L 8684-65
ACCESSION NR: AT4045811   ENCLOSURE: 01
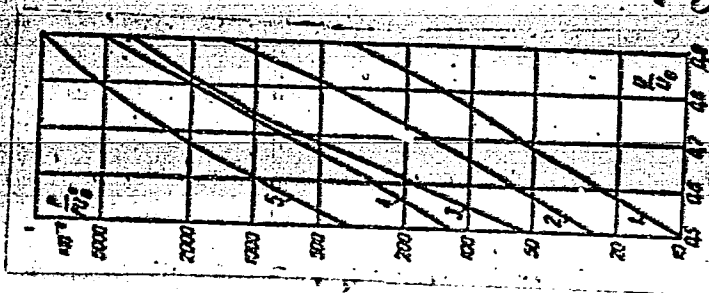
Figure 1

Average curves of

$$\frac{P}{lU_0^2} = \theta_i\left(\frac{U}{U_*}\right)$$

for various meteoro-
logical conditions:
1 - good weather
2 - dry snow
3 - rain
4 - wet snow
5 - rime

Card   3/4

L 8684-65
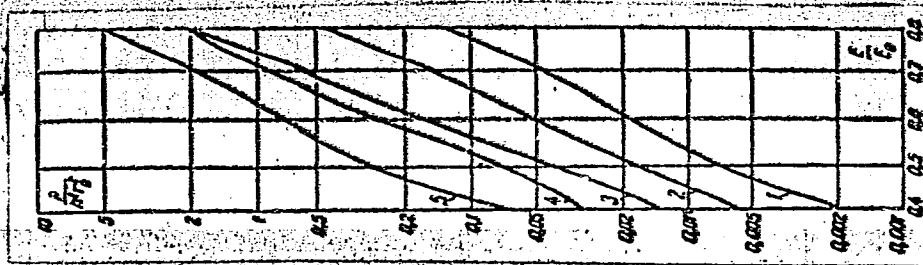ACCESSION NR: AT4045611   ENCLOSURE: 02

Figure 2

Average curves
of $\left[\dfrac{P}{n^2 r_0^2} = \theta_1\left(\dfrac{E}{E_*}\right)\right]$

for various
meteorological
conditions:
1 – good weather
2 – dry snow
3 – rain
4 – wet snow
5 – rime

4/4
Card

KISLCVA, T. A.

Metal'nikov, B. F. and Kislova, T. A. "Living cultures of gonococci in the cure of sulfamide-resisting gonorrhea," Nouch. zapiski Gor'k. in-ta dermatologii i venerologii i Kafedry kozhno-verenich. bolezney GGMI im. Kirova, Issue 12, 1948, p. 247-52

SO: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No. 3, 1949)

KISLCVA, T. A.

Metal'nikov, B. P. and Kislova, T. A. "Comparative evaluation of different methods of treating sulfur-resisting forms of gonorrhea in men by stimulation of the organisms by means of remedies," Nauch. zapiski Ger'k. in ta dermatologii i venerolegii i Kafedry kozho-verenich. boleznoy GGMI im. Kirova, Issue 12, 1948, p. 256-68.

SC: U-3264, 10 April 1953, (Letopis 'Zhurnal 'nykh Statey, No.3, 1949)

KISLOVA, Tat'yana Andronikovna; CHEKIN, V.P., dotsent, otv.red.;
KOTLYAROV, Yu.L., red.; SARANYUK, T.V., tekhred.

[Timber supply of coal industries] Lesosnabzhenie ugol'noi
promyshlennosti SSSR. L'vov, Izd-vo L'vovskogo univ., 1959.
89 p.   (MIRA 12:10)
   (Coal mines and mining--Equipment and supplies) (Timber)

ARTEM'YEV, S.A.; NYUNIKOVA, O.I.; ZHAROV, A.V.; METAL'NIKOV, B.P.; KISLOVA, T.A.;
    STAROSTINA, Z.D.; CHASTIKOVA, A.V.; TEMYANKO, S.A.; IKONNIKOV, N.N.;
    ARALOVA, Z.T.; GRISHINA, A.M.

Levomycetin in the treatment of gonorrhea; results of a cooperative
study. Vest. derm. i ven. 33 no.2:70-73 Mr-Ap '59.   (MIRA 12:7)

1. Iz TSentral'nogo nauchno-issledovatel'skogo kozhno-venerologicheskogo
instituta (zav.otdelom gonorei - prof. I.M. Porudominskiy, dir. - kand. med.
nauk N.M. Turanov) Ministerstva zdravookhraneniya RSFSR. 2.TSentral'nyy
nauchno-issledovatel'skiy kozhno-venerologicheskiy instituta (for Nyunkova).
3. Bashkirskiy krayevoy kozhno-venerologicheskiy institut (for Zharov).
4. Gor'kovskiy krayevoy kozhno-venerologicheskiy institut (for Temyanko).
5. Sverdlovskiy krayevoy kozhno-venerologicheskiy institut (for Grishina).
        (CHLORAMPHENICOL, ther. use,
            gonorrhea (Rus))
        (GONORRHEA, ther.
            chloramphenicol (Rus))

BORISOVA, I.V., kand. ekonom. nauk; KISLOVA, T.A., dots.; MAKAROV,
    N.A., starshiy prepodavatel'; POLYANSKIY, Ye.V., dots.;
    GRINSHPON, F.O., red.; MALYAVKO, A.V., tekhn. red.

[Economics, organization, and planning in forestry] Ekonomika,
organizatsiia i planirovanie lesnogo khoziaistva. L'vov, Izd-vo
L'vovskogo univ., 1961. 302 p.   (MIRA 15:3)
        (Forests and forestry--Economic aspects)

L 43889-65   EWP(j)/EWT(m)/T   Pc-4   RM
ACCESSION NR: AP5010900   UR/0286/65/000/007/0090/0090

AUTHORS: Sheyn, T. I.; Kudryavtsev, G. I.; Fedorova, R. G.; Kislova, T. I.

TITLE: A method for obtaining polyamide fiber. Class 29, No. 169741

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 7, 1965, 90

TOPIC TAGS: synthetic fiber, polyamide, xylylene, adipic acid

ABSTRACT: This Author Certificate presents a method for obtaining polyamide fiber
on the base of n- and m-xylylenediamine and adipic acid. To increase the thermal
stability of the fiber, the salts of n-xylylenediamine and adipic acid undergo
polycondensation with an addition of 5-20% of m-xylylenediamine salt and adipic
acid in a solid state at a temperature 40-60C below the melting temperature of
the obtained polyamide. This process is conducted in the presence of a thermo-
stabilizer or a plasticizer and is followed by forming the fiber in the usual
manner.

ASSOCIATION: Vsesoyuznyy nauchno-issledovatel'skiy institut iskusstvennogo
volokna (All-Union Scientific Research Institute of Synthetic Fibers)

Card 1/2

L 43889-65

ACCESSION NR: AP5010900   0

SUBMITTED: 11Apr64   ENCL: 00   SUB CODE: OC, MT

NO REF SOV: 000   OTHER: 000

Card 2/2 CC

L 8333-66   EEC(k)-2/EWA(h)/EWT(l)

ACC NR: AP5025763   SOURCE CODE: UR/0286/65/000/018/0130/0131

AUTHORS: Bogdanov, Yu. V.; Kislova, V. F.; Molchanov, V. N.; Abramtsev, Ye. P.;
Shishorin, V. A.; Popov, P. I.; Nikiforov, A. F.

ORG: none

TITLE: A discrete contactless phase-sensitive pickup. Class 74, No. 174962
/announced by Kuznetsk Scientific Research Coal Institute (Kuznetskiy nauchno-
issledovatel'skiy ugol'nyy institut)_/

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 130-131

TOPIC TAGS: phase meter, magnetic circuit, magnet

ABSTRACT: This Author Certificate presents a discrete contactless phase-sensitive
pickup consisting of a fixed toothed magnetic circuit with control windings and a
moving magnetic circuit without windings. In order to simplify the pickup and to
obtain an unambiguous signal pickup, two readout windings are situated on two ex-
ternal teeth of the fixed magnetic circuit (see Fig. 1). The moving magnetic cir-
cuit, which is connected to the moving object, is equipped with one readout tooth.

                                          UDC: 621.083.8:62—503.83

Card 1/2

L 8333-66

ACC NR: AP5025763
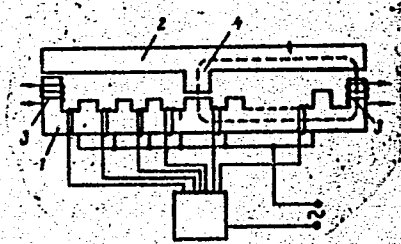
Fig. 1. 1 - Fixed toothed magnetic circuit;
         2 - moving magnetic circuit;
         3 - readout windings;
         4 - readout tooth.

Orig. art. has: 1 figure.

SUB CODE: 09/ SUBM DATE: 07Jul64

jw

Card 2/2

KISLOVA, Z.I. (Ryzan')

General histiocytic reaction in rheumatic fever. Nauch. trudy
Riaz. med. inst. 14:109-120 '63.   (MIRA 17:5)

KISLOVSKAYA, M.D.

Movement of a stream carrying alluvium. Izv. AN Turk. SSR no.2:
3-10 '58.   (MIRA 11:4)

1.Turkmenskiy gosudarstvennyy universitet im. A.M. Gor'kogo.
                        (Hydrodynamics)

L 09157-67   EWT(1)   GW

ACC NR: AP7002324   SOURCE CODE: UR/0387/66/000/007/0020/0025

AUTHOR: Kaptsan, A. D.; Kislovskaya, V. V.

ORG: Institute of Physics of the Earth, AN SSSR (Institut fiziky zemli AN SSSR);
Physics Faculty, Moscow State University, AN SSSR (Fizicheskiy fakul'tet,
Moskovskiy gosudarstvennyy universitet AN SSSR)

TITLE: Energy focusing in the asthenospheric layer

SOURCE: AN SSSR. Izvestiya. Fizika zemli, no. 7, 1966, 20-25

TOPIC TAGS: earthquake, seismologic station

ABSTRACT: Data from five deep-focus earthquakes with magnitudes $M = 6.8-7.3$,
recorded by Soviet seismic stations, were used in investigating some dynamic
characteristics of the P_a wave which propagates in the low-velocity asthenospheric.
layer. On the amplitude hodograph of this wave there is a regular alternation of the
maxima and minima. On the basis of collected data on the distances between extremal
points the authors have computed the thickness of the waveguide layer in the
asthenosphere. The thickness of the waveguide obtained using these data was 156 km.
It was concluded that the low-velocity layer in the mantle under the territory of
the USSR experiences no variations in thickness. Orig. art. has: 3 figures,
3 formulas and 1 table. [JPRS: 37,397]

SUB CODE: 08 / SUBM DATE: 21Sep65 / ORIG REF: 007 / OTH REF: 009

UDC: 550.342

KISLOVSKI, Andrej, inz., asistent (Grcica Milenka 19, Beograd)

> Phantastron with the direct-current coupling. Tehnika Jug
> 17 no.5:Suppl.: Elektrotehnika 11 no.5:935-936 My '62.
>
> 1. Elektrotehnicki fakultet Univerziteta u Beogradu.

KISLOVSKIY, A. D.

KISLOVSKIY, A. D.: "The theory of surface waves in magnetic hydro-
    dynamics." Moscow State U imeni M. V. Lononosov. Moscow,
    1956. (Dissertation for the Degree of Candidate in Physico-
    mathematical in Sciences).

SO: Knizhaya Letopis', No 23, 1956

KISLOVSKIY, A.

Readers' letters. Avt.transp. 41 no.10:46 0 '63.   (MIRA 16:10)

1. Sredne-Volzhskoye geologicheskoye upravleniye.

SOV/58-59-4-7324

Translation from: Referativnyy Zhurnal Fizika, 1959, Nr 4, p 16 (USSR)

AUTHOR: Kislovskiy, A.D.

TITLE: On the Theory of Surface Waves in Magnetohydrodynamics

PERIODICAL: Uch. zap. Turkm. un-t, 1957, Nr 11, pp 119 - 147

ABSTRACT: The author undertakes a linear approximation of surface waves in an
             incompressible conducting fluid placed in the parallel surface of a
             magnetic field. A similar nonlinear problem is solved in the form of
             a multiple series on the assumption that the viscosity is equal to
             zero, the conductivity is infinite, the flow is potential, and volume
             currents are absent but the surface current is not equal to zero.

                                                        S.I. Syrovatskiy

Card 1/1

KISLOVSKIY, A.D.

Theory of surface waves in magnetic hydrodynamics. Vest. Mosk. un.
Ser. mat., mekh., astron. fiz., khim. 12 no. 6:99-106 '57.

(MIRA 11:10)

1. Kafedra statisticheskiy fiziki i mekhaniki Moskovskogo
gosudarstvennogo universiteta.
(Waves)
(Mathematical physics)

LEBEG, A. [Lebesgue, Henri]; KISLOVSKAYA-KARSKAYA, O.I. [translator];
YAGLOM, I.M., red.; MOLCHANOV, M.P., red.; SMIRNOVA, M.I.,
tekhn.red.

[Measurement of size] Ob izmerenii velichin. Izd.2. Pod red.
I.M.IAgloma. Moskva, Gos.uchebno-pedagog.izd-vo M-va prosv.
RSFSR, 1960. 203 p. Translated from the French. (MIRA 14:1)
(Mensuration)

KISLOVSKIY, L. D.

vibrations.   C.R.E.Manders

KISLOVSKIY, L. D.

The relative positions of the absorption and reflection maxima. L. D. Kislovskii. Optika i spektroskopiya 1. 1071-1001 1956. — of following abstrs. — A geometric deriva- tion ... conditions that make it possible to det. the relative positions ...

J. Rosser Leach

KISLOVSKIY, L. D.

PRIKHOT'KO, A. F.

24(7)   p 3   PHASE I BOOK EXPLOITATION   SOV/1365

L'vov. Universytet

Materialy X Vsesoyuznogo soveshchaniya po spektroskopii. t. 1:
Molekulyarnaya spektroskopiya (Papers of the 10th All-Union
Conference on Spectroscopy. Vol. 1: Molecular Spectroscopy)
[L'vov] Izd-vo L'vovskogo univ-ta, 1957. 499 p. 4,000 copies
printed. (Series: Its: Fizychnyy zbirnyk, vyp. 3/8/)

Additional Sponsoring Agency: Akademiya nauk SSSR. Komissiya po
spektroskopii. Ed.: Uazer, S.L.; Tech. Ed.: Saranyuk, T.V.;
Editorial Board: Landsberg, G.S., Academician (Resp. Ed., Deceased),
Neporent, B.S., Doctor of Physical and Mathematical Sciences,
Fabelinskiy, I.L., Doctor of Physical and Mathematical Sciences,
Fabrikant, V.A., Doctor of Physical and Mathematical Sciences,
Kornitskiy, V.G., Candidate of Technical Sciences, Rayskiy, S.M.,
Candidate of Physical and Mathematical Sciences, Klimovskiy, L.K.,
Candidate of Physical and Mathematical Sciences, Miliyanchuk, V.S.,
Candidate of Physical and Mathematical Sciences, and Glauberman,
A. Ye., Candidate of Physical and Mathematical Sciences.

Card 1/30

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    troscopy   81

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    Vibrational Spectra of Some Aromatic Hydrocarbons   84

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    Calculation of Absorption Spectra of Organic Molecules   88

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    Anharmonicity Constants of Acetylene and Deutero-
    acetylene Molecules   93

Motulevich, G.P., and A.A. Shubin. Polarization
    Method for the Measuring of Optical Constants of
    Metals in the Infrared Range   95

Kislovskiy, L.D. Use of a Resonator Model With
    Viscous Friction for the Representation of Optical
    Characteristics of Absorbing Media in the Infrared
    Range   96

Card 7/30

State OL Optical
Inst. im S. I. Vavilov

KISLOVSKIY, L. D.

Representation of optical characteristics of absorbing media in infrared region by means of a resonator model with viscous friction. II Alkali-halide crystals. L. D. Kislovskii. Optika i Spektroskopiya 2, [...] preceding abstrs. On the basis of [...] sorption, the reflection and dispersion of alkali metal halides in the infrared region of the spectrum [...] the method of Roberts (C.A. 44, 2811f), the [...] wave lengths of max. reflection (λ_m), and the wave lengths corresponding to the max. of transmission λ, of LiF, NaF, NaCl, NaBr, NaI, KF, KCl, KBr, KI, RbF, RbCl, RbBr, RbI, CsBr, CsI were, resp.: 20, 31, 51, 65, 75, 31, 65, 61 94, 45, 75, 103, 118, 118, 140 and 12, 16, 33, 42, 61, 21, 40, 53, 67, 23, 47, 67, 83, 78, 100 μ. These values were in good agreement with the exptl. results of Sawyer (Experimental Spectroscopy 1951, 358 pp. (C.A. 45, 5038i)). 15 references.

A. R. Kutkeby

Kislovskiy L. D

AUTHOR: Kislovskiy, L. D.

51-4 -1-16/26

TITLE: Optical Characteristics of Copper Halides in the
            Absorption Bands at the Temperature of Liquid Nitrogen.
            (Opticheskiye kharakteristiki galogenidov medi v
            polosakh pogloshcheniya pri temperature zhidkogo azota.)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol. IV, Nr. 1,
            pp. 98-100.   (USSR)

ABSTRACT: S. Nikitin and his co-workers (Refs.1-5) reported

            measurements of absorption and reflection of the

            visible light by layers of copper halides sublimated

            onto glass at the liquid-nitrogen temperature. Results

            for CuI (Ref.1) near the 4052.2 $\overset{\circ}{A}$ band and the

            experimental results of Refs.3,4 may be discussed on

            the basis of the present author's theory (Ref.6),

            which uses a damped oscillator model. To find the

            optical characteristics of a layer near the absorption

Card 1/3   band the author used values of the refractive index

Optical Characteristics of Copper Halides in the Absorption Bands
at the Temperature of Liquid Nitrogen.

outside that absorption band, wavelengths corresponding
to the maxima and minima on the reflection curve, and
the fact of coincidence of the reflection and absorption
maxima.   Fig.1 shows calculated optical characteristics
for a CuI film.   Circles on the dispersion curve
represent experimental values from Ref.2; they
agree satisfactorily with the calculated values.   The
half-width of 8 $\overset{o}{A}$ and the maximum value of the
absorption coefficient of 0.65 x 10^6 cm^{-1},   calculated
by the present author, are in better agreement with the
experimental values of Ref.1 than the values calculated
on the basis of Drude and Lorentz-Lorenz's theory as
given in Ref.1.   Fig.2 shows the optical character-
Card 2/3 istics of CuCl and CuBr films.   The values of

51-4-1-16/26

Optical Characteristics of Copper Halides in the Absorption Bands
at the Temperature of Liquid Nitrogen.

half-widths obtained by calculation show poorer agreement
with experiment than in the case of CuI; this may be
due to a more complex composition of the CuCl and
CuBr bands. There are 2 figures and 8 references,
of which 5 are French, 2 Russian and 1 English.

ASSOCIATION: State Institute of Optics imeni S.I. Vavilov.
(Gos. opticneskiy institut im. S.I. Vavilova.)

SUBMITTED: March 28, 1957.

AVAILABLE: Library of Congress.

1. Copper halides-Optical characteristics-Theory
2. Copper halides-Absorption   3. Copper halides-Reflection

Card 3/3

KISLOVSKIY, L. D.

51-4 -1-17/26

AUTHOR: Kislovskiy, L. D.

TITLE: Certain Optical Properties of Corundum.
            (Nekotoryye opticheskiye kharakteristiki korunda.)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol. IV, Nr. 1,
            pp. 100-102.   (USSR)

ABSTRACT: Synthetic corundum is a promising optical material
            (Ref.1).   It possesses a wide transmission band
            (0.2 - 6.0 μ; see Fig.a) and high mechanical,
            chemical and thermal stability.   The optical properties
            of corundum   (transmission, reflection and dis-
            persion of the ordinary ray in leuco-sapphire) were
            studied by a large number of workers.   Unfortunately
            the values of the refractive index in the ultraviolet
            and infrared regions are not reported at all, and the
Card 1/3   data on the reflection and absorption in those regions

51-4-1-17/26

Certain Optical Properties of Corundum.

are not very complete.   The present communication
reports calculation of the optical properties of
corundum in a wide spectral region   (0.075 ~ 35.0 μ)
using a number of separate experimental values for some
of these properties.   The calculation follows the method
given in Refs.9,10, and is based on approximation of the
amplitude and phase of the reflected wave by the ampli-
tude and phase of degenerate vibrations of a damped
oscillator.   The fundamental quantities necessary for
calculations are given in Table 1.   The values of the
refractive index calculated by the author are given in
Table 2.   The calculated reflection spectrum (curve b)
is compared with experimental values   (Refs.3,7,8)
denoted by open circles.   Calculated values of the
Card 2/3 optical constants (refractive index and absorption

51-'4 -1-17/26

Certain Optical Properties of Corundum.

coefficient) in the regions of strong absorption are given in Table 3. Curve v in the figure on p.100 shows the transmission spectrum of corundum powder calculated from the data of L.V. Levitskiy and the data of Ref.5. In agreement with values of Table 3, curve v shows a maximum at 9 μ and increase of transmission beyond 20 μ. The author thanks B.S. Neporent for his interest in this work, and L.V. Levitskiy for measurement of corundum powder transmission up to 15 μ. There is 1 figure, 3 tables and 12 references, of which 5 are Russian, 2 French, 3 English, 1 Italian and 1 of unknown origin.

ASSOCIATION: State Institute of Optics imeni S.I. Vavilov.
(Gos. opticheskiy institut im. S.I. Vavilova)

SUBMITTED: March 28, 1957.

AVAILABLE: Library of Congress.
Card 3/3

1. Corundum-Optical properties

AUTHOR: Kislovskiy, L.D.

TITLE: On the Problem of Determination of Optical Characteristics from Reflection (K voprosu ob opredelenii opticheskikh kharakteristik po otrazheniyu)

ABSTRACT: A universal graphical method for determination of optical constants from two photometric reflection measurements is described. This method makes it possible to find the values of the refractive index (n), the absorption coefficient (k), $\varepsilon_1 = n^2 - k^2$ and $\varepsilon_2 = 2nk$, given the values of the ratio of the reflected to the incident amplitudes (ρ) and the phase-shift on reflection (δ). The procedure can be generalized to oblique angles of incidence. Using a photographic enlarger the procedure can be speeded up by projecting a grid of (ρ, δ) on a required scale on to the plane (n, k). The method is explained in detail and examples of appropriate graphs are given.

Card 1/2

SOV/51-5-1-11/19
On the Problem of Determination of Optical Characteristics from Reflection

The author thanks B.S. Neporent for advice. There are 3 figures
and 21 references, 6 of which are Soviet, 5 English, 4 French,
3 American, 2 translations and 1 German.

ASSOCIATION: Gosudarstvennyy opticheskiy institut im. S.I. Vavilova (State
Optical Institute imeni S.I. Vavilov)

SUBMITTED: September 13, 1956

Card 2/2   1. Light - Reflection 2. Light - Properties 3. Optical materials -
Refractive index 4. Photometry - Applications 5. Enlargers
(Photography) - Applications 6. Data - Analysis

AUTHORS: Pivovarov, V.M. and Kislovskiy, L.D.   SOV/51-5-3-4/21

TITLE: On the Anomalous Behaviour of the Raman Line Intensities in
              Two-Component Mixtures (K voprosu ob anomal'nom khode intensivnosti
              liniy kombinatsionnogo rasseyaniya dvukhkomponentnykh smesey)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol 5, Nr 3, pp 251-255 (USSR)

ABSTRACT: Bobovich and Tulub (Ref 1) and Pivovarov and Bobovich (Ref 2) found
              that in certain two-component mixtures the Raman line intensities of
              one component are not proportional to the concentration of that component.
              Fig 1, which is based on the data of Ref 2, shows the dependence of the
              Raman intensity on concentration for three mixtures: C_2H_5OH--C_6H_6,
              $(CH_3)_2CO$--C_6H_6 and $CHCl_3$--C_6H_6. The present authors studied the
              changes of the Raman line intensities in two-component mixtures and
              compared them with the changes in the positions and intensities of
              absorption bands which are non-active in the Raman scattering.   All
              these changes were studied as a function of the concentration of one of
              the components. The substance used was benzene; it was dissolved in
Card 1/3   acetone, ethyl alcohol or in chloroform.   The concentration dependence

SOV/51-5-3-4/21

On the Anomalous Behaviour of the Raman Line Intensities in Two-Component Mixtures

of the integral intensity of the non-active 2600 Å absorption band of benzene was investigated.   Solutions of benzene with 20, 40, 60, 80 and 100% by volume of benzene were used. It was found that the 2600 Å band intensity is proportional to the concentration of benzene in acetone and in ethyl alcohol (Fig 2). When benzene is dissolved in chloroform an anomalous increase of the 2600 Å band intensity is observed with decrease of the concentration of benzene. The latter result agrees with that reported by Bayliss and Hulme (Ref 7). The concentration dependence of the 2600 Å absorption band in benzene may be qualitatively explained by means of the "damped oscillator" model proposed earlier by one of the present authors (Kislovskiy Refs 8, 9).   The discussion of the "damped oscillator" model is illustrated by Figs 3 and 4 which show the effect of the refractive index on the position and intensity of an absorption band and the change in the position and intensity of a weak absorption band which lies in the wing of a strong band. Application of this model to the active absorption bands made it possible to explain their changes and

Card 2/3

On the Anomalous Behaviour of the Raman Line Intensities in Two-Component Mixtures
SOV/51-5-3-4/21

to show why the anomalies in the concentration dependence of the Raman line intensities should occur. The discussion given in the present paper is of preliminary and phenomenological nature, and it does not deal with the molecular mechanism of the observed effects. The authors thank B.S. Neporent and Ya.S. Bobovich for their criticism and advice. There are 4 figures and 10 references, 9 of which are Soviet.

ASSOCIATION:Gosudarstvennyy opticheskiy institut im. S.I. Vavilova (State Optical Institute imeni S.I. Vavilov)

SUBMITTED: October 21, 1957

Card 3/3   1. Benzene--Spectrographic analysis   2. Benzene solutions--properties   3. Raman spectrum--Applications

SOV/51-6-6-20/34

24(7), 24(4)

AUTHOR: Kislovskiy, L.D.

TITLE: Reflection Spectrum and Optical Properties of Terylene in the Region 700-1300 cm-1 (Spektr otrazheniya i opticheskiye kharakteristiki terilena v oblasti 700-1300 cm-1)

ABSTRACT: The paper describes a determination of the optical properties of amorphous terylene, as used for production of artificial fibres, from its reflection spectrum using the method described earlier by the author (Ref 5). The method is based on representation of separate reflection bands as damped resonators whose amplitudes and phases are considered to be the amplitudes and phases of normal reflection. The specular reflection spectrum (Fig 1) on practically normal incidence of light on a polished terylene plate was obtained by means of a spectrometer IKS-11 with an NaCl prism. A plate of crystalline KBr, whose refractive index is well known, was used as the reflection standard. By plotting the reflection band peaks on the complex refractive index plane (details in Ref 5) the author obtained the values of the optical constants n and k of terylene in the

Card 1/2

Reflection Spectrum and Optical Properties of Terylene in the Region 700-1300 cm^{-1} SOV/51-6-6-20/34

region 600-1300 cm^{-1}.   These constants are shown as functions of wavelength in Fig 3.   There are 3 figures, 1 table and 7 references, 2 of which are Soviet, 3 English, 1 German and 1 international.

Card 2/2

SOV/51-7-3-5/21

AUTHOR: Kislovskiy, L.D.

TITLE: Optical Properties of Water and Ice in the Infrared and Radiowave
             Regions of the Spectrum.

PERIODICAL: Optika i spektroskopiya, 1959, Vol 7, Nr 3, pp 311-320 (USSR)

ABSTRACT: The author calculated the values of the optical constants (the refractive
             index n and the absorption factor k) of water and ice in a wide range of
             infrared and radiowave frequencies. The calculations were based on the
             author's own model (Ref 15). The author used certain published data
             and some of his own experimental results. Some of the data used in
             calculations of the optical constants of water in the infrared region
             are given in Table 1: this table lists the reflection maxima and minima
             at the water-fluorite boundary at 2.83, 6.0 and 6.55 μ, reflection
             minima and maxima at the water-air boundary at 11.0 and 20 μ, absorption
             maxima at 15.8 and 60 μ and permittivity at 300 μ (ε = 4.2). From the
             first three values listed in Table 1 the author constructed a "resonance
             circle", shown in Fig 2. From this circle the author deduced the values
             of the optical constants n and k in the region 2.2-3.4 μ (Fig 1B).
Card 1/3   Fig 1A shows the spectrum of reflection at the fluorite-water boundary

Optical Properties of Water and Ice in the Infrared and Radiowave Regions of the
Spectrum

in the region 2.1-3.4 μ obtained by means of an IKS-11 spectrograph
with an LiF prism. Using the data of Table 1, Schulz's formula for the
dispersion of water in the ultraviolet visible regions can be extended
to the near infrared by addition of a term due to the absorption band
at 2.92 μ. At 20°C the dispersion formula is then given by Eq (1),
where λ is in microns. Fig 3A represents the author's reflection spectrum
at the fluorite-water boundary in the region 4.5-8.5 μ. Fig 4 shows the
"resonance circle" for this spectral region and Fig 3B gives the wavelength
dependence of n and k of water found using Fig 4. Fig 5 shows the
"resonance curve" for all the absorption bands of water in the infrared
region. Fig 6 shows the reflection spectrum at the water-air boundary
(Fig 6A) and the wavelength dependence of n and k between 2 and 200 μ
(Fig 6B), deduced from the curve of Fig 5. The more important parameters
of the absorption bands between 2 μ and 1 cm are collected in Table 3.
Using Debye's and Maxwell's formulae, the wavelength dependence of the
optical constants of water in the radiowave region was constructed.   It
is shown in Fig 7 for wavelengths from 0.01 cm to 1000 km; the upper
continuous curve and the left-hand dashed band represent water, the other
two curves in Fig 7 represent ice. In calculation of the optical
constants of ice in the infrared region the author used the -10°C data

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SOV/51-7-3-5/21

Optical Properties of Water and Ice in the Infrared and Radiowave Regions of the Spectrum.

listed in Table 4, i.e. reflection maxima and minima at 3.2, 2.8, 13 and 10 μ, absorption maxima at 12.5 and 62 μ and permittivity at short wavelengths ($\varepsilon = 3.17$). The calculation yielded wavelength dependence of the optical constants of ice between 2 and 200 μ (Fig 95). The more important characteristics of the infrared absorption bands of ice are listed in Table 5. Using Bringhaus's and the author's own (Table 5) data a dispersion formula was deduced for polycrystalline ice which is valid in the visible and near infrared region at -10°C; this formula is given in Eq (7). The optical constants of ice in the Debye absorption region were determined using the author's own equations and certain experimental constants listed by Steineman et al (Ref 44) and Smyth et al (Ref 50). The results of the calculation for -10°C are shown in Fig 7 where the lower continuous curve represents the refractive index and the right-hand dashed band gives the absorption factor of ice; these constants are given for wavelengths from 0.01 cm to 1000 km. Acknowledgment is made to B.S. Neporent for his advice. There are 9 figures, 5 tables and 53 references, 12 of which are Soviet, 23 English, 12 German, 3 French, 2 Swiss and 1 international.

Card 3/3

SUBMITTED: December 25, 1958

KISLOVSKIY, L. D., Cand Phys-Math Sci (diss) -- "A method of determining the optical characteristics of isotropic media with strong absorption bands (the 'resonant environment' method)". Leningrad, 1960. 14 pp (State Order of Lenin Optical Inst im S. I. Vavilov), 150 copies (KL, No 15, 1960, 131)

KISLOVSKIY, L. D.

/10

PHASE I BOOK EXPLOITATION   SOV/6181

Ural'skoye soveshchaniye po spektroskopii. 3d, Sverdlovsk, 1960.
   Materialy (Materials of the Third Ural Conference on Spectros-
   copy) Sverdlovsk, Metallurgizdat, 1962. 197 p. Errata slip
   inserted. 3000 copies printed.

Sponsoring Agencies: Institut fiziki metallov Akademii nauk SSSR.
   Komissiya po spektroskopii; and Ural'skiy dom tekhniki VSNTO.

Eds. (Title page): G. P. Skornyakov, A. B. Shayevich, and S. G.
   Bogomolov; Ed.: Gennadiy Pavlovich Skornyakov; Ed. of Publish-
   ing House: M. L. Kryzhova; Tech. Ed.: N. T. Mal'kova.

PURPOSE: The book, a collection of articles, is intended for staff
   members of spectral analysis laboratories in industry and scien-
   tific research organizations, as well as for students of related
   disciplines and for technologists utilizing analytical results.

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Materials of the Third Ural Conference (Cont.)   SOV/6181

COVERAGE: The collection presents theoretical and practical prob-
lems of the application of atomic and molecular spectral analy-
sis in controlling the chemical composition of various materials
in ferrous and nonferrous metallurgy, geology, chemical indus-
try, and medicine. The authors express their thanks to G. V.
Chentsova for help in preparing the materials for the press.
References follow the individual articles.

TABLE OF CONTENTS:

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PART I

Sherstkov, Yu. A., and L. P. Maksimovskiy. Investigation of
the dependence of the total intensity of spectral lines
on the concentration of elements in an arc-discharge plasma   4

Card 2/15

5

Card 12/15

ZOLOTAREV, V.M.; KISLOVSKIY, L.D.

Attachment to an IKS-14 spectrophotometer for obtaining spectra
of liquid and solid objects by the method of disturbed total
internal reflection. Prib. i tekh. eksp. 9 no.5:175-177 S-O
'64.   (MIRA 17:12)

1. Gosudarstvennyy opticheskiy institut.

GALANOV, Ye.K.; KISLOVSKIY, L.D.

Use of infrared reflection spectra in studying phase transitions
in triglycine sulfate crystals. Kristallografiia 10 no.2:209-213
Mr-Ap '65.   (MIRA 18:7)

1. Gosudarstvennyy opticheskiy institut imeni S.I. Vavilova.

L 29512-65   EWT(m)/EWP(t)/EWP(b)   IJP(c)   JD

ACCESSION NR: AP5005046   S/0051/65/018/002/0318/0320

AUTHOR: Shaganov, I. I.; Kislovskiy, L. D.; Rudyavskaya, I. G.

TITLE: Free carrier absorption in silicon in the 40—100 micron region

SOURCE: Optika i spektroskopiya, v. 18, no. 2, 1965, 318-320

TOPIC TAGS: silicon, absorption, free carrier absorption, infrared absorption, lattice absorption, free carrier

ABSTRACT: Measurements were made at room temperature of the transmission of n-type Si specimens with a free carrier concentration of $4 \cdot 10^{14}$ cm^{-3} and a resistivity of 15 ohm·cm, and of compensated samples with a resistivity of 10^4 ohm·cm obtained by fast neutron bombardment. The experiments were conducted in the spectral range between 40 and 100 microns on samples 1—10 mm thick. Figure 1 of the Enclosure shows the variations of the coefficient of absorption (k) of Si samples with a resistivity of 15 ohm·cm. Curve 2 shows the spectral variation of the coefficient of absorption of free carriers (k_v) calculated from the Drude-Zener formula. Curve 3 shows the spectral variation of the coefficient of absorption (k_b) of Si specimens bombarded with fast neutrons (compensated samples). Curve 4 shows the spectral variation of the coefficient of absorption by free carriers calculated by the

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ACCESSION NR: AP5005046

formula $k_P = K - K_b$. Curve 5 shows the spectral variation of the coefficient of absorption of the crystal lattice calculated from the formula $k_F = k - k_b$ on the assumption that $k_b = k_i$ (k_i being the coefficient of absorption at the long-wavelength wing of the absorption band at 16.4 micron which is associated with the lattice vibrations of samples activated with impurities and structural defects). The experimental data for free carrier absorption are in reasonable agreement with the absorption figure calculated with the Drude-Zener formula. Orig. art. has: 3 formulas and 1 figure.   [CS]

ASSOCIATION: none

SUBMITTED: 25Jun64   ENCL: 01   SUB CODE: SS

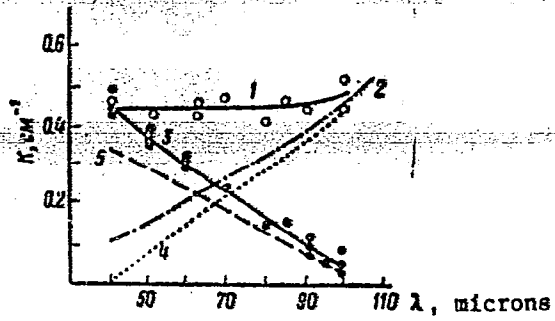NO REF SOV: 006   OTHER: 009   ATD PRESS: 3197

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Fig. 1.   Spectral variation of the coefficient of absorption of Si.

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L 7843-66   EWT(m)/EPF(c)/EWP(j)/IJP(t)/EWP(b)   IJP(c)   JD/RM

ACC NR: AP 5028098   SOURCE CODE: UR/0048/65/029/011/1966/1968

AUTHOR: Galanov, Ye.K.; Kislovskiy, L.D.

ORG: State Optics Institute im. S.I.Vavilov (Gosundarstvennyy opticheskiy institut; Institute of Crystallography, Academy of Sciences, SSSR (Institut kristallografiya kristallografii Akademii nauk SSSR)

TITLE: Changes in the infrared reflection spectrum of triglycine sulfate incident to the phase transition [Report Fourth All-Union Conference on Ferroelectricity held at Rostov-on-the-Don 12-18 September 1964]

SOURCE: AN SSSR. Izvestiya.Seriya fizicheskaya,v.29, no.11, 1965, 1966-1968

TOPIC TAGS: Ferroelectric crystal, phase transition, light reflection, IR absorption, molecular vibration

ABSTRACT: By comparing their previous infrared reflection measurements on triglycine sulfate crystals (Ye.K. Galanov and L.D. Kislovskiy, Kristallografiya, 10, No.2, 209 (1965)) with x-ray diffraction data and the results of Raman and infrared absorption spectroscopy found in the literature, the authors have derived vibrational assignments for 25 reflection bands with wave numbers between 504 and 3150 cm^{-1}; these are tabulated and compared with assignments arrived at by R.S.Krishnan and P.S.Narayanan (Crystallography and Crystal Perfection. Ed. G.N.Ramachandran,p.329, L. - N.Y., Acad. Press, 1963). Changes in the spectrum at the phase transition point were observed

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L 7843-66

ACC NR: AP 5028098

only with crystals cut perpendicular to the b axis, in the direction of spontaneous polarization, and only in the vicinity of the absorption at 1150 cm^{-1}, which is due to the breathing of the NH_3^+ group in the glycine I molecule. This band was examined with high resolution, using a replica grating having 100 lines/mm. This band was found to be double. One reflection maximum, at 1123 cm^{-1}, did not shift at the phase transition, while the other appeared at 1143 cm^{-1} in the paraelectric phase and at 1157 cm^{-1} in the ferroelectric phase. The phase shift in reflection was derived with the aid of the dispersion relation, and from this the optical constants were calcu- lated. There was found to be one absorption peak at 1125 cm^{-1} in both phases and one at 1152 cm^{-1} in the paraelectric phase, which shifted to 1164 cm^{-1} in the ferroelectric phase. The relative frequency shift of this absorption peak is equal to that of the higher frequency component of the band observed by Krishnan at 2791 cm^{-1} in the Raman spectrum and ascribed to stretching vibrations of the N-H bond in the same NH_3 (1) group. It is concluded that the symmetry of the field in the vicinity of the NH_3^+ (1) ion changes at the phase transition. The authors thank L.A. Shuvalov and V.M. Zolotarev for valuable discussions and assistance, and B.S. Neporent for his interest and valuable advice. Orig.art. has: 2 formulas, 1 figure and 1 table.

SUB CODE: SS, OP   SUBM DATE: 00/   ORIG. REF: 001   OTH REF: 008

Card 2/2

L 15256-66   EWT(1)   IJP(c)

ACC NR: AP5027675   SOURCE CODE: UR/0051/65/019/005/0809/0812

AUTHOR: Zolotarev, V. M.; Kislovskiy, L. D.

ORG: none

TITLE: The feasibility of studying band contours by minimum total internal reflection spectrophotometry

SOURCE: Optika i spektroskopiya, v. 19, no. 5, 1965, 809-812

TOPIC TAGS: absorption spectrum, internal reflection spectrum, band spectrum

ABSTRACT: The authors showed in an earlier paper (Opt. i spektr., 19, 623, 1965) that in the $0.0002 < k < 0.2$ range of the absorption index, the reflectivity $R_{\perp}(k)_{\varphi}$ for a constant angle of the total internal reflection coincides almost completely with the transmissivity $T(k)_d$ for a given constant optical thickness. The present article investigates theoretically the shapes of Lorentz absorption band in the spectrum obtained by minimum total internal reflection (MTIR). Calculated MTIR curves are in very good agreement with the corresponding Lorentz shape of bands found in the absorption spectrum. The theoretical curve

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L 15256-66
ACC NR: AP5027675

for the dibutylphtalate spectrum is in excellent agreement with experimental data by
J. Fahrenfort (Spectrochim. Acta, 17, 698, 1961) which used an AgCl prism. Authors
thank A. N. Terenin for his interest in the investigation. Orig. art. has: 7 figures.

SUB CODE: 20 / SUBM DATE: 14Jul65 / ORIG REF: 001 / OTH REF: 005

Card 2/2

L 22895-66   EWT(1)/EWT(m)/T/EWP(t)/EWA(h)   IJP(c)   JD/AT
ACC NR: AP6006864   SOURCE CODE: UR/0181/66/008/002/0600/0601

AUTHOR: Distler, G. I.; Kislovskiy, L. D.

ORG: Institute of Crystallography, Moscow (Institut kristallografii)

TITLE: Hyperfine structure of the phase boundary of a pn junction as obtained
from electron microscope data.

SOURCE: Fizika tverdogo tela, v. 8, no. 2, 1966, 600-601

TOPIC TAGS: hyperfine structure, fine structure, pn junction, electron microscopy,
crystal surface, surface property, crystal growth, single crystal

ABSTRACT: After pointing out that any phase boundary should possess a fine struc-
ture and a hyperfine structure, the authors describe a high-resolution study of the
hyperfine structure of the phase boundary of microscopic pn junctions, carried out
by means of an electron-microscopic method for determining the electric microrelief
of crystalline surfaces, developed at the Institute of Crystallography AN SSSR and
described earlier (DAN SSSR v. 165, 329, 1965). The method consists of decorating
local stressed microscopic surface regions by means of charged microparticles. The
junctions investigated were alternations of microscopic regions with charge impuri-
ties of opposite sign, occurring under nonstationary conditions of crystal growing

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L 22895-66
ACC NR: AP6006864

by drawing from the melt. Single crystals grown by the Czochralski method and cut parallel to the growth axis were investigated. The decoration patterns have shown clearly that the structure of the boundary of the layers differs from the structure of the layers themselves, thus demonstrating the existence of a hyperfine structure. Within the layers, microscopic particles have a random distribution, but on the phase boundaries they consist of definite bunchings of decorating microparticles, indicating a regular clustering of the impurity centers on the phase boundary. The clustering exhibits a quasiperiodicity with period 0.2--0.4 μ. Further electron microscopic investigations of phase boundaries with small surface energies are expected to confine the hyperfine structure of these boundaries in both crystalline materials and biological systems. Orig. art. has: 2 figures.

SUB CODE: 20/   SUBM DATE: 09Sep65/   ORIG REF: 001/   OTH REF: 005

Card 2/2   BLC

ACC NR: AP6033440   SOURCE CODE: UR/0051/66/021/004/0476/0481

AUTHOR: Rudyavskaya, I. G.; Kudryavtseva, A. G.; Kislovskiy, L. D.

ORG: none

TITLE: Transmission of coated silicon in the long wave infrared region of the spectrum

SOURCE: Optika i spektroskopiya, v. 21, no. 4, 1966, 476-481

TOPIC TAGS: silicon, optic coating, ir spectrum, optic transmission

ABSTRACT: The authors have measured in the 20 — 100 nm range the spectra of silicon coated with a layer of silicon dioxide to enhance its transmission. The transmission spectra were measured with a long-focus infrared spectrometer (DIKS-1), with an echelette grating of 6 lines/mm. The filters used to eliminate the extraneous radiation and to reduce the level of the scattered radiation to less than 5% are described. The spectral width of the slit was 1 — 2 nm, and the accuracy with which the transmission was determined was 2 — 3%. Samples of different coating thickness were measured. The results showed that the position of the transmission maximum (λ_{max}) changed appreciably, from 42 to 90 nm, as the thickness of the coating was varied. The largest attainable transmission was 90%. The optical characteristics of the coating are tabulated, and ways of further improving the coating efficiency are

Card 1/2   UDC: 535.345.1 = 14:546.28 + 535.391.5

ACC NR: AP6033440

discussed. The authors thank N. G. Yaroslavskiy and N. V. Suykovskaya for interest in the work and L. V. Konovalov for carrying out part of the measurements. Orig. art. has: 4 formulas, and 1 table.

SUB CODE: 20/ SUBM DATE: 15Apr65/ ORIG REF: 007/ OTH REF: 005

Card 2/2

ACC NR: AP6026691

AUTHOR: Galanov, Ye. K.; Kislovskiy, L. D.

ORG: none

TITLE: Deformation of the SO_4^{2-} ion triglycine sulfate crystals during phase transition

SOURCE: Fizika tverdogo tela, v. 8, no. 8, 1966, 2401-2404

TOPIC TAGS: IR reflectance, absorption spectrum, IR spectrum, phase transition

ABSTRACT: Infrared reflection and absorption spectra of isomorphic triglycine sulfate single crystals are studied. The resulting spectra are compared with those of a group of alum crystals. In these crystals, just as in the triglycine sulfate crystals, the rigid SO_4^{2-} ions are weakly perturbed by the crystal lattice. The analysis of the triglycine sulfate IR spectra indicates that the change in the positions and intensities of bands during phase transition is due to the deformation of the SO_4^{2-} ion. The piezoelectric crystals consisted of deuterized triglycine sulfate and triglycine selenate. The reflection spectra were taken from oriented cut crystals; the absorption spectra from powdered crystals pressed between KBr plates. The spectral region investigated was between 1030 and 1200 cm^{-1}. The vibrational frequencies of the free SO_4^{2-} ion in the various crystals are tabulated and compared with those measured by other investi-

Card 1/2

ACC NR: AP6026691

gators. The authors thank O. P. Girin and L. A. Shuvalov for their interest and B. S. Neporent for valuable discussions. Orig. art. has: 1 table, 1 formula.

SUB CODE: 20/   SUBM DATE: 26Jan66/   ORIG REF: 007/   OTH REF: 009

Card 2/2

ACG-NR: AP7002387

AUTHOR: Ivanov, N. R.; Shuvalov, L. A.; Kislovskiy, L. D.

ORG: Institute of Crystallography, Academy of Sciences SSSR (Institut kristallografii Akademii nauk SSSR)

TITLE: On the structural mechanism of the electrooptical and thermooptical effects in ferroelectric crystals of the triglycinsulfate type

SOURCE: AN SSSR. Doklady, v. 171, no. 5, 1966, 1092-1095

TOPIC TAGS: electrooptic effect, ion, ferroelectric material, glycine, sulfate, crystallography

ABSTRACT: Theoretical and experimental investigations were made of the important part played by the deformation of SO_4^{2-} or SeO_4^{2-} ions in the occurrence of spontaneous polarization in monoclinic triglycinsulfate or triglycinselenate crystals. The deformation resulting from the displacement of nitrogen atoms can be measured by directional changes of the maximum polarizability, i.e., by shifts of the indicatrix of the crystal. Measurements were performed of the shifts of the optical indicatrix in the paraelectric phase at a temperature close to the melting temperature of the crystals. These shifts showed up as breaks on the ϕ (T) dependence curves, which are explained as indicating the presence in both crystals of

UDC: 548:537+536

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ACC NR: AP7002387

several characteristic temperatures above the curie point, at which the rupture of bonds takes place. It is suggested that the results can be extrapolated to other crystals of the same type. Thus, for example, one can calculate that the melting temperature of triglycinfluoberyllate is 230—235C. Orig. art. has: 3 figures and 1 table.

SUB CODE: 20/ SUBM DATE: 11Feb66/ ORIG REF: 006/ OTH REF: 001/

ATD PRESS: 5113

Card 2/2

KISLOVSKIY, V., inzhener-sudovoditel'

    Calculating the elements of position lines in determining
the bearings of objects beyond the map margin. Mor.flot
26 no.1:21 Ja '66.   (MIRA 19:1)

KISLOVSKOY, Sergey Vladimirovich; SLOBOZHAN, I.I., red.; ONOSHKO, N.G., tekhn.red.

[History and regional study of Boksitogorsk] Boksitogorsk: istoriko-kraevedcheskii ocherk. Leningrad, Lenizdat, 1960. 134 p.   (MIRA 13:11)
                    (Boksitogorsk)

KISLOVSKOY, SERGEY VLADIMIROVICH

Boksitogorsk; Istoriko-krayevedcheskiy ocherk. Leningrad, Lenizdat, 1960.

134 [1_7 p. Illus., Ports. (Goroda Leningradskoy Oblasti)

Bibliography: p. 134- [135_7

L 07074-67   EWT(1)   IJP(c)   JGS
ACC NR: AP6028154   (A, N)   SOURCE CODE: UR/0307/66/000/002/0096/0102

AUTHOR: Smirnov, L. Ye.; Kislovskoy, V. S.

ORG: none

TITLE: Topographic interpretation of aerial color photographs printed on different types of paper

SOURCE: Leningrad. Universitet. Vestnik. Seriya geologii i geografii, no. 2, 1966, 96-102

TOPIC TAGS: topography, color photo interpretation, photographic material, paper, aerial photograph

ABSTRACT: The authors compare the interpretability of a large variety of 1:10,000 and 1:17,000 spectrozonal aerial photographs of diversified terrains, printed on SB-2 two-layer color spectrozonal paper, on F-1 and F-2 three-layer color paper, on Czech Fomacolor paper, and on U. S. Kodak and Unibrom paper, using additive and subtractive printing techniques. The terrains were in the Central Siberian taiga zone and in the forest zone of the North-West European Soviet Union and covered populated localities and isolated buildings; communication and pipe lines; railways and roads; brooks, canals, rivers, beaches and lakes;

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L 07074-67

ACC NR: AP6028154

fences, ditches, fords, bridges, ravines and precipices; rocks, stone deposits, sand strips, marshes and polygonal surfaces; pine, fir, birch, and larch woods, burned woods, cedar shrubs, bushes, and individual trees; meadows, reed thickets, and plowed fields. SN-2, SN-2m, SN-5 and TsN-3 films were used for photographs, magnifying glasses and stereo-scopes for interpretation, and the Kharkevich formula (A. A. Kharkevich. O tsennosti informatsii. V sb.: "Problemy kibernetiki", vyp. 4. M., Fizmatgiz, 1960) for photograph interpretability evaluation. Better interpretation results were achieved with SN-2m films and F-1 and TsB-1 paper. Orig. art. has: 1 formula, 4 tables, and 1 figure.

SUB CODE: 14/   SUBM DATE: 01Oct65/   ORIG REF: 004

Card   2/2

KISLOW, A.

"Electrical methods in research," Przeglad Geologiczny, Warszawa, No 5, May 1954, p. 169.

SO: Eastern European Accessions List, Vol 3, No 11, Nov 1954, L.C.

KISLOW, A.

"Electric coring while boring wells," Przeglad Geologiczny, Warszawa, No 8, Aug 1954, p. 341.

SO: Eastern European Accessions List, Vol 3, No 11, Nov 1954, L.C.

KISLOW, A.

1234. Seismic cross-section of western part of Potok anticline.
A. Kislow. Nafta (Krakow). 1954. 10 (6), 126-9.—Work on
this subject was begun before 1939 and completed in 1952.
The line of shots, which were 14-25 inches deep (average),
600-1100 m apart, runs WSW. to the axis of the geological
formations investigated. Later work was done with Soviet
equipment. The structure of the area is well known, and
this work was aimed at elimination of grosser errors. A map
and a profile are given.   M. S.

KISLOW, A.

"Geophysics in the Service of Geological Engineering", P. 474, (PRZEGLAD GEOLOGICZNY, No. 11, November 1954, Warsaw, Poland)

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 4, No. 3, March 1955, Uncl.
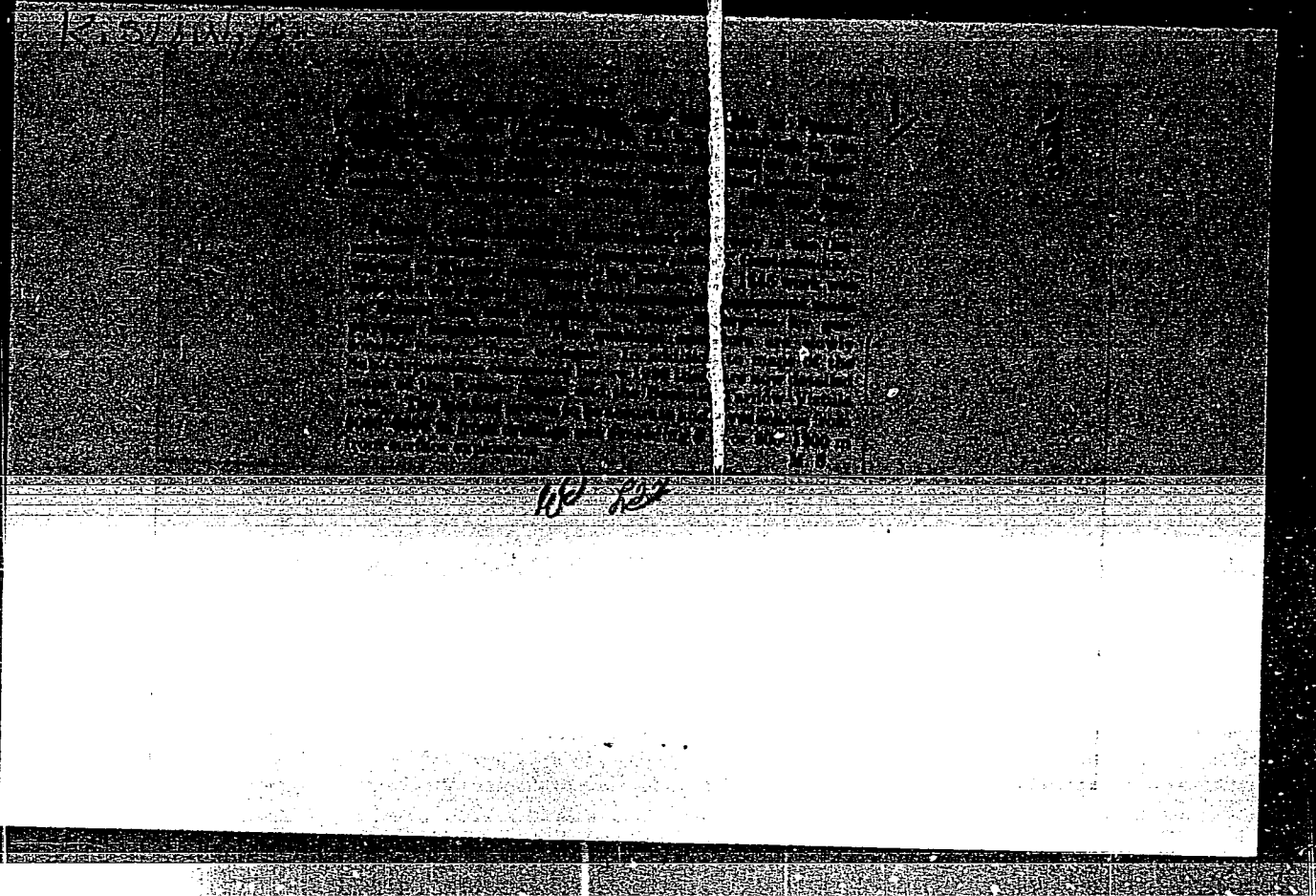
625. The possibilities of using seismic investigations in the Magura plateau. A. Kislow. *Nafta (Krakow)*, 1955, 11. 226-9.—The Carpathians contain many plateaus, each built up from several small sharp undulations overlapping "scale" fashion, and this causes many [illegible] to the geologists. One such plateau is Magura and seismic investigations there were started in 1953 using Soviet equipment. Charges were placed approx 750 to 1250 m apart at depth 16-19 m, always below water table. Results are satisfactory in spite of the difficulties. 2 profiles, SW NE and one NW-SE, have been given as illustrations of the difficulties encountered. Considerable progress has been made in elucidating the structure of this and Silesian plateaux. On the whole the equipment is somewhat too heavy for more detailed shooting of this mountainous terrain. ___M. S.__

1283. Science and technique in Soviet Union—geophysical work in the U.S.S.R. A. Kislow. *Nafta (Krakow)*, 1955, 11. 75-9.—A summary of papers presented by the Soviet delegation at the Rome Congress based on articles by Fiedinkij and covering post-war years. M. S.

KISLOW, A.

1-Emt

2

4233. Application of radioactive isotopes in geophysics of the oilfields. A. Kislow, *Nafta* (Krakow), 1956, 12, 67-8.— New methods are described on the basis of Russian work. Radioactive isotopes are added to the mud or cement. This allows the discovery of cavities and also keeps a check on the work. The method is superior to the electrical method. 3 diagrams and 2 refs included.   M. S.

KISLOW, A.

Geophysical prospecting and the petroleum industry in the 6-Year Plan and its future development. p. 17. (Nafta, Vol. 13, No. 1, Jan 1957, Krakow, Poland)

SO: Monthly List of East European Accessions (EEAL) LC, Vol. 6, No. 8, Aug 1957. Uncl.

KISLOW, A.

TECHNOLOGY

PERIODICAL: PRZEGLAD GEOLOGICZNY. Vol. 6, no. 4, Aprl 1958.

KISLOW, A.   The problem of selecting the mean velocity. p. 159

Monthly List of East European Accessions (EEAI) LC Vol. 3, no. 4
                                          April 1959, Unclass.

KISLOW, A.

The geologic interpretation of reflection levels in the wedging and erosion zone
of the foothills of the Carpathian Mountains. p.59

Nafta. (Instytut Naftowy)
Krakow, Poland. Vol.15, no.3, Mar.1959

Monthly List of East European Accessions Index, (EEAI) LC, Vol.8, no.6
June 1959
Uncl.

KISLOW, Afrykan

The problem of average velocities at interpreting seismic
materials in the district arcun Tarnow. Nafta Pol 18 no.1:
9-12 '62.

1. Panstwowe Przedsiebiorstwu Possukiwania Naftowe.

KISLOW, Afrykan, mgr inz.

Outlines of the tectonic structure of the base of the Miocene
of the Tarnogrod-Lubaczow region as based on seismic data.
Nafta 19 no.8:179-182 Ag '63.

1. Instytut Naftowy, Krakow.

KISLOW, Afrykan, mgr inz.

Outline of the deep sedimentary basin in the Rzeszow--Przemysl area based on geophysical data. Nafta Pol 20 no. 7:176-178 Jl '64.

1. Petroleum Institute, Krakow.

KISLOW, A., mgr inz. [translator]

Testing petroleum and natural gas boreholes and improvements in their effectiveness. Nafta 20 no.11:307-308 N '64.

GOSSE, N.P., inzn.; KISLUKHIN, S.V., inzh.; NIKOL'SKIY, G.A., inzh.;
POPOV, G.S., inzh.; SHAKHOVTSEV, V.I., nauchnyy red.; VAGNER, A.A.,
red.; RUNOVA, A.P., red.; KOVAL'SKAYA, I.F., tekhn. red.; VINOGRADOV,
Ye.A., tekhn. red.; IL'YUSHENKOVA, T.P., tekhn. red.

[Electric equipment and devices of motor vehicles; catalog and
reference book] Avtotraktornoe elektro-oborudovanie i pribory; katalog-
spravochnik. Moskva, TSentr.in-t nauchno-tekhn.informatsii mashino-
stroeniia. Pt.1. 1961. 371 p.   (MIRA 14:12)

1. Russia (1923- U.S.S.R.) Gosudarstvennyy komitet po koordinatsii
nauchno-issledovatel'skikh rabot. 2. Nauchno-issledovatel'skiy
eksperimental'nyy institut avtotraktornogo elektrooborudovaniya i
priborov (for Gosse, Kislukhin, Nikol'skiy, Popov). 3. Direktor Na-
uchno-issledovatel'skogo eksperimental'nogo instituta avtotraktornogo
elektrooborudovaniya i priborov (for Shakhovtsev).
              (Motor vehicles—Electric equipment)

GOSSE, N.P., inzh.; KISLUKHIN, S.V., inzh.; NIKOL'SKIY, G.A., inzh.;
     POPOV, G.S., inzh.; SHAKHOVTSEV, V.I., nauchnyy red.;
     RUNOVA, A.P., red.; VAGNER, A.A., red.; ALEKSEYEVA, T.V.,
     tekhn. red.

     [Electrical equipment and instruments for automobiles and
     tractors; a reference catalog]Avtotraktornoe elektro-
     oborudovanie i pribory; katalog-spravochnik. Moskva,
     TsINTIMASH. Pt.2. 1962. 378 p.   (MIRA 15:9)

     1. Russia (1923- U.S.S.R.)Gosudarstvennyy komitet po koordi-
     natsii nauchno-issledovatel'skikh rabot. 2. Nauchno-issledovatel'-
     skiy eksperimental'nyy institut avtotraktornogo elektrooboru-
     dovaniya i priborov (for Gosse, Kislukhin, Nikol'skiy, Popov).
               (Tractors--Electric equipment)
               (Automobiles--Electric equipment)

KISLUKHIN, V. (g. Kirov).

Use the water power of small rivers. Sel'. stroi. 11 no.4:29 '56
[i.e. '57].
(MLRA 10:6)
(Kirov Province--Hydroelectric power)

KISLUKHIN, V.I.

Electric cars for sorting lumber. Les. prom. 35 no.2:22a-22b F '57.
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1. Glavnyy inzhener Nyandomskogo lespromkhoza.
(Lumber--Transportation)   (Railroads--Cars)

KISHKINA, O.V.

Production of high-purity amylase preparations from the submerged
cultures of Bacillus subtilis. Prikl. biokhim. i mikrobiol. 1 no.3:
278-284 My-Je '65.   (MIRA 18:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut fermentnoy i
spirtovoy promyshlennosti, Moskva.

KISLUKHINA, Yaugeniya.

Our economy is improving. Rab. i sial. 32 no.7:11 Jl '56.
(MLRA 9:8)
1. Starshynya kalgasa imya Dzimitrava, Mirski rayen, Grodzenskaya
voblasts'.
(Mir District--Collective farms)

BUKHMAN, D., inzh. (Minsk); KISLYACHENKO, V., inzh. (Minsk); SHAKHOV, V., inzh. (Minsk)

The "Belarus'-110" television receiver and phonograph combination. Radio no.9:28-30 S '63.   (MIRA 16:12)

29062

S/179/61/000/004/004/019
E031/E135

!0.12 10

AUTHOR: Kislyagin, N.N. (Moscow)

TITLE: Rotational derivatives for the downwash of a wing
in unsteady motion

PERIODICAL: Akademiya nauk SSSR. Izvestiya, Otdeleniye
tekhnicheskikh nauk. Mekhanika i mashinostroyeniye,
No. 4, 1961, pp. 20-25

TEXT: A wing and tailplane configuration which is deforming
is considered. Linear theory is applied, the aerodynamic
characteristics of the lifting surface being represented by
rotational derivatives. The medium is ideal and without vortices.
There are no external forces. The concept of rotational
derivatives for the region of the downwash is introduced. The wing
is replaced by a vortex sheet; it is assumed that the intensity of
the vortices may vary with the time, and that the velocity of the
downwash of the free vortices is constant in magnitude and
direction, the vortex strip being situated in the plane of the wing.
In unsteady motion the vortex strip behind the wing is represented
by two systems of free vortices; one with axes parallel to the

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Rotational derivatives for the S/179/61/000/004/004/019
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free stream and the other with axes perpendicular to it. To
simplify the calculations it is assumed that the downwash is
constant across the span and in the antisymmetric case it varies
linearly across the span of the tailplane. Expressions for the
derivatives of the wing-tailplane configuration are obtained from
a knowledge of the rotational force and moment derivatives for the
isolated wing and tail. To determine the rotational derivatives
of the downwash caused by a wing of finite dimensions at subsonic
velocities, the wing is replaced by a system of horse-shoe
vortices distributed over the span and chord. The intensity varies
harmonically with time. The effect on the tail of the disturbed
flow is equivalent to a change in the intensities of the attached
vortices. Knowing the changes, it is easy to calculate the
rotational force and moment derivatives for the tail, taking
account of the downwash created by the wing. Downwash derivatives
for rigid triangular, rectangular and two swept wings at small
velocities are presented graphically; the results compare
favourably with experiment on models.

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KISLYAGIN, N.N. (Moskva)

Unsteady supersonic downwashes at the trailing wing edge. Izv.AN SSSR. Mekh.i mashinostr. no.1:143-147 Ja-F '64.   (MIRA 17:4)

ACCESSION NR: AP4018434

S/0179/64/000/001/0143/0147

AUTHOR: Kislyagin, N.N. (Moscow)

TITLE: Unsteady supersonic downdraft at the trailing edges of an airfoil

SOURCE: AN SSSR. Izv. Otd. tekh. nauk. Mekhanika i mashinostroyeniye, no. 1, 1964, 143-147

TOPIC TAGS: supersonic flow, jet plane, airfoil design, airfoil, aerodynamics, rectangular airfoil, delta airfoil, delta wing

ABSTRACT: Formulas are given for calculating the coefficients of the rotational derivatives of the downdraft directly behind the trailing edges of harmonically oscillating rectangular and delta wings. A slightly bent, thin airfoil of arbitrary shape at small angle of attack is first considered. The forward motion of the wing is considered to be rectilinear at constant velocity. It is also considered that the airfoil surface may be deflected. A formula is given for the velocities appearing at the airfoil. Equations are then derived for the density and velocity of development of the surface of discontinuity, and formulas for the coefficients of the rotational derivatives are obtained by transformations. The equations derived make possible the calculation of the changes in the components of the perturbation

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velocity when passing through the supersonic part at the trailing edge of the airfoil, as well as at points along the edge. Equations for the coefficients of the rotational deriva- tives of a rectangular airfoil are then evolved. Finally, equations are derived for a delta wing with supersonic leading edges. The analytical results obtained agree with the results obtained by other methods. Orig. art. has: 9 figures and 18 formulas.

ASSOCIATION: none

SUBMITTED: 31May63   ENCL: 00

NO REF SOV: 006   OTHER: 001   SUB CODE: ME

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AUTHOR: Kislyak, G.M.   SOV/51-5-3-12/21

TITLE: On the Dependence of the Excited-State Lifetime of Organic Phosphors
            on the Exciting Light Wavelength (O zavisimosti vremeni zhizni
            vozbuzhdennogo sostoyaniya organolyuminoforov ot dliny volny
            vozbuzhdayushchego sveta)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol 5, Nr 3, pp 297-301 (USSR)

ABSTRACT: The author studied the effect of the excitation wavelength on the
            excited-state lifetime and the phosphorescence spectrum of organic
            dyes in various solvents. The effect of the dye concentration on the
            decay law and duration of phosphorescence in the anti-Stokes region
            was also investigated. Solutions of trypaflavine (in acetic acid,
            acetone, glycerin, methyl, isoamyl, ethyl and n-butyl alcohols),
            fluorescein (in boric, sulphuric, formic and acetic acids, methyl
            and acidified ethyl alcohols), and rivanol (in ethyl alcohol) were
            used. All measurements were made at the liquid-oxygen temperature,
            and for fluorescein in boric acid they were made also at room
            temperature. Some of the results are given in Fig 1, which shows the
Card 1/3   dependence of the excited-state lifetime τ on the excitation wavelength.

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On the Dependence of the Excited-State Lifetime of Organic Phosphors on the Exciting Light Wavelength

Fig 1 deals with six solutions; similar results were obtained for the other phosphors. Fig 2 gives the absorption (curve 1) and luminescence (curve 2) spectra of tryraflavine in acetic acid. Comparison of Figs 1 and 2 shows that the excited-state lifetime begins to decrease at wavelengths which correspond to the beginning of the anti-Stokes region i.e. the beginning of the short-wavelength part of the luminescence spectrum. The fall of the excited-state lifetime of phosphorescence which occurs when the phosphor is excited in the anti-Stokes region suggests that the probability of the transition of a molecule from a metastable to a normal state increases. The excited-state lifetime of fluorescein in sulphuric acid in the anti-Stokes region was found to increase slightly, after the initial fall, and then to remain constant (Fig 1, curve 3). Such a variation of the excited-state lifetime may be due to an additional phosphorescence maximum, which is shown at 585-590 mµ in Fig 3. Fig 3 gives the phosphorescence spectrum of fluorescein in sulphuric acid, and the three types of dots used represent excitation produced by means of three different light filters. The results seem to show that the

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On the Dependence of the Excited-State Lifetime of Organic Phosphors on the
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phosphorescence spectrum does not depend on the excitation
wavelength. These results are not, however, very reliable since
excitation was not monochromatic and each of the three filters
used (UFS-2, SS-5, SZS-3) transmits a band and not a line. It
was found that the dye concentration in solution does not affect
the dependence of the excited-state lifetime on the excitation
wavelength. There are 3 figures and 13 references, 11 of which
are Soviet.

ASSOCIATION: Poltavskiy pedagogicheskiy institut (Poltava Pedagogical Institute)

SUBMITTED: October 10, 1957

Card 3/3   1. Phosphors--Excitation properties 2. Phosphors--Properties
            3. Phosphorescence--Life expectancy 4. Dyes--Spectra

AUTHOR: Kislyak, G.M.   SOV/51-6-2-15/39

TITLE: On the Phosphorescence Decay Law of Trypaflavine in Formic Acid
              (O zakone zatukhaniya fosforestsentsii tripaflavina v murav'inoy
              kislote)

PERIODICAL: Optika i Spektroskopiya, 1959, Vol 6, Nr 2, pp 226-228 (USSR)

ABSTRACT: The author found (Ref 2) that the excited-state lifetimes of certain
              organic dyes (trypaflavine, fluorescein, rivanol) in various solvents
              depend on the exciting light wavelength in the anti-Stokes region but
              are independent of wavelength in the Stokes region. In all solutions,
              except that of trypaflavine in formic acid, decay is exponential. The
              decay law of trypaflavine in formic acid was found to be complex and
              the rate of decay dependent on the exciting light wavelength both in the
              Stokes and the anti-Stokes region. The present paper describes studies
              of the phosphorescence decay law of trypaflavine in formic acid and the
              effect of this acid on the absorption spectra of solutions of trypaflavine
              in water. The apparatus used to measure the decay curves was similar
              to that described earlier by the author (Ref 2). Trypaflavine in
              85, 50, 25, 10 and 5% aqueous solutions of formic acid was studied.
              The absorption spectra were measured only for the 85% formic acid
              solution. It was found that addition of formic acid to aqueous

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On the Phosphorescence Decay Law of Trypaflavine in Formic Acid   SOV/51-6-2-15/39

solutions of trypaflavine produces marked changes in the absorption
spectrum. Fig 1 (curve I) shows that the absorption spectrum of formic
acid solutions is displaced towards shorter wavelengths, is more
diffuse and the main absorption maximum lies at 400-405 mμ. In the
long-wavelength region of the spectrum the characteristic sharp fall of
absorption, normally observed for the three dyes, is absent and a second
maximum near 448-450 μ is observed. The two maxima suggest that there
are two modifications of the dye in solution: trypaflavine in water and
trypaflavine in formic acid. The changes in the absorption spectrum of
trypaflavine on addition of formic acid may be due to the effect of the
acid on electron levels of the dye molecules, or due to chemical
reactions of the acid with the dye. Experiments carried out do not
indicate clearly which of the two mechanisms is responsible for the
observed changes in the absorption spectrum. Decay of phosphorescence
of trypaflavine in aqueous formic acid solutions may be represented by
two exponentials, with excited-state lifetimes of 0.2 and 0.95 sec.
The complex phosphorescence decay law is observed (under ultraviolet
excitation) down to 5% formic acid solutions and the decay constants
have practically the same values for solutions from 85 to 5%. The two
values of the excited-state lifetimes are ascribed to two modifications

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On the Phosphorescence Decay Law of Trypaflavine in Formic Acid   SOV/51-6-2-15/39

of the dye: trypaflavine in water and trypaflavine in formic acid.
The author studied also the effect of formic acid concentrations on
the dependence of the excited-state lifetime τ on the wavelength of
exciting light. The results obtained are given in Fig 3, which shows
a marked change with decrease of formic acid concentration from 85% to
10%. For 10% solutions the τ-λ curve is of the same form as for
trypaflavine in other solvents and the phosphorescence decay law is
exponential again. This indicates that at low formic acid concentrations
one of the two types of emission centres disappears. The author
concludes that trypaflavine itself has only one type of centre
responsible for long-duration emission, but two types of centres are
present in formic acid solutions. Acknowledgements are made to
N.A. Lebedev who directed this work. There are 3 figures and 3 Soviet
references.

SUBMITTED: February 22, 1958

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24(7)

AUTHOR: Kislyak, G. M.   SOV/48-23-1-26/36

TITLE: On the Dependence of the Life-Time of the Excited State of
                 Organoluminophores on the Wave Length of the Exciting Light. II
                 (O zavisimosti vremeni zhizni vozbuzhdennogo sostoyaniya or-
                 ganolyuminoforov ot dliny volny vozbuzhdayushchego sveta. II)

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1959,
                 Vol 23, Nr 1, pp 119 - 121 (USSR)

ABSTRACT: In this paper the influence exercised by the wave length of
                 the exciting light on the law of extinction and the duration
                 of the fluorescence of organic pigments is investigated. In-
                 vestigations were carried out of trypaflavin in various al-
                 coholic solutions, acetone, glycerin, acetic- and formic acid,
                 fluorescein in various alcohols, sulfuric-, acetic- and boric
                 acid, and of rivanol in ethyl alcohol. The investigations were
                 carried out at the temperature of liquid oxygen, those of
                 fluorescein in boric acid also at room temperature. Measure-
                 ments of the life time τ of the excited state and of phosphores-
                 cence were begun after freezing the solution for half an hour
Card 1/2   in liquid oxygen. The following is shown by figures: The de-

On the Dependence of the Life-Time of the Excited State of   SOV/48-23-1-26/36
Organoluminophores on the Wave Length of the Exciting Light. II

pendence of fluorescence duration on the wave length of the
exciting light for the three aforementioned substances in
alcoholic solutions (Fig 1), the absorption- and luminescence
spectra and the dependence of τ on the wave length of the
exciting light for trypaflavin in isoamyl alcohol (Fig 2), and
the dependence of τ_1 on the wave length of the exciting light
for trypaflavin in a 85% formic acid (Fig 3). Figure 1 shows
that the duration of phosphorescence remains constant up to
a certain wave length, after which it decreases. This wave
length differs with various substances and with various solvents.
An exception is formed by trypaflavin in a 85% formic acid
(Fig 3), in which case the duration of phosphorescence at
first increases with an increase of the wave length, after
which, like in the other cases mentioned, it diminishes at the
beginning of the anti-stokes domain. There are 3 figures and
6 Soviet references.

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