1124 771.534.554 : 535.417

Measurements of the Thickness of Photographic Emulsion Grains by Means of the Linnick Microinterferometer. P. V. MIKELYAR. *J. Exper. Theoret. Physics, (U.S.S.R.)*, 16, 928-31, 1946 (In Russian with English summary). By observing the grains in a photographic emulsion with the aid of a Linnick microinterferometer, it is possible not only to measure the thickness of the individual grains but also to determine their shape. However, the procedure employed permits this to be done only for large grains whose diameter does not exceed 1 micron. It is hoped to extend the applicability of the method by using an interferometer now under construction, which will have a ninety-fold magnifying power

Mem. Abs. Bull. Kodak Res. Labs.

P.A.

Sensitizing & Desensitizing

'63

771.534.581 : 771.534.18

Herschel Effect for Different Levels of Illumination in the Pre-Exposure. P. V. MEIKLYAR. *Compt. rend. acad. sci. U.R.S.S.*, 54, 705-7, 1946.—A parallel shift of the characteristic curve along the exposure axis was obtained when a photographic plate which had been pre-exposed to actinic light was subsequently exposed through a filter with a transmission boundary at 650 mμ. The extent of this shift was used as a measure of the HERSCHEL effect on plates which had been given pre-exposures of times varying over a range log t = 4.68 with total energy adjusted to give a density of one. The extent of the HERSCHEL effect decreased with decreasing intensity of the pre-exposure light. Light transmitted by a filter with a boundary near 565 mμ was capable of producing density on an unexposed plate, and when this was used for the HERSCHEL effect exposures the characteristic curves intersected at a point corresponding to no change in density. The location of this point varied with the intensity of the pre-exposure light, and the shift followed approximately the change in energy of the actinic light necessary to produce the fixed density under varying illumination. The author interprets his results as showing that latent image centres formed at different exposure intensities although they can lead to the same developed density, are of different quality.

Chem. Abs.

1948

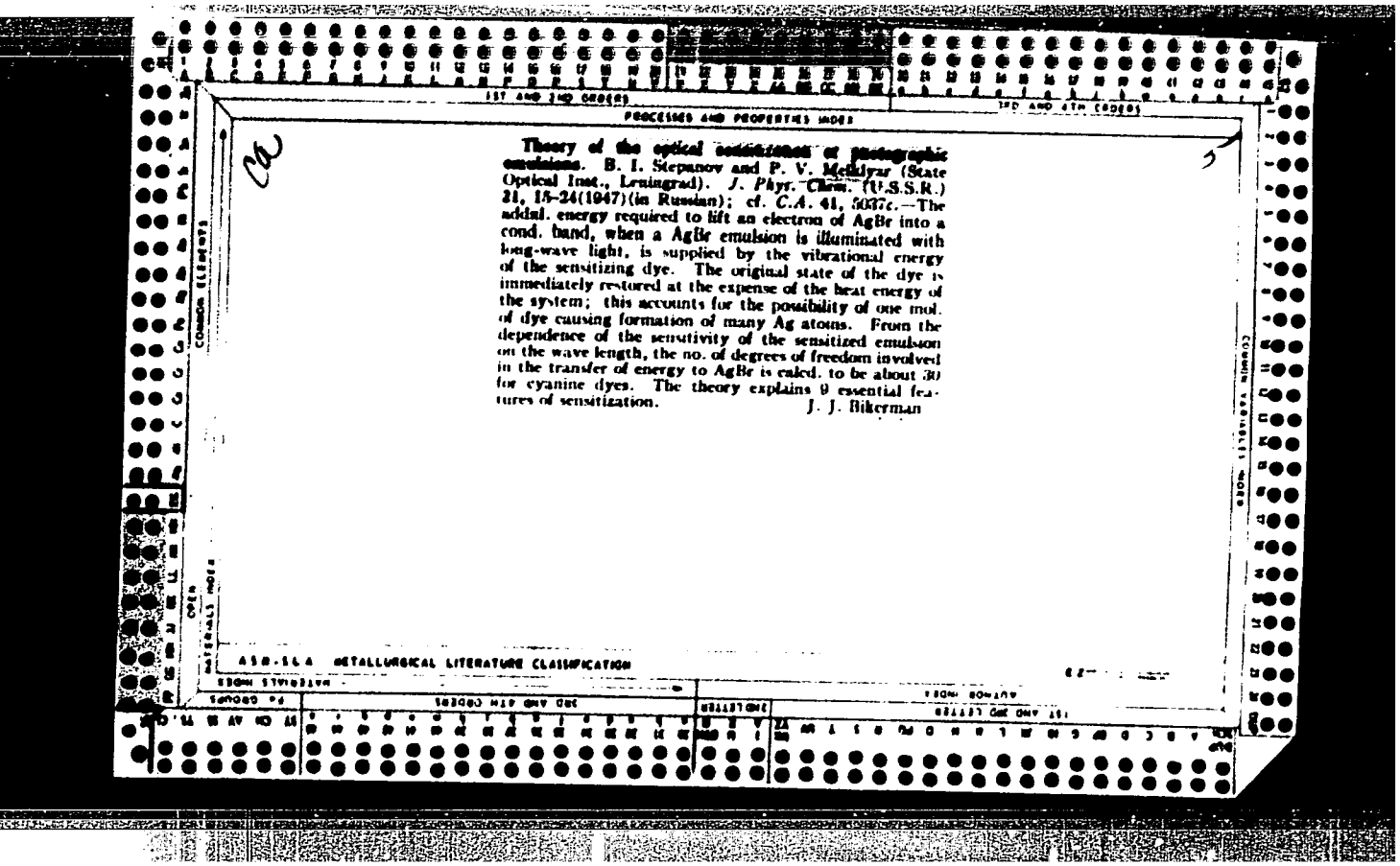
PA

Sensitizing + desensitizing

771.534.2

1085
The Theory of Optical Sensitization. P. V. MEIKLYAR and B. I. STEPANOV. *Compt. rend. Acad. Sci. U.R.S.S.*, 54, 791-794, Dec., 1946.– The luminous energy absorbed in the region of sensitization is much less than that needed to bring an activated electron in the silver bromide lattice into the conductivity zone. It is suggested that the mechanism of sensitization can be explained by supposing that the additional energy is furnished by the thermal energy of the dye molecule. Analogous phenomena occurring in the case of fluorescence, the proposed hypothesis has a physical basis. The suggested treatment also explains the lowering of the initial sensitivity by sensitizing dyes and the mechanism of desensitization.
K.J.C. (based on *S. et I.P.*).

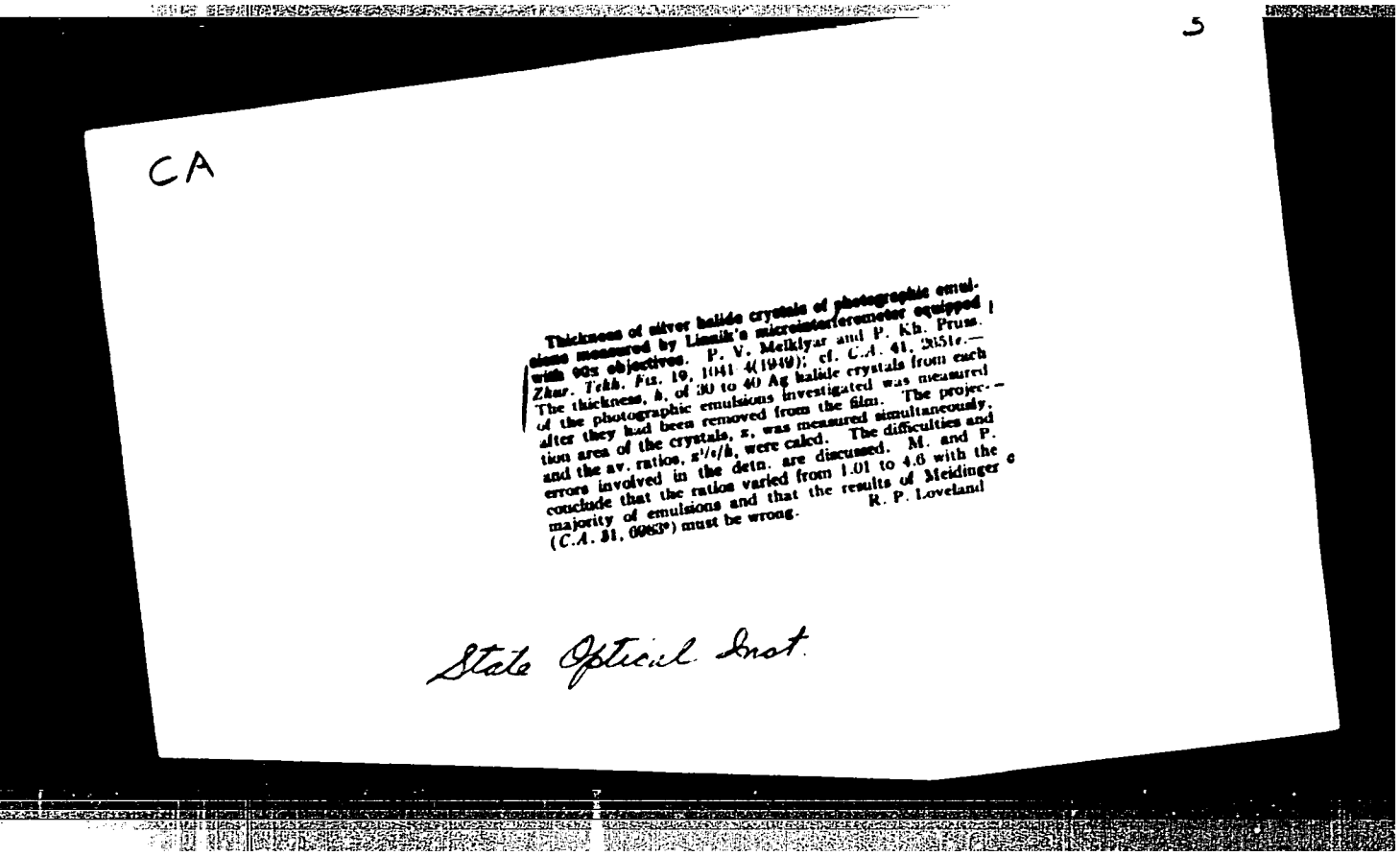
1946



PROCESSES AND PROPERTIES INDEX

Theory of the optical sensitization of photographic emulsions. B. I. Stepanov and P. V. Meiklyar (State Optical Inst., Leningrad). *J. Phys. Chem.* (U.S.S.R.) 21, 15-24(1947)(in Russian); cf. *C.A.* 41, 5037*c*.—The addnl. energy required to lift an electron of AgBr into a cond. band, when a AgBr emulsion is illuminated with long-wave light, is supplied by the vibrational energy of the sensitizing dye. The original state of the dye is immediately restored at the expense of the heat energy of the system; this accounts for the possibility of one mol. of dye causing formation of many Ag atoms. From the dependence of the sensitivity of the sensitized emulsion on the wave length, the no. of degrees of freedom involved in the transfer of energy to AgBr is calcd. to be about 30 for cyanine dyes. The theory explains 9 essential features of sensitization. J. J. Bikerman

A10-5L4 METALLURGICAL LITERATURE CLASSIFICATION



5

CA

Thickness of silver halide crystals of photographic emulsions measured by Linnik's microinterferometer equipped with 90x objectives. P. V. Melikyan and P. Kh. Prusa. *Zhur. Tekh. Fiz.* 19, 1041-4(1949); cf. *C.A.* 41, 2851e.—The thickness, *h*, of 30 to 40 Ag halide crystals from each of the photographic emulsions investigated was measured after they had been removed from the film. The projection area of the crystals, *s*, was measured simultaneously, and the av. ratios, $s^{1/2}/h$, were calcd. The difficulties and errors involved in the detn. are discussed. M. and P. conclude that the ratios varied from 1.01 to 4.6 with the majority of emulsions and that the results of Meidinger (*C.A.* 31, 6983[9]) must be wrong. R. P. Loveland

State Optical Inst.

MEYKLYAR, P. V.

"Latent Photographic Images," Uspekhi Fuz. Nauk, 38, No.1, 1949

P.A

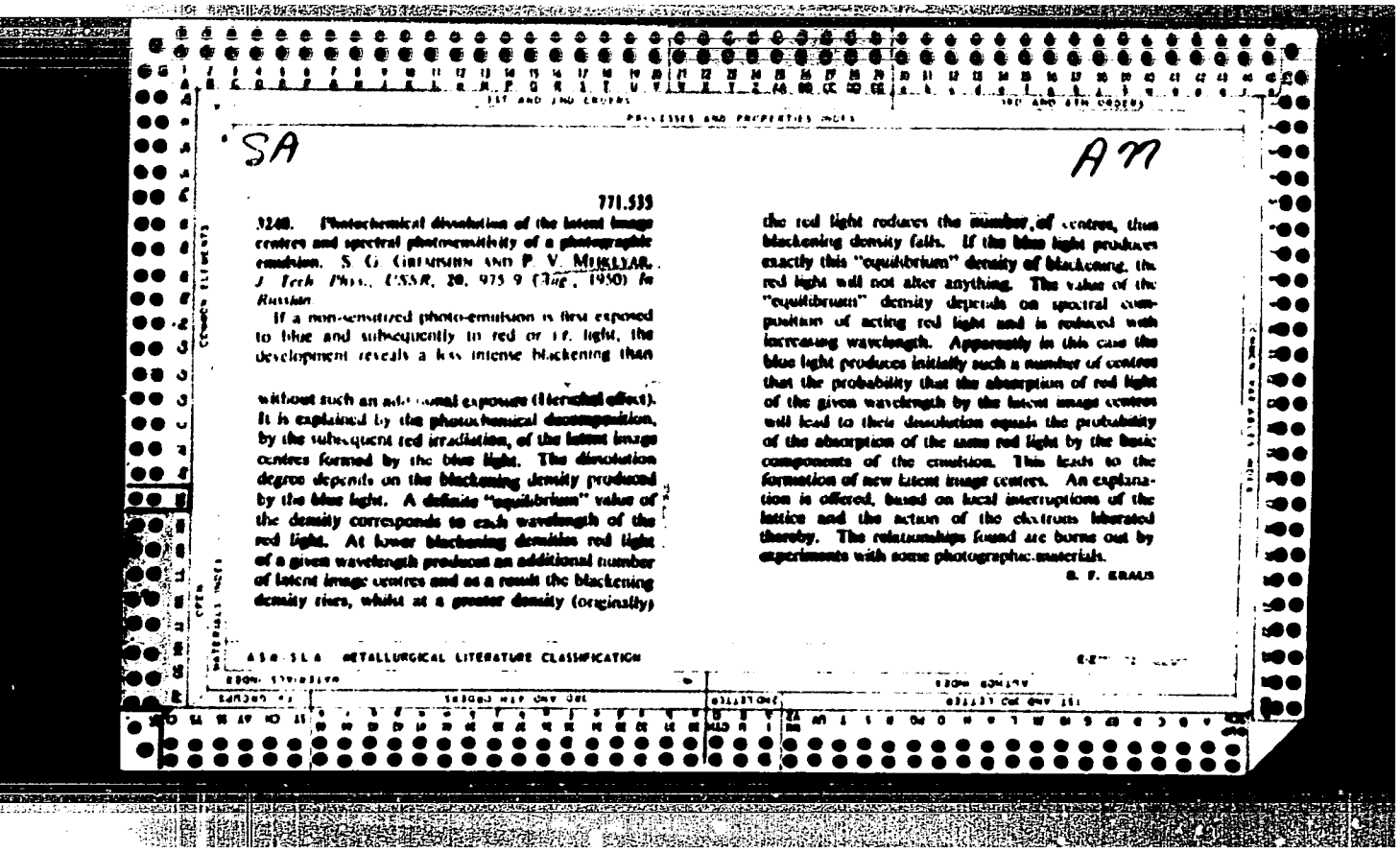
Sensitizing & Sensitometry

159 771.534.18

Absorption of Light by Latent-Image Nuclei. P. V. MEIKLYAR. *Doklady Akad. Nauk., S.S.S.R.*, 1949, **69**, 23-6; *S. et I.P.*, 1950, **21**, 373-375.—A flash pre-exposure is found to increase sensitivity to light of all wavelengths, the effect reaching a maximum for bromide emulsions towards 700 mμ, which corresponds with the absorption maximum of silver bromide monocrystals, which have been coloured by light. The magnitude of the increase depends on the duration of the main exposure only for short wavelengths. It is concluded that the pre-exposure leads to the formation of silver in the emulsion grains.
H.W.W.

State Optical Inst.

1952



SA AM

771.535

3248. **Photochemical dissolution of the latent image centres and spectral photosensitivity of a photographic emulsion.** S. G. GRIGORIEV AND P. V. MIKHLYAR. *J. Tech. Phys., USSR*, 20, 975-9 (Aug., 1950) *In Russian*

If a non-sensitized photo-emulsion is first exposed to blue and subsequently to red or i.r. light, the development reveals a less intense blackening than without such an additional exposure (Herschel effect). It is explained by the photochemical decomposition, by the subsequent red irradiation, of the latent image centres formed by the blue light. The dissolution degree depends on the blackening density produced by the blue light. A definite "equilibrium" value of the density corresponds to each wavelength of the red light. At lower blackening densities red light of a given wavelength produces an additional number of latent image centres and as a result the blackening density rises, whilst at a greater density (originally) the red light reduces the number of centres, thus blackening density falls. If the blue light produces exactly this "equilibrium" density of blackening, the red light will not alter anything. The value of the "equilibrium" density depends on spectral composition of acting red light and is reduced with increasing wavelength. Apparently in this case the blue light produces initially such a number of centres that the probability that the absorption of red light of the given wavelength by the latent image centres will lead to their dissolution equals the probability of the absorption of the same red light by the basic components of the emulsion. This leads to the formation of new latent image centres. An explanation is offered, based on local interruptions of the lattice and the action of the electrons liberated thereby. The relationships found are borne out by experiments with some photographic materials.

S. F. KRAUS

A 5 0 S L A METALLURGICAL LITERATURE CLASSIFICATION

SIT AND SKD CODES

PROCESSES AND PROPERTIES INDEX

5/K

535.343.2 : 537.312.5 : 548.0

[illegible]. Photoelectric and optical properties of silver halide crystals. P. V. Meiklyar and N. K. Putseiko. Dokl. Akad. Nauk, SSSR, 75 (No. 1) 63-5 (1950) In Russian.

Measurements of the spectral distribution of photoelectric sensitivity in crystals of AgCl and AgBr were made by two methods: (a) a condenser method without an electric field [Abstr. 3229, 7815 (1950)]; (b) determination of the photoconductivity. The sign of the charge carriers was determined by using the condenser method with the superposition of a const. electric field [Abstr. 8768 (1950)]. Subsidiary levels in the halides were detected by using a method described previously [Abstr. 6978 (1950)]. Detection and measurement of subsidiary absorption bands (before and after illumination) were made by a differential method on a photoelectric spectrophotometer. It was shown that for non-irradiated AgCl and AgBr there is only one natural band of photoelectric sensitivity with max. of 365 mμ for AgBr and 315 mμ for AgCl. AgBr subjected to irradiation by light of 366 mμ gave two subsidiary photoelectric sensitivity bands with max. at 430-460 mμ and 560-600 mμ. For irradiated AgBr and AgCl in the region of natural sensitivity the conductivity had a "hole" character, while in the region of the subsidiary max. sensitivity the conductivity had an electronic character. By measuring the absorption of irradiated samples in relation to that of non-irradiated samples, subsidiary absorption bands were found with max. at 430-440 mμ for AgBr and 370-380 mμ for AgCl. Simultaneously with these absorption bands, longer wavelength bands were detected belonging to colloidal Ag with max. at 600-700 mμ for AgBr and 560-620 mμ for AgCl. New short wavelength absorption bands were observed by heating non-irradiated crystals, e.g. by heating AgBr from 20° to 200°C at 460-470 mμ, the absorption increased about 10 times, the max. being displaced towards the long wavelength side; on cooling the absorption returned to normal value. On the basis of the results obtained, the formation in irradiated crystals of centres analogous to F-centres in alkali halides is discussed.

W. HUGHES

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

[illegible], S.V.

Photographic Chemistry

Reply to K.S. Lialikov, [illegible] nauch. fot., No. 1, 1951.

Monthly List of Russian Accessions, Library of Congress, June 1952, UNCLASSIFIED

[illegible], F.V. (A'[illegible])

Photographic Chemistry

Effect of the conditions of synthesis of emulsions on the thickness and [illegible] of emulsion crystals. Usp. nauch. fot., No. 1, [illegible].

Monthly List of Russian Accessions, Library of Congress, June [illegible], UNCLASSIFIED.

MEYKLIAR, P. V.

Photochemistry

Analysis of present-day conceptions about the formation of latent photographic images. Usp. nauch. fot., No. 1, 1951.

Monthly List of Russian Accessions, Library of Congress, June 1952, UNCLASSIFIED

MEYKLYAR, P. V.

PA 174T83

USSR/Physics - Photoelectricity Jan 51

"Inertia of Photoelectrical Processes in Silver Halide Salts," P. V. Meyklyar

"Zhur Eksper i Teoret Fiz" Vol XXI, No 1, pp 44-50

Investigates relaxation of photoelec processes in AgBr and AgCl crystals. Studies quant laws governing processes. Gives possible interpretation of phenomena. Submitted 18 Apr 50.

USSR 174T83

MEYKLYAR, P.V.

4839 AEC-tr-2155

PHOTOELECTRIC AND OPTICAL PROPERTIES OF SILVER HALIDE CRYSTALS. E. K. Putseiko and P. V. Meiklyar. Translated from Zhur. Eksptl'. i. Teoret. Fiz. 21, 341-9(1951) 5p. Available from Associated Technical Services (Trans. No. [illegible]), East Orange, N. J.

The spectral distribution of photoelectric sensitivity and light absorption has been studied in both irradiated and [illegible] ... The change in ab- [illegible] ... temperature [illegible] ... the action of light [illegible] "atomic" centers appear which are analogous to F-centers in alkali halide crystals. (auth)

MEYKLYAR, P. V.

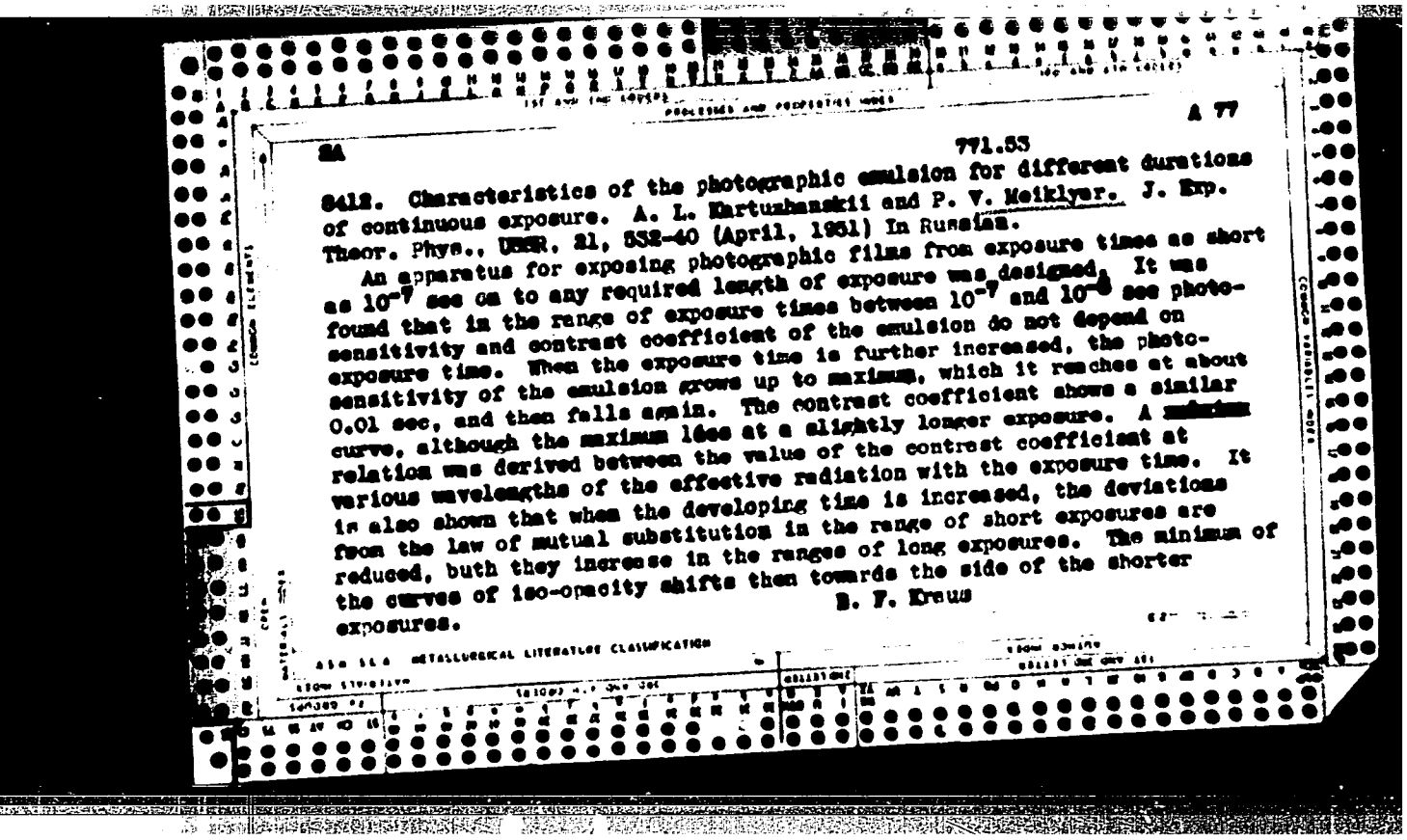
USSR/Physics - Photography 21 Mar 51

"Nature of Light-Sensitivity of Photographic Layers," P. V. Meyklar

Dok Ak Nauk SSSR Vol LXXVIII, No 3, pp 391-394, 1951

Meyklar and E. K. Putseyko show that silver halide crystals may form F-centers, i.e., electrons fixed in vacant nodes of halide ions. F-centers absorb light and release electrons, which wander and finally neutralize silver ions. Small silver particles formed are centers of sensitivity. Submitted 19 Jan 51 by Acad A. N. Terenin.

179197



A 77

8A 771.53

8412. Characteristics of the photographic emulsion for different durations of continuous exposure. A. L. Khartushanskii and P. V. Meiklyar. J. Exp. Theor. Phys., USSR, 21, 552-60 (April, 1951) In Russian.

An apparatus for exposing photographic films from exposure times as short as 10^{-7} sec on to any required length of exposure was designed. It was found that in the range of exposure times between 10^{-7} and 10^{-3} sec photosensitivity and contrast coefficient of the emulsion do not depend on exposure time. When the exposure time is further increased, the photosensitivity of the emulsion grows up to maximum, which it reaches at about 0.01 sec, and then falls again. The contrast coefficient shows a similar curve, although the maximum lies at a slightly longer exposure. A relation was derived between the value of the contrast coefficient at various wavelengths of the effective radiation with the exposure time. It is also shown that when the developing time is increased, the deviations from the law of mutual substitution in the range of short exposures are reduced, buth they increase in the ranges of long exposures. The minimum of the curves of iso-opacity shifts then towards the side of the shorter exposures.

B. F. Kraus

A 54 METALLURGICAL LITERATURE CLASSIFICATION

MEIKLYAR, P. V.

A. L. KARTUZHANSKIY and P. V. MEIKLYAR

"Properties of Photographic Emulsions with Intermittent Exposures," J. Exper. and Theoret. Physics 21: 598-609, No. 5, 1951.

These workers have obtained what appear to be nice experimental results on intermittency effect, but it appears almost certain that they have given a wrong interpretation of their results. If interpreted properly, the results obtained would agree with those obtained by previous workers. These workers apparently are new in the field of intermittency effects, and no doubt they will later come to a proper interpretation of their results. The experimental work seems to have been carried out with reasonable care and accuracy. The work presented shows little ingenuity, being largely a repetition of the same type work carried out by a number of earlier workers in the field.

IX

S.A.
Sect. A

Photography

4848. Properties of the photographic emulsion at various temperatures. A. L. KARTUZHANSKII AND P. V. MIKHLIN. *Zh. Eksper. Teor. Fiz.*, 21, 693–709 (Nov. C, 1951) In Russian.

771.534

The investigation was conducted at different temperatures (from −180 to +60°C), and for different conditions of continuous and intermittent illumination. Lower temperatures causes the increase of the optimum exposure time corresponding with the maximum sensitivity of emulsion, and stretches and flattens the curve of equal opacity. In the case of intermittent illumination, lowering of temperature causes an increase of the optimum number of light impulses, corresponding with the maximum sensitivity of emulsion. Temperature dependence of the emulsion sensitivity in the case of continuous illumination differs quantitatively from that in the case of intermittent illumination.

P. LATYSHAW

MEYKLYAR, P. V.

USSR/Physics - Stalin Prizes Jun 51

"Chronicles," Yu. N. Gorokhovskiy, P. V. Meyklyar, M. V. Savost'yanova-A. S. Toporets

"Uspekh Fiz Nauk" Vol XLIV, No 2, pp 296-310

"Awarding of Stalin Prizes in Physics in 1950," pp 296-301. Recipients of 1st Prize: D. V. Skobeltsyn, M. A. Dobrotin, G. T. Zatsepin for research in cosmic rays (cf. "Uspekh Fiz Nauk" Vol XXI, No 4, 1950); S. Ya. Sokolov for development of ultrasonic microscope (cf. "Uspekh Fiz Nauk" Vol XL, No 1, 1950) Recipients of 2d Prize: V. V. Tarasov for quantum theory of sp heat of heterodynamic structures; Ye. P. Terletskiy for research in cosmic rays (cf. "Uspekh Fiz Nauk" Vol LXIV, No 1, 1957).

18T102

USSR/Physics - Stalin Prizes (Contd) Jun 51

1951); Prof B. G. Lazarev, Corr Mem, Acad Sci Ukrainian SSR for research of superconductivity of metals and for enrichment of He^4 with He^3; S. I. Vavilov, Professors V. L. Levshin, V. A. Fabrikant, M. A. Konstantinova and F. A. Butayeva, V. I. Dolgopolov, Sci Co-Workers for development of luminescent lamps (cf. "Uspekh Fiz Nauk" Vol XLIII, No 3, 1951).

"Biography of T. P. Kravets (1876-)" pp 301-310 Corresponding Member of Academy of Sciences USSR and Professor of Experimental Physics at Leningrad State U imeni Zhdanov.

18T102

P.A.

Sensitizing & Sensitometry

157 771.534.1

The Nature of Photosensitivity of Photographic Emulsions. P. V. MEIKLYAR. *Dokl. Akad. Nauk., S.S.S.R.*, 1951, **78**, 391-394. A survey of recent work, mainly by Soviet investigators, confirming the theory advanced by the author and PUTSEIKO explaining the role of F-centres formed in the crystals of silver halides. *Phys. Abs.*

1952

CA

Electrochemistry - 4

Nature of the light-sensitivity of photographic emulsions. P. V. Mekhlyar. *Doklady Akad. Nauk S.S.S.R.* 77, 391–4 (1951).—The spectral distribution of the photocond. of mixed crystals composed of AgBr and AgI in various proportions is compared with the spectral sensitivity of photographic emulsions prepd. from such mixed crystals. Photocond. and sensitivity max. of crystals of the same compn. are located at almost identical wave lengths. M. concludes that the sensitivity max. are connected with the absorption of light by F-centers formed during the prepn. of the emulsions. He suggests that by incorporating Ag_2S into a Ag halide crystal, large nos. of F-centers are formed which are responsible for the increase in light absorption. On heating the crystal, this absorption changes. Latent-image formation consists of the liberation of electrons from F-centers and their trapping by sensitivity centers, which are supposed to be very small particles of Ag formed during the finishing of the emulsion. Later, the trapped electrons are neutralized by Ag ions which take the place of the halide ions missing in the neighborhood of the sensitivity centers. M. Blits

USSR/Physics - Photoeffect, Crystals Jan/Feb 52

"Electron Processes in Silver-Halide Crystals,"
P. V. Meyklyar

"Iz Ak Nauk SSSR, Ser Fiz" Vol XVI, No 1, p 129

(Brief contents of previous articles by the author and Ye. K. Putseyko in Zhur Eksper i Teoret Fiz 21, 1, 1951; 21, 2, 1951; etc., and others). Absorption and int photoeffect of AgCl and AgBr crystals in visible and near ultraviolet bands were investigated. After irradiation of crystals a new band, possessing strong photoelec activity, located on the long-wave edge of proper absorption, was

218T96

USSR/Physics - Photoeffect, Crystals Jan/Feb 52
(Contd)

revealed. This band being connected to excess of silver may be ascribed to F-centers, mostly responsible for photographic sensitivity.

218T96

MEYKLYAR, P. V.

MEYKLYAR, P.V.

USSR

924

The Form of the Iso-Opacity of a Photographic Layer. P. V. MEIKLYAR. *Zh. eksper. teor. Fiz.*, 1952, 23, 217-221.—Iso-opacity is defined as the curve relating the logarithm of the quantity of illumination required for the production of a definite density of blackening, with the logarithm of the time of illumination. An equation is deduced for the iso-opacity of the photographic layer, on the basis of the assumption that a decrease in the light sensitivity of the photographic layer with an increase in the time of illumination is determined by the thermal destruction of the centres of the latent image in the early stages of their formation. It is shown that the maximum slope of the iso-opacity at long times of illumination is equal to 0.5. The activation energy of the thermal destruction of the silver atom in the emulsion crystal is determined. The number of silver atoms in the nucleus of the latent image is determined. A relationship is found between the number of atoms of silver in the developing nucleus of the latent image and the time of development.

Phys. Abs.

771.534.531

MEIKLYAR, P.V.

2

The Form of the Isodensity Curve of the Photographic Emulsion. P. V. MEIKLYAR. *Doklady Akad. Nauk S.S.S.R.*, 1952, 85, 1255-1258; *Chem. Abs.*, 1953, 47, 1513-1514.—The curve which is obtained by plotting log H, the amount of exposure, as a function of log t, the time of exposure, for a constant density D, shows two branches below and above the optimum time (minimum H) respectively. This form of the isodensity curve is treated mathematically on the basis of the number of electrons recombined with halogens and so lost for the production of latent image centres at short exposure times, and the loss of latent image centres by thermal destruction during the course of formation when exposure time is longer than the optimum. A.J.A.

1. MEIKLIAR, M. V., Eng.
2. USSR (600)
4. Steam Turbines
7. Changing the design of the water indicator of a high pressure steam boiler, Rab. energ., 3, No. 3, 1953.

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

MEYKLYAR, P. V.

USSR/Physics - F-centers in crystals

FD-792

Card 1/1 Pub. 146-5/21

Author : Meyklyar, P. V. and Shimanskiy, R. S.

Title : Thermal formation of F-centers in crystals of silver halide

Periodical : Zhur. eksp. i teor. fiz., 27, 2, 156-161, Aug 1954

Abstract : The increment of optical density of silver bromide crystals is measured while they are being heated. The concentration of F-centers thermally forming in the crystal and the activation energy of this process are computed. Twenty references, including 9 foreign.

Institution : Molotov Pedagogical Institute

Submitted : November 18, 1953

MEYKLYAR, P.V.

The nature of photochemical and photoelectric sensitivity of silver halide crystals and photographic emulsions. Usp. nauch. fot. 3:39-45 '55. (Photographic sensitometry) (MLRA 9:1)

MEYKLYAR, P. V.

USSR/Physics - Photography

FD-1889

Card 1/1 Pub. 146-9/21

Author : Kazantsev, B. I., and Meyklyar, P. V.

Title : Regression of centers of a latent photographic image

Periodical : Zhur. eksp, i teor. fiz. 28, 70-76, January 1955

Abstract : The authors investigate the regression of centers of a latent image and subcenters with the passage of time. They show that the process of regression occurs in accordance with the law similar to the fall of photoconduction and damping of luminescence in silver halide crystals. Nine references: e.g. P. V. Meyklyar, ibid., 21, 42, 1951; S. I. Golub, Tr. Odessk, gos, un-ta, 3,41, 1951.

Institution: Molotov State Pedagogic Institute

Submitted : February 5, 1954

MEYKLYAR, P. V.

USSR/Physics F centers

FD-1838

Card 1/1 Pub 146-23/25

Author : Meyklyar, P. V.

Title : F-centers in silver halide crystals

Periodical : Zhur. eksp. i teor. fiz. 28, 252-253, February 1955

Abstract : The author labels as incorrect the assertion of S. G. Grenishin (ibid. 26, 736, 1954) that the absorption bands of AgBr with wavelength 420-430 millimicrons are not connected with the presence of F-centers in silver halide crystals, which are similar to F-centers in alkali-metal halides. The author states that such bands were first studied by him with Ye. K. Putseyko (ibid., 21, 341, 1951; DAN SSSR, 77, 391, 1951).

Institution: --

Submitted : September 16, 1954

MEYKLYAR, P. V.

MEYKLYAR, P. V.: "The photolysis of the crystals of a silver halide and the concealed photographic image." Leningrad Order of Lenin State U imeni A. A. Zhdanov. Leningrad, 1956. (Dissertation for the Degree of Doctor in Physicomathemati al Sciences.)

SO: Knizhnaya Letopis', No. 26, 1956

MEYKLYAR, P. V.

"Photochemical Properties of the Crystals of Silver Halide," a paper given at the International Conference on Scientific Photography, Cologne, 24-27 Sep 1956

E-3,068,138

E-3,022,367

Meyklyar, P. V.

USSR/Optics

K

Abs Jour: Referat Zhur-Fizika, 1957, No 4, 10656

Author : Grokhotov, V.A., Meyklyar, P.V.
Inst : Vologod Pedagogical Institute
Title : Heat Treatment of Crystals of Silver Bromide in Gelatin and Vacuum.

Orig Pub: Zh. nauch. i prikl. fotografii i kinematogo. 1956, 1, No 2, 89-97

Abstract: Thin layers of silver bromide obtained by fusing the salt between glass plates, were heated at 60° in a 15% solution of photogelatin during 0.5 - 8 hours. As a result there is an increase in the spectral absorption in the 400 - 460 millimicron region and an increase in the photochemical sensitivity, while the photoconductivity is diminished. On the basis of previous works by the author (Dokl AN SSSR, 1951, 77, 391), it is concluded that as a result of the interaction between the silver bromide and gelatin there are formed F centers, which are centers of light sensitivity. This

Card : 1/2

USSR/Optics

K

Abs Jour: Referat Zhur-Fizika, 1957, No 4, 10656

conclusion is confirmed by experiments on the heating of crystals in vacuum: after cooling, there is practically no change in the absorption in th 400 - 460 millimicron region (i.e., no F centers are formed) and the photochemical sensitivity does not increase. One observes an increase in the absorption in the 500 - 650 millimicron region, due to the formation of metallic silver on the surface of the silver bromide, and a reduction in the photoeffect, which is ascribed to the acceptor properties of the thermally liberated silver. After exposure of such crystals, the photoeffect increases sharply, this being ascribed to the donor properties of photolytic silver.

Card : 2/2

MEYKLYAR P V

USSR/Electricity - Dielectrics, G-2

Abst Journal: Referat Zhur - Fizika, No 12, 1956, 34991

Author: Yegorova, M. S., Meyklyar, P. V.

Institution: Molotovsk State Pedagogical Institute, Molotov

Title: Quantum Yield of Photoelectric Effect in Silver Bromide Crystals

Original Periodical: Zh. eksperim. i teor. fiziki, 1956, 30, No 1, 60-67

Abstract: The photo-effect was measured in AgBr with the aid of an a-c amplifier. To measure the absorption coefficient, a Se photocell was used with a high-sensitivity mirror galvanometer. The quantum yield of the photo-effect was investigated at room temperature and at higher temperatures (up to 100°) in the spectrum region from 400 to 540 mmu. In the blue portion of the spectrum there are 2 maxima of photoelectric sensitivity at 410-420 and 460 mmu. As the temperature is increased from 18 to 86°, the photoelectric sensitivity drops sharply. As the concentration of the F - centers increases, the quantum yield diminishes exponentially and vice versa. This dependence is attributed

Card 1/2

MEYKLYAR, P. V.

USSR/ Physical Chemistry - Crystals

B-5

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11039

Author : Gladkovskiy V.V., Meyklyar P.V.
Title : Dark Conductivity of Silver Bromide Crystals

Orig Pub : Zh. eksperim i teor fiziki, 1956, 30, No 5, 833-839 (English summary)

Abstract : Fulfillment of Faraday's law was verified and it was shown that with small differences in potential (< 4v) conductivity of AgBr crystals having a thickness of several tenths of a millimeter is of electronic nature, while in higher fields it is ionic. Occurence of ionic conductivity is accompanied by growth of Ag-filaments (dendrites) over defects and surface of crystal (at 100-200°). Growth of filaments starts at cathode and takes place by depletion of Ag^+ ions in areas adjoining the Ag-filaments. On change in direction of field length of filaments at anode decreases while at the cathode (graphite of Pt) new dendrites appear. At 100° in a field of 50 v/cm rate of growth of Ag-filaments is of 10^{-3} - 10^{-2} mm/sec. Difference in potential at which conductivity becomes of ionic nature is higher for samples with fewer defects. The authors reach the conclusion that electric field lowers energy of activation of movements of ions over defect areas of crystal.

Card 1/2

Vologda State Pedagogical Inst.

USSR/ Physical Chemistry - Crystals B-5

Abs Jour : Referat Zhur - Khimiya, No 4, 1957, 11039

Destruction of photolytic Ag near the anode on heating is attributed to emission of electrons by Ag-particles which dissociate further into Ag^+ ions that migrate to the cathode. Result of illumination of AgBr crystals depends on the medium. Photolytic Ag separates most intensively in H_2S atmosphere and in vacuum. Illumination of crystals in H_2 and O_2 yields same results as in the air.

Card 2/2

MEYKLYAR, P.V.

Studies of Soviet scholars on the action of light on photographic layers. Zhur.nauch.i prikl.fot.i kin. 2 no.6:459-468 N-D '57.
(MIRA 10:12)
(Photographic emulsions)

MEYKLYAR, P.V.
MEYKLYAR, P.V.

Distr: 4E4j/4E2c/4E3d

Long-wave limit of the natural absorption of silver bromide crystals. P. V. Meiklyar and R. S. Shimanskii (State Pedag. Inst., Molotovsk). *Zhur. Nauch. i Prikład. Fot. i Kinematog.* 2, 223–6(1957); cf. preceding abstr.—Absorption spectra were obtained of AgBr crystals at temps. from 20 to 400°. Data are tabulated and graphed. The optical d. of a given crystal at 450 mμ was 0.4 at 20°, 0.7 at 200°, and 1.8 at 400°. The wave length of the absorption max increased with temp. from 400 mμ or less at 100° to 415 mμ at 200° and 430 mμ at 400°.

J. W. Loweberg, Jr.

5
3

Meyklyar

USSR/General Problems. Methodology. History. Scientific Institutions and Conferences. [illegible] Questions Concerning Bibliography and Scientific Documentation. A

Abs Jour : Ref Zhur-Khimiya, No 6, 1958, [illegible]

Author : P. V. Meyklyar

Inst :

Title : Work of Soviet Scientists in Sphere of [illegible] Action on Silver Halide Crystals

Orig Pub : Zh. nauchn. i prikl. fotogr. i kinematogr., 195[illegible], [illegible], No 5, [illegible]

Abstract : A review (covering [illegible] years) of the most important studies carried out with physical methods. Bibliography with [illegible] titles.

Card 1/1

AUTHORS: Gross, L.G.; Meyklyar, P.V. SOV-77-3-5-3/21

TITLE: Some Methodics Problems Connected with a Study of the Kinetics of Photoconductivity in an Emulsion Film (Nekotoryye metodicheskiye voprosy, svyazannyye s izucheniyem kinetiki fotoprovodimosti emul'sionnogo sloya)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1958, Vol 3, Nr 5, pp 329-334 (USSR)

ABSTRACT: Gladkovskiy and Meyklyar, Yegorova and Meyklyar previously considered that the absorption by the emulsion of a light quantum leads to the formation of an exciton which, on dissociation, liberates an electron or forms a silver atom. This phenomenon, they thought, could account for the photoconductivity lag. In this present study of the photoconductivity of an emulsion film, the authors made use of a 3-stage d.c. amplifier consisting of an electrometric stage (with milliammeter), a volt amplifier and a cathode repeater (Figure 1). The difference in the milliammeter readings before and during exposure of the test object indicated the value of the photocurrent. To measure the photoconductivity kinetics at the output of the amplifier, the indicating instrument could be by-passed and the electrometric stage connected to the last

Card 1/3

Some Methodics Problems Connected with a Study of the Kinetics of Photoconductivity in an Emulsion Film

2 stages of the EO-7 electronic oscillator amplifier. Various emulsion films and tests samples of the gelatine backing layer were tested. The films were subjected to exposure under white light from a single-disc mechanical [illegible] synchronized with the oscillograph trace. The oscillograph relaxation curves for each sample were photographed indicating the resistance, and thereby the photoconductivity of the emulsion before and during exposure. The photoconductivity lag of an exposed film is less than that of an unexposed one since the resistance, as Kirill [illegible] increases with exposure. As a result of the experiments it was clear that the photoconductivity lag has no relation to the processes taking place in the emulsion layer, but is caused by transitory processes in the input circuit of the d.c. amplifier. There are 5 oscillograms, 3 wiring diagrams, 1 diagram, and 16 references, 8 of which are Soviet, 5 American, 1 English, 1 Japanese and 1 Hungarian.

Card 2/3

SOV-[illegible]

Some Methodical Problems Connected with a Study of the X [illegible] of Photoconductivity in the Emulsion Film

ASSOCIATION: **Permskiy pedagogicheskiy** institut (Perm' [illegible] Institute)

SUBMITTED: December 17, 1956

1. Photographic emulsions--Photoconductivity 2. Laboratory equipment--Applications

Card 1/3

AUTHORS: Kazantsev, B.I., Meyklyar, P.V.

TITLE: The Kinetics of the Regression of the Centers of the Latent Photographic Image (Kinetika regressii tsentrov skrytogo fotograficheskogo izobrazheniya)

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1958, Vol 3, Nr 6, pp 401-406 (USSR)

ABSTRACT: The authors describe investigations into the kinetics of the regression of the centers of the latent image. These experiments are considered important to a better understanding of the formation of the latent image. The photographic layer underwent a determined exposition. An incandescent lamp that obtained its energy through a ferroresonant stabilizer was used as the source of light. The duration of illumination was 100 seconds. A sensitometric wedge-shaped transparent glass plate with a constant 0.15 for white light and 0.17 for blue light was fixed before the layer. Shibinov developer was used. An evenly developing temperature, with up to 0.5° accuracy, was provided by thermostats. The obtained sensitograms were measured out on a photoelectric densitometer. From these sensitograms characteristic curves (graphs 1 to 11) were developed. Uniform development was provided for all

Card 1/3

The Kinetics of the Regression of the Centers of the Latent Photographic Image

frames of one pack until the image became visible. Regression of the image was brought about by keeping the frames under normal conditions, conditions with and without oxygen in a moist medium, and conditions of irradiation with red light. The processes were compared. It is concluded that each process starts with a liberation of electrons: photoelectric in the case of irradiation with red light, thermic in the case of regression. This is followed by a process of thermic elimination of the silver ions. The presence of oxygen influences this process only with respect to its influence on the relaxation of the photoelectric processes. Regression speed in a moist medium with reduced oxygen content differs slightly from that in a medium with normal oxygen contents (Graph 12).

The Kinetics of the Regression of the Centers of the Latent Photographic Image

[illegible]/[illegible]-[illegible]-6-1/15

These results confirm similar results obtained by Canadian researchers.
There are 12 graphs and 2 references, one of which is Soviet and 1 Canadian.

ASSOCIATION: Perm', Gosudarstvennyy pedagogicheskiy institut (Perm', the State Pedagogical Institute)

Card 3/3

AUTHOR: Meyklyar, P.V.

TITLE: About the Limit Inclination of the Isoopaqueness of the Photographic Layer (O predel'nom naklone izoopaki fotograficheskogo sloya)

SOV/77-4-1-10/22

PERIODICAL: Zhurnal nauchnoy i prikladnoy fotografii i kinematografii, 1959, Vol 4, Nr 1, pp 62-64 (USSR)

ABSTRACT: The author investigated the limit inclination of the isoopaqueness of the photographic layer mathematically and came to the conclusion that the phenomenon is observed in large crystals. The centers of photolytical silver originating at flare spots disintegrate immediately. This would mean, with respect to the photographical layer, that at a given exposure to light, the density of blackening would not grow with increased exposure time.

Card 1/2

About the Limit Inclination of the Isoopaqueness of the Photographic Layer

There is 1 Soviet reference.

ASSOCIATION: Kazanskiy filial NIKFI (The Kazan' Branch of NIKFI)

SUBMITTED: October 3, 1958

MEYKLYAR, P.V.

Effect of emulsification factors on the shape of the spectral sensitivity curve of emulsion layers. Zhur.nauch.i prikl.fot. i kin. 5 no.2:141-142 Mr-Ap '60. (MIRA 14:5)

1. Filial Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut, Kazan'.

(Photographic emulsions)

S/081/61/000/024/062/086
B149/B102

AUTHORS: Meyklyar, P. V., Ignat'yeva, Z. P., Peskova, M. Z., Eberman M. D.

TITLE: On the shape of the spectral sensitivity curve of a photographic layer in the blue-violet range

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1961, 454, abstract 24L526 (Zh. nauchn. i prikl. fotogr. i kinematogr., v. 6, no. 4, 1961, 264 - 273)

TEXT: The optical density of an emulsion layer is proportional to its thickness. The shape of the spectral sensitivity curve does not depend upon the thickness of the layer, but varies with the duration of the second maturing of the emulsion. The spectral sensitivity is determined not only by the absorption spectrum of the silver halide, but also by the spectrum of the photo-effect of the microcrystallites of the emulsion. [Abstracter's note: Complete translation.]

Card 1/1

MEYKLYAR, P.V.

Relationship between photographic sensitivity and photographic effect. Zhur.nauch.i prikl. fot.i kin. 6 no.6:452-453 N-D '61. (MIRA 15:1)

1. Filial Vsesoyuznogo nauchno-issledovatel'skogo kinofotoinstituta, Kazan'.

(Photographic emulsions)
(Photographic sensitometry)

GROSS, L.G.; MEYKLYAR, P.V.; KHARITONOVA, Z.V.

Effect of optical sensitizers on the photoelectric sensitivity of photographic layers having a different ripening time. Trudy NIKFI no.46:43-45 '62. (MIRA 18:8)

S/181/62/004 [illegible]
B105/B104

AUTHOR: Meyklyar, P. V.

TITLE: Absorption of light in silver halides

PERIODICAL: Fizika tverdogo tela, v. 4, no. 1, 1962, 148 - [illegible]

TEXT: The absorption of light by silver halides is investigated chiefly on the basis of data from publications. It is stated that the long-wave absorption edge is not determined by impurities but by excitation of electrons from local levels. The nature of these levels, however, is not yet clear. Most probably they are due to lattice defects. The latter obviously cause a dislocation of the neighboring halide ions which leads to a decrease in their excitation energy, i. e., to the formation of local levels. M. Z. Peskova cooperated with the author in this work. Mention is made of G. S. Grenishchin, A. A. Solodovnikov (ZhTF, 27, 26., 1957) and M. I. Kornfel'd (FTT, 2, 179, 1960). There are 2 figures and [illegible] references: 4 Soviet and 15 non-Soviet. The four most recent references to English-language publications read as follows: S. Tutihasi Phys. Rev., 105, 882, 1957; Ch. Koester, M. Givens Phys. Rev., 106, 24[illegible], 1957; W

Card 1/2

Absorption of light in silver halides

S/[illegible]/62/004/[illegible]
B108/B104

Martienssen. Journ Phys Chem Sol., 8, 294, 1959; R S Van Brunt
F. Brown Phys Rev., 111, 462, 1958.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut
Kazanskiy filial (All-Union Scientific Research Institute
of Motion Pictures, Kazan Branch)

SUBMITTED: July 14, 1961

Card [illegible]

S/181/62/004/007/003/037
B102/B104

AUTHORS: Baykova, A. A., and Meyklyar, P. V.

TITLE: Silver bromile photoconductivity

PERIODICAL: Fizika tverdogo tela, v. 4, no. 7, 1962, 1701 - 1703

TEXT: The spectral distribution of photoconductivity in non-illuminated AgBr crystals 0.01 - 0.05 mm thick was studied with the aid of a d-c amplifier and an EHO-1(ENO-1) oscilloscope. Illumination was provided by an СФ-4 (SF-4) quartz monochromator with a xenon lamp and an УМ-2(UM-2) glass monochromator, lasting for 1/20 sec. Photoconductivity was referred to the incident unit energy. At low energy it was found to depend linearly on the unit energy in the range 250 - 500 mμ. It is known that the spectral distribution of photoconductivity having maxima at 420 - 430 and 360 mμ, changes after activation by light. A similar effect was achieved by causing bromine vapor to act on the specimens for several hours. This effect of bromine can be compensated by vacuum treatment. The change in the photoconductivity spectrum is attributed to the holes opened up by light, the electrons set free being captured in traps which are dissolved by bromine

treatment. Oxygen treatment in the dark reduces photoconductivity considerably. There are 3 figures.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut Kazanskiy filial (All-Union Scientific Research Institute of Motion Picture Photography, Kazan' Branch)

SUBMITTED: December 30, 1961

Card 2/2

MEYKLYAR, P.V.; PESKOVA, M.Z.

Method of measuring the absorption spectrum of emulsion layers. Zhur.nauch.i prikl.fot.i kin. 7 no.1:66-67 Ja-F '62. (MIRA 15:3)

1. Filial Vsesoyuznogo nauchno-issledovatel'skogo kinofotoinstituta, Kazan'.

(Photographic emulsions--Spectra)

MEYKLYAR, P.V.

Reports on the latent photographic image and optical sensitization made at the International Colloquium on Scientific Photography in Zurich. Zhur.nauch.i prikl.fot.i kin. 7 no.4:311-315 Jl-Ag '62. (MIRA 15:8)

(Photography—Congresses) (Photographic emulsions)

1.2199
S/051/62/013/004/020/023
E039/E491

AUTHORS: Neyklyar, P.V., Shvarts, V.M., Kharitonova, Z.V., Borin, A.V., Ryskina, S.I., Siletskaya, N.V.

TITLE: Photographic films for spectroscopy and astronomy

PERIODICAL: Optika i spektroskopiya, v.13, no.4, 1962, 607-609

TEXT: Recent work at the Kazanskiy filial Vsesoyuznogo nauchno-issledovatel'skogo kinofotoinstituta (Kazan' Branch of the All-Union Scientific Research Institute on Cinemaphotography) has been aimed at increasing the sensitivities of photographic films for long exposures and of infrachromatic films. Films having greater sensitivity were developed for long exposures in the near ultraviolet region and for different regions of the infrared up to 1050 mμ. Films for the visible region are designated by the letter A (Astronomy) and a number corresponding to the wavelength for which the sensitivity is a half of the maximum and on the long wavelength side. This film is manufactured at the Kazanskiy khimicheskiy zavod (Kazan' Chemical Works). Films for the infrared region are designated by a number corresponding to its maximum sensitivity. Spectral sensitivity

Card 1/3

Photographic films ...

curves of films A-500, A-600, A-650, A-660 and A-700 are given. In the table the sensitivity of these films is compared with a corresponding Kodak film. The sensitivities are compared at 400 mμ for the non-sensitized film and at maximum sensitivity for the remaining films. Spectral sensitivity curves are also given for [illegible]-740 (I-740), -820 (I-820), -900 (I-900), -1050-1 (I-1050-1) and -1050-11 (I-1050-11) films. The sensitivity of I-1050-1 and I-1050-11 can be significantly increased by the method of hypersensitization described by S.M.Solov'yev (Fotografirovaniye v infrakrasnykh luchakh - Photography in infrared rays - Izd. "Iskusstvo", M., 1957). An infrachromatic film A-850 is also manufactured which is sensitive up to about 900 mμ. The density of background fogging for all these films does not exceed 0.3. The films should be stored at 2 to 4°C since storage of films for use in the visible region causes an increase in fogging and in the case of infrachromatic films there is a decrease in sensitivity. The gamma of the described films lies in the range 2.0 to 3.0. There are 3 figures and 1 table.

SUBMITTED: May 17, 1962
Card 2/3

Photographic films ...

S/051/62/013/004/020/023
E039/E491

No.	Compared types		$\frac{S_{Kazan'}}{S_{Kodak}}$
	Kazan' film	Kodak	
1	A-500	Oa O	1.8
2	A-650	Oa C	7.0
3	A-660	Oa E	6.0
4	A-700	Oa F	7.0

Abstracter's note: This is an abridged translation.

Card 3/3

MEYKLYAR, P.V.; BARRO, M.I.

"Spectral analysis of the photographic process" by IU.N. Gorokhovskii. Reviewed by P.V.Meikliar, M.I.Barro. Zhur. nauch.i prikl.fot.i kin. 8 no.1:76-77 Ja-Feb. '63. (MIRA 16:2)

(Photography--Equipment and supplies)
(Gorokhovskii, IU.N.)

DOLGOPOLOVA, N.R.; MEYKLYAR, P.V.; SHVARTS, V.M.

Effect of development conditions on the shape of the spectral sensitivity curve of unsensitized photographic layers. Zhur. nauch. i prikl. fot. i kin. 8 no.3:185-189 My-Je '63. (MIRA 16:6)

1. Filial Vsesoyuznogo nauchno-issledovatel'skogo kinofoto-instituta, Kazan'.
(Photographic sensitometry)

MEYKLYAR, P.V.; SHVARTS, V.M.; BURIN, A.V.; RYSKINA, S.I.; SHILOTSKAYA, N.V.

Photographic films for use in spectroscopy and astronomy developed by the Kazan Branch of the Motion Picture and Photography Scientific Research Institute. Zhur. prikl. spekt. 3 no.1:99-101 Jl '65. (MIRA 18:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy kinofotoinstitut, Moskva.

MEYKLYAR, P.V.

Mechanism of the formation of latent photographic image.
Zhur. nauch. i prikl. fot. i kin. 10 no.1:47 [illegible]-F '65.
(MIRA 18:4)

1. Filial Nauchno-issledovatel'skogo kinofotoinstituta, Kazan'.

MEYKLYAR, P.V.

Concerning the article "Effect of exposure time on the sharpness of the photographic image" by G.I. Belinskaia, M.S. Gus'kova. Zhur. nauch. i prikl. fot. i kin. 9 no.3:215 My-Je '64. (MIPA 18:11)

MEYKSON, Lev Veniaminovich; SHVARTS, Semen Aronovich; KUSTOV, B.I., redaktor; LIBERMAN, S.S., redaktor izdatel'stva; ANDREYEV, S.P., tekhnicheskiy redaktor

[Coke production] Proizvodstvo koksa. Khar'kov, Gos.nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1955. 394 p. [Microfilm] (MLRA 10:1)
(Coke)

TAYTS, Ye.M., doktor tekhn. nauk; SHVARTS, S.A., kand. tekhn. nauk[deceased]; PEYSAKHZON, I.B., inzh.; GEL'FER, M.L., inzh.; DMITRIYENKO, M.T., inzh.; DORFMAN, G.A., inzh.; IZRAELIT, Ye.M., inzh.; KULAKOV, N.K., inzh.; KUSHLYANSKIY, B.S., inzh.; MEYKSON, L.V., inzh.[deceased]; LEONOV, A.S., inzh.; SHVARTS, G.A., inzh.; SHVARTSMAN, I.Ya., inzh.; YATSENKO, N.Ya., inzh.; BABIN, P.P., inzh.; KHANIN, I.M., doktor tekhn. nauk, prof., red.; KOZYREV, V.P., inzh., red., KUPERMAN, P.I., inzh., red.; LGALOV, K.I., inzh., red.; LEYTES, V.A., inzh., red.; LERNER, B.Z., inzh., red.; POTAPOV, A.G., inzh., red.; SHELKOV, A.K., red.

[By-product coke industry worker's handbook in six volumes] Spravochnik koksokhimika v shesti tomakh. Moskva, Metallurgiia. Vol.2. 1965. 288 p. (MIRA 18:8)

DUMAYEV, Petr Aleksandrovich; ZIMIN, A.I., prof., retsenzent; PODREZ, S.A., insh.; MAYLAKH, G.I., insh., red.; FOMICHEV, I.V., insh., red.; DUGINA, N.A., tekhn.red.

[Pneumatic hammers] Pnevmaticheskie moloty. Moskva, Gos. nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 190 p. (MIRA 12:7)

(Pneumatic machinery) (Hammers)

Meylakh, G. I.

PHASE I BOOK EXPLOITATION SOV/3718

Eksperimental'nyy nauchno-issledovatel'skiy institut kuznechno-pressovogo mashinostroyeniya

Issledovaniya i raschety mashin kuznechno-shtampovochnogo proizvodstva (Studies and Calculations of Forging and Stamping Machinery) Moscow, Mashgiz, 1959. 253 p. (Series: Its: Sbornik, kniga 1) Errata slip inserted. 8,000 copies printed.

Sponsoring Agency: USSR. Gosudarstvennyy komitet po avtomatizatsii i mashinostroyeniyu.

Ed.: A. I. Zot'yev, Candidate of Technical Sciences; Ed. of Publishing House: S. S. Stepanchenko; Tech. Ed.: T. F. Sokolova; Managing Ed. for Literature on Heavy Machine Building (Mashgiz): S. Ya. Golovin, Engineer; Editorial Board: G.P. Bol'shakov, Engineer; V. P. Vyatkin, Candidate of Technical Sciences; V. E. Vasil'yev, Engineer; A. P. Yereskin, Engineer; I. B. Matveyev, Candidate of Technical Sciences; M. A. Mar'yanchik, Engineer; P. V. Novichkov, Engineer; B. S. Perevezchikov, Engineer; S. A. Podrez, Engineer; L. V. Rubnenkova; V. N. Okhasov; P. D. Chudakov, Candidate of Technical Sciences; and A. I. Zot'yev.

PURPOSE: The book is intended for technical personnel and scientific workers in the metal-forming industry.

COVERAGE: This collection of 12 articles deals with current research on metal-forming operations, the design and operation of press-forging machinery, and stress and force analyses in punching and blanking operations. No personalities are mentioned. References follow each article.

TABLE OF CONTENTS:

The author presents a method of designing the optimum parameters of a disk-brake spring for the case where the brake efficiency [braking capacity] depends on the coefficient of friction of the lining material used. In modern press designs asbestos friction linings are used. The method of computing such basic parameters of a brake spring as dimensions and rigidity modulus (spring deflection) is given. This method allows for spring deformation in addition to the usual allowance for load displacement.

The article deals with practices of ultrasonic defectoscopy. A new method of ultrasonic flaw detection in fillet and corner welds on steel plates is suggested. The essence of this method is the measurement of the coordinates of the initial and end points of the flaw as the "examiner" moves in a direction perpendicular to the weld. The relative error in this method does not exceed 15 percent. A formula for calculation is presented. The flaw-detection apparatus (UZD-7N) described in the article was designed at TsNIITMASh. Ultrasonic vibration frequencies were adjusted to 2.5 mc. The waves from the prismatic examiner traverse the steel plate in the immediate vicinity of the weld and check the quality of the seam without scratch-brushing. Reference is also made in the article to the fillet and corner welding of plates up to 100 mm thick at the Voronezh Heavy Press Plant. The plates are used for frame and bed elements of forging presses.

The authors discuss shrinkage and die-wear phenomena in the cold upsetting of complex-shaped upset forgings. Data on several types of Soviet-made upsetting dies, including those with carbide inserts, are presented in tables, which also show the die layout and the type of steel used. Data on carbide inserts and on heat-treatment regimes are also presented in tables.

(4)

MEYLAKH, G.I., inzh.

Calculation of springs for friction disc brakes on crankshaft presses. [Nauch. trudy] ENIKMASHa 1:98-103 '59. (MIRA 14:1)
(Power presses—Brakes)

MEYLAKH, G.I.

Vibration damper for a pneumatic rammer. Mashinostroitel' no.12:40 D '65. (MIRA 18:12)

L 44217-66 EWT(m)/T DJ

ACC NR: AP6017999 (A,N) SOURCE CODE: UR/0413/66/000/010/0112/0112

30
B

INVENTOR: Meylakh, G. I.

ORG: none

TITLE: Device for lubricating a piston wrist pin. Class 47, No. 181922

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 10, 1966, 112

TOPIC TAGS: lubrication, piston, ~~lubrication~~ engine lubrication system

ABSTRACT: An Author Certificate has been issued describing a lubricating device for feeding grease to the wrist pin of a piston moving in a cylinder. The device consists of a grease cup and an inlet valve built into the piston. For better lubrication of the wrist pin, the grease cup is built into the piston head, which, in addition, has a cylindrical protrusion with a hole in it for feeding the grease. Above the inlet valve of the piston there is a hollow space connected to the protrusion at the piston entrance. The connecting rod has a built-in inlet chamber linked through grooves to the inlet valve and the pin. Orig. art. has: 1 figure. [KP]

Card 1/2 UDC: 621.896-242.42

L 44217-66
ACC NR: AP6017999

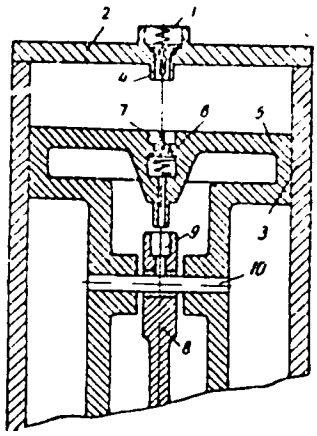


Fig. 1. Device for lubricating a piston wrist pin.
1—Grease cup; 2—cylinder head; 3—cylinder; 4—protrusion; 5—piston; 6—inlet valve; 7—hollow space; 8—connecting rod; 9—chamber; 10—pin

SUB CODE: 13/ SUBM DATE: 29Jun64/

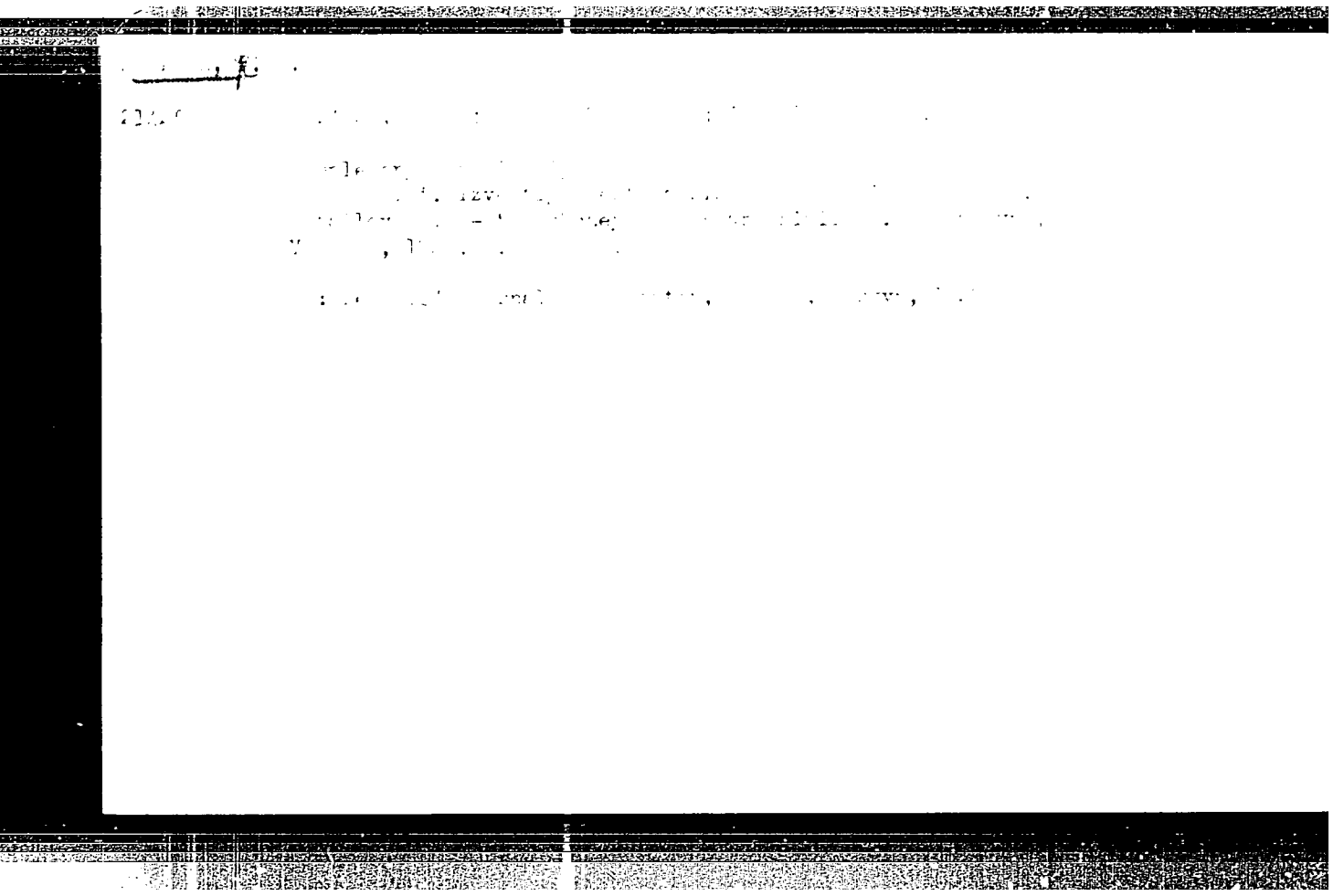
Card 2/2 JS

MEYLAKH, I.G.

Outflow of waters of the Arctic Ocean into the Bering Sea. Probl. Arkt. no.3:35-40 '58. (MIRA 12:1)
(Bering Sea--Ocean currents)

MEYLAKH, Ye. A.

Complex compounds of platinum with acetylene derivatives. A. Hel'man, S. Gukhovats, and E. Meilakh. *Doklady Akad. Nauk S.S.S.R.* 46, 110-12(1945); *Compt. rend. acad. sci. U.R.S.S.* 46, 105-6(1945)(in English).—A concd. aq. soln. of K_2PtCl_4 was heated with 2,5-dimethyl-3-hexyne-2,5-diol (Un) to form water-sol. $K[PtUnCl_3]$, which was not isolated but was treated with pyridine to form $[PtUnPyCl_2]$ (I), pptd. as an oil undergoing crystn. on cooling and scratching with a glass rod. Cryst. I m. 66-7° (open tube) and 80-1° (sealed tube), decomposes in hot water and reacts with thiourea to form $[Pt(SC(NH_2)_2)_2Cl_2]$. The mol. wt. of I, detd. cryoscopically in benzene soln., was 496.2 (calcd. 487.25). The properties of I suggest that it exists in the *trans* configuration. J. W. Perry



MEYLAKH, Ye. [illegible]

21424 [illegible]; [illegible]

Polucheniyu kompleksnykh [illegible] platiny [illegible] etilenom v [illegible] kationе. Izv. stiya sektora platiny [illegible] drugikh blagorod. metallov [illegible] obshchey [illegible] [illegible] Kurnakova), Vyp. [illegible], 194[illegible], s. [illegible] - [illegible].

[illegible] Letopis' zhurnal'nykh statey, [illegible], 194[illegible]

MEYLAKH, Y. A.

The production of complex platinum compounds with ethylene in the cation. A. D. Gel'man and R. A. Meilakh. *Compt. rend. acad. sci. U.S.S.R.* 51, 207–8(1946); cf. *C.A.* 37, 3570¹(1943).—A Pt compd. was prepd. as follows: *cis*-$[PtCl_2(C_2H_4)NH_3]$, by treatment with $AgNO_3$, gave a nitrato-chloro compd., in which the low coordinational strength of the NO_3 group makes the mol. readily hydrolyzable: $[PtCl(NO_3)NH_3(C_2H_4)] + H_2O \rightarrow [PtCl(H_2O)NH_3(C_2H_4)]^+ + NO_3^-$. This product did not crystallize well and was unstable, but when an equimol. amount of pyridine was present, $[PtCl(C_5H_5N)NH_3(C_2H_4)]NO_3$ was formed; snow-white, crystalline, very sol. in H_2O. On standing it gradually darkens and turns dirty gray. In soln. the introduction of Cl^- or Br^- reverses the reaction, giving 1, in accordance with Chernyaev's rule (*C.A.* 30, 5088⁹).

A. S. Eastman

AID P - 2221

Subject : USSR/Aeronautics

Card 1/1 Pub. 58 - 4/19

Authors : Fridman, Yu. and Meylakhs, M.

Title : Instrument flying

Periodical: Kryl. rod., 5, 8-9, My 1955

Abstract : The author describes instrument flying on a Yak-18 sport aircraft. He mentions the following instruments: artificial horizon AGK-47 B and the watch AVR-M.

Institution: None Instructor - letchiku - 3 go Moscow Aeroclub

Submitted : No date

MEYLAKHS M.

85-9-8/33

AUTHOR: Meylakhs M., Pilot-Istructor

TITLE: A Record F ligth (V Rekordnom Polete)

PERIODICAL: Kryl'ya Rodiny, 1957, Nr 9, p. 6 (USSR)

ABSTRACT: The author relates a flight for All-Union distance-record he had carried out in June 1957. The record was established for a specially conditioned Po-2 plane falling into category II (i.e. weighing between 500 and 1000 kgs.) The distance of 1003 km. (route: Moscow-Buzuluk-Chkalov) was covered in 8 hours and 15 minutes. The article contains no information of scientific interest. One photo.

AVAILABLE: Library of Congress

Card 1/1

85-57-12-11/29

AUTHORS: Zamychkin, S. and Meylakhs, M., USSR Record Holders in Airplane Sports

TITLE: Record Flight in an An-2 Plane (Rekordnyy polet na samolete An-2)

PERIODICAL: Kryl'ya rodiny, 1957, Nr 12, p 10 (USSR)

ABSTRACT: The authors describe their flight in an An-2 plane, designed by O.K. Antonov, by which they established 4 USSR records on a triangular route Tushino - Tikhonova Pustynya - Vyaz'ma. The flying time was 8 hours 27 minutes; the distance covered on a closed route was 2,013.192 km., which established the first record; the speed of 238.244 km./hr. on a 2,000-km. closed route established the second record; the speed of 264.891 km./hr. on a 500-km. closed route, the third record, and the speed of 252.716 km./hr. on a closed 1,000-km. route the fourth record. Personalities mentioned include: engineers N. Alimov and A. Myachkov; technicians V. Novikov and A. Yevseyev; L.Ya. Oshurkov, deputy chairman of the DOSAAF Moscow Committee; sports commissars N. Kol'tsov and N. Babayev; N. Loginov, honorary Master of Sports, of the TsAK SSSR imeni V.P. Chkalova

Card 1/2

Record Flight in an An-2 Plane

85-57-12-11/29

(Central Aeroclub of the USSR imeni V.P. Chkalov); and R. Volkov, sportsman 1st rank. There is one photograph showing N. Kol'tsov, chief of the precision instruments laboratory at the Central Aeroclub of the USSR imeni V.P. Chkalov, and the two authors, S. Zamychkin and M. Meylakhs.

AVAILABLE: Library of Congress

Card 2/2 1. Aviation-USSR

AUTHOR: Meylakhs, M., Master of Sports (Moscow) 85-58-5-17/38

TITLE: Instructor's Tribune (Tribuna instruktora); Gliders Towed by Yak-12r (Buksirovka planerov samoletom Yak-12r)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 5, pp 11-12 (USSR)

ABSTRACT: The author states that Soviet aeroclubs use the Po-2, Yak-12r, Yak-12m, and An-2 airplanes to tow gliders, but that in his experience the Yak-12r and Yak-12m are best adapted for landing and taking-off in limited areas. Detailed instructions are given on the procedure and technique of towing, the choice of a landing field, the maintenance of proper contact between glider pilot and tow plane. There is one photograph.

AVAILABLE: Library of Congress

Card 1/1 1. Aviation - USSR 2. Gliders - Performance

AUTHORS: Meylakhs, M. and Pozharov, G., Masters of Sports 85-58-7-21/45

TITLE: Protective Measures Against Storms During a Mechanized Glider Take-off (Grozozashchitnyye sredstva pri mekhanizirovannom vzlete planera)

PERIODICAL: Kryl'ya rodiny, 1958, Nr 7, pp 15-16 (USSR)

ABSTRACT: The authors reply to an inquiry addressed to the editors by a Riga reader concerning an unfortunate phenomenon in mechanized glider take-offs with the Nazarov winch, i.e. tow line and tow lock become charged with electricity. The length of the cable is 1200 to 1500 m. at an altitude of 400 to 600 m. and on uncoupling, the glider pilot experiences an electric shock and occasionally observes a spark even with a grounded winch. Since flights are frequently made near storm clouds and in the vicinity of large broadcasting stations, the writers wonder whether these circumstances contribute to the charge in the cable, although strong shocks are also felt under quiet atmospheric conditions. In reply, the authors state that static electricity accumulates in the atmosphere because of condensed moisture and the movement

Card 1/3

of ascending currents which cause drops of moisture in the air to break up and become charged. When the accumulation of these drops is considerable, it may lead to the development of electric fields sufficiently strong to ionize the air and produce lightning. Electric fields develop with particular frequency in zones where there are high-voltage electric conductors, masts of large broadcasting stations, transformer substations, underground electric cables, or other equipment radiating stray electricity. Lightning rods are used as a protection against electric charges and are easily made at any aeroclub. Fig. 1 shows the working principle of a lightning rod; Fig. 2 shows a common occurrence when the cable and automatic winch are transformed into a lightning rod. Glider units and stations using automatic winches of the P. Nazarov and A. Dabakhov- V. Zayarnyy type in flying gliders frequently neglect to observe the most common precautions against electric discharges. Also, in constructing winches insufficient attention is paid to their safe use when electric charges are present. The authors believe that introduction of protective

Protective Measures Against Storms (Cont.) 85-58-7-21/45

devices on winches will safeguard gliders at take-off and describe the respective methods. The ground should be soaked when too dry, since grounding is more effective on wet ground. Contact and connections must be free of dirt, paint, rust, or oil. Attendants working on winches must wear rubber boots and gloves, and when the glider is being towed, must don protective clothing before approaching the winch. There are 5 sketches.

Card 3/3 1. Gliders--Towing devices--Safety measures

MEYLAKHS, M., master sporta, rekordsmen SSSR.

Should trouble come, they can be relied on. Radio no. 6:7-8 Je '60. (MIRA 13:7)

(Radio in aeronautics)

ZHEMCHUZHNAYA, Ye.; MEYLAKHS, M., master sporta, rekordsmen SSSR; BARANOVA, A.

Facts, events, people. Kryl.rod. 11 no.7:12-13 Jl '60.
(MIRA 13:7)

1. Inzhener otdela obsluzhivaniya Aeroflota (for Zhemchuzhnaya).
(Aeronautics)

YEFIMENKO, V., zasluzhennyy master sporta, rekordsmen Sovetskogo Soyuza po aviatsionnym vidam sporta; GEPPENER, I., sportsmenka pervogo razryada, rekordsmen Sovetskogo Soyuza po aviatsionnym vidam sporta; DROZHZHIN, N., master sporta, rekordsmen Sovetskogo Soyuza po aviatsionnym vidam sporta; MEYLAKHS, M., master sporta, rekordsmen Sovetskogo Soyuza po aviatsionnym vidam sporta; SOLOV'YEVA, I., master sporta, rekordsmen Sovetskogo Soyuza po aviatsionnym vidam sporta.

Let us open an account of Spartakiada records. Kryl.rod. 11 no.11: 2 N '60. (MIRA 13:10)

(Airplane racing)

SERGEYEV, A. (g.Kishinev); BAKHMACH, Z.; GRUZDIS, A.; LYAKHOVETSKIY, M.; MEYLAKH, M.; ANIKIN, I. (g.Novorossiysk)

Facts, events, and people. Kryl.rod. 12 no.2:14-15 F '61. (MIRA 14:6)

(Aeronautics)

MEYLAKHS, M., master sporta

Night flight. Kryl.rod. 12 no.5:24-25 My '61. (MIRA 14:7)
(Airplanes--Piloting)

MEYLAKHS, M., master sporta

Friendship aids competitition. Kryl.rod. 12 no.7:3 Jl '61.
(MIRA 14:6)
(Parachuting)

MEYLAKHS, M.

Attention! Take! Grashd. av. 20 no.3:12 Mr '63.
(MIRA 16:4)

(Motion pictures in aeronautics)

MEYLAKHS, M.; GOLIKOV, N., komandir otryada; POKHIL'KO, P., (Grodno, BSSR)

Facts, events, people. Kryl. rod. 14 no.5:28-29 My '63.
(MIRA 16:7)

(Aeronautics)

ALEKSANDROVA, T.; MEYLAKHS, M.

No end to a dream. Kryl. rod. 15 no.9:18 S '64.
(MIRA 18:1)

MEYLAKHS, M., master sporta

History of a certain parachute. Kryl. rod. 15 no.11:16 N '64.
(MIRA 18:3)

MEYLAKHS, M., master sporta, rekordsmen SSSR

About courageous and skillful people. Grazhd. av. 21 no.6:32 Je '64. (MIRA 17:8)

MEYLAKHS, M., master i rekordsmen SSSR po samoletnomu sportu, [illegible], I.,
komandir samoleta, pilot 2 klassa; BABLINDRA, I., komandir samoleta

In a second pilot for an An-2 airplane needed. Grazhd. av.
21 no.11:25 N '64. (MIRA 18:2)

POGOSYAN, Z.; PETROSYANTS, Kh.; MEYLAKHS, M.; ZONOV, N.

Aeronautical kaleidoscope. Grazhd. av. 21 no.7:16-17 Jl '64.
(MIRA 18:4)

NELAYEV, V.; FILIPENIN, M.; MEYLAKHS, M., master sporta; LYAKHOVETSKIY, G.

Facts, events, people. Kryl. rod. 13 no.3:18-19 Mr '62.
(MIRA 18:5)

1. Zamestitel' nachal'nika Upravleniya polyarnoy aviatsii Grazhdanskogo vozdushnogo flota (for Filipenin).