Begin
Kirillov, V.K.
Моя опыт работы с цветными пробными картами. Сборник карт. № 6: 65-70 1954. (МИА 10: 53) (Cartography)
Use of a lifting jack for replacing rail stands with reinforced concrete stands. Autom. telem. i sviaz' 4 no. 9:31 3 '60.
(MIRA 13:9)

1. Malovisherskaya distantsiya signalizatsii i svyazi Oktyabr'skoy dorogi.

(Electric lines—Poles)
1. KIRILLOV, V.M. Eng.
2. USSR (600)
4. Fishing-Bulgaria
7. Fishing in Bulgaria., Ryb.khoz., 28, No.11, 1952


[Equipment for paint and varnish factories] Oborudovanie
cavodov lakokrasochnoi promyshlennosti. Leningrad, Gos.nauchno-
(Paint industry--Equipment and supplies)
TITLE: Study of the sealing capacity of gaskets from polymeric materials

SOURCE: IVUZ, Khimiya i khimicheskaya tekhnologiya, v. 5, no. 4, 1985, 691-696

TOPIC TAGS: hermetic seal, polyvinyl chloride, polyethylene, polytetrafluoroethylene

ABSTRACT: The conditions under which the tightness of flanged joints is achieved by using polymeric gaskets were studied experimentally by using a special stand with an oil pump and a hydraulic test device (VTU M-170—40) and a polytetrafluoroethylene (PTFE) seal. The investigated materials were treated with a polymer solution (VTU MCNP-4156-50) and a fluoropolymer (PFO) solution.
methylbenzene (VTU M-176-54) correlation of the thermal treatment of the experimental data yielded an equation expressing the relationship.

UDO: 63104-763.42
TIMOSHUK, A.S.; TAGANOV, N.I.; KIRILLOV, V.M.

Design of packing glands. Izv. vys. ucheb. zav.; khim. i khim. tekh. 8 no.2:338-342 1965. (MIRA 18:8)

1. Leningradskiy tekhnologicheskiy institut imeni Leneveta, kafedra mashin i apparatov khimicheskoy promyshlennosti.
KOTOMKINA, A.I.; KIRILLOV, V.P.; DZUTSEVA, A.V.

Exhibitions and displays of special items. Inform. biul. VDNKH no.8:11-12 Aug '63. (MIRA 17:6)

Geophysical investigations in searching for water in desert and semidesert areas of Kazakhstan

ABSTRACT: Numerous geophysical investigations in searching for water have been conducted in Kazakhstan during recent years. In addition to surveys based on special techniques, wide use has been made of the information available from other types of geophysical investigations conducted in the areas of interest. A summary prognostic map of fresh-water development in the northern part of the Turgay depression has been compiled from the resistivity maps made from vertical electrical-sounding measurements. Large areas of the deserts in central and southern Kazakhstan have previously been considered arid. In these areas intrusive and effusive rocks are either exposed or covered by thin loose deposits. Geophysical methods have been used in prospecting for water fracture deposits. The areas favorable for drilling water wells have been selected. Different modifications of resistivity profiling and magnetic and gravity prospecting have been applied. Geophysical investigations for water have proved
highly effective in Kazakhstan. Boreholes and pits sunk at sites recommended by
geophysicists have struck potable water in 287 of 322 localities. The experience
of the geophysicists of Kazakhstan can be of great use in prospecting for water in
desert and arid regions of Asia and Africa under similar geohydrological conditions.
Orig. art. has: 7 figures.

SUB CODE: 08/ SUBM DATE: 06Jan65/
Kirillov, V.P., Deputy Shop Supervisor

A Machine for Restoring the Insulation of Coil Wires

Energetik, 1959, Nr 8, pp 19-22 (USSR)

The author describes in detail the machinery and the methods used for restoring the insulation of copper wiring of burnt electric motors. Copper wires of 0.5-3 mm in diameter are braided by a two-layer cotton insulation. A diagram of the braiding machine is shown in Fig. 1. The productivity is 14 kg of winding wire per shift. A kinematic diagram of the braiding machine is shown in Fig. 2. The machine is powered by a 0.25 kw electric motor developing 1450 rpm. Detailed data on transmission ratios are furnished. The wire to be insulated may be moved at speeds ranging from 1.28 m/min to 0.19 m/min. The rebuilding of the insulation consists of the following phases: removing of the copper wire from the motor, burning the old insulation, straightening of the wires, welding of sections and braiding. For removing windings glued together by varnish, the entire stator must be placed for

Card 1/2
A Machine for Restoring the Insulation of Coil Wires

about 14-18 hours into a tank filled with a 10% solution of caustic soda at a temperature of 60-80°C. The stator must then be washed in flowing water for about 12-16 hours. The burning of the old insulation is performed at 500°C for about 30-40 minutes. The wire is then pickled in a 5% sulfuric acid solution for about 10 minutes. The wire ends are welded electrically by means of a device shown in fig.3. The welded wire is then coiled and braided. There are 3 diagrams.
18 pp (Min of Agriculture USSR, Kazakh State Agr Inst), 110 copies
(ML, 15-50, 114)
USSR/General and Systematic Zoology. Insects. Harmful P
    Insects and Acarids. Forest Pests.

Abs Jour: Ref Zhur - Biol., No 3, 1959, No 11563

Author: Kirillov V.P.
Inst: Institute of Zoology AS KazSSR.
Title: Mass Propagation of the Pine Moth in the Belt of
      the Pine Forests in Kazakhstan.

Orig Pub: Tr. In-ta zool. AN KazSSR, 1958, 8, 127-129.

Abstract: Mass outbreaks of the pine moth in the belt of
pine forests of Kazakhstan are connected with
the growth of small nidi on a large area. The
area in 1956 extended to 98,000 hectares. Avi-
ation spraying of the forests in the spring of
1956 with 5.5% DDT dust insured the death of the
caterpillars.

Card: 1/1

- 44 -
AUTHORS: Yaponeshnikov, V.N., Kirillov, V.P., Kuz'min, V.N. and Petrov, Yu.K.

TITLE: The Dynamics of the Effective Angle of a Sector in Accelerators with Straight Line Sections

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy, Fizika, 1960, Nr 1, pp 139-144 (USSR)

ABSTRACT: The design orbit in accelerators with straight line sections is usually in the form of a closed curve consisting of four straight line sections connected by four circular arcs of radius r0 and subtending an angle of 90° at the centre. One of the necessary conditions for the actual orbit to coincide with the design orbit is that the magnetic field should be zero over the straight line sections and uniform over the other sections. However, owing to leakage, the true magnetic field always differs from the design field so that it is always necessary to introduce the concept of the effective angle of a sector and this is defined by \[ \beta \]
The Dynamics of the Effective Angle of a Sector in Accelerators with Straight Line Sections

Eq (1). The actual distribution of the field is normally of the form indicated by Fig 1. The effective angles of sectors will decrease at low fields owing to eddy currents and residual induction. They will also decrease at high fields owing to saturation effects. This will lead to the appearance of a well-defined fourth harmonic of the distortion of the design orbit, and to a reduction in the maximum energy of the accelerated particles. In the case of inductive acceleration, the betatron ratio is also affected. All these effects have been investigated by the present authors using a plane model. The effects have been found to be small towards the end of the acceleration cycle. They have the biggest effect at the beginning of the cycle. In the latter case the amplitude of the fourth harmonic of the design orbit becomes comparable with the radial dimension of the working region and the change in the betatron ratio may be of the order of a few
The Dynamics of the Effective Angle of a Sector in Accelerators
with Straight Line Sections

tenths of a percent. The reduction in the sector angle
may be compensated at the beginning of the acceleration
cycle by increasing the injection energy. The field at
sector edges may be corrected by d.c. current method...
There are 5 figures and 2 references, 1 of which is
Soviet and 1 English.

ASSOCIATION: NII pri Tomskom politekhnicheskom institute
imeni S.M.Kirova (Scientific Research Institute of the
Tomsk Polytechnical Institute imeni S.M.Kirov)

SUBMITTED: April 3, 1959
Card 3/3

1. Moskovskiy khimiko-tehnologicheskiy institut myasnoy promyshlennosti.
KIRILLOV, V.S.

Veterinary obstetrical practices. Veterinariia 31 no.2:56-58
Ja '53.

(MIRA 6:12)
KIRILLOV, V. S.

KIRILLOV, V. S. From veterinary surgical practice. (For material submitted to the editorial office.)

So: Veterinariya; Vol. 31; No. 1; January 1954; Uncl.

TABCON
GARBER, R.I.; KIRILLOV, V.S.

Change in the spectral distribution of optical density caused by light scattering in plastic deformation of rock salt crystals. Kristallografija 7 no.1:142-144 Ja-F '62. (MIRA 15:2)

1. Umanskiy gosudarstvennyy pedagogicheskii institut. (Rock salt—Optical properties)
GARBER, R.I.; KIRILLOV, V.S.

Spectral distribution of the optical density of plastically deformed rock-salt crystals. Ukr.fiz.zhur. 6 no.6:755-758 N-D '61. (MIRA 16'5)

1. Umanskiy pedagogicheskii institut.
   (Rock salt crystals—Optical properties)
KIRILLOV, V. S.


S0: Knizhnaya Letopis', No. 26, June 1955, Moscow
KIRILOV, Evgenii Alekseevich, kandidat teknicheskikh nauk; GOLUBEKOVA, Ye.S., redaktor; MAL'KOVA, N.V., teknicheskiy redaktor

OSTROVIDOV, Aleksey Mikhailovich; KUZNETSOV, Ivan Alekseyevich; KIRILLOV, V. S., kand. tekhn. nauk, red.; MAL'KOVA, N. V., tekhn. red.


(Bridges--Design)

GIBSHMAN, Yevgeniy Yevgen'evich, prof., zaal. deyateli nauki i tekhniki RSFSR, doktor tekhn. nauk; KALMYKOV, Nikolay Yakovlevich, prof. [deceased]; POLIVANOVA, Nikolay Ivanovich, prof. KIRILLOV, Vyacheslav Sergeevich, dota.; IL'YASEVICH, S.A., doktor tekhn. nauk, prof., retsenzant; DEBEL'DEYEV, B.S., red.; GALAKTIONOVA, Ye.N., tekhn. red.

[Note: Some text not visible due to image quality]

TUNAS, Yevgeniy Viktorovich, kand. tekhn. nauk; FILIMONOVA, Ninel' Levrent'yevna, insh.; SHITL'MAN, Ye'lin Iosifovich, kand. tekhn. nauk; KIRILLOV, V. S., kand. tekhn. nauk, dotts, retsenzent; GANTSUSHIN, A. I., red.; GALAKTIONOVA, Ye. R., tekhn. red.


(Reinforced concrete construction)
(Bridge construction)


1. Glavnuy spetsialist po mostam Khar'kovskogo otdeleniya Gosudar-stvennogo proyektchnogo instituta po promyshlennomu transportu (for Basov).

(Bridges, Concrete—Design and construction)
KIRILLOV, V.S.; TITOV, V.A., red.; BARANOV, Yu.V., tekhn. red.

[Design of high pile gratings for highway bridge supports]

Расчет высоких свайных ростверков опор автодорожных мостов. Изд. Росвузиздат, 1963. 40 с. (MIRA 16:12)

(Bridges—Design and construction)
KIRILLOV, V.S., kand. tekhn. nauk, dot.,; COLUBKOVA, Ye.S., red.

[Calculating buried abutments] Raschet obsynykh ustoy.
Moskva, Vysshaia shkola, 1964. 53 p. (MIRA 17:7)
AKSEL'ROD, Isay Solomonovich; AFAN'EV, Mikhail Aleksandrovich; VEYNBLET, Boris Markovich; GITMAN, Mark Borisovich, kand. tekhn. nauk; DUBROVSKII, Aleksandr Ivanovich; KAMENTSEV, Vladimir Petrovich; KAMINSKI, Boris Aleksandrovich, kand. tekhn. nauk; KOLOKOLOV, Nikolay Mikhailovich; EPSHTEYN, Anatoliy Mordukhovich, prof.; KIDALLOV, V.S., kand. tekhn. nauk, red.; GOLUBKOVA, Ye.S., red.

1. KIRILLOV, V. V.

2. USSR (600)

4. Grapes


KIRILLOV, V.V.


KIRILLOV, V.V.

Investigating some circuits of dividing computers. Sbor. st. LITMO
no.47, 74-80 '59.

(MIRA 16:10)
Title: Experimental investigation of local heat transfer of a plate in a subsonic (up to 260 m/sec) presonic airflow with turbulent boundary layer

Abstract: The authors show that the influence of air's compressibility and energy dissipation upon heat transfer can be taken into account by relating the heat transfer coefficient to the difference between the surface and body temperatures. They present the data for airflows with Re up to $2 \times 10^6$ and $M$ up to 0.8 and describe the test method developed by them. The results are found applicable for both high and low speeds. They did not investigate the influence upon the heat transfer of the dependence of the physical parameters of the gas on temperature and moisture content of the air.

Institution: -

Submitted: July 30, 1954
KIRILLOV, V.V., Cand. Tech. Sci. (diss.) "Experimental study of local heat emission in the turbulent flow of gas in tubes with high velocity."
The author describes a computer developed for the automatic computation of the excess $h$ of one point of a region over another when measuring the difference in longitudinal parallaxes with the stereometer. The computer contains an electronic compensating circuit, solving equations in the form of $h (b + \Delta p) - H\Delta p = 0$. The addition $b + \Delta p$ is effected by feeding the output voltage of a differential potentiometer, whose slider moves proportional to the magnitude of $h$. With the aid of the potentiometer a voltage is produced which is in proportion to the product $h\Delta p$. The voltages to be compared are transmitted to the amplifier of the servo system which operates the slider of the output potentiometer. Investigation results of the computer model are cited. There are 5 figures.
Kirillov, V.V.; Petukhov, B.S.

Studying the heat exchange during a turbulent high-speed gas flow in pipes. Nauch. dokl. vyss. shkoly; energ. no.1:155-160 '58.
(MIRA 11:10)

1. Rekomendovano kafedroy TOT Moskovskogo energeticheskogo instituta.
(Heat exchangers) (Aerodynamics)
Concerning heat exchange during the turbulent flow of liquids in pipes. (K voprosu o teploobmenu pri turbulentnom techenii zhidkosti v trubakh).

ABSTRACT: Most published works on the semi-empirical theory of heat-exchange regard the flow of liquid in a tube as consisting of two or three layers. A velocity distribution law or impulse exchange law is selected for each of the layers. This very rough representation often leads to considerable differences between theory and experiment when Prandtl's number is greater than 10 - 20. The present article gives a theoretical calculation of heat-exchange during turbulent flow of a liquid in tubes, basing the calculation on the law derived by Reichardt for the change of velocity across the section of the tube. This equation is well-founded theoretically and fully verified experimentally. An equation for the coefficient of turbulent exchange of impulse associated with the velocity distribution equation is given. A theoretical calculation is then made of heat-exchange during turbulent flow in tubes of Card 1/4 a liquid of constant physical properties. Expressions
Concerning heat exchange during the turbulent flow of liquids in pipes.

...that cannot be integrated analytically are integrated numerically; hence Nussel's number is expressed as functions of Reynolds' and Prandtl's numbers in Tables 1 and 2. Calculated results for Prandtl's number greater than 0.71 are compared in Fig. 2 with Karman's theoretical formula and Mikheyev's empirical formula. Over the range of Prandtl's number greater than 0.7 and less than 10 the calculated values are within 7% of those given by Karman's formula. However, at higher Prandtl numbers Karman's curves are lower and when Prandtl's number is 20 they are almost horizontal. Analysis of the results shows that for calculations of heat-exchange during turbulent flow in pipes it is best to use the equation for the coefficient of turbulent exchange of impulse. Fig. 3 gives the relationship between Nussel's and Prandtl's number when the latter lies between 0.001 and 0.1 and Reynolds' number lies between $10^4$ and $10^6$. The majority of investigations on heat-exchange during turbulent flow of liquids in pipes has been made over quite a narrow range of Prandtl numbers for small temperature heads, when changes in the physical properties...
Concerning heat exchange during the turbulent flow of liquids in pipes.

of the liquid are insignificant. Heat-transfer measurements were therefore undertaken using water, transformer oil and oil Grade MC under conditions in which there is a considerable change in viscosity with temperature. Other physical properties were also changed but over narrower limits. The characteristics of the experimental data thus obtained and also those of Kreith and Summerfield, which are referred to later, are given in Table 3. The results of the tests for two oils and water are plotted in Fig. 4. The experimental points agree well with one another and give a smooth curve in the ordinates used; the scatter of the test points being no more than 10-15%. The results presented in Fig. 4 show that theoretical calculations correctly represent the relationship between the Nusselt, Reynolds and Prandtl numbers not only when the physical properties are constant but also when there is a considerable change in viscosity with temperature. A new design formula is offered on the basis of the tests and theoretical calculations. It is valid for values of Reynolds number from $10^4$ to $10^6$ and for Prandtl's Card $3/4$ number from 0.7 to 200. Existing empirical formulae are
Concerning heat exchange during the turbulent flow of liquids in pipes, adequate only over a much narrower range than the formulae proposed here.

There are 4 figures and 18 references - 3 German, 9 English, 6 Russian.

ASSOCIATION: Moscow Power Institute. (Moskovskiy Energeticheskiy Institut).

AVAILABLE: Library of Congress.

Card 4/4
KIRILLOV, V.V.

Investigating oscillations of a fluid in an immovable container taking its outflow into account. Trudy MIFI no. 5:62-72 '60. (KIRA 13:10) (Fluid dynamics)
Heat exchange in the process of turbulent flow of a compressible gas in pipes of the region from $M$ to 4. *Teploenergetika* 7 no.5:64-73 My '60.

1. Moskovskiy energeticheskii institut.

(Heat—Radiation and absorption)
AUTHORS: Kirillov, V. V.; Malyugin, Yu. S.

TITLE: Local heat transfer in gas flow in pipes at a high temperature gradient


TOPIC TAGS: high temperature gradient flow, turbulent gas flow, high temperature research, gas flow, heat transfer, turbulent flow, thermal conductivity

ABSTRACT: Since most earlier research has been devoted to heat transfer averaged over the length of the tube, the results of which make it difficult to disclose the influence of individual factors on heat exchange, the present paper reports a procedure and results of an experimental investigation of local heat transfer in the case
of turbulent flow of gas in tubes under arbitrarily large temperature drops. The research was also aimed at accumulating data on heat exchange under such conditions. A stainless steel (1Kh18N9T) tube 1.54 mm in diameter and 212 mm long was used and the heating was by electric current. The small tube diameter made it possible to obtain relatively large Reynolds numbers with low gas flow. The experiments were made under "isothermal heat transfer" conditions, i.e., with temperature factor values close to unity. The results for Re > 25,000 agree with the theoretical formula of the Moscow Power Engineering Institute (B. S. Petukhov and V. V. Kirillov, Teploenergetika, No. 4, 1958)

\[ \text{Nu} = \frac{(\xi/8)\text{Re Pr}}{4.5\sqrt{\xi} (\text{Pr}^{2/3} - 1) + 1.07} \]
where $\xi = (1.82 \log Re - 1.64)^{-2}$. The main data obtained in the test for nitrogen were tabulated. The results are compared with those obtained by others, with particular attention to analogous work done by the Vsesoyuznyy teploenergicheskiy institut (All-Union Heat Engineering Institute). The work was performed in the Nauchno issledovatel'skiy institut vy'sokikh temperatur (Scientific Research Institute of High Temperatures) of the Moscow Power-Engineering Institute under the guidance of Professor B. S. Petukhov. Orig. art. has: 4 figures, 5 formulas, and 1 table.

ASSOCIATION: Nauchno issledovatel'skiy institut vy'sokikh temperatur (High Temperature Research Institute)

SUBMITTED: 29Jun63 DATE ACQ: 26Dec63 ENCL: 01

SUB CODE: PR, AI NO REF SOV: 006 OTHER: 004
KIRILLOV, V. V., inzh.

Automating the processing of stereophotos taken from on board ship. Izv. vys. ucheb. zav.; geod. i aerof. no.4:75-79 '64.

(MIRA 18:2)

1. Leningradskiy institut tekhney mekhaniki i optiki. Rekomen-
dovana kafedroy schetno-r. sayushchikh priberov.
TITLE: Simulation of a hand-written character recognition procedure

SOURCE: AN SSSR. Institut nauchnoy informatiki. Chitayushchye ustroystva (Reading devices). Moscow, VINITI, 1965, 144-154

TOPIC TAGS: computer application, character recognition, adaptive print reader, circuit design

ABSTRACT: There are many problems in the input of information into computers, for the solution of which, on the one hand, it is difficult to use key or digit typesetting devices, and on the other hand, it is undesirable to use card-punching equipment despite its relative reliability. Computer input of manuscript documents without restrictions, however, is not feasible at present. Nonetheless the risk of the development of automats which read manuscript texts will be justified if the effectiveness of the input is raised in only a limited range of problems. Limitations imposed by the class of the problems of input, the size of the document, and the rules of the composition of the document simplify the selection of an optimal rule for the recognition of characters. The most rational rule for the composition of documents is the writing in of characters into a line of the document, which to some
degree reduces the speed of the composition of the document, rather than the writing in of each character into a box. Furthermore, it is not at all complicated to search for a character in the line. However, the input of short digital blanks will still be used as an auxiliary method supplementing the primary method (by means of cardpunching equipment). Taking into consideration the small size of the document, a simple and reliable device with a reading element immovable and relative to the document may be developed. All the restrictions will not be overburdening if the limitations are imposed on the kind of problems fed into the device and for which the error risk is low. Furthermore, the solution time amounts to 10 — 15 sec. The selection of the simplest scanner (across the line of the document with 15 — 20 scans per character) may complete the general part of the determination of the input procedure. The author discusses such devices and proposes a procedure. The method is calculated for use with the "Strela" electronic computer. Orig. art. has: 12 formulas, 11 figures, and 3 tables.

SUB CODE: 09 / SUBM DATE: 09Sep65 / ORIG REF: 003
KIRILLOV, Valerian Valerianovich; DMITRIYEV, I.N., retsenz.; MATVEEV, L.I., stv. red.; YASNOGORODSKAYA, M.M., red.

ZHADANOVA, О.К. (Москва); КИРИЛЕВ, В.В. (Москва); КУПРИКОВ, В.Я. (Москва)

Processing for solving a regulation (planning and control) problem. Zhur. vych. mat. i mat. fis. 5 no.1:150-155 Ja-F '65.

(MIRA 1314)
TITLE: Propagation of long wavelength waves. Computation of coefficients of reflection of plane waves from a nonhomogeneous anisotropic plasma


TOPIC TAGS: plasma wave propagation, radio wave propagation, LF propagation, ionospheric propagation

ABSTRACT: The reflection properties of the ionosphere in the region of kc frequencies is studied. The problem is formulated mathematically for day and night models of the electron density distributions which take into account the presence of the earth's magnetic field. The admittance and reflection matrices were computed on the M-20. They show that at low frequencies (<10-15 kc) the change in electron density gradients has a negligible effect on these quantities. The results further show the effect of the angle of incidence of the broadcast wave on the ionosphere. The quasi-Brewster effect is found to have some influence on the reflection coefficients; the magnetic field effects are small when grazing incidence angles are considered. An error analysis of
the analytical method indicates that frequency regions can be selected where the accuracy of the results is very good. For illustration, several numerical examples have been worked out. The results show that the effect of uncertainty in the initial conditions on the reflection and admittance coefficients is of the order of a few percent for realistic cases. Orig. art. has: 7 figures, 12 formulas, 3 tables.
KIRILLOV, V.Ya.

Mechanical counter of beta rays emitted from metallometric samples. Razved. i okh. nadr. 28 no.11:51 N '62. (MIRA 15:12)

1. Altayskaya geofizicheskaya ekspeditsiya.
   (Radioactive prospecting—Equipment and supplies)
   (Counting devices)
FEDOROV, V.A.; KIRILLOV, V.Ye.

Millet in Tambov Province. Zemledelie 23 no.11:42-46 N '61. (MIRA 14:14)

1. Tambovskaya oblastnaya gosudarstvennaya sel'skokhozyaystvennaya opytnaya stantsiya. (Tambov Province--Millet)
KIRILLOV, Ye A.

"Reactive Changes in the Peripheral and Certain Central Divisions of the Nervous System Caused by the Action of Immune Sera, Vaccines, Antitoxins, and Toxins (Experimental Histological Investigation)." Dr Med Sci, Kharkov State Medical Inst., Ivanovo, 1953.
(KL, No 8, Feb 55)

(14)
KIRILLOV, Ye. A.; BROUN, Zh. L.; CHIBISOV, K.V.

Investigation of the chemical sensitisation of photographic emulsions. Dokl. AN SSSR 102 no. 6:1159-1162 Je`55. (MIRA 8:10)

1. Chun-korrespondent Akademii nauk SSSR (for Chibisov) 2. Fizicheskiy institut Odesskogo gosudarstvennogo universiteta imeni I.I. Mechnikova (Photographic emulsions)

The absorption spectrum of a Lippman emulsion treated with $0.3 \times 10^{-7}$ to $0.3 \times 10^{-5}$ m-thioura at pH 10.17 resembles that of hydrazine-treated emulsions; and the rise in sensitivity is of the same order for both reagents. This suggests that thioura causes increase in the number of primary active centres of the AgBr crystallite.
USSR/Human and Animal Morphology. Integration

Abs Jour: Raz Zhur - Biol., No 20, 1958, No 92849

Author: Kirillov Ya.A.
Inst: Ivanovsk Medical Institute
Title: Morphological Investigation of Nerve and Other Tissue Elements of Human and Animal Skin with Antivaricose Vaccination

Orig Pub: Sb. nauchn. tr. Ivanovsk. med. in-ta, 1957, vyp. 12, 341-348

Abstract: A histological investigation was made of the skin parts of 16 rabbits, 7-30 days after the application of the varicose dextrin. Along the nerve fibres, loopy-formed structures, wavy glomeri, figures of retrograde growth, etc., have been observed which lead to the hypervascularization of the given innervation field. On the corresponding parts of the human skin changes in the nerve fibres and ends have been detected during 2-10 months after vaccination. Thus, the nervous system of the skin retains the imprint of the contact with the rash for a considerable time.

Card: 1/1
KIRILLOV, Yeugeny Aleksandrovich; FYLAEVA, A.P., red.; TRUKHINA, O.N.,

[FInances of collective farms] Finansy kolkhozov. Moscow,
(HIRA 15:3)

(Collective farms—Finance)
KIRILLOV, Yevgeniy Aleksandrovich; MISEYUK, K.A., red.; TELEGINA, T., tekhn. red.

KIRILLOV, Ye.A. [deceased]; YAROSLAVTSEV, A.D.

Scrapping crystallizer. Mash. i neft'. obor. no,1:27-33 '63. (MIRA 17:1)

1. Gosudarstvennyy naukho-issledovatel'skiy i proektnyy institut neftyanogo mashinostroyeniya.
KIRILLOV, Ye.A. [deceased]; RAKITYANSKAYA, O.F.

Role of F centers in the adsorption of dyes by the halide crystals of alkali metals and silver. Zhur. nauch. i prikl. ftt.
i kin. 10 no.1:23-34 Ja-F '65. (MIRA 1844)

1. Odesskii gosudarstvenny universitet imeni I. Mechnikova.
BROWN, Zh.L.; KIRILLOV, Ye.A. [deceased]; CHIBISOV, K.V.

Comparative study of the chemical ripening and photolysis of photographic emulsions. Dokl. AN SSSR 161 no.3:622-626 Mr '65. (MIRA 18:4)

1. Chlen-korrespondent AN SSSR (for Chibisov).
AgCl w. r. t. to the electrodes produces an e. m. f. with max. values of 5 x 10^{-4} v. at 2000 A. and 2.5 x 10^{-4} v. at 4000 A. Illumination of the systems AgI Ag and 
AgAu gave contact potentials with maxima at 5000 A. and 10,000 A. and minima at 6000 A. and 8000 A. for the 1st and with a max. at 7000 A. and minima at the same points for the 2nd. The effects are interpreted as photoemis. rather than barrier-diff. effects. F. H. Machmann
Effect of plastic deformation on the inner photo-effect in silver chloride single crystals.

E. A. Kuznetsov and A. M. Polovski (Fizich. Z. Sowietunion, 1926, 9, 100-101).—The photo-current increases by 3--7% with stretching forces of 80-100 g. per sq. mm. but decreases sharply to 30-50% of the original val. with forces >300 g. per sq. mm.

R. R.
Internal photoelectric effect and dark conductivity in silver chloride. G. A. Kirillov and I. Z. Levit (Phys. Inst., Odessa, Steklov 17, 1947) (in Russian). Film illumination (20-40 sec.) at room temp. of AgCl with wave lengths from 3000 to 4500 "A", being about an increase of elec. cond. 1. The effect has a marked max. at about 4500 "A". The pure samples exhibited a max. of the internal photoelectron effect, at room temp. between 3000 and 3500 "A", at -60" at 4500 "A". The creation of the illumination, the spread, decay and rectification of the illumination, the curve of the illumination, the wave lengths above 5000 "A", with a flat max. around 5100 "A", coinciding with the position of the secondary max. of the photoelectric effect at -60" after illumination with photochemically active light (Kirillov, C.A. 23, 1929). This sec. max. is unaffected by 2 hrs. illumination with 4500 "A".

N. I. Chom
The Internal Photoelectric Effect and the Conductivity in Darkness of Silver Chloride Crystals. E. A. Kipnis and I. Z. Loz. J. Phys. exp. theor. U.R.S.S., vol. 5, no. 1, pp. 187-188, May, 1948. An increase has been observed in the conductivity in darkness of mono-crystalline sheets of silver chloride exposed to radiations of 300-400 mp at the ambient temperature. After exposure the conductivity gradually decreases to its initial value. The rate of decrease can be considerably accelerated by exposure to light of wavelength greater than 450 mp. The influence of wavelength and temperature on these two effects has been studied, and the results are compared with the spectral distribution of the internal photoelectric effect at the ambient temperature and - 40° C.

H.O.D.
KIRILLOV, YE. A.


SO: Letopis' Zhurnal'nykh Statей, Vol. 47, 1948
Absorption spectrum of photochemical colored silver chloride. R. A. Kvitlov (Odessa Univ.) J. Phys. Acad. Nauk S.S.S.R., Ser. Fiz. 17, 233-40 (1948); cf. C.A. 42, 1801d.—The ratios of transparencies of illuminated and nonilluminated AgCl, melted between 2 quartz plates, evaporated in a vacuum on quartz, on Lippman plates, and in photographic emulsion were measured with a double quartz monochromator between 254 and 2000 m. illumination was made with 366-m. radiation. Thirty max. of the ratio curve are tabulated. The spectrum of AgBr shows also a complex structure and some maxima are common to AgI and AgCl. Five max. of AgCl and 6 max. of AgBr correspond exactly to maxima of the inner photoelectric effect, quoted from literature. The complex nature of the spectra is ascribed to atoms or small clusters of Ag, distributed on the surface or on lattice nodes and identical with centers of the inner photoeffect. S. Paksner
KIRILLOV, YE. A.

Photochemistry

Light absorption by color centers in silver halide. Usp. nauch. fot., No. 1, 1951

Monthly List of Russian Accessions, Library of Congress, June 1952, UNCLASSIFIED
(Silver halides--Spectra) (Photographic chemistry)
Title: Study of the chemical sensitization of photo emulsions. Effect of the reducing agent.

Abstract: Reduction sensitization experiments by treating a Lipsmann AgBr emulsion in the form of layers applied on glass slides, with a hydrazine (N₂H₄ · H₂O) solution, are described. The absorption spectrum of the emulsion layer, treated in a hydrazine solution, was measured and the results are shown in graphs. It was found, on the basis of spectrophotometric measurements, that the physical process of sensitization with hydrazine consists in the formation of silver centers which increase in number and size during increase in concentration of the solution. Three USSR references (1948-1953). Graphs.

Institution: The I. I. Mechnikov State University, Physics Institute, Odessa

Submitted: May 6, 1954
KIRILLOV, E. A.

Title: Investigation of absorption spectra of primary centers in photo-emulsion grains.


Abstract: In order to comprehend the nature of primary centers and the mechanism of the photo-activity, the authors measured the absorption spectra of such primary centers without disturbing the homogeneity of the emulsion layer. The two individual methods employed in this study are described. The results are characterized by spectral curves shown in graphs. The mean positions of the absorption maxima of the primary centers were computed from the spectral curves obtained by the two described methods. Three USSR references (1947-1954). Table; graphs.

Institution: The I. I. Mechnikov State University, Scientific Research Institute of Physics, Odessa.

KIRILLOV, Ye.A.

On the absorption spectra of silver halides and of thin silver layers. Zhur.tekh.fiz. no.12:2143-2149 0 '55. (MIRA 9:1)

(Silver halides--Spectra) (Photographic chemistry)
KIRILLOV, Ye. A. and NESTEROVSKAIA, Ye. A.

"The Structure of the Absorption Spectrum and the Bleaching-Out of Photochemically Colored Silver Halide," a paper given at the International Conference on Scientific Photography, Cologne, 24-27 Sep 1956
Abstract: Chemical sensitization was studied with layers of Lipman emulsion, first processed in a solution of hydrazine, tin chloride, thiourea, or thiozinamine at 20° for 10-30 minutes. After the layer was washed and dried, the absorption spectrum was determined with a double monochromator from the ratio to the unprocessed layer in the 400-800 mu region, with intervals of 2.5-5 mu (using the Kirillov method). To determine the photographic action of these solutions, the compounds were exposed and developed in a glycine developer. The light sensitivity was determined from the threshold (using the Eder-Hocht wedge). It was established that when the layer of Lipman emulsion is treated with reducers (hydrazine, tin chloride) or with compounds with labile sulphur (thiourea or thiozinamide in alkaline medium) in certain concentrations, one observes a fine spectral structure, coinciding with the structure produced by photochemically-dying silver bromide or by vacuum spattering of silver. An analogous


(Continued on next card)
KIRILLOV, Ye.A.; NESTEROVSKAYA, Ye.A.


(Photographic emulsions)
NECHAYEVA, T.A.; KIRILLOV, Ye.A.

The optical mechanism of fine structure in the spectrum of thin layers of silver. Zhur.nauch.i prikl.fot.i kin. 2 no.6:404-407 N-D '57.


(Silver halides--Spectra)
Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 6, p 294 (USSR)

AUTHORS: Kirillov, Ye.A., Nechayeva, T.A.

TITLE: Investigation of the Optical Mechanics of the Appearance of a Complex Structure in the Absorption Spectrum of Thin Crystal Layers (Issledovaniye opticheskogo mekhanizma yavleniya sloznoy struktury v spektere pogloscheniya tonkikh kristallicheskikh sloyev)

PERIODICAL: Nauchny yezhegodnik. Odessk. un-t, 1956, Odessa, 1957, p 145

ABSTRACT: Investigation of the nature of "fine" structure (FS) of the spectrum of light passing through a thin layer of metal on glass or quartz. The FS could be attributed to the phenomenon of absorption as well as to the phenomenon of light diffusion in the thin layer of dispersed metal. Experiments were carried out with thin layers of Ag on quartz and exposure of photosensitive layers. The apparatus permitted increasing or weakening the action of the diffused light. However, FS was always equally distinct. The results of the experiment corroborate the hypothesis that FS is due to actual absorption.

I.D.
[S'tora, T.I.A.]

Physics at Odessa University. Ukr. fiz. zhur. 3 no.13:9
Ja-Y '58.
(MIRA 11:4)

1.Odes'kiy dershavniy universitet.
(Physics)
PLOTIGAR, S.Ya., kand. fiz.-matem. nauk; NESTEROVSKAYA, Ye.A., kand. fiz.-matem. nauk; KIRILLOV, Ye.A., prof., doktor fiz.-matem. nauk, zasluzhenny deyatel' nauki USSR, red.; SOLOMONYUK, R.Ye., dotsent, kand. fiz.-matem. nauk, red.; SHAPIROVICH, M.D., tekhwod.

AUTHOR: Kirillov, Ye.A., Nesterovskaya, Ye.A.

TITLE: On the Causes of Destruction of Selectivity in a Silver Halide During the Bleaching Process

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1959, Vol 4, Nr 3, pp 172-174 (USSR)

ABSTRACT: This is a study of the causes of the destruction of selective capacities of a silver halide in photographic emulsions, a phenomenon accompanying the bleaching process. The authors—convinced that the bleaching of the fine structure is a rather complicated process—limited their investigation to the study of the effect of monochromatic light (second exposure) on a silver halide, remaining during their experiments within the limits of the latent image produced by the first exposure. The authors used fine-grained silver bromide layers of the Lippman type. The preparations were exposed in the usual way until the latent image had formed, desensitized (green pinacryptol) and
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During the Bleaching Process

differentially measured in the spectrophotometer. Subsequently the preparations were exposed to the radiation of a wave of corresponding length and subjected again to measuring. The results are illustrated by graphs 1-4. A comparison between the curves of graphs 1-2, which illustrate absorption prior to and after the effect of green and red light (\( \lambda \approx 555 \text{ and } 670 \mu \alpha \)), makes evident, that under the effect of narrow spectral bands the fine structure undergoes a bleaching process, which results in a levelling of absorption. However, under these simple conditions too the phenomenon is not limited to the effective spectral band and can be also observed, to a minor extent, beyond its limits. The authors discuss the cause of this destruction of selectivity. They renounce the hypothesis of a thermal effect of the medium surrounding the centers, as the experiments carried out at low
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temperature did not show a remarkable improvement of selectivity. Concerning the effect of concentration, the experiments proved that the authors' selection of the latent image could weaken but not eliminate the bleaching effect beyond the limits of the effective light. The authors admit that the phenomenon resulting from the experiments can be explained on the basis of a theory developed by F. Seitz and K.S. Shifrin. In this case the particles are to be considered as silver molecules, which supply a spectrum of the molecular type, consisting of a series of zones. Graphs 3-4 show the results of experiments carried out on the basis of over-all exposure of the surface of the preparation to active light, subsequent desensitizing and partial second exposure to monochromatic light, the latter destroying particles of a defined type. In this case
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the differential measuring of the preparation in the spectrophotometer supplies a spectral curve corresponding to the particles, which were destroyed on half of the preparation. The authors point to the circumstance that these curves may well compare with the electronic absorption spectra of some organic compounds, e.g. solutions of diphenyl polyenes in benzene. There are 4 graphs and 11 references, 9 of which are Soviet, 1 German and 1 English.

ASSOCIATION: Odesskiy gosudarstvennyy universitet (Odessa State University) Nauchno-issledovatelskiy institut fiziki (Scientific Research Institute of Physics)

SUBMITTED: 10 July, 1957

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(MIRA 1317)
(Photography) (Kravets, Tarichan Pavlovich)