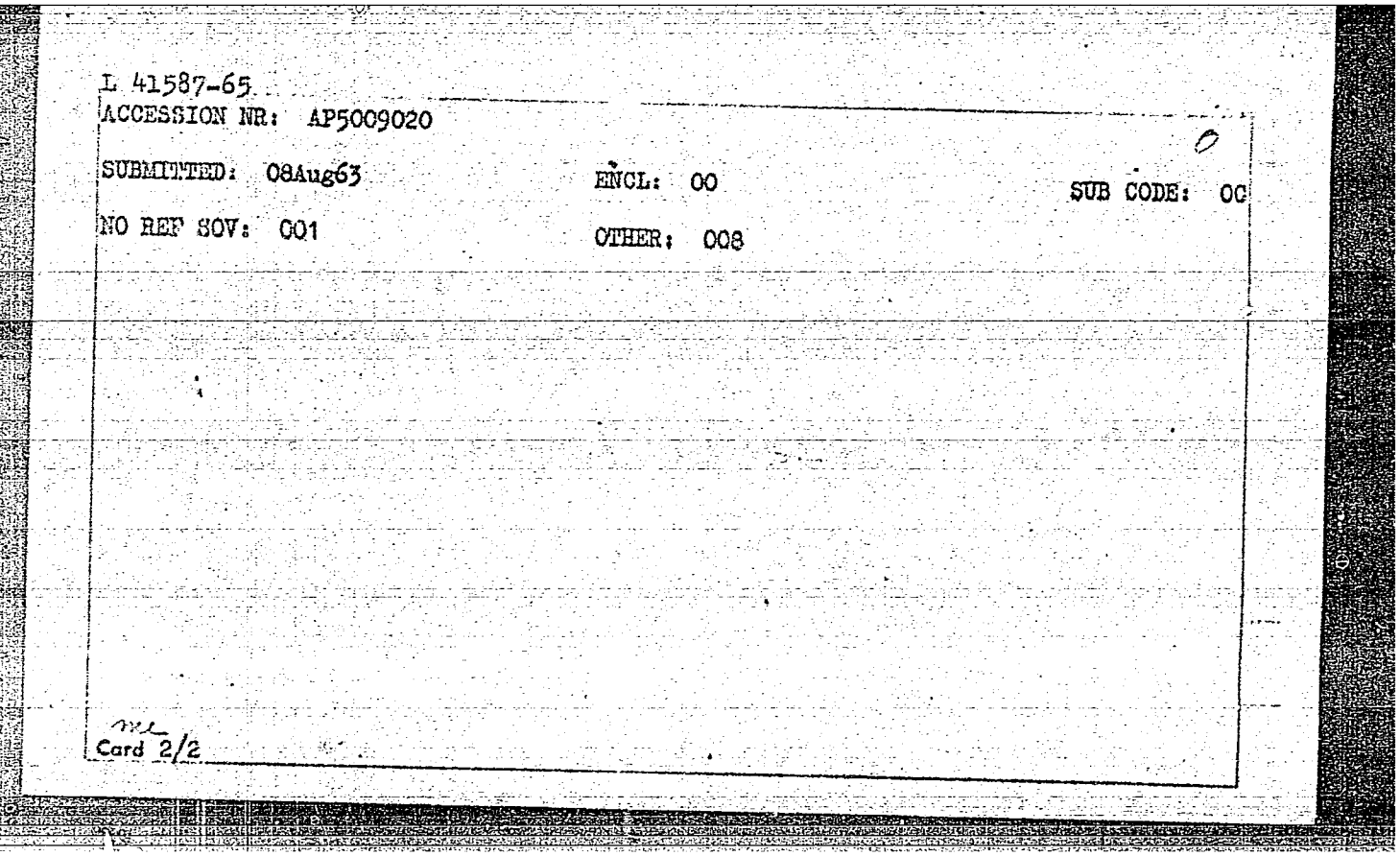
$$2C_6H_5CH_2COOH + OHCC_6H_4CHO \xrightarrow{-H_2O} \underset{\displaystyle COOH}{C_6H_5C{=}CHC_6H_4CH{=}\underset{\displaystyle COOH}{C}C_6H_5} \xrightarrow{-2CO_2}$$

$$\rightarrow C_6H_5CH{=}CHC_6H_4CH{=}CHC_6H_5.$$

As a result of this reaction, a cis-cis-isomer was obtained and was subsequently isomerized to a trans-trans form. First, a terephthalic aldehyde is obtained from urotropin, xylylenedibromide, and acetic acid. To this are added phenylacetic acid, triethylamine, and acetic anhydride to produce 1,4-distyrylbenzene-α, α'-dicarboxilic acid. Orig. art. has: 1 formula.

ASSOCIATION: none

Card 1/2



L 41587-65
ACCESSION NR: AP5009020

SUBMITTED: 08Aug63 ENCL: 00 SUB CODE: OC

NO REF SOV: 001 OTHER: 008

Card 2/2

L 63275-65 EWT(m) JAJ/RM

ACCESSION NR: AP5015124 UR/0366/65/001/006/1040/1043
547.538

AUTHORS: Shubina, L. V.; Malkes, L. Ya.

TITLE: Synthesis of bifunctional derivatives of 1,4-distyrylbenzene

SOURCE: Zhurnal organicheskoy khimii, v. 1, no. 6, 1965, 1040-1043

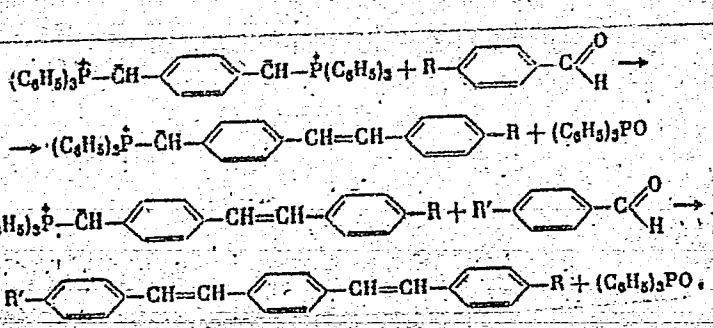
TOPIC TAGS: synthesis, styrylbenzene, aromatic hydrocarbon

ABSTRACT: Several bifunctional derivatives of 1,4-distyrylbenzene were synthesized in order to study the correlation between the physical and chemical properties of such compounds. The following compounds were synthesized: p-nitro-p'amino-mm,m'-dichloro-,mm,m'-dimethoxy-, o,o'-dichloro-, o,o'-dimethoxy-, and o,o'-dinitro-1,4-distyrylbenzene. A table of physical properties of the above compounds is given. It is suggested that the formation of bifunctional derivatives of 1,4-distyrylbenzene proceeds by a Witting type of reaction, as shown by

Card 1/2

L 63275-65

ACCESSION NR: AP5015124



Orig. art. has: 1 table and 1 illustration.

ASSOCIATION: none

SUBMITTED: 24Apr64 ENCL: 00 SUB CODE: OC

NO REF SOV: 002 OTHER: 004

Card 2/2

SHUBINA, L.V.; MALKES, I.Ya.

Synthesis of 1,2 and 1,3-distyrylbenzenes. Zhur.org.khim. 1 no.3:497-499 Mr '65. (MIRA 18:4)

MALKES, I.Ya.; CHUBINA, L.V.; NAGORNAYA, L.L.

Synthesis of 9-anthryl derivatives of ethylene. Zhur.org.khim. 1 no.3:587-589 Mr '65. (MIRA 18:4)

SHUBINA, L.V.; MALKES, L.Ya.

Synthesis of difunctional derivatives of 1,4-distyrylbenzene. Zhur. org. khim. 1 no.6:1040-1043 Je '65. (MIRA 18:7)

TSIRLIN, Yu.A.; SOKOLOVSKAYA, T.I.; NIKULINA, R.[illegible]; NAGORNAYA, L.L.; MALKES, L. Ya.; SHUBINA, L.V.

Plastic scintillator with a light yield proportional to the energy of the outer electrons. Zhur. prikl. spekt. 3 no. 6: 571-573 D '65 (MIRA 19:1)

1. Submitted November 2, 1964.

LUTSKIY, A.Ye.; LITVINENKO, L.M.; CHUBINA, I.V.; MALKES, I.Ya.; CHEPENKO, [illegible]; GOL'BERKOVA, A.S.; PANEVSKAYA, Z.M.

Interaction of substituents through aromatic rings [illegible] by a bridge group. Zhur.ob.khim. 35 no.12:2083-2090 D '65. (MIRA 19:1)

1. Khar'kovskiy politekhnicheskiy institut im. V.I.Lenina. Submitted May 28, 1964.

L 15958-66 EWT(m)/EWP(j)/T WW/RM

ACC NR: AP6001485 SOURCE CODE: UR/0368/65/003/006/0571/0573

AUTHOR: Tsirlin, Yu. A.; Sokolovskaya, T. I.; Nikulina, R. A.; Magornaya, L. L. Malkes, L. Ya.; Shubina, L. V.

ORG: None

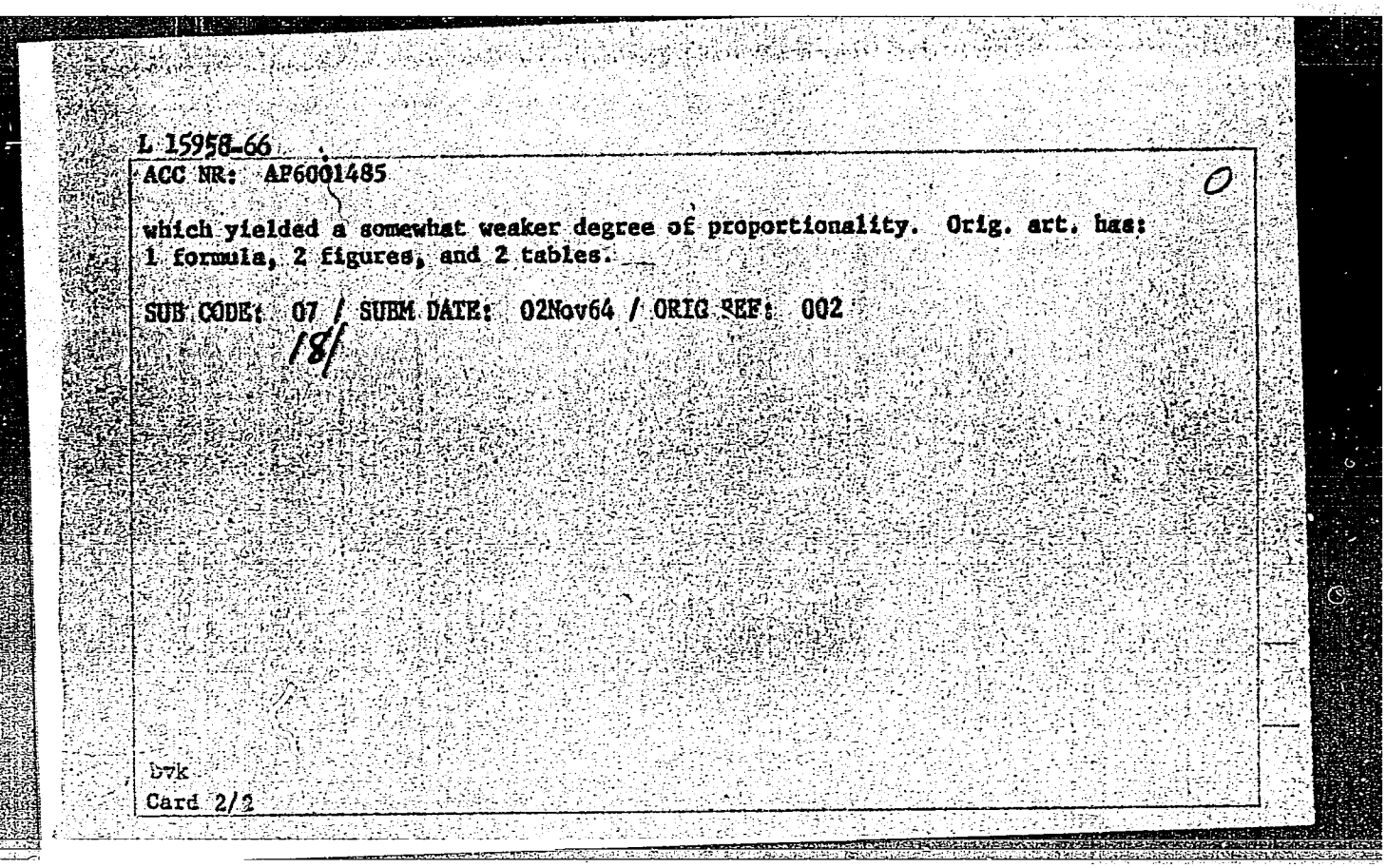
TITLE: Plastic scintillator with a light yield proportional to the energy of outer electrons

SOURCE: Zhurnal prikladnoy spektroskopii, v. 3, no. 6, 1965, 571-573

TOPIC TAGS: scintillation, polystyrene, vinyl plastic, electron emission

ABSTRACT: Earlier studies of plastic scintillators investigated the relationship between the light yield and the energy of inner (I. M. Rozman et al., PTE, 6, 27, 1960) and outer (Yu. A. Tsirlin et al., ZhPS, 3, 156, 1965) electrons. The present study attempts to establish the amount of additives (PBE, BPO, or PPP) which will result in the highest degree of proportionality defined as $(L/E)_{30\ kev}/(L/E)_{70kev} \cdot 100$ (L - light yield, E - incident energy). The polystyrene + 1% PBE showed the highest light yield in the 0—20 kev region and it was, at the same time, proportional to the energy of the outer electrons. It is thus very convenient for the detection of low energy electrons. The other base tested was polyvinylxylene

Card 1/2 UDC: 535.35



L 15958-66
ACC NR: AP6001485

which yielded a somewhat weaker degree of proportionality. Orig. art. has: 1 formula, 2 figures, and 2 tables.

SUB CODE: 07 / SUBM DATE: 02Nov64 / ORIG REF: 002

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Card 2/2

L 02421-67 EWT(m)/EWP(j)/T WW/RM/JW

ACC NR: AP6031380 SOURCE CODE: UR/0079/66/036/009/1601/1603

AUTHOR: Shimanskaya, N. P., Malkes, L. Ya.; Bezuglyy, V. D. 50 B

ORG: All Union Scientific Research Institute of Monocrystals, Scintillating Materials and High Purity Chemicals (Vsesoyuznyy naudno-issledovatel'skiy institut monokristallov, stsintillyatsionnykh materialov i osobo chistykh khimicheskikh veshchestv)

TITLE: Reaction rate of thermal decomposition of some azines

SOURCE: Zhurnal obshchey khimii, v. 36, no. 9, 1966, 1601-1603

TOPIC TAGS: [redacted], thermal decomposition, reaction rate [redacted], ORGANIC AZINE COMPOUND

ABSTRACT: Polarographic studies were made of the effect of the structure of azines (I) on the reaction rate constants of their thermal decomposition at 300C.

$$\underset{(I)}{R{-}CH{=}N{-}N{=}CH{-}R} \xrightarrow{t} R{-}CH{=}CH{-}R + N_2.$$

The results showed that the decomposition of azines is a first order reaction. Reaction. Reaction rate constants calculated for some azines from the experimental data are given in the table:

Card 1/2 UDC: 57.8524

ACC NR: AP6031380

Half-wave potentials of azines in 0.02N solution of $N(C_2H_5)_4I$ in 92% methanol and reaction rate constants of thermal decomposition of the azines at 300C

R in formula (I)	mp	$E_{1/2}$ (in V)	min^{-1}
$C_{10}H_7$-β	232°	−1.28, −1.74	$(9.35 \pm 0.37) \cdot 10^{-2}$
C_6H_5	95	−1.42, −2.12	$(5.35 \pm 0.26) \cdot 10^{-2}$
n-$CH_3OC_6H_4$	160	−1.48, −2.08	$(4.39 \pm 0.20) \cdot 10^{-2}$
n-$CH_3C_6H_4$	147	−1.59, −2.14	$(3.98 \pm 0.22) \cdot 10^{-2}$
n-$(CH_3)_2NC_6H_4$	247	−1.60, −2.20	$(3.73 \pm 0.18) \cdot 10^{-2}$

The rate constant of thermal decomposition of azines is linearly dependent on the half-wave potential and is independent of the azine molecular weight, as previously suggested. Orig. art. has: 1 table and 3 figures. [PS]

SUB CODE: 07/ SUBM DATE: 15Jan65/ ORIG REF: 001/ OTH REF: 002/

Card 2/2 hs

MAL'KEVICH, Anatoliy Vasil'yevich; RYVKIN, E.S., red.; TELYASHOV, R.Kh., red.izd-va; GVIRTS, V.L., tekhn. red.

[Programmed operation of electric furnaces for the testing of heat-resistant materials] Programmnaia rabota elektricheskikh pechei pri ispytanii zharoprochnykh materialov. Leningrad, 1963. 18 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obmen peredovym opytom. Seriia: Elektricheskie metody obrabotki materialov; metallovedenie i termicheskaia obrabotka, no.4) (MIRA 16:9)
(Electric furnaces) (Automatic control)

L 29958-65 EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(b) JD

ACCESSION NR: AR5003988 S/0277/64/000/010/0004/0004

SOURCE: Ref. zh. Mashinostroitel'nyye materialy, konstruktsii i raschet detaley mashin. Gidroprivod. Otd. vyp., Abs. 10.48.21

AUTHOR: Mal'kevich, A. V.

TITLE: Evaluation of cyclic strength of materials under varying temperature conditions

CITED SOURCE: Uch. zap. aspirantov i soiskateley. Leningr. politekhn. in-t. Mashinostroyeniye. L., 1963, 44-50

TOPIC TAGS: stress calculation, temperature dependence, cyclic strength, fatigue strength, metal fatigue strength

TRANSLATION: A method is proposed for calculation of cyclic stresses on parts working under nonstationary temperature conditions. The permissible stress is calculated with coefficients of relative efficiency. These coefficients are determined on the basis of experimental data by formulas adduced in the article which are derived for a family of typical temperature conditions. The formulas are

Card 1/2

L 29958-65

ACCESSION NR: AR5003988

derived from the assumption that there is a linear relationship between the results of fatigue experiments for a determined temperature interval in log sigma-log N coordinates with constant t and log-t-log N at constant sigma. The method of calculation makes it possible to take into consideration the difference between real temperature conditions and typical laboratory conditions. A. Usov.

SUB CODE: AS ENCL: 00

Card 2/2

L 33320-65 EWT(d)/EWT(m)/EWP(w)/EWA(d)/EWP(v)/T/EWP(t)/[illegible] EM/MJW/JD/HW

ACCESSION NR: AP5004234 S/0145/64/000/012/0039/0048

AUTHORS: Mal'kevich, A. V. (Aspirant); Marinets, T. K. (Candidate of technical sciences, Docent); Rakhman, B. M. (Engineer)

TITLE: Effect of changing temperature regimes on fatigue strength

SOURCE: IVUZ. Mashinostroyeniye, no. 12, 1964, 39-48

TOPIC TAGS: fatigue strength, fatigue life, nickel alloy, steel/ EI 661 alloy, EI 572 steel, EI 415 steel, UKT 3000 testing machine

ABSTRACT: The fatigue strength of heat-resistant nickel alloy EI-661 in the temperature region 800-950C was investigated using heat-treated (10 hours at 1200C, 5 hrs at 1050C, air-cooled) cylindrical specimens in a fatigue testing machine (type UKT-3000) at 2860 cycles/minute. The fatigue curves were obtained for constant temperatures of 800, 900 and 950C and for temperature cycling conditions a, b, c, and d in Fig. 1 on the Enclosure, where the heating and cooling rate was 12.5 degrees/minute in all cases. The results are shown graphically. These data as well as data on alloys EI-572 and EI-415 were also replotted in temperature-cycle coordinates. Fatigue data at different temperatures can be used to calculate a coefficient of cumulative damage for parts operating under changing temperature conditions:

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L 33320-65
ACCESSION NR: AP5004234

$A = \sum_{i=1}^{n} \frac{t_i}{\tau_i}$, where t_1 - operating time at some stress and temperature, τ_i - time for failure under these temperature and stress conditions. To simplify the calculation of A, equations for A were derived for different temperature cycle profiles (rectangular, multiple steps, saw-tooth, triangular and trapezoidal) based on the fact that the fatigue curves in logaritmic stress-cycle and temperature-cycle coordinates are very nearly linear. Orig. art. has: 3 tables, 1 formula, and 6 figures.

ASSOCIATION: Leningradskiy politekhnicheskiy institut (Leningrad Polytechnical Institute)

SUBMITTED: 00 ENCL: 01 SUB CODE: MM

NO REF SOV: 002 OTHER: 000

Card 2/3

0

L 33320-65
ACCESSION NR: AP5004234

ENCLOSURE: 01

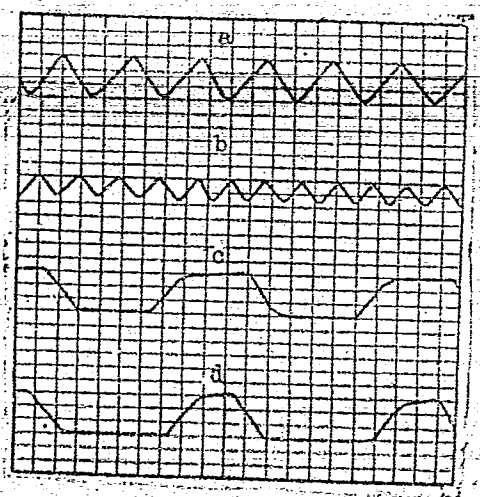

Fig. 1. Temperature profiles for fatigue testing of alloy EI-661 a - triangular cycle 800 ± 100C; b - triangular 900 ± 50C; c - trapezoidal 850 ± 50C, $n_{max}/n_{min} = 1$; d - trapezoidal 850 ± 50C, $n_{max}/n_{min} = 3$

Card 3/3

L 27818-65 EWT(d)/EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(b) MJW/JD/EM

ACCESSION NR: AT5003066 S/2563/64/000/236/0047/0053

27
16
B+1

AUTHOR: Lebedev, T.A.; Marinets, T.K.; Mal'kevich, A.V.

TITLE: Evaluating the strength of metals working under unstable thermal regimes

SOURCE: Leningrad. Politekhnicheskiy institut. Trudy, no. 236, 1964. Konstruktsii i raschety mashin (Designing of machinery), 47-53

TOPIC TAGS: work capacity, metal strength, metal failure, triangular heat cycle, cyclic strength test

14

ABSTRACT: Evaluation of individual contributions to the loss in work capacity of materials is based on the assumptions that: 1. these losses at individual temperature levels are independent; 2. the time to failure is independent of the number of cycles; 3. damage to the material accumulates gradually; 4. within a definite temperature range there is a linear dependence between: a. stress and time to failure for a constant temperature, and b. temperature and time to failure for a constant stress. EI661 alloy was subjected to cyclic strength testing at constant temperatures of 800 and 900C and under a continuous temperature change over a 16-minute triangular cycle in the 800-900C range. There was a 15% variance between experimental and calculated data.

Card 1/2

L 27818-65

ACCESSION NR: AT5003066

Other comparisons made with EI661, EI415 and EI572 alloys did not vary by more than 20%. A mathematical development is given for determining loss in strength taking into account differences between typical and actual temperature regimes. It is recommended that preliminary strength calculations be made by evaluating individual units of loss in work capacity during the period of a single deviation of temperature from normal. Refinement of strength calculations must be made by calculating stresses cited using experimental values for the coefficient of relative work capacity. Orig. art. has: 13 formulas, 1 table and 2 figures.

ASSOCIATION: Leningradskiy politekhnicheskiy institut imeni M.I. Kalinina (Leningrad polytechnic institute)

SUBMITTED: 00 ENCL: 00 SUB CODE: MM

NO REF SOV: 001 OTHER: 001

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EWT(m)/EWP(w)/EWA(d)/T/EWP(t) IJP(c) JD/HW/GS

ACC NR: AT6008673 (N) SOURCE CODE: UR/0000/65/000/000/0277/0285

AUTHORS: Lebedev, T. A. (Leningrad); Marinets, T. K. (Kiev); Mal'kevich, A. V. (Kiev)

ORG: none

TITLE: Cyclic strength of some heat-resistant materials under variable temperature regimes

SOURCE: Vsesoyuznoye soveshchaniye po voprosam staticheskoy i dinamicheskoy prochnosti materialov i konstruktsionnykh elementov pri vysokikh i nizkikh temperaturakh, 3d. Termoprochnost' materialov i konstruktsionnykh elementov (Thermal strength of materials and construction elements); materialy soveshchaniya. Kiev, Naukova dumka, 1965, 277-285

TOPIC TAGS: stress analysis, cyclic test, high temperature material, steel, thermal stress, fatigue test/ EI415 steel, EI572 steel, EI661 alloy, UKT-3000 testing machine, LPI-regulator

ABSTRACT: The cyclic strengths of three alloys were determined under variable temperature conditions. The alloys were: a pearlite EI415, an austenite EI572, and a nickel-base alloy EI661. The fatigue tests were made on a UKT-3000 type force-field rotating machine. A total of 7 different types of variable heat inputs were used. These consisted of sinusoidal, triangular, trapezoidal, and other temperature pulses. The fatigue life of all three specimens was measured quantitatively according to the

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L 23038-66
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formulae

$$N\sigma^m = \text{const, at} \quad t = \text{const,}$$
$$Nt^p = \text{const, at} \quad \sigma = \text{const.}$$

Log σ versus log N, and log t versus log N curves were obtained for all three specimens over a temperature range of 300--800C. The results show that the strength of these heat-resistant materials under cyclic loading depends first on the nature and intensity of structural changes in the metal during the test and, second, on the duration of the thermal stresses. The largest effect of the variable temperature parameters on the fatigue strength of the metals was observed in the temperature regime where noticeable structural processes were absent. Orig. art. has: 4 tables, 2 formulas, and 1 figure.

SUB CODE: 11, 13/ SUBM DATE: 19Aug65

Card 2/2 LC

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The manuscript inheritance of Academician S.I. Vavilov. Trudy Inst.ist.est.i tekh. 17:154-155 '57. (MIRA 10:7)
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(HYPOTENSION, physiol.
vestibular appar., funct. changes (Rus))
(HYPERTENSION, physiol.
same (Rus))
(VESTIBULAR APPARATUS, physiol.
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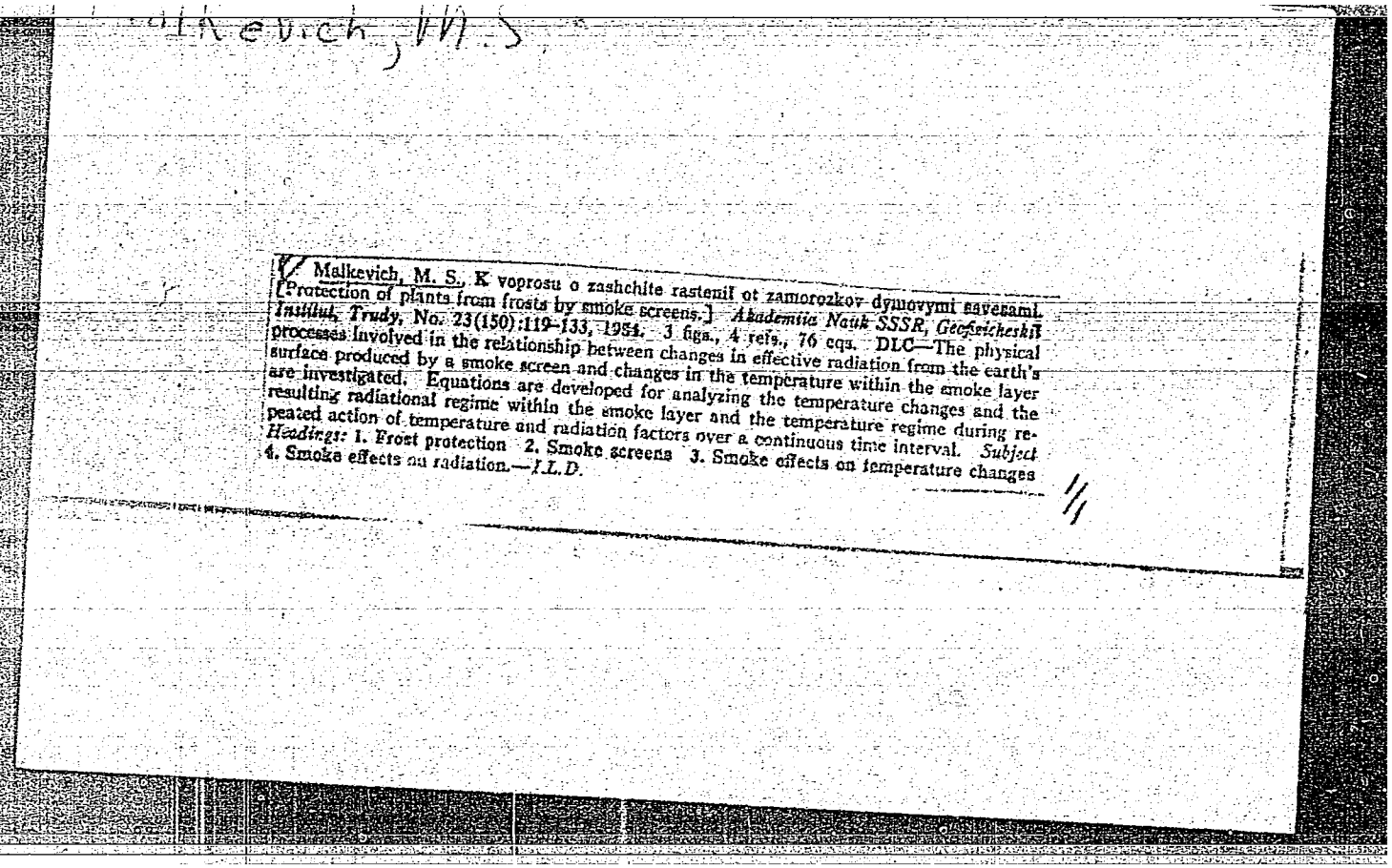

Malkevich, M. S., K voprosu o zashchite rastenii ot zamorozkov dymovymi zavesami. [Protection of plants from frosts by smoke screens.] *Akademiia Nauk SSSR, Geofizicheskii Institut, Trudy*, No. 23(150):119–133, 1954. 3 figs., 4 refs., 76 eqs. DLC—The physical processes involved in the relationship between changes in effective radiation from the earth's surface produced by a smoke screen and changes in the temperature within the smoke layer are investigated. Equations are developed for analyzing the temperature changes and the resulting radiational regime within the smoke layer and the temperature regime during repeated action of temperature and radiation factors over a continuous time interval. *Subject Headings:* 1. Frost protection 2. Smoke screens 3. Smoke effects on temperature changes 4. Smoke effects on radiation.—*I.L.D.*

MALKEVICH, M. S.

USSR/Geophysics - Physics of the Atmosphere FD-1719

Card 1/1 : Pub. 45-7/12

Author : Malkevich, M. S.

Title : On the vertical distribution of temperature in the atmosphere

Periodical : Izv. AN SSSR, Ser. geofiz., 166-177, Mar-Apr 1955

Abstract : The author examines the theoretical distribution of temperature in the atmosphere according to altitude, taking into account vertical agitation and radiant heat exchange. Aqueous steam, whose distribution was taken from observations, is an absorbing substance. The author calculates the selectivity of the absorption of radiation by aqueous steam. He derives and solves the integral equation for the vertical gradient of the temperature and determines the temperature of the upper boundary of the atmosphere.

Institution : Geophysical Institute, Academy of Sciences USSR

Submitted : March 20, 1954