

ACC NR: AP6035904

SOURCE CODE: UR/0413/66/000/020/0145/0145

INVENTOR: Toybuk, B. S.; Petrov-Onegin, V. I.; Fovolotskiy, E. L.; Yurovskiy, V. S.;  
Komarnitskiy-Kuznetsov, V. K.; Sapershteyn, B. D.

ORG: none

TITLE: Device for studying elastic seals. Class 42, No. 187379 /announced by the  
Scientific Research Institute of the Rubber Industry (Nauchno-issledovatel'skiy  
institut rezinovoy promyshlennosti)

SOURCE: Izobreteniya, promyshlennyye obratzyy, tovarnyye znaki, no. 20, 1966, 145

TOPIC TAGS: hermetic seal, sealing device, seal test device, test facility, test  
method

ABSTRACT: An Author Certificate has been issued for a device for studying elastic  
seals, which includes a transparent shaft and a device for fastening the test parts  
onto it. To study the behavior of the elastic-seal surface in contact with the shaft,  
the shaft is made hollow, with a conical inner surface (coaxial with its outer sur-  
face), and contains a light source. In order to record the behavior of the elastic-  
seal surface in contact with the shaft, it is equipped with a motion-picture camera.  
Orig. art. has: 1 figure. [WA-98]

SUB CODE: 13/ SUBM DATE: 24Jun65/

Cord 1/1

UDC: 678.06-762 678.05.016 620:162

SAPERSHTEYN, E.Ye.; TROITSKIY, M.A.

Mass differences of near-to-magic nuclei. IAd. fiz. 1 no.3:400-406  
Mr '65. (MIRA 18:5)

L 11953-66 EWT(1)/EWT(m) DIAAF/LJP(c)

ACC NR: AP6001148

SOURCE CODE: UR/0367/65/002/003/0433/0435

AUTHOR: <sup>44,55</sup> Sapershteyn, E. Ye.; <sup>44,55</sup> Khodel', V. A.

49  
40  
B

ORG: None

TITLE: On the calculation of the magnetic moments of spherical nuclei <sup>44,55</sup>

SOURCE: Yadernaya fizika, v. 2, no. 3, 1965, 433-435

TOPIC TAGS: nuclear magnetic moment, particle interaction, proton interaction

ABSTRACT: The method of interacting quasi particles permits a quantitative determination of the magnetic moments of spherical particles. However, in some cases there is a discrepancy between the calculated and the experimental values owing to an inexact calculation of the interaction of neutrons and protons in the unfilled subshells. The case of two types of particles in unfilled subshells is considered in the simplest case, i. e., when in the unfilled levels there is a single proton (neutron) at level  $\gamma_1$  and one to two pairs of neutrons (protons) at level  $\gamma_2$ . The expression for the magnetic moment of such a system is

$$\mu = \mu_0 - \gamma \lambda (\sigma_z + \sigma_n n_z)_{\lambda, \lambda_0} - C \beta,$$

The difference  $\mu_{\text{exp}} - \mu_0$  ( $\mu_0$  being the experimental value) is shown to be negative for protons

L 11953-66

ACC NR: AP6001148

and positive for neutrons; this is confirmed by experimental data for K<sup>41</sup>, Cr<sup>53</sup>, Nb<sup>93</sup>, Mo<sup>97</sup> and Cd<sup>111</sup>. In conclusion, the authors thank <sup>44, 55</sup>A. B. Migdal, <sup>44, 55</sup>A. A. Lushnikov, and M. A. Troitsky for useful discussions. Orig. art. has: 1 table and 6 formulas.

SUB CODE: 20/ SUBM DATE: 04Dec64/ ORIG REF: 002/ OTH REF: 003

*beh*  
2/2

124-58-9-10473

Translation from: Referativnyy zhurnal, Mekhanika, 1958, Nr 9, p 150 (USSR)

AUTHOR: Sapershteyn, N. D.

TITLE: On the Determination of the Deflections of Thin Bars in Problems of the Theory of Stability (K voprosu ob opredelenii progibov tonkikh sterzhney v zadachakh teorii ustoychivosti)

PERIODICAL: Tr. Leningr. voyen. -mekhan. in-ta, 1956, Nr 5, pp 30-40

ABSTRACT: The method of successive approximation is employed for the approximate determination of the deflections of beams under forces that exceed slightly the first critical value. Here the first fundamental function of the corresponding linear problem, which is given with a first-order degree of accuracy, is assumed as a first approximation. This method serves in an attempt to estimate the magnitude and character of the hypercritical deformations of a constant-section beam, pin-joint supported at its ends, that is subjected to torsion.

1. Bars--Deflection 2. Bars--Stability 3. Bars--Mathematical analysis  
V. V. Bolotin

Card 1/1

KONORSKIY, B., prof.; SAVYUK, V., inzh. (Krayova, Rumyniya); CHAKI, F.,  
kand. tekhn. nauk (Budapesht, Vengriya); GRESHNYAKOV, V.M., inzh.;  
MODEROV, A.A., inzh.; SAPOZHNIKOV, R.A., doktor tekhn. nauk, prof.;  
SAPERSHTEYN, N.D., kand. fiz.-mat. nauk; BOGATYREV, O.M., kand.  
tekhn. nauk (Moscow).

Modification of the Heaviside formula. Elektrichestvo no.3:86-88  
Mr '58. (MIRA 11:5)

1. Lodzinskiy politekhnicheskiy institut, Pol'sha (for Konorskiy).
2. Leningradskiy politekhnicheskiy institut imeni Kalinina (for  
Greshnyakov, Moderov).
3. Leningradskiy voyenno-mekhanicheskiy  
institut (for Sapozhnikov, Sapershteyn).  
(Electric engineering)

SAPERSKI, Marek, (Szczecin)

Conference on use of epoxy resins in ship repair. Bud okretowe  
Warszawa 9 no. 9:328 3 '64.

ZHELEZNOV, A.A.; SAPERSON, E.I.

Stratigraphy of Paleogene sediments in the Karashor Depression.  
Trudy VSEGEI 46:261-270 '61. (MIRA 14:11)  
(Turkmenistan--Foraminifera, Fossil)



SAPERSON, E.I.; ZHELEZNOV, A.A.

Breakdown of the Paleocene and Eocene of northern Turkmenistan.  
Dokl. AN SSSR 144 no. 4: 893-895 Je '62. (MIRA 15:5)

1. Vsesoyuznyy nauchno-issledovatel'skiy geologicheskii institut.  
Predstavleno akademikom D.V. Nalivkinym.  
(Turkmenistan, Geology, Stratigraphic)

BUGRCVA, B.M.; ZAKHAROVA, M.G.; SAPERSON, E.I.; TRACHUK, M.A.

Upper Paleocene and Lower Eocene complexes of Foraminifera in  
Turkmenistan. Trudy VSEGEI 109:178-186 '63. (MIRA 17:7)

GAFERSON, E.I.; BUGROVA, E.I.

Stratigraphic analogues in the Kerestinskiy horizon in the  
Eocene of Turkmenistan. Trudy VSEGEI 109:187-193 '63.  
(MIRA 17:7)

AYNEMER, A.I.; ZHELUBOVSKAYA, N.Yu.; LIKHACHEVA, A.A.; SAPIHSON, E.I.

Stratigraphic division and lithological characteristics of a section of a structural-profile well, drilled at the Cheshme hills (central Lower Kara Kum). Trudy VSEGEI 109:302-319 '63.  
(MIRA 17:7)

BUGROVA, E.M.; SAPERSON, E.I.

Stratigraphic analogues of the Keresta horizon in the Eocene  
of Turkmenia. Trudy Len. ob-va est. 74 no. 1:22-23 '63.  
(MIRA 17:9)

BUGROVA, E.M.; SAPERSON, E.I.

Basic characteristics of the distribution of the Eocene Foraminifera  
complexes in Turkmenia. Trudy VSEGEI 102:259-271 '64. (MIRA 18:2)

СТЕПАН, Ю. Д.  
SAPERSON, Yu.D., inzh.; KALENDAROV, M.A., inzh.

Determining the degree of prestretching in prestressed concrete  
reinforcements for reef shells. *Biul.tekh.inform.* 3 no.2:14-15  
P '57. (MIRA 10:10)

(Prestressed concrete)

SAPERSON, Yu.D., inzh.

Standardizing the units of forms. Biul. tekhn. inform. po  
stroit. 5 no.5:20-21 My '59. (MIRA 12:8)  
(Concrete construction--Formwork)



SPIVAKOV, M.S., inzh.; SAPERSON, Yu.D.

Devices for mechanizing earthwork and hoisting operations.  
Biul.tekh.inform.po stroi. 5 no.8:11-14 Ag '59.

(MIRA 12:11)

(Excavating machinery--Equipment and supplies)  
(Hoisting machinery)

DUREK, Andrzej; SAPETA, Mieczyslaw

Certain problems concerning the export of machine industry units,  
Probl proj hut maszyn ll no.3:90-94 Mr '63.

1. Prozamet, Gliwice.

SAPSTIN, A.I.; OBYASIN, G.N.

Effect of the nonlinearity of a sweep on the reading error in oscillographic measurements. Geofiz. prib. no.20:83-87 '64. (MIRA 18:9)

1. Leningradskiy institut tochnoy mekhaniki i optiki.

SAPETIN, Ya.V.; SHEVAREVA, T.P.

Distribution of ducks and coots nesting in the U.S.S.R. in  
different wintering places. Ornitologia no.2:271-275 '59.  
(MIRA 14:7)

(Ducks) (Coots)

PRIKLONSKIY, S.G.; SAPETIN, Ya.V.

Results of the rook banding in Ryazan Province. Trudy OGO  
no.4:300-325 '62. (MIRA 17:9)

SHEVAREVA, T.P.; SAPETIN, Ya.V.

Population of bank swallows in the Oka Valley based on the  
birdbanding data. Trudy OGZ no.4:337-348 '62.

(MIRA 17:9)

SAPETIN, Ya.V.

Materials on the abundance and biology of diving birds as a basis  
for efficient organization of game management in the central  
provinces. Ornitologiya no.2:228-247 '59. (MIRA 14:7)  
(Oka Preserve--Divers (Birds)) (Duck shooting)

SAPETIN, Ya.V.

Some results of the birdbanding of gressorial birds in the flooded  
areas of the eastern Azov region. Trudy OGZ no.4:225-249 '62.  
(MIRA 17:9)



PRIKLONSKIY, S.G.; BIANKI, V.V.; KARPOVICH, V.N.; KISELEV, Yu.N.; SAPETINA,  
I.M.; SAPETIN, Ya.V.

Catching birds by automatic live traps. Trudy OGZ no.4:402-424  
'62. (MIRA 17:9)

PRIKLONSKIY, S.G.; NEKRASOV, B.V.; SAPETIN, Ya.V.; SAPETINA, I.M.

Comparative characteristics of the spring flight of corvine birds  
(family Corvidae) in some places of the central Volga basin in 1957.  
Trudy OGZ no.4:287-299 '62. (MIRA 17:9)

SAPETINA, I.M., nauchnyy sotrudnik

Where do the starlings migrate? IUn. nat. no.3;20-21 Mr '61.  
(MIRA 14:3)

1. Okskiy gosudarstvennyy zapovednik  
(Birdbanding) (Starlings)

SAPETINA, I.M., nauchnyy sotrudnik

Why do they band the birds? IUn. nat. no.12:30 D '61.

(MIRA 15:1)

1. TSentral'naya ornitologicheskaya stantsiya pri Okskom zapovednike.  
(Birdbanding)

SAPETINA, I.M.

Results of the observations on spring flight of the lapwing  
(*Vanellus vanellus* L.) at the field stations of the central  
Volga basin. Trudy OGZ no.4:177-183 '62.

Results of the triennial birdbanding of the black-headed gull  
(*Larus ridibundus* L.) in Ivanovo and Ryazan Provinces. Ibid.:  
193-2241 (MIRA 17:9)

PRIKLONSKIY, S.G.; NEKRASOV, B.V.; SAPETIN, Ya.V.; SAPETINA, I.M.

Comparative characteristics of the spring flight of corvine birds  
(family Corvidae) in some places of the central Volga basin in 1957.  
Trudy OGZ no.4:287-299 '62. (MIRA 17:9)

SAPETINA, I.M.

Results of the bullfinch (*Pyrrhula pyrrhula* L.) banding in the U.S.S.R.  
Trudy OGZ no.4:327-336 '62. (MIRA 17:9)

PRIKLONSKIY, S.G.; BIANKI, V.V.; KARPOVICH, V.N.; KISELEV, Yu.N.; SAPIETINA,  
I.M.; SAPIETIN, Ya.V.

Catching birds by automatic live traps. Trudy OGZ no.4:402-424  
'62. (MIRA 17:9)



SAVINKOVA, Ye.I.; LUR'I, I.S.; YANKOVSKIY, V.R.; Prinimali uchastiye:  
TASHKINOVA, L.V.; ANDREYEVA, R.A.; SAPEVINA, T.G.;  
PLOKHOTNIKOVA, S.P.

Graphical calculation of crystallization of potassium  
chloride according to the stages of a vacuum crystallizer.  
Zhur. prikl. khim. 36 no.11:2544-2547 N '63. (MIRA 17:1)

1. Ural'skiy politekhnicheskiy institut imeni Kirova i  
Bereznikovskiy kaliynyy kombinat.

SAPEZHINSKAYA, N. V.

Mbr., Dept. Pharmacology, All-Union Chemico-Pharmaceutical Inst. I. M. S. Ordzhonikidze, Moscow, -1941-. "A Contribution to the Pharmacology of Medicinal Plants," Farmakol. i. Toksikol., 4, No. 1, 1941.

SAPEZHINSKAYA, N. V.

Mbr., Dept. Pharmacology, All-Union Sci. Res. Chemico-Pharmaceutical Inst. M. S. Ordzhonikidze, Moscow, -1942-. "To the Pharmacology of the Extract from *Lycoperdon Giganteum*," *Farmakol. i Toksikol.*, 5, Nos. 1-2, 1942; "Nicotinic Acid and Convulsive Poisons," *ibid.*, 10, No. 3, 1947.

Sapezhinskaya, N. V.

1A 14T31

USSR/Medicine - Poisons and Poisoning May/June 1947  
Medicine - Nicotinic acid

"Nicotinic Acid and Convulsive Poisons," N. V. Sapezhinskaya, 4 pp

"Farmakol i Toksikol" Vol X, No 3

It is concluded that nicotinic acid hastens the appearance of convulsions in mice, rats, guinea pigs, rabbits, and frogs when strychnine, Eleagnin, and Korazol are injected under the skin and via the mouth, that nicotinic acid raises the capacity of the mucous stomach of frogs to absorb strychnine; and that nicotinic acid intensifies the reaction of animals to injections of strychnine, Eleagnin, and Korazol with subsequent fatal effects.

14T31

SAPEZHINSKAYA, N.V.

Combined effect of soporific substances and substances stimulating  
the central nervous system with vegetative toxins and vitamins. Tr.  
Vsesoius. obsh. fiziol. no. 1:121-122 1952. (GLML 24:1)

1. Delivered 27 January 1950, Moscow.

BABICHEV, V.A., dots.; PYKHTINA, A.A., dots.; KOVALEV, I. Ye.,  
assistant; LAKIN, K.M., assistant; TOLVINSKAYA, L.S.,  
assistant; SAPEZHINSKAYA, N.V., assistant; SERGEYEV,  
P.V., assistant; VASIL'YEVA, V.V., doktor med. nauk,  
prof., red.; VISHNEVETSKAYA, L.B., tekhn. red.

[Laboratory manual in pharmacology and general pre-  
scription writing] Rukovodstvo k prakticheskim zania-  
tiam po farmakologii i obshchei retsepture. Moskva,  
1962. 79 p. (MIRA 16:4)

1. Moscow. Vtoroy Moskovskiy meditsinskiy institut.  
(PHARMACOLOGY--LABORATORY MANUALS)  
(PRESCRIPTION WRITING)

SAPEZHINSKIY, I. I.

"The Biochemical Importance of the Metastable States of  
Proteins and Nucleic Acids."

report submitted for the 5th Intl. Congress of Biochemistry,  
Moscow, 10-16 August 1961.

811421

S/020/60/132/06/61/068  
B011/B003

216300

**AUTHORS:**

Sapezhinskiy, I. I., Emanuel', N. M., Corresponding  
Member AS USSR

**TITLE:**

Energy Levels of Metastable States of Biological Objects  
and the Mechanism Underlying the Action of Certain  
Protective Substances Against Radiation /9

**PERIODICAL:**

Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 6,  
pp. 1441 - 1443

**TEXT:** In a previous paper (Ref. 1) the authors proved that  $\gamma$ -radiation produces metastable states in protein, ribonucleic acid (RNA), and deoxyribonucleic acid (DNA). These are similar to those formed by photo-excitation of the most important components of the cell. The authors studied the phosphorescence spectra (at 77°K) of several substances, and described the experiments with protein, DNA, and RNA. Further, they took spectra of homogenates of some organs of mice and the phosphorescence spectra of several protective substances against radiation. Fig. 1 compares the spectra of a 1% solution of ovalbumin, a 0.01% solution of

Card 1/3



81421

Energy Levels of Metastable States of Biological S/020/60/132/06/61/068  
Objects and the Mechanism Underlying the Action B011/B003  
of Certain Protective Substances Against Radiation

the ribonucleic acid of yeast, and of a 0.01% solution of DNA from the thymus of the calf. The agreement of the triplet levels of RNA and DNA with the two triplet levels of protein, liver, and milt homogenates might be of fundamental importance. This is indicative of a mutual energy transfer between protein and nucleic acids. The triplet level of DNA is the lowest in the system under review. For this reason, DNA is probably damaged by radiation if energy is transferred from other chemical components of the cell to DNA. Following this, the authors took spectra of 0.1% of aqueous solutions of the following protective substances against radiation:  $\beta$ -mercaptoethylamine,  $\beta$ -aminoethylisothiuronium, tryptamine, serotonin, histamine, epinine, propylgallate, and isopropylgallate (Table 1). It may be seen from Table 1 that wavelengths corresponding to the phosphorescence maxima of DNA, the protective substances against radiation, and the propyl esters of gallic acid are in close agreement with one another. The energy transfer from triplet levels of DNA to the triplet levels of the protective substances is very likely in this case. Therefore, the damage of DNA must be considerably reduced. One molecule of the protective substance passes from

Card 2/3

81421

Energy Levels of Metastable States of Biological S/O20/60/132/06/61/068  
Objects and the Mechanism Underlying the Action B011/B003  
of Certain Protective Substances Against Radiation

the singlet level to the triplet level. The interrelation between the energy levels of protein, RNA, DNA, and one of the protective substances ( $\beta$ -mercaptoethylamine) is schematically shown in Fig. 2. The mechanism underlying the action of inhibitors of free radical reactions must be studied further. This mechanism may be regarded as an interaction between free valences of the biradical and the inhibitors. Consequently, a small amount of active radicals of the inhibitor might form. If propylgallate is introduced into a protein solution, the lifetime  $\tau$  of the metastable states is considerably reduced. The protein loses its phosphorescence, and  $\tau$  is shortened by one-half or one-third. There are 2 figures, 1 table, and 6 references: 3 Soviet, 1 Swiss, and 1 German.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences, USSR)

SUBMITTED: February 16, 1960

Card 3/3

SAPEZHINSKIY, I.I.; POSTNIKOVA, M.S.; EMANUEL', N.M.

Interaction between the radicals of irradiated protein and alkyl phenols. Dokl. AN SSSR 148 no.5:1207-1209 F '63. (MIRA 16:3)

1. Institut khimicheskoy fiziki AN SSSR. 2. Chlen-korrespondent AN SSSR (for Emanuel').  
(Phenols) (Proteins) (Radiation--Physiological effect)

SAPEZHINSKIY, I.I.; SILAYEV, Yu.V.; EMANUEL', N.M.

Reaction of radicals from irradiated protein and polymethyl  
methacrylate with oxygen and alkyl phenols. Dokl. AN SSSR 151  
no.3:584-586 J1 '63. (MIRA 16:9)

1. Institut khimicheskoy fiziki AN SSSR. 2. Chlen-korrespondent  
AN SSSR (for Emanuel').  
(Radicals (Chemistry)) (Proteins--Spectra) (Radiation)

SAPEZHINSKIY, I.I.; SILAYEV, Yu.V.; EMANUEL', N.M.

Long afterglow in aqueous solutions of proteins and synthetic  
polymers irradiated by X rays. Dokl. AN SSSR 159 no.6:1378-1380  
D '64 (MIRA 18:1)

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

L 58524-65 EWG(j)/EWT(m)

ACCESSION NR: AP5014857

UR/0020/65/162/003/0691/0693

AUTHOR: Sapezhinskiy, I. I.; Silayev, Yu. V.; Sisakyan, N. M.

TITLE: Effect of radioprotective agents on protracted afterglow of irradiated serum albumin solutions

SOURCE: AN SSSR. Doklady, v. 162, no. 3, 1965, 691-693

TOPIC TAGS: radioprotective agent, serum protein, mercury lamp, radiobiology, cysteine, ultraviolet irradiation

ABSTRACT: Using a continuous-flow apparatus, the authors studied the effect of various kinds of radioprotective agents on the kinetics of the protracted afterglow produced when solutions of serum albumin in phosphate buffer are irradiated with a PRK-4 mercury lamp. Intensity of luminescence decreased sharply when oxygen was removed from the solution. Addition of cysteine after irradiation increased the rate of change in intensity of the afterglow. The magnitude of the effects noted were characterized by the ratio  $K/K_0$  and parameter  $\alpha = (K - K_0) K_0$ , (where  $K_0$  is the constant of the rate of protracted afterglow and  $K$  is the rate with the addition of a radioprotective agent). The constant increased linearly with an increase in concentration of cysteine and of the inhibitors of free-radical processes, viz.,

Card 1/2

L 58524-65

ACCESSION NR: AP5014857

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2,6-di-*tert*-butyl-4 $\alpha$ -aminoethylphenol and 2-propyl-6-methyl-3-hydroxypyridine. The values of  $\alpha$  were determined for 13 substances with a protein concentration of 0.133% in phosphate buffer, pH 7, at 25°. Other protective agents studied included reduced glutathion, 8-mercaptoethylamine, thiourea, propylgallate, sodium thiosulfate, aniline, sodium sulfite, ascorbic acid, glucose, and hydroxylamine (all in a concentration of  $3.3 \cdot 10^{-3}$  m/liter). Those with marked protective action (the sulfur-containing substances, phenol type) had the most potent effect on the kinetics of protracted afterglow. The effect was even more pronounced when they were used prior to irradiation. "In conclusion, the authors thank N. M. Emanyel' for discussion of the work." Orig. art. has: 4 figures, 1 table.

ASSOCIATION: Institut khimicheskoy fiziki, Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences, SSSR)

SUBMITTED: 03Jun64

ENCL: 00

SUB CODE: LS

NO REF SOV: 007

OTHER: 004

*bjp*  
Card 2/2

SAPEZHINSKIY, I.I.; SILAYEV, Yu.V.; EMANUEL', N.M.

Studying the recombination of free radicals of irradiated protein and polymethylmetacrylic acid by the electron paramagnetic resonance and chemiluminescent method. Trudy MOIP. Otd. biol. 21:102-106 '65. (MIRA 18:6)



SAPEZHINSKIY, I.I.; SILAYEV, Yu.V.

Development of luminescence under the action of glacial acetic  
acid on serum albumin. Trudy MOIP. Otd. biol. 21:117-118 '65.  
(MIRA 18:6)

SÁPEZHINSKIY, I.I.; EMANUEL', N.M.

Effect of some radioprotective substances on the afterglow  
of serum albumin solutions. Trudy MOIP. Otd. Biol. 21:  
122-124 '65.

(MIRA 18:6)

SAPEZHINSKIY, I.I.; SILAYEV, Yu.V.; DONTSOVA, Ye.G.

Mechanism of the prolonged afterluminescence of serum albumin solutions, irradiated with ultraviolet rays. *Biofizika* 10 no.3:429-432. '65. (MIRA 18:11)

1. Institut khimicheskoy fiziki AN SSSR, Moskva. Submitted May 5, 1964.

L 11623-66

EWT(m)/EWP(j) DIAAF/RPL RM

ACC NR: AP6001730

SOURCE CODE: UR/0020/65/165/004/0845/0847

AUTHOR: <sup>44,55</sup> Sapezhinskiy, I. I.; <sup>44,55</sup> Emanuel', N. M. (Corresponding Member AN SSSR)

58  
B

ORG: <sup>44,55</sup> Institute of Chemical Physics of the Academy of Sciences SSSR (Institut khimicheskoy fiziki Akademii nauk SSSR)

TITLE: <sup>19</sup> Mechanism of irradiated protein radical recombination in the presence of oxygen

SOURCE: AN SSSR. Doklady, v. 165, no. 4, 1965, 845-847

TOPIC TAGS: protein, gamma irradiation, oxidative reduction reaction, reaction mechanism, free radical, microwave spectroscopy

ABSTRACT: Oxygen consumption of irradiated proteins and loss of radicals were investigated in casein and bovine <sup>7</sup>serum albumin to test the hypothesis that irradiated protein radical recombination takes place according to an oxidative recombination chain reaction. The initial number of radicals and the kinetics of their loss were measured by an EPR-2 1KhF microwave spectrometer. Oxygen consumption was measured by a capillary microrespirator. Measurements were made over a 24-hr period to determine total oxygen consumption and radical losses. The proteins were gamma-irradiated (GUT-60-400, 20 to 50 Mrads

Card 1/3

UDC: 541.515/517.062

L 11623-66

ACC NR: AP6001730

doses) in a sealed microrespirator. A figure shows typical curves for oxygen consumption and radical losses in irradiated casein and bovine serum albumin (see Fig. 1). The values for oxygen consumption and radical losses are for 1 g of protein. It is evident that with the entry of oxygen into the system, the number of radicals is reduced and oxygen is consumed. The rates of these processes are highest at the beginning and gradually decrease. Total time for radical losses and oxygen consumption was 15 to 20 hr, with the quantity of oxygen consumed greater than the number of radicals recombined during the same period. On the basis of these data "chain length" may be calculated. The present data indicate that irradiated protein radical recombination in the presence of oxygen can take place according to an oxidative recombination chain mechanism, but further quantitative research on yield of peroxides, carbonyl groups, and hydroxy groups for a radical of irradiated protein is necessary to prove the hypothesis conclusively. Orig. art. has: 1 figure.

Card 2/3

L 11623-66

ACC NR: AP6001730

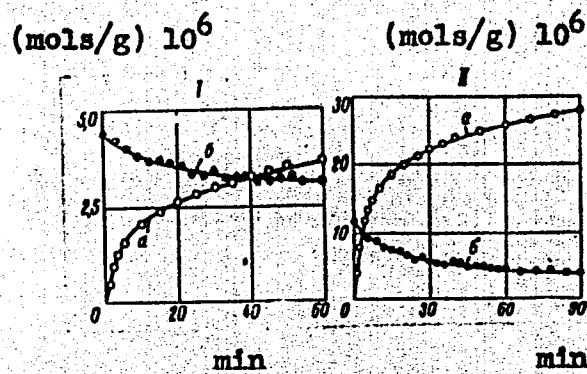


Fig. 1. Kinetic curves of oxygen consumption (a) and radical losses (b) of irradiated casein (I) and bovine serum albumin (II). [06]

SUB CODE: 06, 07/ SUBM DATE: 14Jun65/ ORIG REF: 006/ OTH REF: 006

ATD PRESS: 4177

*bet*

L 31196-66 EWP(j)/EWT(m) RM

ACC NR: AP6022567

SOURCE CODE: UR/0216/66/000/002/0183/0196

AUTHOR: Emanuel', N. M.; Burlakova, Ye. B.; Kruglyakova, K. Ye.; Sapezhinskiy, I. I.

ORG: Institute of Physical Chemistry, AN SSSR, Moscow (Institut khimicheskoy fiziki AN SSSR) 58 B

TITLE: Studies on free-radical reactions following irradiation of model systems and the role of radicals in radiation injury 19

SOURCE: AN SSSR. Izvestiya. Seriya biologicheskaya, no. 2, 1966, 183-196

TOPIC TAGS: free radical, irradiation effect, radiation injury, recombination reaction, protein, free radical stabilization, electron spin resonance, exchange reaction, DNA

ABSTRACT: Oxidative recombination of the radicals of irradiated proteins is a two-stage process: peroxide radical formation and disproportionation (during which chemoluminescence arises). Analysis of electron spin resonance and oxygen absorption by irradiated proteins reveals that the reaction proceeds through a transfer of free valence. The authors concluded from the results of the electron spin resonance studies and chemoluminescence that an exchange reaction is possible between the radicals of irradiated proteins and the inhibitors of free-radical reactions.

Free-radical reactions play an important part in radiation-induced DNA degradation. Study of the action of various inhibitors showed that gallic acid, phenylethylamine, and oxyridine derivatives markedly weakens the effect of irradiation. Experiments on animals indicated that the degree of protection is directly related to the antiradical activity of the inhibitors used in free-radical reactions. Orig. art. has: 18 figures and 2 tables. [JPRS]  
SUB CODE: 06, 20, 07 / SUBM DATE: 11Dec65 / ORIG REF: 015 / OTH REF: 001  
Card 1/1 CC UDC: 577.991 25 78

L 42291-66 ENT(m)/BMP(3) RM

ACC NR: AP6031479

SOURCE CODE: UR/0217/66/011/003/0427/0433

AUTHOR: Sapezhinskiy, I. I.; Silayev, Yu. V.; Kutsenova, A. V.

ORG: Institute of Chemical Physics, AN SSSR, Moscow (Institut khimicheskoy fiziki AN SSSR)

TITLE: Intensification of photochemiluminescence of protein solutions by dyes

SOURCE: Biofizika, v. 11, no. 3, 1966, 427-433

TOPIC TAGS: dye chemical, protein, chemiluminescence

ABSTRACT: The purpose of the article is to explain the mechanism of the increase in intensity of luminescence which occurs when dyes are added to irradiated protein solutions and to study the physical processes of intensification. It is shown that dyes of the fluorescein series (sodium fluorescein, erythrosin, sodium eosin, eosin yellowish) intensify the photochemiluminescence of irradiated protein. The kinetic mechanisms of activated luminescence are studied, and it is shown that eosin yellowish does not affect the chemical process which causes photochemiluminescence. Spectral investigations indicate that the light emission of activated chemiluminescence takes place from levels of dye molecules associated with the protein molecule. Estimates are given for the quantum yield of excited product  $\eta_p$  and for values of the ratios  $k_{pd}/f_p$  (where  $f_p$  is the probability of emission migration of protein molecules and  $k_{pd}$  is the constant of "excited product-dye" energy transfer), and possible reasons are considered for the low value of the former and high values of the latter.

Card 1/2



L 42291-66

ACC NR: AP6031479

A scheme is suggested for the physical processes of activated photochemiluminescence.  
Orig. art. has: 5 figures and 3 formulas. [JPRS: 36,932]

SUB CODE: 07 / SUBM DATE: 30Jun65 / ORIG REF: 008 / OTH REF: 003

SAPEZHINSKIY, N.N.

Left-sided location of the appendix. Zdrav. belor. 6 no. 5:65  
My '60. (MIRA 13:10)

1. Iz khirurgicheskogo otdeleniya Orshanskoy gorodskoy bel'nitsy  
imeni Voroshilova (glavnyy vrach G.S. Levin, zaveduyushchiy  
khirurgicheskim otdeleniyem S.M. Margolin).  
(APPENDIX—ABNORMITIES AND DEFORMITIES)

FAYN, Ya.S.; SAPIZHKO, Yu.P.

Designing precast girder highway bridges for constant load.  
Avt.dor. 22 no.11:31 N '59. (MIRA 13:2)  
(Bridges--Design)

SAPFIROV, G.N.

Rapid method for determining the titanium mineral content of gabbro-labradorites. Razved. i okh. nedr 26 no.12:44-45 D '60.

(MIRA 13:12)

1. Kiyevskiy geologorazvedochnyy tekhnikum.  
(Mineralogy, Determinative)

L 20782-65 EEO-2/EWT(d)/EED-2 ASD(a)-5/AEDC(a)/AFMDC/AFETR/RAEM(d)/  
ESD(c)/RAEM(j)/ESD(dp)/ESD(gs)  
ACCESSION NR: AP5003793

S/0144/64/000/009/1107/1111

AUTHOR: Vlasov, N. P.; Sapfirov, S. G.

TITLE: Optimum transfer function of the correcting device of the carrier f  
frequency control system

SOURCE: IVUZ. Elektromekhanika, no. 9, 1964, 1107 1111

TOPIC TAGS: automatic control, function theory, frequency control 9)

ABSTRACT: The authors propose a general method for the synthesis of optimum transfer functions of alternating current correcting control systems describable by linear differential equations with harmonic coefficients. For the optimization criterion, they use the minimum of the mean square deviation of the reproduction of a random favorable signal during a fixed time for the transfer process when the dynamic reproduction accuracy of a nonrandom favorable signal is determined by the given values of the error coefficients. The authors present also the conditions which must be satisfied. Orig. art. has: 2 figures, 10 formulas.

Card 1/2

L 20782-65  
ACCESSION NR: AP5003793

0

ASSOCIATION: none

SUBMITTED: 23Nov63

ENCL: 00

SUB CODE: MA, IE

NO REF SOV: 006

OTHER: 006

JPRS

Card 2/2

SAPFIROV, V.D. (Moskva)

Effect of antipulp cytotoxic sera on mineral metabolism in hard tissues of the tooth. Pat.fiziol.i eksp.terap. 6 no.2:42-45 Mr-Ap '62. (MIRA 15:8)

1. Iz Moskovskogo meditsinskogo stomatologicheskogo instituta.  
(SERUM) (TEETH) (MINERAL METABOLISM)

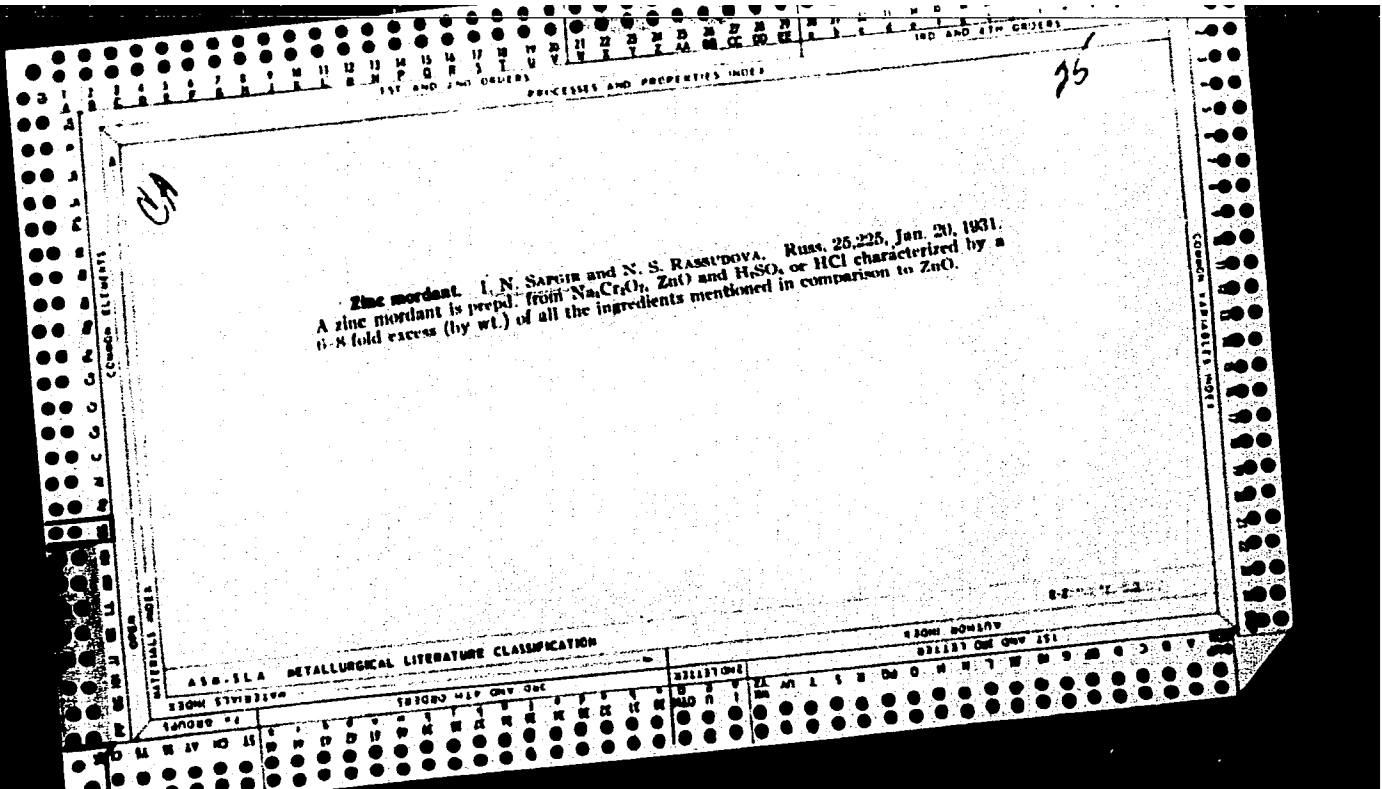
26

*co*

Primary and "highly dispersed" minium. I. N. SARGIK AND B. I. DAVIDUIDOV-SKAYA. *J. Chem. Ind. (Moscow)* 7, 260-2 (1930); *Chem. Zentr.* 1930, II, 472.—The quickest oxidation of PbO to PbO<sub>2</sub> takes place at 455°. On further heating the reaction velocity decreases and becomes 0 at 600°. Preheated PbO is oxidized much more slowly at the optimal temp. On heating over 600° PbO becomes lighter in color and the original color does not reappear before 761°. If basic PbCO<sub>3</sub> is oxidized in an analogous way, the PbO<sub>2</sub> corresponds to the so-called "highly dispersed" lead red. A. BURGESS

ASB-51A METALLURGICAL LITERATURE CLASSIFICATION





CA

Light-stable lithopone. J. M. SAGIN and B. L. DAVIDOVSKAYA. Russ. 25,601, Mar. 31, 1932. Lithopone is treated with a soln. of a Zn salt which was preliminarily treated with air and ozonized air or with ozonized air only in the presence of lime or a similar basic material. Iron, present originally in the prepn., is thus removed.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

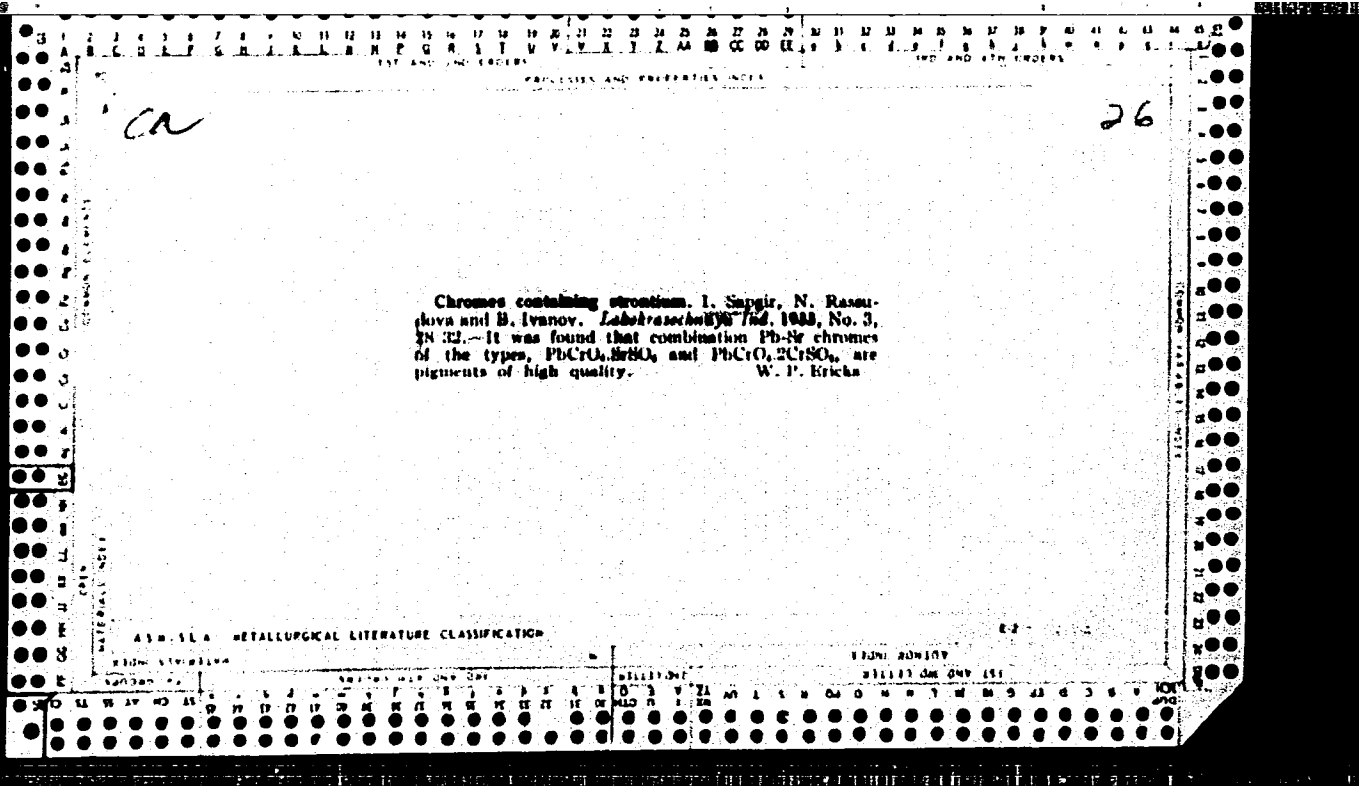
INTERNAL UNIT

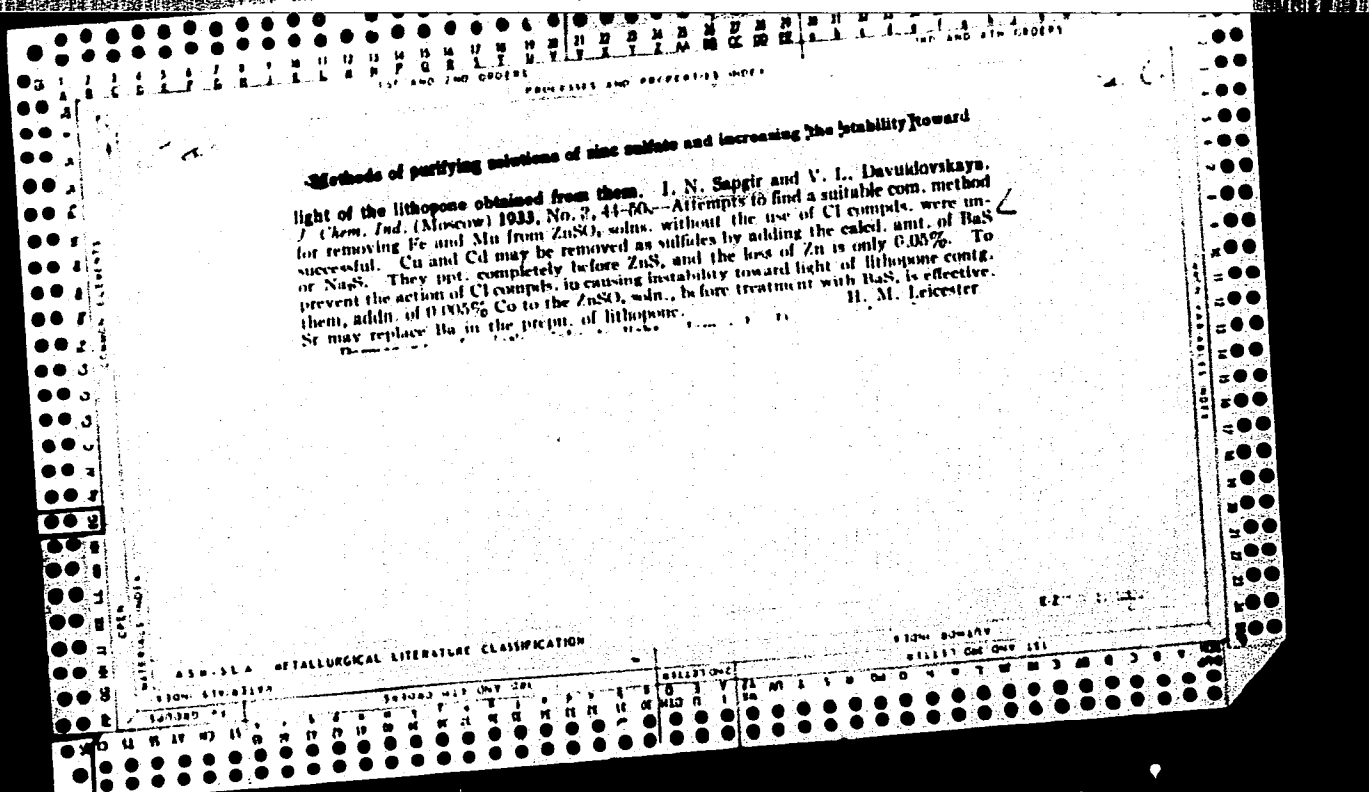
COMMON ELEMENTS

COMMON VARIABLES UNIT

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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CA 26

PROCESSES AND PROPERTIES INDEX

The preparation of zinc pigments from sodium dichromate. I. N. Sappir and N. S. Rasmidova. *J. Chem. Ind. (Moscow)* 1936, No. 6, 63-4.— $\text{Na}_2\text{Cr}_2\text{O}_7$  can replace  $\text{K}_2\text{Cr}_2\text{O}_7$  in the prepn. of Zn pigments if the following molar proportions are used:  $\text{ZnO}$  1,  $\text{H}_2\text{SO}_4$  0.31,  $\text{Na}_2\text{Cr}_2\text{O}_7$  0.31. H. M. Leicester

ASAC 11.6 METALLURGICAL LITERATURE CLASSIFICATION

PROCESSES AND PROPERTIES INDEX

*ca*

**Determination of ethanol in by-products of the preparation of ethyl acetate from ethanol by the direct contact method.**  
 I. N. Sappo and R. A. Frolova. *Soviet. Kautchuk* (U. S. S. R.) 1956, No. 11-12, 17-19.—The by-products contain ethanol in the presence of ethyl acetate (up to 82%), acetaldehyde (up to 83%), AcOH (up to 7%), acetal and water (up to 9%). Weigh 0.5 g. of sample into a thin-wall ampoule, cool (ice and water) add 1 cc. of acetic anhydride (I) (in case the sample contained more than 30% of EtOH, use 1.5-2 cc. of I). Seal the ampoule, heat in boiling water for 1 hr., cool, put into a thick wall 200-300-cc. flask with 50 cc. of water, close the flask with a glass stopper, break the ampoule and heat the flask at 20° for 30 min. to hydrolyze the excess of I. Then cool the flask, neutralize the excess of AcOH to a slight pink (phenolphthalein as indicator). Add a measured amt. of 0.2 N KOH in excess heat, on a water bath to saponify the esters formed, then titrate back with 0.1 N acid soln. the excess of KOH.

A. Pestov

7

AS 15.4 METALLURGICAL LITERATURE CLASSIFICATION



1ST AND 2ND ORDERS

PROCESSES AND PROPERTIES INDEX

100 AND 6TH ORDERS

26

Obtaining mixed titanocalcium white pigments by the method of precipitation. N. N. Sagar, N. S. Rasudova, V. I. Kasatckhis and Yu. N. Tolgskii. *Org. Chem. Ind. (U. S. S. R.)* 5, 725-7(1934).—Preliminary tests show that in the hydrolysis of  $TiSO_4$  with  $CaCO_3$ , a highly dispersed mixt. of  $TiO_2$  and  $CaSO_4$  is formed. In the x-ray patterns and phys. properties the pptd. pigments are different from those obtained from mech. mixts. of  $TiO_2$  and  $CaSO_4$ , and are superior to them in the covering power.

Chas. Blanc

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

1ST AND 2ND LETTERS

1	2	3	4	5	6	7	8	9	0	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z
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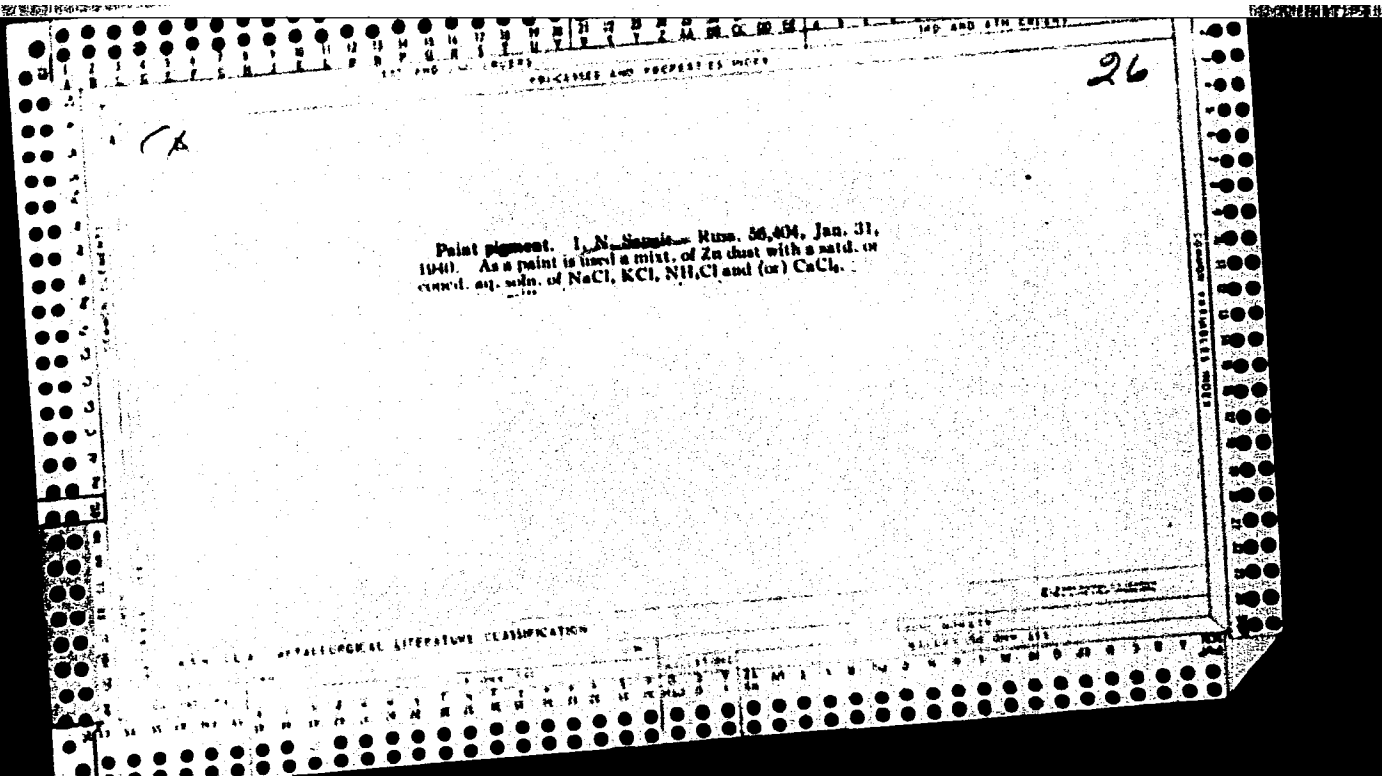
CA

26

The use of mixed lead-calcium pigments for varnish-pigment films. I. N. Saygii, N. S. Rassulova and I. N. Kabanukhin. *Russk. Khim. Tekhnol. Tekh.*, 1939, No. 7, 19-21; *Khim. Referat. Zhur.*, 1940, No. 2, 110; *J. C. A.*, 33, 5880. A method for producing mixed Pb-Ca pigments is given. The weather resistance of mixed Pb-Ca pigments is equal to that of pure Pb sulfate chromate pigments. W. R. Hen

AS 50 51 A METALLURGICAL LITERATURE CLASSIFICATION

AS 50 51 A		METALLURGICAL LITERATURE CLASSIFICATION		AS 50 51 A	
AS 50	51 A	AS 50	51 A	AS 50	51 A
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
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7	7	7	7	7	7
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47	47	47	47	47	47
48	48	48	48	48	48
49	49	49	49	49	49
50	50	50	50	50	50



PROCESSING AND PROTECTIVE MODES

B-2-8

BC

Oil absorption by pigments. I. N. Saggie (Kolloid. Zhurn., 1944, 6, 663-667).—If  $P$  g. of pigment require  $(100 - P) g.$  of oil to make a paste, then  $(100 - P)/P = (v - 1/d)d$ ,  $d$  and  $v$  being the density of pigment and oil, respectively, and  $v$  the bulk vol. of pigment in air (= vol. of 1 g. of pigment powder). This relation assumes that the vol. of identical between pigment grains in air and in oil are identical. It fits experimental data and also those taken from tables for most pigments ranging from Pb-white ( $v = 0.8$ ;  $(100 - P)/P = 25$ ) to zinc ( $v = 0.4$ ;  $(100 - P)/P = 88$ ); for  $Pb_3O_4$ , the ratio  $(100 - P)/P$  is too low, and for ZnO too high. If paint films of high rigidity are wanted the amount of oil should be slightly  $<$  the oil-absorption val. and the balance added in the form of a volatile thinner. J. J. B.

METALLURGICAL LITERATURE CLASSIFICATION

E-2

SEARCHED	INDEXED	SERIALIZED	FILED
APR 1968	APR 1968	APR 1968	APR 1968

SAPGIR, I. N. Dr. Tech. Sci.

Dissertation: "Investigation in the Field of the Intensiveness of Pigments." Moscow  
Order of Lenin Chemicotechnological Inst., imeni D. I. Mendeleyev, 19 Mar 47.

S6: Vechernyaya Moskva, Mar, 1947 (Project #17836)

SAPGIR, I. N.

Mbr., Comm. Illuminative Engineers, Dept. Tech. Sci. Acad. Sci., -1949-. "Standardization of the Process of Pigment Mixing as a Prerequisite for the Compilation of a Color Atlas," Iz. Ak. Nauk SSSR, Otdel. Tekh. Nauk, No. 9, 1949.

Saggir, I. N.

AUTHORS: Saggir, I. N., Rassudova, N. S.

64-8-17/19

TITLE: P. M. Luk'yanov. History of the Chemical Profession and the Chemical Industry in Russia (P. M. Luk'yanov. Istoriya khimicheskikh promyslov i khimicheskoy promyshlennosti Rossii).

PERIODICAL: Khimicheskaya Promyshlennost', 1957, Nr 8, pp. 52-52 (USSR)

ABSTRACT: This is volume number 4. Under the editorship of S. I. Vol'fkovich, member of the Academy. Publishing house of the Academy of Science USSR, 1955. 622 pages. The book is here discussed in short. This volume is entirely given to the history of the production of dyes in Russia from ancient times up to the begin of the 20th century. A great number of original documents, manuscripts, etc. are given. A great part deals with the investigation of fresco-paintings, miniatures, and icons. The author procured, often with great difficulties, small quantities of these old dyes and investigated them by means of the spectral analysis. The results are comprised in a table. The fresco-paintings, miniatures, and icons are contained in the book in good reproduction. The book is well-written, and contains a detailed name-, subject-,

Card 1/2

P. M. Luk'yanov. History of the Chemical Profession and the Chemical Industry in Russia 64-8-17/19

geographical-, office-, and firm-index. The book is of special interest for chemists, historical researchers, and art historians.

AVAILABLE: Library of Congress

Card 2/2



SAPGIR, I.N. (Moskva)

Two characteristic features for the divisibility by any odd number not  
ending by a five. Mat. pros. no. 4:209-211 '59. (MIRA 12:11)  
(Division)

SAPGIR, I.N., doktor tekhn. nauk; IVANOVA, A.A.; GOL'DBERG, M.M.;  
SAKHARNOV, A.V.; LUBMAN, A.I.; SVERDLIN, M.S.; TYURIN, B.F.  
Prinimali uchast'iye: FLIPLINA, A.I.; IOFFE, M.Ya.; LIVSHITS,  
M.L., red.; ZAZUL'SKAYA, V.F., tekhn. red.

[Paint materials; raw materials and intermediate products;  
handbook] Lakokrasochnye materialy; syr'e i poluprodukty;  
spravochnik. Pod red. I.N.Sapgira. Moskva, Gos.nauchno-  
tekhn.izd-vo khim. lit-ry, 1961. 506 p. (MIRA 14:12)  
(Paint materials)

SAPGIR, I.N.

Some development trends in the field of pigments for the lacquer  
and paint industry. Lakokras.mat.i ikh prim. no.5:1-3 '62.  
(MIRA 16:1)

(Paint industry) (Pigments)

SAPGIR, S.M.

DONSKOY, A.P., inzh.; SAPGIR, S.M., inzh.; SHTUKIN, V.V., inzh.

Manufacturing prestressed precast concrete beams with a 30  
meter span. *Biul.tekh.inform.* 3 no.3:3-5 Nr '57. (MIRA 10:10)  
(Girders) (Precast concrete construction)

SAPHIER, I. ; BARBU, I.

On the margin of the article "New Soviet Concepts of Classification of Coal and Their Application in Rumania." p. 136. ENERGETICA. (Asociatia Stiintifica a Inginerilor si Tehnicienilor din Romania si al Ministerului Energiei Electrice si Industrii Electrotehnice) Bucuresti. Ceased publication, with vol. 2, no. 3, Mar. 1954.

SOURCE: East European Accessions List, (EEAL), Library of Congress, Vol. 4, no. 12, December 1955

SAPHIER, I.

Plan for Rumania's electrification. p. 1. TEHNICA NOUA. (Asociatia Stiintifica a Inginerilor si Tehnicienilor) Bucuresti. Vol. 2, no. 25, Nov. 1955.

So. East European Accessions List Vol. 5, No. 9 September, 1956

SAPHER, I.: SINESCU, A.: GHEORGHIU, I.

Research in power resources in support of the development of the material base of the metallurgic industry.

p. 77

Suppl. to v. 3, 1955

ANALELE

Bucuresti

SO: Monthly list of East European Accessions (EEAL), LC, Vol. 5, no. 12  
December 1956

SAPHIER, I.

Possibility of obtaining mechanical energy, heat,  
and cold with the aid of a turbine, using the  
natural pressure of methane. p. 255. STUDII SI  
CERCETARI DE ENERGETICA. Bucuresti. Vol. 5,  
no. 3/4, July/Dec. 1955.

SCuRCE: EEAL LC Vol. 5, No. 11, November 1956.



SAPHIER, I.

Characteristics of industrial production. p. 335  
STUDII SI CERCETARI DE ENERGETICA. Bucuresti.  
Vol. 5, no. 3/4, July;Dec. 1955.

SOURCE: East European Accessions List, (EEAL), Library of Congress,  
Vol. 5, No. 11, November, 1956

BISHER, I.

Possibilities of utilizing some correlation relationships among certain synthetic economic indexes in planning. *Problema econ* 15 no.9:113-125 S '63.

SAPHIER, Ignat I., ing.

Mapping a methodology for the elaboration of the general energetic balance. Energetica Rum 3 no.8:342-348 Ag '60.

SAPHIER, L. ; BOTCO, V.

Considerations on the correlation between energy consumption and industrial production in Rumania. p. 258.  
(ENERGETICA. Vol. 5, no. 6, June 1957, Rumania)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 12, Dec. 1957  
Uncl.

SAPIECHA, Julia; AFEK-KAMINSKA, Maria

Case of leukemia with generalized moniliasis in 2 year old child.  
Pediat. polska 32 no.2:183-186 Feb 57.

1. Z Kliniki Chorob Zakaznych Wieku Dzieciecego A.M w  
Warszawie Kierownik: prof. dr. med. J. Bogdanowicz i z  
Pracowni Anatomopat. Miejskiego Szpitala Zakaznego Nr 1  
w Warszawie Dyrektor Szpitala: dr. med. A. Kryzstof  
Kierownik Pracowni: dr. med. M. Afek-Kaminska. Adres:  
Warszawa, ul. Wolska 37.

(MONILIASIS, in inf. & child  
with leukemia (Pol))

(LEUKEMIA, in inf. & child  
with moniliasis (Pol))

SAPIECHA, Julia

Aphthous stomatitis. Pediat. pol. 36 no.8:861-864 '61.

1. Z Kliniki Chorob Zakaznych Wieku Dzieciecego AM w Warszawie  
Kierownik: prof. dr med. J. Bogdanowicz.  
(STOMATITIS in inf & child) (HERPES in inf & child)

[POLSKO]

LEONOWICZ, A., K. SAPIECHA and Z. WIERZCZYNSKI: Department of General Chemistry (Katedra Chemii Ogólnej), College of Agriculture (Wysza Szkoła Rolnicza), Lublin.

"Xanthophylls in Tree Leaves During the Vegetation Period"

Warsaw, Bulletin de l'Académie Polonaise des Sciences: Série des Sciences Biologiques, Vol. X, No. 12, 1962, pp. 505-512.

Abstract: [English Article] Report on a systematic study of how the contents of xanthophylls and carotenes change in the leaves of beech and oak from May to October. Several other species of deciduous trees were similarly investigated in the autumn. Procedures and results are discussed. 2 tables, 2 diagrams; 7 references, mostly Western.

[1/1]

SAPIGA, I.K.

~~SAPIGA, I.K.~~

Device for sampling garbage for making a count of fly larvae. Med.  
paraz. i paraz.bol.supplement to no.1:78 '57. (MIRA 11:1)

1. Iz otdela bor'by s malyariyey i gel'mintozami Belorechenskoj  
zheleznodorozhnoy sanitarno-epidemiologicheskoy stantsii.  
(FLIES)



BARDOS, A.; SAPAK, K.; SKLADAN, D.; MOTIL, E.

An attempt to evaluate labor analgesia and spasmolysis. Cesk.  
gynec. 28 no.7:489-492 S '63.

1. I gyn.-por. klin. Lek. fak. UK v Bratislave, prednosta prof.  
dr. S. Stefanik.

(ANESTHESIA, OBSTETRICAL) (PHENOTHIAZINES)  
(ANTIHISTAMINICS) (PARASYMPATHOLYTICS)

LITVINOV, B.M., kand. biolog. nauk; SAPALEV, G.B.

Controlling the codling moth on the "Ukrainka" State Farm.  
Zashch. rast. ot vred. i bol. 7 no.12:8 D '62.

(MIRA 16:7)

1. Agronom po zashchite rasteniy sovkhoza "Ukrainka" Khar'-  
kovskaya obl. (for Sapalev).  
(Codling moth--Extermination)

2-18-7

*Polymer from Ester, Acids  
and ...*

**Air-permeable leather substitute.** P. P. SAPI-  
TAYSKY. (U.S.S.R.P. 66742, Chem. Abs., 1946, 69,  
7706).—In a composition for making leather  
substitutes from polyvinyl chloride, soluble salts  
are incorporated. The finished product is made  
permeable to air by washing out these salts.  
SS21121.620X: 1

1-24-7

CA

31

Leather substitute. P. R. Sapilevskii. U.S.S.R. 69.  
- 517. Dec. 31. 1947. Fibrous material, such as com-  
minuted textile waste is treated with a plasticizer and then  
mixed with a chlorovinyl resin. The mixt. is molded and  
finished as usual. M. Howh