

SENCHIKHIN, V.M., veterach.; STRASHKO, P.F., veterach.; ROBOZIKINA, V.L.,  
Laborant

Zinc phosphide poisoning of animals. Veterinariia 36 no.6:  
51-55 Ja '59. (MIRA 12:10)  
(Zinc phosphide--Toxicology)

STRASHKO, P.F., veterinarnyy vrach

Tetracycline in treating swine erysipelas. Veterinaria 40  
no.10:50 0'63. (MIRA 17:5)

SLADKOV, Nikolay Ivanovich; STRASHKOVA, N.L., otv. red.; SUSLITSKOVA,  
N.M., tekhn. red.

[Courageous amateur photographer] Smelyi fotookhotnik.  
Leningrad, Detgiz, 1963. 206 p. (MIRA 16:12)  
(Photography, Biological)

PAVLOVNIY, S.V., SERASHENKO, A.V.

Condensation of anisole with acetone and cyclohexanone in the presence of  $\text{BF}_3 \cdot \text{Et}_2\text{O}$  complex. *Chem. org. khim.* 1 no.1:106-111 Jan 1965. (MIRA 18:5)

L. Kiyevskiy politekhnicheskii institut.

SHAPIRO, N.I.; STRASHNENKO, S.I.; PLOTNIKOVA, Ye.D.; SUSLIKOV, V.I.

Comparative estimation of the damaging effect of ionising  
radiation on heredity in mice and drosophilae. Zhur.ob.biol.  
21 no.2:104-112 Mr-Apr '60. (MIRA 13:6)

1. U.S.S.R. Academy of Medical Sciences and Institute of  
Biological Physics, U.S.S.R. Academy of Sciences.  
(X RAYS--PHYSIOLOGICAL EFFECT) (HEREDITY)

SHAPIRO, N.I.; PLOTNIKOVA, Ye.D.; STRASHENKO, S.I.; SUSLIKOV, V.I.

Relative genetic radiosensitivity in different mammal species.  
Radiobiologiya 1 no.1:93-103 '61. (MIRA 14:7)

1. Akademiya meditsinskikh nauk SSSR i Institut biologicheskoy fiziki  
AN SSSR, Moskva.

(X RAYS—PHYSIOLOGICAL EFFECT)

h268h

S/747/62/000/000/005/025  
D268/D307

271220

**AUTHORS:** Shapiro, N. I., Plotnikova, Ye. D., Strashnenko, S. I.  
and Suslikov, V. I.

**TITLE:** Comparative genetic radiosensitivity in different species  
of mammals

**SOURCE:** Radiatsionnaya genetika; sbornik rabot. Otd. biol. nauk  
AN SSSR. Moscow, Izd-vo AN SSSR, 1962, 63-78

**TEXT:** To provide data on the rate of induced mutations, with dominant lethals taken as the indicators of genetic changes, the gonads in 2 1/2 - 4 month-old male mice were irradiated with x rays at 134, 268, 402 and 670 r, those in rats at the same dose and 804 r, and those in 5 - 8 month-old chinchilla rabbits at 150, 300, 450, 600 and 750 r. The mice and rats were subsequently mated with females of their own age, being kept together for 3 days, and the females were slaughtered on the 14 - 16th day of pregnancy. After mating, the female rabbits were slaughtered on the 20th day of pregnancy. In all 3 species the numbers of yellow bodies, implantation sites

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Comparative genetic radiosensitivity... S/747/62/000/000/005/025  
D268/D307

and embryos were assessed to establish the number of embryos killed and the stage at which this occurred. Since the embryos derived from crosses in the days following irradiation of the males, the killing of the embryos was due to dominant lethals developed in the spermatozooids of the irradiated animals. The data on the rate of development of dominant lethals in the spermatozooids of the species studied showed genetic radiosensitivity to be highest in rabbits and lowest in mice. It was established that in most cases the dominant lethals induced in rabbits killed the embryos before implantation of the testis, whereas in most cases in mice and rats they were killed subsequently. There are 4 figures and 5 tables.

ASSOCIATION: Akademiya Meditsinskikh nauk SSSR (Academy of Medical Sciences SSSR) and Institut biologicheskoy fiziki AN SSSR, Moskva (Institute of Biological Physics, AS USSR, Moscow)

Card 2/2



12585

0/747/62/000/000/006/025  
0266/0307

AUTHORS: Shapiro, N. I., Strashnenko, S. I., Plotnikova, Ye. D.  
and Juslikov, V. I.

TITLE: A comparative assessment of the injurious effect of ionizing radiation on heredity in mouse and Drosophila

SOURCE: Evolyutsionnaya genetika; sbornik rabot. Otd. biol. nauk  
AN SSSR. Moscow, Izd-vo AN SSSR, 1962, 79-90

NOTE: The rate of the formation of dominant lethals was used as an indicator of the effect of radiation. Gonads in 2 1/2 - 4 month-old mice were irradiated with x rays at 154, 268, 402 and 670 r, followed by mating with 2 females for 3 days. On the 14-16th day of pregnancy these were opened and the number of yellow bodies, implantation sites and embryos assessed. Embryos killed both before and after implantation were not counted, due to dominant lethals in the spermatosoids of the irradiated males. Similar data for males and minimum radiosensitivity in different lines of Drosophila melanogaster were used from previous studies by N. I. Shapiro et

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June 1/2

A comparative assessment ...

07147/62/000/000/006/025  
0206/0007

11. (DOKL. AN SSSR, 1971, 1, NO. 3, 1752-1756). Comparison of the rates of the formation of dominant lethals in mice and D. melanogaster by  $\gamma$  radiation which are described showed that: 1) mice were on average 3 - 4 times; 2) on average of 6 - 8 times; and 3) an average of 3 - 4 times more radioactive. It is therefore concluded that mice are 3 - 4 more radiosensitive than D. melanogaster. The rate of the formation of dominant lethals in both subjects was proportional to the total chromosome measurements, that in mice being 3 times higher. There are 2 figures and 5 tables.

ASSOCIATION: Akademiya Meditsinskikh Nauk SSSR (Academy of Medical Sciences SSSR) and Institut Biologicheskoy Fiziki AN SSSR, Moskva (Institute of Biological Physics AN SSSR, Moscow)

0206 2/2

PLOTNIKOVA, Ye. D.; STRASHNENKO, S. I.; SHAPIRO, N. I.

Genetic radiosensitivity of guinea pigs. Radiobiologia 2 no. 3:  
481-484 '62. (MIRA 15:7)

1. Institut biologicheskoy fiziki AN SSSR i Akademiya meditsinskikh  
nauk SSSR, Moskva.

(RADIATION--PHYSIOLOGICAL EFFECT) (GENETICS)

L 17053-63 EWT(m)/BDS/ES(j) AFFTC/ASD/AFWL S/205/63/003/002/021/024  
AR/K  
AUTHORS: Plotnikova, Ye. D., and Strashnenko, S. I. 56  
TITLE: Relative genetic effectiveness of 500 Mev protons and 180 Kv X-rays 19  
PERIODICAL: Radiobiologiya, v. 3, no. 2, 1963, 286-290

TEXT: For quantitative evaluation of the radiation danger in space flights it is necessary to study the effect of various components of cosmic radiation on different biological systems. Genetics studies in this plane are extremely important since the nature of action of ionizing radiation on heredity differs greatly from normal somatic effects. In the case of small dose irradiation of the organism as a whole the restoration process leads rapidly to liquidation of after-effects. The genetic effect, differing from somatic effect, has a stable nature as a result of this the authors conducted studies of relative genetic effectiveness of 500 Mev protons and 180 Kv x-rays. The relative genetic effect of protons and x-rays was determined from the frequency of occurrence of dominant lethal characteristics in rat spermatozooids. This turns out to be 0.6-0.7.

SUBMITTED: May 7, 1962

Card 1/1

VOLKOV, Ye. N.; STEPCHKOV, K.A.; STRASHCHENKO, Ye.S.

Technology of the production of soybean-protein reinforcing agent  
for food concentrates. Kons. i ov. prom. 14 no.9:23-25 S '59.  
(MIRA 12:12)

1. Tsentral'nyy nauchno-issledovatel'skiy institut konservnoy  
i ovoshchesushil'noy promyshlennosti.  
(Food, Concentrated)

VOLKOV, Ye.N., kand. tekhn. nauk; STUPONKOV, K.A., kand. tekhn. nauk; STRASHENKO, Ye.S.; PYATIGORSKAYA, T.I.; PARAMONOVA, Ye.S.; KOTOVICH, A.G.; NEMTSOVA, A.S.

Production technology, testing and storage of hydrolyzates and protein enrichers from soya. Trudy VNIKOP no.11:66-76 '62. (GHA 17:9)

137-1978-3-4735

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 3, p 38 (USSR)

AUTHORS: Lugovtsov, M. V., Belyakova, Ye. P., Strashnikov, I. B.

TITLE: Reducibility of Krivoy Rog Ore and of Its Sinter as a Function of the Particle Size (Vosstanovimost' krivorozhskoy rudy i aglomerata iz neye v zavisimosti ot velichiny kuskov)

PERIODICAL: V sb.: Issled. domennogo protsessa, Moscow, AN SSSR, 1957, pp 33-48

ABSTRACT: The processes of heating and reduction were investigated on different-sized pieces of Krivoy Rog ore and sinter. It is established that relatively large pieces (up to 75 mm in diameter) are completely heated within 30 or 40 minutes, when the surrounding atmosphere is at a temperature of 300°. Reduction experiments, carried out at gradually increasing temperatures on ball-shaped specimens, as well as on fine-ground ore (composed of 40 percent CO, 5 percent H<sub>2</sub>, 0.5 percent CH<sub>4</sub>, and 55 percent N<sub>2</sub>), have demonstrated that, under conditions of blast furnace smelting, the following quantities of O<sub>2</sub> are removed from Krivoy Rog ores by means of indirect reduction:

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137-58-5-8987

Translation from: Referativnyy zhurnal. Metallurgiya, 1958. Nr 5. p 34 (USSR)

AUTHORS Lugovtsov, M.V., Belyakova, Ye.P., Strashnikov, I.B.

TITLE How the Lump Size Affects the Decomposition of Limestone under Continuous Heating (Razlozheniye izvestnyaka v zavisimosti ot velichiny kuskov pri nepreryvnom nagrevanii)

PERIODICAL: V sb. Issled. domennogo protsessa. Moscow, AN SSSR 1957, pp 49-54

ABSTRACT The process of decomposition of Karakuba limestone was investigated on spherical specimens of this material (25, 38, and 50 mm in diameter) which were gradually heated in a stream of air to a temperature of 1200-1250°C. The specimens were placed into a furnace preheated to 300°, the temperature was then increased at a rate of 150°/hr. Complete decomposition of a 25 mm sphere was already observed at 1050°, a temperature achieved within a period of 140 minutes of heating. In the case of the 38-mm and the 50-mm specimens analogous conditions were reached at 1125° and 1225° (170 and 210 minutes), respectively. At temperatures up to 1000° only 45% of the total CO<sub>2</sub> content escaped from the 50 mm specimens. Thus, under condi-

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137-58-5-8947

How the Lump Size Affects (cont.)

tions of blast furnace operation, the greater portion of  $\text{CO}_2$  escapes from the limestone at temperatures in excess of  $1000^\circ$ . The relationship between the temperature and the linear decomposition rate of the limestone was investigated. Also studied was the relationship between the central and peripheral temperatures of the specimens and the temperature of the working space of the furnace in the course of the experiment.

Ye. V.

1. Calcite--Decomposition    2. Calcite--Temperature factors

Card 2/2

133-58-5-4/31  
AUTHORS: ~~Strashnikov, I. B.,~~ Astakhov, A. G., Ksendzyk, G. V.  
Fedorovskiy, N. V. and Shumilov, E. A.

TITLE: The Dependence of the Coke Rate and the Output of a Blast Furnace on the Basicity of Sinter (Zavisimost' raskhoda koksa i proizvoditel'nosti domennoy pechi ot osnovnosti aglomerata)

PERIODICAL: Stal', 1958, Nr 5, pp 398-402 (USSR)

ABSTRACT: The influence of the basicity of sinter on the coke rate and the output of blast furnaces is discussed on the basis of data collected from periods of experimental and normal operations of blast furnaces on the Southern Iron and Steel Works (Table). The dependence of the decrease in the coke rate on the basicity of sinter - Fig.1; the dependence of the increase in the output of iron per unit of coke on the sinter basicity - Fig.2; the dependence of the intensity of coke combustion in a blast furnace on the sinter basicity - Fig.3; the content of +25 mm (a) and 0-5 mm (b) fraction in sinter after the P. G. Rubin drum tests in samples of sinters of various basicities - Fig.4; the content of fractions +40 mm (a), +25 mm (v) and 0-5 mm (b) in samples of sinters of various basicities collected from blast furnace bunkers - Fig.5; the dependence of the

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1/2

133-58-5-4/31

The Dependence of the Coke Rate and the Output of a Blast Furnace on the Basicity of Sinter

intensity of combustion of coke in a blast furnace on the size distribution of sinters of various basicities - Figs. 6 and 7. Conclusions: Coke rate is inversely proportional to the sinter basicity. Under operating conditions of the Southern Works the maximum saving of coke is obtained when limestone is completely removed from the burden and amounts to about 12-14%. The intensity of the combustion of coke depends on the size distribution of sinter and increases with increasing proportion of coarse fractions. The output of a blast furnace is determined by the relation between the burden to coke ratio (increasing with increasing sinter basicity) and the intensity of the combustion of coke in the furnace (decreasing with increasing sinter basicity due to the decreasing content of coarse fractions). It is necessary to take some measures to improve the size distribution of high basicity sinters. It would be advantageous to take as the main criterion of the sinter quality the content of +25 mm fraction after the test in the P. G. Rubin drum and not the content of 0-5 mm fraction. There are 1 table and 7 figures.

Card  
2/2

ASSOCIATION: Institut chernoy metallurhii i gornogo dela AN Ukr.SSR  
(Ferrous Metallurgy Institute and Mining Institute of the Ac.Sc. of the Ukrainian SSR)

15-1957-10-14194  
Translation from: Referativnyy zhurnal, Geologiya, 1957, Nr 10,  
p 133 (USSR)

AUTHORS: Cherdyntsev, V. V., Shmonin, L. I., Strashnikov, N. S.,  
Asanova, O. L.

TITLE: Investigation of the Actinium-Radium Ratio in Minerals  
(Issledovaniye aktiniy-radiyevogo otnosheniya v mineralakh)

PERIODICAL: Byul. Komis. po opredeleniyu absolyutn. vozrasta geol.  
formatsiy. AN SSSR, 1957, Nr 2, pp 41-65

ABSTRACT: Tests were made on the constancy of the ratio of activ-  
ity between the uranium and the actinium series in a  
large number of minerals. Data were also obtained on  
the ability of some products of the actinium series to  
migrate under natural conditions. In the test for Ac/Ra  
in the primary minerals--various oxides, aluminum sili-  
cates, titanates, zirconates, niobate-tantalates, phos-  
phates, tungstates, and asphaltites--it was shown that  
the ratio in these minerals is normal. In secondary  
minerals, Ac/Ra may deviate markedly from the normal.

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S/081/61/000/019/019/085  
B101/B147

AUTHORS: Strashnikoy, N. S., Nasyrova, F. Z.

TITLE: Temperature dependence of emanation of minerals

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 19, 1961, 84, abstract 19G19 (Sb. "Optika. Yadern. protsessy". Alma-Ata, 1959, 3-13)

TEXT: The authors studied the temperature dependence of the emanation of uranium black, uraninite, and zircon for Rn, Tn, An under different conditions of heating (20-1000°C, 3-60 min). As a rule,  $K_{em}$  rises with rising temperature, but maxima are observed at several intermediate temperatures. For uranium black, the maximum  $K_{Rn}$  lies at 200 and 650°C; for uraninite, the maximum  $K_{An}$  lies at 900°C; and for zircon, the maxima of  $K_{An}$  and  $K_{Tn}$  lie at 600°C. After repeated heating, these maxima do no longer appear, which is due to irreversible changes of the crystal lattice. Emanation of a preheated mineral at room temperature is only

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Temperature dependence of...

S/081/61/000/019/019/085  
B101/B147

some tenths of the emanation of nonheated mineral, which is connected with the elimination of crystal lattice defects. For uraninite, this irreversible change takes place at 300°C already. [Abstracter's notes: Complete translation.]

Card 2/2

STRASHNIKOV, S.N.

Reclamation of *vazpy* lands in the bottom lands of the Irpen'  
River. Gidr. 1 mel. 6 no.11:7-11 N '54. (MIRA 7:11)  
(Irpen Valley--Soil conservation) (Soil conservation--  
Irpen Valley)

*VIAGKOVSKAYA, O.V.*  
VIAGKOVSKAYA, O.V. [Viakova'ka, O.V.]; STRASHNIKOVA, M.I.

Quantitative analysis of shale gasoline of 80 fraction 2 by its  
infrared absorption spectra [with summary in English]. Ukr. fiz.  
zhur. 2 no.4:358-362 O-D '57. (MIRA 11:3)

1. Institut fiziki AN URSS.  
(Gasoline--Spectra)



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28104  
S/181/61/003/009/038/039  
B108/3138

26.2532

AUTHORS: Brodin, M. S., Vitrikhovskiy, N. I., Strashnikova, M. I.  
TITLE: Structure of the spectra of  $CdS_x.CdSe_{1-x}$  and  $CdS_x.ZnS_{1-x}$  hybrid crystals at 20°K

PERIODICAL: Fizika tverdogo tela, v. 3, no. 9, 1961, 2882-2885

TEXT: Ye. F. Gross and V. V. Sobolev (DAN SSSR, 131, 56, 1960) have shown that the emission spectrum of  $CdS-CdSe$  solid solutions at low temperatures bears the same character as the  $CdS$  spectrum. V. V. Yeremenko (FTT, 11, 2602, 1960) studied the low-temperature absorption spectra of  $CdS_x.CdSe_{1-x}$  hybrids but could not find any fine structure, apparently because he did not have sufficiently thin specimens at his disposal. In order to elucidate this problem, and to obtain data on the character of the excitation in pure crystals the authors studied 10 - 20 $\mu$  thick hexagonal  $CdS-CdSe$  and  $CdS-ZnS$  hybrids. The back-reflection spectra were taken by means of a Hilger-E2 spectrograph. Photomicrographs of such spectra

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B108/B138

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Structure of the spectra of  $CdS_x$  ...

taken at a temperature of  $20^\circ K$  from  $CdS$ ,  $CdS_{0.95}CdSe_{0.05}$ , and  $CdS_{0.94}ZnS_{0.06}$  single crystals are shown in the Figure (a, b, and c, respectively). It was found that the absorption spectrum of any  $CdSe$ - $CdS$  hybrid has a fine structure. The bands 1 and 2 in the figure are shifted to the longwave side by about  $60\text{ cm}^{-1}$  when the  $CdSe$  concentration in  $CdS$  rises by one percent by weight, whereas the band 3 is shifted only by about  $30\text{ cm}^{-1}$ . The back reflection in polarized light indicates that the absorption of  $CdS_xCdSe_{1-x}$  has a distinct dichroism: The  $\lambda_C$  absorption edge is shifted to longer waves. The  $CdS_xCdSe_{1-x}$  hybrids exhibit an inversion point of the refractive index at which the crystal foils are not birefringent. The back-reflection and, consequently, the absorption spectra of  $CdS_xZnS_{1-x}$  hybrids are very similar to those of pure  $CdS$ , particularly when the  $ZnS$  concentration is low. When the  $ZnS$  concentration is higher than about 20%, the back reflection bands become more and more blurred. This phenomenon is explained by the interference bands arising when the rays are reflected in the transparent region from both the front and the back surface of the

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LOCAL

S/181/62/004/009/018/045  
B108/B186

247000

AUTHORS: Brodin, M. S., and Strashnikova, M. I.

TITLE: Singularities in the dispersion and shape of the exciton absorption bands of CdS single crystals

PERIODICAL: Fizika tverdogo tela, v. 4, no. 9, 1962, 2454 - 2460

TEXT: A homogeneous layer (0.095  $\mu$ ) of CdS was studied. The absorption curves were measured at 77, 20, and 40K with a grating spectrograph. The dispersion curves were determined by a method described earlier (PTE, no. 3, 96, 1956; no. 6, 140, 1961). Two principal absorption bands were found (Fig. 1) with linearly polarized light ( $E \perp C$  and  $E \parallel C$ ; C is the hexagonal crystal axis). With  $E \perp C$ , the band A has a greater dispersion than the band B although its peak height and integral intensity are nearly the same as those of B (Fig. 3). This makes the Kramers-Kronig dispersion relation no longer applicable in this section of the spectrum. It is concluded that the exciton whose excitation leads to the band B enters into no strong interaction with the phonons. There are 4 figures and 2 tables.

ASSOCIATION: Institut fiziki AN USSR, Kiyev (Physics Institute AS UkrSSR, Card 1/4 Kiyev)

Singularities in the dispersion...

S/181/62/004/009/018/015  
B108/B186

SUBMITTED: April 21, 1962

Fig. 1. Absorption curves of CdS, 20°K,  $\kappa(\nu) = \frac{\log(I_0/I)}{4\pi d \cdot 0.434\nu}$

Legend: (1) E ⊥ C, (2) E || C; dashed line - Lorentz curve.

Fig. 3. Dispersion curves of CdS, 20°K. .

Legend (1) E ⊥ C, (2) E || C.

Table 2. Legend:  $\nu_0$  - dominant frequency, H - half width,  $\kappa_m$  - peak height, S - area below curve. Scale on the axes: x - 1 cm  $\hat{=}$  200 cm<sup>-1</sup>, y - 1 cm  $\hat{=}$  0.05 units of  $\kappa$ .

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S/185/62/007/006/014/014  
D407/D301

3950

AUTHORS: Brodin, M. S. and Strashnikova, M. I.

TITLE: Absorption and dispersion of light in CdS single-crystals at 20°K

PERIODICAL: Ukrayins'kyy fizychnyy zhurnal, v. 7, no. 6, 1962, 651-683

TEXT: The absorption and dispersion curves of thin CdS single-crystals in the special region 20 500 - 21 500 cm<sup>-1</sup> were measured. This region contains two intensive absorption bands. The present investigation constitutes a continuation based on more adequate data, of an earlier study by M. S. Brodin (Ref. 9: PTT, 2, 2152, 1960), which had the purpose of verifying the Kramers-Kronig dispersion relations. CdS single-crystals (0.1 μ thick) were fixed on quartz plates. The measurements were conducted at 20°K in polarized light. A spectrograph with a dispersion of 4 Å/mm was used. The light intensity was measured by the method of photographic photometering. The dispersion curves were obtained by the interference

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S/185/62/007/006/014/014  
D407/D301

Absorption and dispersion ...

method. The position of the maximum of one of the bands is noted as a peculiar feature of the spectrum. The two intensive bands are denoted by A and B. By comparing the spectra a and b (corresponding to two different angles of light polarization) it was found that on turning the crystal the maximum of the band A is shifted towards the long-wavelength side; a similar shift was observed if the crystal rotated about its vertical axis. No corresponding shift of the band B was observed. The shift of the band A cannot be explained by variations in reflection, neither by crystal inhomogeneities nor by its rotation. A satisfactory interpretation of the observed shift requires further experimental work. It is noted, however, that energy changes of the exciton transition as a function of the direction of polarization and of the wave vector were predicted by theory. From a figure it is evident that the band A ( $\nu_{\text{max}} = 20\ 567\ \text{cm}^{-1}$ ) is completely polarized in a direction normal to the C-axis. At  $T = 20^{\circ}\text{K}$ , it has no fine structure. The maximum of the band B is slightly shifted as a result of the polarization. The bands A and B have practically equal intensity. The dispersion

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Absorption and dispersion ...

S/185/62/007/006/014/014  
D407/D301

curves, just as the absorption curves, were obtained at two different polarization angles and also at normal incidence. A maximum of the dispersion curve was observed in the region of the first band, followed by an anomalous section and a sharp drop. The authors were unable to sufficiently reduce the amplitude of the dispersion curves. In the region of the band B it was possible to construct the entire dispersion curve. The character of the dispersion curves for the ordinary and extraordinary waves is an indication of the complexity of the double refraction of the crystal in the absorption region; the crystal has inversion points of the refraction index in the entire spectral range. On comparing the absorption and dispersion curves, it is noted that although the bands A and B are similar in many respects, yet they are related to quite dissimilar amplitudes of the dispersion curves. Their Kramers-Kronig relations are not completely corroborated by the above experimental results. There are 3 figures. ✓

ASSOCIATION: Instytut fizyky AN UkrRSR, Kyiv (Institute of Physics of the AS UkrRSR, Kiyev)  
SUBMITTED: March 2, 1962  
card 3/3

APR 1964

SEARCHED INDEXED SERIALIZED FILED

37  
B

AUTHOR: Mashkevich, V. S.; Strachnikova, M. I.

TITLE: Possible manifestation of additional waves in the reflection of light from crystals

SOURCE: Ref. zh. Fizika, Abs. 11D234

REF SOURCE: Tr. Komis. po spektroskopii. AN SSSR, t. 3, vyp. 1, 1964, 448-453

TOPIC TAGS: light reflection, exciton absorption, refractive index, cadmium sulfide

ABSTRACT: It is indicated that usually the manifestation of additional light waves in the region of exciton absorption of the crystal has been considered only in connection with the passage of two waves through a thin plate. At the same time, additional waves can always greatly influence the reflection, too. Especially characteristic is the case when the refractive indices of the two waves satisfy the relation  $n_2^2 \approx n_1^2 > 0$ . Then the additional wave can greatly influence the phase of the reflected wave. The CdS crystal is considered as an example. [Translation of abstract]

SUB CODE: 20 /

LS  
Card 1/1



L 51446-65 EWT(1)/EWT(E)/T/EWP(S)/EWC(B)-2/EWF(B) P1-4 IJP(e) G3  
ACCESSION NR: AP5011067 UR/0185/65/010/004/0410/0415

AUTHOR: Brodin, M. S.; Strashnykova, M. I. (Strashnikova, M. I.)

TITLE: Singularities of the reflection spectrum of CdS crystal in the region of the exciton bands

SOURCE: Ukrayins'kyi fizychnyy zhurnal, v. 10, no. 4, 1965, 410-415

TOPIC TAGS: exciton band, reflection spectrum, reflection coefficient

ABSTRACT: The reflection spectra of CdS were investigated in the region of its exciton bands at temperature 20K. Additional extrema, which do not correspond to the actual form of the absorption band, were observed in the regions of the bands A and B, corresponding to the excitation of the initial states of the series  $\Gamma_9 - \Gamma_7$  and  $\Gamma_7 - \Gamma_7$ . The first extremum (A-band) coincides with the frequency of the longitudinal exciton and offers evidence that the effects of spatial dispersion, discussed by J. J. Hopfield and D. G. Thomas (Phys. Rev. v. 132, 563, 1963) become appreciable at 20K. The additional extremum of the reflection of the B-band is located on the long-wave skirt of the band and is observed only when the light is polarized (E1C). It is concluded that transitions take place in two different

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ACCESSION NR: AP5011067

bands, whose parameters can differ greatly. If the additional extremum is assumed to be due to spatial dispersion, then according to the theoretical calculations of Hopfield and Thomas it must be assumed that the lifetime in the EIC band is much longer than the lifetime in the E<sub>1</sub>C band. This assumption agrees with the fact that the exciton bands corresponding to higher orders of the series are easier to observe at EIC than at E<sub>1</sub>C. However, the presence of an additional band can be also connected with a quadrupole transition. The measured curves of the reflection coefficient were compared with those calculated by the Fresnel formula using dispersion and absorption data obtained by the authors previously (FTT v. 4, 2454, 1962). The difference between the curves lies in the presence of the above mentioned peak on the experimental curve, and also in some difference in the amplitudes of the curves. It is deduced that the dispersion of the deep and near-surface layers of the crystal is equal. Orig. art. has: 3 figures.

ASSOCIATION: Instytut fizyki AN URSR, Kyiv [Institut fiziki AN UkrSSR, Kiev ]  
(Physics Institute AN UkrSSR)

SUBMITTED: 18Jan64

ENCL: 00

SUB CODE: QP, 58

NR REF SOV: 004

OTHER: 006

Card 2/2

ACC NR: AP009643 SOURCE CODE: UR/0181/66/008/003/0084/0687

AUTHOR: Brodin, M. S.; Strashnikova, M. I.  
ORG: Institute of Physics, AN UkrSSR, Kiev (Institut fiziki AN UkrSSR)

TITLE: Optical characteristics of single-crystal CdS deep inside the intrinsic absorption, and the structure of the energy bands

SOURCE: Fizika tverdogo tela, v. 8, no. 3, 1966, 684-687

TOPIC TAGS: cadmium sulfide, single crystal, exciton energy band structure, conduction band, light absorption, light dispersion, light transmission, temperature dependence, light polarization

ABSTRACT: The absorption and dispersion curves of CdS single-crystal thin films (0.1  $\mu$ ), grown by sublimation from the gas phase, were determined in polarized light in the spectral interval 5,000-2,700  $\text{\AA}$ , corresponding to excitation of the bottom of the conduction band. The absorption curves were determined by directly measuring the optical transmission by photographic and photoelectric methods. The dispersion curves were obtained by an interference method using a Jamin interferometer. It is concluded from the plotted absorption and dispersion curves that at room temperature and lower the absorption increases monotonically with decreasing

Card 1/2

L 34687-66  
ACC NR: AF6009643

wavelength. At 2,800 Å, a broad absorption peak is observed, best seen when the electric field is perpendicular to the c axis. This peak was not observed in earlier investigations. The temperature variation of the absorption is most clearly pronounced in the region of the exciton bands. At low temperatures the intensity of the transitions in the exciton bands are higher than the probability of transitions at the bottom of the conduction band. The polarization properties are such that the intensity of absorption is almost everywhere greater for the electric field parallel to the c axis than perpendicular to the c axis. The dispersion changes little with wavelength. The oscillator strengths of the structural absorption in the vacuum ultraviolet and the degree of polarization of this absorption are estimated from dispersion curves. It is proposed that the longest-wavelength bands from the ultraviolet group are connected with excitation of the second conduction band. The long-wave peak of the ultraviolet group observed in the absorption spectrum may be connected with indirect transitions in the same band. Orig. art. has: 2 figures.

SUB CODE: 20/    SUBM DATE: 07Jul65/    ORIG REF: 003/    OTH REF: 006

Card 2/2 *gl*

1 12 15 24 IWT(m)/EMP(t)/ETI 1966 00  
ACC NR: AP6024494 SOURCE CODE: UR/0181/66/008/007/2231/2233

50  
B

AUTHOR: Brodin, M. S.; Strashnikova, M. I.

ORG: Institute of Physics, AN UkrSSR, Kiev (Institut fiziki AN UkrSSR)

TITLE: The dispersion properties of the  $CdS_x-CdSe_{1-x}$  system and their dependence on the crystal production method

SOURCE: Fizika tverdogo tela, v. 8, no. 7, 1966, 2231-2233

TOPIC TAGS: crystal growth, cadmium sulfide, crystal imperfection, cadmium selenide, optic dispersion

ABSTRACT: The authors present the results of direct measurements of the dispersion of crystals in the  $CdS_x-CdSe_{1-x}$  system. These measurements not only convinced the authors of the coarseness of the extrapolations used, but also showed a rather substantial dependence of the dispersion of CdS and CdS-CdSe crystals on the method of their production. The dispersion measurements were performed at temperatures of 77 and 293K according to the diffraction method of I. V. Obreimov (Izd. AN SSSR, 1945). The authors used crystal leaves on the order of several tens of microns in thickness, grown by the synthesis method. The results are given in Table 1. It is shown that in the case of CdS as well as CdS-CdSe the indexes of refraction of a single crystal leaf are indeed substantially higher than solid crystal indexes. Figure 1 shows dispersion

Card 1/3

L 42815-66  
 ACC NR: AP6024494

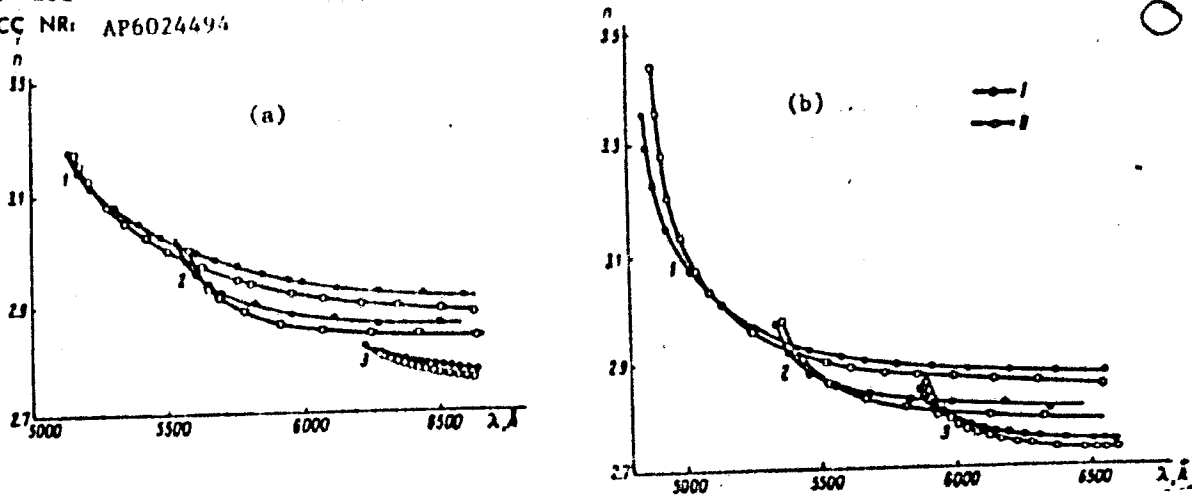


Fig. 1. Dispersion of the crystals CdS, CdS-CdSe at T = 293K (a) and T = 77K (b).

- 1- CdS crystal (thickness  $d=32\mu$ , absorption edge at  $T=77K \lambda_{edge}=4890\mu$ )
- 2-  $CdS_{0.77}-CdSe_{0.23}$  crystal ( $d=4\mu, \lambda_{edge}=5330\mu$ )
- 3-  $CdS_{0.47}-CdSe_{0.53}$  crystal ( $d=62\mu, \lambda_{edge}=5880\mu$ )
- I- polarization of light along the hexagonal axis C
- II- polarization of light perpendicular to the axis C

Card 2/3

L 4218-72  
ACC NR: AP0024494

Table 1. Indexes of refraction  $\bar{n}$  for solid and leaf crystals of CdS-CdSe (the data for  $\bar{n}$  are averaged for two polarizers)

	$\lambda, \text{\AA}$	$\bar{n}$ solid	$\bar{n}$ leaf
CdS.....	5774	2.55 $\pm$ 0.06	2.95 $\pm$ 0.11
CdS <sub>0.70</sub> -CdSe <sub>0.30</sub> .....	6400	2.40 $\pm$ 0.04	2.86 $\pm$ 0.12
CdS <sub>0.80</sub> -CdSe <sub>0.20</sub> .....	6400	2.42 $\pm$ 0.05	2.79 $\pm$ 0.13

curves measured by the diffraction method on thin crystals of the following composition: CdS, CdS<sub>0.77</sub>-CdSe<sub>0.23</sub>, and CdS<sub>0.47</sub>-CdSe<sub>0.53</sub>. A comparison of the curves shows that their form depends essentially on the composition. On the basis of the dispersion data obtained, the authors conclude that crystal imperfections related to the deviation from stoichiometry should lead to a substantial decrease in the intensity of the bands located in the near vacuum ultraviolet, since it is this absorption that determines, to a considerable degree, the dispersion in the region examined. Orig. art. has: 1 table and 1 figure. [26]

SUB CODE: 20/ SUBM DATE: 09Dec65/ ORIG REF: 006/ OTH REF: 003/ ATD PRESS: 5067

Card 3/3 | *llh*

BRODIN, M.S.; STRASHNIKOVA, M.I. [Strashnykova, M.I.]

Characteristics of the reflection spectrum of the CdS crystal  
in the region of exciton bands. Ukr. fiz. zhur. 10 no.4:410-415  
Ap '65. (MIRA 18:5)

1. Institut fiziki AN UkrSSR, Kiyev.



MURSALOVA, R.A., kand.med.nauk; STRASHNOV, V.I.,

Ninth session of the Vishnevskii Institute of Surgery, devoted to the  
40th anniversary of the Great October Socialist Revolution. Vest.  
khir. 90 no.5:144-147 My '58 (MIRA 11:7)  
(SURGERY)

UGLOV, F.G., prof. (Leningrad, Kirovskiy pr., d.2, kv. 26); MARTYNCHEV, A.M.,  
kand. med. nauk; NIKITINA, N.I.; STRASHKOV, V.I.

Changes in the venous pressure of patients with adhesive pericarditis  
in connection with surgery. Vest. khir. 82 no.5:18-29 My '59.  
(MIRA 12:7)

1. Iz hospital'noy khirurgicheskoy kliniki (zav. - prof. F. G. Uglov)  
1-go Leningradskogo meditsinskogo instituta im. I.P. Pavlova.  
(BLOOD-PRESSURE) (PERICARDIUM--SURGERY)

UGLOV, F.G., prof.; STRASHNOV, V.I.; UCHVATKINA, M.K.

Tracheostomy in the surgical clinic. Vest. Khir. 91 no.12:  
19.27 B '63. (MIRA 17:9)

1. Iz gospiatal'noy khirurgicheskoy kliniki (zav.- prof. F.G. Uglov) 1-go Leningradskogo meditsinskogo instituta imeni Pavlova (dir.- dotsent A.I. Ivanov). Adres avtorov: Leningrad, P-89, ul. L'va Tolstogo, d.6/8, gospiatal'naya khirurgicheskaya klinika.

S. PASHENOV, V.I.; VAKHONIN, V.S.

Use of the RO-1 apparatus in the Surgical Clinic of the  
I.P. Pavlov First Leningrad Medical Institute. Report No.1.  
Nov. med. tekhn. no.3:54-57 '65. (MIRA 19:1)

BALANDIN, A.A.; SLOVOKHOTOVA, T.A.; STRASHNOVA, I.A.

Catalytic decomposition of isomeric xylenes in the presence of  
water vapor. Vest.Mosk.un. 12 no.1:101-110 '57. (MLBA 10:8)

1.Moskovskiy universitet, Kafedra organicheskogo katalisa.  
(Xylene) (Catalysis)

L 32680-66 EWT(m)/EWP(j)/T RM

ACC NR: AP6013745

(A)

SOURCE CODE: UR/0063/65/010/006/0712/0714

AUTHORS: Strashnova, T. F.; Mikhaylov, N. V.; Mayboroda, V. I.

28  
B

ORG: All-Union Scientific Research Institute for Synthetic Fibers and Experimental Plant VNIIV (Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo volokna i opytnyy zavod VNIIV)

TITLE: Preparation of cross-linked capron fiber

SOURCE: Vsesoyuznoye khimicheskoye obshchestvo. Zhurnal, v. 10, no. 6, 1965, 712-714

TOPIC TAGS: polyester plastic, synthetic fiber, polymer cross linking

ABSTRACT: Cross-linking in capron fibers introduced by means of reaction with thionyl chloride has been investigated. The morphological properties of the produced fibers were studied by means of light microscopy according to the method described by W. Bobeth (Textil. ind., 62, No. 21, 905, 1960). The effects of the thionyl chloride concentration in the solution and time and temperature of the treatment upon the degree of cross-linking were investigated. Increase of all of these variables results in a considerable increase of the sulfur content in the fiber and a decrease of its solubility in monohydrate and cresol. It also was shown that the cross linkages are not uniformly distributed throughout the fiber but are localized close to the fiber surface. Orig. art. has: 2 figures and 1 table.

SUB CODE: 07/

SUBM DATE: 27Mar65/

ORIG REF: 002/ OTH REF: 004

Cord 1/1

BLG

UDC: 677.46/49

SOV/79-ZB-7-43/64

**AUTHORS:** Stepanov, B. I., Dedyukhina, L. A.,  
Strashnova, T. T.

**TITLE:** On the Substitution of the Halogen in Azo Compounds (O zameshchenii  
halogena v azosoyedineniyakh) II. The Reaction of 2-Chloro-  
benzeneazo-2'-Naphthene With Phenolates (II. Vzaimodeystviye  
2-khlor benzolazo-2'-naftola s fenolyatami)

**PERIODICAL:** Zhurnal obshchey khimii, 1958, Vol 29, Nr 5,  
pp 1921 - 1925 (USSR)

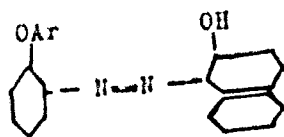
**ABSTRACT:** In the previous paper (Ref 4) the chlorine atom in the o-chloro-  
o"-oxyazodye was substituted by the alkoxy group. In place  
of the latter group the authors this time used the aryloxy group.  
The principal difference consists only of the fact that in the  
present case the above-mentioned dye is not subjected to the  
action of alcoholate in a practically anhydrous medium, but  
that it is subjected to that of phenolate in aqueous alkali  
liquor, in which case, according to Delfs (Del'fs) (Refs 2,3)  
the substitution of chlorine by the oxy group takes place under  
the formation of an unstable copper complex of the dioxyazo  
dye. In the patent of Delfs besides the oxy group no further

Card 1/3

On the Substitution of the Halogen in Azo Compounds.  
 II. The Reaction of 2-Chloro benzeneazo-2'-Naphthene

SOV/79-28-7-43/64  
 With Phenolates

substituents are mentioned (Ref 4). On the heating of 2-chloro-benzeneazo-2'-naphthene at the reflux condenser at 100-110° with vitriol and aqueous alkali solutions of phenol, o-, m- and p-cresol, 1,3,5- and 1,2,4 xlenol, as well as also with 4-(1,1',3',3'-tetramethylbutyl)phenolates in the xylene medium the authors obtained compounds in high yields in which the chlorine atom was substituted by the corresponding aroxy groups. These dyes are derivatives of the o-aminodiphenyl ether and of its homologs:



The control tests in the absence of copper salt were negative. Thus the authors succeeded in substituting chlorine by the aroxy groups in the above mentioned dye in phenyl-, 2-methyl-

Card 2/3



On the Substitution of the Halogen in Azo Compounds. SOV/79-28-7-43/64  
II. The Reaction of 2-Chlorobenzeneazo-2'-Naphthene With Phenolates

phenyl-, 3-methylphenyl-4-methylphenyl-, 3,5-dimethylphenyl-,  
2,4-dimethylphenyl and 4-(1',1',3',3'-tetramethylbutylphenyl)  
radical. These dyes have the same coloring properties as the  
ones found earlier. There are 6 references, 4 of which are Soviet.

ASSOCIATION: Moskovskiy Khimiko-tekhnologicheskii institut imeni D.I.  
Mendeleeva (Chemical and Technical Institute imeni D.I.Mendeleev)

SUBMITTED: June 26, 1957

1. Thionaphthenes--Chemical reactions
2. Substitution reactions
3. Phenolic esters--Chemical reactions
4. Dyes--Chemical analysis

Card 3/3

L 17477-63      EWP(j)/EWT(m)/BDS      AFPTC/ASD      Pc-4      RM  
 S/0183/63/000/004/0066/0067  
 ACCESSION NR: AP3004763

AUTHORS: Mikhaylov, K. V.; Strashnova, T. T.; Tarekhova, G. K.      15      62

TITLE: Method of determining phosphorus in polymers and their fibers

SOURCE: Khimicheskiye volokna, no. 4, 1963, 66-67

TOPIC TAGS: colorimetry, P, polyester, polyamide, ammonium molybdate, MoP complex, ferrous iron, phosphorus

ABSTRACT: The colorimetric method developed for determining P in polymers (including P-containing heterochain polymers such as polyesters and polyamides) can be used with P concentrations as low as  $10^{-5}$  mg./l. with an accuracy of 0.1% absolute value. Ammonium molybdate is used to form an MoP complex which is reduced with ferrous iron released from  $NH_4Fe(SO_4)_2 \cdot 12H_2O$  by the presence of  $K_2SO_3$ . Orig. art. has: 1 figure, 2 formulas.

ASSOCIATION: VNIIV (All-union scientific research institute of synthetic fibers).

SUBMITTED: 11Dec63      DATE ACQ: 20Aug63      ENCL: 00  
 SUB CODE: MA, EL      NO REF SOV: 003      OTHER: 007

Card 1/1

СРЕДНЕВА, Т.Т.; МИХАЙЛОВ, Н.В.; МАТБЕРОВА, В.И.

Preparation of a cross-linked capron fiber. (Dokl. Vses. 1966 no.6:  
712-714 '65) (Engl. 19:1)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstven-  
nogo volokna i opytnyy zavod Vsesoyuznogo nauchno-issledovatel'-  
skogo instituta iskusstvennogo volokna.

L 32966-66 EWT(m)/EWT(j)/I RM  
(A)

SOURCE CODE: UR/0183/66/000/001/0022/0028

ACC NR: AP6017601

AUTHOR: Strashnova, T. T.; Mikhaylov, N. V.; Mayboroda, V. I.

33  
B

ORG: VNIIV

TITLE: Using sulfur chloride solutions for cross-linking capron fibers

SOURCE: Khimicheskiye volokna, no. 1, 1966, 22-26

TOPIC TAGS: sulfur compound, chloride, polymer cross linking, synthetic fiber, nylon, pyridine, solubility, polyamide, mechanical heat treatment

ABSTRACT: The authors study the interaction between polyamide fiber and sulfur chloride. The fibers were treated in xylol solutions of sulfur chloride in the presence of pyridine (for binding the precipitated hydrochloric acid) at a temperature held constant within  $\pm 2^{\circ}\text{C}$ . The fibers were treated in the free state and under tension to prevent shrinkage. Curves are given showing the effect of the type of solvent, temperature, concentration of hydrochloric acid and length of treatment on the amount of bound sulfur in the fiber. It is shown that a chemically twisted fiber may be produced by treating polyamide fiber in sulfur chloride solutions. Data are tabulated on the solubility of the cross-linked polyamide fiber in cresol and monohydrate as a function of the amount of bound sulfur fiber. It is shown that the solubility of the fiber decreases in general as the bound sulfur concentration increases. The experimental

UDC: 677.494.675

Card 1/2

L 32966-66

ACC NR: AP6017601

data show that the bonds are broken in all cases where capron fiber with sulfide cross linking is subjected to heat treatment. There is also a reduction in the quantity of bound sulfur in the fiber. A reduction in fiber strength with increased temperature and bound sulfur concentration is apparently the combined result of destruction of the amide bound by the HCl precipitated during the reaction and disorientation processes. Orig. art. has: 6 figures, 4 tables.

SUB CODE: 11/ SUBM DATE: 11Mar65/ ORIG REF: 005/ OTH REF: 008

Card 2/2

STESHENKO, A.L., inzh., red.; BELOUSOV, V.V., inzh., red.;  
MIZHERICHER, A.M., inzh., red.; STRASHNYKH, V. ., red.;  
NAUMOVA, G.D., tekhn. red.

[Construction norms and regulations] Stroitel'nye normy i pravila. Moskva, Gosstroizdat. Pt.3. Sec.G. ch.1. [Sanitary engineering equipment for buildings and installations; rules governing work and inspection] Sanitarno-tekhnicheskoe oborudovanie zdani i sooruzhenii; pravila proizvodstva i priemki rabot (SNIP III-G. 1-62). 1963. 35 p.

(MIRA 16:7)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po delam stroitel'stva.
  2. Gosudarstvennyy komitet po delam stroitel'stva Soveta Ministrov SSSR (for Steshenko).
  3. Mezhdovedomstvennaya komissiya po peresmotru Stroitel'nykh norm i pravil (for Belousov).
  4. Proyektno-konstruktorskaya kontora Glavnogo upravleniya sanitarno-tekhnicheskikh i montazhnykh rabot Ministerstva stroitel'stva RSFSR (for Mizhericher).
- (Sanitary engineering—Safety measures)

3W/1-95-15-5161

Author: [illegible] (Reference: [illegible], Khirya, No. 15, p. 257 (USSR))

Author: [illegible], [illegible], A.F.

Title: Influence of the pH of a Precipitation System on the pH Value of the Bicarbonate Suspension

Source: [illegible] (USSR), [illegible], [illegible]

Abstract: The effect of the pH of the solution on the pH of precipitation systems is studied. The relationship between the pH value of the bicarbonate suspension and the pH value of the environment of the system. The composition of special indicator solutions is given which are prepared for the determination of the pH of the solution (pH) according to the pH of the solution. The results of the study are presented in which the pH is screened. The results of the study are presented, preventing current leakage from the system. The results of the study are presented under test conditions in no case.

G. Iyulnitsky

01-71

TYUTYUNNIKOV, A. B. [Tiutiunnykov, A. B.] kand. tekhn. nauk; STRASHOK,  
A. F.; GUBENKO, Yu. M. [Hubenko, IU. M.]; PECHENKO, T. I.

Automatic control of the technologically optimum degree of  
carbonization of bicarbonate suspensions. Khim. prom. [Ukr.]  
no. 1:56-60 Ja-Mr '62. (MIRA 15:10)

1. Nauchno-issledovatel'skiy institut osnovnoy khimii.

(Carbonates) (Carbonization)  
(Automatic control)



STRASHOK, I. F.

STRASHOK, I. F. -- "Hematogenetic Osteomyelitis in Children." Khar'kov  
Medical Inst. Khar'kov, 1955. (Dissertation for the Degree of Candidate  
of Medical Sciences)

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

STRASHOK, I.F.

Morphological blood picture in acute hematogenous osteomyelitis following penicillin therapy in children. Antibiotiki 4 no.3: 103-105 My-Je '59. (MIRA 12:9)

1. Kafedra detskoy khirurgii (zav. - prof.A.V.Gabay) Khar'kovskogo meditsinskogo instituta.

(BLOOD CELLS,

count in osteomyelitis in child, eff. of penicillin ther. (Rus))

(OSTEOMYELITIS, in inf. & child, penicillin ther., eff. on blood picture (Rus))

(PENICILLIN, ther. use, osteomyelitis in child, eff. on blood picture (Rus))

PHASE I BOOK EXPLOITATION

Kremlevskiy, P. P., Candidate of Technical Sciences, ed.

Технологическое и химикотехнологическое приборостроение в регуляторных системах и регуляторах в теплоэнергетике и химической промышленности. Москва, Mashgiz, 1961. 307 p. Errata slip inserted. 3,300 copies printed.

Zd. of Publishing House. G. A. Dubusova, Tech. Ed. L. V. Shchastulina, Managing Ed. for Literature on the Design and Operation of Machines, Leningrad Department, Mashgiz; F. L. Fedlov, Engineer.

PURPOSE: This book is intended for engineers and technicians who construct, design, and operate industrial instruments and regulators.

COVERAGE: The book deals with new investigations in the field of automatic checking and regulation of heat-power and chemical industrial processes. The following problems are discussed: improvement of two-position control operation; effect of mass action and damping on proportional regulation systems; complete automation of open-hearth furnaces; automation of boilers with variable load capacity; measurement of pulsating flow; measurement of dust flow; ultrasonic and magnetic induction flowmeters; pneumatic compensating differential manometers; aggregative-fluid flowmeters; new magnetic and optical acoustic gas analyzers; concentration meters; and chloride and cyanide regulators. The book is the fifth in a series containing reports on the investigations and automation of the Leningradskoye obshchestvo nauchno-tekhnicheskogo obshchestva priborostroyeniya promyshlennosti (Leningrad Branch of the Scientific and Technical Society of the Institute-Building Industry.) All the articles presented in this book were discussed either at sessions of the above section or at the conference on measurements of mechanical quantities called by the section, the VNIIM (Vsesoyuznyy nauchno-issledovatel'skiy institut metrologii im. D. I. Mendeleeva - All-Union Scientific Research Institute of Metrology named D. I. Mendeleev), and the Leningradskiy dom tekhnicheskoye im. A. M. Gor'kogo (Leningrad Home for Scientists named A. M. Gor'kiy). No personalities are mentioned. There are 63 references: 41 Soviet, 20 English, and 4 German. References accompany most chapters.

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LOGUNOV, Vasily Dmitriyevich; STRASHUN, B.A., red.; BELYAYEV, H.A.,  
tekhn.red.

[Present control of the Danube by international law] Sovremennyi  
mezhdunarodno-provovoi rezhim Dunais. Moskva, Izd-vo IMO, 1958.  
150 p. (MIRA 11:5)  
(Danube River--Navigation--Laws and regulations)

AID P - 2166

Subject : USSR/Medicine

Card 1/1 Pub. 37 - 8/22

Author : Strashun, I. D., Prof., Memb., Acad. of Med. Sci., USSR

Title : The 75th anniversary of the first sanitary inspection of factories and plants in Moscow Province

Periodical : Gig. i san., 4, 31-36, Ap 1955

Abstract : Describes the sanitary inspection of Moscow Province factories and plants conducted by F. F. Erisman with Dr. A. V. Pogozhev from 1879 to 1885. The results of their 6-year inspection were published in 17 volumes and present a clear picture of the working conditions of that time. This historical sketch is based on that work and on other materials. References in footnotes.

Institution : None

Submitted : Ag 28, 1954

STRASHUN, I.D., prof., red.; KEDEL'MAN, G.N., red.; GUR'YANOV, V.P., tekhn.  
188.

[Index of articles and separate works published by the Moscow Society of Naturalists] Ukazatel' statei i otdel'nykh izdani, napechatannykh Moskovskim obshchestvom ispytatelei prirody. Pod red. I.D.Strashuna. [Moskva] Izd-vo Mosk.univ. Pt.4. (1940-1954). 1957. 192 p. (MIRA 11:5)

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(MIRA 10:10)

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STRASHUN, I.D. (Moskva)

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republic" Gig.1 san. 22 no.10:84-88 O '57. (MIRA 10:12)

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med. & sanitary serv. in Russia)

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STRASHUN, I.D., prof., red.; MILKNUSHKIN, Yu.I., red.; ROMANOVA,  
~~Z.N., red.~~

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F.G. Krotkov, I.D. Strashun. Moskva, Gos. izd-vo med. lit-ry.  
Vol. 3. 1958. 343 p. (MIRA 12:3)

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MECHNIKOV, Il'ya Il'ich [deceased]; KROTKOV, F.G., glavnyy red.; BELKIN, R.I., red.toma; STRASHUM, I.D., red.toma; ANICHKOV, N.N., red.; BUKLEMISHEV, V.N., red.; VYGODCHIKOV, G.V., red.; ZHDANOV, V.M., red.; ZIL'BER, L.A., red.; KRAYEVSKIY, N.A., red.; PAVLOVSKIY, Ye.N., red.; TIMAKOV, V.D., red.; SEMCHILO, K.K., tekhn.red.

[Academy edition of I.I.Mechnikov's collected works] Akademicheskoe sobranie sochinenii. Red.kollegiya: F.G.Krotkov i dr. Moskva, Gos. izd-vo med.lit-ry. Vol.14. Red.R.I.Belkin i I.D.Strashum. 1959. Vol.14. Red.R.I.Belkin i I.D.Strashum. 1959. 426 p. (MIRA 13:6)  
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STRASHUN, I.D., prof.

Outstanding Russian hygienist; on the 90th birthday of Z.O. Frenkel.  
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STRASHUN, I.D.

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MOIP.Otd.biol. 64 no.4:53-60 J1-Ag '59. (MIRA 13:4)  
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Z.G. Frenkel'; on his 90th birthday. Sov.sdrav. 19 no.1:78-82 '60.  
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First steps of Russian women as physicians. Sov. zdrav. 19 no.7:73-  
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STRASHUN, I.D., prof.

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In memory of Grigorii Abramovich Batkis. Gig. 1 san. 26 no.6:58-61  
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(BATKIS, GRIGORII ABRAMOVICH, d.1960)

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Preparation of collections of papers for the 50th anniversary of  
Soviet medicine. Sov.zdrav. 22 no.4:8-12 '63. (MIRA 16:4)  
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SHASHIN, I.D., prof. (MIRA)

Review of the collection of articles "History of medicine in the Ukraine: based on data of the western provinces of the Ukrainian S.S.R., Transcarpathia and Bukovina." Sov.zdrav. 22 no.6:88-91'63.

(MIRA 16:9)

(UKRAINE, WESTERN—MEDICINE)

STRASHUN, Il'ya Davydovich, prof.; ZHUK, A.P., red.

[Russian social medicine in the period between the two revolutions, 1907-1917] Russkaia obshchestvennaia meditsina v period mezhdu dvumia revoliutsiiami, 1907-1917. Moskva, Meditsina, 1964. 204 p. (MIRA 17:12)

1. Deystvitel'nyy chlen AMN SSSR (for Strashun).

ONIKUL, Ya.Ye., inzhener; STRASHUN, K.Z., inzhener; ROMANOVSKIY, V.P.,  
kandidat tekhnicheskikh nauk, dozent; SHILOV, V.S., inzhener,  
retsensent; VAYNTRAUB, D.A., inzhener, redaktor

[Stamping non-metallic materials] Shtampovka nemetallicheskikh  
materialov. Pod obshchei red. V.P.Romanovskogo. Moskva, Gos. nauchno-  
tekhn. izd-vo mashinostroit. lit-ry, 1955. 56 p. (Bibliotekha  
shtampovshchika, no.8) (MIRA 9:12)  
(Sheet-metal work)

AUTHORS: Nikolayev, M.D. (Engineer), and Strashun, K.Z. (Engineer)  
TITLE: New Plastic Moulding Materials for Reinforced Parts with Inserts  
(Novyye pressmaterialy dlya armirovannykh detaley).  
PERIODICAL: Vestnik Elektromyshlennosti, Nr.11, 1958, pp.48-51,  
(USSR)

ABSTRACT: The most widely-used moulding materials are based on phenolformaldehyde resins with organic and mineral fillers, and include materials types K-18-2, K-21-22, K-211-2, K-211-3. These materials are brittle and differ in coefficient of expansion from metals, and may accordingly crack near the inserts. In order to find materials without these defects and with improved resistance to moisture and temperature, extensive investigations were made on materials 296-M and OFP-6. These materials are both based on phenol oxazolid resins with mineral and wood fillers. The article describes the results of a study of the properties of these materials. The investigations were made on standard specimens, discs and rods, and the results obtained were compared with tabulated

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SOV/110-11-14/28

New Plastic Moulding Materials for Reinforced Parts with Inserts.

data for the usual phenol formaldehyde materials. Standard test methods were used where available. The physical and mechanical properties of materials 296-M and OFP-6 and the usual grades K-18-2, K-21-22, K-211-2 and K-211-3 are presented in Table 1. It will be seen that the new materials are better than the old in respect of impact strength, shrinkage and moulding properties. The moulded component illustrated in Fig.1 shows what can be done with the new materials. The electrical properties of the new and old materials are recorded in Table 2, from which it will be seen that materials 296-M and OFP-6 are better than K-18-2 and are as good as K-21-22, K-211-2 and K-211-3. The new materials also have good resistance to moist atmospheres. The results of heating tests are given in Tables 3 and 4, which show that the tests improve the electrical properties of the new materials. Mechanical tests were made on the new materials at temperatures of 80 - 120°C, to determine their suitability for operation at such temperatures. Little change was found in the

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Reinforced SOV/110-50-11-14/26

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mechanical properties up to these temperatures. The materials could be machined in the usual way. The mouldings illustrated in Fig.2 were made up and subjected to tests. The new materials were of better mechanical strength during heat resistance tests than the old. It is concluded that the new materials are better than the old in a number of respects and that they are especially suitable for the manufacture of parts with inserts where good electrical and mechanical properties must be maintained under conditions of high humidity and temperature. There are 2 figures and 4 tables.

SUBMITTED: February 24, 1958.

1. Molding materials--Properties
2. Phenolic resins--Performance
3. Molding materials--Test results

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0(4)  
AUTHOR: Strashun, K. Z. SOV/32-25-2-54/18

TITLE: The Automatization of the Inspection of Spot-Defects on Enameled Wires (Avtomatizatsiya proverki tochechnykh povrezhdeniy emali provoloki)

PERIODICAL: Zavodskaya laboratoriya, 1959, Vol 25, Nr 2, p 231 (USSR)

ABSTRACT: The measurement of the number of spot defects on enameled wires, which is carried out under GOST regulations, was automatized. Within the unit, the current is conducted in three circuits (Fig): to the sample under investigation, to the motor, and to the devices automatically stopping the unit. The first circuit passes through a transformer, a selenium rectifier, and the defect counter, and on to the sample and to a mercury bath. The circuit to which the motor is connected contains a circuit breaker, a relay, and two contacts. The third circuit contains a relay, two contacts and a revolution counter. The working of the setup is explained by means of the diagram (Fig). The investigations are carried out according to the usual method. The use of this device in the plants made possible a qualitative improvement of the output and a decrease in waste. There is 1 figure.

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S/110/61/000/001/003/023  
E073/E455

AUTHORS: Nikolayev, M.D., Engineer and Strashun, K.Z., Engineer  
TITLE: Experience in Using Foam Plastics in Instrument Construction

PERIODICAL: Vestnik elektropromyshlennosti, 1961, No.1, pp.7-9

TEXT: Foam plastics are used as dielectrics, particularly in high-frequency work. There are also applications where their thermal and sound-insulation properties are advantageous. In this paper some data are summarized on experience gained in using foam plastics as a structural material for light-weight, mechanically strong components and as a "potting" material to insulate components from their surroundings. In systems where weight is of utmost importance, the components are enclosed in housings that consist of a thin inner and outer skin, the cavity between them being filled with foam plastic. The foam plastic is thermosetting grade PK-20 (FK-20), a copolymer-phenolformaldehyde resin and rubber, with the following specified properties:  
density - 0.1 to 0.2 g/cm<sup>3</sup>;  
compression strength - 10 kg/cm<sup>2</sup>;  
water absorption - 0.3 kg/m<sup>2</sup> per 24 h;  
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experience in Using Foam Plastics in Instrument Construction

operating temperature - 120°C;

linear shrinkage - 1% per 24 h;

heat conductivity - 0.028 kcal/m<sup>2</sup>.h.°C.

In actual experiments, a density of 0.18 g/cm<sup>3</sup>, compression strength of over 12 kg/cm<sup>2</sup>, specific impact strength of 1.4 kg cm/cm<sup>2</sup> and shrinkage of 0.34% with a heat resistance of over 170°C were obtained. The bond resistance to steel is much higher in the uncoated state than it is for tinned surfaces. The foaming produces gas generation, resulting in gas pressures on the wall of the order of 2 to 4 kg/cm<sup>2</sup>. Therefore, the skins have to be protected from deformation: this can easily be achieved by cutting the components in a press during the process of foaming. Practical experience has shown that the foam plastic FK-20 is suitable for producing mechanically strong foams for complicated instruments. For large components, thermoplastic materials are recommended. In particular, for radio components a polystyrene foam plastic **PC-1** (PS-1) or **PC-4** (PS-4) is recommended. The authors used the plastic PS-1, the properties of which were as

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Experience in Using Foam Plastics in Instrument Construction

follows:

density - 0.1 to 0.2 g/cm<sup>3</sup>;  
compression strength - 8 to 30 kg/cm<sup>2</sup>;  
shrinkage at 24 h at 60°C - 0.4%;  
water absorption - 0.3 kg/m<sup>2</sup> per 24 h;  
dielectric constant at 1 Mc/s - 1.1 to 1.28;  
tg delta = 1.2 x 10<sup>-3</sup> to 2.4 x 10<sup>-3</sup>;  
coefficient of heat conductivity - 0.03 to 0.04.

Foam polystyrene is marked in the Soviet Union in the form of sheets, 600 x 600 mm, with a maximum thickness of 55 mm. They are already foamed, and fabrication is restricted to changing the shape, machining etc. For "potting", the foam polyurethane **ЖКТ-1** (ZhKT-1) is of interest. Its density is only 0.03 g/cm<sup>3</sup>. It has a low loss-angle and good electric-insulation properties which do not vary greatly in the temperature range -60 to +80°C. Embedding of radio equipment in foam plastics gives a reliable light-weight, rugged structure with a very low degree of shrinkage. There are 2 figures and 1 table.

SUBMITTED: July 25, 1960  
Card 3/3

REF ID: A66000

USSR/ Miscellaneous - Glass fabric

Card 1/1 ; Pub. 77 - 21/21

Authors ; Strashun, N.

Title ; Glass textolite

Periodical ; Nauka i zhizn' 21/9, page 48, Sep 1954

Abstract ; A description is given of the making of glass textolite, which is basically glass fabric pressed together with an adhesive material at a temperature of 200°.

Institution : .....

Submitted : .....

МОНАХОВ, Н. И., 1914, 1915, 1916

Teaching of the history of medicine in our university in the  
19th century. Vestn. 341. No. 10. 1914. (MIRA 17:14)

1. Boyatvitalnyy otbor AMN SSSR.



BESENCH, Nata Moysseyevna; BNYARIYEVSKAYA, Anna Aleksandrovna; POLCHAK, Morat Myudvigovich; VICTORINA, Nina Leonidovna; SEVEROV, Anatoliy Konstantinovich; UCHITEL', Moyssey Yakovlevich; STRALHUN, N.Z., red.; FOICHEV, A.G., red.izd-va; BELGUROVA, I.S., tekhn.red.

[Use of P-68 resin in the manufacture of radio apparatus] Opyt primeneniia smoly P-68 v izdeliakh radiotekhnicheskoi apparatury. Leningrad, 1962. 10 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy. Obzor peredovyi opyt. Seriya: Sinteticheskie materialy, no.5) (MIRA 15:12)

(Radio--Equipment and supplies)  
(Electric relays) (resins, Synthetic)

STRASHUN, S.S.

New fish locating trawlers. Bul. tekhn.-ekon. inform. no. 1163-64  
'57. (MIRA 11:4)

(Fishing boats)

STRASHUN, S.O., Lashner.

Conference of Industrial Engineers (Promoters, Administration 03  
no. 7:62-63) (Efficiency, Industrial) (MIRA 10:8)

STRASHUN, S., inzh.

At the "Leninskaja Kusnitsa" plant. Sudostroenie 23 no.9:66 S '57.  
(MIRA 10:12)  
(Shipbuilding)

STRASHUN, S.S.; VOL'YSON, Ya.I.

Tank barges used on Siberian rivers. Biul. tekhn.-ekon. inform.  
no. 4:77-78 '58. (MIRA 11:6)

(Siberia--Tank vessels)

STRAJANI, S.S., inzh.

Multibucket barge-type nonselfpropelling dredge. Sudostroenie  
2<sup>d</sup> no. 4:72 Ap '58. (MIRA 11:4)  
(Dredging machinery)

STRASHEIN, S.S., inzh.

Shipbuilding workers in other branches of the national economy.  
Sudostroenie 24 no.11:78 N 15R. (MIRA 12:1)  
(Dredging machinery)

VOL'FSON, Ya.I.; STRASHIN, S.S.

Ferryboat for conveying automobiles and motortrucks. Bul.  
tekhn.-ekon.inform. no.5:73-74 '59. (MIRA 12:8)  
(Ferries)



SKACHKO, L.S.; STRASHUN, S.S.

Small-sized vertical marine steam engine. Biul. tekhn. ekon. inform.  
no.9:72-74 '59. (MIRA 13:3)

(Marine engines)

STRASHUN, S.S., inzh.

Motor ships for the Lena River. Rech.transp. 18 no.7:28 J1 '59.  
(MIRA 12:11)

1. Zaved "Leninskaya Kuznitsa."  
(Lena River--Motor ships)

VOL'FSON, Ya.I., inzh.; STRASHUM, S.S., inzh.

Motorship "Krofai Khabarov." Sudostroenie 25 no.5:78  
Mr '59. (MIRA 12:5)

(Mortorships)

VOL'FSON, Ya.I., inzh.; STRASHUN, S.S., inzh.

Universal barges for use on Siberian rivers. Sudostroenie 25  
no.4:10-11 Ap '59. (MIRA 12:6)  
(Barges) (Siberia--Inland navigation)